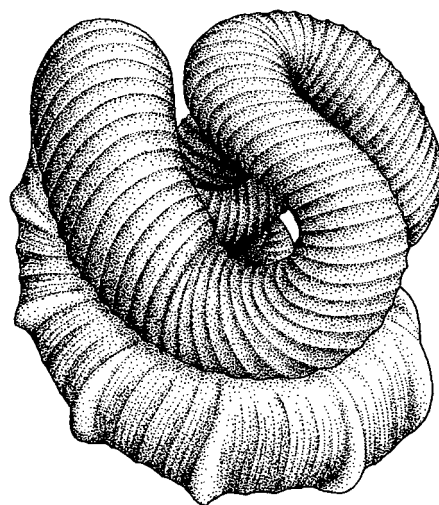


Special Papers - Number 41

**The database of Japanese fossil
type specimens
described during the 20th Century
(Part 3)**

**Edited by
Noriyuki Ikeya
Hiromichi Hirano
and
Kenshiro Ogasawara**



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The database of Japanese fossil type specimens described during the 20th Century (Part 3)

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Abstract. This third volume (Part 3) of “The database of Japanese fossil type specimens described during the 20th Century” includes some 3,500 type specimens of fossils belonging to 10 plant and animal groups described mainly by Japanese workers before the turn of the 21st Century. Our current estimate indicates the total number of Japanese type specimens described in the 20th Century to exceed more than 14,300. The first volume catalogued about 5,000 of those which are in the literature, and the second volume includes more than 5,800 taxa.

Each taxonomic entry is annotated with such data items as: 1) name of taxon together with its author name and date of publication, 2) name of publication in which a new taxon name is proposed, 3) designated category of type specimens such as Holotype, Paratype, Syntype and so on, together with their registered repository number (an asterisk is attached to those specimens whose actual presence in a given repository was ascertained), 4) type localities, appended whenever possible with their latitudes and longitudes, 5) stratigraphic units in which a given taxon occurred, 6) geologic age or series, and 7) remarks given in parentheses to denote such information as the most commonly used name for a given taxon, invalid or synonymous status of a given taxon as judged by the contemporary taxonomists, and so on.

The present volume deals with the following fossil groups: Diatom, Ostracoda, Bivalvia of Triassic, Jurassic and Cretaceous ages, Jurassic Ammonoidea, Polyplacophora and allied taxa, Mesozoic Brachiopoda, Trilobita, Insecta and Vertebrata.

Key words: type specimen, database, 20th Century, holotype, paratype, Japan

Introduction

The first volume of the publication entitled “The database of Japanese fossil type specimens described during the 20th Century” appeared in May, 2001 and catalogued about 5,000 type specimens of fossils belonging to 20 plant and animal groups which were described mainly by Japanese workers before the turn of the 21st Century and which were also reported to be deposited at certain institutions in Japan. The second volume also includes about 5,800 type specimens belonging to plant (leaves, spore and pollen), foraminifers, corals, ammonoids, nautiloids, gastropods and others. This third volume includes some 3,500 type specimens of fossils belonging to 10 plant and animal groups. Thus, the total number of the type specimens ar-

chived in Japan during that time period can be estimated to exceed more than 14,300.

Readers are referred to the Introduction appeared in the first volume with regard to the history and details of the CPS Committee work which led to the production and publication of the present database volume.

This third volume (Part 3) presents databases of some 3,500 taxa belonging to the following taxon groups: Diatom, Ostracoda, Triassic, Jurassic and Cretaceous Bivalvia, Polyplacophora and allied taxa, Jurassic Ammonoidea, Mesozoic Brachiopoda, Trilobita, Insecta and Vertebrata such as whale, deer, elephant, frog and so on.

In a manner similar to the first and second volumes,

each taxonomic entry is appended with such data items as:

- 1) Scientific name of a taxon with its author name and date of publication.
- 2) Bibliographic reference in which a taxon was first proposed, including such data as volume, page, plate and figure numbers.
- 3) Category of type specimens such as Holotype, Paratype, Syntype and so on, with their registered repository (depository) numbers. An asterisk is appended to those specimens whose physical presence was ascertained at a given repository.
- 4) Type localities: Name of cities, towns and villages both in the way they appeared in the original publication and in the way they are presently known. As much as possible, latitudes and longitudes are indicated for such localities.
- 5) Stratigraphic unit, such as formation, member and group, from which fossil taxa were recovered.
- 6) Age of fossil taxa as expressed either in geologic age terms (Epoch and Age) or chronostratigraphic terms (Series and Stage).
- 7) Whenever deemed necessary from a systematic viewpoint, comments are added to denote a scientific name currently applied to a particular taxon by contempo-

rary workers and also some appropriate remarks. In addition, remarks and correction items made by the authors of the present database are printed in brackets.

The taxa compiled in the first volume include: Calcareous Nannofossils, Dinoflagellate, Radiolaria, Cenozoic smaller benthic Foraminifera, Planktic Foraminifera, Fusulinoida, Pteropoda and Heteropoda, Cenozoic Bivalvia, Paleozoic and Mesozoic Gastropoda, Monoplacopora and Hyolitha, Non-marine Mollusca, Conchostraca, Barnacles, Decapoda, Isopoda and Stomatopoda, Cenozoic Brachiopoda, Bryozoa, Crinoidea, Echinoidea and Holothuroidea, Conodonta and trace fossils.

The second volume includes: Cenozoic plant, Paleozoic smaller benthic Foraminifera, Mesozoic and Cenozoic larger Foraminifera, Mesozoic and Paleozoic Corals, Triassic Ammonoidea, Cretaceous Ammonoidea, Mesozoic and Cenozoic Nautiloidea, Cenozoic Gastropoda, Cenozoic Scaphopoda and Cenozoic Bivalvia (Supplementary data).

This third volume includes such taxa as Diatom, Ostracoda, Bivalvia of Triassic, Jurassic and Cretaceous ages, Polyplacophora and allied taxa, Jurassic Ammonoidea, Mesozoic Brachiopoda, Trilobita, Insecta and Vertebrata.

Acknowledgments

The editors wish to express their sincere thanks to the Science Council of Japan for their assistance towards the production of this publication and also to the Council members of the Palaeontological Society of Japan for their invaluable assistance given during the editorial works of the manuscript as well as bringing it into the present published form. Sincere thanks are also extended to Dr. Tunemasa

SAITO, member of the Science Council of Japan for his valuable suggestion in the editorial works and rephrasing the early draft. Deep gratitude also goes to Dr. Yukito KURIHARA and Dr. Hiroaki UGAI of the University of Tsukuba who gave assistance in the editorial works of the manuscript.

Abbreviation for repository of type specimens

- AD...Omama Town Museum, Yamada-gun, Omama-machi, Gumma Prefecture
- AK...Aikogakuen High School, Matsuyama
- AKMG...Institute of Mining Geology, Mining College, Akita University, Akita (now; Institute of Applied Geology, Mining College, Akita University, Akita)
- AM...Department of Malacology, Australian Museum, Sydney
- AMNH...Akiyoshi-dai Museum of Natural History, Yamaguchi Prefecture
- AMP...Ashoro Museum of Paleontology, Ashoro-cho, Hokkaido
- ASHS...Asahino Senior High School, Aichi Prefecture
- ASM...Akiyoshidai Museum of Natural History, Shuho-cho, Yamaguchi
- ATJRMN (=GK, JC, JCD, KCD, KUGM, KURS)...Department of Geology and Mineralogy, Faculty of Science, Kyoto University, Kyoto
- BLOSJC...Biological Laboratory, Okayama Shujitsu Junior College, Okayama
- BM...The Natural History Museum, London, United Kingdom
- BMNH...British Museum (Natural History), London
- Botanical Institute, University of Tokyo, Tokyo
- BOITO...Laboratory of Biology, Faculty of Engineering, Osaka Institute of Technology, Osaka
- Burton's collection...Geological Survey Department, Federation of Malaya, Malaysia
- C...Naturhistorisches Museum, Basel, Switzerland
- CBM...Natural History Museum and Institute, Chiba
- CESN...Laboratory of Coastal Environmental Sciences, Faculty of Fisheries, Nagasaki University, Nagasaki
- CF...Zhejiang University, China
- CF-C...Division of Paleontology, U.S. National Museum, Washington, D.C.
- CGU (=CJC)...Chukyo Gakuin University, Nakatsugawa, Gifu Prefecture
- CH...Hirata Collection, Makino Botanical Garden, Kochi
- CJC (=CHU)...Chukyo Gakuin University, Nakatsugawa, Gifu Prefecture
- CKUM...Cheng Kung University, Geology Museum, Taiwan
- CM (=GITU, TK, **UMUT**, UTCM, UTCM-Kf, NS, NSR)...Geological Institute, Faculty of Science, University of Tokyo, Tokyo
- CNU...Palaeontology Laboratory of the Department of Geology, Chonman National University, Korea
- CPC...Chinese Petroleum Corporation, Taiwan
- CU (=CUR)...Geological Institute, Faculty of Science, Chiba University
- DEMT** (=DGMT)...Department of Earth Science, Faculty of Education, Mie University, Tsu
- DESC...Department of Earth Sciences, Faculty of Science, Chiba University, Chiba
- DESS...Department of Earth Science, Shimane University, Shimane
- DGLAKZ...Department of Geology, College of Liberal Arts, Kanazawa University, Kanazawa
- Department of Geoscience, Osaka City University, Osaka
- DGS...Department of Geology, Faculty of Education, Tohoku University, Sendai (type specimens of DGS are now preserved in the Institute of Geology and Paleontology, Faculty of Science, Tohoku University, Sendai (IGPS))
- DGSU...Department of Geology, Faculty of Science, Shimane University, Shimane
- D2 (=HMNH)...Division of Earth Sciences, Museum of Nature and Human Activities, Hyogo
- EEG...Institute of Geology, Faculty of Education, Ehime University, Matsuyama
- ERI...Earthquake Research Institute, University of Tokyo, Tokyo (Some specimens described by Otuka (1934, 1936, 1937 and so on) moved to University Museum, University of Tokyo)
- ESK...Institute of Earth Science, Faculty of Science, Kagoshima University, Kagoshima
- ESN**...Department of Earth Science, Faculty of Science, Nagoya University, Nagoya
- ESO...Institute of Earth Science, Okayama University
- Faculty of Science and Agriculture, Taihoku Imperial University, Taihoku (Taiwan)
- FESC...Institute of Marine Biology, Far Eastern Scientific Center, Russian Academy of Sciences, Vladivostok
- FG (probably=TGTU, TGWU)...Department of Geology, Fukuoka University, Fukuoka
- FMNHGF...Fukui City Musum of Natural History, Fukui

FPMN...Fukui Prefectural Museum. Fukui Prefecture
 FSM...Fukui Science Museum, Fukui (transferred to Fukui City Museum of Natural History, Fukui)
 G...Institute of Oceanography, University of Tokyo, Tokyo
 GASI...Geological Institute, Faculty of Arts and Sciences, Ibaraki University, Mito
 GDLAKZ...Department of Geology, Faculty of Liberal Arts, Kanazawa University, Kanazawa
 Geological Survey of China
 Geological Survey of Chosen
 Geological Survey of Hokkaido collection, Sapporo
 GDMT (=DEMT)...Geology Department, Faculty of Liberal Arts, Mie University, Tsu
 GEN...Department of Geology, Faculty of Education, Nagasaki University, Nagasaki
 GF...Department of Geology, Fukuoka University of Education, Fukuoka
 GH (=GMH, HU, UH, UHR)...Department of Geology and Mineralogy, Faculty of Science, Hokkaido University, Sapporo
 Gifu Prefecture, Education Center
 GISUL...Geological Institute, Shinshu University, Nagano
 GITU (=CM, TK, UMUT, UTCM, UTCM-Kf, NS, NSR)...Geological Institute, Faculty of Science, University of Tokyo, Tokyo
 GITU...Geological Institute, Taihoku Imperial University, Taihoku (Taiwan)
 GIUM...Geological Institute, Faculty of Arts and Sciences, Ibaraki University, Mito
 GIYU...Institute of Geology, Faculty of Education, Yokohama National University, Yokohama
 GK (=ATJRMN, JC, JCD, KCD, KUGM)...Geological Institute, College of Science, Kyoto University, Kyoto
 GK...Department of Geology, Faculty of Education, Kumamoto University, Kumamoto
 GK...Department of Earth and Planetary Science, Faculty of Science, Kyushu University, Fukuoka
GKD (=GK. D, GKL, GKM)...Department of Geology, Kyushu University, Fukuoka
 GKL (=GK. D, GKL, GKM)...Department of Geology, Faculty of Science, Kyushu University, Fukuoka
 GKM (=GK. D, **GKD**, GKL)...Ditto.
 GK-V (=GN)...used by Takahashi, 1964; Department of Geology, Faculty of Liberal Arts, Nagasaki University, Nagasaki:
 Faculty of Science, Kyushu University
 GKZ...Department of Geology, Faculty of Science, Kanazawa University, Kanazawa
 GLKU...Geological Laboratory, Kagawa University, Takamastu
 GLR...Geological Laboratory, St. Paul's (Rikkyo) University, Tokyo
 GMH (=GH, HU, UH, UHR)...Institute of Geology and Mineralogy, Faculty of Science, Hokkaido University, Sapporo
 GN (=GK-V)...Takahashi, 1979 Department of Geology, Faculty of Liberal Arts, Nagasaki University, Nagasaki
 Geological Research and Development Center, Bundung, Indonesia
 GS (=IGPS)...Institute of Geology and Paleontology, Faculty of Science, Tohoku University, Sendai
 GS (=GSG)...Department of Geology, Saga University, Saga
 GSG (=GS)...Geological collection, Faculty of Culture and Education, Saga University, Saga
 GSJ (=GST)...Geological Survey of Japan, National Institute of Advanced Science and Technology, Tsukuba (formerly Kawasaki)
 GSJF (=GSJ)...Fossil specimens, Geological Museum, Geological Survey of Japan, National Institute of Advanced Science and Technology, Tsukuba
 GSM...British Museum, London
 GSP...Geological Survey of Pakistan
 GST (=GSJ)...Geological Survey of Japan, Kawasaki
 GT (=GITU, CM, GITU, TK, UMUT, UTCM, UTCM-Kf, NS, NSR)...Geological Institute, Faculty of Science, University of Tokyo, Tokyo
 GYNU...Geological Institute, Yokohama National University
 HCS...Geological section, Hokkaido Colliery and Steamship Co. Ltd., Yubari (Hokusei Consulting Co. Ltd., Sapporo)
 Hirata collection in Makino Botanical Garden, Kochi
 HMG...Hobetsu Museum. Hobetsu-cho, Hokkaido
 HMH...Historical Museum of Hokkaido, Sapporo, Hokkaido
HMNH (D2)...Hyogo Museum of Nature and Human Activities, Mita
 HMNH...Hida Museum of Natural History, Fukuji, Gifu
 HMNT...Hancock Museum, Newcastle-upon-Tyne, Northumberland
 HU...Department of Geology, Faculty of Education, Hirosaki University, Hirosaki

HU (=HUMP, UHR)...Department of Geology and Mineralogy, Hokkaido University, Sapporo
HUMP...Department of Geology and Mineralogy, Hokkaido University, Sapporo
Hustedt coll...Friedrich Hustedt diatom collection in the Alfred Wegner Institute, Bremerhaven, Germany
HUTE...Geoscience Institute, Hyogo University of Teacher Education, Yshiro-cho, Hyogo
IAGI...Department of Mining and Civil Engineering, Faculty of Technology, Iwate University, Morioka
IAGG...Institute of Astronomy, Geophysics and Geology, Osaka University of Liberal Arts and Education, Kashihara
IBEF...Izumi Village Board of Education, Fukui Prefecture
IES...Tokyo Gakugei University, Koganei
IESS...Institute of Earth Science, Sen. High School, Tokyo University of Education, Tokyo
IGF...Geological Institute, Faculty of Education, Fukushima University, Fukushima
IGH (=IGMH, IGMSH, IGSH, TNM)...Institute of Geology and Mineralogy, Hiroshima University, Hiroshima
IGMH (=IGH, IGMSH, IGSH, TNM)...Institute of Geology and Mineralogy, Hiroshima University, Higashihiroshima
IGMSH...Ditto.
IGOG...Institute of Geology, Osaka University, Liberal Arts and Education, Osaka
IGPS...Institute of Geology and Paleontology, Faculty of Science, Tohoku University, Sendai
Institute of Geology and Paleontology, Academia Sinica, Nanjing, P.R. China
IGSH (=IGMH, IGMSH, TNM)...Institute of Geology and Mineralogy, Hiroshima University, Higashihiroshima
IGSU (=IGUS)...Institute of Geosciences, Faculty of Science, Shizuoka University, Shizuoka
IGUS (IGSU)...Institute of Geology, University of Shizuoka, Shizuoka
IGUT...Institute of Geoscience, University of Tsukuba, Tsukuba
INH...Institute of Natural History, Tokyo
IPMM...Iwate Prefectural Museum, Morioka
IPPM...Iwate Prefectural Museum
ISBEV...Shiramine Village Board of Education. Ishikawa Prefecture
IW...Department of Earth Sciences, Saitama University, Urawa
JAPEX...JAPEX Research Center, Japan Petroleum Exploration Co., Ltd.
JC (=ATJRMN, GK, JCD, KCD, **KUGM**)...Department of Geology and Mineralogy, Faculty of Science, Kyoto University, Kyoto
JCD (=ATJRMN, GK, JC, KCD, **KUGM**)...Department of Geology and Mineralogy, Faculty of Science, Kyoto University, Kyoto
JDS...APEX Diatom Semp. JAPEX Research Center, Japan Petroleum Exploration Co., Ltd.
JG (=JG. H)...Jonan Geological Association, Oita
JG. H (=JG)...Jonan Geological Association, Oita
JM...J. Miyamoto's private collection
JPF (=GK, JC, JCD, **KUGM**, KURS)...Institute of Geology and Mineralogy, Faculty of Science, Kyoto University, Kyoto
JUE...Jyoetsu University of Education, Jyoetsu
K...Kagawa Natural Science Museum, Takamastu
KC...School of Informatics and Sciences (formerly College of General Education), Nagoya University, Nagoya
KCM...Kushiro City Museum, Kushiro, Hokkaido
KE...Department of Geoscience, Faculty of Education, Kumamoto University, Kumamoto
Keio Yochisya collection (Baba collection)
KGS...Department of Geology, Faculty of Science, Kochi University, Kochi
KHFM...Kashima Historical and Folklore Museum, Kashima
KM...Komatsu City Museum, Komatsu, Ishikawa Prefecture
KMNH...Kitakyusyu Museum of Natural History, Yahata, Kitakyusyu
KMSP...Department of Geology, Faculty of Science, Kumamoto University, Kumamoto
KPE...Department of Earth-Science, College of Education, Kyungpook National University, Daegu, Korea
KRM...School of Science and Technology, Waseda University, Tokyo
KSG...Department of Geology, Faculty of Sciences Kochi University
KU (=GK, GK. D, GKL, GKM)...Kyushu University, Fukuoka
KUE...Department of Earth Science, Kyoto University of Education, Kyoto
KUE...Department of Earth Science, Faculty of Science, Kanazawa University, Kanazawa
KUGM (=ATJRMN, GK, JC, JCD, KCD, KURS)...Department of Geology and Mineralogy, Graduate School of Science, Kyoto University, Kyoto

KURS (=ATJRMN, GK, JC, JCD, JPF, **KUGM**)...Department of Geology and Mineralogy, Faculty of Science, Kyoto University, Kyoto
KW (=YKC)...Yoshitaro Kawashita's Private Collection
KYC...K. Yokoi's private collection
KZ...Institute of Earth Science, Sen. High School, Tokyo University of Education, Tokyo
LMMN...Laboratory of Microfossil's study of Matsumoto, Nagano
LPBC...Laboratory of Phylogenic Botany, Faculty of Science, Chiba University, Chiba
MC (=MCH)...K. Muramoto's private collection
MCH...K. Muramoto's private collection
MCM...Mikasa City Museum, Mikasa, Hokkaido
MBGK...Makino Botanical Garden, Kochi
MEMIT...Mining Engineering Department, Muroran Institute of Technology, Muroran
MFM...Mizunami Fossil Museum, Mizunami
MG...Meisei-Gakuen Highschool, Tokyo
MI...Department of Astoronomy and Earth Science, Tokyo Gakukei University, Tokyo
 Mikasa High School collection, Mikasa
MM...Department of Historical Geology and Paleontology of the University Museum, University of Tokyo, Tokyo
MMHF...Mine City Museum of Natural and Folk-Custom, Mine, Yamaguchi Prefecture
MNH...T. Miyauchi's private collection
MNHAH...Museum of Nature and Human Activities, Hyogo, Senda
MSHS...Mineyama Senior High School, Kyoto
MRC...Micropaleontology Collection, National Science Museum, Tokyo
MSSU...Matsumoto Branch, Faculty of Education, Shunshu University, Matsumoto
MT...M. Tani's private collection (now keeping in Osaka Museum of Natural History, Osaka)
 National Matuurhitorisch Mesum: National Museum of Natural History, Leiden, The Netherlands
NE (=NEE, NEG)...Departmentwent of Astronomy and Earth Science, Tokyo Gakugei University, Tokyo
NEE (=NE, NEG)...Department of Astronmy and Earth Science, Tokyo Gakugei University
NEG (=NE, NEE)...Department of Astronmy and Earth Science, Tokyo Gakugei University
NFH...Nomura Foraminireal Laboratory, Shimane University, Matsue
NFL...Numata Fossil Laboratory, Numata, Hokkaido
NHM...The National History Museum, London
NM...Mitsuo Nakano Collection in the Geological InSTITUTE, Hiroshima University, Hiroshima
NMJH...National Museum of Japanese History, Chiba Prefecture
NIGP...Nanjing Institute of Geology and Paleontology, Nanging, P.R. China
NNW...Kimura and Tsuji, Tokyo Gakugei University, Tokyo
Nr....Bayer Staatssammlung fur Palaontologie und historische Geologie, Munchen
NS (=CM, GITU, TK, **UMUT**, UTCM, UTCM-Kf, NS, NSR)...University Meseum, University of Tokyo, Tokyo
NSGR...Department of Geology, Faculty of Science, Niigata University, Niigata
NSM (=NSMT-P)...National Science Museum, Tokyo
NSMT-P (=NSM)...Ditto.
NSMT-PP (=NSM)...Ditto.
NSR (=CM, GIUT, TK, **UMUT**, UTCM, UTCM-Kf, NS, NSR)...University Museum, University of Tokyo, Tokyo
NU...Department of Geology, Faculty of Science, Niigata University, Niigata
NUETEM...Department of Earth Sciences, Nara University of Education, Nara
NUH...Naruto University paleontological collections from the Hatsuse Formation, Naruto
OCM...Ofunata City Museum, Ofunato
OCU (OCUCO)...Osaka City University, Osaka
OCUCO (=OCU)...Department of Biology and Geosciences, Graduate School of Science, Osaka City University, Osaka
OKES...Geological Laboratory, Faculty of Science, Chiba University, Chiba
OM...Department of Geology and Astromy, Tokyo Gakugei University, Tokyo
OMN...Osaka Municipal Museum of Natural History, Osaka
OMNH...Osaka Museum of Natural History, Osaka
ON...(probably: Lamont-Doherty Geological Observatory of Columbia University, Palisades, New York, USA)
OSA...Department of Biology, Osaka City University, Osaka

PF...Division of Geoscience, Osaka City University, Osaka
 RINT...Research Institute of Natural Resources, Tokyo (disbanded and ceased publication of institutional journal in 1971;
 specimens were partly relocated and registered in NSM)
 RUEG...Geological Institute, College of Education, University of the Ryukyus
 Saitama University, Paleontological Collection, Urawa
 SFM...Shigamura Fossil Museum, Nagano Prefecture
 Shanghai Science Institute, Shanghai, P.R. China
 SGM...Sakawa Geology Museum, Kochi
SHM (=SM)...Saito Ho-on Kai Museum of Natural History (formerly Saito Ho-on Kai Museum), Sendai
 SICC...Sado Island Community Center, Ogi-machi, Sado, Niigata Prefecture
 SKK...Shigenkagaku Kenkyusho (Undersource Resarch Institute, Tokyo)
 SM...Sado Museum, Sawata-machi, Niigata
 SM (=SHM)...Saito Ho-on Kai Museum (Saito Ho-on Kai Museum of Natural History, Sendai)
 SMF...Senckenberg Museum, Frankfurt
 SMNH...Saitama Museum of Natural History, Nagatoro-machi, Saitama Prefecture
 SSEW...School of Science and Engineering, Waseda University, Tokyo
 SSG...Department of Geology, Faculty of Science, Shinshu University, Matsumoto
 SSME...Sendai Sciece Museum, Sendai
 SU...Department of Geology, Faculty of Education, Shinshu University, Nagano
 SUM...Shizuoka University Museum, Shizuoka
 Swedish Museum of Natural History, Paleobotany Section
 TA...Takasato Archive, Takasato, Yama County, Fukushima Prefecture
 Taihoku University, Taihoku (Taiwan)
 TGTU (probably=FG, TGWU)...Department of Geology, Fukuoka University of Education, Fukuoka
 TGU (=TGUFU)...Department of Astronomy and Earth Sciences, Tokyo Gakugei University, Koganei (Tokyo Gakugei
 Daigaku)
 TGUSE...Department of Science Education, Tokyo Gakugei University, Tokyo
 TGWU (probably=FG, TGTU)...Department of Geology, Fukuoka University of Education, Fukuoka
 TGUFU (=TGU)...Ditto.
 TF...Geological Institute, University of Tokyo, Tokyo
 THU...Teikyo Heisei University, Chiba Prefecture
 TL...Herbariu, Botanic Gardens, Faculty of Science, Tohoku University, Sendai
 TK (=CM, GIUT, TK, **UMUT**, UTCM, UTCM-Kf, NS, NSR)...Geological Institute, Faculty of Science, University of To-
 kyoo, Tokyo
 TKD (=TKU, TUEG, TUE-G-Km)...Department of Geology, Faculty of Science, Tokyo Kyoiku Daigaku (Tokyo University
 of Education), Tokyo (re-organized the Institute of Geoscience, University of Tsukuba, Tsukuba as IGUT)
 TKT...Institute of Geological Science, College of General Education, Osaka University, Toyonaka
 TKU(=TKD, TUEG, TUE, **IGUT**)...Institute of Geoscience, University of Tsukuba, Tsukuba
 TM...TM of the New Zealand Geological Survey, Lower Hutt (Institute of Geological and Nuclear Sciences Limited,
 Lower Hutt)
TMNH (=TY)...Toyohashi Museum of Natural History, Toyohashi
 TNM (=IGMH, IGMSH)...Department of Geology and Mineralogy, Faculty of Science, Hiroshima University, Hiroshima
 (now Higashihiroshima; East Hiroshima City)
 TNUM...Natural History Museum, Taiwan Normal University, Taiwan
 TOCCN...Technical Research Center, Teikoku Oil Co., Ltd., Tokyo
 TPM...Tottori Prefectural Museum
 TPM...Tochige Prefectural Museum, Tochigi Prefecture
 TRPM...Tottori Prefectural Museum, Tottori Prefecture
 TTC...Takemi Takahashi's private collection
 TU...Botanical Institute, Faculty of Science, University of Tokyo, Tokyo
 TUE...Museum of Comparative Zoology, Harvard University (check Ishibashi)
 TUEG (=TKD, TUE-G-Km)...Department of Geology, Faculty of Science, Tokyo Kyoiku Daigaku (Tokyo University of
 Education), Tokyo (re-organized as the Institute of Geoscience, University of Tsukuba, Tsukuba with acronym of
 IGUT)

TUE-G-Km (=TKD, TUEG)...Ditto.
 TUG (=TKD, IGUT)...Tokyo Kyoiku University
 TUM...Taiwan University Museum, Taiwan
 TUSH...Department of Biology, College of Liberal Arts, Kanazawa University, Kanazawa
 TUSG...Institute of Biology, Faculty of Science, Tohoku University, Sendai
 TY (=TMNH)...Toyohashi Museum of Natural History, Toyohashi
 UCB...University of Claude-Bernard Lyon 1, collection Department of Science, Terre
 UH (=GH, HU, UH, UHR)...Department of Geology and Mineralogy, Faculty of Science, Hokkaido University, Sapporo
 UHR (=GH, HU, UH)...Department of Geology and Mineralogy, Hokkaido University, Sapporo
 UK...Kyoto University
UMUT...University Museum, University of Tokyo, Tokyo
 URCUT...Imperial University of Tokyo
 URM...Department of Marine Science, College of Science, University of the Ryukyus, Okinawa Prefecture
 USBF...United States Bureau of Fisheries
 USGS...United States Geological Survey
USNM (=U. S. N. M)...United States National Museum, Washington, Smithsonian Institution D.C.
 USR...Shigehiro Uchida's private collection
 UT (=CM, GIUT, TK, UTCM, NS, NSR, **UMUT**)...Geological Institute, Faculty of Science, University of Tokyo, Tokyo
 UTCM (=CM, GIUT, TK, UTCM, NS, NSR, **UMUT**)...Geological Institute, Faculty of Science, University of Tokyo, Tokyo
 WE (=WEP, WEA)...Institute of Earth Science, Waseda University, Yokyo
 WEA...Department of Earth Sciences, Waseda University, Tokyo
 Yamagata Prefectural Museum, Yamagata
 YCM (=YCMGP, YCM-GP)...Yokosuka City Museum, Yokosuka
 YCMGP...Yokosuka City Museum, Yokosuka
 Yb...K. Muramoto's private collection
 Yg...Attached School, Oizumi Campus, Tokyo Gakugei University
 YGUES...Department of Earth Sciences, Faculty of Science, Yamagata University, Yamagata
 YKC...Yoshitaro Kawashita's private collection
 YM...Yamaguchi Museum, Yamaguchi Prefecture
 YOAK...Institute of Geology and Mineralogy, Hiroshima University, Hiroshima
 YNU (=YUN, **YNUC**)...Geological Institute, Yokohama National University, Yokohama
 YUN (=YNU, **YNUC**)...Geological Institute, Yokohama National University, Yokohama
YNUC...Department of Science Education, Faculty of Education and Human Sciences, Yokohama National University, Yokohama
 ZIANL...Zoological Institute, Russian Academy of Sciences, Leningrad
 ZIHU...Zoological Institute, Faculty of Science, Hokkaido University, Hokkaido
 ZMB...Zoological Museum Berlin
 ZMUC...Zoological Museum, University of Copenhagen, Copenhagen

(Abbreviations printed in bold letters, for instance **UMUT**, denote the current name of a given institute among various names used in the past)

Diatom

**Yukio Yanagisawa¹, Itsuki Suto², Fumio Akiba³,
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Acigonium gladarmatum Komura, 1999

Diatom, vol. 15, p. 71-73, fig. 18

Holotype: MPC-01655

Km-5901 (578), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,
Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°
05'44"E)

Nabuto Formation

Early Miocene

Actinocyclus tsugaruensis Kanaya, 1959

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 99-100,
pl. 8, figs. 5a, 5b

Holotype: IGPS coll. cat. no. 76615

IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa
River, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40°
33'24"N, 140°24'25.4"E)

Owasawa Formation

Middle Miocene

Actinocyclus tsugaruensis Kanaya, 1959

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 99-100,
pl. 8, figs. 7a, 7b

Paratype: IGPS coll. cat. no. 76616

IGPS loc. no. Ak-48-3. A road-side cutting (north side) west
of Hirasawa Village, along the road from Yunoshiri to Hitake,
Hirasawa (Nishikurosawa), Oga City, Akita Prefecture, Japan
(39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa
Formation

Middle Miocene

Actinocyclus tsugaruensis Kanaya, 1959

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 99-100,

pl. 8, fig. 8

Paratype: IGPS coll. cat. no. 76617

IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa
River, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40°
3'24"N, 140°24'25.4"E)

Owasawa Formation

Middle Miocene

Actinoptychus parda var. *tsuboneensis* Ichikawa, 1964

Sci. Rep. Kanazawa Univ., vol. 9, p. 44, pl. 4, figs. 24a, b

Holotype: not designated. Collection of Faculty of Kanazawa
Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

Apterosoma translucida Komura, 1997

Diatom, vol. 13, p. 71-77, fig. 13

Holotype: MPC-05070

Km-5901 (220), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,
Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°
05'44"E)

Nabuto Formation

Early Miocene

Araniscus immaturus Komura, 1998

Diatom, vol. 14, p. 10, fig. 28

Holotype: MPC-05077

Km-5901 (297), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,
Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°
05'44"E)

Nabuto Formation

Early Miocene

Araniscus peripheralis Komura, 1998

Diatom, vol. 14, p. 9-10, fig. 25

Holotype: MPC-05076

Km-5901 (194), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,
Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°
05'44"E)

Nabuto Formation

Early Miocene

Araniscus umbonatus Komura, 1998

Diatom, vol. 14, p. 8-9, fig. 23

Holotype: MPC-05075

Km-5901 (365), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,
Kamogawa City, Chiba Prefecture, Japan (35°04'15"N,
140°05'44"E)

Nabuto Formation

Early Miocene

***Asterolampra grevillei* var. *octonalis* Ichikawa, 1960**

Sci. Rep. Kanazawa Univ., vol. 7, p. 196, pl. 4, fig. 36

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Wakura, Nanao City, Ishikawa Prefecture, Japan

Wakura beds

Middle Miocene

***Aulacodiscus adonis* var. *horyuensis* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 46, pl. 5, fig. 30

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

***Aulacodiscus laxus* var. *octonarius* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 45, pl. 4, figs. 26a, b

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

***Aulacodiscus tubulo-crenatus* var. *japonicus* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 46, pl. 4, fig. 28

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

***Auliscus notoensis* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 47, pl. 5, fig. 33

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

***Azpeitia komurae* Akiba, 1983**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, vol. 13, p. 159-161, pl. 1, figs. 5a-c

Holotype: Hustedt coll. No. Zu3/46

JDS-9817, an off-shore well, Yufutsu-oki B-4, 860-880 m subbottom depth, Hokkaido, Japan (42°27'55.25"N, 141°46'9.04"E)

Late Miocene

***Azpeitia komurae* Akiba, 1983**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, vol. 13, p. 159-161, pl.

1, fig. 2

Isotype: MPC-04033

JDS-9817, an off-shore well, Yufutsu-oki B-4, 860-880 m subbottom depth, Hokkaido, Japan (42°27'55.25"N, 141°46'9.04"E)

Late Miocene

***Azpeitia nodulifera* f. *variantia* Shiono, 2002**

Diatom Research, vol. 17, p. 346, figs. 61-63

Holotype: MPC-04075, England Finder M33-3SES

DSDP Hole 579A, 13-3, 91-92 cm, northwest Pacific Ocean (38°37'61"N, 153°50'28"E)

Early Pliocene

***Azpeitia nodulifera* f. *variantia* Shiono, 2002**

Diatom Research, vol. 17, p. 346, fig. 64

Paratype: The Hokkaido University Museum, UHR-32411, England Finder J36-1N

DSDP Hole 579A, 13-3, 91-92 cm, northwest Pacific Ocean (38°37'61"N, 153°50'28"E)

Early Pliocene

***Balanosa continua* Komura, 1996**

Diatom, vol. 12, p. 53-54, fig. 21

Holotype: MPC-05064

Km-5901 (181), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Balanosa fusiformis* Komura, 1996**

Diatom, vol. 12, p. 52-53, fig. 20

Holotype: MPC-05063

Km-5901 (79), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Biddulphia pulchella* var. *elliptica* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 52, pl. 6, figs. 48a, b

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

***Biddulphia suzuensis* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 53, pl. 6, figs. 49a, b

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan
Hojiuji Diatomaceous Mudstone
Middle Miocene

***Biturricula unca* Komura, 1999**

Diatom, vol. 15, p. 22-25, fig. 13

Holotype: MPC-01641

Km-5901 (434), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Bogorovia barronii* Yanagisawa, 1995**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 177, p. 31-32, fig. 4-4

Holotype: GSJ F 12755

DSDP Hole 71, 26-4, 70-72 cm, eastern equatorial Pacific Ocean (4°28.28'N, 140°18.91'W)

Early Miocene

***Bogorovia curvata* Yanagisawa, 1995**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 177, p. 37, fig. 4-39

Holotype: GSJ F 14591

Piston core sample P3CC, off Java Island, Indian Ocean (4°59.04'S, 113°31.37'E)

Middle Pleistocene

***Bogorovia puncticulata* Yanagisawa, 1995**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 177, p. 32-34, fig. 4-15

Holotype: GSJ F 14593

Piston Core sample P225, VII 20 cm (570 cm from the core top), central Pacific Ocean (3°13.32'N, 169°41.65'W)

Early Miocene

***Bogorovia rostrata* Yanagisawa, 1995**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 177, p. 34, fig. 4-21

Holotype: GSJ F 12808

DSDP Hole 77B, 23-2, 35-37 cm, eastern equatorial Pacific Ocean (0°128.90'N, 133°13.70'W)

Middle Miocene

***Caloneis hitoyosiensis* Okuno, 1955**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 19, p. 55, pl. 8, figs. 3a-d

Holotype: Specimen no. 1543, E251

Diatomite, Nishise Village, Kuma County, Kumamoto Prefecture, Japan

Diatomite (fresh water)

Pleistocene

***Campylodiscus kuetzingii* var. *cocconeiformis* Okuno, 1959**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 36, p. 190, text-fig. 1h

Holotype: Specimen no. m1172, photo no. LM. 2199

Diatomaceous earth, an outcrop about 15 miles south of Fallon Town, Churchill County, Nevada, U. S. A.

Fallon deposit

Late Miocene or Early Pliocene

***Cavitatus exiguus* Yanagisawa & Akiba, 1993**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, vol. 19, p. 18-20, figs. 5-6a-b

Holotype: MPC-04955

Mzn 06, a small road-cut cliff near Shukunohora, Mizunami City, Gifu Prefecture, Japan (35°24'31.22"N, 137°16'17.8"E)

Oidawara Formation, Mizunami Group

Middle Miocene

***Cavitatus lanceolatus* Akiba & Hiramatsu, 1993**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, vol. 19, p. 22-24, figs. 6-1a-b

Holotype: MPC-04956

JDS-9770b, Naruse Town, Miyagi Prefecture, Japan (38°23'37"N, 141°8'52"E)

Otsuka Formation, Matsushimawan Group

Middle Miocene

***Cavitatus lanceolatus* Akiba & Hiramatsu, 1993**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, vol. 19, p. 22-24, figs. 6-6a-b

Isotype: JDS-9770 (a)

JDS-9770b, Naruse Town, Miyagi Prefecture, Japan (38°23'37"N, 141°8'52"E)

Otsuka Formation, Matsushimawan Group

Middle Miocene

***Cavitatus rectus* Akiba & Hiramatsu, 1993**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, vol. 19, p. 28-30, figs. 6-9a-b

Holotype: MPC-04975

JDS-8579, Okubonosawa Section, vicinity of Ikuchise, Hokkaido, Japan (42°56'37"N, 143°35'42"E)

Tokiwa Formation, Atsunai Group

Early Miocene

***Cavitatus rectus* Akiba & Hiramatsu, 1993**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, vol. 19, p. 28-30, fig. 6-12

Isotype: MPC-04975

JDS-8579, Okubonosawa Section, vicinity of Ikuchise, Hokkaido, Japan (42°56'37"N, 143°35'42"E)

Tokiwa Formation, Atsunai Group

Early Miocene

***Coscinodiscus elegans* var. *minutus* Okuno, 1965**

Jour. Jap. Botany, vol. 40, p. 8-9, pl. 2, fig. d
 Holotype: registered number not described
 Kamo outcrop, Saigo Town, Oki Islands, Shimane Prefecture,
 Japan

Middle Miocene

[*Actinocyclus ingens* f. *planus* Whiting & Schrader]

***Coscinodiscus elegans* var. *minutus* Okuno, 1965**

Jour. Jap. Botany, vol. 40, p. 8-9, pl. 2, fig. c
 Paratype: registered number not described
 Kamo outcrop, Saigo Town, Oki Islands, Shimane Prefecture,
 Japan

Middle Miocene

[*Actinocyclus ingens* f. *planus* Whiting & Schrader]

***Coscinodiscus elegans* var. *minutus* Okuno, 1965**

Jour. Jap. Botany, vol. 40, p. 8-9, pl. 2, fig. e
 Paratype: registered number not described
 Kamo outcrop, Saigo Town, Oki Islands, Shimane Prefecture,
 Japan

Middle Miocene

[*Actinocyclus ingens* f. *planus* Whiting & Schrader]

***Coscinodiscus endoi* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 76-77, pl. 3, fig. 8

Holotype: IGPS coll. cat. no. 76636

IGPS loc. no. Ak-48-5. A road-side cutting (north side) west of Hirasawa Village, along the road from Yunoshiri to Hitake, Hirasawa (Nishikurosawa), Kitaura, Oga City, Akita Prefecture, Japan (39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa Formation

Middle Miocene

[*Azpeitia endoi* (Kanaya) Sims, 1986, Systematic Botany Monographs, vol. 13, p.16]

***Coscinodiscus endoi* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 76-77, pl. 3, fig. 9

Paratype: IGPS coll. cat. no. 76637

IGPS loc. no. Ak-48-5. A road-side cutting (north side) west of Hirasawa Village, along the road from Yunoshiri to Hitake, Hirasawa (Nishikurosawa), Kitaura, Oga City, Akita Prefecture, Japan (39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa Formation

Middle Miocene

[*Azpeitia endoi* (Kanaya) Sims, 1986, Systematic Botany Monographs, vol. 13, p.16]

***Coscinodiscus endoi* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 76-77, pl.

3, figs. 10a, 10b

Paratype: IGPS coll. cat. no. 76638

IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa River, Shimizu-mura, Hirosaki City, Aomori Prefecture, Japan (40°33'24"N, 140°24'25.4"E)

Owasawa Formation

Middle Miocene

[*Azpeitia endoi* (Kanaya) Sims, 1986, Systematic Botany Monographs, vol. 13, p.16]

***Coscinodiscus endoi* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 76-77, pl. 3, figs. 11a 11b

Paratype: IGPS coll. cat. no. 76639

IGPS loc. no. Ak-63. A road side exposure in Shimoshinzan Village, beside the road from Shimoshinzan to Kamishinzan, Shinzan, Oga City, Akita Prefecture, Japan (39°55'56"N, 139°46'40"E)

Shinzan Diatomaceous Mudstone Member, Onnagawa Formation

Middle Miocene

[*Azpeitia endoi* (Kanaya) Sims, 1986, Systematic Botany Monographs, vol. 13, p.16]

***Coscinodiscus hirosakiensis* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 78-79, pl. 4, figs. 1a., 1b

Holotype: IGPS coll. cat. no. 76643

IGPS loc. no. Ao-12. A west cliff of the Tochinai-gawa River, 1,625 m N42E from Omori Hill, 50 m downstream from the bridge, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40°33'48"N, 140°24'40.4"E)

Owasawa Formation

Middle Miocene

***Coscinodiscus hirosakiensis* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 78-79, pl. 4, figs. 2a., 2b

Paratype: IGPS coll. cat. no. 76644

IGPS loc. no. Ak-63. A road side exposure beside the road from Shimoshinzan to Kamishinzan, Shinzan, Oga City, Akita Prefecture, Japan (39°55'56"N, 139°46'40"E)

Shinzan Diatomaceous Mudstone Member, Onnagawa Formation

Middle Miocene

***Coscinodiscus hokkaidoensis* Okuno, 1959**

Jour. Jap. Botany, vol. 34, p. 27, fig. 1d

Holotype: registered number not described

Abura, Setana Town, Hokkaido, Japan

Diatomaceous earth

Early Miocene

***Coscinodiscus sawamurae* Akiba, 1980**

Bull. Tech. Lab. JAPEX, vol. 23, p. 90, pl. 4, figs. 44a, b
Holotype: JDS-8789 (8) (England finder E37-3) deposited in
JAPEX Collection

JDS-8789 (7150401c), Yokone, Hota, Kyonan Town, Chiba
Prefecture, Japan (35°8'12"N, 139°38'7"E)

Okuyama Formation, Sakuma Group

Early Miocene

[*Nephrodiscus sawamurae* (Akiba) Komura, 1996, Diatom,
vol. 12, p.12-13]

***Coscinodiscus sawamurae* Akiba, 1980**

Bull. Tech. Lab. JAPEX, vol. 23, p. 90, pl. 4, fig. 45

Paratype: JDS-8789 (7) (England finder F35-2) deposited in
JAPEX

JDS-8789 (7150401c), Yokone, Hota, Kyonan Town, Chiba
Prefecture, Japan (35°8'12"N, 139°38'7"E)

Okuyama Formation, Sakuma Group

Early Miocene

[*Nephrodiscus sawamurae* (Akiba) Komura, 1996, Diatom,
vol. 12, p.12-13]

***Coscinodiscus sawamurae* Akiba, 1980**

Bull. Tech. Lab. JAPEX, vol. 23, p. 90, pl. 4, fig. 46

Paratype: JDS-8789 (6) (England finder N31-4) deposited in
JAPEX

JDS-8789 (7150401c), Yokone, Hota, Kyonan Town, Chiba
Prefecture, Japan (35°8'12"N, 139°38'7"E)

Okuyama Formation, Sakuma Group

Early Miocene

[*Nephrodiscus sawamurae* (Akiba) Komura, 1996, Diatom,
vol. 12, p.12-13]

***Coscinodiscus schmidtii* Okuno, 1964**

Diatomeenschalen im Elektronenmikroskopischen Bild, vol.
5, p. 20, pl. 436

Holotype: Okuno, Prep. no. E580

Gray or grayish brown somewhat hard diatomaceous earth, at
resting mine, outcrops about 10-25 m thick and about 500
wide, Futami, Minamikayabe Town, Hokkaido, Japan
Usujiri deposit (marine)

Neogene

***Coscinodiscus wakuraensis* Ichikawa, 1960**

Sci. Rep. Kanazawa Univ., vol. 7, p. 188, pl. 2, fig. 15

Holotype: not designated. Collection of Faculty of Kanazawa
Univ.

Wakura, Nanao City, Ishikawa Prefecture, Japan

Wakura beds

Middle Miocene

***Coscinodiscus wakuraensis* Ichikawa, 1960**

Sci. Rep. Kanazawa Univ., vol. 7, p. 189, pl. 2, fig. 16

Holotype: not designated. Collection of Faculty of Kanazawa

Univ.

Wakura, Nanao City, Ishikawa Prefecture, Japan

Wakura beds

Middle Miocene

***Coscinodiscus yabei* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 86-87, pl.
5, figs. 6a., 6b, 6c

Holotype: IGPS coll. cat. no. 76657

IGPS loc. no. Ao-12. A west cliff of the Tochinai-gawa River,
1,625 m N42E from Omori Hill, 50 m downstream from the
bridge, Shimizu, Hirosaki City, Aomori Prefecture, Japan
(40°33'48"N, 140°24'40.4"E)

Owasawa Formation

Middle Miocene

[*Thalassiosira yabei* (Kanaya) Akiba & Yanagisawa, 1986,
Init. Rep. DSDP, vol. 87, p. 493]

***Coscinodiscus yabei* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 86-87, pl.
5, figs. 7a., 7b, 7c

Paratype: IGPS coll. cat. no. 76658

IGPS loc. no. Ao-12. A west cliff of the Tochinai-gawa River,
1,625 m N42E from Omori Hill, 50 m downstream from the
bridge, Shimizu, Hirosaki City, Aomori Prefecture, Japan
(40°3'48"N, 140°24'40.4"E)

Owasawa Formation

Middle Miocene

[*Thalassiosira yabei* (Kanaya) Akiba & Yanagisawa, 1986,
Init. Rep. DSDP, vol. 87, p. 493]

***Coscinodiscus yabei* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 86-87, pl.
5, fig. 8

Paratype: IGPS coll. cat. no. 76659

IGPS loc. no. Ak-46. A sea cliff of eastern part of Hirasawa
Village, Hirasawa (Nishikurosawa), Oga City, Akita
Prefecture, Japan (39°58'44"N, 139°44'06"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa
Formation

Middle Miocene

[*Thalassiosira yabei* (Kanaya) Akiba & Yanagisawa, 1986,
Init. Rep. DSDP, vol. 87, p. 493]

***Coscinodiscus yabei* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 86-87, pl.
5, fig. 9

Paratype: IGPS coll. cat. no. 76660

IGPS loc. no. Ak-46. A sea cliff of eastern part of Hirasawa
Village, Hirasawa (Nishikurosawa), Oga City, Akita
Prefecture, Japan (39°58'44"N, 139°44'06"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa
Formation

Middle Miocene

[*Thalassiosira yabei* (Kanaya) Akiba & Yanagisawa, 1986,
Init. Rep. DSDP, vol. 87, p. 493]

***Crudenticula ikebei* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 485-486, pl. 1, fig. 1
Holotype: Hustedt coll. No. Zu3/10
JDS-5675, an outcrop north of Aonae, southern part of Okushiri Island (1/50,000: "Okushiri-nanbu"), Okushiri Town, Hokkaido, Japan (42 ° 4'41"N, 139 ° 28'20"E)
Tsurikake Formation
Early Miocene

***Crudenticula ikebei* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 485-486, pl. 1, fig. 2
Paratype: JDS-5675 (7) deposited in JAPEX Collection
JDS-5675, an outcrop north of Aonae, southern part of Okushiri Island (1/50,000: "Okushiri-nanbu"), Okushiri Town, Hokkaido, Japan (42 ° 4'41"N, 139 ° 28'20"E)
Tsurikake Formation
Early Miocene

***Crudenticula kanayae* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 486, pl. 1, fig. 3
Holotype: Hustedt coll. No. Zu3/12
JDS-5676, an outcrop north of Aonae, southern part of Okushiri Island (1/50,000: "Okushiri-nanbu"), Okushiri Town, Hokkaido, Japan (42 ° 4'45"N, 139 ° 28'19"E)
Tsurikake Formation
Early Miocene

***Crudenticula kanayae* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 486, pl. 1, fig. 4
Paratype: JDS-5676 (1) deposited in JAPEX Collection
JDS-5676, an outcrop north of Aonae, southern part of Okushiri Island (1/50,000: "Okushiri-nanbu"), Okushiri Town, Hokkaido, Japan (42 ° 4'45"N, 139 ° 28'19"E)
Tsurikake Formation
Early Miocene

***Crudenticula kanayae* var. *pacifica* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 229, pl. 1, fig. 38
Holotype: GSJ F 12744
DSDP Hole 71, 22-6, 116-118 cm, eastern equatorial Pacific Ocean (4 ° 28.28'N, 140 ° 18.91'W)
Early Miocene

***Crudenticula kanayae* var. *pacifica* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 229, pl. 1, fig. 37
Paratype: GSJ F 12745
DSDP Hole 71, 23-2, 117-119 cm, eastern equatorial Pacific Ocean (4 ° 28.28'N, 140 ° 18.91'W)
Early Miocene

***Crudenticula paranicobarica* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 487, pl. 2, fig. 10
Holotype: Hustedt coll. No. Zu3/11
JDS-4685, an outcrop in the vicinity of Numakawa along the Uruya-gawa River (1/25,000: "Magaribuchi"), Wakkanai City, Tenpoku area, Hokkaido, Japan (45 ° 15'36"N, 141 ° 55'24"E)
Masuporo Formation
Middle Miocene

***Crudenticula paranicobarica* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 487, pl. 2, fig. 12
Paratype: JDS-4686 (1) deposited in JAPEX Collection
JDS-4686, an outcrop in the vicinity of Numakawa along the Uruya-gawa River (1/25,000: "Magaribuchi"), Wakkanai City, Tenpoku area, Hokkaido, Japan (45 ° 15'36"N, 141 ° 55'24"E)
Masuporo Formation
Middle Miocene

***Crudenticula paranicobarica* var. *tropica* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 230-231, pl. 1, fig. 19
Holotype: GSJ F 12739
DSDP Hole 71, 21-2, 89-91 cm, eastern equatorial Pacific Ocean (4 ° 28.28'N, 140 ° 18.91'W)
Middle Miocene

***Crudenticula paranicobarica* var. *tropica* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 230-231, pl. 1, fig. 17
Paratype: GSJ F 12740
DSDP Hole 71, 21-4, 60-62 cm, eastern equatorial Pacific Ocean (4 ° 28.28'N, 140 ° 18.91'W)
Middle Miocene

***Crudenticula sawamurae* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 227-228, pl. 1, fig. 9
Holotype: GSJ F 12752
DSDP Hole 71, 25-3, 96-98 cm, eastern equatorial Pacific Ocean (4 ° 28.28'N, 140 ° 18.91'W)
Early Miocene

***Crudenticula sawamurae* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 227-228, pl. 1, fig. 8
Paratype: GSJ F 12751
DSDP Hole 71, 25-1, 128-130 cm, eastern equatorial Pacific Ocean (4 ° 28.28'N, 140 ° 18.91'W)
Early Miocene

***Cyclotella hanna* Kanaya, 1957**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 28, p. 82-84, pl. 3, figs. 10a, 10b
Holotype: Stanford Univ. Paleo. Type Coll. no. 8360

LSJU M-611-7. Outcrop in the low hills between Kellog Creek and Byron Hot Spring, east of Mt. Diablo, California, U. S. A. (37 °50'20"N, 121 °40'W)
Kellog Shale
Late Eocene
[*Melosira architecturalis* Brun]

***Cyclotella hanae* Kanaya, 1957**
Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 28, p. 82-84, pl. 3, fig. 11
Paratype: Stanford Univ. Paleo. Type Coll. no. 8361
LSJU M-611-6. Outcrop in the low hills between Kellog Creek and Byron Hot Spring, east of Mt. Diablo, California, U. S. A. (37 °50'20"N, 121 °40'W)
Kellog Shale
Late Eocene
[*Melosira architecturalis* Brun]

***Cyclotella hanae* Kanaya, 1957**
Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 28, p. 82-84, pl. 3, fig. 13
Paratype: Stanford Univ. Paleo. Type Coll. no. 8362
LSJU M-611-7. Outcrop in the low hills between Kellog Creek and Byron Hot Spring, east of Mt. Diablo, California, U. S. A. (37 °50'20"N, 121 °40'W)
Kellog Shale
Late Eocene
[*Melosira architecturalis* Brun]

***Cyclotella hanae* Kanaya, 1957**
Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 28, p. 82-84, pl. 3, fig. 12
Paratype: Stanford Univ. Paleo. Type Coll. no. 8363
LSJU M-611-7. Outcrop in the low hills between Kellog Creek and Byron Hot Spring, east of Mt. Diablo, California, U. S. A. (37 °50'20"N, 121 °40'W)
Kellog Shale
Late Eocene
[*Melosira architecturalis* Brun]

***Cyclotella kohsakaensis* Tanaka & Kobayasi, 1996**
Diatom, vol. 12, p. 1-3, figs. 1-2
Holotype: MPC-05065
KOS-203. An outcrop of the eastern part of the Kohsakahigashichi area, Saku City, Nagano Prefecture, Japan
uppermost Kohsaka Conglomerate Member
Early Pliocene

***Cymbella stuxbergii* var. *robusta* Okuno, 1959**
Jour. Jap. Botany, vol. 34, p. 358, fig. 2c
Holotype: registered number not described
Abura, Setana Town, Hokkaido, Japan
Diatomaceous earth
Early Miocene

***Dactylacanthis invalida* Komura, 1999**
Diatom, vol. 15, p. 30-33, fig. 27
Holotype: MPC-01644
Km-5901 (432), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Dactylacanthis proxima* Komura, 1999**
Diatom, vol. 15, p. 28-30, fig. 38
Holotype: MPC-01643
Km-5901 (407), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Dactylacanthis rara* Komura, 1999**
Diatom, vol. 15, p. 25-28, fig. 19
Holotype: MPC-01642
Km-5901 (441), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Delphineis kamentoensis* Yanagisawa, 1994**
Trans. Proc. Palaeont. Soc. Japan, N. S., no. 174, p. 256-258, fig. 3-3
Holotype: GSJ F14583
JOB 680, an outcrop in Kurosuno, Iwaki-izumi Town, Iwaki City, Fukushima Prefecture, Japan (36 °55'54.5"N, 140 °50'14.0"E)
Kamenoo Formation, Yunagaya Group
Early Miocene

***Delphineis sheshukovae* Akiba, 1986**
Init. Rep. DSDP, vol. 87, p. 439, pl. 20, fig. 17
Holotype: Hustedt coll. No. Zu3/26
DSDP Hole 584, 32CC, off Hachinohe, northwest Pacific Ocean (40 °28.0'N, 143 °57.6'E)
Early Pliocene

***Delphineis sheshukovae* Akiba, 1986**
Init. Rep. DSDP, vol. 87, p. 439, pl. 20, fig. 16
Paratype: Hustedt coll. No. Zu3/26
DSDP Hole 584, 32CC, off Hachinohe, northwest Pacific Ocean (40 °28.0'N, 143 °57.6'E)
Early Pliocene

***Denticula hustedtii* Simonsen & Kanaya, 1961**

Int. Revue Ges. Hydrobiol., vol. 46, p. 501, pl. 1, fig. 19

Holotype: Collection of Simonsen

Sample no. 23 collected from a section about 30 feet thick in an old diatomite quarry 1.2 km south, 0.5 km east of the intersection of 36°35'N, 121°50'W, Del Monte, Monterey County, California, U. S. A.

Monterey Formation

Miocene

[*Denticulopsis hustedtii* (Simonsen & Kanaya) Simonsen, 1979, Bacillaria, vol. 2, p. 64]

***Denticula lauta* var. *punctata* Okuno, 1964**

Diatomeenschalen im Elektronenmikroskopischen Bild, vol. 5, p. 41, pl. 504, top b

Holotype: Okuno, Prep. no. m1392

Massive diatomaceous earth, yellowish brown, somewhat hard, about 30 m thick, at Minoura and Tsuka, near the southern sea shore, about 4 km southwest of Saigo Harbour, Saigo Town, Dogo Island, Shimane Prefecture, Japan

Minoura deposit (marine)

Middle Miocene

***Denticula lauta* var. *vulgaris* Okuno, 1964**

Diatomeenschalen im Elektronenmikroskopischen Bild, vol. 5, p. 40, pl. 504, top a

Holotype: Okuno, Prep. no. m1148

Gray or grayish brown somewhat hard diatomaceous earth, at a resting mine, outcrops about 10-25m thick and about 500 wide, Futami, Minamikayabe Town, Hokkaido, Japan

Usujiri deposit (marine)

Neogene

[*Denticulopsis vulgaris* (Okuno) Yanagisawa & Akiba, 1990, Bull. Geol. Surv. Japan, vol. 41, p. 243-245]

***Denticulopsis barronii* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 253-254, pl. 4, fig. 37

Holotype: GSJ F 12803

DSDP Hole 77B, 20-6, 38-40 cm, eastern equatorial Pacific Ocean (0°28.90'N, 133°313.37'W)

Middle Miocene

***Denticulopsis crassa* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 248-249, pl. 3, fig. 23

Holotype: GSJ F 12893

DSDP Hole 438A, 65-7, 17-18 cm, off Hachinohe, northwest Pacific Ocean (40°37.79'N, 143°14.15'E)

Middle Miocene

***Denticulopsis delicata* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 246, pl. 7, fig. 1

Holotype: GSJ F 12891

DSDP Hole 266, 10-5, 87-90 cm, Southern Ocean (56°24.13'S, 110°06.70'E)

Late Miocene

***Denticulopsis dimorpha* var. *areolata* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 257, pl. 4, fig. 54

Holotype: GSJ F 12812

DSDP Hole 438A, 56cc, off Hachinohe, northwest Pacific Ocean (40°37.79'N, 143°14.15'E)

Late Miocene

***Denticulopsis hustedtii* var. *aspera* Maruyama, 1992**

Proc. ODP, Sci. Results, vol. 120, p. 683-733, pl. 10, fig. 10

Holotype: IGPS coll. No. G5-183

ODP Hole 751A, 7H-1, 105-106 cm, Kerguelen Plateau, Indian sector, Southern Ocean (57°43.56'S, 79°48.89'W)

Late Miocene

***Denticulopsis ichikawae* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 236-237, pl. 2, fig. 12

Holotype: GSJ F 12813

DSDP Hole 438A, 79-1, 51-54 cm, off Hachinohe, northwest Pacific Ocean (40°37.79'N, 143°14.15'E)

Middle Miocene

***Denticulopsis katayamae* Maruyama, 1984**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), vol. 54, p. 158-159, pl. 17, fig. 2

Holotype: IGPS coll. no. 98255

STZ-30 in the Shitazaki section, a branch of the Mabechi River, on the border between Iwate and Aomori Prefectures, 250 m west of Kamasawa, Nihohe City, Iwate Prefecture, Japan (40°20'20"N, 141°5'45"E)

Shitazaki Siltstone Member, Shitazaki Formation, Sannohe Group

Late Miocene

***Denticulopsis meridionalis* Maruyama, 1992**

Proc. ODP, Sci. Results, vol. 120, p. 683-733, pl. 7, fig. 1

Holotype: IGPS coll. No. G5-182

ODP Hole 751A, 9H-4, 105-106 cm, Kerguelen Plateau, Indian sector, Southern Ocean (57°43.56'S, 79°48.89'W)

Late Miocene

***Denticulopsis okunoi* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 237-238, pl. 2, fig. 22

Holotype: GSJ F 12814

JOB 423, Joban Coalfield, Hirakata, Kitaibaraki City, Ibaraki Prefecture, Japan (36°51'2.8"N, 140°47'34.6"E)

Taga Formation

Middle Miocene

***Denticulopsis praedimorpha* Barron ex Akiba, 1982**

Rep. Technical Res. Center Japan National Oil Corporation, vol. 16, p. 46-49, pl. 11, figs. 9a-27b

Holotype: Barron, 1980, pl. 1, fig. 20
DSDP Hole 438A, 65-1, 136-137 cm, off Hachinohe,
northwest Pacific Ocean (40°37.79'N, 143°14.15'E)
Middle Miocene

***Denticulopsis praedimorpha* var. *intermedia* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 252-253, pl. 7, fig. 13
Holotype: GSJ F 12892
DSDP Hole 266, 10-5, 87-90 cm, Southern Ocean
(56°24.13'S, 110°06.70'E)
Middle Miocene

***Denticulopsis praedimorpha* var. *minor* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 249-250, pl. 4, fig. 8
Holotype: GSJ F 12815
DSDP Hole 438A, 66-1, 121-123 cm, off Hachinohe,
northwest Pacific Ocean (40°37.79'N, 143°14.15'E)
Middle Miocene

***Denticulopsis praedimorpha* var. *robusta* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 252, pl. 4, fig. 19
Holotype: GSJ F 12816
DSDP Hole 438A, 64-3, 10-14 cm, off Hachinohe, northwest
Pacific Ocean (40°37.79'N, 143°14.15'E)
Middle Miocene

***Denticulopsis praehyalina* Tanimura, 1989**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 155, p. 172-174,
figs. 3-2a, b
Holotype: MPC-04231
OKI 3-8, Minoura outcrop, Saigo Town, Dogo, Oki Islands,
Shimane Prefecture, Japan (36°15'N, 133°20'E)
Kumi Formation
Middle Miocene

***Denticulopsis praehyalina* Tanimura, 1989**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 155, p. 172-174,
figs. 3-3a, b
Paratype: MPC-04232
OKM 18A, Minoura outcrop, Saigo Town, Dogo, Oki Islands,
Shimane Prefecture, Japan (36°15'N, 133°20'E)
Kumi Formation
Middle Miocene

***Denticulopsis praekatayamae* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 244-245, pl. 3, fig. 10
Holotype: GSJ F 12817
DSDP Hole 438A, 56cc, off Hachinohe, northwest Pacific
Ocean (40°37.79'N, 143°14.15'E)
Late Miocene

***Denticulopsis praelauta* Akiba & Koizumi, 1986**

Init. Rep. DSDP, vol. 87, p. 439, pl. 26, fig. 10
Holotype: Hustedt coll. No. Zu3/13
DSDP Hole 439, 8-6, 49-52 cm, off Hachinohe, northwest
Pacific Ocean (40°37.61'N, 143°18.63'E)
Early Miocene

***Denticulopsis praelauta* Akiba & Koizumi, 1986**

Init. Rep. DSDP, vol. 87, p. 439, pl. 26, fig. 14
Paratype: Hustedt coll. No. Zu3/13
DSDP Hole 439, 8-6, 49-52 cm, off Hachinohe, northwest
Pacific Ocean (40°37.61'N, 143°18.63'E)
Early Miocene

***Denticulopsis simonsenii* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 242-243, pl. 3, fig. 1
Holotype: GSJ F 12818
N 58, Hataya, Matsushima Town, Miyagi Prefecture, Japan
(38°25'N, 141°4'40"E)
Hataya Formation
Middle Miocene

***Denticulopsis tanimurae* Yanagisawa & Akiba, 1990**

Bull. Geol. Surv. Japan, vol. 41, p. 238-239, pl. 2, fig. 27
Holotype: GSJ F 12819
DSDP Hole 438A, 71-3, 7-11 cm, off Hachinohe, northwest
Pacific Ocean (40°37.79'N, 143°14.15'E)
Middle Miocene

***Dichotropiscus bicostatus* Komura, 1995**

Diatom, vol. 10, p. 60-61, fig. 5
Holotype: MPC-02563
Km-5901 (220), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,
Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°
05'44"E)
Nabuto Formation
Early Miocene

***Dichotropiscus brevilanceolatus* Komura, 1995**

Diatom, vol. 10, p. 61-62, fig. 7
Holotype: MPC-02564
Km-5901 (213), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,
Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°
05'44"E)
Nabuto Formation
Early Miocene

***Dichotropiscus fimbriatus* Komura, 1995**

Diatom, vol. 10, p. 58-60, fig. 2
Holotype: MPC-02562
Km-5901 (123), calcareous nodule, tidal flat about 1 km
southwest of Futomi Station of JR Uchibo Line, Futomi,

Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Dichotropiscus staurophorus* Komura, 1995**

Diatom, vol. 10, p. 62-63, fig. 10
Holotype: MPC-02565
Km-5901 (194), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Dimeractis vicconstricta* Komura, 2001**

Diatom, vol. 17, p. 81-84, fig. 15
Holotype: MPC-04134
Km-5912 (27), calcareous nodule from one of the serial rocky shoals submerged beneath the upper tidal level along the sand beach, Morito, Hayama Town, Kanagawa Prefecture, Japan (35 °16'06"N, 139 °34'24"E)
Morito Formation
Early Miocene

***Diommatetras grossa* Komura, 2001**

Diatom, vol. 17, p. 77-81, Fig. 14
Holotype: MPC-04133
Km-5912 (4), calcareous nodule from one of the serial rocky shoals submerged beneath the upper tidal level along the sand beach, Morito, Hayama Town, Kanagawa Prefecture, Japan (35 °16'06"N, 139 °34'24"E)
Morito Formation
Early Miocene

***Eupterotrum pulcherum* Komura, 1997**

Diatom, vol. 13, p. 77-80, fig. 8
Holotype: MPC-05071
Km-5901 (244), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Eustephanias quasinermus* Komura, 1999**

Diatom, vol. 15, p. 15-19, fig. 8
Holotype: MPC-01640
Km-5901 (436), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Eustephanias ramigenus* Komura, 1999**

Diatom, vol. 15, p. 12-15, fig. 1
Holotype: MPC-01639
Km-5901 (420), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)
Nabuto Formation
Early Miocene

***Fragilaria hirosakiensis* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 104-106, pl. 9, figs. 11a, 11b
Holotype: IGPS coll. cat. no. 76674
IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa River, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40 °33'24"N, 140 °24'25.4"E)
Owasawa Formation
Middle Miocene
[*Thalassionema hirosakiensis* (Kanaya) Schrader, 1973, Init. Rep. DSDP, vol.18, p. 711]

***Fragilaria hirosakiensis* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 104-106, pl. 9, fig. 13
Paratype: IGPS coll. cat. no. 76675
IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa River, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40 °33'24"N, 140 °24'25.4"E)
Owasawa Formation
Middle Miocene
[*Thalassionema hirosakiensis* (Kanaya) Schrader, 1973, Init. Rep. DSDP, vol.18, p. 711]

***Fragilaria hirosakiensis* Kanaya, 1959**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 104-106, pl. 9, fig. 12
Paratype: IGPS coll. cat. no. 76676
IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa River, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40 °33'24"N, 140 °24'25.4"E)
Owasawa Formation
Middle Miocene
[*Thalassionema hirosakiensis* (Kanaya) Schrader, 1973, Init. Rep. DSDP, vol.18, p. 711]

***Fragilaria hirosakiensis* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 104-106, pl. 9, fig. 14
Paratype: IGPS coll. cat. no. 76677
IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa River, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40 °33'24"N, 140 °24'25.4"E)
Owasawa Formation

Middle Miocene

[*Thalassionema hirosakiensis* (Kanaya) Schrader, 1973, Init. Rep. DSDP, vol.18, p. 711]

***Fragilaria hirosakiensis* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 104-106, pl. 9, figs. 15a, 15b

Paratype: IGPS coll. cat. no. 76678

IGPS loc. no. Ao-09. An east cliff of the Tochinai-gawa River, Shimizu, Hirosaki City, Aomori Prefecture, Japan (40 ° 33'24"N, 140 ° 24'25.4"E)

Owasawa Formation

Middle Miocene

[*Thalassionema hirosakiensis* (Kanaya) Schrader, 1973, Init. Rep. DSDP, vol.18, p. 711]

***Gyropandorus annulatus* Komura, 1997**

Diatom, vol. 13, p. 67-71, fig. 6

Holotype: MPC-05069

Km-5901 (304), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 ° 04'15"N, 140 ° 05'44"E)

Nabuto Formation

Early Miocene

***Heterangion orbiculatum* Komura, 2001**

Diatom, vol. 17, p. 74-77, Fig. 6

Holotype: MPC-04132

Km-5912 (63), calcareous nodule from one of the serial rocky shoals submerged beneath the upper tidal level along the sand beach, Morito, Hayama Town, Kanagawa Prefecture, Japan (35 ° 16'06"N, 139 ° 34'24"E)

Morito Formation

Early Miocene

***Hyalodiscus ukaiensis* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 34, pl. 1, figs. 3a-d

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

***Ikebea amphistriata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 135-136, pl. 12, fig. 4

Holotype: MPC-02538

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45 ° 15'39"N, 141 ° 54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea amphistriata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 135-136, pl. 12, figs. 1, 5

Paratype: JAPEX Km-5037 (9)

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45 ° 15'39"N, 141 ° 54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea bifurcata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 136-137, pl. 12, fig. 12

Holotype: MPC-02540

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45 ° 15'39"N, 141 ° 54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea bifurcata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 136-137, pl. 12, fig. 11

Paratype: JAPEX Km-5037 (8)

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45 ° 15'39"N, 141 ° 54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea bifurcata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 136-137, pl. 12, fig. 13

Paratype: JAPEX Km-5037 (12)

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45 ° 15'39"N, 141 ° 54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea clavata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 138, pl. 12, fig. 14

Holotype: MPC-02542

Blueish gray to yellow-greenish white impure diatomite cropping near Wakkanai-minami Primary School, Wakkanai City, Hokkaido, Japan (45°23'36"N, 141°41'22"E)

Koitoi Formation

Late Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea clavata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 138, pl. 12, fig. 15

Paratype: JAPEx Fo-11 (16)

Blueish gray to yellow-greenish white impure diatomite cropping about 3.8 km south of Toyotomi Station, Toyotomi Town, Hokkaido, Japan (45°5'14"N, 141°19'17"E)

Koitoi Formation

Late Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea clavata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 138, pl. 12, fig. 16

Paratype: JAPEx Fj-2724 (8)

Dark gray silty sandstone, an outcrop at south riverside of the Furenbetsugawa River, Shosanbetsu Village, Hokkaido, Japan (44°33'55"N, 141°49'19"E)

Enbetsu Formation

Late Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea coronata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 137-138, pl. 12, fig. 10

Holotype: MPC-02541

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45°15'39"N, 141°54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea coronata* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 137-138, pl. 12, fig. 9

Paratype: JAPEx Km-5037 (10)

Dark gray sandy claystone cropping at a south riverside of

the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45°15'39"N, 141°54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea robusta* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 136, pl. 12, fig. 6

Holotype: MPC-02539

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45°15'39"N, 141°54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Ikebea robusta* Komura, 1975**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 99, p. 136, pl. 12, fig. 8

Paratype: JAPEx Km-5037 (1)

Dark gray sandy claystone cropping at a south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Wakkanai City, Hokkaido, Japan (45°15'39"N, 141°54'50"E)

Masuporo Formation

Middle Miocene

[*Ikebea tenuis* (Brun) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 439-440]

***Imparvalvia laevigata* Komura, 1992**

Diatom, vol. 7, p. 77-78, figs. B, C

Holotype: MPC-02556

Km-5041 (72), a bottom cliff along the Uruyagawa River, Tenpoku area, Hokkaido, Japan (45°15'31"N, 141°54'69"E)

Koitoi Formation

Late Miocene

***Kannoa hastata* Komura, 1980**

Professor Saburo Kanno Memorial Volume, p. 376, pl. 46, figs. 13a-b

Holotype: MPC-02555

Km-5034, 15 meter thick diatomite bed in the tuffaceous siltstone cropping out in the northern side of the railroad cut of the Tenpoku Line leading from Wakkanai to Onishibetsu along the Uruyagawa River, about 1.3 km east of Magarifuchi station, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

***Kannoa japonica* Komura, 1980**

Professor Saburo Kanno Memorial Volume, p. 374-375, pl. 46, fig. 1

Holotype: MPC-02554

Km-5034, 15 meter thick diatomite bed in the tuffaceous siltstone cropping out in the northern side of the railroad cut of the Tenpoku Line leading from Wakkanai to Onishibetsu along the Uruyagawa River, about 1.3 km east of Magarifuchi station, Wakkanai City, Hokkaido, Japan (45 ° 15'38"N, 141 ° 54'57"E)

Masuporo Formation

Middle Miocene

***Kannoa japonica* Komura, 1980**

Professor Saburo Kanno Memorial Volume, p. 374-375, pl. 46, figs. 2a-b

Paratype: JAPEX Km-5034 (28)

Km-5034, 15 meter thick diatomite bed in the tuffaceous siltstone cropping out in the northern side of the railroad cut of the Tenpoku Line leading from Wakkanai to Onishibetsu along the Uruyagawa River, about 1.3 km east of Magarifuchi station, Wakkanai City, Hokkaido, Japan (45 ° 15'38"N, 141 ° 54'57"E)

Masuporo Formation

Middle Miocene

***Kannoa japonica* Komura, 1980**

Professor Saburo Kanno Memorial Volume, p. 374-375, pl. 46, figs. 3a-b

Paratype: JAPEX Km-5034 (13)

Km-5034, 15 meter thick diatomite bed in the tuffaceous siltstone cropping out in the northern side of the railroad cut of the Tenpoku Line leading from Wakkanai to Onishibetsu along the Uruyagawa River, about 1.3 km east of Magarifuchi station, Wakkanai City, Hokkaido, Japan (45 ° 15'38"N, 141 ° 54'57"E)

Masuporo Formation

Middle Miocene

***Kannoa japonica* Komura, 1980**

Professor Saburo Kanno Memorial Volume, p. 374-375, pl. 46, fig. 4

Paratype: JAPEX Km-5034 (8)

Km-5034, 15 meter thick diatomite bed in the tuffaceous siltstone cropping out in the northern side of the railroad cut of the Tenpoku Line leading from Wakkanai to Onishibetsu along the Uruyagawa River, about 1.3 km east of Magarifuchi station, Wakkanai City, Hokkaido, Japan (45 ° 15'38"N, 141 ° 54'57"E)

Masuporo Formation

Middle Miocene

***Kannoa japonica* Komura, 1980**

Professor Saburo Kanno Memorial Volume, p. 374-375, pl.

46, fig. 7

Paratype: JAPEX Km-5034 (6)

Km-5034, 15 meter thick diatomite bed in the tuffaceous siltstone cropping out in the northern side of the railroad cut of the Tenpoku Line leading from Wakkanai to Onishibetsu along the Uruyagawa River, about 1.3 km east of Magarifuchi station, Wakkanai City, Hokkaido, Japan (45 ° 15'38"N, 141 ° 54'57"E)

Masuporo Formation

Middle Miocene

***Kannoa japonica* Komura, 1980**

Professor Saburo Kanno Memorial Volume, p. 374-375, pl. 46, fig. 8

Paratype: JAPEX Km-5034 (6)

Km-5034, 15 meter thick diatomite bed in the tuffaceous siltstone cropping out in the northern side of the railroad cut of the Tenpoku Line leading from Wakkanai to Onishibetsu along the Uruyagawa River, about 1.3 km east of Magarifuchi station, Wakkanai City, Hokkaido, Japan (45 ° 15'38"N, 141 ° 54'57"E)

Masuporo Formation

Middle Miocene

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, pl. 41, fig. 1, Abb. 5, fig. 1

Holotype: MPC-02546

Gray sandy claystone, a cliff at north riverside of the Furenbetsugawa River, 3.6 km south of Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 ° 33'12"N, 141 ° 49'45"E)

Kotanbetsu Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, pl. 41, fig. 3, Abb. 5, fig. 5

Paratype: JAPEX Fj-2730 (6)

Gray sandy claystone, Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 ° 33'12"N, 141 ° 49'45"E)

Kotanbetsu Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, pl. 41, fig. 2, Abb. 5, figs. 6a-b

Paratype: JAPEX Fj-2730 (13)

Gray sandy claystone, Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 °33'12"N, 141 °49'45"E)
Kotanbetsu Formation
Middle Miocene
[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, pl. 41, fig. 4, Abb. 5, fig. 3
Paratype: JAPEX Fj-2730 (11)
Gray sandy claystone, Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 °33'12"N, 141 °49'45"E)
Kotanbetsu Formation
Middle Miocene
[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, Abb. 5, fig. 2
Paratype: JAPEX Fj-2730 (3)
Gray sandy claystone, Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 °33'12"N, 141 °49'45"E)
Kotanbetsu Formation
Middle Miocene
[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, Abb. 5, fig. 4
Paratype: JAPEX Fj-2730 (6)
Gray sandy claystone, Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 °33'12"N, 141 °49'45"E)
Kotanbetsu Formation
Middle Miocene
[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, Abb. 5, fig. 7
Paratype: JAPEX Fj-2730 (14)
Gray sandy claystone, Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 °33'12"N, 141 °49'45"E)
Kotanbetsu Formation
Middle Miocene
[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc.

Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia aspera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 385-386, Abb. 5, fig. 8
Paratype: JAPEX Fj-2730 (3)
Gray sandy claystone, Toyosaki, Shosanbetsu Village, Hokkaido, Japan (44 °33'12"N, 141 °49'45"E)
Kotanbetsu Formation
Middle Miocene
[Probably an initial valve of *Denticulopsis miocenica* (Schrader) Simonsen, 1979: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Katahiraia oblonga* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 386-387, pl. 41, fig. 6, Abb. 6, fig. 1
Holotype: MPC-02547
Dark gray claystone, a sea cliff about 0.9 km south of Utakoshi, Enbetsu Town, Hokkaido, Japan (44 °37'47"N, 141 °47'44"E)
Mochikubetsu Formation
Early Pleistocene
[Probably an initial valve of *Denticulopsis hyalina* (Schrader) Simonsen, 1979 or *D. praehyalina* Tanimura, 1989 or *D. tanimurae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 332-334]

***Katahiraia oblonga* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 386-387, Abb. 6, fig. 2
Paratype: JAPEX Km-5152 (7)
Gray fine-grained sandstone, Utakoshi, Enbetsu Town, Hokkaido, Japan (44 °37'41"N, 141 °47'41"E)
Mochikubetsu Formation
Early Pleistocene
[Probably an initial valve of *Denticulopsis hyalina* (Schrader) Simonsen, 1979 or *D. praehyalina* Tanimura, 1989 or *D. tanimurae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 332-334]

***Katahiraia oblonga* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 386-387, Abb. 6, fig. 3
Paratype: JAPEX Km-5158 (4)
Gray sandy claystone, Utakoshi, Enbetsu Town, Hokkaido, Japan (44 °37'14"N, 141 °47'40"E)
Enbetsu Formation
Pliocene
[Probably an initial valve of *Denticulopsis hyalina* (Schrader) Simonsen, 1979 or *D. praehyalina* Tanimura, 1989 or *D. tanimurae* Yanagisawa & Akiba, 1990:

Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 332-334]

***Katahiraia oblonga* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 386-387, Abb. 6, fig. 4

Paratype: JAPEX Km-5151(2)

Dark gray claystone, Utakoshi, Enbetsu Town, Hokkaido, Japan (44 °37'47"N, 141 °47'44"E)

Mochikubetsu Formation

Early Pleistocene

[Probably an initial valve of *Denticulopsis hyalina* (Schrader) Simonsen, 1979 or *D. praehyalina* Tanimura, 1989 or *D. tanimurae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 332-334]

***Katahiraia pauperata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 387-388, pl. 41, fig. 7, Abb. 7

Holotype: MPC-02548

Gray sandy siltstone, a sea cliff about 0.5 km south of Utakoshi, Enbetsu Town, Hokkaido, Japan (44 °37'58"N, 141 °47'45"E)

Mochikubetsu Formation

Early Pleistocene

[Probably an initial valve of *Denticulopsis hyalina* (Schrader) Simonsen, 1979 or *D. praehyalina* Tanimura, 1989 or *D. tanimurae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 332-334]

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Pl. 24, figs. 1a-1c; Abb. 2, fig. 1

Holotype: MPC-02553

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Pl. 24, figs. 2a, 2b; Abb. 2, fig. 2

Paratype: JAPEX Fo-11 (31)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Pl. 24, figs. 3a, 3b; Abb. 2, fig. 6

Paratype: JAPEX Fo-11 (23)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Pl. 24, figs. 4a, 4b

Paratype: JAPEX Fo-11 (25)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Pl. 24, fig. 5

Paratype: JAPEX Fo-11 (14)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Pl. 24, figs. 6a, 6b

Paratype: JAPEX Fo-11 (34)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Pl. 24, fig. 7; Abb. 2, fig. 3

Paratype: JAPEX Fo-11 (40)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Abb. 2, figs. 4a, 4b

Paratype: JAPEX Fo-11 (70)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45 °5'14"N, 141 °19'17"E)

Koitoi Formation

Pliocene

***Kidoda graviarmata* Komura, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 116, p. 176-177, Abb. 2, fig. 5

Paratype: JAPEX Fo-11 (68)

Gray diatomite, 3.8 km east of Toyotomi, Toyotomi Town, Hokkaido, Japan (45° 5' 14" N, 141° 19' 17" E)
Koitoi Formation
Pliocene

***Kisseleviella ezoensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440, pl. 19, fig. 16
Holotype: Hustedt coll. No. Zu3/19
JDS-8482, an outcrop in the vicinity of Ikuchise (1/25,000: "Tofutsu"), Urahoro Town, Hokkaido, Japan (42° 52' 13" N, 143° 36' 44" E)
Tokiwa Formation
Early Miocene

***Kisseleviella ezoensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440, pl. 19, fig. 15
Paratype: Hustedt coll. No. Zu3/19
JDS-8482, an outcrop in the vicinity of Ikuchise (1/25,000: "Tofutsu"), Urahoro Town, Hokkaido, Japan (42° 52' 13" N, 143° 36' 44" E)
Tokiwa Formation
Early Miocene

***Kisseleviella magnaareolata* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 495-496, pl. 38, fig. 10
Holotype: Hustedt coll. No. Zu3/17
JDS-10649, a calcareous concretion collected in the Choja-gawa River, Wada Town, Boso Peninsula, Chiba Prefecture, Japan (35° 3' 42" N, 140° 1' 54" E)
Takatsuru Formation
Late Oligocene?
[Sample locality is shown in Suzuki et al. 1996, Jour. Geol. Soc. Japan, 102, 1068-1071.]

***Kisseleviella magnaareolata* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 495-496, pl. 38, fig. 15
Paratype: Hustedt coll. No. Zu3/18
JDS-10649, a calcareous concretion collected in the Choja-gawa River, Wada Town, Boso Peninsula, Chiba Prefecture, Japan (35° 3' 42" N, 140° 1' 54" E)
Takatsuru Formation
Late Oligocene?
[Sample locality is shown in Suzuki et al. 1996, Jour. Geol. Soc. Japan, 102, 1068-1071.]

***Koizumia akibae* Yanagisawa, 1993**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 176, p. 604-606, fig. 8-9
Holotype: GSJ F14590
DSDP Hole 438A, 50-6, 20-24 cm, off Hachinohe, northwest Pacific Ocean (40° 37.79' N, 143° 14.15' E)
Late Miocene

***Lomonycus rotatus* Komura, 1996**

Diatom, vol. 12, p. 10-12, fig. 18
Holotype: MPC-05055
Km-5901 (56), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04' 15" N, 140° 05' 44" E)
Nabuto Formation
Early Miocene
[*Thalassiosira fraga* Schrader in Schrader & Fenner, 1976, Init. Rep. DSDP, vol. 38, p. 1001]

***Mediaria magna* Yanagisawa, 1994**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 176, p. 412-417, fig. 3-1
Holotype: GSJ F14585
Mzn 06, a small road-cut cliff near Shukunohora, Mizunami City, Gifu Prefecture, Japan (35° 24' 31.22" N, 137° 16' 17.8" E)
Oidawara Formation, Mizunami Group
Middle Miocene

***Melosira granulata* f. *delicatula* Okuno, 1958**

Jour. Jap. Botany, vol. 33, p. 3-4, pl. 2, fig. i
Holotype: registered number not described
Abura, Setana Town, Hokkaido, Japan
Diatomaceous earth
Early Miocene
[It should be assigned to the genus *Aulacoseira*]

***Melosira granulata* var. *robusta* Okuno, 1964**

Diatomeenschalen im Elektronenmikroskopischen Bild, vol. 5, p. 13, pl. 415
Holotype: Okuno, Prep. no. 1251
Diatomaceous earth about 5 m thick, 340 m above sea-level, at Yagimaki, Yamautsuri, Yabakei Town, Oita Prefecture, Japan
Yamautsuri deposit (fresh water)
Middle Pleistocene
[It should be assigned to the genus *Aulacoseira*]

***Navicula maculata* var. *acuta* Okuno, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 21, p. 134, pl. 22, figs. 3a, 3b
Holotype: Specimen no. m853-6, E350
Diatomaceous earth, an outcrop about 15 miles south of Fallon Town, Churchill County, Nevada, U. S. A.
Fallon deposit
Late Miocene or Early Pliocene
[Exact locality was corrected in Okuno (1958, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 31, p.242.)]

***Navicula maculata* var. *gigantea* Okuno, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 21, p. 134, pl. 22, figs. 5a-c

Holotype: Specimen no. m853-6, E364
 Diatomaceous earth, an outcrop about 15 miles south of Fallon Town, Churchill County, Nevada, U. S. A.
 Fallon deposit
 Late Miocene or Early Pliocene
 [Exact locality was corrected in Okuno (1958, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 31, p.242.)]

***Navicula maculata* var. *inflata* Okuno, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 21, p. 134, pl. 22, figs. 4a-c
 Holotype: Specimen no. m853-6, E237
 Diatomaceous earth, an outcrop about 15 miles south of Fallon Town, Churchill County, Nevada, U. S. A.
 Fallon deposit
 Late Miocene or Early Pliocene
 [Exact locality was corrected in Okuno (1958, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 31, p.242.)]

***Navicula setanaensis* Okuno, 1959**

Jour. Jap. Botany, vol. 34, p. 354-355, fig. 2a
 Holotype: registered number not described
 Abura, Setana Town, Hokkaido, Japan
 Diatomaceous earth
 Early Miocene

***Neodenticula koizumii* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 491, pl. 21, fig. 28
 Holotype: Hustedt coll. No. Zu3/23
 JDS-8629, an outcrop along the Atsunai coast (1/25,000: "Atsunai"), Urahoro Town, Atsunai area, Hokkaido, Japan (42° 49'26"N, 143° 51'47"E)
 Shiranuka Formation
 Late Pliocene

***Neodenticula koizumii* Akiba & Yanagisawa, 1986**

Init. Rep. DSDP, vol. 87, p. 491, pl. 21, fig. 27
 Paratype: JDS-8629 (b) deposited in JAPEX Collection
 JDS-8629, an outcrop along the Atsunai coast (1/25,000: "Atsunai"), Urahoro Town, Atsunai area, Hokkaido, Japan (42° 49'26"N, 143° 51'47"E)
 Shiranuka Formation
 Late Pliocene

***Nitzschia suikoensis* Koizumi, 1980**

Init. Rep. DSDP, vol. 55, p. 394, pl. 1, figs. 3, 4
 Holotype: Slide no. 3659
 DSDP Hole 433A, 5-5, 8-11 cm, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44° 46.60'N, 170° 01.26'E)
 Late Miocene

***Nitzschia suikoensis* Koizumi, 1980**

Init. Rep. DSDP, vol. 55, p. 394, pl. 1, figs. 1, 2

Paratype: Slide no. 3679
 DSDP Hole 433A, 6-6, 8-11 cm, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44° 46.60'N, 170° 01.26'E)
 Late Miocene

***Nitzschia umaoiensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440, pl. 23, fig. 1
 Holotype: Hustedt coll. No. Zu3/20
 JDS-3664, an outcrop in the vicinity of Furusan Pond (1/25,000: "Mikasa"), Yuni Town, Hokkaido, Japan (42° 59'6"N, 141° 45'48"E)
 Yuni Formation
 Middle Miocene

***Nitzschia umaoiensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440, pl. 23, fig. 2
 Paratype: Hustedt coll. No. Zu3/20
 DS-3664, an outcrop in the vicinity of Furusan Pond (1/25,000: "Mikasa"), Yuni Town, Hokkaido, Japan (42° 59'6"N, 141° 45'48"E)
 Yuni Formation
 Middle Miocene

***Odontella sawamurae* Akiba, 1996**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 63, p. 118-119, pl. 2, fig. 15
 Holotype: MPC-05053
 JDS-19447 (1), Tsubetsu Town, Hokkaido, Japan (43° 41'N, 143° 54.5'E)
 Tatsukobu Formation
 Late Oligocene

***Odontella sawamurae* Akiba, 1996**

Sci. Rep. Tohoku Univ., 3rd Ser. (Geol.), vol. 63, p. 118-119, pl. 2, fig. 12
 Isotype: MPC-05053
 JDS-19447 (1), Tsubetsu Town, Hokkaido, Japan (43° 41'N, 143° 54.5'E)
 Tatsukobu Formation
 Late Oligocene

***Oshitea longelanceolata* Komura, 1993**

Diatom, vol. 8, p. 12-13, fig. 3-1
 Holotype: MPC-02557
 Km-5901 (18), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04'15"N, 140° 05'44"E)
 Nabuto Formation
 Early Miocene

***Oshitea miniprolongata* Komura, 1993**

Diatom, vol. 8, p. 13-14, fig. 3-7a

Holotype: MPC-02558

Km-5901 (9), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation
Early Miocene

***Paleopandorus pergracilis* Komura, 1996**

Diatom, vol. 12, p. 14-16, fig. 29

Holotype: MPC-05056

Km-5901 (225), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation
Early Miocene

***Parodontella clavifera* Komura, 1999**

Diatom, vol. 15, p. 68-71, fig. 10

Holotype: MPC-01654

Km-5901 (50), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation
Early Miocene

***Parodontella obliqua* Komura, 1999**

Diatom, vol. 15, p. 64-68, fig. 17

Holotype: MPC-01653

Km-5901 (575), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation
Early Miocene

***Parodontella paucispinosa* Komura, 1999**

Diatom, vol. 15, p. 63-64, fig. 15

Holotype: MPC-01652

Km-5901 (576), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation
Early Miocene

***Pinnularia higoensis* Okuno, 1955**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 19, p. 56, pl. 9, figs. 2a-c

Holotype: Specimen no. 1543, E260

Diatomite, Nishise Village, Kuma County, Kumamoto Prefecture, Japan

Diatomite (fresh water)

Pleistocene

***Plurifenestra cruciata* Komura, 1996**

Diatom, vol. 12, p. 44-45, fig. 6

Holotype: MPC-05057

Km-5901 (77), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation
Early Miocene

***Plurifenestra maxima* Komura, 1996**

Diatom, vol. 12, p. 45-46, fig. 7

Holotype: MPC-05058

Km-5901 (186), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation
Early Miocene

***Pseudopodosira kosugii* Tanimura & Sato, 1997**

Diatom Research, vol. 12, p. 358-360, figs. 7a, b

Holotype: MPC-05066

Obitsu-gawa (a salt pond at the river mouth), Kuroto, Kisarazu City, Chiba Prefecture, Japan
Holocene

***Rhaphoneis tatsunokuchiensis* Koizumi, 1972**

Trans. Proc. Palaeont. Soc. Japan N. S., no. 86, p. 349, pl. 42, fig. 4

Holotype: Slide no. 6717 (England finder T44-4)

Loc. no. Tomioka 36, Namikura, Tomioka Town, Fukushima Prefecture, Japan

Tatsunokuchi Formation (Dainenji Formation)
Late Pliocene

[*Koizumia tatsunokuchiensis* (Koizumi) Yanagisawa, 1994,

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 176, p. 606-612]

***Rhaphoneis tatsunokuchiensis* Koizumi, 1972**

Trans. Proc. Palaeont. Soc. Japan N. S., no. 86, p. 349, pl. 42, fig. 3

Paratype: Slide no. 7107 (England finder U33-OW)

Loc. no. Okuma 2-3, Okuma Town, Fukushima Prefecture, Japan

Tatsunokuchi Formation (Dainenji Formation)
Late Pliocene

[*Koizumia tatsunokuchiensis* (Koizumi) Yanagisawa, 1994,

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 176, p. 606-612]

***Rhizosolenia hotaense* Akiba, 1980**

Bull. Tech. Lab. JAPEX, vol. 23, p. 90-91, pl. 4, fig. 57

Holotype: JDS-8789 (6) (England finder O41-3) deposited in JAPEX
 JDS-8789 (7150401c), Yokone, Hota, Kyonan Town, Chiba Prefecture, Japan (35° 8' 12" N, 139° 38' 7" E)
 Okuyama Formation, Sakuma Group
 Early Miocene

***Rhizosolenia hotaense* Akiba, 1980**

Bull. Tech. Lab. JAPEX, vol. 23, p. 90-91, pl. 4, fig. 56
 Paratype: JDS-8789 (6) (England finder M44-4) deposited in JAPEX
 JDS-8789 (7150401c), Yokone, Hota, Kyonan Town, Chiba Prefecture, Japan (35° 8' 12" N, 139° 38' 7" E)
 Okuyama Formation, Sakuma Group
 Early Miocene

***Rossiella fennerae* Yanagisawa, 1993**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 177, p. 8-9, fig. 4-9
 Holotype: GSJ F12783
 DSDP Hole 71, 37-5, 87-89 cm, eastern equatorial Pacific Ocean (4° 28.28' N, 140° 18.91' W)
 Middle Miocene

***Rossiella fourtanierae* Yanagisawa, 1995**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 177, p. 9-11, fig. 4-9
 Holotype: GSJ F14592
 DSDP Hole 71, 36-6, 79-80 cm, eastern equatorial Pacific Ocean (4° 28.28' N, 140° 18.91' W)
 Early Miocene

***Rouxia fusiformis* Tsumura, 1967**

Jour. Yokohama City Univ., ser. C-51, vol. 168, p. 19, pl. 3, figs. 6, 7
 Holotype: SS-No. 3874-a (whether this denotes either fig. 6 or fig. 7 is not designated.)
 McKitterick, California, U. S. A.
 Middle Miocene?

***Rouxiopsis bipartita* Komura, 1996**

Diatom, vol. 12, p. 50-51, fig. 15
 Holotype: MPC-05062
 Km-5901 (213), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04' 15" N, 140° 05' 44" E)
 Nabuto Formation
 Early Miocene

***Sagittula transversaria* Komura, 1997**

Diatom, vol. 13, p. 65-67, fig. 5
 Holotype: MPC-05068
 Km-5901 (296), calcareous nodule, tidal flat about 1 km

southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04' 15" N, 140° 05' 44" E)
 Nabuto Formation
 Early Miocene

***Sawamuraia biseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 382-383, pl. 40, fig. 1, Abb. 2-fig. 1
 Holotype: MPC-02543
 Hard siltstone at a sea cliff, Sakanoshita, Wakkanai City, Hokkaido, Japan (45° 15' 38" N, 141° 39' 29" E)
 Wakkanai Formation
 Middle Miocene ~ Early Pleistocene

***Sawamuraia biseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 382-383, Abb. 2, figs. 5a-b
 Paratype: JAPEX Km-5034 (19)
 White tuffaceous siltstone, Magarifuchi, Wakkanai City, Hokkaido, Japan (44° 15' 38" N, 141° 54' 57" E)
 Masuporo Formation
 Middle Miocene

***Sawamuraia biseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 382-383, Abb. 2, fig. 3
 Paratype: JAPEX Km-5356 (5)
 Dark gray tuffaceous siltstone, Magarifuchi, Wakkani City, Hokkaido, Japan (44° 15' 18" N, 141° 55' 43" E)
 Onishibetsu Formation
 Middle Miocene

***Sawamuraia biseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 382-383, Abb. 2, fig. 2
 Paratype: JAPEX Fo-11 (12)
 Gray diatomite, Toyotomi Town, Hokkaido, Japan (45° 5' 14" N, 141° 19' 17" E)
 Koitai Formation
 Pliocene

***Sawamuraia biseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 382-383, Abb. 2, fig. 4
 Paratype: JAPEX Fo-11 (16)
 Gray diatomite, Toyotomi Town, Hokkaido, Japan (45° 5' 14" N, 141° 19' 17" E)
 Koitai Formation
 Pliocene

***Sawamuraia multibullata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 383-384, pl. 40, fig. 4, Abb. 4, fig. 1

Holotype: MPC-02545

Gray diatomite, an outcrop about 3.8 km south of Toyotomi, Toyotomi Town, Hokkaido, Japan (45° 5'14"N, 141° 19'17"E)
Koitoi Formation
Pliocene

***Sawamuraia multibullata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 383-384, pl. 40, fig. 5, Abb. 4, fig. 2
Paratype: JAPEX Fo-11 (11)
Gray diatomite, Toyotomi Town, Hokkaido, Japan (45° 5'14"N, 141° 19'17"E)
Koitoi Formation
Pliocene

***Sawamuraia quadriseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 383, pl. 40, fig. 2, Abb. 3, fig. 1
Holotype: MPC-02544
Gray fine-grained sandstone, a sea cliff about 1.3 km north of Shosanbetsu, Shosanbetsu Town, Hokkaido, Japan (44° 37'32"N, 141° 47'42"E)
Mochikubetsu Formation
Early Pleistocene

***Sawamuraia quadriseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 383, pl. 40, fig. 3, Abb. 3, fig. 3
Paratype: JAPEX Km-3519 (11)
Gray diatomite, Wakkani, Wakkanai City, Hokkaido, Japan (44° 23'36"N, 141° 41'22"E)
Koitoi Formation
Pliocene

***Sawamuraia quadriseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 383, Abb. 3, fig. 4
Paratype: JAPEX Fo-11 (16)
Gray diatomite, Toyotomi Town, Hokkaido, Japan (45° 5'14"N, 141° 19'17"E)
Koitoi Formation
Pliocene

***Sawamuraia quadriseriata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 383, Abb. 3, fig. 2
Paratype: JAPEX Fo-11 (1)
Gray diatomite, Toyotomi Town, Hokkaido, Japan (45° 5'14"N, 141° 19'17"E)
Koitoi Formation
Pliocene

***Siphonodiscus polysiphoninus* Komura, 1996**

Diatom, vol. 12, p. 49-50, fig. 13

Holotype: MPC-05061

Km-5901 (82), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04'15"N, 140° 05'44"E)
Nabuto Formation
Early Miocene

***Spumorbis annulifer* Komura, 1998**

Diatom, vol. 14, p. 5-6, fig. 17
Holotype: MPC-05074
Km-5901 (362), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04'15"N, 140° 05'44"E)
Nabuto Formation
Early Miocene

***Spumorbis fasciculatus* Komura, 1998**

Diatom, vol. 14, p. 4-5, fig. 14
Holotype: MPC-05073
Km-5901 (371), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04'15"N, 140° 05'44"E)
Nabuto Formation
Early Miocene

***Spumorbis tenuispumosus* Komura, 1998**

Diatom, vol. 14, p. 2-4, fig. 3
Holotype: MPC-05072
Km-5901 (354), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35° 04'15"N, 140° 05'44"E)
Nabuto Formation
Early Miocene

***Stelodiscus obscurus* Komura, 2001**

Diatom, vol. 17, p. 70-74, Fig. 1
Holotype: MPC-04131
Km-5912 (66), calcareous nodule from one of the serial rocky shoals submerged beneath the upper tidal level along the sand beach, Morito, Hayama Town, Kanagawa Prefecture, Japan (35° 16'06"N, 139° 34'24"E)
Morito Formation
Early Miocene

***Stephanodiscus komoroensis* Tanaka, 2000**

Diatom Research, vol. 15, p. 150-155, figs. 2, 3
Holotype: MPC-05078
OKU-101, Ohkui, Komoro City, Nagano Prefecture, Japan
Uryuzaka Formation
Early Pleistocene

***Stephanogonia hanzawae* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 118-119, pl. 11, figs. 3a, 3b

Holotype: IGPS coll. cat. no. 76697

IGPS loc. no. Ak-48-5. A road-side cutting (north side) west of Hirasawa Village, along the road from Yunoshiri to Hitake, Hirasawa (Nishikurosawa), Oga City, Akita Prefecture, Japan (39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa Formation
Middle Miocene

***Stephanogonia hanzawae* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 118-119, pl. 11, figs. 4a, 4b

Paratype: IGPS coll. cat. no. 76698

IGPS loc. no. Ak-48-5. A road-side cutting (north side) west of Hirasawa Village, along the road from Yunoshiri to Hitake, Hirasawa (Nishikurosawa), Oga City, Akita Prefecture, Japan (39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa Formation
Middle Miocene

***Stephanogonia hanzawae* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 118-119, pl. 11, figs. 5a, 5b

Paratype: IGPS coll. cat. no. 76699

IGPS loc. no. Ak-48-5. A road-side cutting (north side) west of Hirasawa Village, along the road from Yunoshiri to Hitake, Hirasawa (Nishikurosawa), Oga City, Akita Prefecture, Japan (39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa Formation
Middle Miocene

***Stephanogonia hanzawae* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 118-119, pl. 11, figs. 6a, 6b

Paratype: IGPS coll. cat. no. 76700

IGPS loc. no. Ak-48-5. A road-side cutting (north side) west of Hirasawa Village, along the road from Yunoshiri to Hitake, Hirasawa (Nishikurosawa), Oga City, Akita Prefecture, Japan (39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa Formation
Middle Miocene

***Stephanogonia hanzawae* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 118-119, pl. 11, fig. 7

Paratype: IGPS coll. cat. no. 76701

IGPS loc. no. Ak-48-5. A road-side cutting (north side) west of Hirasawa Village, along the road from Yunoshiri to Hitake,

Hirasawa (Nishikurosawa), Oga City, Akita Prefecture, Japan (39°58'39"N, 139°43'57"E)

Hirasawa Diatomaceous Mudstone Member, Onnagawa Formation
Middle Miocene

***Stephanonycites tabularis* Komura, 1999**

Diatom, vol. 15, p. 39-42, fig. 33

Holotype: MPC-01646

Km-5901 (427), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation
Early Miocene

***Stephanonycites variegatus* Komura, 1999**

Diatom, vol. 15, p. 33-37, fig. 22

Holotype: MPC-01645

Km-5901 (390), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation
Early Miocene

***Stephanopyxis horridus* Koizumi, 1972**

Trans. Proc. Palaeont. Soc. Japan N. S., no. 86, p. 348-349, pl. 42, figs. 2a, 2b

Holotype: Slide no. 7145 (England finder J48-ON)

Loc. no. Odaka 1-1, Tsukabara, Odaka Town, Fukushima Prefecture, Japan

Tatsunokuchi Formation (Dainenji Formation)
Late Pliocene

***Stephanopyxis horridus* Koizumi, 1972**

Trans. Proc. Palaeont. Soc. Japan N. S., no. 86, p. 348-349, pl. 42, figs. 1a, 1b

Paratype: Slide no. 7123 (England finder T44-OE)

Loc. no. Isobe 9-1, Isobe, Soma City, Fukushima Prefecture, Japan

Tatsunokuchi Formation (Dainenji Formation)
Late Pliocene

***Stephanopyxis schenckii* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 67-69, pl. 2, figs. 2a, 2b

Holotype: IGPS coll. cat. no. 76706

IGPS loc. no. Ao-12. A west cliff of the Tochinai-gawa River, 1625 m N62E from Omori Hill, 50 m downstream from the bridge, Shimizu-mura, Hirosaki City, Aomori Prefecture, Japan (40°33'48"N, 140°24'40.4"E)

Owasawa Formation
Middle Miocene

***Stephanopyxis schenckii* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 67-69, pl. 2, figs. 3a, 3b

Paratype: IGPS coll. cat. no. 76707

IGPS loc. no. Ao-12. A west cliff of the Tochinai-gawa River, 1625 m N62E from Omori Hill, 50 m downstream from the bridge, Shimizu-mura, Hirosaki City, Aomori Prefecture, Japan (40°33'48"N, 140°24'40.4"E)

Owasawa Formation

Middle Miocene

***Stephanopyxis schenckii* Kanaya, 1959**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 30, p. 67-69, pl. 2, figs. 4a, 4b

Paratype: IGPS coll. cat. no. 76708

IGPS loc. no. Ao-12. A west cliff of the Tochinai-gawa River, 1625 m N62E from Omori Hill, 50 m downstream from the bridge, Shimizu-mura, Hirosaki City, Aomori Prefecture, Japan (40°33'48"N, 140°24'40.4"E)

Owasawa Formation

Middle Miocene

***Stictolecanon geminum* Komura, 1999**

Diatom, vol. 15, p. 46, fig. 43

Holotype: MPC-01648

Km-5901 (388), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Stictolecanon papillatum* Komura, 1999**

Diatom, vol. 15, p. 42-46, fig. 25

Holotype: MPC-01647

Km-5901 (389), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Streptommion torsivum* Komura, 1997**

Diatom, vol. 13, p. 63-65, fig. 3

Holotype: MPC-05067

Km-5901 (303), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Stylorium alticolle* Komura, 1999**

Diatom, vol. 15, p. 58-60, fig. 4

Holotype: MPC-01651

Km-5901 (582), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Stylorium truncatum* Komura, 1999**

Diatom, vol. 15, p. 54-58, fig. 3

Holotype: MPC-01650

Km-5901 (167), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Tetracyclus celatom* Okuno, 1958**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 31, p. 240, pl. 35, figs. 3a-d

Holotype: Specimen no. 1726

Crude diatomite "Celatom OD-100" in the lower bed sent by Mr. P. M. Parker of the Eagle-Pitcher Company, Nevada, U. S. A.

Miocene

[Exact locality and formation name are unknown]

***Tetracyclus ellipticus* f. *apiculata* Okuno, 1959**

Jour. Jap. Botany, vol. 34, p. 28, fig. 1k

Holotype: registered number not described

Abura, Setana Town, Hokkaido, Japan

Diatomaceous earth

Early Miocene

***Thalassionema schraderi* Akiba, 1982**

Bacillaria, vol. 5, p. 50-52, pl. 1, fig. 7

Holotype: Hustedt coll. No. Zu2/82

JDS-5239, an outcrop in the vicinity of Takko (1/25,000: "Kamitomai"), Takko Town, Ninohe area, Aomori Prefecture, Japan (40°19'59"N, 141°7'54"E)

Kubo Formation

Late Miocene

***Thalassionema schraderi* Akiba, 1982**

Bacillaria, vol. 5, p. 50-52, pl. 1, fig. 10

Paratype: JDS-5239 (1) deposited in JAPEX Collection

JDS-5239, an outcrop in the vicinity of Takko (1/25,000: "Kamitomai"), Takko Town, Ninohe area, Aomori Prefecture, Japan (40°19'59"N, 141°7'54"E)

Kubo Formation

Late Miocene

***Thalassiosira bipora* Shiono, 2000**

Diatom Research, vol. 15, p. 139-143, figs. 25-27
 Holotype: The Hokkaido University Museum, UHR-32427, England Finder J48-3C
 ODP Hole 797B, 15-1, 41-42 cm, Japan Sea (38°36'94"N, 134°32'16"E)
 Late Pliocene

***Thalassiosira bipora* f. *marginata* Shiono, 2001**

Jour. Geol. Soc. Japan, vol. 107, p. 501, pl. 1, fig. 2
 Holotype: MPC-04065, England Finder P34-3NNE
 DSDP Hole 579A, 14-5, 102-103 cm, northwest Pacific Ocean (38°37'61"N, 153°50'28"E)
 Early Pliocene

***Thalassiosira bipora* f. *minima* Shiono, 2001**

Jour. Geol. Soc. Japan, vol. 107, p. 500-501, pl. 1, fig. 3
 Holotype: MPC-04064, England Finder P44-3SE
 DSDP Hole 580, 3-5, 25-26 cm, northwest Pacific Ocean (41°37'47"N, 153°58'58"E)
 Pleistocene

***Thalassiosira bipora* f. *prima* Shiono, 2001**

Jour. Geol. Soc. Japan, vol. 107, p. 501, pl. 3, fig. 8
 Holotype: MPC-04066, England Finder P40-3E
 ODP Hole 797B, 22-4, 38-39 cm, Japan Sea (38°36'94"N, 134°32'16"E)
 Early Pliocene

***Thalassiosira borealis* Koizumi, 1980**

Init. Rep. DSDP, vol. 55, p. 395-396, pl. 1, fig. 7
 Holotype: Slide no. 3669
 DSDP Hole 433A, 6-3, 8-10 cm, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44°46.60'N, 170°01.26'E)
 Late Miocene

[*Thalassiosira marujamica* Sheshukova, 1959]***Thalassiosira borealis* Koizumi, 1980**

Init. Rep. DSDP, vol. 55, p. 395-396, pl. 1, fig. 8
 Paratype: Slide no. 3659
 DSDP Hole 433A, 5-5, 8-10 cm, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44°46.60'N, 170°01.26'E)
 Late Miocene
[*Thalassiosira marujamica* Sheshukova, 1959]

***Thalassiosira californica* Tanimura, 1996**

Diatom Research, vol. 11, p. 173, figs. 2a, b
 Holotype: MPC-04964
 DSDP Hole 173, 18-5, 121-122 cm, the continental slope off Cape Mendocino at water depth of 2,927 m, off California, northeast Pacific Ocean (39°57.71'N, 125°27.12'W)
 Late Miocene

***Thalassiosira castanea* Akiba & Yanagisawa, 1998**

Bull. Geol. Surv. Japan, vol. 49, p. 180, pl. 1, figs. 1a-d
 Holotype: GSJ F15031
 DSDP Hole 438A, 40-6, 10-14 cm, off Hachinohe, northwest Pacific Ocean (40°37.79'N, 143°14.15'E)
 Late Miocene

***Thalassiosira castanea* Akiba & Yanagisawa, 1998**

Bull. Geol. Surv. Japan, vol. 49, p. 180, pl. 1, figs. 4a-b
 Paratype: GSJ F15032
 DSDP Hole 438A, 41-3, 45-49 cm, off Hachinohe, northwest Pacific, Japan (40°37.79'N, 143°14.15'E)
 Late Miocene

***Thalassiosira centra* Shiono, 2000**

Diatom Research, vol. 15, p. 132-135, figs. 1, 2
 Holotype: The Hokkaido University Museum, UHR-32429, England Finder S30-2C
 ODP Hole 797B, 18-2, 39-40 cm, Japan Sea (38°36'94"N, 134°32'16"E)
 Late Pliocene

***Thalassiosira depressa* Shiono, 2000**

Diatom Research, vol. 15, p. 135-139, fig. 13
 Holotype: Hokkaido Univ., Slide DSDP 580-8-4, 22-23 cm, England Finder V55-2SW
 DSDP Hole 580, 8-4, 22-23 cm, northwest Pacific Ocean (41°37'47"N, 153°58'58"E)
 Pleistocene

***Thalassiosira exceptiuncula* Shiono, 2001**

Diatom Research, vol. 16, p. 84-86, figs. 1, 2
 Holotype: MPC-04069, England Finder O41-3N
 ODP Hole 797B, 12-5, 109-110 cm, northwest Pacific Ocean (38°36'94"N, 134°32'16"E)
 Late Pliocene

***Thalassiosira exceptiuncula* Shiono, 2001**

Diatom Research, vol. 16, p. 84-86, figs. 3, 4
 Paratype: MPC-04069, England Finder G32-2C
 ODP Hole 797B, 12-5, 109-110 cm, Japan Sea (38°36'94"N, 134°32'16"E)
 Late Pliocene

***Thalassiosira fasciculata* Harwood & Maruyama, 1992**

Proc. ODP, Sci. Results, vol. 120, p. 683-733, pl. 15, fig. 5
 Holotype: USNM Coll. 458229
 ODP Hole 751A, 2H-3, 105-106 cm, Kerguelen Plateau, Indian sector, Southern Ocean (57°43.56'S, 79°48.89'W)
 Middle Pliocene

***Thalassiosira fasciculata* Harwood & Maruyama, 1992**

Proc. ODP, Sci. Results, vol. 120, p. 683-733, pl. 15, fig. 6
 Paratype: USNM Coll. 458230

ODP Hole 751A, 2H-3, 105-106 cm, Kerguelen Plateau, Indian sector, Southern Ocean (57°43.56'S, 79°48.89'W)
Middle Pliocene

***Thalassiosira flexuosa* var. *tenella* Tanimura, 1996**

Diatom Research, vol. 11, p. 175, fig. 61

Holotype: MPC-04966

DSDP Hole 173, 23-2, 118-119 cm, the continental slope off Cape Mendocino at water depth of 2,927 m, off California, northeast Pacific Ocean (39°57.71'N, 125°27.12'W)

Middle-late Miocene

***Thalassiosira jacksonii* Koizumi & Barron, 1980**

Init. Rep. DSDP, vol. 55, p. 396, pl. 1, fig. 12

Holotype: Slide no. 3643

DSDP Hole 433A, 4-5, 8-10 cm, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44°46.60'N, 170°01.26'E)

Late Miocene

***Thalassiosira jacksonii* Koizumi & Barron, 1980**

Init. Rep. DSDP, vol. 55, p. 396, pl. 1, fig. 14

Paratype: Slide no. 3659

DSDP Hole 433A, 1CC, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44°46.60'N, 170°01.26'E)

Late Miocene

***Thalassiosira jouseae* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440, pl. 6, fig. 8

Holotype: Hustedt coll. No. Zu3/27

JDS-11566, an outcrop near river mouth of the Chokubetsu-gawa River (1/25,000: "Shakubetsu-tanko"), Atsunai Town, Hokkaido, Japan (42°50'23"N, 143°51'18"E)

Shiranuka Formation

Pliocene

***Thalassiosira jouseae* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440, pl. 6, fig. 9

Paratype: Hustedt coll. No. Zu3/27

JDS-11566, an outcrop near river mouth of the Chokubetsu-gawa River (1/25,000: "Shakubetsu-tanko"), Atsunai Town, Hokkaido, Japan (42°50'23"N, 143°51'18"E)

Shiranuka Formation

Pliocene

***Thalassiosira kanayae* Tanimura, 1996**

Diatom Research, vol. 11, p. 178-181, figs. 12a, b

Holotype: MPC-04965

DSDP Hole 173, 23-2, 118-119 cm, the continental slope off Cape Mendocino at water depth of 2,927 m, off California, northeast Pacific Ocean (39°57.71'N, 125°27.12'W)

Middle Miocene

***Thalassiosira mesopora* Shiono, 2001**

Jour. Geol. Soc. Japan, vol. 107, p. 500, pl. 2, fig. 3

Holotype: MPC-04063, England Finder G47-4NNE

ODP Hole 797B, 20-3, 38-39 cm, Japan Sea (38°36'94"N, 134°32'16"E)

Early Pliocene

***Thalassiosira mizunamiensis* Yanagisawa, 1993**

Diatom, vol. 8, p. 43-46, pl. 1, figs. 1a-c

Holotype: GSJ F14584

Mzn 09, an outcrop near Tukiyooshi, Mizunami City, Gifu Prefecture, Japan (35°24'31.22"N, 137°16'17.8"E)

Oidawara Formation, Mizunami Group

Early Miocene

***Thalassiosira nidulus* var. *delicata* Barron, 1980**

Init. Rep. DSDP, vol. 57, p. 671, pl. 6, fig. 1

Holotype: USNM 689960

DSDP Hole 438A, 20-4, 135-137 cm, off Hachinohe, northwest Pacific Ocean (40°37.79'N, 143°14.15'E)

Early Pliocene

[*Thalassiosira delicata* (Barron) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 440]

***Thalassiosira nidulus* var. *delicata* Barron, 1980**

Init. Rep. DSDP, vol. 57, p. 671, pl. 6, fig. 4

Isotype: USNM 689961

DSDP Hole 438A, 34-5, 85-87 cm, off Hachinohe, northwest Pacific Ocean (40°37.79'N, 143°14.15'E)

Early Pliocene

[*Thalassiosira delicata* (Barron) Akiba, 1986, Init. Rep. DSDP, vol. 87, p. 440]

***Thalassiosira oestrupii* f. *vetus* Shiono, 2001**

Jour. Geol. Soc. Japan, vol. 107, p. 502, pl. 2, fig. 9

Holotype: MPC-04067, England Finder U41-1C

DSDP Hole 580, 13-4, 15-16 cm, northwest Pacific Ocean (41°37'47"N, 153°58'58"E)

Late Pliocene

***Thalassiosira opposita* Koizumi, 1980**

Init. Rep. DSDP, vol. 55, p. 396, pl. 1, fig. 16

Holotype: Slide no. 3671

DSDP Hole 433A, 6-4, 8-10 cm, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44°46.60'N, 170°01.26'E)

Late Miocene

***Thalassiosira opposita* Koizumi, 1980**

Init. Rep. DSDP, vol. 55, p. 396, pl. 1, fig. 15

Paratype: Slide no. 3645

DSDP Hole 433A, 6-4, 8-10 cm, depth 1,874 m, Suiko Seamount, Emperor Seamounts, North Pacific Ocean (44°46.60'N, 170°01.26'E)

Late Miocene

***Thalassiosira perispinosa* Tanimura, 1996**

Diatom Research, vol. 11, p. 181-182, figs. 35a, b

Holotype: MPC-04967

DSDP Hole 173, 28-1, 99-100 cm, the continental slope off Cape Mendocino at water depth of 2,927 m, off California, northeast Pacific Ocean (39 °57.71'N, 125 °27.12'W)

Middle Miocene

***Thalassiosira praenidulus* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440-441, pl. 6, fig. 3

Holotype: Hustedt coll. No. Zu3/21

JDS-11452, a road side outcrop about 5.5 km south of Urahoro Station (1/25,000: "Urahoro"), Urahoro Town, Hokkaido, Japan (42 °47'8"N, 143 °43'21"E)

Chokubetsu Formation

Middle Miocene

***Thalassiosira praenidulus* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 440-441, pl. 6, fig. 1

Paratype: Hustedt coll. No. Zu3/22

JDS-11452, a road side outcrop about 5.5 km south of Urahoro Station (1/25,000: "Urahoro"), Urahoro Town, Hokkaido, Japan (42 °47'8"N, 143 °43'21"E)

Chokubetsu Formation

Middle Miocene

***Thalassiosira praeostrupii f. juvenis* Shiono, 2001**

Jour. Geol. Soc. Japan, vol. 107, p. 503, pl. 2, fig. 12

Holotype: MPC-04068, England Finder L42-2C

DSDP Hole 580, 16-1, 15-16 cm, northwest Pacific Ocean (41 °37'47"N, 153 °58'58"E)

Late Pliocene

***Thalassiosira sancettae* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 441, pl. 7, fig. 1

Holotype: Hustedt coll. No. Zu3/14

DSDP Hole 584, 1-1, 0-3 cm, off Hachinohe, northwest Pacific Ocean (40 °28.0'N, 143 °57.6'E)

Holocene

***Thalassiosira sancettae* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 441, pl. 7, fig. 2

Paratype: JDS-13251 (1) deposited in JPEX Collection

DSDP Hole 584, 1-2, 83-85 cm, off Hachinohe, northwest Pacific Ocean

(40 °28.0'N, 143 °57.6'E)

Holocene

***Thalassiosira transitoria* Tanimura, 1996**

Diatom Research, vol. 11, p. 186, figs. 53a,b

Holotype: MPC-04968

DSDP Hole 173, 23,-2, 118-119 cm, the continental slope off

Cape Mendocino at water depth of 2,927 m, off California, northeast Pacific Ocean (39 °57.71'N, 125 °27.12'W)

Middle Miocene

***Thalassiosira umaoiensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 441, pl. 13, fig. 9

Holotype: Hustedt coll. No. Zu3/16

JDS-12507, an outcrop in the vicinity of Furusan Pond (1/25,000: "Mikawa"), Yuni Town, Hokkaido, Japan (42 °58'12"N, 141 °45'42"E)

Yuni Formation

Early Miocene

***Thalassiosira umaoiensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 441, pl. 13, fig. 11

Paratype: Hustedt coll. No. Zu3/16

DS-12507, an outcrop in the vicinity of Furusan Pond (1/25,000: "Mikawa"), Yuni Town, Hokkaido, Japan (42 °58'12"N, 141 °45'42"E)

Yuni Formation

Early Miocene

***Thalassiosira urahoroensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 441, pl. 5, fig. 2

Holotype: Hustedt coll. No. Zu3/22

JDS-11452, an outcrop near Urahoro (1/25,000: "Urahoro"), Urahoro Town, Hokkaido, Japan (42 °47'8"N, 143 °43'21"E)

Chokubetsu Formation

Early Miocene

***Thalassiosira urahoroensis* Akiba, 1986**

Init. Rep. DSDP, vol. 87, p. 441, pl. 5, fig. 4

Paratype: JDS-11452 (5) deposited in JAPEX Collection

JDS-11452, an outcrop near Urahoro (1/25,000: "Urahoro"), Urahoro Town, Hokkaido, Japan

(42 °47'8"N, 143 °43'21"E)

Chokubetsu Formation

Early Miocene

***Thalassiosira variantia* Shiono, 2001**

Diatom Research, vol. 16, p. 86-88, figs. 13, 14

Holotype: MPC-04070, England Finder V38-2C

DSDP Hole 580, 2-3, 25-26 cm, northwest Pacific Ocean (41 °37'47"N, 153 °58'58"E)

Pleistocene

***Thamnodiscus rectispinosus* Komura, 1999**

Diatom, vol. 15, p. 52-54, fig. 2

Holotype: MPC-01649

Km-5901 (573), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35 °04'15"N, 140 °05'44"E)

Nabuto Formation

Early Miocene

***Triceratium arcticum* var. *mitsukeensis* Ichikawa, 1964**

Sci. Rep. Kanazawa Univ., vol. 9, p. 51, pl. 6, fig. 42

Holotype: not designated. Collection of Faculty of Kanazawa Univ.

Hojiuji, Ukai area, Suzu City, Ishikawa Prefecture, Japan

Hojiuji Diatomaceous Mudstone

Middle Miocene

***Triceratium polymorphus* Harwood & Maruyama, 1992**

Proc. ODP, Sci. Results, vol. 120, p. 683-733, pl. 1, fig. 1

Holotype: USNM Coll. 458234

ODP Hole 748B, 14H-1, 116-118 cm, Kerguelen Plateau, Indian sector, Southern Ocean (58°26.45'S, 78°58.89'W)

Early Oligocene

***Triceratium polymorphus* Harwood & Maruyama, 1992**

Proc. ODP, Sci. Results, vol. 120, p. 683-733, pl. 1, fig. 3

Paratype: USNM Coll. 458235

ODP Hole 748B, 14H-1, 116-118 cm, Kerguelen Plateau, Indian sector, Southern Ocean (58°26.45'S, 78°58.89'W)

Early Oligocene

***Trochosirella restricta* Komura, 1996**

Diatom, vol. 12, p. 8-10, fig. 5

Holotype: MPC-05054

Km-5901 (262), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

[Probably assigned to the genus *Mediaria*]

***Tropidosiphonus lanceolatus* Komura, 1994**

Diatom, vol. 9, p. 5-6, fig. 4-5

Holotype: MPC-02559

Km-5901 (22), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

[Probably assigned to the genus *Mediaria*]

***Tropidosiphonus secundus* Komura, 1994**

Diatom, vol. 9, p. 6-7, fig. 4-7

Holotype: MPC-02560

Km-5901 (2), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

[Probably assigned to the genus *Mediaria*]

***Tropidosiphonus tenuiconstrictus* Komura, 1994**

Diatom, vol. 9, p. 7-8, fig. 4-10

Holotype: MPC02561

Km-5901 (18), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

[Probably assigned to the genus *Mediaria*]

***Unguiella grossecarinata* Komura, 1996**

Diatom, vol. 12, p. 46-47, fig. 10

Holotype: MPC-05059

Km-5901 (215), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Unguiella latispinifera* Komura, 1996**

Diatom, vol. 12, p. 47-48, fig. 12

Holotype: MPC-05057

Km-5901 (214), calcareous nodule, tidal flat about 1 km southwest of Futomi Station of JR Uchibo Line, Futomi, Kamogawa City, Chiba Prefecture, Japan (35°04'15"N, 140°05'44"E)

Nabuto Formation

Early Miocene

***Xanthiopyxis mexicana* Kanaya, 1957**

Sci. Rep. Tohoku Univ., 2nd Ser. (Geol.), vol. 28, p. 116, pl. 8, fig. 14

Holotype: Stanford Univ. Paleo. Type Coll. no. 8416

LSJU M-611-1. Outcrop in the low hills between Kellogg Creek and Byron Hot Spring, east of Mt. Diablo, California, U. S. A. (37°50'20"N, 121°40'W)

Kellogg Shale

Late Eocene

***Yoshidaia constricta* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 390-391, pl. 40, fig. 9, Abb. 10, fig. 1

Holotype: MPC-02550

Dark gray claystone, an outcrop at south riverside of the Uruyagawa River, about 1.1 km east of the Magarifuchi Station, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'39"N, 141°54'50"E)

Masuporo Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis lauta* (Bailey) **Simonsen, 1979** or *D. ichikawae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Yoshidaia constricta* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 390-391, pl. 40, fig. 10, Abb. 10, fig. 2

Paratype: JAPEX Km-5037 (8)

Dark gray claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'39"N, 141°54'50"E)

Masuporo Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis lauta* (Bailey) **Simonsen, 1979** or *D. ichikawae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Yoshidaia constricta* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 390-391, Abb. 10, fig. 3

Paratype: JAPEX Km-5034 (2)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis lauta* (Bailey) **Simonsen, 1979** or *D. ichikawae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Yoshidaia? densicostata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 392-393, pl. 40, fig. 12, Abb. 12

Holotype: MPC-02552

White tuffaceous claystone, an outcrop at south riverside of the Uryugawa River, about 0.7 km east of Magarifuchi Station, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'30"N, 141°54'34"E)

Koitoi Formation

Pliocene

[Probably an initial valve of *Denticulopsis simonsenii* Yanagisawa & Akiba, 1990 or *D. vulgaris* (Okuno) Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334-335]

***Yoshidaia divergens* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 389-390, pl. 40, fig. 6, Abb. 9, fig. 1

Holotype: MPC-02549

White tuffaceous claystone, an outcrop at north riverside of the Uryugawa River, about 1.3 km east of the Magarifuchi Station, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis lauta* (Bailey) **Simonsen, 1979** or *D. ichikawae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Yoshidaia divergens* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 389-390, Abb. 9, fig. 2

Paratype: JAPEX Km-5034 (14)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis lauta* (Bailey) **Simonsen, 1979** or *D. ichikawae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Yoshidaia divergens* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 389-390, Abb. 9, fig. 3

Paratype: JAPEX Km-5034 (18)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

[Probably an initial valve of *Denticulopsis lauta* (Bailey) **Simonsen, 1979** or *D. ichikawae* Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334]

***Yoshidaia loculata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 391-392, pl. 40, fig. 11, Abb. 11, fig. 1

Holotype: MPC-02551

White tuffaceous claystone, an outcrop at south riverside of the Uryugawa River, about 0.7 km east of Magarifuchi Station, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'30"N, 141°54'34"E)

Koitoi Formation

Pliocene

[Probably an initial valve of *Denticulopsis simonsenii* Yanagisawa & Akiba, 1990 or *D. vulgaris* (Okuno) Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334-335]

***Yoshidaia loculata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 391-392, pl. 41, fig. 9, Abb. 11, fig. 5

Paratype: JAPEX Km-5041 (35)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'30"N, 141°54'34"E)

Koitoi Formation

Pliocene

[Probably an initial valve of *Denticulopsis simonsenii*

Yanagisawa & Akiba, 1990 or *D. vulgaris* (Okuno)

Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334-335]

***Yoshidaia oculata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 391-392, Abb. 11, fig. 2

Paratype: JAPEX Km-5041 (34)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'30"N, 141°54'34"E)

Koitoi Formation

Pliocene

[Probably an initial valve of *Denticulopsis simonsenii*

Yanagisawa & Akiba, 1990 or *D. vulgaris* (Okuno)

Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334-335]

***Yoshidaia oculata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 391-392, Abb. 11, fig. 3

Paratype: JAPEX Km-5041 (33)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'30"N, 141°54'34"E)

Koitoi Formation

Pliocene

[Probably an initial valve of *Denticulopsis simonsenii*

Yanagisawa & Akiba, 1990 or *D. vulgaris* (Okuno)

Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334-335]

***Yoshidaia oculata* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 391-392, Abb. 11, fig. 4

Paratype: JAPEX Km-5041 (13)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'30"N, 141°54'34"E)

Koitoi Formation

Pliocene

[Probably an initial valve of *Denticulopsis simonsenii*

Yanagisawa & Akiba, 1990 or *D. vulgaris* (Okuno)

Yanagisawa & Akiba, 1990: Yanagisawa, 1994, Trans. Proc. Palaeont. Soc. Japan, N. S., no. 173, p. 334-335]

***Yoshidaia? pupurifera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 393-394, pl. 41, fig. 10, Abb. 13, fig. 4

Holotype: JAPEX Km-5034 (1)

White tuffaceous claystone, an outcrop at north riverside of the Uruyagawa River, about 1.3 km west of Magarifuchi Station, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

***Yoshidaia? pupurifera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 393-394, pl. 41, fig. 11, Abb. 13, fig. 3

Paratype: JAPEX Km-5034 (1)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

***Yoshidaia? pupurifera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 393-394, pl. 41, fig. 12, Abb. 13, fig. 1

Paratype: JAPEX Km-5034 (2)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

***Yoshidaia? pupurifera* Komura, 1976**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 103, p. 393-394, Abb. 13, fig. 2

Paratype: JAPEX Km-5034 (2)

White tuffaceous claystone, Magarifuchi, Wakkanai City, Hokkaido, Japan (45°15'38"N, 141°54'57"E)

Masuporo Formation

Middle Miocene

Ostracoda

Noriyuki Ikeya, Gengo Tanaka and Akira Tsukagoshi

Institute of Geosciences, Faculty of Science, Shizuoka University, Shizuoka 422-8529, Japan

Abrocythereis malaysiana Malz and Tabuki, 1988

Geologica et Palaeontologica, v. 22, p. 161, Pl. 1, figs. 2~4, Pl. 4, figs. 22, 23, text-figs. 2a, 3

Holotype: LV male, SMF Xe 13046 (Pl. 1, fig. 3), Paratypes: RV female, SMF Xe 13047a (Pl. 1, fig. 2, Pl. 4, fig. 23); RV male, SMF Xe 13047b (Pl. 1, fig. 4); LV female, SMF Xe 13049 (Pl. 4, fig. 22)

Off Seria, N of Borneo (depth 161 ft.) (St. Ms 7095 = sample leg. van Morkhoven)

Recent

[Paratypes consist of 6RV, 5LV and 5 juveniles, but SMF Xe 13048 (the specimens of 4 RV, 4LV and 5 juveniles) are not figured.]

Abrocythereis ryukyuensis Malz and Tabuki, 1988

Geologica et Palaeontologica, v. 22, p. 164, Pl. 2, figs. 8~14, Pl. 3, fig. 21, text-figs. 2d, 5a-i

Holotype: LV male, UMUT CA 18143 (Pl. 2, fig. 14), Paratypes: SMF Xe 13551~13557, UMUT CA 18144~18180 LV juvenile, SMF Xe 13551a (Pl. 2, fig. 8); CC female, SMF Xe 13551b (Pl. 2, fig. 12); RV male, SMF Xe 13551c (Pl. 2, fig. 13); CC female, SMF Xe 13552a (Pl. 2, fig. 9); LV female, SMF Xe 13552b (Pl. 2, fig. 10); RV male, SMF Xe 13553 (Pl. 2, fig. 11); LV male, SMF Xe 13554 (Pl. 3, fig. 21); SMF Xe 13555 (29 specimens: 6 LV, 11 RV, 10 juveniles, 2 broken specimens); SMF Xe 13556 (10 specimens: 1 LV, 4 RV, 2 LV juveniles, 2 RV juveniles, 1 broken specimen); SMF Xe 13557 (9 specimens: 3 LV, 1 RV, 3 LV juveniles, 2 RV juveniles); UMUT CA 18144~18180 (2 CC, 19 V, 16 V juveniles)

Outcrop at Shinzato, SE of Naha, S Okinawa (Type Locality of Shinzato Formation) (26°46'36"N, 127°46'36"E) (sample no. Mz 85-37) (See Nohara & Tabuki, 1985, p. 8, Text-fig. 5.)

Shinzato Formation

Pliocene (N21 or NN 16) (See Tanaka and Ujiie, 1984.)

[Paratypes SMF Xe 13555~13557 and UMUT CA 18144~18180 are not figured.]

Abrocythereis taiwanica Malz and Tabuki, 1988

Geologica et Palaeontologica, v. 22, p. 163, Pl. 1, figs. 5, 6, Pl. 4, fig. 27, text-figs. 2b, 4

Holotype: LV female, SMF Xe 13035 (Pl. 1, fig. 6), Paratypes: RV female, SMF Xe 13036a (Pl. 1, fig. 5); LV female, SMF Xe 13036b (Pl. 4, fig. 27)

Sample no. 7836 = Outcrop in road-cut near Tapanla, SE of Maanshan, SW Taiwan (Cheng, 1981, Text-fig. 1b)

Maanshan Formation

Pleistocene

[Paratypes SMF Xe 13037~13041 (the specimens of 11LV and 13RV) are not figured.]

Abrocythereis yajimae Nohara, 1987

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 44, 45, Pl. 8, figs. 2a~c

Holotype: RV, RUEG 118 (Pl. 8, figs. 2a~c)

Loc. 75122802-C = Ca. 1 km WNW of Asato, Gushikami-son, Shimajiri-gun, Okinawa Prefecture (26°07'12"N, 127°43'12"E)

Chinen Formation

Pleistocene

[Sample horizon = Ca. 2 m above the road level (bluish gray silty sand)]

Abyssocythereis Schornikov, 1975

Zool. Jour., v. 54, no. 4, p. 521, 522

Type species: *Abyssocythereis vitjasi* Schornikov, 1975

Abyssocythereis vitjasi Schornikov, 1975

Zool. Jour., v. 54, no. 4, p. 522~524, figs. 2a~c, 3a~p

Holotype: CC male with appendages, FESC 1/1180~1/1181 (figs. 2a, 3a, c, d, f~i, k~p), Paratypes: CC male FESC 2/1182 (fig. 2c); CC female with appendages, FESC 3/1185 (figs. 2b, 3b, e, j); 1 female (no numbers)

NW of Kurile-Kamchatka trough (45°26'N, 154°12'E) (depth 5200 m)

Recent

Acanthocythereis ? niitsumai (Ishizaki, 1971)

[See *Trachyleberis niitsumai* Ishizaki, 1971.]

Acanthocythereis fujinaensis Tanaka, 2002

Paleontological Research, v. 6, no. 1, p. 12, figs. 5-5, 7-11a~d, 12a~e, 13a~c

Holotype: CC male, SUM CO 1231 (figs. 7-11a~d), Paratypes: LV female, SUM CO 1232 (figs. 7-12a~e); RV female, SUM CO 1233 (figs. 7-13a~c); LV female, SUM CO 1234 (fig. 5-5)

Loc. 1-A13 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35°25.5'N, 133°02.3'N)

Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 7 m below the top of the Lower Member of Fujina Formation]

Acanthocythereis izumoensis Tanaka, 2002

Paleontological Research, v. 6, no. 1, p. 13, figs. 5-6, 8-1a~e, 2a~c, 3a~c, 4a~c

Holotype: LV male, SUM CO 1235 (figs. 8-1a~e), Paratypes: RV male, SUM CO 1236 (figs. 8-2a~e); LV female, SUM CO 1237 (figs. 8-3a~c); RV female, SUM CO 1238 (figs.

8-4a-c); LV female, SUM CO 1239 (fig. 5-6)
 Loc. 1-A16 = An outcrop, ca. 0.5 km NE of Fujina,
 Yatsuka-gun, Shimane Prefecture (35°25.5'N, 133°02.3'N)
 Fujina Formation (Lower Member)
 Middle Miocene
 [Sample horizon = Ca. 4 m below the top of the Lower
 Member of Fujina Formation]

***Acanthocythereis koreana* Huh and Whatley, 1997**

Jour. Micropalaeont., v. 16, p. 39, Pl. 3, figs. 6~12
 Holotype: RV female, CNU O 533 (Pl. 3, fig. 7), Paratypes:
 LV female, CNU O 534 (Pl. 3, fig. 6); RV female, CNU O
 535 (Pl. 3, fig. 8); LV female, CNU O 536 (Pl. 3, fig. 9); RV
 male, CNU O 537 (Pl. 3, fig. 10); LV male, CNU O 538 (Pl.
 3, fig. 11); LV male, CNU O 539 (Pl. 3, fig. 12)
 Sample DJ-1 = Daejonri area of Yeongil-gun, ca. 13 km N of
 Pohang, SE coast of Korean Peninsula
 Yeonil Group
 Middle Miocene

***Acanthocythereis munechikai* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p.
 45, 46, Pl. 9, figs. 1, 2a~c, 3; Pl. 14, fig. 8; Pl. 15, figs. 3, 4
 Holotype: LV, IGPS 97033 (Pl. 9, figs. 2a~c; Pl. 14, fig. 8; Pl.
 15, fig. 3), Paratypes: RV, IGPS 97034 (Pl. 9, fig. 3; Pl. 15,
 fig. 4); RV, IGPS 97035 (Pl. 9, fig. 1)
 St. 54 = S of Cheju-do (30°30.0'N, 126°30.0'E) (medium
 sand, depth 90 m)
 Recent

***Acanthocythereis mutsuensis* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 93,
 94, Pl. 1, fig. 7, Pl. 5, fig. 2, Pl. 6, fig. 4
 Holotype: LV, IGPS 91708 (Pl. 5, fig. 2, Pl. 6, fig. 4),
 Paratype: RV, IGPS 91709 (Pl. 1, fig. 7)
 St. 90 = Aomori Bay, Aomori Prefecture (41°01'20''N, 140°
 49'18''E) (mud, depth 45 m)
 Recent
 [= *Acanthocythereis ? mutsuensis* Ishizaki, 1971 (by Hanai *et al.*, 1977)]

***Acanthocythereis tsurugasakensis* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 84~86, Pl.
 11, figs. 2~10, text-fig. 20-2
 Holotype: RV female, UMUT CA 15855 (Pl. 11, figs. 2, 10),
 Paratypes: RV male, UMUT CA 15856 (Pl. 11, figs. 3, 8);
 LV male, UMUT CA 15857 (Pl. 11, figs. 4, 7, 9, text-fig.
 20-2); RV immature form, UMUT CA 15858 (Pl. 11, fig. 5);
 LV immature form, UMUT CA 15859 (Pl. 11, fig. 6)
 Loc. S5 = An exposure along the road leading southward to
 Ushu-Kaido, 1 km NW of eastern entrance of Shin-Daishaka
 tunnel, Aomori-shi, Aomori Prefecture (40°46'44''N, 140°
 36'15''E)
 Daishaka Formation

Plio-Pleistocene

***Acanthocythereis uniformiteris* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 97, Pl. 7, figs. 9~11, 13, 14,
 text-fig. 30
 Holotype: TNUM 8155, Paratypes: RV, TNUM 8156 (Pl. 7,
 figs. 10, 11); TNUM 8157; TNUM 8158
 The east slope of the Hengchun West Table-land, ca. 3 km W
 of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N,
 120°44.1'E)
 Ssukou Formation
 Pleistocene
 [Three figures (Pl. 7, figs. 9, 13, 14) in the original
 description (Hu, 1984) cannot be correlated with each type
 specimen (TNUM 8155, 8157, 8158).]

***Acanthocythereis wenzhouensis* Yang, 1990**

Acta Micropalaeontologica Sinica, v. 7, no. 4, p. 378, Pl. 2,
 figs. 14, 15
 Holotype: CC, 111251 (Pl. 2, figs. 14, 15)
 Hole W6-1-1 (core) = 160 km E of Wenzhou City, SW of
 East China Sea (27°50'N, 122°50'E)
 Lower Wenzhou Formation
 Middle Eocene

***Acetabulastoma obtusatum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 210,
 211, text-fig. 43
 Holotype: CC male FESC 456~457, Paratype: 7 males, 15
 females, instars (no numbers)
 Lower and middle littoral zone of Ryeyd Udobniy Bay,
 Okhotsk seashore of Iturup Island, Kuril Islands
 Recent
 [The figures (text-fig. 43) in the original description
 (Schornikov, 1974) cannot be correlated with each type
 specimen.]

***Acetabulastoma subrhomboideum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 209,
 210, text-fig. 42
 Holotype: CC male, FESC 454~455, Paratype: 22 males, 33
 females, instars (no numbers)
 Lower and middle littoral zone of Ryeyd Udobniy Bay,
 Okhotsk seashore of Iturup Island, Kuril Islands
 Recent
 [The figures (text-fig. 42) in the original description
 (Schornikov, 1974) cannot be correlated with each type
 specimen.]

***Actinocythereis donghaiensis* Liu, 1989**

In Research party of marine geology, ministry of geology and
 mineral resources and institute of geology, chinese academy
 of geological sciences (eds.), Cenozoic Paleobiota of the
 continental shelf of the East China Sea, Geological

Publishing House Press, Beijing, p. 154, 155, Pl. 169, figs. 11~13

Holotype: CC, DJ 0086 (Pl. 169, fig. 11), Paratypes: CC, RV 0087 (Pl. 169, fig. 12); CC, DJ 0088 (Pl. 169, fig. 13)

East China Sea

Oujiang Formation

Early Eocene

***Actinocythereis kisarazuensis* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 399, 400, Pl. 49, figs. 3a, b, text-fig. 9, fig. 1

Holotype: LV, UMUT CA 8420 (Pl. 49, fig. 3b, text-fig. 9, fig. 1), Paratype: RV, UMUT CA 8421 (Pl. 49, fig. 3a)

Loc. 37 = An exposure, 300 m NNE of the Chiba Prefectural Kazusa Museum, Ota, Kisarazu-shi, Chiba Prefecture (35 ° 22'42''N, 139 °56'40''E)

Narita Formation (Kami-Iwahashi Member)

Pleistocene

***Acuticythereis sendaiensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 145, Pl. 19, fig. 18, 19, text-fig. 1, fig. 6

Holotype: RV, IGPS 87047 (Pl. 19, fig. 18, text-fig. 1, fig. 6), Paratype: LV, IGPS 87048 (Pl. 19, fig. 19)

Down stream of the Tatsunokuchi gorge in the western part of Sendai-shi, Miyagi Prefecture

Tatsunokuchi Formation

Pliocene

[=*Acuticythereis ? sendaiensis* Ishizaki, 1966 (by Checklist of 1977)]

***Actinocythereis spinosa* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 155, Pl. 169, fig. 5

Holotype: RV, DJ 0107 (Pl. 169, fig. 5)

East China Sea

Donghai Group

Pleistocene to Holocene

***Aglaiocypris nipponica* Okubo, 1980**

Proc. Japan Soc. Syst. Zool., no. 18, p. 17~20, text-figs. 1a~k, Pl. 1, figs. e, f

Holotype: CC female with appendages, MO 492 (=NSMT-Cr 15251) (text-figs. 1a~k) Paratype: CC female, MO 493 (Pl. 1, figs. e, f) (the specimen missing)

The intertidal zone, near the Mukaishima Marine Biological Station, Minatomachi, Takehara, Hiroshima Prefecture (34 ° 21.7'N, 133 °13.2'E) (muddy sand)

Recent

***Alocopocythere? ishizakii* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 42, 43, Pl. 1, figs. 1a, b, 2a, b, 3

Holotype: CC, RUEG 113 (Pl. 1, figs. 1a, b), Paratypes: CC, RUEG 178 (Pl. 1, figs. 2a, b); RV immature form, RUEG 179 (Pl. 1, fig. 3)

Core 2 = Oroku, SW of Naha-shi, Okinawa Prefecture (26 ° 12'00''N, 127 °40'33''E)

Tomigusuku Formation

Late Miocene

***Aluta chiushuensis* Kobayashi, 1934**

Japan. Jour. Geol. Geogr., v. 11, no. 3~4, p. 168, text-fig. 1, Pl. 18, fig. 17

Holotype: UMUT

Huolienchai, South Manchuria

Chiushukou shale

Ordovician

***Aluta obsoleta* Saito, 1934**

Japan. Jour. Geol. Geogr., v. 11, p. 233, text-figs. 7, 8

Holotype: UMUT

Ssukkol, Heukkyon-myön, Huanghai-dô, Korea

Protolenus shale

Cambrian

***Alutella nakamurai* Kobayashi and Kato, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 8, pt. 3, p. 139, Pl. 3, fig. 15

Holotype: UMUT

Sanchihlipu station, Liaotung, South Manchuria

Sanshihlipi stage

Cambrian

***Ambocythere decora* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 157, 158, Pl. 170, figs. 15, 16

Holotype: CC, DJ 0061 (Pl. 170, figs. 15, 16)

East China Sea

Oujiang Formation

Early Eocene

***Ambocythere japonica* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 39, 40, Pl. 2, fig. 9, Pl. 8, figs. 15~17

Holotype: RV, IGPS 90307 (Pl. 2, fig. 9, Pl. 8, fig. 17), Paratypes: RV, IGPS 90308 (Pl. 8, fig. 15); LV, IGPS 90309 (Pl. 8, fig. 16)

St. 303 = Uranouchi Bay, Kochi Prefecture (33 °24'57''N, 133 °26'53''E) (coarse sand, depth 25 m)

Recent

[=*Pacambocythere japonica* (Ishizaki, 1968) (by Ikeya and Suzuki, 1992)]

***Ambocythere ovata* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 158, Pl. 170, figs. 3, 4

Holotype: RV, DJ 0108 (Pl. 170, figs. 3, 4)

East China Sea

Donghai Group

Pleistocene to Holocene

***Ambocythere planata* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 101, 102, Pl. 2, figs. 23, 25~27, text-fig. 23

Holotype: TNUM 7033 (Pl. 2, fig. 23), Paratypes: TNUM 7034~7036 (Pl. 2, figs. 25~27)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 ° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Three figures (Pl. 2, figs. 25~27) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 7034~7036).]

***Ambocythere subovate* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 102, 103, Pl. 6, figs. 23, 26, text-fig. 35

Holotype: LV, TNUM 8242 (Pl. 6, figs. 23, 26)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 ° 00.5'N, 120 ° 44.1'E)

Ssukou Formation

Pleistocene

***Ambocythere uchinaensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 45, Pl. 5, figs. 1a~c

Holotype: RV, RUEG 119 (Pl. 5, figs. 1a~c)

Loc. 76121501A = Ca. 500 m SE of Shinzato, Sashiki-cho, Shimajiri-gun, Okinawa Prefecture (Type locality of Shinzato Formation) (26 ° 9'40''N, 127 ° 46'36''E)

Shinzato Formation

Pliocene

[Sample horizon = Ca. 5 m below the base of the upper most carbonized woods bed (bluish gray silt)]

***Ambocythere undulata* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy

of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 158, Pl. 170, figs. 1, 2

Holotype: RV, DJ 0001 (Pl. 170, fig. 1), Paratype: LV, RV 0002 (Pl. 170, fig. 2)

East China Sea

Donghai Group

Pleistocene to Holocene

***Ambolus coniunctus* Ikeya, Jellinek and Tsukagoshi, 1998**

Palaeontologische Zeitschrift, Stuttgart, v. 72, nos. 3/4, p. 317, 319, 320, figs. 2-1a, 1b, 2, 3a, 3b, 4a, 4b, 5a, 5b, 6~10, figs. 3-1a~f, 2a~c, figs. 4-1~4-8, 4-12, figs. 5-5, 5-6a~c

Holotype: CC male, P50782 (figs. 2-3a, 3b), Paratypes: CC female, SMF Xe 18366 (figs. 2-1a, 1b); LV male, SMF Xe 18367 (fig. 2-2); RV male, SMF Xe 18368 (figs. 2-4a, 4b); LV female, SMF Xe 18369 (figs. 2-5a, 5b); RV female, SMF Xe 18370 (fig. 2-6); CC female, UMUT number8 (fig. 2-7); CC female, SMF Xe 18371 (fig. 2-9); CC male, SMF Xe 18372 (fig. 2-10); CC female juvenile (A-1 stage), SMF Xe 18373 (figs. 4-1, 2); CC male juvenile (A-1 stage), SMF Xe 18374 (figs. 4-3, 4); CC juvenile (A-2 stage), SMF Xe 18375 (figs. 4-5, 6); CC juvenile (A-3 stage), SMF Xe 18376 (figs. 4-7, 8); CC female, SMF Xe 18376 (fig. 4-12); RV juvenile, SMF Xe 18389 (fig. 5-5); male appendages, P50783 and P50784 (figs. 3-1a~f, 2a~c); CC male, UMUT number9 (fig. 2-8); CC juvenile with appendages, UMUT collection (figs. 5-6a~c)

Tas 12 = Tide pool of rocky shore, Wynyard, N of Tasmania, Australia (40 ° 58'S, 145 ° 43'E)

Recent

***Ambolus* Ikeya, Jellinek and Tsukagoshi, 1998**

Palaeontologische Zeitschrift, Stuttgart, v. 72, nos. 3/4, p. 312, 314

Type species: *Cythere pumila* Brady, 1866

***Ambostracon costatelle* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 93, 94, Pl. 2, figs. 11, 16, text-fig. 26

Holotype: CC, TNUM 8135 (Pl. 2, figs. 11, 16)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 ° 00.5'N, 120 ° 44.1'E)

Ssukou Formation

Pleistocene

***Ambostracon granulosa* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 100, Pl. 3, figs. 14~16, 26, text-fig. 21

Holotype: TNUM 7052, Paratypes: TNUM 7050; TNUM 7051

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °

56.3°N, 120 °48.2°E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Four figures (Pl. 3, figs. 14~16, 26) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7050~7052).]

***Ambostracon ikeyai* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 394, 395 (Pl. 49, figs. 5a~c, Pl. 50, figs. 1, 2, text-fig. 7, figs. 2a, b)

Holotype: CC, UMUT CA 8433 (Pl. 49, fig. 5c), Paratypes: LV, UMUT CA 8434 (Pl. 49, fig. 5b, Pl. 50, figs. 1, 2, text-fig. 7, fig. 2a); RV, UMUT CA 8435 (Pl. 49, fig. 5a, text-fig. 7, fig. 2b)

Loc. 41 = A cliff, 700 m W of the Kazusa-Kiyokawa Station, Nakao, Kisarazu-shi, Chiba Prefecture (35 °23'05"N, 139 °57'43"E)

Narita Formation (Kiyokawa Member)

Pleistocene

***Ambostracon kitanipponica* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p.74~76, Pl. 10, figs. 1~8, text-fig. 18-8

Holotype: LV female, UMUT CA 15812 (Pl. 10, figs. 2, 5, 7), Paratypes: RV female, UMUT CA 15813 (Pl. 10, figs. 1, 6, 8); RV male, UMUT CA 15814 (Pl. 10, fig. 3); LV male, UMUT CA 15815 (Pl. 10, fig. 4, text-fig. 18-8)

Loc. S1 = An exposure along the road leading southward to Ushu-Kaido, 2 km NW of eastern entrance of Shin-Daishaka tunnel, Aomori-shi, Aomori Prefecture (40 °47'24"N, 140 °36'15"E)

Daishaka Formation

Plio-Pleistocene

[=*Hemicythere?* *kitanipponica* (Tabuki, 1986) (by Cronin and Ikeya, 1987)]

***Ambostracon metanodulose* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 94, 95, Pl. 2, figs. 15, 20, text-fig. 27

Holotype: LV, TNUM 8137 (Pl. 2, figs. 15, 20)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

[=*Robustaurila kianohybrida* (Hu, 1984) (by Hino and Ikeya, 1990)]

***Ambostracon nodulosa* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 99, 100, Pl. 3, figs. 8, 11, 18, 22, text-fig. 20

Holotype: TNUM 7047, Paratypes: TNUM 7045; TNUM 7546; TNUM 7048 (Pl. 3, fig. 22)

Outcrop along the Hengchun to Olanpi Highway, N coast of

the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °56.3'N, 120 °48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Three figures (Pl. 3, figs. 8, 11, 18) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7045~7047).]

***Ambtonia* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 390

Type species: *Ambtonia glabra* Malz, 1982

***Ambtonia glabra* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 391, Pl. 6, figs. 43, 44, Pl. 7, figs. 45~50, table 2

Holotype: RV male, SMF Xe 12335 (Pl. 7, fig. 47), Paratypes: RV female, SMF Xe 12336a (Pl. 7, fig. 46); LV male, SMF Xe 12336b (Pl. 7, fig. 50); LV female, SMF Xe 12337a (Pl. 7, fig. 48); RV female, SMF Xe 12337b (Pl. 7, fig. 49); LV female, SMF Xe 12338 (Pl. 7, fig. 45); SMF Xe 12339~12347 (no figures)

SSW of Maanshan, SW Taiwan

Maanshan Formation

Pliocene

***Ambtonia obai* (Ishizaki, 1971)**

[See *Basslerites obai* Ishizaki, 1971.]

***Ambtonia shimanensis* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 17, figs. 5-8, 9-1a~c, 2a~e

Holotype: RV female, SUM CO 1250 (figs. 9-2a~e), Paratypes: LV female, SUM CO 1251 (figs. 9-1a~c); LV, SUM CO 1252 (fig. 5-8)

Loc. 1-A11 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35 °25.5'N, 133 °02.3'N)

Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 10 m below the top of the Lower Member of Fujina Formation]

***Ambtonia takayasui* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 17, 18, figs. 5-9, 9-3a~e, 4a~c, 6a~c

Holotype: LV female, SUM CO 1253 (figs. 9-3a~e), Paratypes: RV female, SUM CO 1254 (figs. 9-4a~c); RV male, SUM CO 1255 (figs. 9-6a~c); LV female, SUM CO 1256 (fig. 5-9)

Loc. 1-A16 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35 °25.5'N, 133 °02.3'N)

Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 4 m below the top of the Lower Member of Fujina Formation]

Holotype: RV, IGPS 101230 (Pl. 1, fig. 6), Paratypes: LV, IGPS 101231 (Pl. 1, fig. 3); LV, IGPS 101232 (Pl. 1, fig. 2, text-fig. 9); RV, IGPS 101233 (Pl. 1, fig. 1, text-fig. 10); RV, IGPS 101234 (Pl. 1, fig. 5); LV, IGPS 101235 (Pl. 1, fig. 4)
St. 156 = Toyama Bay (37°32.5'N, 137°27.5'E) (silty clay, depth 580 m)
Recent

***Asterope brevis* G.W. Müller, 1890**

Zool. Jahrb. System., no. 5, p. 239, 240, Pl. 25, figs. 10, 14, Pl. 26, figs. 7, 12, Pl. 27, figs. 7~10, 15, 16
Holotype: not designated (ZMB collection)
Off Enoshima, Fujisawa-shi, Kanagawa Prefecture (depth 15 m)
Recent
[=*Cycloleberis brevis* (G.W. Müller, 1890) (by Kajiyama, 1912)]

***Asterope fusca* G. W. Müller, 1890**

Zool. Jahrb. System., v. 5, p. 242, 243, Pl. 25, figs. 11-13, Pl. 27, figs. 19-22, 25
Syntypes: CC female with appendages, ZMB 6977 (figs. 127, 128a~g, 129a~d in Kornicker, 1981), 4 CC individuals (ZMB collection) (by Kornicker, 1981)
Off Enoshima, Fujisawa-shi, Kanagawa Prefecture (depth 15 m)
Recent
[=*Asteropteron fuscum* (G. W. Müller, 1890) (by Skogsberg, 1920). The specimens of G. W. Müller were collected by F. Hilgendorf in the period of 1873 to 1876 (G. W. Müller, 1890)]

***Asterope hilgendorfi* G.W. Müller, 1890**

Zool. Jahrb. System., no. 5, p. 241, Pl. 25, fig. 15, Pl. 26, figs. 8, 12, Pl. 27, figs. 4~6, 17
Holotype: not designated (ZMB collection)
Off Enoshima, Fujisawa-shi, Kanagawa Prefecture (depth 15 m) [= *Cyclasterope hilgendorfi* (G.W. Müller, 1890) (by Hanai *et al.*, 1977)]

***Asteropteron fuscum* (G. W. Müller, 1890)**

[See *Asterope fusca* G. W. Müller, 1890.]

***Aurikirkbya ? brevis* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 51, 52, Pl. 1, figs. 5, 6
Holotype: LV, IGPS 87064 (Pl. 1, fig. 5), Paratype: RV, IGPS 87065 (Pl. 1, fig. 6)
1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture
Tassobe Formation
Lower Permian

***Aurikirkbya ? hinomataensis* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 52, Pl. 1, figs. 14, 15
Holotype: RV, IGPS 87066 (Pl. 1, fig. 14), Paratype: RV, IGPS 87067 (Pl. 1, fig. 15)
1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture
Tassobe Formation
Lower Permian

***Aurikirkbya ? lata* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 52, 53, Pl. 1, fig. 9
Holotype: LV, IGPS 87068 (Pl. 1, fig. 9)
1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture
Tassobe Formation
Lower Permian

***Aurikirkbya ? tenuise* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 53, 54, Pl. 1, fig. 13
Holotype: RV, IGPS 87069 (Pl. 1, fig. 13)
1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture
Tassobe Formation
Lower Permian

***Aurikirkbya formula* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 143, 144, Pl. 16, figs. 3, 4, text-fig. 2
Holotype: RV, IGPS 85772 (Pl. 16, fig. 3, text-fig. 2), Paratype: RV, IGPS 85773 (Pl. 16, fig. 4)
Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture
Iwaizaki Limestone (Unit G, black limestone)
Permian

***Aurikirkbya subkellletae* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 144, 145, Pl. 16, figs. 5, 6, text-fig. 3
Holotype: LV, IGPS 85774 (Pl. 16, fig. 5, text-fig. 3), Paratype: LV, IGPS 85775 (Pl. 16, fig. 6)
Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture
Iwaizaki Limestone (Unit G, black limestone)
Permian
[=*Aurikirkbya ? subkellletae* Ishizaki, 1964 (by Hanai *et al.*, 1977)]

***Aurila acostata* Schornikov and Tsareva, 1995**

Mitt. Hamburg Zool. Mus. Inst., v. 92, p. 238~241, text-figs. 2-1~8, 3-1~12, Pl. 1, figs. 1~7, 9~12, Pl. 2, figs. 9~12
Holotype: CC male, FESC1799~1800 (Pl. 1, figs. 1, 2),

Paratypes: 30 specimens, 163 valves (no numbers)

Off the Verkhovskogo Islands, the Great Peter Bay, Sea of Japan (depth 45 m)

Recent

[The figures (text-figs. 2-1~8, 3-1~12, Pl. 1, figs. 3~7, Pl. 2, figs. 9~12) in the original description (Schornikov and Tsareva, 1995) cannot be correlated with each type specimen.]

***Aurila corniculata* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 5/6, p. 399, 400, figs. 10g~j

Holotype: CC female, MO 1105 (no figures) (the specimen missing), Paratypes: CC female, MO 306 (=NSMT-Cr 15252) (no figures); CC female, MO 1106 (figs. 10g, h) (the specimen missing); CC female, MO 1115 (figs. 10i, j) (the specimen missing)

St. 1 = The intertidal zone, Hosono-su Sand Bank, Inno-shima-shi, Hiroshima Prefecture (34 °21.9'N, 133 °08.0'E) (sandy mud)

Recent

[Paratype specimens are figured as figs. 10g, h (MO 1106) and figs. 10 i, j (MO 1115), but the figures of holotype (MO 1105) specimens is not shown.]

***Aurila cymba* (Brady, 1869)**

[See *Cythere cymba* Brady, 1869.]

***Aurila disparata* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 5/6, p. 402, 403, figs. 4a~i, 7e, f, 9e~j

Holotype: CC male with appendages, MO 686 (=NSMT-Cr 15253) (figs. 4a-i, 7e, f), Allotype: CC female, MO 687 (=NSMT-Cr 15254) (no figures), Paratypes: CC male, MO 1047 (figs. 9g, h) (the specimen missing); CC female, MO 1048 (figs. 9e, f) (the specimen missing); CC female, MO 1093 (figs. 9i, j) (the specimen missing)

St. 12 = The intertidal zone, rocky shore, Ohama, Kurashiki-shi, Okayama Prefecture (34 °25.6'N, 133 °49.4'E)

Recent

***Aurila elongata* Schornikov and Tsareva, 1995**

Mitt. Hamburg Zool. Mus. Inst., v. 92, p. 244~246, text-figs. 5-1~11, Pl. 3, figs. 1~7

Holotype: CC male, FESC1801~1802 (Pl. 3, figs. 3, 4), Paratypes: 49 specimens, 49 valves (no numbers)

Rocky shore of Vostok, the northern Chuprov Bight, off Moneron Island, Sea of Japan (on algae, depth 3~4 m)

Recent

[The figures (text-figs. 5-1~11, Pl. 3, figs. 1, 2, 5~7) in the original description (Schornikov and Tsareva, 1995) cannot be correlated with each type specimen.]

***Aurila formosana* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 198, 199, Pl. 1, figs. 1~6, text-fig. 9

Holotype: CC, CKUM 3000 (Pl. 1, figs. 4, 5), Paratype: RV, CKUM 3001 (Pl. 1, fig. 2); LV, CKUM 3002 (Pl. 1, fig. 1); LV, CKUM 3003 (Pl. 1, fig. 3); CKUM 3004 (Pl. 1, fig. 6); CKUM 3005~3015 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

[=*Robstaurila formosana* (Hu and Cheng, 1977) (by this paper)]

***Aurila grata* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 105, Pl. 1, fig. 24, Pl. 2, figs. 1, 6, 8

Holotype: CKUM 1006 (Pl. 1, fig. 24), Paratypes: CC, CKUM 1004 (Pl. 2, figs. 6, 8); CKUM 1005 (Pl. 2, fig. 1)

Mc-1 or 4 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

[2 sample horizons for type locality are designated in Hu and Yang (1975, p. 105). The sample horizons of Mc-1 to Mc-6 are indicated from bottom to top of the Chinsui Shale.]

***Aurila hataii* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 20, 21, Pl. 1, figs. 5, 6, Pl. 4, figs. 5, 6

Holotype: CC, IGPS 90229 (Pl. 1, figs. 5, 6, Pl. 4, figs. 5, 6)

St. 303 = Uranouchi Bay, Kochi Prefecture (33 °24'57"N, 133 °26'53"E) (coarse sand, depth 25 m)

Recent

***Aurila ikeyai* Okubo, 1988**

Hanai *et al.* (eds.), Evolutionary Biology of Ostracoda, its fundamentals and applications, Kodansha, Tokyo, p. 142, text-figs. 1d~i, 5e, 5f

Holotype: CC male with appendages, MO 1927 (=NSMT-Cr 15255) (text-figs. 1d, 1e), Paratypes: CC male with appendages, MO 1642 (=NSMT-Cr 15256) (text-figs. 1g, 5e, 5f); male and female, MO 1641 (no figures) (the specimen missing); CC male with appendages, MO 1639 (=NSMT-Cr 15257) (text-fig. 1f); male appendage, MO 1640 (text-fig. 1h); male appendage, MO 1689 (text-fig. 1i) (the specimen missing)

The intertidal zone, rocky shore, Aburatsubo, Misaki-shi, Kanagawa Prefecture (on algae) (35 °09.2'N, 139 °36.9'E)

Recent

***Aurila imotoi* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 21,

22, Pl. 1, figs. 7, 8, Pl. 4, figs. 3, 4

Holotype: CC, IGPS 90230 (Pl. 1, figs. 7, 8, Pl. 4, figs. 3, 4)

St. 302 = Uranouchi Bay, Kochi Prefecture (33°24'49"N, 133°26'35"E) (coarse sand, depth 32 m)

Recent

***Aurila inabai* Okubo, 1976**

Proc. Japan Soc. Syst. Zool., no. 12, p. 34~37, text-figs. 1a~i, Pl. 1, figs. 1a~r

Holotype: CC female with appendages, MO 329 (=NSMT-Cr 15258) (text-figs: 1a, b, Pl. 1, figs. p~r), Paratypes: CC male with appendages, MO 311 (=NSMT-Cr 15259) (no figures); CC male with appendages, MO 313 (=NSMT-Cr 15260) (text-figs. 1c~i, Pl. 1, figs. e, f, m); CC male with appendages, MO 314 (Pl. 1, figs. n, o); CC female, MO 326 (Pl. 1, figs. a, b); CC male, MO 327 (no figures); CC juvenile (A-1 stage), MO 328a (Pl. 1, figs. h~j); CC juvenile (A-2 stage), MO 328b (Pl. 1, figs. k, l); CC female with appendages, MO 330 (=NSMT-Cr 15261) (no figures); 2 CC females, MO 331, 332 (no figures)

Tidal zone of the rocky shore near the Mukaishima Marine Biological Station, Hiroshima University, Mukaishima-cho, Mitsugi-gun, Hiroshima Prefecture (34°21.7'N, 133°13.2'E)

Recent

***Aurila kianfascisma* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 76, Pl. 3, figs. 14~16, 19, 20, 23, 27, 28, text-fig. 12

Holotype: CC, TNUM 4162 (Pl. 3, figs. 27, 28), Paratypes: CC, TNUM 4159 (Pl. 3, figs. 14, 20); 3V, TNUM 4160 (Pl. 3, figs. 15, 16, 19); LV, TNUM 4161 (Pl. 3, fig. 23)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Aurila kiritsubo* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 210, 211, Pl. 13, figs. 9~11, Pl. 15, figs. 14, 16, text-figs. 16-3, 4

Holotype: LV female, UMUT CA 9863 (Pl. 13, fig. 10, Pl. 15, figs. 14, 16, text-fig. 16-3), Paratypes: RV, UMUT CA 9864 (Pl. 13, fig. 9, text-fig. 16-4); CC, UMUT CA 9865 (Pl. 13, fig. 11)

Loc. 49 = A small exposure, near Shimoike pond, 3 km SE of Sodegaura railway station, Sodegaura-machi, Kimitsu-gun, Chiba Prefecture (35°24'57"N, 139°59'30"E)

Kioroshi Formation (Toyonari Member)

Pleistocene

***Aurila magna* Hu, 1976**

Proc. Geol. Soc. China, no. 19, p. 39, 40, Pl. 3, figs. 24, 25, 28, text-fig. 11

Holotype: CKUM 2010 (Pl. 3, fig. 28), Paratype: LV, CKUM 2011 (Pl. 3, figs. 24, 25)

Loc. 13 = 2.5 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Aurila grada* Hu and Yang, 1975 (by Hu, 1983)]

***Aurila miui* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 22, Pl. 1, fig. 9, Pl. 4, figs. 1, 2

Holotype: LV, IGPS 90231 (Pl. 1, fig. 9, Pl. 4, fig. 2), Paratype: RV, IGPS 90232 (Pl. 4, fig. 1)

Uranouchi Bay, Kochi Prefecture

Recent

[=*Aurila cymba* (Brady, 1869) (by Hanai *et al.*, 1977)]

***Aurila modesta* Schornikov and Tsareva, 1995**

Mitt. Hambrug. Zool. Mus. Inst., v. 92, p. 247, Pl. 4, figs. 7~11

Holotype: LV male, FESC1803 (Pl. 4, fig. 10), Paratypes: 8 valves (no numbers)

East China Sea (27°20'N, 125°59'E) (fine sand, depth 160 m)

Recent

[The figures (Pl. 4, figs. 7~9, 11) in the original description (Schornikov and Tsareva, 1995) cannot be correlated with each type specimen.]

***Aurila munechikai* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 23, Pl. 4, figs. 7, 8

Holotype: CC, IGPS 90233 (Pl. 4, figs. 7, 8)

St. 315 = Uranouchi Bay, Kochi Prefecture (33°25'55"N, 133°27'37"E) (fine sand, depth 10.5 m)

Recent

***Aurila okayamensis* Okubo, 1988**

Hanai *et al.* (eds.), Evolutionary Biology of Ostracoda, its fundamentals and applications, Kodansha, Tokyo, p. 142

Holotype: CC male with appendages, MO 802 (=NSMT-Cr 15262) (figs. 3a~g, 7g, 7h, 8a~e in Okubo, 1980c), Paratypes: male and female, MO 923 (no figures); CC male (A-1 stage), MO 938 (=NSMT-Cr 15263) (figs. 10c, 10d in Okubo, 1980c); male, MO 941 (no figures); CC female, MO 1118 (figs. 10a, 10b in Okubo, 1980c) (the specimen missing)

St. 20 = the intertidal zone, rocky shore, Te-shima, Shodo-gun, Kagawa Prefecture (34°29.1'N, 134°03.3'E)

Recent

[This new species was given for *Aurila hataii* Ishizaki, 1968 described by Okubo, 1980c, p. 400, 401. See figs. 3a~g, 7g, h, 8a~e in Okubo, 1980c.]

***Aurila okumurai* Yajima, 1992**

Bull. Mizunami Fossil Mus., no. 19, p. 261, 262, Pl. 29, figs.

3, 4, Pl. 30, figs. 3~6

Holotype: RV, UMUT CA 19098 (Pl. 29, figs. 3a, b, Pl. 30, figs. 4, 5), Paratype: LV, UMUT CA 19099 (Pl. 29, figs. 4a, b, Pl. 30, figs. 3, 6)

Loc. 1 = A small exposure, right bank of the Hiyoshi River, 2.5 km N of the Mizunami Fossil Museum, Hiyoshi-machi, Mizunami-shi, Gifu Prefecture (35°23'29"N, 137°14'27"E)
Akeyo Formation (Shukunohora Sandstone Member)
Early Miocene

***Aurila pseudoamygdala* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 143, Pl. 16, figs. 5, 6

Holotype: CC, IGPS 85822 (Pl. 16, fig. 5), Paratype: LV, IGPS 85823 (Pl. 16, fig. 6)

Goroku, in the western border of Sendai-shi, Miyagi Prefecture
Tatsunokuchi Formation
Pliocene

***Aurila spinifera* Schornikov and Tsareva, 1995**

Mitt. Hamburg. Zool. Mus. Inst., v. 92, p. 248, Pl. 4, figs. 1~6

Holotype: CC female, FESC1804 (Pl. 4, figs. 3, 4), Paratypes: 6 juveniles (A-1~A-4 Stages) (no numbers)

The northern Okinawa Trough, the East China Sea (27°20'N, 125°59'E) (fine sand, depth 160 m)

Recent

[The figures (Pl. 4, figs. 1, 2, 5, 6) in the original description (Schornikov and Tsareva, 1995) cannot be correlated with each type specimen.]

***Aurila subconvexa* (Kajiyama, 1913)**

[See *Cythereis subconvexa* Kajiyama, 1913.]

***Aurila subgrata* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 75, 76, Pl. 3, figs. 17, 18, text-fig. 11

Holotype: CC, TNUM 4158 (Pl. 3, figs. 17, 18)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Aurila tosaensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 23, 24, Pl. 4, figs. 16, 17

Holotype: CC, IGPS 90234 (Pl. 4, figs. 16, 17)

St. 303 = Uranouchi Bay, Kochi Prefecture (33°24'57"N, 133°26'53"E) (coarse sand, depth 25 m)

Recent

***Aurila uranouchiensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 24,

Pl. 4, figs. 9, 10

Holotype: LV, IGPS 90235 (Pl. 4, fig. 10), Paratype: RV, IGPS 90236 (Pl. 4, fig. 9)

St. 10 = Uranouchi Bay, Kochi Prefecture (33°26'19"N, 133°25'31"E) (coarse sand, depth 10 m)

Recent

***Australimoosella hanaii* Yajima, 1992**

Bull. Mizunami Fossil Mus., no. 19, p. 260, Pl. 32, figs. 15, 16

Holotype: CC, UMUT CA 19096 (Pl. 32, fig. 15), Paratype: CC, UMUT CA 19097 (Pl. 32, fig. 16)

Loc. 1 = A small exposure, right bank of the Hiyoshi River, 2.5 km N of the Mizunami Fossil Museum, Hiyoshi-machi, Mizunami-shi, Gifu Prefecture (35°23'29"N, 137°14'27"E)

Akeyo Formation (Shukunohora Sandstone Member)

Early Miocene

***Azygocypridina ohtai* Hiruta, 1981**

Jour. Hokkaido Univ., Educ., Sec. B, v. 32, no. 1, p. 49~56, figs. 2-1~6, 2-1~5, 3-1~5, 4-1~4, 5-1~4

Holotype: CC female with appendages, ZIHU 2217 (figs. 2-1~6, 3-1~5, 4-1~4, 5-1~4)

St. OT-3 = Off Toi, Suruga Bay (34°56.3'N, 138°43.7E-34°55.5'N, 138°43.6'E) (mud, depth 388~395 m)

Recent

***Azygocypridina tanseimaruae* Hiruta, 1981**

Proc. Japan Soc., Syst. Zool., no. 21, p. 27~34, figs. 2-1~6, 3-1~4, 4-1~3, 5-1~5

Holotype: CC female with appendages, ZIHU 2216 (figs. 2-1~6, 3-1~4, 4-1~3, 5-1~5)

St. OT-8 = Off Toi, Suruga Bay (34°55.7'N, 138°40.4'E - 34°55.4'N, 138°40.4'E) (mud, depth 1050~1035 m)

Recent

***Baffinicythere ishizakii* Irizuki, 1996**

Jour. Paleont., v. 70, no. 3, p. 457, figs. 7.1, 11.1~6, 12.1~5

Holotype: LV male, IGPS 101614 (figs. 7.1, 11.1, 2, 12.1), Paratypes: LV female, IGPS 101615 (figs. 11.3, 12.2); RV male, IGPS 101616 (figs. 11.4, 5); RV female, IGPS 101617 (fig. 16.6)

PSK-7 [on the map of Kamiyakumo (1: 25,000)] (42°19'15"N, 140°08'15"E)

Setana Formation

Pleistocene

***Baffinicythere paiki* Huh and Whatley, 1997**

Jour. Micropalaeont., v. 16, p. 34, 36, Pl. 1, figs. 11~15, Pl. 2, figs. 1, 2

Holotype: RV female, CNU O 509 (Pl. 1, fig. 11), Paratypes: LV female, CNU O 510 (Pl. 1, fig. 12); RV male, CNU O 511 (Pl. 1, fig. 13); LV male, CNU O 512 (Pl. 1, fig. 14); RV male, CNU O 513 (Pl. 1, fig. 15); LV female, CNU O 514 (Pl. 2, fig. 1); RV female, CNU O 515 (Pl. 2, fig. 2)

Sample SJ2-3 = Seojeongri area of Yeongil-gun, ca. 8.5 km NNW of Pohang, SE coast of Korean Peninsula
Yeonil Group
Middle Miocene

***Baffinicythere reticulata* Irizuki, 1996**

Jour. Paleont., v. 70, no. 3, p. 457, figs. 7.2, 11.7~12, 12.6~11
Holotype: LV male, IGPS 101540 (figs. 7.2, 11.7, 11.8, 12.6),
Paratypes: LV female, IGPS 101626 (figs. 11.9, 12.7); RV
male, IGPS 101627 (figs. 11.10, 11); RV female, IGPS
101628 (figs. 11.12)

914-5 [on the map of Aomori-seibu (1 : 25,000)] (40 °
45'12''N, 140 °38'35''E)

Daishaka Formation

Pliocene

***Baffinicythere robusticostata* Irizuki, 1996**

Jour. Paleont., v. 70, no. 3, p. 457, 460, figs. 7.3, 11.13~18,
12.12~17

Holotype: RV male, IGPS 101639 (figs. 11.16, 17),
Paratypes: LV male, IGPS 101637 (figs. 7.3, 11.13, 14,
12.12); LV female, IGPS 101638 (figs. 11.15, 12.13); RV
female, IGPS 101640 (fig. 11.18)

St. 31 = Otsuchi Bay (39 °22'10''N, 142 °00'00''E) (sandy
silt, depth 82 m)

Recent

***Bairdia elegans* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 156, Pl. 16, figs. 11, 12
Lectotype: CC, HMNT 1.15.19 (Pl. 1, fig. 6 in Whatley and
Zhao, 1987), Paralectotypes: CC juvenile, HMNT 1.14.33 (Pl.
1, fig. 5 in Whatley and Zhao, 1987); LV, HMNT 1.15.20 (Pl.
1, fig. 7 in Whatley and Zhao, 1987); LV juvenile, HMNT
1.15.21 (Pl. 1, fig. 3 in Whatley and Zhao, 1987); RV
juvenile, HMNT 1.15.22 (Pl. 1, fig. 4 in Whatley and Zhao,
1987)

Hong Kong

Recent

[=*Neonesidea elegans* (Brady, 1869) (by Whatley and Zhao,
1987)]

***Bairdia eucurvia* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 153,
Pl. 18, figs. 9a, b, 10

Holotype: CC, IGPS 85802 (Pl. 18, figs. 9a, b), Paratype: RV,
IGPS 85801 (Pl. 18, fig. 10)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi
Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Bairdia hanaii* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, nos. 2~4, p. 165, 166, Pl. 9,
figs. 1a, b

Holotype: RV, IGPS 78380 (Pl. 9, figs. 1a, b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture
Nagaiwa Formation

Lower Pennsylvanian

***Bairdia hataii* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, nos. 2~4, p. 166, 167, Pl. 9,
figs. 2a, b

Holotype: CC, IGPS 78381 (Pl. 9, figs. 2a, b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture
Nagaiwa Formation

Lower Pennsylvanian

***Bairdia iwaizakiensis* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 61, 62,
Pl. 2, figs. 15, 16

Syntypes: CC, IGPS 87090 (Pl. 2, fig. 16); CC, IGPS 87089
(Pl. 2, fig. 15)

1,200 m N of Hinomata, a tributary of the Hinomata River,
Ohazama-machi, Hinuki-gun, Iwate Prefecture

Tassobe Formation

Lower Permian

***Bairdia mutsuensis* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 77,
Pl. 1, fig. 9, Pl. 2, figs. 6~8

Holotype: CC, IGPS 90334 (Pl. 2, fig. 7), Paratypes: RV,
IGPS 90335 (Pl. 2, fig. 8); LV, IGPS 90336 (Pl. 1, fig. 9, Pl. 2,
fig. 6)

St. 24 = Aomori Bay, Aomori Prefecture (40 °53'33''N, 140 °
51'36''E) (adhering to plant, depth 5 m)

Recent

[=*Neonesidea mutsuensis* (Ishizaki, 1971) (by Hanai *et al.*,
1977)]

***Bairdia nagaiwensis* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, nos. 2~4, p. 168, 169, Pl. 9,
figs. 4a, b

Holotype: CC, IGPS 78383 (Pl. 9, figs. 4a, b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture
Nagaiwa Formation

Lower Pennsylvanian

***Bairdia obtusa* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 153, 154, Pl. 4, figs. 15, 22, 25,
28, text-fig 28

Holotype: CKUM 3884 (Pl. 4, fig. 28), Paratypes: RV,
CKUM 3882 (Pl. 4, figs. 15, 25); CKUM 3883 (Pl. 4, fig. 22)

An outcrop about 2 km S of Miaoli City, Miaoli District,
Taiwan

Toukoshan Formation

Pleistocene

***Bairdia oligodentata* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 3, Pl. 1, figs. 10~18

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

[=*Neonesidea oligodentata* (Kajiyama, 1913) (by Schornikov, 1975)]

***Bairdia pseudoemaciata* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, nos. 2-4, p. 172, 173, Pl. 9, figs. 7a, b

Holotype: LV, IGPS 78387 (Pl. 9, fig. 7a), Paratype: LV, IGPS 78388 (Pl. 9, fig. 7b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

***Bairdia shoufinnae* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 102, 104, Pl. 18, figs. 1, 2

Holotype: CC, TNUM 11434 (Pl. 18, figs. 1, 2)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24°37.7'N, 120°45.1'E)

Tungshiao Formation (Nanwi Member)

Pleistocene

***Bairdia taiwanensis* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 193, 194, Pl. 2, figs. 1, 2, 15, 16, 18, text-fig. 3

Holotype: CC, CKUM 3056 (Pl. 2, fig. 15), Paratype: LV, CKUM 3051 (Pl. 2, fig. 1); RV, CKUM 3052 (Pl. 2, fig. 2); CC, CKUM 3057 (Pl. 2, fig. 16); CKUM 3058 (Pl. 2, fig. 18); CKUM 3059~3062 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

***Bairdia* var. *taiwanensis* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 194, Pl. 2, figs. 3, 4, 17, text-fig. 4

Holotype: CKUM 3053 (Pl. 2, fig. 3), Paratype: RV, CKUM 3054 (Pl. 2, fig. 4); CKUM 3055 (Pl. 2, fig. 17); CKUM 3063~3070 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

***Bairdoppilata itoigawai* Yajima, 1992**

Bull. Mizunami Fossil Mus., no. 19, p. 253, 254, Pl. 29, figs.

1, 2, Pl. 30, figs. 1, 2

Holotype: RV, UMUT CA 19080 (Pl. 29, figs. 1a, b, Pl. 30, fig. 2), Paratype: LV, UMUT CA 19081 (Pl. 29, figs. 2a, b, Pl. 30, fig. 1)

Loc. 1 = A small exposure, right bank of the Hiyoshi River, 2.5 km N of the Mizunami Fossil Museum, Hiyoshi-machi, Mizunami-shi, Gifu Prefecture (35°23'29''N, 137°14'27''E)

Akeyo Formation (Shukunohora Sandstone Member)

Early Miocene

***Basslerites obai* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 84, 85, Pl. 2, fig. 4, Pl. 1, figs. 2, 8

Holotype: RV, IGPS 91551 (Pl. 1, fig. 8, Pl. 2, fig. 4), Paratype: RV, IGPS 91552 (Pl. 1, fig. 2)

St. 90 = Aomori Bay, Aomori Prefecture (41°01'20''N, 140°49'18''E) (mud, depth 45 m)

Recent

[=*Ambtonia obai* (Ishizaki, 1971) (by Bodergat and Ikeya, 1988)]

***Basslerites taiwanensis* Hu and Yeh, 1978**

Proc. Geol. Soc. China, no. 21, p. 153, 155, 156, Pl. 2, figs. 1, 2, 11~13, text-fig. 3

Holotype: CC, CKUM 3940 (Pl. 2, fig. 11), Paratypes: CKUM 3941~3943; CKUM 3944, 3945 (no figures)

0.5 km S of the Liushuang village, Kuantien-hisang, Tainan-hsien, Tainan District, Taiwan

Liushuang Formation

Pleistocene

[=*Moosella tomokoae* (Ishizaki, 1968) (by this paper). Four figures (Pl. 2, figs. 1, 2, 12, 13) in the original description (Hu and Yeh, 1978) cannot be correlated with each type specimen (CKUM 3941~3943).]

***Basslerites wangokuefei* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 79, 80, Pl. 9, fig. 9, text-fig. 11

Holotype: RV, TNUM 8049 (Pl. 9, fig. 9)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

***Bathyleberis yamadai* Hiruta, 1979**

Jour. Fac. Sci., Hokkaido Univ., Ser. 6 (Zool.), v. 22, no. 1, p. 99~121, figs. 1-1~5, 2-1~5, 3-1~5, 4-1~3, 5-1, 2, 6-1~4, 7-1~4, 8-1~7, 9-1~4, 10-1~5, 11-1~7, 12-1~3, 13-1~5, 14-1~3, 15-1, 2, 16-1~8, 17-1~9

Holotype: CC female with appendages, ZIHU 2190 (figs. 1-1~5, 2-1~5, 3-1~4), Allotype: CC male with appendages, ZIHU 2191 (figs. 4-1~3, 5-1, 2, 6-1~4, 7-1, 2), Paratypes: CC male with appendages, ZIHU 2192 (figs. 7-3, 4); CC

male with appendages, ZIHU 2193 (no figures); CC female with appendages, ZIHU 2194 (fig. 3-5); CC female with appendages, ZIHU 2195 (no figures); CC juvenile (A-5 stage) with appendages, ZIHU 2196 (no figures); CC juvenile (A-5 stage) with appendages, ZIHU 2197 (no figures); CC juvenile (A-5 stage) with appendages, ZIHU 2198 (figs. 9-1~4, 10-1,2,4,5); CC juvenile (A-5 stage) with appendages, ZIHU 2199 (figs. 8-1, 10-3); CC juvenile (A-4 stage) with appendages, ZIHU 2200 (fig. 11-6); CC juvenile (A-4 stage) with appendages, ZIHU 2201 (figs. 11-1~5, 7, 12-1~3); CC juvenile (A-4 stage) with appendages, ZIHU 2202 (no figures); CC juvenile (A-3 stage) with appendages, ZIHU 2203 (no figures); CC juvenile (A-3 stage) with appendages, ZIHU 2204 (no figures); CC juvenile (A-3 stage) with appendages, ZIHU 2205 (figs. 13-1~5, 14-1~3); CC juvenile (male) (A-2 stage) with appendages, ZIHU 2206 (no figures); CC juvenile (male) (A-2 stage) with appendages, ZIHU 2207 (no figures); CC juvenile (male) (A-2 stage) with appendages, ZIHU 2208 (figs. 15-1, 16-5~8); CC juvenile (female) (A-2 stage) with appendages, ZIHU 2209 (no figures); CC juvenile (female) (A-2 stage) with appendages, ZIHU 2210 (no figures); juvenile (female) (A-2 stage) with appendages, (shell missing) ZIHU 2211 (figs. 15-2, 16-1~4); CC juvenile (male) (A-1 stage) with appendages, ZIHU 2212 (no figures); CC juvenile (male) (A-1 stage) with appendages, ZIHU 2213 (figs. 17-5~9); CC juvenile (female) (A-1 stage) with appendages, ZIHU 2214 (fig. 17-2); CC juvenile (female) (A-1 stage) with appendages, ZIHU 2215 (figs. 17-1,3,4)

Oshoro Bay, Oshoro, W of Otaru-shi, Ishikari Bay, Hokkaido (43 °13'N, 140 °52'E) (muddy sand, depth 3~5 m)

Recent

[=*Xenoleberis yamadai* (Hiruta, 1979) (by Kornicker, 1994)]

***Bicornucythere bisanensis* (Okubo, 1975)**

[See *Leguminocythereis bisanensis* Okubo, 1975.]

***Bicornucythere* Schornikov, 1979**

Zool. Mar., v. 2, p. 42~45

Type species: *Leguminocythereis bisanensis* Okubo, 1975

***Boreostoma ussuricum* (Schornikov, 1974)**

[See *Paradoxostoma ussuricum* Schornikov, 1974.]

***Bosquetina bacca* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 78, 79, Pl. 9, figs. 28, 31, 32, text-fig. 10

Holotype: RV, TNUM 8072 (Pl. 9, fig. 31), Paratypes: 2 RV, TNUM 8073, 8074 (Pl. 9, figs. 28, 32)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

***Bosquetina carinata* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 145, 146, Pl. 4, figs. 10, 11, 14, text-fig. 18

Holotype: LV, CKUM 3874 (Pl. 4, figs. 11, 14), Paratype: CKUM 3875 (Pl. 4, fig. 10)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

***Bradleya japonica* Benson, 1972**

Smithsonian Contr., Paleobiology, no. 12, p. 40, Pl. 7, fig. 3, text-fig. 14B

Holotype: LV, USNM 174320 (Pl. 7, fig. 3, text-fig. 14B)

ALB. 3708 = Suruga Bay, ca. 3.6 km SW off Ose-zaki, Numazu-shi, Shizuoka Prefecture (35 °00.4'N, 138 °45.5'E) (depth 130 m)

Recent

***Bradleya donghaiensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 159, 160, Pl. 171, figs. 1, 2

Holotype: LV, DJ 0007 (Pl. 171, fig. 2), Paratype: LV, RV 0008 (Pl. 171, fig. 1)

East China Sea

Donghai Group

Pleistocene to Holocene

***Bradleya nuda* Benson, 1972**

Smithsonian Contr., Paleobiology, no. 12, p. 41, 42, Pl. 7, fig. 5, text-fig. 14A

Holotype: LV, USNM 174323 (Pl. 7, fig. 5, text-fig. 14A)

F25510 (Ozawa locality) = Near Okuwa, Kanazawa, Ishikawa Prefecture

Omma Formation

Upper Pliocene

***Bradleya ovata* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 97, Pl. 3, figs. 27, 29, text-fig. 17

Holotype: RV, TNUM 7061 (Pl. 3, figs. 27, 29)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 °48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Bradleya pitalia* (Hu, 1981)**

[See *Trachyleberidea pitalia* Hu, 1981.]

***Bradleya saitoi* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, no. 1, p. 29, 30, Pl. 2, figs. 11, 13~19

Holotype: CC female, IGPS 78361 (Pl. 2, fig. 15), Paratypes: LV female, IGPS 78362 (Pl. 2, fig. 14); LV immature male, IGPS 78363 (Pl. 2, fig. 16); LV immature male, IGPS 78364 (Pl. 2, fig. 17); LV female, IGPS 78365 (Pl. 2, fig. 18); RV female, IGPS 78366 (Pl. 2, fig. 19); CC female, IGPS 78371 (Pl. 2, fig. 13); RV male, IGPS 78899 (Pl. 2, fig. 11)

Nishiichinose, W of Kanazawa-shi, Ishikawa Prefecture

Yatsuo Formation (Sunakosaka Member)

Miocene

[=*Cornucoquimba saitoi* (Ishizaki, 1963) (by Hanai *et al.*, 1977)]

***Bradleya sendaiensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 156, Pl. 16, fig. 12

Holotype: RV, IGPS 85825 (Pl. 16, fig. 12)

A cliff near the Taihakusan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

[=*Bradleya ? sendaiensis* Ishizaki, 1966 (by Hanai *et al.*, 1977)]

***Bradoria subacuminata* Saito, 1934**

Jour. Geol. Geogr., v. 11, p. 233, Pl. 27, figs. 25~27

Holotype: UMUT

Imp'ori, Cho'ongsu-myön, Hwanghai-dô, Korea

Lower Redilichia shales

Cambrian

***Brunnestoma brunneum* (Schornikov, 1974)**

[See *Paradoxostoma brunneum* Schornikov, 1974.]

***Buntonia hanaii* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 401, 402, Pl. 50, figs. 4a, b

Holotype: LV, UMUT CA 8427 (Pl. 50, fig. 4b), Paratype: RV, UMUT CA 8428 (Pl. 50, fig. 4a)

Loc. 29 = An exposure, 300 m SW of the Shounji Temple, Senzoku, Josai, Kisarazu-shi, Chiba Prefecture (35°21'52"N, 139°56'00"E)

Narita Formation (Kioroshi Member)

Pleistocene

***Buntonia hayamii* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p.88, 89, Pl. 12, figs. 9~15, text-figs. 16-7, 8

Holotype: RV female, UMUT CA 15864 (Pl. 12, figs. 9, 14, text-fig. 16-8), Paratypes: LV female, UMUT CA 15865 (Pl. 12, fig. 10); RV male, UMUT CA 15866 (Pl. 12, fig. 11); LV male, UMUT CA 15867 (Pl. 12, figs. 12, 13, text-fig. 16-7);

CC male, UMUT CA 15868 (Pl. 12, fig. 15)

Loc. O1 = An exposure along the Otakizawa River, 3 km NW of Tsurugasaka railway station, Aomori-shi, Aomori Prefecture (40°48'28"N, 140°36'40"E)

Daishaka Formation

Plio-Pleistocene

[=*Falsobuntonia hayamii* (Tabuki, 1986) (by Ikeya and Suzuki, 1992)]

***Buntonia japonica* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 156, 157, Pl. 19, figs. 6, 7, text-fig. 1, fig. 5

Holotype: RV, IGPS 87045 (Pl. 19, fig. 7, text-fig. 1, fig. 5), Paratype: LV, IGPS 87046 (Pl. 19, fig. 6)

Down stream of the Tatsunokuchi gorge, a tributary of the Hirose River, in the western part of Sendai-shi, Miyagi Prefecture

Tatsunokuchi Formation

Pliocene

[=*Robertsonites japonicus* (Ishizaki, 1966) (Tanaka *et al.*, 2002)]

***Buntonia lepida* Chen, 1990**

Acta Micropalaeontologica Sinica, v. 7, no. 4, p. 378, Pl. 1, figs. 9~12

Holotype: CC, 111227 (Pl. 1, figs. 9, 10), Paratype: CC, 111228 (Pl. 1, figs. 11, 12)

Hole W6-1-1 (core) = 160 km E of Wenzhou City, SW of East China Sea (27°50'N, 122°50'E)

Lower Wenzhou Formation

Middle Eocene

***Buntonia parascorta* Ishizaki, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 131, p. 148, 149, Pl. 28, figs. 1~4; Pl. 35, fig. 1

Holotype: RV, IGPS 97781 (Pl. 28, figs. 1a~c), Paratypes: LV, IGPS 97782 (Pl. 28, figs. 2a, b); RV, IGPS 97783 (Pl. 28, fig. 4); LV, IGPS 97784 (Pl. 28, fig. 1, Pl. 35, fig. 1)

About 80 m W of Ono Yasuda-cho, Aki-gun, Kochi Prefecture

Ananai Formation

Pliocene

[Sample horizon H2 = Ca. 2 m below the top of Ananai Fm.]

***Buntonia reticuliforma* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 157, 158, Pl. 16, fig. 7, text-fig. 1, fig. 1

Holotype: RV, IGPS 85826 (Pl. 16, fig. 7, text-fig. 1, fig. 1)

About 1,500 m SE of Saboyama, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

[=*Robertsonites reticuliformus* (Ishizaki, 1966) (by Tanaka *et al.*, 2002)]

***Buntonia scorta* Ishizaki, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 131, p. 149~151, Pl. 28, figs. 5, 6; Pl. 29, figs. 1~4; Pl. 35, fig. 3

Holotype: LV, IGPS 97787 (Pl. 29, fig. 3, Pl. 35, fig. 3), Paratypes: LV, IGPS 97785 (Pl. 28, fig. 5, Pl. 29, fig. 2); RV, IGPS 97786 (Pl. 28, fig. 6, Pl. 29, fig. 1); RV, IGPS 97788 (Pl. 29, figs. 4a, b)

About 150 m W of Sempuku, Nahari-cho, Aki-gun Kochi Prefecture

Ananai Formation

Pliocene

[Sample horizon G5 = Ca. 12 m below the top of Ananai Fm.]

***Buntonia triangulata* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 46, 47, Pl. 3, figs. 8~10, text-fig. 17

Holotype: CKUM 2036, Paratypes: CKUM 2035; CKUM 2037 (no figures)

Loc. 14 = 2.5 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

***Buntonia u-carinata* Ishizaki, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 131, p. 151, 152, Pl. 29, figs. 5~8; Pl. 35, fig. 4

Holotype: RV, IGPS 97789 (Pl. 29, figs. 5a, b), Paratypes: LV, IGPS 97790 (Pl. 29, figs. 6a, b); RV, IGPS 97791 (Pl. 29, fig. 8, Pl. 35, fig. 4); LV, IGPS 97792 (Pl. 29, fig. 7)

At about 81 m W of Ono, Yasuda-cho, Aki-gun, Kochi Prefecture

Ananai Formation

Pliocene

[Sample horizon H3 = Ca. 3 m below the top of Ananai Fm.]

***Bythoceratina angulata* Yajima, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 146, p. 66, 67, figs. 5-5, 11-6a, b, 7a~c

Holotype: LV, UMUT CA 17996 (figs. 5-5, 11-7a~c), Paratype: RV, UMUT CA 17997 (figs. 11-6a, b)

Loc. 1105 = An outcrop of Takamatsu, Atsumi-gun, Aichi Prefecture (34°37'30"N, 137°15'38"E)

Tahara Formation (Toshima Sand Member)

Pleistocene

[Sample horizon 1105 = Ca. 3 m above the base of Tonna Bed]

***Bythoceratina bella* Hu, 1977**

Proc. Geol. Soc. China, no. 20, p. 95~97, Pl. 4, figs. 9, 14~16, 20, 23~27, text-fig. 14

Holotype: CKUM 3672 (Pl. 4, fig. 27), Paratypes: CKUM 3653; CKUM 3654; CKUM 3655; CKUM 3656; CKUM 3657; CKUM 3658; CKUM 3659; RV, CKUM 3670 (Pl.

4, fig. 25); CKUM 3671; CKUM 3673~3678 (no figures)

The left bank of the Houlung River, S of Kueishan, Miaoli Area, Taiwan

Toukoshan Formation

Pleistocene

[=*Bythoceratina hanaii* Ishizaki, 1968 (by Hu, 1986). Eight figures (Pl. 4, figs. 9, 14~16, 20, 23, 24 and 26) in the original description (Hu, 1977a) cannot be correlated with each type specimen (CKUM 3653~3659, 3671).]

***Bythoceratina carinata* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 157, 158, Pl. 3, figs. 23, 29, text-fig. 8

Syntypes: 2 RV, TNUM 7170 (Pl. 3, figs. 23, 29)

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan

Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Bythoceratina elongata* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 50, 51, Pl. 4, figs. 5a, 5b, 6, Pl. 7, fig. 4

Holotype: LV, IGSU-O-22 (Pl. 4, figs. 5a, 5b, 6, Pl. 7, fig. 4)

St. 54 = Off Enshu-nada, 4.5 km W of Imagire-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34°40'19"N, 137°33'22"E) (well-sorted medium sand, depth 7.3 m)

Recent

***Bythoceratina hanaii* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 17, Pl. 1, fig. 3, Pl. 3, figs. 9, 10

Holotype: LV, IGPS 90208 (Pl. 1, fig. 3, Pl. 3, fig. 9), Paratype: RV, IGPS 90209 (Pl. 3, fig. 10)

St. 310 = Uranouchi Bay, Kochi Prefecture (33°26'00"N, 133°27'39"E) (coarse sand, depth 16 m)

Recent

[The specimen of IGPS 90209 was collected from the beach sand of the Yuigahama, Kamakura-shi.]

***Bythoceratina hanejiensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 52, 53, Pl. 8, figs. 5a~c

Holotype: LV, RUEG 135 (Pl. 8, figs. 5a~c)

Loc. 7572003 = river bed of Haneji River in front of Haneji Junior Highschool, Nago-shi, Okinawa Prefecture (26°37'10"N, 128°01'25"E)

Nakoshi Formation (Nakoshi Sand Member)

Pleistocene

***Bythoceratina higashisinensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 53, Pl. 12, figs. 1a~e

Holotype: LV, RUEG 136 (Pl. 12, figs. 1a~e)

St. 397 = Ca. 25 km WNW of Izena-jima, Okinawa Prefecture (27°04'02''N, 127°40'05''E) (mud, depth 785 m)
Recent

***Bythoceratina marginata* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 159, 160, Pl. 3, figs. 26, 28, text-fig. 10

Holotype: TNUM 7168, Paratype: TNUM 7169

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan
Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Bythoceratina pacifica* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 143, 145, 147, Pl. 26, figs. 15, 17, 19~24, text-fig. 2A

Holotype: RV, TNUM 11598 (Pl. 26, fig. 21), Paratypes: CC, TNUM 11592 (Pl. 26, fig. 15); CC, TNUM 11593 (Pl. 26, fig. 17); 3CC and 1 RV, TNUM 11594~11597 (Pl. 26, figs. 19, 20, 23, 24); LV, TNUM 11599 (Pl. 26, fig. 22)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24°37.7'N, 120°45.1'E)

Tungshiao Formation (Nanwo Member)

Pleistocene

***Bythoceratina reticulata* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 141, 143, Pl. 16, figs. 18, 21~26

Holotype: RV, TNUM 11414 (Pl. 16, fig. 24), Paratypes: LV, TNUM 11410 (Pl. 16, fig. 23); LV, TNUM 11411 (Pl. 16, fig. 18); LV, TNUM 11412 (Pl. 16, fig. 21); LV, 11413 (Pl. 16, fig. 22); RV, TNUM 11415 (Pl. 16, fig. 26); RV, TNUM 11416 (Pl. 16, fig. 25)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24°37.7'N, 120°45.1'E)

Tungshiao Formation (Nanwo Member)

Pleistocene

***Bythoceratina sudjaponica* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 80, 81, Pl. 4, figs. 5, 6a, b

Holotype: RV, JC-1390 (Pl. 4, figs. 6a, b), Paratype: LV, JC-1391 (Pl. 4, fig. 5)

MZ-16 = Hyuga-nada, ca. 30 km S off Hyuga-shi, Miyazaki Prefecture (32°10.0'N, 131°30.6'E) (sand, depth 36 m)

Recent

***Bythoceratina virgatella* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 160, 161, Pl. 3, figs. 1~3, 7, 9, 10, text-fig. 11

Holotype: TNUM 7150, Paratypes: TNUM 7151; TNUM 7152; TNUM 7153

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan
Maanshan Mudstone

Late Pliocene / Early Pleistocene

[=*Bythoceratina orientalis* (Brady, 1869) (by Whatley and Zhao, 1987)]

***Bythocythere alata* Yajima, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 146, p. 65, 66, figs. 7-4, 11-10, 12-7a~c

Holotype: RV, UMUT CA 17992 (figs. 7-4, 12-7a-c), Paratype: RV, UMUT CA 17993 (fig. 11-10)

Loc. 1102 = An outcrop of Takamatsu, Atsumi-gun, Aichi Prefecture (34°37'30''N, 137°15'38''E)

Tahara Formation (Toshima Sand Member)

Pleistocene

[Sample horizon 1102 = Ca. 4.5 m above the base of Tonna Bed]

***Bythocythere ishizakii* Yajima, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 146, p. 66, figs. 7-5, 6, 11-11, 12-8a, b, 9a, b

Holotype: LV, UMUT CA 17994 (figs. 7-5, 11-11, 12-9a, b), Paratype: RV, UMUT CA 17995 (figs. 7-6, 12-8a, b)

Loc. 0501 = An outcrop of Takamatsu, Atsumi-gun, Aichi Prefecture (34°37'20''N, 137°15'30''E)

Tahara Formation (Toshima Sand Member)

Pleistocene

[Sample horizon 0501 = Ca. 1 m above the base of Tonna Bed]

***Bythocythere maisakensis* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 49, 50, Pl. 3, figs. 6a, 6b, 7, 8a, 8b, 9, 10, text-fig. 16

Holotype: CC, IGSU-O-20 (Pl. 3, figs. 6a, 6b, 7, 8a, 8b, 9, 10), Paratype: RV, IGSU-O-58 (text-fig. 16)

St. 56 = Off Enshu-nada, 6 km W of Imagire-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34°40'18''N, 137°32'03''E) (well-sorted medium sand, depth 5.9 m)

Recent

***Bythocythere orientalis* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 159, Pl. 16, figs. 21~23

Holotype: RV, HMNT 1.35.35 (Pl. 1, fig. 11 in Whatley and Zhao, 1987)

Hong Kong

Recent

[=*Bythoceratina orientalis* (Brady, 1869) (by Whatley and Zhao, 1987)]

***Callistocythere alata* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 450, 451, Pl. 7, figs. 4a, b, Pl. 10, fig. 5

Holotype: CC male, UMUT CA 2547-1 (Pl. 7, figs. 4a, b, Pl. 10, fig. 5), Allotype: CC female, UMUT CA 2547-2, Paratype: CC female, UMUT CA 2547-3

The shore behind the Mitsui Biological Station, Hamazaki-mura, Kamo-gun, Shizuoka Prefecture (beach sand)

Recent

***Callistocythere ananaiensis* Ishizaki, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 131, p. 143, 144, Pl. 30, figs. 4, 5; Pl. 31, figs. 1~3; Pl. 35, fig. 2

Holotype: RV, IGPS 97796 (Pl. 30, fig. 4, Pl. 31, figs. 3a, b), Paratypes: LV, IGPS 97797 (Pl. 30, figs. 5a, b); RV, IGPS 97798 (Pl. 31, fig. 2; Pl. 35, fig. 2); LV, IGPS 97799 (Pl. 31, fig. 1)

About 80 m W of Ono, Yasuda-cho, Aki-gun, Kochi Prefecture

Ananai Formation

Pliocene

[Sample horizon H1 = Ca. 1 m below the top of Ananai Fm.]

***Callistocythere angulata* Okubo, 1979**

Res. Crustacea, no. 9, p. 18~20, text-figs. 3a~j, Pl. 1, figs. i~l

Holotype: CC male with appendages, MO 821 (=NSMT-Cr 15264) (no figures), Allotype: CC female with appendages, MO 824 (=NSMT-Cr 15265) (no figures), Paratypes: CC male with appendages, MO 823 (text-figs. 3c~j, Pl. 1, figs. k, l) (the specimen missing); CC female, MO 834 (text-figs. 3a, b, Pl. 1, figs. i, j) (the specimen missing)

Hoso-no-su Sand Bank, the Inland Sea of Seto, Hiroshima Prefecture (sandy mud) (34 °21.9'N, 133 °08.0'E)

Recent

[Paratype specimens are figured as text-figs. 3a, b, Pl. 1, figs. i, j (MO 834) and text-figs. 3c~j, Pl. 1, figs. k, l (MO 823), but the figures of holotype (MO 821) and allotype (MO 824) specimens are not shown.]

***Callistocythere antifascistica* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 64, Pl. 1, fig. 15, text-fig. 2

Holotype: RV, TNUM 4108 (Pl. 1, fig. 15)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Callistocythere besani* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 113, Pl. 17, figs. 9, 12, 15~17, 19~28, text-fig. 2C

Holotype: CC male, TNUM 11443 (Pl. 17, fig. 27), Paratypes: 3 juveniles, TNUM 11429~11431 (Pl. 17, figs. 9, 17, 23); 3 CC females, TNUM 11432~11434 (Pl. 17, figs. 12, 20, 25); LV, TNUM 11435 (Pl. 17, fig. 15); juvenile, TNUM 11436 (Pl. 17, fig. 21); RV, TNUM 11437 (Pl. 17, fig. 22);

CC, TNUM 11438 (Pl. 17, fig. 26); 4 CC males, TNUM 11439~11442 (Pl. 17, figs. 16, 19, 24, 28)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)

Tungshiao Formation (Nanwo Member)

Pleistocene

***Callistocythere gorokuensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 145, 146, Pl. 16, fig. 9

Holotype: LV, IGPS 85827 (Pl. 16, fig. 9)

Goroku, in the western border of Sendai-shi, Miyagi Prefecture

Tatsunokuchi Formation (upper horizon)

Pliocene

***Callistocythere hatatensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 146, 147, Pl. 16, figs. 8, 10, 11

Holotype: RV, IGPS 85828 (Pl. 16, fig. 8), Paratypes: RV, IGPS 85829 (Pl. 16, fig. 10); LV, IGPS 85830 (Pl. 16, fig. 11)

A cliff near the Taihakusan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

***Callistocythere hayamensis* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 453, 454, Pl. 7, figs. 2a~d

Holotype: CC male, UMUT CA 2548 (Pl. 7, figs. 2c, d), Allotype: CC female, UMUT CA 2549 (Pl. 7, figs. 2a, b), Paratypes: UMUT CA 2558, 2559, 2560, 2561

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

***Callistocythere hosonosuensis* Okubo, 1979**

Res. Crustacea, no. 9, p. 17, 18, text-figs. 2a~i, Pl. 1, figs. e~h

Holotype: CC male, MO 827 (Pl. 1, figs. g, h) (the specimen missing), Allotype: CC female with appendages, MO 832 (=NSMT-Cr 15266) (text-figs. 2a, b, d~j, Pl. 1, figs. e, f), Paratypes: CC male with appendages, MO 831 (=NSMT-Cr 15267) (no figures); male appendage, MO 836 (text-fig. 2c)

Hoso-no-su Sand Bank, the Inland Sea of Seto, Hiroshima Prefecture (sandy mud) (34 °21.9'N, 133 °08.0'E)

Recent

***Callistocythere hotaru* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 190, 191, Pl. 11, figs. 5, 6, text-figs. 14-1, 2

Holotype: LV female, UMUT CA 9826 (Pl. 11, fig. 5, text-fig. 14-2), Paratype: RV female, UMUT CA 9827 (Pl. 11,

fig. 6, text-fig. 14-1)

Loc. 312 = A cliff, SW of Yokota railway station, Hirakawa-machi, Kimitsu-gun, Chiba Prefecture (35 ° 22'24''N, 140 °01'20''E)

Kiyokawa Formation
Pleistocene

***Callistocythere ishizakii* Ikeya and Zhou, 1992**

In Ishizaki, K. and Saito, T. (eds.), Centenary of Japanese Micro-paleontology, Terra Sci. Publ., Tokyo, p. 347, figs. 11-5a, 5b, 6, 7a, 7b, 8.

Holotype: RV, IGSU-O-770 (figs. 11-5a, 5b, 6), Paratype: LV, IGSU-O-771 (figs. 11-7a, 7b, 8)

St. 45 = Otuschi Bay, Iwate Prefecture (39 °20.6'N, 141 ° 56.3'E) (mud, depth 25 m)

Recent

***Callistocythere japonica* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 457~459, Pl. 9, figs. 2a~g, text-figs. 1B, C, 2E, F, pl. 10, fig. 7

Holotype: CC male, UMUT CA 2572 (Pl. 9, figs. 2a, b, g), Allotype: CC female, UMUT CA 2573 (Pl. 9, figs. 2c, d), Paratypes: CC male, UMUT CA 2636 (Pl. 10, fig. 7); CC female, UMUT CA 2575 (Pl. 9, figs. 2e, f)

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

***Callistocythere japonica uranipponica* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 459, Pl. 9, figs. 3a~c

Holotype: CC male, UMUT CA 2576 (Pl. 9, figs. 3a~c), Paratype: LV, UMUT CA 2577

The shore of Kashiwara, about 200 m SE of Dozanto, near Yamaga, Ashiya-machi, Onga-gun, Fukuoka Prefecture (beach sand)

Recent

***Callistocythere kattoi* Ishizaki, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 131, p. 144, 145, Pl. 31, figs. 4~7; Pl. 35, fig. 8

Holotype: LV, IGPS 97800 (Pl. 31, fig. 5), Paratypes: RV, IGPS 97801 (Pl. 31, figs. 4a~c); LV, IGPS 97802 (Pl. 31, fig. 6; Pl. 35, fig. 8); RV, IGPS 97803 (Pl. 31, fig. 7)

About 80 m W of Ono Yasuda-cho, Aki-gun, Kochi Prefecture

Ananai Formation
Pliocene

[Sample horizon H1 = Ca. 1 m below the top of Ananai Fm.]

***Callistocythere kotorai* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 147, 148, Pl. 16, figs. 14, 15

Holotype: RV, IGPS 85832 (Pl. 16, fig. 14), Paratype: CC,

IGPS 85833 (Pl. 16, fig. 15)

A cliff near the Taihakusan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatata Formation
Miocene

***Callistocythere kyongjuensis* Huh and Whatley, 1997**

Jour. Micropalaeont., v. 16, p. 32, 34, Pl. 1, figs. 1~6

Holotype: LV female, CNU O 501 (Pl. 1, figs. 1, 2), Paratypes: LV female, CNU O 502 (Pl. 1, fig. 3); RV male, CNU O 503 (Pl. 1, figs. 4, 5); LV male, CNU O 504 (Pl. 1, fig. 6)

Sample MC2-1 = Mulcheonri area of Weolseong-gun, ca. 3.5 km E of Kyongju, SE coast of Korean Peninsula

Yeonil Group
Middle Miocene

***Callistocythere laevis* Okubo, 1979**

Res. Crustacea, no. 9, p. 23~25, text-figs. 5a~j, Pl. 2, figs. e~h

Holotype: CC female with appendages, MO 639 (=NSMT-Cr 15268) (no figures), Allotype: CC female with appendages, MO 829 (text-figs. 5a, b, d~f, h~j, Pl. 2, figs. e, f), Paratype: CC male with appendages, MO 828 (=NSMT-Cr 15269) (text-figs. 5c, g, Pl. 2, figs. g, h)

Mukai-shima, the Inland Sea of Seto, Mitsugi-gun, Hiroshima Prefecture (sandy mud) (34 °21.7'N, 133 °13.2'E)

Recent

[= *Callistocythere pumila* Hanai, 1957 (by Tsukagoshi, 1998).

Allotype and paratype specimens are figured as text-figs. 5a, b, d~f, h~j, Pl. 2, figs. e, f (MO 829) and text-figs. 5c, g, Pl. 2, figs. g, h (MO 828), but the figures of holotype (MO 639) specimen is not shown.]

***Callistocythere minaminipponica* Ishizaki and Kato, 1976**

Takayanagi, Y. and Saito, T. (eds.), Progress in Micro-paleontology, Micropaleont. Press, Amer. Mus. Nat. Hist., New York, p. 133, 134, Pl. 2, figs. 6~10, Pl. 3, fig. 1, text-fig. 7

Holotype: LV, IGPS 91737 (Pl. 2, figs. 7, 8), Paratypes: RV, IGPS 91735 (Pl. 2, fig. 10, text-fig. 7) (Loc. 10B); LV, IGPS 91738 (Pl. 2, fig. 9) (Loc. 12C); RV, IGPS 91736 (Pl. 2, fig. 6, Pl. 3, fig. 1) (Loc. 10B)

Loc. 17 = A cliff, S of Hamaoka-cho, 2 km N of Egenoya Elementary School, Higi, Hamaoka-cho, Ogasa-gun, Shizuoka Prefecture

Furuya Formation
Pleistocene

[Sample horizon 17C = Ca. 1 m below the top of Furuya Fm.]

***Callistocythere minor* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 461, Pl. 10, figs. 1a~e, text-figs. 2A, B

Holotype: CC, UMUT CA 2585 (Pl. 10, figs. 1c-e),
Paratypes: UMUT CA 2586 (Pl. 10, fig. 1a); UMUT CA
2587 (Pl. 10, fig. 1b); UMUT CA 2588

The shore at Toura, Hamazaki-mura, Kamo-gun, Shizuoka
Prefecture (beach sand)

Recent

***Callistocythere nanwanica* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 100, 101, Pl. 2, figs. 1, 2,
text-fig. 22

Holotype: LV, TNUM 7019 (Pl. 2, figs. 1, 2; fig. 22)

Outcrop along the Hengchun to Olanpi Highway, N coast of
the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °
56.3'N, 120 °48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Callistocythere nipponica* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 446~448,
Pl. 7, figs. 1a, b, Pl. 10, fig. 4, text-figs. 1A, 2C, D

Holotype: CC, UMUT CA 2541 (Pl. 7, figs. 1a, b, Pl. 10, fig.
4), Paratype: CC, UMUT CA 2542

The shore behind an Imperial villa, Hayama-cho, Kanagawa
Prefecture (beach sand)

Recent

***Callistocythere okinawaensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 40, Pl. 3,
figs. 2a~c

Holotype: LV, RUEG 106 (no figures), Paratype: RV, RUEG
105 (Pl. 3, figs. 2a, b)

Loc. 7571706 = Kudeken, Chinen-son, Okinawa-jima,
Okinawa Prefecture (Type locality of Chinen Formation)
(26 °10'00"N, 127 °49'42"E)

Chinen Formation

Pleistocene

[Sample horizon = 1.5 m above the base of Chinen
Formation. In Nohara (1987), RUEG 105 for holotype should
be replaced with RUEG 106, and RUEG 106 for paratype
should be changed into RUEG 105. Pl. 3, figs. 2a, b are the
figures for paratype, the figure for holotype is not shown.]

***Callistocythere ovata* Hu, 1976**

Proc. Geol. Soc. China, no. 19, p. 44, 45, Pl. 3, figs. 6, 16,
text-fig. 15

Holotype: RV, CKUM 2004 (Pl. 3, figs. 6, 16)

Loc.13 = 2.5 km SE of Tsaochia station, Chinshui county,
ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

***Callistocythere pumila* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 459, 460,
Pl. 10, figs. 2a~c

Holotype: CC, UMUT CA 2578 (Pl. 10, fig. 2b), Paratypes:
LV, UMUT CA 2579 (Pl. 10, fig. 2a); RV, UMUT CA, 2581
(Pl. 10, fig. 2c)

The shore about 1 km NE of Akase railroad station, near
Hiraiwa, Auda-mura, Uto-gun, Kumamoto Prefecture

Recent

***Callistocythere rectangulata* (Kajiyama, 1913)**

[See *Cythere rectangulata* Kajiyama, 1913.]

***Callistocythere reticulata* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 448, 449,
Pl. 8, figs. 2a~d

Holotype: CC male, UMUT CA 2543 (Pl. 8, figs. 2a, b),
Allotype: CC female, UMUT CA 2544 (Pl. 8, figs. 2c, d),
Paratypes: CC male, UMUT CA 2545, 2546

The shore behind an Imperial villa, Hayama-cho, Kanagawa
Prefecture (beach sand)

Recent

***Callistocythere rugosa* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 451, 452,
Pl. 8, figs. 3a~d

Holotype: CC male, UMUT CA 2550 (Pl. 8, figs. 3a, b),
Allotype: CC female, UMUT CA 2551 (Pl. 8, figs. 3c, d),
Paratypes: CC male, UMUT CA 2552; CC female, UMUT
CA, 2553

The shore behind an Imperial villa, Hayama-cho, Kanagawa
Prefecture (beach sand)

Recent

***Callistocythere rugosiforma* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 148,
Pl. 16, figs. 16, 17

Holotype: CC, IGPS 85834 (Pl. 16, fig. 16), Paratype: CC,
IGPS 85835 (Pl. 16, fig. 17)

Goroku, in the western border of Sendai-shi, Miyagi
Prefecture

Tatsunokuchi Formation (upper horizon)

Pliocene

***Callistocythere seojeongriensis* Huh and Whatley, 1997**

Jour. Micropalaeont., v. 16, p. 34, Pl. 1, figs. 7~10

Holotype: RV female, CNU O 505 (Pl. 1, fig. 7), Paratypes:
RV female, CNU O 506 (Pl. 1, fig. 8); LV female, CNU O
507 (Pl. 1, fig. 9); LV male, CNU O 508 (Pl. 1, fig. 10)

Sample SJ2-3 = Seojeongri area of Yeongil-gun, ca. 8.5 km
NNW of Pohang, SE coast of Korean Peninsula

Yeonil Group

Middle Miocene

***Callistocythere setanensis* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 457, Pl. 10,
figs. 3a, b

Holotype: LV, UMUT CA 2570 (Pl. 10, fig. 3a), Paratype: RV, UMUT CA 2571 (Pl. 10, fig. 3b)

The valley of Toshibetsu-gawa, about 800 m W of Omagari, Toshibetsu-mura, Setana-gun, Hokkaido

Setana Formation

Upper Pliocene

***Callistocythere setouchiensis* Okubo, 1979**

Res. Crustacea, no. 9, p. 15~17, text-figs. 1a~j, Pl. 1, figs. a~d

Holotype: CC male with appendages, MO 569 (=NSMT-Cr 15270) (text-figs. 1c, h~j), Allotype: CC female with appendages, MO 568 (=NSMT-Cr 15271) (text-figs. 1a, b, d~g, f'), Paratypes: CC female with appendages, MO 807 (=NSMT-Cr 15272) (Pl. 1, figs. a, b); CC female, MO 671 (Pl. 1, figs. c, d) (the specimen missing)

Intertidal zone of the rocky shore, Mukai-shima, the Inland Sea of Seto, Mitsugi-gun, Hiroshima Prefecture (on algae) (34 °21.7'N, 133 °13.2'E)

Recent

***Callistocythere subjaponica* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 455, 456, Pl. 8, figs. 4a~e

Holotype: CC male, UMUT CA 2566 (Pl. 8, figs. 4a, b, e), Allotype: CC female, UMUT CA 2567 (Pl. 8, figs. 4c, d), Paratypes: UMUT CA 2568, UMUT CA 2569

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

***Callistocythere subquadrata* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 200~202, figs. 27-6, 8, 12, 17, 23, text-fig. 18

Holotype: CKUM 3567 (fig. 27-12), Paratypes: CKUM 3565 (fig. 27-8); CKUM 3566 (fig. 27-17); CC, CKUM 3568 (fig. 27-6); CKUM 3569 (no figures)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Callistocythere undata* (Hanai, 1957) (by Hu, 1986)]

***Callistocythere subsetanensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 149, Pl. 16, figs. 18, 19

Holotype: RV, IGPS 85837 (Pl. 16, fig. 19), Paratype: CC, IGPS 85836 (Pl. 16, fig. 18)

A cliff near the Taihakusan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

***Callistocythere tomokoae* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, no. 1, p. 25, 26, Pl. 2, figs. 7a~c

Holotype: CC, IGPS 78892 (Pl. 2, fig. 7c), Paratypes: RV, IGPS 78890 (Pl. 2, fig. 7a); CC, IGPS 78891 (Pl. 2, fig. 7b)

Nishiichinose, W of Kanazawa-shi, Ishikawa Prefecture

Yatsuo Formation (Sunakosaka Member)

Miocene

***Callistocythere undata* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 452, 453, Pl. 8, figs. 1a~d

Holotype: CC male, UMUT CA 2554 (Pl. 8, figs. 1a, b), Allotype: CC female, UMUT CA 2555 (Pl. 8, figs. 1c, d), Paratypes: CC male, UMUT CA 2556; CC female, UMUT CA, 2557

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

Recent

***Callistocythere undulatifacialis* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 455, Pl. 7, figs. 3a~d, Pl. 10, fig. 6

Holotype: CC male, UMUT CA 2562 (Pl. 7, figs. 3c, d, Pl. 10, fig. 6), Allotype: CC female, UMUT CA 2563 (Pl. 7, figs. 3a, b), Paratypes: CC male, UMUT CA 2564; CC female, UMUT CA 2565

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

Recent

***Callistocythere vermicularia* Hu, 1977**

Proc. Geol. Soc. China, no. 20, p. 89, 90, Pl. 3, figs. 12, 16, 20, text-fig. 8

Holotype: CKUM 3708, Paratypes: CKUM 3706; CKUM 3707; CKUM 3709 (no figures)

The left bank of the Houlung River, S of Kueishan, Miaoli Area, Taiwan

Toukoshan Formation

Pleistocene

[=*Tanella vermicularia* (Hu, 1977) (by Hu, 1986). Three figures (Pl. 3, figs. 12, 16, 20) in the original description (Hu, 1977a) cannot be correlated with each type specimen (CKUM 3706~3708).]

***Campylocythereis ? ukifune* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 207, 208, Pl. 12, figs. 6, 7, 10

Holotype: LV female, UMUT CA 9856 (Pl. 12, fig. 10), Paratypes: LV male, UMUT CA 9857 (Pl. 12, fig. 7); RV male, UMUT CA 9858 (Pl. 12, fig. 6)

Loc. 284 = An exposure, 5 km E of the Yamakura-ko Lake, Ichihara-shi, Chiba Prefecture (35 °29'23''N, 140 °11'56''E)

Yabu Formation (Yabu Member)

Pleistocene

***Candona gigantea* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 426, Pl. 2, fig. 10

Holotype: RV, UMUT MA 8518 (Pl. 2, fig. 10)

Well at Tiehlipu, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 117.85~121.40 m)

Nengkiang Formation

Cretaceous

***Candona japonica* Okubo, 1990**

Bull. Biogeogr. Soc. Japan, v.45, nos. 1~22, p. 40, 42, figs. 1j~r

Holotype: CC male, FO 11 (figs. 1j, k), Allotype: CC female, FO 12 (fig. 1l), Paratypes: CC male with appendages, FO 361A (figs. 1g, m~o); appendages, FO 361B (figs. 1p, r); CC female, FO 432 (no figures); 2 CC males, FO 571, FO 573 (no figures) (all of the paratype specimens missing)

A rice field, Shiono, Seto-cho, Okayama Prefecture (34 ° 45.7'N, 134 ° 03.3'E)

Recent

***Candona liaohingensis* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 426, 427, Pl. 2, figs. 4, 5

Holotype: LV, UMUT MA 8508 (Pl. 2, fig. 5), Paratype: LV, UMUT MA 8512 (Pl. 2, fig. 4)

Well at Tiehlipu, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 117.85~121.40 m)

Nengkiang Formation

Cretaceous

***Candona takagii* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 425, 426, Pl. 2, figs. 11, 12

Holotype: RV, UMUT MA 8517 (Pl. 2, figs. 11, 12)

Well at Tiehlipu, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 111.25 m)

Nengkiang Formation

Cretaceous

***Carinocythereis nozokiensis* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, no. 1, p. 28, 29, Pl. 2, figs. 10a~d

Holotype: RV male, IGPS 78898 (Pl. 2, figs. 10b, c), Paratypes: RV female, IGPS 78897 (Pl. 2, fig. 10a); CC (Pl. 2, fig. 10d)

Nishiichinose, W of Kanazawa-shi, Ishikawa Prefecture Yatsuo Formation (Sunakosaka Member)

Miocene

[=*Hirsutocythere ? nozokiensis* (Ishizaki, 1963) (by Hanai *et al.*, 1977)]

***Casterocythere* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 108, 109

Type species: *Cushmanidea transversa* Hu, 1978

***Caudites?acrocaudalis* (Liu, 1989)**

[See *Trachyleberideaacrocaudalis* Liu, 1989.]

***Caudites formosensis* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 98, 99, Pl. 3, figs. 13, 19, 20, text-fig. 19

Holotype: TNUM 7053, Paratypes: TNUM 7054; TNUM 7055

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 ° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Three figures (Pl. 3, figs. 13, 19, 20) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7053~7055).]

***Caudites japonicus* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 82, 83, Pl. 1, fig. 4, Pl. 5, figs. 6, 8, Pl. 6, figs. 8, 9

Holotype: LV, IGPS 91541 (Pl. 5, fig. 6, Pl. 6, fig. 9), Paratype: RV, IGPS 91542 (Pl. 1, fig. 4, Pl. 5, fig. 8, Pl. 6, fig. 8)

St. 26 = Aomori Bay, Aomori Prefecture (40 ° 53'30''N, 140 ° 51'21''E) (granules, depth 0.3 m)

Recent

[=*Hermanites ? japonicus* (Ishizaki, 1971) (by Hanai *et al.*, 1977)]

***Caudites retusus* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 69, 70, Pl. 1, figs. 13, 14, text-fig. 7

Holotype: CC, TNUM 4107 (Pl. 1, figs. 13, 14)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Cavellina ? nipponica* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 157, 158, Pl. 17, figs. 9a, b, 10, 11, text-figs. 10, 11

Holotype: CC, IGPS 85790 (Pl. 17, figs. 9a, b, text-figs. 10, 11), Paratypes: RV, IGPS 85791 (Pl. 17, fig. 10); CC, IGPS 85792 (Pl. 17, fig. 11)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Celtia japonica* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 47, 48, Pl. 8, fig. 12; Pl. 9, fig. 8; Pl. 10, figs. 1, 2a, b, 3; Pl. 15, fig. 5

Holotype: LV, IGPS 97044 (Pl. 10, figs. 2a, b; Pl. 15, fig. 5), Paratypes: RV immature form, IGPS 97045 (Pl. 10, fig. 3); RV immature form, IGPS 97046 (Pl. 8, fig. 12; Pl. 9, fig. 8; Pl. 10, fig. 1)

St. 48 = N of East China Sea (30 °0.3'N, 125 °0.2'E) (fine sand, depth 60 m)

Recent

***Ceratobairdia ? ambigua* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 155, 156, Pl. 19, figs. 6a, b, 7, 8

Holotype: CC, IGPS 85810 (Pl. 19, figs. 6a, b), Paratypes: LV, IGPS 85811 (Pl. 19, fig. 7); RV, IGPS 85812 (Pl. 19, fig. 8)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Chejudocythere higashikawai* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 44, 45, Pl. 8, figs. 8a, b, 9~11; Pl. 11, figs. 14, 15; Pl. 15, figs. 10, 11a, b

Holotype: RV, IGPS 97067 (Pl. 8, fig. 11; Pl. 11, fig. 15; Pl. 15, figs. 11a, b), Paratypes: LV, IGPS 97068 (Pl. 8, fig. 10; Pl. 11, fig. 14; Pl. 15, fig. 10); LV, IGPS 97069 (Pl. 8, fig. 9); RV, IGPS 97070 (Pl. 8, figs. 8a, b)

St. 33 = S of Cheju-do (31 °19.0'N, 127 °6.0'E) (very fine sand, depth 110 m)

Recent

***Chejudocythere* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 43, 44

Type species: *Chejudocythere higashikawai*, Ishizaki, 1981

Recent

***Chrissia vittata* Okubo, 1974**

Proc. Japan Soc. Syst. Zool., no. 10, p. 1~9, figs. 1a~c, 2a~j

Holotype: CC female with appendages, NSMT-Cr. 4143, Paratypes: NSMT-Cr. 4144~4147

A rice field, Kaimon-cho, Kagoshima Prefecture (31 °12.0'N, 130 °32.0'E)

Recent

[Males unknown. Thirteen figures (figs. 1a~c, 2a~j) in the original description (Okubo, 1974) cannot be correlated with each type specimen (NSMT-Cr. 4143~4147).]

***Cletocythereis major* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 97, 98, Pl. 2, figs. 16, 19,

text-fig. 18

Holotype: RV, TNUM 7032 (Pl. 2, figs. 16, 19)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 °48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Cluthia japonica* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 63, 64, Pl. 2, figs. 12~19, text-fig. 18-3

Holotype: LV female, UMUT CA 15759 (Pl. 2, figs. 13, 18), Paratypes: RV female, UMUT CA 15760 (Pl. 2, figs. 12, 19);

RV male, UMUT CA 15761 (Pl. 2, figs. 14, 17); LV male, UMUT CA 15762 (Pl. 2, figs. 15, 16, text-fig. 18-3)

Loc. OT3 = An exposure along the Otanizawa River, 4 km SE of Tsurugasaka railway station, Magonai, Aomori-shi, Aomori Prefecture (40 °45'12''N, 140 °39'03''E)

Daishaka Formation

Plio-Pleistocene

***Cluthia subjaponica* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 9, figs. 5-3, 6-6a~e, 7a~c

Holotype: LV female, SUM CO 1218 (figs. 6-6a~e), Paratypes: LV male, SUM CO 1219 (figs. 6-7a~c); LV female, SUM CO 1220 (fig. 5-3)

Loc. 1-A16 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35 °25.5'N, 133 °02.3'N)

Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 4 m below the top of the Lower Member of Fujina Formation]

***Cluthia tamayuensis* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 8, 9, figs. 5-2, 6-4a~e, 5a~c

Holotype: LV female, SUM CO 1215 (figs. 6-4a~e), Paratypes: RV male, SUM CO 1216 (figs. 6-5a~c); RV female, SUM CO 1217 (fig. 5-2)

Loc. 1-A16 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35 °25.5'N, 133 °02.3'N)

Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 4 m below the top of the Lower Member of Fujina Formation]

***Cobanocythere? japonica* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 10~13, fig. 4

Holotype: male, FESC 498~499, Paratypes: 5 males, 6 females (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[The figures (fig. 4) in the original description (Schornikov, 1975b) cannot be correlated with each type specimen.]

***Cobanocythere ? pulchra* Yajima, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 146, p. 70~72, figs. 10-2, 3, 12-5a~c

Holotype: LV, UMUT CA 18009 (figs. 10-3, 12-5a~c), Paratype: RV, UMUT CA 18010 (fig. 10-2)

Loc. 0501 = An outcrop of Takamatsu, Atsumi-gun, Aichi Prefecture (34 °37'20"N, 137 °15'30"E)

Tahara Formation (Toshima Sand Member)

Pleistocene

[Sample horizon 0501 = Ca. 1 m above the base of Tonna Bed]

***Conhoecia lepida* Chavtur, 1973**

Zool. Jour., v. 52, no. 11, p. 1639~1641, figs. 1-1~9

Holotype: CC female with appendages, FESC 2/1103 (figs. 1-1~9)

A station, off Hokkaido (40 °54'N, 150 °38'E)

Recent

***Conchoecia meraca* Chavtur, 1973**

Zool. Jour., v. 52, no. 11, p. 1641, 1642, figs. 2-1~9

Holotype: CC female with appendages, FESC 3/1104 (figs. 2-1~9)

A station, off Hokkaido (40 °51'N, 148 °32'E)

Recent

***Coquimba equa* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 124, 125, Pl. 3, figs. 1~3, 6, 9, text-fig. 4B

Holotype: CC, TNUM 10047 (Pl. 3, fig. 1), Paratypes: 2 CC, TNUM 10048, 10049 (Pl. 3, figs. 2, 3); CC, TNUM 10050 (Pl. 3, fig. 6); RV, TNUM 10051 (Pl. 3, fig. 9)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)

Tungshiao Formation (Nanwo Member)

Pleistocene

***Coquimba gibboidea* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 191, 192, 194, Pl. 3, figs. 11, 14

Holotype: LV, TNUM 7257 (Pl. 3, figs. 11, 14)

An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan Hengchun Limestone

Pleistocene

***Coquimba ishizakii* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 397, 398, Pl. 49, figs. 4a~c, text-fig. 7, figs. 3a, b

Holotype: CC, UMUT CA 8430 (Pl. 49, fig. 4c), Paratypes: LV, UMUT CA 8431 (Pl. 49, fig. 4b, text-fig. 7, fig. 3a); RV, UMUT CA 8432 (Pl. 49, fig. 4a, text-fig. 7, fig. 3b)

Loc. 18 = An exposure, 200 m NNE of the Sengen Shrine, Hatazawa, Kisarazu-shi, Chiba Prefecture (35 °20'53"N, 139 °54'30"E)

Yabu Formation

Pleistocene

***Coquimba kianofei* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 95, 96, Pl. 2, figs. 19, 21, 25, text-fig. 28

Holotype: LV, TNUM 8139 (Pl. 2, fig. 19), Paratypes: TNUM 8140, 8141 (Pl. 2, figs. 21, 25)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

[=*Coquimba pustulata* (Hu and Cheng, 1977) (by Hu, 1986)]

***Coquimba nahaensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 51, Pl. 3, fig. 6

Holotype: RV, RUEG 132 (Pl. 3, fig. 6)

Loc. 8031503 = Into the campus of Yokatsu Senior High School, Katsuren-cho, Nakagami-gun, Okinawa Prefecture (26 °18'30"N, 127 °53'47"E)

Naha Formation ('Yokatsu' silt stone Member)

Pleistocene

***Coquimba poga* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 122, 124, Pl. 3, figs. 13, 16, 18, 21, 22, text-fig. 4C

Holotype: LV, TNUM 10061 (Pl. 3, fig. 13), Paratypes: LV, TNUM 10062 (Pl. 3, fig. 16); 3 CC 10063~10065 (Pl. 3, figs. 18, 21, 22)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)

Tungshiao Formation (Nanwo Member)

Pleistocene

***Coquimba subgibba* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 191, Pl. 3, figs. 18, 20~22, 25~27

Holotype: LV, TNUM 7264 (Pl. 3, fig. 18), Paratypes: TNUM 7265~7267 (Pl. 3, figs. 20~22); CC, TNUM 7268 (Pl. 3, figs. 25, 26)

An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan Hengchun Limestone

Pleistocene

***Cornucoquimba alata* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 83, 84, Pl. 10, figs. 11~15, Pl. 11, fig. 1, text-fig. 18-10

Holotype: RV male, UMUT CA 15851 (Pl. 10, fig. 11, Pl. 11, fig. 1, text-fig. 18-10), Paratypes: CC female, UMUT CA 15852 (Pl. 10, figs. 12, 15); RV immature form, UMUT CA 15853 (Pl. 10, fig. 13); LV immature form, UMUT CA 15854 (Pl. 10, fig. 14)

Loc. SW1 = A cliff along a branch stream of the Sawauchizawa River, 4 km N of Daishaka railway station, Namioka-machi, Minami-Tsugaru-gun, Aomori Prefecture (40°47'15"N, 140°35'05"E)

Daishaka Formation

Plio-Pleistocene

***Cornucoquimba kagitoriensis* Ishizaki, Fujiwara and Irizuki, 1996**

Proc. 2nd European Ostracodologists Meeting, Glasgow (1993), p. 119, Pl. 1, figs. 4~9

Holotype: CC, IGPS 102449 (Pl. 1, fig. 6), Paratypes: CC, IGPS 102447 (Pl. 1, fig. 4); CC, IGPS 102448 (Pl. 1, fig. 5); CC, IGPS 102450 (Pl. 1, fig. 7); RV, IGPS 102451 (Pl. 1, figs. 8, 9)

A river bank outcrop of the Natori River S of Kagitori near the southern border of Sendai-shi, Miyagi Prefecture

Tsunaki Formation

Upper Miocene

***Cornucoquimba moniwensis* (Ishizaki, 1966)**

[See *Hermanites moniwensis* Ishizaki, 1966.]

***Cornucoquimba rugosa* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 46~48, Pl. 3, figs. 1a, 1b, 2a, 2b, 3~5, Pl. 7, fig. 3; text-figs. 15a, b

Holotype: CC, IGSU-O-19 (Pl. 3, figs. 1a, 1b, 2a, 2b, 3~5, Pl. 7, fig. 3), Paratype: CC, IGSU-O-72 (text-figs. 15a, b)

St. 56 = Off Enshu-nada, 6 km W of Imagine-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34°40'18"N, 137°32'03"E) (well-sorted medium sand, depth 5.9 m)

Recent

***Cornucoquimba saitoi* (Ishizaki, 1963)**

[See *Bradleya saitoi* Ishizaki, 1963.]

***Cornucoquimba shimajiriensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 2, 13, 15, 20, 51, 52, Pl. 3, figs. 4a, b

Holotype: CC, RUEG 133 (Pl. 3, figs. 4a, b)

Loc. 7592502= Ca. 1.5 km WNW of Asato, Gushikami-son, Shimajiri-gun, Okinawa Prefecture (26°07'18"N, 127°43'10"E)

Chinen Formation

Pleistocene

***Cornucoquimba tosaensis* (Ishizaki, 1968)**

[See *Hermanites tosaensis* Ishizaki, 1968.]

***Cornucoquimba yajimae* Nohara, 1981**

Bull. Coll. Educ., Univ. Ryukyus, no. 25, pt. 2, p. 44, 45, Pl. 1, figs. 4a, b

Holotype: RV, RUEG 72 (Pl. 1, figs. 4a, b), Paratype: CC, RUEG 73 (no figures)

Loc. 1B (no. 7512302) = An outcrop along Machinato River, Minatogawa, Urasoe-shi, Okinawa Prefecture (Type locality of Naha Formation) (26°15'48"N, 127°43'42"E)

Naha Formation

Pleistocene

***Coronakirkbya hataii* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 54, Pl. 1, fig. 4

Holotype: RV, IGPS 87070 (Pl. 1, fig. 4)

1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture

Tassobe Formation

Lower Permian

***Coronakirkbya ohazamensis* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 54, 55, Pl. 1, figs. 1~3

Holotype: RV, IGPS 87071 (Pl. 1, fig. 1), Paratypes: LV, IGPS 87072 (Pl. 1, fig. 2); RV, IGPS 87073 (Pl. 1, fig. 3)

1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture

Tassobe Formation

Lower Permian

***Costa costa* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 193, 194, figs. 27-7, 16, 19, 20, 21, 24, text-fig. 12

Holotype: CKUM 3581 (fig. 27-16), Paratypes: CKUM 3578 (no figures); CKUM 3579; CKUM 3580; CC, CKUM 3582 (fig. 27-7); CC, CKUM 3583 (figs. 27-21, 24)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Nodosocosta costa* (Hu, 1977) (by Hu, 1984). Two figures (figs. 27-19, 20) in the original description (Hu, 1977b) cannot be correlated with each type specimen (CKUM 3579, 3580).]

***Costa sinensis* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 67, 68, Pl. 1, figs. 9, 10, text-figs. 5C, D

Holotype: LV, TNUM 4106 (Pl. 1, figs. 9, 10, text-fig. 5C, D)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone
Pleistocene

[=*Acanthocythereis niitsumai* (Ishizaki, 1971) (by Hu, 1986)]

***Cushmanidea carpeta* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 202, 203, figs. 25-9, 12, 14, 15, text-fig. 20

Holotype: CKUM 3554 (fig. 25-14), Paratypes: CKUM 3553 (fig. 25-15); RV, CKUM 3555 (fig. 25-12); CKUM 3556 (fig. 25-9)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Pontocythere kashiwarensis* (Hanai, 1959) (by Hu, 1986)]

***Cushmanidea formosana* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 43, 44, Pl. 2, figs. 15, 17~21, text-fig. 14

Holotype: LV, CKUM 2026 (Pl. 2, figs. 18, 21), Paratypes: CKUM 2027; CKUM 2028; CKUM 2029; CKUM 2030 (no figures)

Loc. 6 or 13 or 14 = 8.5 km, 3.5 km, 2.5 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan
Cholan Formation

Upper Pliocene

[=*Pontocythere subjaponica* (Hanai, 1959) (by Hu, 1986). Four figures (Pl. 2, figs. 15, 17, 19 and 20) in the original description (Hu, 1976) cannot be correlated with each type specimen (CKUM 2027~2029).]

***Cushmanidea japonica* Hanai, 1959**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 3, p. 297, 298, Pl. 16, figs. 1~3

Holotype: CC female, UMUT CA 2889 (Pl. 16, figs. 2a, b), Allotype: CC male, UMUT CA 2890 (Pl. 16, figs. 1a, b), Paratype: CC female, UMUT CA 2891 (Pl. 16, figs. 3a~d)

Beach sand along the shore in front of the Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

[=*Pontocythere japonica* (Hanai, 1959) (by Hanai *et al.*, 1977)]

***Cushmanidea kashiwarensis* Hanai, 1959**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 3, p. 297, Pl. 17, figs. 1~4

Holotype: CC female, UMUT CA 2885 (Pl. 17, figs. 2a, b), Allotype: CC male, UMUT CA 2886 (Pl. 17, fig. 3), Paratypes: CC male, UMUT CA 2887 (Pl. 17, figs. 1a, b); CC female, UMUT CA 2888 (Pl. 17, fig. 4)

The shore of Kashiwara, about 200 m SE of Dozanto, near Yamaga, Ashiya-machi, Onga-gun, Fukuoka Prefecture (beach sand)

Recent

[=*Pontocythere kashiwarensis* (Hanai, 1959) (by Hanai *et al.*, 1977)]

***Cushmanidea miurensis* Hanai, 1959**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 3, p. 299, Pl. 16, figs. 7~10, text-figs. 1a, b

Holotype: CC male, UMUT CA 2896 (Pl. 16, figs. 8a, b), Allotype: CC female, UMUT CA 2897 (Pl. 16, figs. 9a, b), Paratypes: CC male, UMUT CA 2898 (Pl. 16, figs. 7a~d, text-figs. 1a, b); CC female, UMUT CA 2899 (Pl. 16, figs. 10a, b); CC female, UMUT CA 2900

The shore in front of the Imperial villa, Hayama-cho, Kanagawa Prefecture (Recent beach sand)

Recent

[=*Pontocythere miurensis* (Hanai, 1959) (by Hanai *et al.*, 1977)]

***Cushmanidea subjaponica* Hanai, 1959**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 3, p. 298, 299, Pl. 16, figs. 4~6

Holotype: CC male, UMUT CA 2892 (Pl. 16, figs. 4a, b), Allotype: CC female, UMUT CA 2893 (Pl. 16, figs. 5a, b), Paratypes: CC male, UMUT CA 2894; CC female, UMUT CA 2895 (Pl. 16, figs. 6a~d)

The shore in front of the Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

[=*Pontocythere subjaponica* (Hanai, 1959) (by Hanai *et al.*, 1977)]

***Cushmanidea transversa* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 152, 153, Pl. 2, figs. 6~9, text-fig 27

Holotype: CKUM 3773 (Pl. 2, fig. 8), Paratypes: CKUM 3771 (Pl. 2, fig. 6); LV, CKUM 3772 (Pl. 2, fig. 7); CKUM 3773; CKUM 3774 (Pl. 2, fig. 9); CKUM 3775, 3776 (no figures)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Casterocythere transversa* (Hu, 1978) (by Hu, 1986)]

***Cyclasterope hilgendorffii* (G.W. Müller, 1890)**

[See *Asterope hilgendorffii* G.W. Müller, 1890.]

***Cycloleberis brevis* (G.W. Müller, 1890)**

[See *Asterope brevis* G.W. Müller, 1890.]

***Cylindroleberis obalis* Kajiyama, 1912**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 24, no. 289, p. 618, Pl. 9, figs. 39, 40

Holotype: not designated (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

[=*Cylindroleberis ? obalis* Kajiyama, 1912 (by Hanai *et al.*, 1977)]

***Cylindroleberis ? obalis* Kajiyama, 1912**

[See *Cylindroleberis obalis* Kajiyama, 1912)]

***Cypria biwaense* Okubo, 1990**

Res. Crustacea, no. 19, p. 2, 3, figs. 1A~D, 2A, C, D

Holotype: CC male with appendages, FO 513 (figs. 1C, D, 2A), Allotype: CC female, FO 515 (figs. 1A, B), Paratypes: CC female, FO 501 (no figures); CC male, FO 505 (figs. 2C, D) (all of the paratype specimens missing)

Western beach of Lake Biwa, Shiga Prefecture (on filamentous green algae, depth ca.1m) (35 °11.5'N, 135 ° 58.3'E)

Recent

***Cypridea metacyproides* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 415, 416, Pl. 1, figs. 4, 5

Holotype: LV, UMUT MA 8513 (Pl. 1, fig. 5), Paratype: LV, UMUT MA 8514 (Pl. 1, fig. 4)

Well at Tiehli, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 84.9~91.6 m)

Nengkiang Formation

Cretaceous

***Cypridea subvaldensis* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 410~414, Pl. 2, figs. 1~3, 15, text-figs. 1~7

Holotype: CC male, UMUT MA 8501 (Pl. 2, fig. 1), Allotype: CC female, UMUT MA 8502 (Pl. 2, fig. 2), Paratype: LV, UMUT MA 8525 (Pl. 2, fig. 3)

Well at the hill about 20 m high, located about 2 km N of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 114.3 m)

Nengkiang Formation

Cretaceous

***Cypridea sungariana* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 414, 415, Pl. 1, figs. 11, 12

Holotype: LV, UMUT MA 8909 (Pl. 1, fig. 11), Paratype: LV, UMUT MA 8510 (Pl. 1, fig. 12)

Well at Tiehli, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 84.9~91.6 m)

Nengkiang Formation

Cretaceous

***Cypridea tuberculatiformis* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 416, 417, Pl. 1, figs. 8, 9.

Holotype: RV, UMUT MA 8515 (Pl. 1, fig. 8), Paratype: LV, UMUT MA 8516 (Pl. 1, fig. 9)

Well at Tiehli, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 84.9~91.6 m)

Nengkiang Formation

Cretaceous

***Cyprideis yehi* Hu and Yeh, 1978**

Proc. Geol. Soc. China, no. 21, p. 157~159, Pl. 3, figs. 10~13, text-fig. 5

Holotype: CKUM 3929, Paratypes: CKUM 3930; CC, CKUM 3931 (Pl. 3, fig. 11); CKUM 3932 (Pl. 3, fig. 13); CKUM 3933, 3934 (no figures)

0.5 km S of the Liushuang village, Kuantien-hsang, Tainan-hsien, Tainan District, Taiwan

Liushuang Formation

Pleistocene

[=*Sinocytheridea impressa* (Brady, 1869) (by Whatley and Zhao, 1987). Two figures (Pl. 3, figs. 10, 12) in the original description (Hu and Yeh, 1978) cannot be correlated with each type specimen (CKUM 3929, 3930).]

***Cypridina hilgendorffii* G. W. Müller, 1890**

Zool. Jahrb. System., no. 5, p. 228~230, Pl. 25, fig. 9, Pl. 26, figs. 1~3, Pl. 27, figs. 23, 30

Holotype: not designated. several individuals, ZMB 6905 (wet samples); 2 micro slide glass mounted appendages, M 1297, 1298

Enoshima (Exact locality is not known)

Recent

[=*Cypridina (Vargula) hilgendorffii* (G. W. Müller, 1890) (by Skogsberg, 1920) =*Vargula hilgendorffii* (G. W. Müller, 1890) (Hanai, 1974). Information of the original specimen is based on Yajima (1997, p. 30~32).]

***Cypridina japonica* Brady, 1866**

Trans. Zool. Soc. London, v. 5, p. 386, Pl. 62, figs. 8a~d

Types: HMNT collection

Exact locality unknown, Japan (towing-net)

Recent

[=*Cypridina ? japonica* Brady, 1866 (by Hanai *et al.*, 1977)]

***Cypridina japonica* G. W. Müller, 1890**

Zool. Jahrb. System., no. 5, p. 233, 234, Pl. 25, fig. 2, Pl. 26, fig. 10

Holotype: not designated (ZMB collection)

Off Enoshima, Fujisawa-shi, Kanagawa Prefecture

Recent

[=Junior homonym of *Cypridina japonica* Brady, 1866. This species need a new name. Therefore, before replacing the rejected homonym by a new name, the relationships between the specimens described by both G. W. Müller (1890) and Kajiyama (1912) require further study (by Hanai *et al.*, 1977). The specimens of G. W. Müller's were collected by F.

Hilgendorf in the period of 1873 to 1876 (G. W. Müller, 1890).]

***Cypridina ? japonica* Brady, 1866**

[See *Cypridina japonica* Brady, 1866]

***Cypridina noctiluca* Kajiyama, 1912**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 24, no. 289, p. 612, Pl. 9, fig. 15

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Cypridina pellucida* Kajiyama, 1912**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 24, no. 289, p. 611, Pl. 9, figs. 9~11

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

[=*Paradoloria pellucida* (Kajiyama, 1912) (by Hanai, 1974)]

***Cypridopsis japonica* Okubo, 1990**

Bull. Biogeogr. Soc. Japan, v. 45, nos. 1~22, p. 48, figs. 3m~p

Holotype: CC female with appendages, FO 339 (figs. 3m, n, p) (the specimen missing), Paratypes: CC females, FO 291 (fig. 3o) (the specimen missing); 2 females, FO 292, 293 (the specimen missing)

A paddy field, Shionou, Seto-cho, Okayama Prefecture (34 ° 45.5'N, 134 ° 03.5'E)

Recent

[Males unknown]

***Cypridopsis kurilensis* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 137-139, text-fig. 1

Holotype: CC female with appendages, FESC-414~415, Paratype: 14 females, 40 juveniles

Supralittoral zone of Cirip Peninsula, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

***Cypridopsis nigrovittata* Okubo, 1990**

Bull. Biogeogr. Soc. Japan, v. 45, nos. 1~22, p. 48, 49, figs. 3q~s

Holotype: CC female, FO 232 (no figures), Paratypes: 3 CC females, FO 236~238 (no figures); CC female with appendages, FO 466 (figs. 3q~s) (the specimen missing)

Kibitsu, Okayama-shi, Okayama Prefecture (34 ° 40.2'N, 133 ° 52.2'E)

Recent

[Paratype specimen is figured as figs. 3q~s (FO 466), but the

figures of holotype (FO 232) specimen is not shown. Males unknown.]

***Cypridopsis parallela* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 420, 421, Pl. 2, figs. 13, 14

Holotype: LV, UMUT MA 8521 (Pl. 2, fig. 14), Paratype: LV, UMUT MA 8522 (Pl. 2, fig. 13)

Well at Tiehlipu, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 84.9~91.6 m)

Nengkiang Formation

Cretaceous

***Cypridopsis uenoi* Brehm, 1933**

Trans. Nat. Hist. Soc. Formosa, v. 23, nos. 128, 129, p. 297, 298

Holotype: not designated

Tamagawa, Suwa-gun, Nagano Prefecture

***Cyprinotus kaufmanni* Vávra, 1906**

2001, Jahrb. Syst., v. 23, p. 424, 425, pl. 23, figs. 15-20.

Holotype: not designated

Osawa temple (Suwa-jinja, Uma-machi) Nagasaki-shi, Nagasaki Prefecture

[=*Heterocypris kaufmanni* (Vávra, 1906) (by Okubo, 1974a)]

***Cyprinotus setoensis* Okubo, 1990**

Res. Crustacea, no. 19, p. 4~6, figs. 2 I, J

Holotype: CC female, FO 387 (figs. 2I, J), Paratypes: 3 CC females, FO 383~385 (no figures)

A paddy field, near coast of Tamashima-Kurosaki, Kurashiki-shi, Okayama Prefecture (34 ° 30.8'N, 133 ° 39.0'E)

Recent

[Males unknown.]

***Cypris subtriangularis* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 418~420, Pl. 2, figs. 6~8, text-figs. 8~10

Holotype: CC, UMUT MA 8503 (Pl. 2, fig. 6), Paratype: CC, UMUT MA 8504 (Pl. 2, figs. 7, 8)

Well at about 2 km W of the railway station between Harbin and Changchun, Manchuria (depth 15 m)

Nengkiang Formation

Cretaceous

***Cythere acupunctata* Brady, 1880**

Rept. Voyage Challenger, Zool., v. 1, pt. 3, p. 68, Pl. 14, figs. 1a~h

Lectotype: CC, BMNH 80.38.50 (Pl. 8, fig. 5 in Puri and Hulings, 1976)

Challenger St. 233b = Setonaikai (34 ° 18.0'N, 133 ° 35.0'E, trawled) (mud, 15 fathoms)

[=*Cytheromorpha acupunctata* (Brady, 1880) (by Hanai, 1961a)]

***Cythere bicarinata* Brady, 1880**

Rept. Voyage Challenger, Zool., v. 1, pt. 3, p. 70, Pl. 16, figs. 6a~d

Lectotype: CC, BMNH, B. M. 80.38.50 (Pl. 10, figs. 12, 13 in Puri and Hulings, 1976)

Challenger St. 233b = Setonaikai (34°20.0'N, 133°35.0'E, trawled) (mud, 15 fathoms)

[=*Nipponocythere bicarinata* (Brady, 1880) (by Hanai *et al.*, 1977)]

***Cythere boreokurila* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 147, 148, Pl. 1, figs. 4a~d, text-fig. 6

Holotype: CC male, No. 353~354, Paratypes: no numbers

The Inlet of Paramushir Island, Kuril Islands

Recent

[The figures (Pl. 1, figs. 4a~d, text-fig. 6) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Cythere cronini* Tsukagoshi and Ikeya, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 206, 208, figs. 5b, 6-2 a~d, 10-3 a~c

Holotype: CC male, IGSU-O-521 (figs. 6-2a, b), Paratypes: CC female, IGSU-O-522 (figs. 6-2c, d); RV female, IGSU-O-523 (no figures); LV female, IGSU-O-524 (no figures); RV female, IGSU-O-553 (figs. 10-3a, c); LV female, IGSU-O-554 (fig. 10-3b)

79TC5 (T. M. Cronin's sample) = "T's" corner (Loc. H-8 of R.B. Mixon), Accomack County, Virginia, U. S. A. (See Mixon, 1985.)

Omar Formation (Accomack Member)

Pleistocene

***Cythere cymba* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 157, Pl. 16, figs. 1~4

Lectotype: CC male, HMNT 1.57.36 (Pl. 2, figs. 9~11 in Whatley and Zhao, 1987), Paralectotype: CC female, HMNT 1.57.38 (Pl. 2, fig. 12 in Whatley and Zhao, 1987)

Hong Kong

Recent

[=*Aurila cymba* (Brady, 1869) (by Hanai *et al.*, 1977)]

***Cythere euplectella* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 157, 158, Pl. 16, figs. 5~7

Lectotype: RV, HMNT 1.15.17 (Pl. 2, fig. 8 in Whatley and Zhao, 1987), Paralectotypes: LV, HMNT 1.15.15 (Pl. 2, fig. 7 in Whatley and Zhao, 1987); CC, CERS 68.22.53 (Pl. 2, fig. 6 in Whatley and Zhao, 1987)

Hong Kong

Recent

[=*Lankacythere ? euplectella* (Brady, 1869) (by Whatley and Zhao, 1987)]

***Cythere golikovi* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 141, 142, text-fig. 2

Holotype: CC male with appendages, FESC-355~356, Paratypes: no numbers

Konsyervnaya Bay, Okhotsk seashore, Iturup Is., Kuril Islands (depth 4 m)

Recent

[The figures (text-fig. 2) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Cythere hanaii* Tsukagoshi and Ikeya, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 208, 210, figs. 5d, 7-1 a~d

Holotype: RV male, IGSU-O-527 (fig. 7-1a), Paratypes: LV male, IGSU-O-528 (fig. 7-1b); RV female, IGSU-O-529 (fig. 7-1c); LV female, IGSU-O-530 (fig. 7-1d)

840902-5 = An exposure along Hanyu River, ca. 250 m W of Hanyu-mura, Sawane-machi, Sado Island, Japan (37°59.4'N, 138°15.9'E)

Kaidate Formation

Middle Pleistocene

***Cythere japonica* Hanai, 1959**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 4, p. 413, 414, Pl. 28, figs. 1, 3, 7a, b, text-figs. 3a, b

Holotype: RV, UMUT CA 3342 (Pl. 28, fig. 7a, text-fig. 3b), Paratypes: LV, UMUT CA 3343; RV, UMUT CA 3344 (Pl. 28, fig. 1); LV, UMUT CA 3345 (Pl. 28, figs. 3, 7b, text-fig. 3a)

The cliff at Mano Bay, Sawane-machi, Sado-gun, Niigata Prefecture (37°59.9'N, 138°16.6'E)

Sawane Formation

Pleistocene

***Cythere kamikoaniensis* Tsukagoshi and Ikeya, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 210, 211, figs. 5e, 7-2a~d

Holotype: RV male, IGSU-O-531 (fig. 7-2a), Paratypes: LV male, IGSU-O-532 (fig. 7-2b); RV female, IGSU-O-533 (fig. 7-2c); LV female, IGSU-O-534 (fig. 7-2d)

TG006 (S. Ito's sample) = An exposure at the upper most coast of Bussha River, ca. 2.6 km WNW of Kobuchi railroad station of the Aniai Line, Kamikoani-mura, Kita-Akita-gun, Akita Prefecture, Japan (40°02.5'N, 140°22.6'E)

Kamikoani Formation

Late Miocene

***Cythere kishinouyei* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 11, Pl. 1, figs. 61~63

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

[=*Schizocythere kishinouyei* (Kajiyama, 1913) (by Hanai, 1961a)]

***Cythere lutea omotenipponica* Hanai, 1959**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 4, p. 413, Pl. 28, figs. 5a, b

Holotype: RV, UMUT CA 3338 (Pl. 28, fig. 5a), Paratypes: LV, UMUT CA 3339 (Pl. 28, fig. 5b); RV, UMUT CA 3340; LV, UMUT CA 3341

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

[=*Cythere omotenipponica* Hanai, 1959 (by Schornikov, 1975)]

***Cythere lutea uranipponica* Hanai, 1959**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 4, p. 412, 413, Pl. 28, figs. 2, 6a, b, text-figs. 2a, b

Holotype: RV, UMUT CA 3333 (Pl. 28, fig. 2, text-fig. 2b), Paratypes: LV, UMUT CA 3334; RV, UMUT CA 3335; LV, UMUT CA 3336 (Pl. 28, fig. 6b, text-fig. 2a); RV, UMUT CA 3337 (Pl. 28, fig. 6a)

The cliff at Mano Bay, Sawane-machi, Sado-gun, Niigata Prefecture

Sawane Formation

Pliocene

[=*Cythere uranipponica* Hanai, 1959 (by Ikeya and Tsukagoshi, 1988)]

***Cythere nishinipponica* Okubo, 1976**

Res. Bull. Okayama Shujitsu Jr. Coll., no. 6, p. 113~117, figs. 1a~m, 2a~i, 3a~j

Holotype: CC female with appendages, MO 461 (=NSMT-Cr 15273) (figs. 1a, b, 3a~g, c', d'), Paratypes: CC male with appendages, MO 459 (figs. 1c, d, g, h, 2a~h, b', d', d'', g', h') (the specimen missing); CC juvenile (A-1 stage) with appendages, MO 460 (figs. 1e, f, 3h~m) (the specimen missing); CC male with appendages, MO 462 (=NSMT-Cr 15274) (no figures); CC juvenile (A-1 stage) with appendages, MO 465 (=NSMT-Cr 15275) (no figures); CC male with appendages, MO 466 (fig. 2i) (the specimen missing); CC female, MO 468 (fig. 1c) (the specimen missing); CC female, MO 470 (figs. 1j~m) (the specimen missing)

The intertidal zone on coast of Ozuchi-jima, Okayama Prefecture (34 °25.0'N, 133 °55.3'E)

Recent

***Cythere nopporoensis* Tsukagoshi and Ikeya, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 212, 214, figs. 5h, 8-3a~d, 10-4

Holotype: RV male, IGSU-O-537 (fig. 8-3a), Paratypes: LV

male, IGSU-O-538 (fig. 8-3b); RV female, IGSU-O-539 (figs. 8-3c, 10-4); LV female, IGSU-O-540 (fig. 8-3d)

Nop. 3 = An exposure behind the "Kyoei" industrial district, ca. 2.8 km NNW of Kita-Hiroshima railroad station of the Chitose Line, Sapporo-gun, central Hokkaido, Japan (43 °00.1'N, 141 °33.1'E)

Nopporo Formation

Late Pleistocene

***Cythere omotenipponica* Hanai, 1959**

[See *Cythere lutea omotenipponica* Hanai, 1959.]

***Cythere quadriaculeata* Brady, 1880**

Rept. Voyage Challenger, Zool., v. 1, pt. 3, p. 86, p. 87, Pl. 25, figs. 4a~d

Lectotype: CC, BMNH 80.38.50 (Pl. 14, figs., 14~18, text-fig. 8 in Puri and Hulings, 1976)

Challenger St. 233b = Setonaikai (34 °18.0'N, 133 °35.0'E, trawled) (mud, 15 fathoms)

[=*Spinileberis quadriaculeata* (Brady, 1880) (by Hanai, 1961b)]

***Cythere rectangulata* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 10, 11, Pl. 1, figs. 56~60

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

[=*Callistocythere rectangulata* (Kajiyama, 1913) (by Hanai, 1957)]

***Cythere salebrosa* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 158, Pl. 16, figs. 8~10

Holotype: RV, CERS 68.21.40 (Pl. 2, figs. 13, 14 in Whatley and Zhao, 1987)

Hong Kong

Recent

[=*Robstaurila salebrosa* (Brady, 1869) (by Ikeya and Hino, 1990)]

***Cythere sanrikuensis* Tsukagoshi and Ikeya, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 214, 216, figs. 4f, 5j, 9-2a~d

Holotype: RV male, IGSU-O-543 (fig. 9-2a), Paratypes: male copulatory organ, IGSU-O-542 (fig. 4f); LV male, IGSU-O-544 (fig. 9-2b); RV female, IGSU-O-545 (fig. 9-2c); LV female, IGSU-O-546 (fig. 9-2d)

760808-12 = Tidal zone of Kesaiso, Motoyoshi-gun, Miyagi Prefecture, Japan (38 °45.7'N, 141 °31.6'E) (fine sand)

Recent

***Cythere scabrocuneata* Brady, 1880**

Rept. Voyage Challenger, Zool., v. 1, pt. 3, p. 103, Pl. 17, figs.

5e, f, figs. 5a~d, (not) Pl. 23, figs. 2a~c

Lectotype: BMNH 1952. 12. 10. 1, 2 (specimen lost), Paralectotypes: LV male, BMNH 1948. 3. 10. 1 (Pl. 122, figs. 13, 15, 17 in Sylvester-Bradley, 1948; Pl. 1, fig. 5, Pl. 2, figs. 5, 9 in Harding and Sylvester-Bradley, 1953); male, BMNH 1948. 3. 10. 2 (Pl. 1, fig. 6 in Harding and Sylvester-Bradley, 1953); BMNH 1948. 3. 10. 3 (no figures in Harding and Sylvester-Bradley, 1953); LV female, BMNH 1948. 3. 10. 4 (Pl. 122, figs. 14, 18 in Sylvester-Bradley, 1948); RV female, BMNH 1948. 3. 10. 5 (Pl. 122, fig. 16 in Sylvester-Bradley, 1948; Pl. 1, fig. 8, Pl. 2, figs. 6, 10 in Harding and Sylvester-Bradley, 1953); BMNH 1952. 12. 10. 3~9 (no figures in Harding and Sylvester-Bradley, 1953); BMNH 1952. 12. 10. 10~12 (no figures)

Challenger St. 233b = Setonaikai (34 °20.0'N, 133 °35.0'E) (mud, ca. 24. 7 m)

Recent

[=*Trachyleberis scabrocuneata* (Brady, 1880) (by Brady, 1998). Lectotype was designated by Harding and Sylvester Bradley, 1953, p. 12.]

***Cythere schornikovi* Ikeya and Tsukagoshi, 1988**

In Hanai, T., Ikeya, N. and Ishizaki, K. (eds.), Evolutionary Biology on Ostracoda, its fundamentals and applications, p. 911~915, Pl. 3, figs. a~n, text-figs. 7I~L. Kodansha, Tokyo
Holotype: CC male, IGSU-O-453 (Pl. 3, figs. a, b), Paratypes: CC female, IGSU-O-454 (Pl. 3, figs. c, d); CC female, IGSU-O-455 (Pl. 3, figs. e, f); CC male, IGSU-O-456 (Pl. 3, fig. g); CC female, IGSU-O-457 (Pl. 3, fig. h); IGSU-O-451, 452 (no figures)

The tidal zone of rocky shore, Okenepu, Nemuro-shi, Hokkaido, Japan (43 °20.2'N, 145 °45.5'E)

Recent

***Cythere simplex* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 199, 200, figs. 24-16, -17, -19, -20, -22, -23, -25, text-fig. 17.

Holotype: CKUM 3525 (fig. 24-16), Paratypes: CKUM 3528 (fig. 24-20); CKUM 3524 (fig. 24-22); CKUM 3523 (fig. 24-23); CKUM 3529 (fig. 24-25); CKUM 3526; CKUM 3527

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Cythere omotenipponica* (by Malz and Ikeya, 1983). Two figures (figs. 24-17, 19) in the original description (Hu, 1977b) cannot be correlated with each type specimen (CKUM 3526, 3527).]

***Cythere uranipponica* Hanai, 1959**

[See *Cythere lutea uranipponica* Hanai, 1959.]

***Cythere urupensis* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 145~147, Pl. 1, figs. 3a~d, text-fig. 5

Holotype: CC male, No. 351-352, Paratypes: no numbers Shikotan Island and Iturup Island, Kuril Islands (?)

Recent

[The figures (Pl. 1, figs. 3a~d, text-fig. 5) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Cythere valentinei* Tsukagoshi and Ikeya, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 217, 218, figs. 5n, 10-2a~d

Holotype: RV male, IGSU-O-549 (fig. 10-2a), Paratypes: LV male, IGSU-O-550 (fig. 10-2b); RV female, IGSU-O-551 (fig. 10-2c); LV female, IGSU-O-552 (fig. 10-2d)

820829-1a = Cape Blanco, Oregon, U.S.A. (42 °50.5'N, 124 °25.3'W) (= USGS Cenozoic locality M 1450 (See Addicott, 1964.))

Pleistocene (terrace deposits)

***Cythereis assimilis* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 14, Pl. 1, fig. 76

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

[=*Cythere salebrosa* Brady, 1869 = *Robstaurila salebrosa* (Brady, 1869) (by Ikeya and Hino, 1990)]

***Cythereis subconvexa* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 14, Pl. 1, figs. 74, 75

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

[=*Aurila subconvexa* (Kajiyama, 1913) (by Hanai *et al.*, 1977) = *Aurila cymba* (Brady, 1869) (by Whatley and Zhao, 1987)]

***Cytherella cingulata* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 159, Pl. 16, figs. 24, 25

Lectotype: RV female, CERS 68. 18. 59 (Pl. 1, fig. 1 in Whatley and Zhao, 1987), Paralectotype: LV female, HMNT 2.05.43 (Pl. 1, fig. 2 in Whatley and Zhao, 1987)

Hong Kong

Recent

[=*Cytherelloidea cingulata* (Brady, 1869) (by Kingma, 1948)]

***Cytherella elliptica* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy

of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 162, Pl. 172, figs. 10, 11
Holotype: CC, DJ 0104 (Pl. 172, figs. 10, 11)
East China Sea
Lingfeng Formation
Paleocene

***Cytherella foveolata* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 163, Pl. 172, fig. 13
Holotype: CC, DJ 0098 (Pl. 172, fig. 13)
East China Sea
Lingfeng Formation
Paleocene

***Cytherella japonica* Ishizaki, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 131, p. 140, 141, Pl. 32, figs. 3, 4, 6, 7
Holotype: LV, IGPS 97809 (Pl. 32, fig. 6), Paratypes: LV, IGPS 97807 (Pl. 32, figs. 4a, b); RV, IGPS 97808 (Pl. 32, figs. 3a, b); RV, IGPS 97810 (Pl. 32, fig. 7)
About 80 m W of Ono Yasuda-cho, Aki-gun, Kochi Prefecture
Ananai Formation
Pliocene
[=*Cytherella leizhouensis* Gou, 1983 (by Zhou, 1995).
Sample horizon H3 = Ca. 3 m below the top of Ananai Fm.]

***Cytherella laevigata* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 161, Pl. 172, fig. 5
Holotype: CC, DJ 0072 (Pl. 172, fig. 5), Paratypes: CC, RV 0149a; RV, DJ 0149b (no figures)
East China Sea
Oujiang Formation
Early Eocene

***Cytherella lepida* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 161, Pl. 172, figs. 3, 4
Holotype: CC, DJ 0073 (Pl. 172, figs. 3, 4)
East China Sea
Oujiang Formation
Early Eocene

***Cytherella posticlina* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 161, 162, Pl. 172, figs. 8, 9
Holotype: CC, DJ 0103 (Pl. 172, figs. 8, 9)
East China Sea
Oujiang Formation
Early Eocene

***Cytherella punctata* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 162, 163, Pl. 172, fig. 12
Holotype: LV, DJ 0076 (Pl. 172, fig. 12)
East China Sea
Lingfeng Formation
Paleocene

***Cytherella rotunda* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 162, Pl. 172, figs. 1, 2
Holotype: CC, DJ 0075 (Pl. 172, figs. 1, 2)
East China Sea
Lingfeng Formation
Paleocene

***Cytherelloidea ambigua* Hu, 1977**

Proc. Geol. Soc. China, no. 20, p. 103, 104, Pl. 4, figs. 10~13, 19, text-fig. 19
Holotype: RV, CKUM 3648 (Pl. 4, figs. 13, 19), Paratypes: CKUM 3647; CKUM 3649
The left bank of the Houlung River, S of Kueishan, Miaoli Area, Taiwan
Toukoshan Formation
Pleistocene
[Three figures (Pl. 4, figs. 10~12) in the original description (Hu, 1977a) cannot be correlated with each type specimen (CKUM 3647, 3649).]

***Cytherelloidea amiea* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 83, 84, Pl. 2, figs. 18, 22, 23, text-figs. 21A, C, D
Holotype: RV, TNUM 4136 (Pl. 2, fig. 23), Paratype: LV, TNUM 4137 (Pl. 2, figs. 18, 22)
An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone
Pleistocene

***Cytherelloidea asatoensis* Nohara, 1976**

Bull. Coll. Educ., Univ. Ryukyus, no. 20, pt. 2, p. 1, Pl. 1, figs. 1, 5

Holotype: RV, RUEG 41(Pl. 1, fig. 1), Paratype: LV juvenile form, RUEG 42 (Pl.1, fig. 5)

Loc. 7592601-B = Ca. 1 km N of Asato, Gushikami-son, Shimajiri-gun, Okinawa Prefecture (26 °07'18''N, 127 °43'10''E)

Shinzato Formation
Pliocene

***Cytherelloidea cinctoidea* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 73, 74, Pl. 1, figs. 3~7, text-fig. 13

Holotype: TUM 4003, Paratypes: TUM 4002, 4004

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limstone, Hungchun peninsula, southern Taiwan
Hungchun Limstone

Late Pleistocene / Holocene

[Five figures (Pl. 1, figs. 3~7) in the original description (Hu, 1979) cannot be correlated with each type specimen (TUM 4002~4004).]

***Cytherelloidea emarginata* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 48, 49, Pl. 1, figs. 9, 10, text-fig. 19

Holotype: LV, CKUM 2054 (Pl. 1, figs. 9, 10)

Loc. 6 = 7 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation
Upper Pliocene

***Cytherelloidea hanaii* Nohara, 1976**

Bull. Coll. Educ., Univ. Ryukyus, no. 20, pt. 2, p. 1, 2, Pl. 1, fig. 2

Holotype: LV RUEG, 43 (Pl. 1, fig. 2)

Loc. 7571602-B = A cliff, Yakena, Yonashiro-son, Okinawa Prefecture (26 °19'N, 127 °55'E)

Shinzato Formation
Pleistocene

***Cytherelloidea kianofeipunae* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 104, 105, Pl. 9, figs. 5, 10, 16, text-fig. 37

Holotype: RV, TNUM 8052, Paratypes: RV, TNUM 8053; LV, TNUM 8054 (Pl. 9, fig. 16)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation
Pleistocene

[=*Cytherelloidea cinctoidea* Hu, 1979 (by Hu, 1986). Two figures (Pl. 9, figs. 5, 10) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8052, 8053).]

***Cytherelloidea munechikai* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 43, Pl. 8, figs. 1~3

Holotype: RV, IGPS 90324 (Pl. 8, fig. 1), Paratypes: LV, IGPS 90325 (Pl. 8, fig. 2); LV immature form, IGPS 90327 (Pl. 8, fig. 3)

St. 146 = Uranouchi Bay, Kochi Prefecture (33 °26'17''N, 133 °27'15''E) (medium sand, depth 3 m)

Recent

***Cytherelloidea nagoensis* Nohara, 1976**

Bull. Coll. Educ., Univ. Ryukyus, no. 20, pt. 2, p. 2, 3, Pl. 1, fig. 4

Holotype: LV, RUEG 45 (Pl. 1, fig. 4)

Loc. 7572003-A = River bed of Haneji River in front of Haneji Junior High School, Nago-shi, Okinawa-jima, Okinawa Prefecture (26 °37'10''N, 128 °01'25''E)

Nakoshi Formation
Pleistocene

***Cytherelloidea orientalis orientalis* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 83, 84, Pl. 4, figs. 33, 34, text-fig. 2

Holotype: RV, TNUM 7087 (Pl. 4, figs. 33, 34)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °56.3'N, 120 °48.2'E)

Maanshan Mudstone
Late Pliocene to Early Pleistocene

***Cytherelloidea prohanaii* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 101, Pl. 2, figs. 1~10, 12, 15, 18, text-fig. 4A

Holotype: LV, TNUM 10025 (Pl. 2, fig. 1), Paratypes: 5 LV, TNUM 10026~10030 (Pl. 2, figs. 3, 4, 7, 10, 18); 5 RV, TNUM 10031~10035 (Pl. 2, figs. 2, 5, 6, 9, 12); LV, TNUM 10036 (Pl. 2, fig. 8); CC, TNUM 10037 (Pl. 2, fig. 15)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)

Tungshiao Formation (Nanwo Member)
Pleistocene

***Cytherelloidea senkakuensis* Nohara, 1976**

Bull. Coll. Educ., Univ. Ryukyus, no. 20, pt. 2, p. 3, Pl. 1, fig. 6

Holotype: LV, RUEG 46 (Pl. 1, fig. 6)

St. 10 = Ca. 150 km N of Kuba-jima, Senkaku-retto, East China Sea (depth 100 m) (27 °25'N, 123 °46'E)

Recent

***Cytherelloidea shinzatoensis* Nohara, 1976**

Bull. Coll. Educ., Univ. Ryukyus, no. 20, pt. 2, p. 3, Pl. 1, fig. 7

Holotype: LV, RUEG 47 (Pl. 1, fig. 7)

Loc. 7571701-E = Ca. 500m SE of Shinzato, Sashiki-cho, Shimajiri-gun, Okinawa Prefecture (Type locality of Shinzato tuff) (26 °09'40''N, 127 °46'36''E)

Shinzato Formation

Pliocene

[Sample horizon = Ca. 1.2 m below the base of the tuff bed (10m thickness)]

***Cytherelloidea subambigua* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 172, 173, Pl. 4, figs. 3, 9, text-fig. 22

Holotype: RV, TNUM 7173 (Pl. 4, figs. 3, 9)

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan

Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Cytherelloidea subumbonata* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 84, 85, Pl. 2, fig. 20, text-fig. 21B

Holotype: CC, TNUM 4135 (Pl. 2, fig. 20)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

[=*Cytherelloidea cinctoidea* Hu, 1979 (by Hu, 1986)]***Cytherelloidea sulcata* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 192, 193, Pl. 2, figs. 11, 12, text-fig. 2

Holotype: CKUM 3095 (Pl. 2, fig. 11), Paratype: RV female, CKUM 3096 (Pl. 2, fig. 12); CKUM 3097~3100 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

***Cytherelloidea symmetrica* Chen, 1990**

Acta Micropalaeontologica Sinica, v. 7, no. 4, p. 381, Pl. 1, figs. 5, 6

Holotype: CC, 111225 (Pl. 1, figs. 5, 6)

Hole W6-1-1 (core) = 160 km E of Wenzhou City, SW of East China Sea (27 °50'N, 122 °50'E)

Upper Wenzhou Formation

Middle Eocene

***Cytherelloidea yakenaensis* Nohara, 1976**

Bull. Coll. Educ., Univ. Ryukyus, no. 20, pt. 2, p. 3, Pl. 1, fig. 8

Holotype: RV, RUEG 48 (Pl. 1, fig. 8)

Loc. 7571603-B = The outcrop in front of the sightseeing tower at Yakena Harbor, Yonashiro-son, Okinawa-jima, Okinawa Prefecture (26 °18'52''N, 127 °55'00''E)

Shinzato Formation

Pliocene

[Sample horizon = Ca. 50 cm below the tuff bed (30 cm thick)]

***Cytherelloidea wendongensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 163, Pl. 171, figs. 3, 4

Holotype: CC, DJ 0071 (Pl. 171, figs. 3, 4)

East China Sea

Oujiang Formation

Early Eocene

***Cytheretta ? iwasakii* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 47, 48, Pl. 11, figs. 2a~d

Holotype: LV, RUEG 124 (no figures), Paratype: LV, RUEG 125 (Pl. 11, figs. 2a~d)

St. 200 = Ca. 100 km S of Miyako-jima, East China Sea (23 ° 52'02''N, 125 °47'00''E) (silt, depth 1180 m)

Recent

***Cytheridea convexa* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 162, 163, Pl. 2, figs. 9, 17, text-fig. 12

Holotype: CC, TNUM 7134 (Pl. 2, figs. 9, 17), Paratype: TNUM 7135 (no figures)

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan

Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Cytheridea impressa* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 158, Pl. 16, figs. 13, 14

Lectotype: LV female, HMNT 1.24.37 (Pl. 1, fig. 9 in Whatley and Zhao, 1987), Paralectotypes: CC female, HMNT 1.23.44 (Pl. 1, fig. 8 in Whatley and Zhao, 1987); RV female, HMNT 1.24.38 (Pl. 1, fig. 10 in Whatley and Zhao, 1987)

Hong Kong

[=*Sinocytheridea impressa* (Brady, 1869) (by Whatley and Zhao, 1987)]

***Cytherois asamushiensis* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 90, 91, Pl. 1, fig. 6, Pl. 3, figs. 12, 15

Holotype: RV, IGPS 91575 (Pl. 1, fig. 6, Pl. 3, fig. 12), Paratype: LV, IGPS 91576 (Pl. 3, fig. 15)

St. 17 = Aomori Bay, Aomori Prefecture (40°53'39''N, 140°50'51''E) (sandy mud, depth 22 m)

Recent

***Cytherois bingoensis* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 5/6, p. 431~433, figs. 21a~i, 23a, b

Holotype: CC female, MO 494 (figs. 21a~i, 23 a, b), Allotype: CC male with appendages, MO 393 (=NSMT-Cr 15276) (figs. 21d'), Paratypes: CC male with appendages, MO 488 (=NSMT-Cr 15277) (no figures); CC female with appendages, MO 489 (=NSMT-Cr 15278) (no figures)

St. 5 = The intertidal zone, rocky shore, near the Mukaishima Marine Biological Station, Hiroshima University, Mukaishima-shi, Mitsugi-gun, Hiroshima Prefecture (34°21.7'N, 133°13.2'E)

Recent

[=*Flabellicytherois bingoensis* (Okubo, 1980) (by Schornikov, 1993b)]

***Cytherois decorata* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 5/6, p. 433~436, figs. 22a~j, 23c~f

Holotype: CC female with appendage, MO 771 (=NSMT-Cr 15279) (fig. 22e'), Allotype: CC male with appendages, MO 716 (=NSMT-Cr 15280) (figs. 22a~j, f'), Paratype: CC male with appendages, MO 770 (=NSMT-Cr 15281) (no figures)

St. 17 = The intertidal zone, rocky shore, Desaki-West coast, Tamano-shi, Okayama Prefecture (34°30.9'N, 133°59.8'E)

Recent

***Cytherois ezoensis* Hiruta, 1976**

Proc. Japan Soc., Syst. Zool., no. 12, p. 29~33, figs. 4-1~8, 5-1~6

Holotype: CC female with appendages, ZIHU 2148 (figs. 4-1~3), Allotype: CC male with appendages, ZIHU 2149 (figs. 4-4~8, 5-1~5), Paratypes: CC male with appendages, ZIHU 2150 (no figures); CC male with appendages, ZIHU 2151 (no figures); CC female with appendages, ZIHU 2152 (fig. 5-6)

A small inlet, Oshoro Bay, Oshoro, W of Otaru-shi, Ishikari Bay, Hokkaido (43°13'N, 140°52'E) (on algae, Sargassum, depth 0~3 m)

Recent

***Cytherois ikeyai* Nakao and Tsukagoshi, 2002**

Species Diversity, v. 7, no. 1, p. 102, 103, figs. 20A~K, 21A~J

Holotype: CC male, SUM CO 1196 (fig. 20A), Paratypes:

CC male, SUM CO 1197 (fig. 20B); CC female, SUM CO 1198 (fig. 20C); CC female, SUM CO 1199 (fig. 20D); CC male, SUM CO 1200 (fig. 20E); CC female, SUM CO 1201 (fig. 20F); LV female, SUM CO 1202 (fig. 20G); RV female, SUM CO 1203 (figs. 20H, J, K); RV male, SUM CO 1204 (fig. 20I); RV male, SUM CO 1205 (fig. 21A); RV female, SUM CO 1206 (fig. 21B); male appendages, SUM CO 1207 (figs. 21C~J)

Loc. B = A small creek with associated flora of halophilous grass, at mouth of Obitsu River, Kisarazu-shi, Chiba Prefecture (35°24.6'N, 139°54.2'E) (muddy sand, depth 5 cm at lowest low tide)

Recent

***Cytherois marginalis* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 83, Pl.10, figs. 16, 22, text-fig. 15

Holotype: TNUM 8210, Paratype: TNUM 8209

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

[Two figures (Pl. 10, figs. 16, 22) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8209, 8210).]

***Cytherois nakanoumiensis* Ishizaki, 1969**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 41, no. 2, p. 221, Pl. 24, figs. 7, 8, Pl. 26, figs. 3, 4

Holotype: RV, IGPS 87018 (Pl. 26, fig. 3, Pl. 24, fig. 8), Paratype: LV, IGPS 87019 (Pl. 26, fig. 4, Pl. 24, fig. 7)

St. 14 = Nakanoumi Estuary, Shimane Prefecture (35°30'57''N, 133°09'27''E) (mud, depth 6.9 m)

Recent

***Cytherois sargassicola* Hiruta, 1976**

Proc. Japan Soc., Syst. Zool., no. 12, p. 24~29, figs. 1-1~4, 2-1~5, 3-1~7

Holotype: CC female with appendages, ZIHU 2141 (figs. 1-3, 4, 2-1~4), Allotype: CC male with appendages, ZIHU 2143 (fig. 2-5, 3-5~7), Paratypes: CC male with ppendages, ZIHU 2144 (no figures); CC male with ppendages, ZIHU 2145 (no figures); CC female with ppendages, ZIHU 2146 (figs. 3-1~4); CC female with ppendages, ZIHU 2147 (figs. 1-1, 2)

A small inlet, Oshoro Bay, Oshoro, W of Otaru-shi, Ishikari Bay, Hokkaido (43°13'N, 140°52'E) (on algae, Sargassum, depth 0~3 m)

Recent

[=*Violacytherois sargassicola* (Hiruta, 1976) (by Schornikov, 1993b)]

***Cytherois uranouchiensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 36,

37, Pl. 2, figs. 12, 13, Pl. 8, figs. 7, 8

Holotype: RV, IGPS 90295 (Pl. 2, fig. 12, Pl. 8, fig. 7), Paratype: LV, IGPS 90296 (Pl. 2, fig. 13, Pl. 8, fig. 8)

St. 29 = Uranouchi Bay, Kochi Prefecture (33°25'38''N, 133°26'15''E) (sandy mud, depth 2 m)

Recent

***Cytherois violacea* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 194, 195, text-fig. 32

Holotype: CC male, FESC-434~435, Paratypes: no numbers Cirip Peninsula, Okhotsk seashore of Iturup Island, Kuril Islands (depth 0.3~0.7 m)

Recent

[The figures (text-fig. 32) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Cytherois zosteræ* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 15~17, fig. 6

Holotype: male, FESC 488~489, Paratypes: 7 males, 52 females (no numbers)

Trotza Bay, Japan Sea (on *Zostera*, depth 2.5 m)

Recent

[The figures (fig. 6) in the original description (Schornikov, 1975b) cannot be correlated with each type specimen.]

***Cytheroma ? hanaii* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 404, 405, Pl. 50, figs. 5a, b, text-fig. 10, figs. 1a, b

Holotype: CC, UMUT CA 8413 (Pl. 50, figs. 5a, b, text-fig. 10, figs. 1a, b)

Loc. 33 = An exposure, 450 m S of the old Hirakawa Bridge, Nakagoyatsu, Josai, Kisarazu -shi, Chiba Prefecture (35°22'10''N, 139°57'20''E)

Narita Formation (Kami-Iwahashi Member)

Pleistocene

***Cytheromorpha acupunctata* (Brady, 1880)**

[See *Cythere acupunctata* Brady, 1880.]

***Cytheromorpha japonica* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 36, Pl. 9, figs. 11, 12

Holotype: RV, IGPS 90290 (Pl. 9, fig. 12), Paratype: LV, IGPS 90291 (Pl. 9, fig. 11) Uranouchi Bay, Kochi Prefecture

Recent

[=*Cytheromorpha acupunctata* (Brady, 1880) (by Hanai *et al.*, 1977)]

***Cytheromorpha kianotufei* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 163, 165, Pl. 11, figs. 3, 4, 8, text-fig. 5A

Holotype: RV, TNUM 11257 (Pl. 11, fig. 8), Paratypes: RV,

TNUM 11255 (Pl. 11, fig. 3); LV, TNUM 11256 (Pl. 11, fig. 4)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24°37.7'N, 120°45.1'E)

Tungshiao Formation (Nanwo Member)

Pleistocene

***Cytheromorpha lagunæ* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 153~155, text-fig. 9

Holotype: CC male, FESC-357~358, Paratypes: no numbers Lake Dolgoye near Kasatka Bay, Iturup Is., Kuril Islands

[The figures (text-fig. 9) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Cytheromorpha rostrata* Hu, 1977**

Proc. Geol. Soc. China, no. 20, p. 99~101, Pl. 4, figs. 17, 18, 21, 22, text-fig. 17

Holotype: CKUM 3651, Paratypes: CKUM 3650; CKUM 3652; CKUM 3652'

The left bank of the Houlung River, S of Kueishan, Miaoli Area, Taiwan

Toukoshan Formation

Pleistocene

[Four figures (Pl. 4, figs. 17, 18, 21 and 22) in the original description (Hu, 1977a) cannot be correlated with each type specimen (CKUM 3650~3652, 3652').]

***Cytheropteron ? higashikawai* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 56~58, Pl. 12, figs. 6~9; Pl. 13, fig. 16; Pl. 14, figs. 2a, b, 13

Holotype: RV, IGPS 97077 (Pl. 12, fig. 9; Pl. 13, fig. 16; Pl. 14, fig. 13), Paratypes: LV, IGPS 97078 (Pl. 12, fig. 8; Pl. 14, figs. 2a, b); LV, IGPS 97079 (Pl. 12, fig. 7); RV, IGPS 97080 (Pl. 12, fig. 6)

St. 54 = N of East China Sea (30°30.0'N, 126°30.0'E) (medium sand, depth 90 m)

Recent

***Cytheropteron ? kitazatoi* Ikeya and Zhou, 1992**

In Ishizaki, K. and Saito, T. (eds.), Centenary of Japanese Micro-paleontology, p. 351, 353, figs. 11-9a, 9b, 10, 11a, 11b, 12, 13. Terra Sci. Publ., Tokyo

Holotype: CC, IGSU-O-772 (figs. 11-9a, 9b, 10, 11a, 11b, 12, 13)

St. 48 = Otsuchi Bay, Iwate Prefecture (39°20.7'N, 141°57.1'E) (shelly sand, depth 41 m)

Recent

***Cytheropteron apteron* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 159, 161, Pl. 19, figs. 12, 13, 16, 18, 20~23, text-fig. 5D

Holotype: CC, TNUM 11474 (Pl. 19, fig. 13), Paratypes: RV, TNUM 11473 (Pl. 19, fig. 12); 5 CC, TNUM 11475~11479 (Pl. 19, figs. 16, 18, 20, 22, 23); RV, TNUM 11480 (Pl. 19, fig. 21)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)

Tungshiao Formation (Nanwo Member)
Pleistocene

***Cytheropteron elongatum* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 167, 168, Pl. 3, figs. 17, 19, text-fig. 17

Holotype: CC, TNUM 7164 (Pl. 3, figs. 17, 19), Paratype: TNUM 7165 (no figures)

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan
Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Cytheropteron furcata* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 137, Pl. 3, figs. 2, 6.

Holotype: CKUM 3792 (Pl. 3, fig. 2), Paratypes: CKUM 3793 (Pl. 3, fig. 6)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation
Pleistocene

***Cytheropteron grossa* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 80, 81, Pl. 2, figs. 9, 11, 13, 15, text-fig. 18

Holotype: CC, TNUM 4128 (Pl. 2, figs. 9, 11), Paratypes: RV, TNUM 4129 (Pl. 2, fig. 13); LV, TNUM 4130 (Pl. 2, fig. 15)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone
Pleistocene

***Cytheropteron hanaii* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 55, 56, Pl. 11, figs. 11, 12; Pl. 12, figs. 1~4; Pl. 13, figs. 8, 9; Pl. 14, fig. 3

Holotype: RV, IGPS 97053 (Pl. 11, fig. 11; Pl. 12, fig. 1), Paratypes: RV, IGPS 97051 (Pl. 12, fig. 4; Pl. 13, fig. 9; Pl. 14, fig. 3); LV, IGPS 97052 (Pl. 12, fig. 3; Pl. 13, fig. 8); LV, IGPS 97054 (Pl. 11, fig. 12; Pl. 12, fig. 2)

St. 29 = S of Cheju-do (31 °13.3'N, 127 °7.2'E) (mud, depth 109 m)

Recent

***Cytheropteron kumaii* Yasuhara *et al.*, 2002**

Paleontological Research, v. 6, no. 1, p. 95, figs. 8-1~4

Holotype: LV, OCUCO 0015 (fig. 8-3), Paratypes: RV,

OCUCO 0016 (fig. 8-1); RV, OCUCO 0017 (figs. 8-2a~c); LV, OCUCO 0018 (figs. 8-4a~c)

T2-12 (core sample) = Ca. 8 km NW of Wakayama-shi, Wakayama Prefecture (34 °14.5'N, 135 °05.2'E) (depth ca. 25 m)

Holocene

[Sample horizon = Ca. 6 m below the sea floor]

***Cytheropteron microlatum* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 168, Pl. 1, fig. 5, text-fig. 18

Holotype: CC, TNUM 7192 (Pl. 1, fig. 5)

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan
Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Cytheropteron miurense* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 29, 30, Pl. 4, figs. 1a, b, text-figs. 7a, b

Holotype: CC, UMUT CA 2632 (Pl. 4, figs. 1a, b, text-figs. 7a, b)

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

***Cytheropteron neoalae* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 139, 140, Pl. 17, figs. 6, 7

Holotype: CC, IGPS 85850 (Pl. 17, fig. 6), Paratype: RV, IGPS 85851 (Pl. 17, fig. 7)

A cliff near the Taihakusan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation
Miocene

[=*Eucytherura neoalae* (Ishizaki, 1966) (by Hanai *et al.*, 1977)]

***Cytheropteron prorhombea* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 164, 165, Pl. 3, figs. 4~6, 15, 18, text-fig. 14

Holotype: TNUM 7154, Paratypes: TNUM 7155; TNUM 7156; TNUM 7157

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan

Maanshan Mudstone

Late Pliocene / Early Pleistocene

[=*Cytheropteron miurense* Hanai, 1957 (by Hu, 1986)]

***Cytheropteron rarum* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 28, 29, Pl. 4, fig. 3

Holotype: LV, UMUT CA 2631 (Pl. 4, fig. 3)

The cliff at Mano Bay, Sawane-machi, Sado-gun, Niigata Prefecture

Sawane Formation

Upper Pliocene

[=Junior homonym for *Cytheropteron rarum* G.W. Müller, 1894. The new name was proposed as *Cytheropteron emeritum* Hanai, 1957 (by Hanai, 1959, p. 418).]

***Cytheropteron rectocostum* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 85, 86, Pl. 5, figs. 5a, b, 6

Holotype: RV, JC-1404 (Pl. 5, figs. 5a, b), Paratype: LV, JC-1405 (Pl. 5, fig. 6)

No. 362 (GH83-2) = Hyuga-nada, ca. 33 km S off Nichinan-shi, Miyazaki Prefecture (31°19.0'N, 131°23.7'E) (very coarse sand, depth 135 m)

Recent

***Cytheropteron rhombea* Hu, 1976**

Proc. Geol. Soc. China, no. 19, p. 42, 43, Pl. 2, figs. 22~26, text-fig. 13

Holotype: RV, CKUM 2031 (Pl. 2, figs. 25, 26), Paratypes: juvenile, CKUM 2032 (Pl. 2, fig. 22); CKUM 2033; CKUM 2034

Loc. 8 (4.5 km NE of Erhping station) or loc. 14 (2.5 km SE of Tsaochiaio station) = Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Cytheropteron miurense* Hanai, 1957 (by Hu, 1986). Two figures (Pl. 2, figs. 23, 24) in the original description (Hu, 1976) cannot be correlated with each type specimen (CKUM 2033, 2034).]

***Cytheropteron sawanense* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 27, 28, Pl. 4, figs. 2a~c, text-figs. 8a, b

Holotype: RV, UMUT CA 2623 (Pl. 4, fig. 2a, text-fig. 8b), Paratypes: RV, UMUT CA 2624 (Pl. 4, fig. 2c); LV, UMUT CA 2625 (text-fig. 8a); LV, UMUT CA 2626 (Pl. 4, fig. 2b)

A cliff at Mano Bay, Sawane-machi, Sado-gun, Niigata

Prefecture

Sawane Formation

Upper Pliocene

***Cytheropteron semicirculata* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 177, Pl. 2, figs. 22, 27, text-fig. 2

Holotype: RV, TNUM 7240 (Pl. 2, figs. 22, 27)

An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

[=*Cytheropteron uchioi* Hanai, 1957 (by Hu, 1986)]

***Cytheropteron sendaiense* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 140, Pl. 17, figs. 13, 14

Holotype: CC, IGPS 85854 (Pl. 17, fig. 13), Paratype: RV, IGPS 85855 (Pl. 17, fig. 14)

A cliff near the Taihakistan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

***Cytheropteron similis* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 80, Pl. 2, figs. 2, 5, 7, 10, text-fig. 17

Holotype: CC, TNUM 4123 (Pl. 2, figs. 2, 7), Paratypes: LV, TNUM 4124 (Pl. 2, fig. 5); RV, TNUM 4125 (Pl. 2, fig. 10)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Cytheropteron smithi* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 2, 20, 56, Pl. 4, figs. 2a~c

Holotype: LV, RUEG 143 (Pl. 4, figs. 2a~c)

Loc. 75122802-C = Ca. 1 km WNW of Asato, Gushikami-son, Shimajiri-gun, Okinawa Prefecture (26°07'12''N, 127°43'12''E)

Chinen Formation

Pleistocene

***Cytheropteron tsugaruense* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 100, 101, Pl. 18, figs. 1~6, Pl. 20, fig. 8, text-figs. 17-5, 6

Holotype: LV, UMUT CA 15914 (Pl. 18, figs. 2, 3, 5, text-fig. 17-5), Paratype: RV, UMUT CA 15915 (Pl. 18, figs. 1, 4, 6, Pl. 20, fig. 8, text-fig. 17-6)

Loc. O4 = A small exposure along the Otakizawa River, 3 km NW of Tsurugasaka railway station, Aomori-shi, Aomori Prefecture (40°48'17''N, 140°36'46''E)

Daishaka Formation

Plio-Pleistocene

***Cytheropteron tumulosum* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 166, 167, Pl. 3, figs. 8, 22, text-fig. 16

Holotype: TNUM 7160, Paratype: TNUM 7161

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan

Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Cytheropteron uchioi* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 28, Pl. 4, figs. 4a, b, text-figs. 9a, b

Holotype: RV, UMUT CA 2627 (Pl. 4, fig. 4a), Paratypes: RV, UMUT CA 2628 (text-fig. 9b); LV, UMUT CA 2629 (text-fig. 9a); LV, UMUT CA 2630 (Pl. 4, fig. 4b)

A point, W of Idenoue, Kawaminami-mura, Koyu-gun, Miyazaki Prefecture
Heki Formation (the Cucullaea zone)
Pliocene

***Cytheropteron yajimai* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 99, 100, Pl. 17, figs. 13~18, Pl. 20, fig. 7, text figs. 17-3, 4

Holotype: RV, UMUT CA 15912 (Pl. 17, figs. 13, 16, 18, text-fig. 17-4), Paratype: LV, UMUT CA 15913 (Pl. 17, figs. 14, 15, 17, Pl. 20, fig. 7, text-fig. 17-3)

Loc. N3 = An exposure along the Namioka River, 5 km NE of Namioka railway station, Namioka-machi, Minami-Tsugaru-gun, Aomori Prefecture (40°43'27''N, 140°38'29''E)

Daishaka Formation

Plio-Pleistocene

[Sample horizon = 20 cm above the top surface of DT-4 key tuff bed]

***Cytherura anacompressa* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 89~91, Pl. 5, figs. 11, 15, text-fig. 23

Holotype: TNUM 8178, Paratype: TNUM 8179a

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

[Two figures (Pl. 5, figs. 11, 15) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8178, 8179a).]

***Cytherura biloba* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 94, 95, Pl. 4, figs. 13, 18, 20, 24, text-fig. 14

Holotype: RV, TNUM 7076 (Pl. 4, figs. 13, 20), Paratypes: TNUM 7077; TNUM 7078

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21°56.3'N, 120°48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Two figures (Pl. 4, figs. 18, 24) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7077, 7078).]

***Cytherura compressa* Hu, 1977**

Proc. Geol. Soc. China, no. 20, p. 91, 92, Pl. 1, figs. 15~17, text-fig. 10

Holotype: CKUM 3733 (Pl. 1, fig. 16), Paratypes: CKUM 3732; CKUM 3734

The left bank of the Houlung River, S of Kueishan, Miaoli Area, Taiwan

Toukoshan Formation Pleistocene

[Two figures (Pl. 1, figs. 15 and 17) in the original description (Hu, 1977a) cannot be correlated with each type specimen (CKUM 3732, 3734).]

***Cytherura daishakaensis* (Tabuki, 1986)**

[See *Semicytherura ? daishakaensis* Tabuki, 1986.]

***Cytherura furuyaensis* Ishizaki and Kato, 1976**

Takayanagi, Y. and Saito, T. (eds.), Progress in Micro-paleontology, Micropaleont. Press, Amer. Mus. Nat. Hist., New York, p. 130, 131, Pl. 1, figs. 1~8, text-fig. 5

Holotype: LV, IGPS 91729 (Pl. 1, fig. 3), Paratypes: RV, IGPS 91728 (Pl. 1, figs. 1, 2); RV, IGPS 91727 (Pl. 1, figs. 5, 7, 8, text-fig. 5); LV, IGPS 91730 (Pl. 1, figs. 4, 6)

Loc. 10 = A cliff, N of Sagara-cho, 375 m NE of Kitahara Post Office, Asahinabara, Hamaoka-cho, Ogasa-gun, Shizuoka Prefecture

Furuya Formation

Pleistocene

[Sample horizon 10A = Ca. 5 m below the top of Furuya Fm.]

***Cytherura gushikamiensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 2, 13, 15, 20, 57, 58, Pl. 7, figs. 1a, b

Holotype: RV, RUEG 148 (Pl. 7, figs. 1a, b)

Loc. 75122802-C = Ca. 1 km WNW of Asato, Gushikami-son, Shimajiri-gun, Okinawa Prefecture (26°07'12''N, 127°43'12''E)

Chinen Formation

Pleistocene

***Cytherura kianomikadoi* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 88, Pl. 9, figs. 14, 19, 20, text-fig. 21

Holotype: LV, TNUM 8063, Paratypes: CC, TNUM 8061 (Pl. 9, fig. 14); LV, TNUM 8062

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

[Two figures (Pl. 9, figs. 19, 20) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8062, 8063).]

***Cytherura kianotyrantra* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 88, 89, Pl. 9, figs. 18, 21, text-fig. 22

Holotype: TNUM 8064, Paratype: TNUM 8065

The east slope of the Hengchun West Table-land, ca. 3 km W

of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)
 Ssukou Formation
 Pleistocene
 [Two figures (Pl. 9, figs. 18, 21) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8064, 8065).]

***Cytherura laciniata* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 95, 96, Pl. 4, figs. 7, 8, 10, 12, text-fig. 15
 Holotype: LV, TNUM 7069 (Pl. 4, figs. 7, 8), Paratypes: TNUM 7070; TNUM 7071
 Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 °48.2'E)
 Maanshan Mudstone
 Late Pliocene to Early Pleistocene
 [Two figures (Pl. 4, figs. 10, 12) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7070, 7071).]

***Cytherura leptocytheroidea* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 21, 22, Pl. 3, figs. 2a, b
 Holotype: CC, UMUT CA 2610 (Pl. 3, fig. 2b), Paratype: RV, UMUT CA 2611 (Pl. 3, fig. 2a)
 The valley of Toshibetsu-gawa, about 800 m W of Omagari, Toshibetsu-mura, Setana-gun, Hokkaido
 Setana Formation
 Upper Pliocene
 [= *Howeina leptocytheroidea* (Hanai, 1957) (by Hanai *et al.*, 1977)]

***Cytherura minucostata* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 130, 132, Pl. 3, figs. 8, 9, 14, text-fig. 3
 Holotype: RV, CKUM 3788 (Pl. 3, figs. 9, 14), Paratypes: CKUM 3787 (Pl. 3, fig. 8); CKUM 3789~3791 (no figures)
 An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan
 Toukoshan Formation
 Pleistocene

***Cytherura miurensis* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 18, 19, Pl. 2, figs. 4a~d, text-figs. 4a, b
 Holotype: CC, UMUT CA 2600 (Pl. 2, figs. 4a, b, text-figs. 4a, b), Paratype: CC, UMUT CA 2601 (Pl. 2, figs. c, d)
 The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)
 Recent
 [= *Semicytherura ? miurensis* (Hanai, 1957) (by Hanai *et al.*, 1977)]

***Cytherura neoleptocytheroidea* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 138, Pl. 17, figs. 19, 20
 Holotype: RV, IGPS 85858 (Pl. 17, fig. 19), Paratype: LV, IGPS 85859 (Pl. 17, fig. 20)
 Goroku, in the western border of Sendai-shi, Miyagi Prefecture
 Tatsunokuchi Formation (upper horizon)
 Pliocene
 [= *Howeina neoleptocytheroidea* (Ishizaki, 1966) (by Hanai *et al.*, 1977)]

***Cytherura neosubundata* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 138, 139, Pl. 17, fig. 21, text-fig. 1, fig. 2
 Holotype: RV, IGPS 85861 (Pl. 17, fig. 21, text-fig. 1, fig. 2)
 Goroku, in the western border of Sendai-shi, Miyagi Prefecture
 Tatsunokuchi Formation (upper horizon)
 Pliocene
 [= *Semicytherura neosubundata* (Ishizaki, 1966) (by Hanai *et al.*, 1977)]

***Cytherura quadrata* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 20, Pl. 3, figs. 1a, b, text-figs. 2a, b
 Holotype: CC, UMUT CA 2603 (Pl. 3, figs. 1a, b, text-figs. 2a, b), Paratypes: CC, UMUT CA 2604; CC, UMUT CA 2605
 The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)
 Recent
 [= Junior homonym of *Cytherura quadrata* Norman, 1869. The new specific trivial name was proposed as *Semicytherura henryhowei* Hanai and Ikeya (by Hanai *et al.*, 1977).]

***Cytherura skippa* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 19, 20, Pl. 2, figs. 6a, b
 Holotype: CC, UMUT CA 2602 (Pl. 2, figs. 6a, b)
 Toura, Hamazaki-mura, Kamo-gun, Shizuoka Prefecture (beach sand)
 Recent
 [= *Semicytherura skippa* (Hanai, 1957) (by Hanai *et al.*, 1977)]

***Cytherura subundata* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 20, 21, Pl. 3, figs. 3a~d, text-figs. 3a, b
 Holotype: RV, UMUT CA 2606 (Pl. 3, fig. 3a), Paratypes: LV, UMUT CA 2607 (Pl. 3, fig. 3d, text-fig. 3a); RV, UMUT CA 2608 (Pl. 3, fig. 3c, text-fig. 3b); LV, UMUT CA 2609 (Pl. 3, fig. 3b)

The cliff at Mano Bay, Sawane-machi, Sado-gun, Niigata Prefecture
Sawane Formation
Upper Pliocene
[=*Semicytherura subundata* (Hanai, 1957) (by Hanai *et al.*, 1977)]

***Cytherura tetragona* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 18, Pl. 2, figs. 5a~d
Holotype: CC, UMUT CA 2598 (Pl. 2, figs. 5c,d), Paratype: CC, UMUT CA 2599 (Pl. 2, figs. 5a, b)
The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)
Recent
[=*Semicytherura tetragona* (Hanai, 1957) (by Hanai *et al.*, 1977)]

***Daishakacythere* Irizuki, 1993**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 170, p. 202, 204
Type species: *Urocythereis ? abei* Tabuki, 1986

***Danipussella rhamphodes* Hiruta, 1994**

Proc. Biol. Soc. Washington, v. 107, no. 4, p. 657~661, figs. 1-1~15, 2-1~7
Holotype: CC male with appendages, NSMT Cr 11412 (figs. 1-1~15, 2-1~7)
The intertidal zone of Suva Barrier Reef, Suva, Viti Levu, Fiji (18 °09'S, 178 °26'E) (coarse sand)
Recent

***Dolerocypris mukaishimensis* Okubo, 1980**

Proc. Japan. Soc. Syst. Zool., no. 18, p. 20~22, text-figs. 2a~j, Pl. 1, figs. g, h
Holotype: CC female with appendages, MO 499 (=NSMT-Cr 15282) (text-figs. 2a~j, Pl. 1, figs. g, h)
The intertidal zone, near the Mukaishima Marine Biological Station, Hiroshima University, Mukaishima, Mitsugi-gun, Hiroshima Prefecture (34 °21.7'N, 133 °13.2'E) (muddy sand)
Recent

***Dolerocypris fasciata nipponensis* Okubo, 1972**

Res. Bull. Okayama Shujitsu Jr. Coll., no. 1, p. 43~49, Pl. 1, figs. A~C, F~N, Pl. 2, figs. C~W, Pl. 3, figs. a~g
Holotype: CC female, BLOSJC-1 (Pl. 1, figs. A, B, Pl. 2, figs. C, E, G), Paratypes: CC female, BLOSJC-2 (Pl. 1, figs. G, H, Pl. 2, figs. D, F); CC female, BLOSJC-3 (Pl. 1, figs. I, J, Pl. 2, fig. H); appendage female, BLOSJC-4 (Pl. 2, fig. I) (the specimen missing); CC female, BLOSJC-5 (Pl. 1, fig. C); CC juvenile female (A-1 stage), BLOSJC-6 (Pl. 1, figs. M, N) (the specimen missing); CC juvenile female (A-2 stage), BLOSJC-7 (Pl. 1, figs. K, L) (the specimen missing); CC juvenile female (A-2 stage), BLOSJC-8 (no figures) (the

specimen missing)

A paddy field, Shimo-kojoro, Shingo-cho, Okayama Prefecture (34 °59.5'N, 133 °24.6'E)
Recent
[=*Dolerocypris fasciata* (Müller, 1776) (by Meisch, 2000)]

***Echinocythereis bradyformis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 40, Pl. 8, fig. 4
Holotype: LV, IGPS 90311 (Pl. 8, fig. 4)
St. 78 = Uranouchi Bay, Kochi Prefecture (33 °26'16''N, 133 °24'54''E) (fine sand, depth 11 m)
Recent
[=*Pistocythereis bradyformis* (Ishizaki, 1968) (by Gou *et al.*, 1983)]

***Echinocythereis bradyi* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 40, Pl. 9, fig. 17
Holotype: LV, IGPS 90312 (Pl. 9, fig. 17)
St. 78 = Uranouchi Bay, Kochi Prefecture (33 °26'16''N, 133 °24'54''E) (fine sand, depth 11 m)
Recent
[=*Pistocythereis bradyi* (Ishizaki, 1968) (by Gou *et al.*, 1983)]

***Echinocythereis cathayensis* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 129, 131, Pl. 4, figs. 19, 25, text-fig. 6A
Holotype: CC, TNUM 10103 (Pl. 4, fig. 19), Paratype: CC, TNUM 10104 (Pl. 4, fig. 25)
An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)
Tungshiao Formation (Nanwo Member)
Pleistocene

***Echinocythereis formosana* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 104, Pl. 1, figs. 18, 21, Pl. 2, fig. 5
Holotype: CKUM 1038 (Pl. 2, fig. 5), Paratypes: CC, CKUM 1039 (Pl. 1, figs. 18, 21); CKUM 1040 (no figures)
Mc-4 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan
Chinshui Shale
Pliocene
[In the explanation of Pl. 1, figs. 18 and 21, a word of holotype should be replaced with paratype.]

***Ectodemites globosa* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 150, 151, Pl. 18, figs. 1a, b, 2
Holotype: RV, IGPS 85793 (Pl. 18, figs. 1a, b), Paratype: RV, IGPS 85794 (Pl. 18, fig. 2)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture
Iwaizaki Limestone (Unit G, black limestone)
Permian

***Elofsonella kianukuei* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 189~191, Pl. 3, figs. 10, 12, text-fig. 12
Holotype: LV, TNUM 7256 (Pl. 3, figs. 10, 12)
An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan
Hengchun Limestone
Pleistocene

***Eucypris manchurica* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 417, 418, Pl. 1, figs. 1, 2
Holotype: RV, UMUT MA 8507 (Pl. 1, figs. 1, 2)
Tiehlipu, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (Bore-core, depth 84.9~91.6 m)
Nengkiang Formation
Cretaceous

***Eucythere yugao* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 187, 188, Pl. 10, figs. 13, 14, 16-19, text-figs. 13-9, 10
Holotype: LV, UMUT CA 9815 (Pl. 10, figs. 14, 16, 19, text-fig. 13-9), Paratype: RV, UMUT CA 9816 (Pl. 10, figs. 13, 17, 18, text-fig. 13-10)
Loc. 189 = An exposure, 3.5 km SSE of Kobayashi railway station, Imba-mura, Imba-gun, Chiba Prefecture (35 ° 47'52''N, 140 ° 12'38''E)
Kioroshi Formation (Kioroshi Member)
Pleistocene

***Eucytherura tropis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 144, 145, Pl. 164, figs. 9, 10
Holotype: CC, DJ 0010 (Pl. 164, figs. 9, 10), Paratype: CC, DJ 0060 (no figure)
East China Sea
Oujiang Formation
Early Eocene

***Eucytheridea sinobesani* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 76, 77, Pl. 10, figs. 27, 28, text-fig. 8
Holotype: LV, TNUM 8217 (Pl. 10, figs. 27, 28)
The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 ° 00.5'N,

120 ° 44.1'E)
Ssukou Formation
Pleistocene
[=*Sinocytheridea impressa* (Brady, 1869) (by Whatley and Zhao, 1987)]

***Eucytherura maculata* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 132, 133, Pl. 4, figs. 9, 13, text-fig. 4
Holotype: RV, CKUM 3873 (Pl. 4, figs. 9, 13)
An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan
Toukoshan Formation
Pleistocene

***Eucytherura nanwanica* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 96, Pl. 2, figs. 3, 4, text-fig. 16
Holotype: RV, TNUM 7020 (Pl. 2, figs. 3, 4)
Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 ° 48.2'E)
Maanshan Mudstone
Late Pliocene to Early Pleistocene

***Eucytherura neolae* (Ishizaki, 1966)**

[See *Cytheropteron neolae* Ishizaki, 1966.]

***Eucytherura shinzatoensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 13, 58, Pl. 7, figs. 2a~c
Holotype: RV, RUEG 149 (Pl. 7, figs. 2a~c)
Loc. 76121501A = Ca. 500 m SE of Shinzato, Sashiki-cho, Shimajiri-gun, Okinawa Prefecture (Type locality of Shinzato Formation) (26 ° 9'40''N, 127 ° 46'36''E)
Shinzato Formation
Pliocene
[Sample horizon = Ca. 5 m above the base of the upper most carbonized woods bed (bluish gray silt).]

***Eucytherura utsusemi* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 217, 218, Pl. 14, figs. 12, 13, 15, 16
Holotype: RV, UMUT CA 9879 (Pl. 14, figs. 12, 15), Paratypes: LV, UMUT CA 9880 (Pl. 14, fig. 16); CC, UMUT CA 9881 (Pl. 14, fig. 13)
Loc. 120 = A cliff, along the Murata River, 2.4 km SE of Honda railway station, Ochi-shimoshinden, Ichihara-shi, Chiba Prefecture (35 ° 31'30''N, 140 ° 13'48''E)
Yabu Formation (Yabu Member)
Pleistocene

***Eukrithe Schornikov*, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 2~4
Type species: *Eukrithe zhirmunskyi* Schornikov, 1975

***Eukrithe zhirmunskyi* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 4, fig. 1

Holotype: CC female with appendages, FESC 192~493 (fig. 1), Paratypes: 1 juvenile (A-5 stage), 5 juveniles (A-4-1 stages) (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[=*Parakrithella pseudadonta* (Hanai, 1959) (by Hanai *et al.*, 1977)]

***Euphilomedes japonica* (G.W. Müller, 1890)**

[See *Philomedes japonica* G.W. Müller, 1890.]

***Euphilomedes nipponica* Hiruta, 1976**

Jour. Fac. Sci., Hokkaido Univ., Ser.6 (Zool.), v. 20, no. 3, p. 580~589, figs. 12~23, figs. 1-1~6, 2-1~3, 3-1~9, 4-1~5, 5-1~6, 6-1~8

Holotype: CC female with appendages, ZIHU 2159 (figs. 1-1~6, 2-1,3, 3-1~6, 8,9), Allotype: CC male with appendages, ZIHU 2160 (figs. 4-1~5, 5-1~6, 6-1~6,8), Paratypes: CC male with appendages, ZIHU 2161 (fig. 6-7); CC male with appendages, ZIHU 2162 (no figures); CC male with appendages, ZIHU 2163 (no figures); CC female with appendages, ZIHU 2164 (figs. 2-2, 3-7); CC female with appendages, ZIHU 2165 (no figures); CC female with appendages, ZIHU 2166 (no figures)

A small inlet, Oshoro Bay, Oshoro, W of Otaru-shi, Ishikari Bay, Hokkaido (43°13'N, 140°52'E) (sandy mud, depth 0~4 m)

Recent

***Euphilomedes sordida* (G.W. Müller, 1890)**

[See *Philomedes sordida* G.W. Müller, 1890.]

***Falsobuntonia* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 391, 392

Type species: *Falsobuntonia taiwanica* Malz, 1982

***Falsobuntonia hayamii* (Tabuki, 1986)**

[See *Buntonia hayamii* Tabuki, 1986.]

***Falsobuntonia taiwanica* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 392, 393, Pl. 8, figs. 51~56, table 2

Holotype: LV female, SMF Xe 12348 (Pl. 8, fig. 54), Paratypes: RV female, SMF Xe 12349a (Pl. 8, figs. 51a~c); LV male, SMF Xe 12349b (Pl. 8, figs. 53a~c); LV male, SMF Xe 12350a (Pl. 8, fig. 52); RV female, SMF Xe 12350b (Pl. 8, fig. 55); CC female, SMF Xe 12351 (Pl. 8, fig. 56); SMF Xe 12352~12355 (no figures)

Toukou, near Tsailuhsian, SW Taiwan

Szekou Formation

Pleistocene

***Finnarchinella daishakaensis* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 80~82, Pl. 5, figs. 1~9, text-figs. 16-5, 6

Holotype: LV female, UMUT CA 15837 (Pl. 5, fig. 2), Paratypes: RV female, UMUT CA 15838 (Pl. 5, fig. 1); RV female, UMUT CA 15839 (Pl. 5, fig. 8, text-fig. 16-6); LV female, UMUT CA 15840 (Pl. 5, fig. 7); LV female, UMUT CA 15841 (Text-fig. 16-5); CC female, UMUT CA 15842 (Pl. 5, fig. 9); RV male, UMUT CA 15843 (Pl. 5, fig. 3); LV male, UMUT CA 15844 (Pl. 5, fig. 4); RV immature form, UMUT CA 15845 (Pl. 5, fig. 5); LV immature form, UMUT CA 15846 (Pl. 5, fig. 6)

Loc. K1 = A small exposure along the Kujirasawa River, 2 km N of eastern entrance of Shin-Daishaka tunnel, Aomori-shi, Aomori Prefecture (40°47'23"N, 140°36'44"E)

Daishaka Formation

Plio-Pleistocene

***Finnarchinella hanaii* Okada, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 115, p. 166~168, Pl. 22, figs. 1~13

Holotype: LV female, UMUT CA 9614 (Pl. 22, fig. 2), Paratypes: RV female, UMUT CA 9615 (Pl. 22, fig. 1); RV male, UMUT CA 9616 (Pl. 22, fig. 3); LV male, UMUT CA 9617 (Pl. 22, fig. 4); RV immature form, UMUT CA 9618 (Pl. 22, fig. 5); LV immature form, UMUT CA 9619 (Pl. 22, fig. 6); RV male, UMUT CA 9620 (Pl. 22, fig. 7); RV female, UMUT CA 9621 (Pl. 22, fig. 8); RV immature form, UMUT CA 9622 (Pl. 22, fig. 9); CC male, UMUT CA 9623 (Pl. 22, fig. 10); CC male, UMUT CA 9624 (Pl. 22, fig. 11); CC immature form, UMUT CA 9625 (Pl. 22, fig. 12); LV female, UMUT CA 9626 (Pl. 22, fig. 13)

Loc. S45 = A cliff along the coast 800 m SW of Anden, Oga Peninsula, Akita Prefecture (Type locality of Shibikawa Formation) (39°55'01"N, 139°50'02"E)

Shibikawa Formation

Pleistocene

[Sample horizon = Ca. 96 m above the base of Shibikawa Fm.]

***Finnarchinella japonica* (Ishizaki, 1966)**

[See *Nereina japonica* Ishizaki, 1966.]

***Finnarchinella nealei* Okada, 1979**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 115, p. 168~197, Pl. 23, figs. 1~5

Holotype: LV female, UMUT CA 9627 (Pl. 23, fig. 1), Paratypes: RV female, UMUT CA 9628 (Pl. 23, fig. 2); LV male, UMUT CA 9629 (Pl. 23, fig. 3); RV male, UMUT CA 9630 (Pl. 23, fig. 4); LV female, UMUT CA 9631 (Pl. 23, fig. 5)

Loc. S24 = A cliff along the coast 600 m SW of Anden, Oga Peninsula, Akita Prefecture (Type locality of Shibikawa Formation) (39 °55.0'N, 139 °50.0'E)
Shibikawa Formation
Pleistocene
[Sample horizon = Ca. 56 m above the base of Shibikawa Formation]

***Finmarchinella rectangulata* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 78~80, Pl. 4, figs. 3~15, text-figs. 16-3, 4
Holotype: LV female, UMUT CA 15825 (Pl. 4, fig. 4), Paratypes: RV female, UMUT CA 15826 (Pl. 4, fig. 3); RV female, UMUT CA 15827 (Pl. 4, fig. 10); RV female, UMUT CA 15828 (Pl. 4, fig. 13, text-fig. 16-4); RV female, UMUT CA 15829 (Pl. 4, figs. 14, 15); LV female, UMUT CA 15830 (Pl. 4, fig. 9); LV female, UMUT CA 15831 (Pl. 4, fig. 11); LV female, UMUT CA 15832 (Pl. 4, fig. 12, text-fig. 16-3); RV male, UMUT CA 15833 (Pl. 4, fig. 5); LV male, UMUT CA 15834 (Pl. 4, fig. 6); RV immature form, UMUT CA 15835 (Pl. 4, fig. 7); LV immature form, UMUT CA 15836 (Pl. 4, fig. 8)

Loc. O4 = A small exposure along the Otakizawa River, 3 km NW of Tsurugasaka railway station, Aomori-shi, Aomori Prefecture (40 °48'17"N, 140 °36'46"E)
Daishaka Formation
Plio-Pleistocene

***Finmarchinella subrectangulata* Irizuki, 1993**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 170, p. 206-208, figs. 2-11, 13-1~4c
Holotype: LV female, IGPS 101739 (figs. 13-2a, b), Paratypes: LV male, IGPS 101738 (fig. 13-1); RV female, IGPS 101741 (figs. 13-4a~c); RV male, IGPS 101740 (figs. 2-11, 13-3)
Locality 523-6, Oga-city, Akita Prefecture (39 °58'07"N, 139 °50'58"E)
Shibikawa Formation
Middle Pleistocene

***Finmarchinella uranipponica* Ishizaki, 1969**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 41, no. 2, p. 217, 218, Pl. 26, figs. 12, 13, Pl. 24, fig. 4
Holotype: LV, IGPS 87044 (Pl. 26, fig. 13, Pl. 25, fig. 4), Paratype: RV, IGPS 87050 (Pl. 26, fig. 12)
St. 12 = Nakanoumi Estuary, Shimane Prefecture (35 ° 31'12"N, 133 °11'22"E) (muddy sand, depth 6.3 m)
Recent

***Flabellicytherois bingoensis* (Okubo, 1980)**

[See *Cytherois bingoensis* Okubo, 1980.]

***Galapagocythere cathayense* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 92, Pl. 9, figs. 2, 3, 6,

text-fig. 25

Holotype: LV, TNUM 8048 (Pl. 9, figs. 3, 6), Paratype: LV, TNUM 8047 (Pl. 9, fig. 2)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation
Pleistocene

***Glyptopleurina tomokoae* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 34, 35, Pl. 1, figs. 6a, b, text-fig. 2

Holotype: RV, IGPS 78393 (Pl. 1, fig. 6a, text-fig. 2), Paratype: LV, IGPS 78403 (Pl. 1, fig. 6b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture
Nagaiwa Formation
Lower Pennsylvanian

***Glyptopleurina tumida* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 35, 36, Pl. 1, figs. 7a, b, text-fig. 3

Holotype: RV, IGPS 78394 (Pl. 1, fig. 7a, text-fig. 3), Paratype: RV, IGPS 78396 (Pl. 1, fig. 7b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture
Nagaiwa Formation
Lower Pennsylvanian

***Gomphocythere ? tiehlensis* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 427, 428, Pl. 1, fig. 3

Holotype: LV, UMUT MA 8520 (Pl. 1, fig. 3)

Tiehlipu, E of Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (Bore-core, depth 84.9~91.6 m)

Nengkiang Formation
Cretaceous

***Hanaiborchella* (subgen.) Gruendel, 1976**

Zeitschrift fuer Geologische Wissenschaften, Berlin, v. 4, no. 9, p. 1295

Type species: *Paijenborchella triangularis* Hanai, 1970

***Hanaiborchella miurensis* (Hanai, 1970)**

[See *Paijenborchella miurensis* Hanai, 1970.]

***Hanaiborchella spinosa* (Hanai, 1970)**

[See *Paijenborchella spinosa* Hanai, 1970.]

***Hanaiborchella triangularis* (Hanai, 1970)**

[See *Paijenborchella triangularis* Hanai, 1970.]

***Hanaicythere nipponica* Yajima, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 146, p. 74, figs. 10-1, 12-1a, b, 4a, b

Holotype: RV, UMUT CA 18011 (figs. 10-1, 12-4a, b),

Paratype: LV, UMUT CA 18012 (figs. 12-1a, b)
 Loc. 1108 = An outcrop of Takamatsu, Atsumi-gun, Aichi
 Prefecture (34 °37'30''N, 137 °15'38''E)
 Tahara Formation (Toshima Sand Member)
 Pleistocene
 [Sample horizon 1108 = Ca. 1.5 m above the base of Tonna
 Bed]

Hanaicythere Yajima, 1987

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 146, p. 72, 74
 Type species: *Hanaicythere nipponica* Yajima, 1987

Hataiella Ishizaki, 1967

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 58, 59
 Type species: *Hataiella ohazamensis* Ishizaki, 1967
 [=Junior homonym of the subgenus *Hataiella* Kotaka, 1959
 of gastropod genus *Turritella*. The new name *Khataiella* was
 proposed by Ishizaki, 1973, p. 405.]

Hataiella longa Ishizaki, 1967

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 60, Pl.
 2, figs. 11, 12
 Holotype: LV, IGPS 87082 (Pl. 2, fig. 11), Paratype: LV,
 IGPS 87083 (Pl. 2, fig. 12)
 1,200 m N of Hinomata, a tributary of the Hinomata River,
 Ohazama-machi, Hinuki-gun, Iwate Prefecture
 Tassobe Formation
 Lower Permian
 [= *Khataiella longa* (Ishizaki, 1967) (by Ishizaki, 1973)]

Hataiella minima Ishizaki, 1967

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 60, 61,
 Pl. 2, figs. 4~6
 Holotype: LV, IGPS 87084 (Pl. 2, fig. 4), Paratypes: LV,
 IGPS 87085 (Pl. 2, fig. 5); LV, IGPS 87086 (Pl. 2, fig. 6)
 1,200 m N of Hinomata, a tributary of the Hinomata River,
 Ohazama-machi, Hinuki-gun, Iwate Prefecture
 Tassobe Formation
 Lower Permian
 [= *Khataiella minima* (Ishizaki, 1967) (by Ishizaki, 1973)]

Hataiella ohazamensis Ishizaki, 1967

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 59, 60,
 Pl. 2, figs. 9, 10
 Holotype: RV, IGPS 87080 (Pl. 2, fig. 9), Paratype: RV, IGPS
 87081 (Pl. 2, fig. 10)
 1,200 m N of Hinomata, a tributary of the Hinomata River,
 Ohazama-machi, Hinuki-gun, Iwate Prefecture
 Tassobe Formation
 Lower Permian
 [= *Khataiella ohazamensis* (Ishizaki, 1967) (by Ishizaki,
 1973)]

Hemicypris kibiensis Okubo, 1990

Res. Crustacea, no. 19, p. 9, figs. 3 D~F
 Holotype: CC female with appendages, FO 172 (figs. 3D~F),
 Paratypes: 2 CC females, FO 170, 171, CC female, FO 646
 (no figures)
 A paddy fields of Ashimori, Shimotsuchida, Okayama-shi,
 Okayama Prefecture (34 °41.8' N, 133 °48.2'E)
 Recent

Hemicypris mizunoi Okubo, 1990

Res. Crustacea, no. 19, p. 7~9, figs. 3 A~C
 Holotype: CC female with appendages, FO 183 (figs. 3A~C),
 Paratypes: CC females, FO 181(no figures); CC females,
 FO182(no figures); CC females, FO 186 (no figures)
 A paddy fields of Ashimori, Shimotsuchida, Okayama-shi,
 Okayama Prefecture (34 °41.8' N, 133 °48.2'E)
 Recent

Hemicypris nipponica Okubo, 1990

Res. Crustacea, no. 19, p. 10, figs. 3 G~I
 Holotype: CC female with appendages, FO 153 (no figures), Paratypes: CC
 female with appendages, FO 552 (figs. 3G~I); 2 CC females,
 FO 553 (no figures), 611 (no figures)
 A paddy field, Shiono, Seto-cho, Okayama Prefecture (34 °
 45.7' N, 134 °03.3'E)
 Recent
 [Paratype specimen is figured as figs. 3G~I (FO 552), but the
 figures of holotype (FO 153) specimen is not shown.]

Hemicypris vulgaris Okubo, 1990

Res. Crustacea, no. 19, p. 10, 11, figs. 3 J~L
 Holotype: CC female with appendages, FO 163 (figs. 3J~L),
 Paratypes: 4 CC females, FO 160 (no figures), 161 (no
 figures) (the specimen missing), 610 (no figures), 638 (no
 figures)
 A paddy field, Shiono, Seto-cho, Okayama Prefecture (34 °
 45.7' N, 134 °03.3'E)
 Recent

Hemicythere auriloforme Hu, 1984

Jour. Taiwan Mus. v. 37, no. 1, p. 91, 92, Pl. 1, figs. 16, 18,
 19, 22, text-fig. 24
 Holotype: LV, TNUM 8093 (Pl. 1, figs. 16, 18), Paratype: RV,
 TNUM 8094 (Pl. 1, figs. 19, 22)
 The east slope of the Hengchun West Table-land, ca. 3 km W
 of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N,
 120 °44.1'E)
 Ssukou Formation
 Pleistocene

Hemicythere gorokuensis Ishizaki, 1966

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 141,
 142, Pl. 17, figs. 22, 23
 Holotype: RV, IGPS 85862 (Pl. 17, fig. 22), Paratype: RV,

IGPS 85863 (Pl. 17, fig. 23)

Goroku, in the western border of Sedai-shi, Miyagi Prefecture

Tatsunokuchi Formation (upper horizon)

Pliocene

***Hemicythere gurjanovae* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 179, 180, Pl. 3, fig. 4, text-fig. 23

Holotype: CC male, FESC-474~475, Paratypes: no numbers Tryekhpaliy Peninsula, Pacific seashore of Iturup Is., Kuril Islands (depth 40 m)

Recent

[The figures (Pl. 3, fig. 4, text-fig. 23) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Hemicythere? miui* (Ishizaki, 1969)**

[See *Urocythereis miui* Ishizaki, 1969.]

***Hemicythere? kitanipponica* (Tabuki, 1986)**

[See *Ambostracon kitanipponica* Tabuki, 1986.]

***Hemicythere kussakini* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 162~164, text-fig. 14

Holotype: CC male, FESC-462~463

Sublittoral zone of rocky shore, Urup Is., Kuril Islands (on algae)

Recent

[The figures (text-fig. 14) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Hemicythere nana* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 164~166, text-fig. 15

Holotype: CC male, FESC-464~465

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk Sea shore of Iturup Is., Kuril Islands

Recent

[The figures (text-fig. 15) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Hemicythere ochotensis* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 177~179, Pl. 4, figs. 2a~d, text-fig. 22

Holotype: CC male, FESC-472~473, Paratypes: no numbers Sublittoral zone of Konsyervnaya Bay, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (Pl. 4, figs. 2a~d, text-fig. 22) in the original description (Schornikov, 1974) cannot be correlated with

each type specimen.]

***Hemicythere orientalis* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 166~168, Pl. 3, figs. 1a~f, text-fig. 16

Holotype: CC male, FESC-466~467, Paratypes: no numbers Tryekhpaliy Peninsula, Pacific seashore of Iturup Is., Kuril Islands (depth 40~41 m)

Recent

[The figures (Pl. 3, figs. 1a~f, text-fig. 16) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Hemicythere posterovestibulata* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 169~171, Pl. 3, figs. 3a, b, text-fig. 18

Holotype: CC male, FESC-468~469, Paratype: no numbers The littoral zone of rocky shore, Cirip Peninsula, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (Pl. 3, figs. 3a, b, text-fig. 18) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Hemicythere quadrinodosa* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 175~177, Pl. 4, figs. 3a~d, text-fig. 21

Holotype: CC male, FESC-470~471, Paratypes: no numbers Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (Pl. 4, figs. 3a~d, text-fig. 21) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Hemicytheridea crispata* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 203, 204, figs. 24-13, 14, 21, text-fig. 21

Holotype: CKUM 3517 (fig. 24-13), Paratypes: CKUM 3518 (fig. 25-21); CKUM 3519, 3520 (no figures)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pliocene

***Hemicytheridea oculosa* Hu and Yeh, 1978**

Proc. Geol. Soc. China, no. 21, p. 159, Pl. 3, figs. 17~22, text-fig. 6

Holotype: CC female, CKUM 3910 (Pl. 3, fig. 21), Paratypes: CC male, CKUM 3911 (Pl. 3, fig. 22); CKUM 3912~3915; CKUM 3916, 3917 (no figures)

0.5 km S of the Liushuang village, Kuantien-hisang, Tainan-hsien, Tainan District, Taiwan

Liushuang Formation

Pleistocene

[Four figures (Pl. 3, figs. 17~20) in the original description (Hu and Yeh, 1978) cannot be correlated with each type specimen (CKUM 3912~3915).]

***Hemicytheridea zonata* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 107, 108, Pl. 2, figs. 2, 16
 Holotype: CKUM 1013 (Pl. 2, fig. 16), Paratypes: CKUM 1014 (Pl. 2, fig. 2); CKUM 1015; CKUM 1016 (no figures)
 Mc-4 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan
 Chinshui Shale
 Pliocene

***Hemicytherura anapta* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 153, 155, Pl. 25, figs. 4, 9, 10, 13~18, 22, 26, 28~30
 Holotype: CC, TNUM 11575 (Pl. 25, fig. 28), Paratypes: 4 CC, TNUM 11562~11565 (Pl. 25, figs. 4, 9, 10, 22); 2 LV and 6 RV, TNUM 11566~11573 (Pl. 25, figs. 13~18, 29, 30); LV, TNUM 11574 (Pl. 25, fig. 26)
 An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)
 Tungshiao Formation (Nanwo Member)
 Pleistocene

***Hemicytherura apta* Hu, 1976**

Proc. Geol. Soc. China, no. 19, p. 30, 31, Pl. 3, figs. 11, 15, 19, text-fig. 4
 Holotype: RV, CKUM 2003 (Pl. 3, figs. 11, 15), Paratype: CKUM 2004 (Pl. 3, fig. 19)
 Loc. 13 (2.5 km SE of Tsaochiao station) or loc. 15 (1 km SE of Tsaochiao station) = Chinshui county, ca. 8 km NE of Miaoli city, Taiwan
 Cholan Formation
 Upper Pliocene

***Hemicytherura cuneata* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 24, 25, Pl. 2, figs. 2a, b, text-figs. 1a, b
 Holotype: CC, UMUT CA 2619 (Pl. 2, fig. 2a, text-figs. 1a, b), Paratype: CC, UMUT CA 2620 (Pl. 2, fig. 2b)
 The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)
 Recent

***Hemicytherura kajiyamai* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 24, Pl. 2, figs. 1a~d
 Holotype: CC, UMUT CA 2616 (Pl. 2, fig. 1a), Paratypes: CC, UMUT CA 2617 (Pl. 2, figs. 1b, c); RV, UMUT CA 2618 (Pl. 2, fig. 1d)
 The shore behind an Imperial villa, Hayama-cho, Kanagawa

Prefecture (beach sand)

Recent

[CA 2618 specimen is occurred from the Miocene Shukunohora sandstone, the valley, E of Suganuma, Hiyoshi-mura, Togi-gun, Gifu Prefecture.]

***Hemicytherura lingua* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 91, 92, Pl. 4, figs. 4, 6, text-fig. 11
 Holotype: TNUM 7067, Paratype: TNUM 7068
 Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °56.3'N, 120 °48.2'E)
 Maanshan Mudstone
 Late Pliocene to Early Pleistocene
 [Two figures (Pl. 4, figs. 4, 6) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7067, 7068).]

***Hemicytherura rhombea* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 93, 94, Pl. 4, figs. 1, 2, 9, 14, text-fig. 13
 Holotype: LV, TNUM 7062 (Pl. 4, figs. 1, 2), Paratypes: TNUM 7063; TNUM 7064
 Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °56.3'N, 120 °48.2'E)
 Maanshan Mudstone
 Late Pliocene to Early Pleistocene
 [Two figures (Pl. 4, figs. 9, 14) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7063, 7064).]

***Hemicytherura tricarinata* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 25, 26, Pl. 2, figs. 3a, b
 Holotype: CC, UMUT CA 2621 (Pl. 2, fig. 3a), Paratype: CC, UMUT CA 2622 (Pl. 2, fig. 3b)
 The shore about 1 km NE of Akase railroad station, near Hiraiwa, Auda-mura, Uto-gun, Kumamoto Prefecture (beach sand)
 Recent

***Hemicytherura trinerva* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 188, 189, figs. 26-2, 12, text-fig. 7
 Holotype: CKUM 3600, Paratypes: CKUM 3601 (no figures); CKUM 3602
 An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan
 Toukoshan Formation
 Pleistocene
 [Two figures (figs. 26-2, 12) in the original description (Hu, 1977b) cannot be correlated with each type specimen

(CKUM 3600, 3602).]

***Hemikrithe hengchunese* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 105, 106, Pl. 10, fig. 25, text-fig. 38

Holotype: LV, TNUM 8216 (Pl. 10, fig. 25)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

***Henryhowella flora* Hu and Yeh, 1978**

Proc. Geol. Soc. China, no. 21, p. 156, Pl. 1, figs. 19, 20, text-fig. 4

Holotype: RV, CKUM 3956 (Pl. 1, figs. 19, 20), Paratypes: CKUM 3957 (no figures)

0.5 km S of the Liushuang village, Kuantien-hisang, Tainan-hsien, Tainan District, Taiwan

Liushuang Formation

Pleistocene

***Henryhowella spinosa* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 34~36, Pl. 2, figs. 8, 9, 13, 14, 16, text-fig. 8

Holotype: RV, CKUM 2016 (Pl. 2, figs. 9, 13), Paratypes: CKUM 2014 (Pl. 2, fig. 8); CC, CKUM 2015 (Pl. 2, figs. 14, 16)

Loc. 13 = 2.5 km SE of Tsaochia station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Nodosocosta spinosa* (Hu, 1976) (by Hu, 1986) = *Actinocythereis spinosa* (Hu, 1976) (by Hanai et al., 1980)]

***Hermanites ? japonicus* (Ishizaki, 1971)**

[See *Caudites japonicus* Ishizaki, 1971.]

***Hermanites ? posterocostatus* Ishizaki, 1966**

[See *Hermanites posterocostata* Ishizaki, 1966.]

***Hermanites moniwensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 158, 159, Pl. 18, figs. 1~3

Holotype: CC, IGPS 85868 (Pl. 18, fig. 3), Paratypes: RV, IGPS 85866 (Pl. 18, fig. 1); LV immature form, IGPS 85867 (Pl. 18, fig. 2)

Kitaakaishi area, in the western border of Sendai-shi, Miyagi Prefecture

Moniwa Formation

Miocene

[=*Cornucoquimba moniwensis* (Ishizaki, 1966) (by Hanai et al., 1977)]

***Hermanites posterocostata* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 159, Pl. 18, figs. 4~6

Holotype: RV, IGPS 85819 (Pl. 18, fig. 4), Paratypes: LV, IGPS 87001 (Pl. 18, fig. 6); LV, IGPS 87002 (Pl. 18, fig. 5)

An exposure, about 1,500 m SE of Saboyama, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

[=*Hermanites ? posterocostatus* Ishizaki, 1966 (by Hanai et al., 1977)]

***Hermanites simplex* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 148, Pl. 2, figs. 4, 5, 10~12, 15, text-fig. 21

Holotype: CC, CKUM 3762 (Pl. 2, figs. 4, 12), Paratypes: CKUM 3761; RV, CKUM 3763 (Pl. 2, figs. 11, 15); CKUM 3764 (Pl. 2, fig. 10); CKUM 3767 (Pl. 2, fig. 5); CKUM 3765, 3766, 3768, 3769 (no figures)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Cornucoquimba simplex* (Hu, 1978) (by Hu, 1984)]

***Hermanites subtropicus* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 31, 32, Pl. 1, figs. 16, 17, text-fig. 6

Holotype: LV, CKUM 2020 (Pl. 1, figs. 16, 17)

Loc. 13 = 2.5 km SE of Tsaochia station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Cornucoquimba subtropica* (Hu, 1976) (by Hanai et al., 1980)]

***Hermanites tosaensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 41, Pl. 2, fig. 4, Pl. 8, figs. 13, 14

Holotype: LV, IGPS 90313 (Pl. 2, fig. 4, Pl. 8, fig. 14), Paratype: RV, IGPS 90314 (Pl. 8, fig. 13)

St. 37 = Uranouchi Bay, Kochi Prefecture (33°25'25"N, 133°26'07"E) (sandy mud, depth 7 m)

Recent

[=*Cornucoquimba tosaensis* (Ishizaki, 1968) (by Hanai et al., 1977)]

***'Hermanites' miyakoensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 49, Pl. 14, figs. 3a~d

Holotype: LV, RUEG 127 (Pl. 14, figs. 3a~d)

St. 200 = Ca. 100 km S of Miyako-jima, East China Sea (23°52'02"N, 125°47'00"E) (silt, depth 1180 m)

Recent

***Heterocypris kaufmanni* (Vávra, 1906)**

[See *Cyprinotus kaufmanni* Vávra, 1906.]

***Heterocypris takedai* Okubo, 1973**

Annot. Zool. Japon., v. 46, no. 2, p. 85~89, figs. 1a, b, 2a~1
 Holotype: CC female with appendages, BLOSJC-8 (figs. 2a, b, d~1) (the specimen missing), Paratypes: CC females with appendages, BLOSJC-9 (figs. 1a, b); female, BLOSJC-10 (no figures), female, BLOSJC-11 (no figures); female, BLOSJC-12~20 (the specimen missing)

A paddy field, Hachioji-city, Tokyo Metropolis (ca. 35 °40'N, 139 °20'E) (mud)

Recent

[=*Heterocypris bulgarica* Sywula, 1968 (by Okubo, 1990). In Okubo (1973), fig. 2c is shown as the paratype, but it cannot be corresponded to any specimen number.]

***Heterocythereis otsuchiensis* Ikeya and Zhou, 1992**

In Ishizaki, K. and Saito, T. (eds.), Centenary of Japanese Micro-paleontology, p. 349, figs. 10-10a, 10b, 11, 12, 13a, 13b, 14a, 14b, 15. Terra Sci. Publ., Tokyo

Holotype: CC female, IGSU-O-767 (figs. 10-13a, 13b, 14a, 14b, 15), Paratype: CC male, IGSU-O-766 (figs. 10-10a, 10b, 11, 12)

St. 39 = Rocky shore of Otsuchi Bay, Iwate Prefecture (39 ° 19.9'N, 141 °56.9'E)

Recent

***Heterodesmus adamsii* Brady, 1866**

Trans. Zool. Soc. London, v. 5, p. 387, 388, Pl. 62, figs. 6a~h
 Types: HMNT collection

Exact locality unknown, Japan (towing-net)

Recent

***Heterodesmus apriculus* Hiruta, 1992**

Jour. Nat. Hist., no. 26, p. 1250~1261, figs. 5A~D, 6A~G, 7A~H, 8A~F, 9A~G, 10A~E, 11A~D

Holotype: CC female with appendages, USNM 194081 (figs. 5A, B, 6A~F, 7A~H, 8A~F), Allotype: CC male with appendages USNM 194084 (figs. 5C, D, 9A~G, 10A~E, 11A~D), Paratypes: CC female with appendages, USNM 194082 (fig. 6G); CC female with appendages, USNM 194083 (no figures); CC male with appendages, USNM194085 (no figures)

Tsukumo Bay, near the Noto Marine Laboratory, Kanazawa University (37 °18.4'N, 137 °14.2'E) (muddy sand, depth 3~4 m)

Recent

***Hirsutocythere ? akatsukiborensis* Yajima, 1992**

Bull. Mizunami Fossil Mus., no. 19, p. 259, 260, Pl. 32, figs. 12~14

Holotype: CC male, UMUT CA 17695 (Pl. 32, fig. 13), Paratypes: CC female, UMUT CA 17694 (Pl. 32, fig. 12);

CC female, UMUT CA 19095 (Pl. 32, fig. 14)

Loc. 1 = A small exposure, right bank of the Hiyoshi River, 2.5 km N of the Mizunami Fossil Museum, Hiyoshi-machi, Mizunami-shi, Gifu Prefecture (35 °23'29''N, 137 °14'27''E)
 Akeyo Formation (Shukunohora Sandstone Member)
 Early Miocene

***Hirsutocythere ? hanaii* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 46, 47, Pl. 9, figs. 4a, b, 5a, b, 6a, b, 7; Pl. 15, fig. 6

Holotype: RV, IGPS 97065 (Pl. 9, figs. 4a, b), Paratypes: LV, IGPS 97063 (Pl. 9, figs. 6a, b; Pl. 15, fig. 6); RV, IGPS 97064 (Pl. 9, fig. 7); LV immature form, IGPS 97066 (Pl. 9, figs. 5a, b)

St. 30 = S of Cheju-do (31 °15.9'N, 127 °21.9'E) (fine sand, depth 114 m)

Recent

***Hirsutocythere ? nozokiensis* (Ishizaki, 1963)**

[See *Carinocythereis nozokiensis* Ishizaki, 1963.]

***Hollinella elliptica* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 142, 143, Pl. 16, figs. 1, 2

Holotype: RV, IGPS 85770 (Pl. 16, fig. 1), Paratype: RV, IGPS 85771 (Pl. 16, fig. 2)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Hollinella paraemaciata* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 31, 32, Pl. 1, fig. 2, text-fig. 1

Holotype: LV, IGPS 78042 (Pl. 1, fig. 2, text-fig. 1)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

***Howeina camptocytheroidea* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 22, 23, Pl. 3, figs. 4a~c, text-figs. 5a, b

Holotype: RV, UMUT CA 2612 (Pl. 3, figs. 4a, text-fig. 5b), Paratypes: LV, UMUT CA 2613 (text-fig. 5a); LV, UMUT CA 2614 (Pl. 3, fig. 4b); CC, UMUT CA 2615 (Pl. 3, fig. 4c)

Kaigara-zawa, about 500 m W of Nishino-sawa, Kuromatsunai-mura, Suttu-gun, Hokkaido

Setana Formation

Upper Pliocene

***Howeina* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 22

Type species: *Howeina camptocytheroidea* Hanai, 1957

***Howeina higashimeyaensis* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 80, 81, Pl. 7, figs. 1~4

Holotype: RV, IGPS 90350 (Pl. 7, fig. 1), Paratypes: LV, IGPS 91530 (Pl. 7, fig. 3); RV, IGPS 91531 (Pl. 7, fig. 4); LV, IGPS 91532 (Pl. 7, fig. 2)

St. 8 = Aomori Bay, Aomori Prefecture (40°56'21''N, 140°51'57''E) (sandy mud, depth 16 m)

Recent

[The specimens of IGPS 91531 and 91532 were occurred from the Pliocene Higashimeya Formation (S of Yamada, Soma-mura Nakatsugaru-gun, Aomori Prefecture).]

***Howeina leptocytheroidea* (Hanai, 1957)**

[See *Cytherura leptocytheroidea* Hanai, 1957.]

***Howeina neoleptocytheroidea* (Ishizaki, 1966)**

[See *Cytherura neoleptocytheroidea* Ishizaki, 1966.]

***Ilyocypris formosensis* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 82, 83, Pl. 1, figs. 16, 17, 20, text-fig. 20

Holotype: LV, TNUM 4110 (Pl. 1, figs. 17, 20), Paratype: LV, TNUM 4109 (Pl. 1, fig. 16)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan
Hengchun Limestone

Pleistocene

***Ilyocypris haterumensis* Okubo and Terauchi, 1992**

Proc. Japan Soc. Syst. Zool., no. 46, p. 101, 102, text-figs. 1 a~f, Pl. 1, figs. A~C

Holotype: CC male with appendages, FO 795 (Pl. 1, fig. C, text-figs. 1a~f), Allotype: CC female, FO 796 (Pl. 1, figs. A, B), Paratypes: 2 CC females, FO 797, 799 (no figures)

A paddy field, Hateruma Jima, Okinawa Prefecture (ca. 24°15' N, ca. 123°47' E)

Recent

***Ilyocypris japonica* Okubo, 1990**

Bull. Biogeogr. Soc. Japan, v. 45, nos. 1~22, p. 40, figs. 1f~i

Holotype: CC male with appendages, FO 652 (figs. 1f~i), Allotype: CC female, FO 654 (no figures), Paratypes: 2 CC males, FO 651, 655 (no figures)

A paddy field, near Tsukuda railway station, Gunma Prefecture (36°34.0' N, 139°03.0' E)

Recent

***Ishizakiella miurensis* (Hanai, 1957)**

[See *Tanella miurensis* Hanai, 1957.]

***Ishizakiella ryukyuensis* Tsukagoshi, 1994**

Jour. Crustacean Biology, v. 14, no. 2, p. 296~303, figs. 4A~P, 5A~I, 6A~I, 7C

Holotype: CC male with appendages, UMUT RA 19642 (figs. 4A, B, 5I, 6A~H, 7C), Paratypes: CC female, UMUT RA 19643 (fig. 4C); CC female, UMUT RA 19644 (fig. 4D); CC female, UMUT RA 19648 (fig. 4I); CC female, UMUT RA 19649 (fig. 4J); CC female, UMUT RA 19652 (fig. 4M); CC female, UMUT RA 19653 (fig. 4N); female appendages, UMUT RA 19656 (fig. 5C); female appendage, UMUT RA 19658 (fig. 6I); CC male, UMUT RA 19645 (Figs. 4E, F, O, P, 5D~G); CC male, UMUT RA 19646 (fig. 4G); CC male, UMUT RA 19647 (fig. 4H); CC male, UMUT RA 19650 (fig. 4K); CC male, UMUT RA 19651 (fig. 4L); UMUT RA 19657 (fig. 5H); CC juvenile, UMUT RA 19654 (fig. 5A); CC juvenile, UMUT RA 19655 (fig. 5B)

No. 13 = The mouth of the Kesaji River, Okinawa Island, Okinawa Prefecture (26°36.4' N, 128°08.4' E)

Recent

***Ishizakiella supralittoralis* (Schornikov, 1974)**

[See *Tanella supralittoralis* Schornikov, 1974.]

***Isocythereis ? roochuensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 44, Pl. 7, figs. 3a, b

Holotype: RV, RUEG 117 (Pl. 7, figs. 3a, b)

Loc. 7571703 = Kudeken, Chinen-son, Okinawa Prefecture (Type locality of Chinen Formation) (26°10'00'' N, 127°49'36'' E)

Chinen Formation

Pleistocene

Johnnealella Hanai and Ikeya, 1991

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 163, p. 872, 874
Type species: *Johnnealella nopporensis* Hanai and Ikeya, 1991

***Johnnealella nopporensis* Hanai and Ikeya, 1991**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 163, p. 874, 876, figs. 7-1~9, 8-1~5, 9

Holotype: LV female, IGSU-O-160 (figs. 7-3a, b, 8-3a, b), Paratypes: RV female, IGSU-O-161 (figs. 7-4a, b, 8-4a, b); LV male, IGSU-O-158 (figs. 7-1a, b); RV male, IGSU-O-159 (figs. 7-2a, b, 9); LV male, IGSU-O-163 (figs. 7-8a, b, 8-2a, b, 8-5a, b); RV male, IGSU-O-162 (figs. 7-9a, b, 8-1a, b); RV adult-1 and adult-2, IGSU-O-164 and 165 (figs. 7-5, 7-6); LV adult-3, IGSU-O-166 (fig. 7-7)

Loc. Hosoda N2 = 1,800 m E of Prefectural Library, Ebetsu-shi, Hokkaido (43°03'58'' N, 141°32'57'' E)

Shimonoporo Formation

Lower Pleistocene

***Jugosocythereis hanaii* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 52, Pl. 7, figs. 4a~c

Holotype: LV, RUEG 134 (Pl. 7, figs. 4a~c)

Loc. 76121501A = Ca. 500 m SE of Shinzato, Sashiki-cho, Shimajiri-gun, Okinawa Prefecture (Type locality of Shinzato Formation) (26 °40'N, 127 °46'36"E)

Shinzato Formation

Pliocene

[Sample horizon = Ca. 5 m below the base of the upper most carbonized woods bed (bluish gray silt)]

***Kangarina cava* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 189, 190, figs. 26-13, 15, 16, text-fig. 8

Holotype: CKUM 3609 (fig. 26-16), Paratypes: CKUM 3608 (fig. 26-13); CKUM 3607 (fig. 26-15)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

***Kangarina hayamii* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 220, 221, Pl. 14, figs. 10, 11, 14

Holotype: CC, UMUT CA 9892 (Pl. 14, fig. 10), Paratypes: LV, UMUT CA 9893 (Pl. 14, fig. 14); RV, UMUT CA 9894 (Pl. 14, fig. 11)

Loc. 120 = A cliff, along the Murata River, 2.4 km SE of Honda railway station, Ochi-shimoshinden, Ichihara-shi, Chiba Prefecture (35 °31'30"N, 140 °13'48"E)

Yabu Formation (Yabu Member)

Pleistocene

***Kangarina kunchiatiena* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 87, Pl. 5, fig. 19, text-fig. 20

Holotype: LV, TNUM 8181 (Pl. 5, fig. 19)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

***Kangarina shinzatoensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 2, 13, 15, 20, 57, Pl. 7, fig. 6

Holotype: RV, RUEG 147 (Pl. 7, fig. 6)

Loc. 76121501A = Ca. 500 m SE of Shinzato, Sashiki-cho, Shimajiri-gun, Okinawa Prefecture (Type locality of Shinzato Formation) (26 °40'N, 127 °46'36"E)

Shinzato Formation

Pliocene

[Sample horizon = Ca. 5 m below the base of the upper most carbonized woods bed (bluish gray silt)]

***Kangarina yamaguchii* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 102, 103,

Pl. 18, figs. 11~16, text-figs. 17-7, 8

Holotype: LV, UMUT CA 15920 (Pl. 18, figs. 12, 15), Paratypes: RV, UMUT CA 15921 (Pl. 18, figs. 11, 14, 16, text-fig. 17-8); LV, UMUT CA 15922 (Pl. 18, fig. 13, text-fig. 17-7)

Loc. OT2 = An exposure along the Otanizawa River, 4 km S of Tsurugasaka railway station, Magonai, Aomori-shi, Aomori Prefecture (40 °45'10"N, 140 °39'08"E)

Daishaka Formation

Plio-Pleistocene

***Kasella ryukyuensis* Tabuki and Hanai, 1999**

Palaeontology, v. 42, pt. 4, p. 578~582, Pl. 1, Pl. 2, figs. 1~3, Pl. 3, fig. 7, text-figs. 3c, 4

Holotype: LV female, RUEG 158 (Pl. 1, fig. 2, text-fig. 3c), Paratypes: RV female, RUEG 157 (Pl. 1, fig. 1); RV juvenile (A-2 stage), RUEG 159 (Pl. 1, fig. 3); RV juvenile (A-5 stage), RUEG 160 (Pl. 1, fig. 4); CC female, RUEG 161 (Pl. 1, figs. 5a~d); CC female, RUEG 162 (Pl. 1, figs. 6a~d); RV female, RUEG 163 (Pl. 1, figs. 7a~b, Pl. 2, fig. 1); LV female, RUEG 164 (Pl. 1, figs. 8a~b, Pl. 2, figs. 2a~c, Pl. 3, fig. 7); RV female, RUEG 165 (Pl. 1, fig. 9); LV female, RUEG 166 (Pl. 1, fig. 10); LV female, RUEG 167 (Pl. 2, fig. 3); female appendages and genital lobe, RUEG 168 (text-fig. 4)

'Daidokutsu' = The submarine cave in coral reef of Ie Island, Ryukyu Islands (26 °42.9'N, 127 °50.1'E) (depth 20~31 m)

Recent

***Kasella* Tabuki and Hanai, 1999**

Palaeontology, v. 42, pt. 4, p. 572~578

Type species: *Kasella ryukyuensis* Tabuki and Hanai, 1999

***Kellettina ? japonica* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 56, 57, Pl. 2, fig. 1

Holotype: RV, IGPS 87077 (Pl. 2, fig. 1)

1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture

Tassobe Formation

Lower Permian

***Khataiella* Ishizaki, 1973**

[See *Hataiella* Ishizaki, 1967.]

***Khataiella longa* (Ishizaki, 1967)**

[See *Hataiella longa* Ishizaki, 1967.]

***Khataiella minima* (Ishizaki, 1967)**

[See *Hataiella minima* Ishizaki, 1967.]

***Khataiella ohazamensis* (Ishizaki, 1967)**

[See *Hataiella ohazamensis* Ishizaki, 1967.]

***Kindrella kitanipponica* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 57, 58, Pl. 2, figs. 2, 3

Holotype: RV, IGPS 87078 (Pl. 2, fig. 2), Paratype: LV, IGPS 87079 (Pl. 2, fig. 3)

1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture

Tassobe Formation

Lower Permian

***Kingarina cavata* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 91, Pl. 4, figs. 15~17, text-fig. 10

Holotype: LV, TNUM 7074 (Pl. 4, figs. 15, 16), Paratype: TNUM 7075 (Pl. 4, fig. 17)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 ° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Kingarina cavatoidea* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 90, Pl. 4, figs. 11, 19, text-fig. 9

Syntype: TNUM 7072, Paratype: TNUM 7073

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 ° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Kirkbya atolla* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 145, 146, Pl. 16, figs. 7, 8a, b

Holotype: RV, IGPS 85777 (Pl. 16, figs. 8a, b), Paratype: RV immature form, IGPS 85776 (Pl. 16, fig. 7)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Kirkbya centrotumida* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 146, 147, Pl. 16, figs. 9a~c, 10, text-fig. 4

Holotype: LV, IGPS 85778 (Pl. 16, figs. 9a~c, text-fig. 4), Paratype: LV, IGPS 85779 (Pl. 16, fig. 10)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Kirkbya kitakamiensis* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 33, Pl. 1, figs. 4a, b

Holotype: RV, IGPS 78395 (Pl. 1, figs. 4a, b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

***Kirkbya magniforma* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 147, Pl. 17, figs. 1a~c

Holotype: RV, IGPS 85783 (Pl. 17, figs. 1a~c)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Kirkbya multicresta* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 147, 148, Pl. 17, figs. 6, 7

Holotype: LV, IGPS 85786 (Pl. 17, fig. 6), Paratype: RV, IGPS 85787 (Pl. 17, fig. 7)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Kirkbya nagaiwensis* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 33, 34, Pl. 1, figs. 5a, b

Holotype: CC, IGPS 78400 (Pl. 1, figs. 5a, b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

***Kirkbya nanatsumoriensis* Ishizaki, 1968**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 37, p. 13, Pl. 1, figs. 5, 6

Holotype: RV, IGPS 78408 (fig. 5), Paratype: LV, IGPS 78409 (fig. 6)

A cliff of the valley of a tributary of the Sarusawa River, W of Nanatsumori and 1 km N of Sarusawa, Daito-machi, Higashiiwai-gun, Iwate Prefecture

Takezawa Formation

Mississippian

[=*Kirkbya ? nanatsumoriensis* Ishizaki, 1968 (by Hanai *et al.*, 1977)]

***Kirkbya nipponica* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 32, 33, Pl. 1, figs. 3a, b

Holotype: RV, IGPS 78392 (Pl. 1, fig. 3a), Paratype: LV, IGPS 78398 (Pl. 1, fig. 3b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

[=*Kirkbya ? nipponica* Ishizaki, 1964 (by Hanai *et al.*, 1977)]

***Kirkbya sarusawensis* Ishizaki, 1968**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 37, p. 13, 14, Pl. 1, fig. 7

Holotype: RV, IGPS 78410 (Pl. 1, fig. 7)

A cliff of the valley of a tributary of the Sarusawa River, W of Nanatsumori and 1 km N of Sarusawa, Daito-machi, Higashiiwai-gun, Iwate Prefecture

Takezawa Formation

Mississippian

***Kirkbya subnipponica* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 148, 149, Pl. 17, figs. 2a, b, 3

Holotype: LV, IGPS 85784 (Pl. 17, figs. 2a, b), Paratype: LV, IGPS 85785 (Pl. 17, fig. 3)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

[=*Kirkbya* ? *subnipponica* Ishizaki, 1964 (by Hanai *et al.*, 1977)]

***Kirkbya subquadriforma* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 149, Pl. 16, fig. 11, Pl. 17, figs. 8a, b

Holotype: LV, IGPS 85781 (Pl. 17, figs. 8a, b), Paratype: RV, IGPS 85780 (Pl. 16, fig. 11)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

***Knightina hinomataensis* Ishizaki, 1967**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 36, p. 55, 56, Pl. 1, fig. 10

Holotype: LV, IGPS 87084 (Pl. 1, fig. 10)

1,200 m N of Hinomata, a tributary of the Hinomata River, Ohazama-machi, Hinuki-gun, Iwate Prefecture

Tassobe Formation

Lower Permian

***Kobayashiina* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 30

Type species: *Kobayashiina hyalinosa* Hanai, 1957

***Kobayashiina hyalinosa* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 1, p. 30, 31, Pl. 4, figs. 5a, b, text-figs. 6a, b

Holotype: RV, UMUT CA 2633 (Pl. 4, fig. 5a), Paratypes: RV, UMUT CA 2634 (text-fig. 6b); LV, UMUT CA 3635 (Pl. 4, fig. 5b); LV, UMUT CA 3636 (text-fig. 6a)

The cliff at Mano Bay, Sawane-machi, Sado-gun, Niigata Prefecture

Sawane Formation

Upper Pliocene

***Kotoracythere abnormalis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 152, Pl. 18, figs. 10~12, text-fig. 1, fig. 9

Holotype: RV, IGPS 87008 (Pl. 18, fig. 10), Paratypes: LV, IGPS 87007 (Pl. 18, fig. 11); RV, IGPS 87010 (Pl. 18, fig. 12, text-fig. 1, fig. 9)

A cliff near the Taihakusan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

***Kotoracythere* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 151, 152

Type species: *Kotoracythere abnormalis* Ishizaki, 1966

***Kotoracythere tatsunokuchiensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 152, 153, Pl. 18, figs. 13, 14, text-fig. 1, fig. 8

Holotype: RV, IGPS 87014 (Pl. 18, fig. 13), Paratype: LV, IGPS 87015 (Pl. 18, fig. 14, text-fig. 1, fig. 8)

Down stream of the Tatsunokuchi gorge, in the western part of Sendai-shi, Miyagi Prefecture

Tatsunokuchi Formation

Pliocene

***Kotoracythere tsukagoshii* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 7, 8, figs. 5-1, 6-1a~e, 2a~c, 3a~d

Holotype: LV male, SUM CO1208 (figs. 6-1a~e), Paratypes: RV male, SUM CO1209 (figs. 6-2a~c); CC female, SUM CO 1210 (figs. 6-3a~d); LV female, SUM CO 1211 (fig. 5-1)

Loc. 1-A15 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35°25.5'N, 133°02.3'N)

Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 5 m below the top of the Upper Member of Fujina Formation]

***Krithe antisawanense* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 137, 138, Pl. 18, figs. 17, 24, 25

Holotype: RV, IGPS 87016 (Pl. 18, fig. 17), Paratypes: LV, IGPS 87017 (Pl. 18, fig. 25); RV, IGPS 87018 (Pl. 18, fig. 24)

An exposure about 1,500 m SE of Saboyama, Senndai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

[=*Krithe antisawanensis* Ishizaki, 1966 (by Hanai *et al.*, 1977)]

Krithe antisawanensis* Ishizaki, 1966**[See *Krithe antisawanense* Ishizaki, 1966.]Krithe hanaii* Ishizaki, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 131, p. 142, Pl. 33, figs. 1~4; Pl. 35, fig. 9

Holotype: LV, IGPS 97813 (Pl. 33, fig. 3, Pl. 35, fig. 9), Paratypes: LV, IGPS 97811 (Pl. 33, fig. 2); RV, IGPS 97812 (Pl. 33, figs. 1a~c); RV, IGPS 97814 (Pl. 33, fig. 4)

About 80 m W of Ono, Yasuda-cho, Aki-gun, Kochi Prefecture

Ananai Formation

Pliocene

[Sample horizon H2 = Ca. 2 m below the top of Ananai Fm.]

***Krithe hyalina* Brady, 1880**

Rept. Voyage Challenger, Zool., v. 1, pt. 3, p. 115, Pl. 27, figs. 3a~d

Lectotype: CC, BMNH 81.5.34 (Pl. 18, figs. 1, 2 in Puri and Hulings, 1976)

Challenger St. 233b = Setonaikai (34 °18.0'N, 133 °35.0'E, trawled) (mud, 15 fathoms)

Recent

***Krithe japonica* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 78, Pl. 5, fig. 1, Pl. 6, figs. 1, 5, Pl. 7, fig. 6

Holotype: RV female, IGPS 90342 (Pl. 6, fig. 1), Paratypes: RV male, IGPS 90340 (Pl. 7, fig. 6); LV male, IGPS 90341 (Pl. 5, fig. 1); LV female, IGPS 90343 (Pl. 6, fig. 5)

St. 4 = Aomori Bay, Aomori Prefecture (40 °54'27''N, 140 °51'11''E) (mud, depth 31 m)

Recent

***Krithe obesa* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 148, 149, Pl. 2, figs. 13, 14, text-fig 22

Holotype: RV, CKUM 3777 (Pl. 2, figs. 13, 14)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Nipponocythere obesa* (Hu, 1978) (by Ishizaki, 1981), Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), V.51, nos. 1/2, p. 61-62***Krithe sawanensis* Hanai, 1959**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 3, p. 301, 302, Pl. 18, figs. 3~7, text-figs. 3, 4

Holotype: LV male, UMUT CA 2908 (Pl. 18, figs. 7a, b, text-figs., 4a, b), Allotype: RV female, UMUT CA 2909 (Pl. 18, figs. 5a, b), Paratypes: RV male, UMUT CA 2910 (Pl. 18, figs. 6a, b); LV immature form, UMUT CA 2911 (Pl. 18, figs. 4a, b, text-fig. 3a); RV immature form, UMUT CA 2912 (Pl. 18, figs. 3a, b, text-fig. 3b)

A cliff at Mano Bay, Sawane-machi Sado-gun, Niigata Prefecture

Sawane Formation

Upper Pliocene

***Krithe surugensis* Zhou and Ikeya, 1992**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 166, p. 1112, 1113, figs. 9-6~12

Holotype: CC male, IGSU-O-942 (figs. 9-6, 7), Paratypes: LV female, IGSU-O-943 (fig. 9-8); RV female, IGSU-O-944 (fig. 9-9); RV male, IGSU-O-945 (figs. 9-10, 11); RV female, IGSU-O-946 (fig. 9-12)

St. M115 = Suruga Bay, ca. 10 km SWS off Ose-zaki, Numazu-shi, Shizuoka Prefecture (34 °57.8'N, 138 °44.6'E) (clayey silt, depth 320 m)

Recent

Lankacythere ? euplectella* (Brady, 1869)**[See *Cythere euplectella* Brady, 1869.]Laperousecythere ikeyai* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 11, figs. 5-4, 7-4a~e, 5a~c, 6a~c, 7a~c

Holotype: LV male, SUM CO 1225 (figs. 7-4a~e), Paratypes: RV male, SUM CO 1226 (figs. 7-5a~c); LV female, SUM CO 1227 (figs. 7-6a~c); RV female, SUM CO 1228 (figs. 7-7a~c); LV male, SUM CO 1229 (fig. 5-4)

Loc. 1-A15 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35 °25.5'N, 133 °02.3'N) Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 5 m below the top of the Lower Member of Fujina Formation]

***Laperousecythere ishizakii* Irizuki and Matsubara, 1995**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 177, p. 73, figs. 6.1~4

Holotype: LV female, IGPS 102547 (figs. 6. 3a~c), Paratypes: LV male, IGPS 102548 (fig. 6. 1); RV female, IGPS 102549 (fig. 6. 2); CC female, IGPS 102550 (fig. 6. 4)

Loc. JMJ 3 = along the Jumonji-gawa, Prefecture (40 °17'37''N, 141 °17'35''E)

Suenomatsuyama Formation (Maisawa Sandstone Member)

Lower

Middle Miocene

***Leguminocythereis bisanensis* Okubo, 1975**

Proc. Japan Soc. Syst. Zool., no. 11, p. 26-30, figs. 2a~l, 3a~j Syntypes: CC female with appendages, BLOSJC-21 (the specimen missing); CC male, BLOSJC-22 (the specimen missing); CC male, BLOSJC-23 (the specimen missing)

20 m off the shore of Shibukawa, Tamano-shi, Okayama Prefecture (34 °27.2'N, 133 °54.3'E) (mud, depth ca.10 m)

Recent

[=*Bicornucythere bisanensis* (Okubo, 1975) (by Schornikov and Shaytarov, 1979) Okubo (1975c) presented 1 female and 2 males (adult and A-1 stage) as the type specimens, but failed to designate holotype and also the sketches in figs. 2 and 3 do not correspond to the specimen numbers.]

***Leguminocythereis elongatus* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 196, figs. 24-18, 24, 26, text-fig. 14

Holotype: CC, CKUM 3522 (figs. 24-24, 26), Paratype: CKUM 3521 (fig. 24-18)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Bicornucythere bisanensis* (Okubo, 1975) (by Hu, 1986)]

***Leguminocythereis fava* Hu and Yeh, 1978**

Proc. Geol. Soc. China, no. 21, p. 151-153, Pl. 1, figs. 1-3, text-fig. 2

Holotype: CKUM 3935, Paratypes: CKUM 3936; CKUM 3937 (Pl. 1, fig. 3); CKUM 3938, 3939 (no figures)

0.5 km S of the Liushuang village, Kuantien-hisang, Tainan-hsien, Tainan District, Taiwan

Liushuang Formation

Pleistocene

[Two figures (Pl. 1, figs. 1, 2) in the original description (Hu and Yeh, 1978) cannot be correlated with each type specimen (CKUM 3935, 3936).]

***Leguminocythereis kianfascistus* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 73, Pl. 2, figs. 1, 3, 4, 6; text-fig. 9

Holotype: CC, TNUM 4121 (Pl. 2, figs. 1, 6), Paratype: LV, TNUM 4122 (Pl. 2, figs. 3, 4)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Leguminocythereis ovalis* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 199, 200, Pl. 2, fig. 10, Pl. 3, figs. 8-11, text-fig. 10

Holotype: male, CKUM 3085 (Pl. 3, fig. 8), Paratypes: RV, CKUM 3081 (Pl. 2, fig. 10); female, CKUM 3082; female, CKUM 3083; CC, CKUM 3084 (Pl. 3, fig. 11); CKUM 3097-3100 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

[Two figures (Pl. 3, figs. 9 and 10) in the original description (Hu and Cheng, 1977) cannot be correlated with each type

specimen (CKUM 3082, 3083).]

***Leguminocythereis propria* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 146, 147, Pl. 171, fig. 12
Holotype: LV, DJ 0102 (Pl. 171, fig. 12)

East China Sea

Oujiang Formation

Early Eocene

***Leguminocythereis pseudoertlii* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 184, Pl. 3, figs. 1, 3, 5, 6, 8, Pl. 2, fig. 24, text-fig. 5

Holotype: RV, TNUM 7250 (Pl. 3, figs. 3, 6), Paratypes: juvenile, TNUM 7241 (Pl. 2, fig. 24); RV, TNUM 7248 (Pl. 3, figs. 1, 5, 8); TNUM 7249

An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

[=*Bicornucythere pseudoertlii* (Hu, 1982) (by Hu, 1986)]

***Leguminocythereis rhomboidalis* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 65, 66, Pl. 2, figs. 28, 29, text-fig. 6

Holotype: RV, TUM 4032 (Pl. 2, figs. 28, 29)

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limestone, Hungchun peninsula, southern Taiwan

Hungchun Limestone

Late Pleistocene / Holocene

***Leguminocythereis taiwanensis* Hu, 1977**

Proc. Geol. Soc. China, no. 20, p. 97, 98, Pl. 1, figs. 1, 3, 4, 9, 22, text-fig. 15

Holotype: CKUM 3716 (Pl. 1, fig. 1), Paratypes: CKUM 3717; CKUM 3718 (Pl. 1, fig. 3); LV, CKUM 3719 (Pl. 1, fig. 9); CKUM 3720 (Pl. 1, fig. 22); CKUM 3721-3725 (no figures)

The left bank of the Houlung River, S of Kueishan, Miaoli Area, Taiwan

Toukoshan Formation

Pleistocene

[=*Bicornucythere bisanensis* (Okubo, 1975) (by Hu, 1986)]

***Leguminocythereis tomokoeae* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 26, Pl. 1, fig. 11, Pl. 5, figs. 1, 2, 17

Holotype: RV, IGPS 90245 (Pl. 1, fig. 11, Pl. 5, fig. 1), Paratypes: LV, IGPS 90244 (Pl. 5, fig. 2); LV immature form, IGPS 90246 (Pl. 5, fig. 17)

St. 316 = Uranouchi Bay, Kochi Prefecture (33°26'15"N,

133 °27'22''E) (fine sand, depth 6.5 m)

Recent

[=*Moosella tomokoae* (Ishizaki, 1968) (by Malz and Ikeya, 1982)]

***Leperditia japonica* Hamada, 1959**

Japan. Jour. Geol. Geogr., v. 30, p. 43~45, text-figs. a~c

Holotype: UMUT PA 7279

A small cutting on a trail for wooden sleigh on the left side of the Ichinotani valley, a tributary of Osobudani, Fukuji, Kamitakara-mura, Yoshiki-gun, Gifu Prefecture

Takaharagawa Formation

Devonian

***Leptocythere ? tosaensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 26, 27, Pl. 1, fig. 12, Pl. 5, figs. 19, 20

Holotype: LV, IGPS 90247 (Pl. 1, fig. 12, Pl. 5, fig. 19),

Paratype: RV, IGPS 90248 (Pl. 5, fig. 20)

St. 72 = Uranouchi Bay, Kochi Prefecture (33 °25'45''N, 133 °24'45''E) (fine sand, depth 15 m)

Recent

***Leptocythere favata* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 110, 111, Pl. 14, figs. 1~6, 8, 10

Holotype: CC, TNUM 11336 (Pl. 14, fig. 1), Paratypes: 3 CC, TNUM 11337~11339 (Pl. 14, figs. 4, 5, 8); 2 LV, TNUM 11340, 11341 (Pl. 14, figs. 2, 6); CC, TNUM 11342 (Pl. 14, fig. 3); LV, TNUM 11343 (Pl. 14, fig. 10)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24 °37.7'N, 120 °45.1'E)

Tungshiao Formation (Nanwao Member)

Pleistocene

***Leptocythere polymorpha* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 155-157, Pl. 2, figs. 3a~g, text-fig. 10

Holotype: CC male, FESC-416~417, Paratypes: no numbers Dolgoye Lake near Kasatka Bay, Iturup Is., Kuril Islands

Recent

[The figures (Pl. 2, figs. 3a~g, text-fig. 10) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Leuroleberis surugaensis* Hiruta, 1982**

Jour. Hokkaido Univ. Educ., Sec. B, v. 33, no. 1, p. 11~18, figs. 2-1~7, 3-1~4, 4-1~5, 5-1~3

Holotype: CC female with appendages, ZIHU 2224 (figs. 2-1~7, 3-1~4, 4-1~3, 5, 5-1~3), Paratype: CC female with appendages, ZIHU 2225 (fig. 4-4)

St. OT-6 (II) = Uchiura-wan, Suruga Bay (35 °03.3'N, 138 °50.0'E - 35 °04.3'N, 138 °49.4'E) (mud, depth 108~115 m)

Recent

***Lixouria nipponica* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 400, 401, Pl. 50, figs. 7a~c, text-fig. 9, figs. 2a, b

Holotype: CC, UMUT CA 8424 (Pl. 50, fig. 7c), Paratypes: RV, UMUT CA 8425 (Pl. 50, fig. 7a, text-fig. 9, fig. 2b); LV, UMUT CA 8419 (Pl. 50, fig. 7b, text-fig. 9, fig. 2a)

Loc. 29 = An exposure, 300 m SW of the Shounji Temple, Senzoku, Josai, Kisarazu-shi, Chiba Prefecture (35 °21'52''N, 139 °56'00''E)

Narita Formation (Kami-Iwahashi Member)

Pleistocene

[=*Amphileberis nipponica* (Yajima, 1978) (by Malz, 1981)]

***Loxoconcha bispinosa* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 9, 10, Pl. 1, figs. 52~55

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Loxoconcha bizenensis* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 5/6, p. 418~420, figs. 14a~j, 18e~j

Holotype: CC male with appendages, MO 912 (=NSMT-Cr 15283) (figs. 14a~j, 18h~j), Allotype: CC female with app, MO 608 (figs. 18e~g), Paratypes: CC males with appendages, MO 613 (=NSMT-Cr 15284) (no figures); CC males with appendages, MO 908 (=NSMT-Cr 15285) (no figures)

St. 19 = The intertidal zone, rocky shore, Muneage, Tamano-shi, Okayama Prefecture

(34 °32.5'N, 134 °01.5'E)

Recent

***Loxoconcha brevia* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 81, Pl. 1, figs. 1~4, 6, text-fig. 13

Holotype: TNUM 8075, Paratypes: TNUM 8076, 8077; RV, TNUM 8078 (Pl. 1, fig. 2); CC, TNUM 8079 (Pl. 1, fig. 6)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

***Loxoconcha chinzeii* Ikeya and Zhou, 1992**

In Ishizaki, K. and Saito, T. (eds.), Centenary of Japanese Micro-paleontology, 1992, p. 353, figs. 10-2, 3a, 3b, 4a, 4b, 5a, 5b. Terra Sci. Publ., Tokyo

Holotype: CC, IGSU-O-763 (figs. 10-4a, 4b, 5a, 5b), Paratypes: RV, IGSU-O-761 (fig. 10-2); LV, IGSU-O-762 (figs. 10-3a, 3b)

St. 21 = Otsuchi Bay, Iwate Prefecture (39 °20.4'N, 141 °58.0'E) (coarse sand, depth 37 m)
Recent

***Loxoconcha convexa* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 41, 42, Pl. 2, figs. 1~6, text-fig. 12

Holotype: LV, CKUM 2038 (Pl. 2, figs. 1, 4), Paratypes: LV, CKUM 2039 (Pl. 2, figs. 2, 6); CC, CKUM 2040 (Pl. 2, figs. 3, 5); CKUM 2041, 2042 (no figures)

Loc. 13 or 14 = 2.5 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

***Loxoconcha crassella* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 80, Pl. 1, figs. 5, 7~10, 14, text-fig. 12

Holotype: TNUM 8083, Paratypes: CC, TNUM 8081 (Pl. 1, fig. 7); LV, TNUM 8082 (Pl. 1, fig. 8); TNUM 8080, 8084, 8085

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

[Four figures (Pl. 1, figs. 5, 9, 10, 14) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8080, 8083~8085).]

***Loxoconcha epeterseni* Ishizaki, 1981**

[See *Loxoconcha laeta* Ishizaki, 1968.]

***Loxoconcha hanachirusato* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 221, 222, Pl. 11, figs. 1~4

Holotype: RV male, UMUT CA 9895 (Pl. 11, fig. 2), Paratypes: RV female, UMUT CA 9896 (Pl. 11, fig. 4); LV male, UMUT CA 9897 (Pl. 11, fig. 1); LV female, UMUT CA 9898 (Pl. 11, fig. 3)

Loc. 189 = An exposure, 3.5 km SSE of Kobayashi railway station, Imba-mura, Imba-gun, Chiba Prefecture (35 °47'52''N, 140 °12'38''E)

Kioroshi Formation (Kioroshi Member)

Pleistocene

***Loxoconcha harimensis* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 5/6, p. 422~424, figs. 16a~j, 19g~l

Holotype: CC male with appendages, MO 856 (=NSMT-Cr 15286) (figs. 16c~j), Allotype: CC female with appendages, MO 857 (=NSMT-Cr 15287) (no figures), Paratypes: CC male, MO 590 (figs. 16a, b) (the specimen missing); 2 CC females with appendages, MO 814 (=NSMT-Cr 15288) (no

figures), 856b (no figures) (the specimen missing); CC female, MO 591 (figs. 19g~i) (the specimen missing)

St. 32 = The intertidal zone, rocky shore, Aioi-shi, Hyogo Prefecture (34 °45.7'N, 134 °28.4'E)

Recent

***Loxoconcha hastata* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 159, Pl. 16, figs. 19, 20

Holotype: not designated, the Brady's original specimens were presumed lost (See Whatley and Zhao, 1987, p. 26.)

Hong Kong

Recent

***Loxoconcha hataii* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, no. 1, p. 26, 27, Pl. 2, figs. 8a, b

Holotype: LV, IGPS 78893 (Pl. 2, figs. 8a, b)

Nishiichinose, W of Kanazawa-shi, Ishikawa Prefecture

Yatsuo Formation (Sunakosaka Member)

Miocene

***Loxoconcha hattorii* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 86, Pl. 5, figs. 5, 9, 10, Pl. 7, fig. 7

Holotype: LV, IGPS 91556 (Pl. 5, figs. 5, 9), Paratype: RV, IGPS 91557 (Pl. 5, fig. 10, Pl. 7, fig. 7)

St. 24 = Aomori Bay, Aomori Prefecture (40 °53'33''N, 140 °51'36''E) (adhering to plant, depth 5 m)

Recent

***Loxoconcha ikeyai* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 87, 88, Pl. 5, figs. 14a, b, 15

Holotype: LV, JC-1410 (Pl. 5, figs. 14a, b), Paratype: RV, JC-1411 (Pl. 5, fig. 15)

No. 8 (KT90-17) = Ca. 20 km SW off Tanabe-shi, Wakayama Prefecture (33 °38.2'N, 135 °13.0'E) (fine sand, depth 176 m)

Recent

***Loxoconcha japonica* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 28, 29, Pl. 2, fig. 1, Pl. 6, figs. 10~12

Holotype: LV, IGPS 90260 (Pl. 2, fig. 1, Pl. 6, fig. 11), Paratypes: RV, IGPS 90261 (Pl. 6, fig. 12); LV, IGPS 90262 (Pl. 6, fig. 10)

St. 303 = Uranouchi Bay, Kochi Prefecture (33 °24'57''N, 133 °26'53''E) (coarse sand, depth 25 m)

Recent

***Loxoconcha kattoi* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 29, Pl. 1, fig. 13, Pl. 6, figs. 14, 15

Holotype: LV, IGPS 90264 (Pl. 1, fig. 13, Pl. 6, fig. 14), Paratype: RV, IGPS 90265 (Pl. 6, fig. 15)

St. 303 = Uranouchi Bay, Kochi Prefecture (33°24'57''N, 133°26'53''E) (coarse sand, depth 25 m)
Recent

***Loxoconcha kitanipponica* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 87, Pl. 5, fig. 4, Pl. 6, figs. 11, 12, Pl. 7, fig. 10
Holotype: LV, IGPS 91559 (Pl. 5, fig. 4, Pl. 6, fig. 12), Paratype: RV, IGPS 91560 (Pl. 6, fig. 11, Pl. 7, fig. 10)
St. 17 = Aomori Bay, Aomori Prefecture (40°53'39''N, 140°50'51''E) (sandy mud, depth 22 m)
Recent

***Loxoconcha kosugii* Nakao and Tsukagoshi, 2002**

Species Diversity, v. 7, no. 1, p. 97~99, figs. 15A~M, 16A~K
Holotype: CC male, SUM CO 1174 (fig. 15A), Paratypes: CC male, SUM CO 1175 (fig. 15B); CC female, SUM-CO-1176 (fig. 15C); CC female, SUM CO 1177 (fig. 15D); CC male, SUM CO 1178 (fig. 15E); CC female, SUM CO 1179 (fig. 15F); LV male, SUM CO 1180 (fig. 15G); RV male, SUM CO 1181 (figs. 15H, L, M); LV female, SUM CO 1182 (fig. 15D); RV female, SUM CO 1183 (figs. 15J, K); CC male with appendages, SUM CO 1184 (fig. 16A); CC female, SUM CO 1185 (fig. 16B); CC male, SUM CO 1186 (figs. 16C~I, K); CC male with appendages, SUM CO 1187 (fig. 16J)
Loc. 24 = A creek of delta swamp at mouth of Obitsu River, Kisarazu-shi, Chiba Prefecture (35°24.6'N, 139°53.6'E) (sandy mud, depth 5 cm at lowest low tide)
Recent

***Loxoconcha laeta* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 29, 30, Pl. 1, fig. 14, Pl. 6, figs. 3, 4
Holotype: LV, IGPS 90266 (Pl. 1, fig. 14, Pl. 6, fig. 4), Paratype: RV, IGPS 90267 (Pl. 6, fig. 3)
St. 315 = Uranouchi Bay, Kochi Prefecture (33°25'55''N, 133°27'37''E) (fine sand, depth 10.5 m)
Recent
[=Junior homonym of *Loxoconcha laeta* Stancheva, 1963. The new name was proposed as *Loxoconcha epeterseni* (by Ishizaki, 1981, p. 65).]

***Loxoconcha lineata* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 106, 107, Pl. 2, fig. 23
Holotype: CKUM 1009 (Pl. 2, fig. 23), Paratypes: CKUM 1010, 1012 (no figures)
Mc-1 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan
Chinshui Shale
Pliocene

***Loxoconcha metarugosa* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 77, 78, Pl. 3, fig.

10; text-figs. 15C, D

Holotype: RV, TNUM 4153 (Pl. 3, fig. 10)
An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan
Hengchun Limestone
Pleistocene

***Loxoconcha modesta* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 30, Pl. 1, fig. 15, Pl. 8, figs. 11, 12
Holotype: CC, IGPS 90268 (Pl. 1, fig. 15, Pl. 8, fig. 12, Pl. 8, fig. 11)
Uranouchi Bay, Kochi Prefecture
Recent

[=Probably female of *Loxoconcha laeta* Ishizaki, 1968 (by Hanai *et al.*, 1977) =Junior homonym of *Loxoconcha modesta* (Brady, 1866). The new name was proposed as *Loxoconcha tosamodesta* (by Ishizaki, 1981, p. 65).]

***Loxoconcha nozokiensis* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, no. 1, p. 27, 28, Pl. 2, figs. 9a~c
Holotype: CC, IGPS 78895 (Pl. 2, fig. 9b), Paratypes: RV, IGPS 78894 (Pl. 2, fig. 9a); CC, IGPS 78896 (Pl. 2, fig. 9c)
Nishiichinose, W of Kanazawa-shi, Ishikawa Prefecture
Yatsuo Formation (Sunakosaka Member)
Miocene

***Loxoconcha optima* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 30, 31, Pl. 2, fig. 2, Pl. 6, figs. 8, 9
Holotype: CC, IGPS 90269 (Pl. 2, fig. 2, Pl. 6, figs. 8, 9)
St. 307 = Uranouchi Bay, Kochi Prefecture (33°24'17''N, 133°27'53''E) (coarse sand, depth 35 m)
Recent

***Loxoconcha orientalis* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 139, 140, Pl. 1, figs. 23, 25, 26, text-fig 11
Holotype: CKUM 3847, Paratypes: CKUM 3846; CKUM 3848~3852 (no figures)
An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan
Toukoshan Formation
Pleistocene
[Three figures (Pl. 1, figs. 23, 25 and 26) in the original description (Hu, 1978) cannot be correlated with each type specimen (CKUM 3846, 3847).]

***Loxoconcha oujiangensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, Chinese Academy of Geological Sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological

Publishing House Press, Beijing, p. 148, Pl. 165, figs. 12~15
Holotype: CC, DJ 0028 (Pl. 165, fig. 12, 13), Paratypes: CC, DJ 0027 (Pl. 165, figs. 14, 15); CC, DJ 0029; CC, DJ 0030 (no figures)

East China Sea
Oujiang Formation
Early Eocene

***Loxoconcha ozawai* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 103, 104, Pl. 18, figs. 17~22, text-fig. 19-5

Holotype: RV female, UMUT CA 15924 (Pl. 18, figs. 17, 20, 22, text-fig. 19-5), Paratype: LV male, UMUT CA 15925 (Pl. 18, figs. 18, 19, 21)

Loc. OT5 = An exposure along the Otanizawa River, 4 km SE of Tsurugasaka railway station, Magonai, Aomori-shi, Aomori Prefecture (40°45'10"N, 140°39'00"E)

Daishaka Formation
Plio-Pleistocene

***Loxoconcha parapontica* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 89, 90, Pl. 6, figs. 4, 5, 6a, b, 7

Holotype: RV, JC-1415 (Pl. 6, fig. 4), Paratypes: RV, JC-1416 (Pl. 6, fig. 5); LV, JC-1417 (Pl. 6, figs. 6a, b); RV juvenile, JC-1418 (Pl. 6, fig. 7)

No. 32 (GH82-2) = Kumano-nada, ca. 20 km SSW of Daio-zaki, Mie Prefecture (34°04.7'N, 136°43.5'E) (silty clay, depth 670 m)

Recent

***Loxoconcha pashihaiensis* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 70, 71, Pl. 2, figs. 10, 11, 15, 16, 24, text-fig. 9

Holotype: TUM 4028, Paratypes: TUM 4029~4031

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limestone, Hungchun peninsula, southern Taiwan
Hungchun Limestone

Late Pleistocene / Holocene

[Five figures (Pl. 2, figs. 10, 11, 15, 16 and 24) in the original description (Hu, 1979) cannot be correlated with each type specimen (TUM 4028~4031).]

***Loxoconcha pleistocenica* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 141, 142, Pl. 1, figs. 1, 2, 5, 17, Pl. 4, fig. 24, text-fig. 14

Holotype: RV, CKUM 3812 (Pl. 1, figs. 2, 5), Paratypes: CKUM 3808; CKUM 3809; CKUM 3810; CKUM 3811 (Pl. 1, fig. 1); CKUM 3813 (Pl. 1, fig. 17); CKUM 3814~3817 (no figures); CC, CKUM 3832 (Pl. 4, fig. 24)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation
Pleistocene

***Loxoconcha prolaeta* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 88, 89, Pl. 5, figs. 12a, b, 13

Holotype: CC, JC-1412 (Pl. 5, figs. 12a, b, 13)

YT-2 (KT92-2) = Ca. 14 km S off Kadokura-misaki, Tanegashima, Kagoshima Prefecture (30°10.3'N, 130°52.7'E) (coarse shelly sand, depth 96 m)

Recent

***Loxoconcha propontica* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 156, Pl. 2, figs. 8, 12, text-fig. 6

Holotype: TNUM 7132, Paratype: TNUM 7133

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan
Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Loxoconcha pulchra* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 31, Pl. 1, fig. 16, Pl. 7, figs. 19, 20

Holotype: RV, IGPS 90270 (Pl. 1, fig. 16, Pl. 7, fig. 20), Paratype: LV, IGPS 90271 (Pl. 7, fig. 19)

St. 212 = Uranouchi Bay, Kochi Prefecture (33°25'51"N, 133°24'51"E) (fine sand, depth 13 m)

Recent

***Loxoconcha saboyamensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 149, 150, Pl. 18, figs. 19, 20

Holotype: CC, IGPS 87022 (Pl. 18, fig. 20), Paratype: RV, IGPS 87021 (Pl. 18, fig. 19)

An exposure about 1,500 m SE of Saboyama, Sendai-shi, Miyagi Prefecture

Hatatate Formation
Miocene

***Loxoconcha shanhaiensis* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 76, 77, Pl. 3, figs. 5, 9, 11, text-figs. 13 A, B

Holotype: LV, TNUM 4148, Paratypes: LV, TNUM 4150; TNUM 4151, 4153 (no figures)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan
Hengchun Limestone

Pleistocene

[Two figures (Pl. 3, figs. 5, 9) in the original description (Hu, 1981a) cannot be correlated with each type specimen (TNUM 4148, 4150).]

***Loxoconcha sinensis* Brady, 1869**

Les Fonds de la Mer, v. 1, no. 1, p. 158, Pl. 16, figs. 17, 18

Lectotype: CC female, HMNT 1.58.01 (Pl. 2, figs. 3~5 in Whatley and Zhao, 1987), Paralectotypes: LV male, HMNT 1.46.41 (Pl. 2, fig. 2 in Whatley and Zhao, 1987); RV female,

HMNT 1.56.14 (Pl. 2, fig. 1 in Whatley and Zhao, 1987)
Hong Kong
Recent

***Loxoconcha subkotoriforma* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 150, Pl. 19, fig. 5
Holotype: LV, IGPS 87026 (Pl. 19, fig. 5)
A cliff near the Taihakistan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture
Hatata Formation
Miocene

***Loxoconcha tamakazura* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 222, 223, Pl. 11, figs. 16, 17
Holotype: LV, UMUT CA 9903 (Pl. 11, fig. 17), Paratype: RV, UMUT CA 9904 (Pl. 11, fig. 16)
Loc. 120 = A cliff, along the Murata River, 2.4 km SE of Honda railway station, Ochi-shimoshinden, Ichihara-shi, Chiba Prefecture (35°31'30"N, 140°13'48"E)
Yabu Formation (Yabu Member)
Pleistocene

***Loxoconcha tata* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 140, Pl. 1, figs. 16, 20, 24, 27, Pl. 4, fig. 12, text-fig 12
Holotype: RV, CKUM 3855 (Pl. 1, figs. 24, 27), Paratypes: CKUM 3853 (Pl. 1, fig. 16); CKUM 3854 (Pl. 1, fig. 20); CKUM 3856~3860 (no figures)
An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan
Toukoshan Formation
Pleistocene

***Loxoconcha tosaensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 31, 32, Pl. 2, fig. 3, Pl. 7, figs. 6~9
Holotype: LV, IGPS 90272 (Pl. 2, fig. 3, Pl. 7, fig. 6), Paratypes: RV, IGPS 90273 (Pl. 7, fig. 8); LV, IGPS 90274 (Pl. 7, fig. 7); RV, IGPS 90275 (Pl. 7, fig. 9)
St. 215 = Uranouchi Bay, Kochi Prefecture (33°25'58"N, 133°24'56"E) (sandy mud, depth 13 m)
Recent

***Loxoconcha tosamodesta* Ishizaki, 1981**

[See *Loxoconcha modesta* Ishizaki, 1968.]

***Loxoconcha uranouchiensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 32, Pl. 7, figs. 2, 3
Holotype: LV, IGPS 90276 (Pl. 7, fig. 3), Paratype: LV, IGPS 90277 (Pl. 7, fig. 2)
St. 78 = Uranouchi Bay, Kochi Prefecture (33°26'16"N,

133°24'54"E) (fine sand, depth 11 m)
Recent

***Loxoconcha viva* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 33, Pl. 7, figs. 12~14
Holotype: LV, IGPS 90278 (Pl. 7, fig. 13), Paratypes: RV, IGPS 90279 (Pl. 7, fig. 12); LV, IGPS 90280 (Pl. 7, fig. 14)
St. 79 = Uranouchi Bay, Kochi Prefecture (33°26'18"N, 133°24'47"E) (sandy mud, depth 11 m)
Recent

***Loxoconcha zamia* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 33, 34, Pl. 7, figs. 10, 11
Holotype: CC, IGPS 90281 (Pl. 7, figs. 10, 11)
St. 310 = Uranouchi Bay, Kochi Prefecture (33°26'00"N, 133°27'39"E) (coarse sand, depth 16 m)
Recent

***Loxocorniculum crispatum* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 144, Pl. 1, figs. 7, 11, 12, 14, Pl. 4, fig. 23, text-fig 17
Holotype: CKUM 3831, Paratypes: CKUM 3830; CKUM 3832; CKUM 3829, 3833~3837 (no figures)
Paratype: CC, CKUM 3831 (Pl. 1, figs. 7, 14); CKUM 3831a (Pl. 4, fig. 23)
An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan
Toukoshan Formation
Pleistocene

***Loxocorniculum kotoriformum* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 150, 151, Pl. 18, figs. 15, 16
Holotype: LV, IGPS 87024 (Pl. 18, fig. 16), Paratype: RV, IGPS 87025 (Pl. 18, fig. 15)
A cliff near the Taihakistan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture
Hatata Formation
Miocene

***Loxocorniculum lienae* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 165, 167, Pl. 18, figs. 6, 7, 10, 11, 13, 14, text-fig. 5C
Holotype: LV, TNUM 11445 (Pl. 18, figs. 10, 13), Paratypes: 4 CC, TNUM 11441~11444 (Pl. 18, figs. 6, 7, 11, 14)
An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24°37.7'N, 120°45.1'E)
Tungshiao Formation (Nanwo Member)
Pleistocene

***Loxocorniculum malacrispatum* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 142~144, Pl. 1, figs. 3, 4, 6, 8, 9, 10, text-fig 16

Holotype: CKUM 3820, Paratypes: CC, CKUM 3818 (Pl. 1, fig. 3); CKUM 3819; CKUM 3821 (Pl. 1, fig. 9); CKUM 3822 (Pl. 1, fig. 10); CKUM 3823~3828 (no figures)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[Three figures (Pl. 1, figs. 14, 6 and 8) in the original description (Hu, 1978) cannot be correlated with each type specimen (CKUM 3819, 3820).]

***Loxocorniculum mutsuense* Ishizaki, 1971**

[See *Loxocorniculum mutsuensis* Ishizaki, 1971.]

***Loxocorniculum mutsuensis* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 89, 90, Pl. 5, fig. 11, Pl. 6, figs. 3, 6, 7, Pl. 7, fig. 5

Holotype: LV male, IGPS 91571 (Pl. 6, fig. 7, Pl. 7, fig. 5), Paratypes: RV male, IGPS 91572 (Pl. 6, fig. 6); RV female, IGPS 91573 (Pl. 5, fig. 11, Pl. 6, fig. 3)

St. 26 = Aomori Bay, Aomori Prefecture (40°53'30''N, 140°51'21''E) (granules, depth 0.3 m)

Recent

[=*Loxocorniculum mutsuense* Ishizaki, 1971 (by Hanai *et al.*, 1977)]

***Loxocorniculum tumulosum* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 71, 72, Pl. 2, figs. 17, 21, 22, 26, 27, 30, 31, text-fig. 10

Holotype: TUM 4033, Paratypes: TUM 4034~4036; TUM 4065, 4066 (no figures)

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limestone, Hungchun peninsula, southern Taiwan
Hungchun Limestone

Late Pleistocene / Holocene

[Seven figures (Pl. 2, figs. 17, 21, 22, 26, 27, 30 and 31) in the original description (Hu, 1979) cannot be correlated with each type specimen (TUM 4033~4036).]

***Loxocythere inflata* Hanai, 1959**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 11, pt. 4, p. 414~416, Pl. 28, figs. 4a, b, text-figs. 1a, b

Holotype: RV, UMUT CA 3346 (Pl. 28, fig. 4a), Paratypes: LV, UMUT CA 3347 (Pl. 28, fig. 4b, text-fig. 1a); RV, UMUT CA 3348 (text-fig. 1b); LV, UMUT CA 3349

The cliff at Mano Bay, Sawane-machi, Sado-gun, Niigata Prefecture

Sawane Formation

Pliocene

***Macrocypris pacifica* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 76, Pl. 3, figs. 13, 16, text-figs. 14A, B, E, F

Holotype: TUM 4050 (Pl. 1, figs. 13, 16)

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limestone, Hungchun peninsula, southern Taiwan
Hungchun Limestone

Late Pleistocene / Holocene

***Manawa konishii* Nohara, 1976**

Geol. Stud. Ryukyu Islands, v. 1, p. 76, Pl. 1, figs. 1~3

Holotype: LV, RUEG 36 (no figures), Paratypes: LV, RUEG 37 (Pl. 1, fig. 1); LV, RUEG 38 (Pl. 1, fig. 2); LV, RUEG 39 (Pl. 1, fig. 3)

Loc. 7592502 = Ca. 1.5 km WNW of Asato, Gushikami-son, Shimajiri-gun, Okinawa Prefecture (26°07'18''N, 127°43'10''E)

Chinen Formation (Chinen Sand Member)

Pleistocene

***Megacythere taiwanica* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 104, Pl. 2, figs. 14, 20, 21, 24, text-fig. 25

Holotype: TNUM 7029, Paratypes: TNUM 7028; TNUM 7030

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21°56.3'N, 120°48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Four figures (Pl. 2, figs. 14, 20, 21, 24) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7028~7030).]

***Melavargula japonica* Poulsen, 1962**

Dana-Report, Copenhagen, Carlsberg, Fdn., v. 57, p. 225~228, text-figs. 106, 107

Holotype: male, ZMUC-collection, Paratypes: about 30 males and females, ZMUC-collection

Misaki, Miura-shi, Kanagawa Prefecture (shallow water)

Recent

***Microcythere cuneata* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 189~191, text-fig. 29

Holotype: CC male, FESC 428~429, Paratype: 3 females, 1 male (no number)

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (text-fig. 29) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Microcythere devexa* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 192~194, text-fig. 31

Holotype: CC male, FESC 432~433, Paratype: 4 males, 16 females (no numbers)

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (text-fig. 31) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Microcythere littoralis* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 189, text-fig. 28

Holotype: CC male, FESC 426~427, Paratype: 100 females, 7 males, instars (no numbers)

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Island, Kuril Islands

Recent

[The figures (text-fig. 28) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Microcythere robusta* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 191, text-fig. 30

Holotype: CC male, FESC 430~431, Paratype: 3 females, 2 males (no numbers)

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (text-fig. 30) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Microcythere rotundata* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 186~189, text-fig. 27

Holotype: CC male, FESC 424~425, Paratype: 3 females, 20 males (no numbers)

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Island, Kuril Islands

Recent

[The figures (text-fig. 27) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Microloxoconcha kushiroensis* Hiruta, 1989**

Proc. Japan Soc. Syst. Zool., no. 39, p. 30~36, figs. 1-1~4, 2-1~11, 3-1~10

Holotype: CC male with appendages, ZIHU 2246 (figs. 1-1,2, 2-1~5, 10, 3-1~5, 7), Allotype: CC female with appendages, ZIHU 2247 (figs. 1-3,4, 3-8), Paratypes: CC female with

appendages, ZIHU 2248 (no figures); CC female with appendages, ZIHU 2249 (no figures); CC female with appendages, ZIHU 2250 (figs. 2-11, 3-9,10); CC female with appendages, ZIHU 2251 (no figures); CC male with appendages, ZIHU 2252 (no figures); CC male with appendages, ZIHU 2253 (figs. 2-8,9, 3-6); CC male with appendages, ZIHU 2254 (fig. 2-7); CC male with appendages, ZIHU 2255 (no figures); CC male with appendages, ZIHU 2256 (fig. 2-6)

The intertidal zone of Mataitoki, near Kushiro-shi, Hokkaido (42°56.3'N, 144°29.3'E) (sand, depth 20~50 cm)

Recent

Miia Ishizaki, 1968

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 34, 35

Type species: *Miia uranouchiensis* Ishizaki, 1968

***Miia uranouchiensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 35, Pl. 2, figs. 5, 6, Pl. 6, figs. 21, 22

Holotype: LV, IGPS 90286 (Pl. 2, fig. 5, Pl. 6, fig. 22), Paratype: RV, IGPS 90287 (Pl. 2, fig. 6, Pl. 6, fig. 21)

St. 159 = Uranouchi Bay, Kochi Prefecture (33°26'20"N, 133°27'32"E) (fine sand, depth 16 m)

Recent

***Miocyprideis phuketensis* Malz and Ikeya, 1986**

Rep. Fac. Sci., Shizuoka Univ., v. 20, p. 179, 180, Pl. 3, figs. 4, 5a~c, 6~9

Holotype: RV female, SMF Xe 13297 (Pl. 3, figs. 5a~c), Paratypes: CC female, SMF Xe 13298 (Pl. 3, figs. 4, 8); CC female, SMF Xe 13299 (Pl. 3, fig. 6); CC male, SMF Xe 13300 (Pl. 3, figs. 7, 9); IGSU-O-429 (no figures)

Near the Marine Biological Center at Phuket, Ko Phuket Island, W of Malay Peninsula, Thailand (7°47.5'N, 98°23.9'E) (muddy shell sand, depth 12 m)

Recent

***Monoceratina dipleura* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 201, 202, Pl. 3, figs. 4~7, text-fig. 12

Holotype: RV, CKUM 3121 (Pl. 3, figs. 4, 5), Paratypes: CKUM 3122 (Pl. 3, fig. 6); CC, CKUM 3123 (Pl. 3, fig. 7); CKUM 3124~3130 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

[=*Bythoceratina dipleura* (Hu and Cheng, 1977) (by Hu, 1986)]

***Moosella tomokoae* (Ishizaki, 1968)**

[See *Leguminocythereis tomokoae* Ishizaki, 1968.]

***Morkhovenia rimosa* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 72, Pl. 1, figs. 18, 19, text-fig. 8

Holotype: CC, TNUM 4111 (Pl. 1, figs. 18, 19)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan
Hengchun Limestone

Pleistocene

***Munseyella chinzeii* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 72, Pl. 3, figs. 4a, b, 5, 6

Holotype: RV, JC-1370 (Pl. 3, figs. 4a, b), Paratypes: LV, JC-1371 (Pl. 3, fig. 5); RV, JC-1372 (Pl. 3, fig. 6)

No. 32 (GH82-2) = Kumano-nada, ca. 20 km SW off Daio-zaki, Mie Prefecture (34 °04.7'N, 136 °43.5'E) (silty clay, depth 670 m)

Recent

***Munseyella hatatensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 153, Pl. 19, figs. 12

Holotype: RV, IGPS 87030 (Pl. 19, fig. 12)

An exposure about 1, 500 m SE of Saboyama, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

***Munseyella hokkaidoana* (Hanai, 1957)**

[See "*Toulminia*" *hokkaidoana* Hanai, 1957.]

***Munseyella japonica* (Hanai, 1957)**

[See "*Toulminia*" *japonica* Hanai, 1957.]

***Munseyella oborozukiyo* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 188, 189, Pl. 10, figs. 9, 12

Holotype: RV, UMUT CA 9819 (Pl. 10, fig. 9), Paratype: LV, UMUT CA 9820 (Pl. 10, fig. 12)

Loc. 66 = A small exposure, 4.5 km SSE of Anegasaki railway station, Ichihara -shi, Chiba Prefecture (35 °26'20''N, 140 °03'30''E)

Kioroshi Formation (Toyonari Member)

Pleistocene

***Munseyella simplex* Chen, 1990**

Acta Micropalaeontologica Sinica, v. 7, no. 4, p. 374, Pl. 1, figs. 7, 8

Holotype: CC, 111226 (Pl. 1, figs. 7, 8)

Hole W6-1-1 (core) = 160 km E of Wenzhou City, SW of East China Sea (27 °50'N, 122 °50'E)

Lower Wenzhou Formation

Middle Eocene

***Munseyella v-costata* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 45, 46, Pl. 3, figs. 1~3, 14, text-fig. 16

Holotype: CKUM 2000 (Pl. 3, figs. 1, 2), Paratypes: CKUM 2001 (Pl. 3, figs. 3, 14); CKUM 2002 (no figures)

Loc. 6 (2.5 km NW of Erhping station) or 13 (2.5 km SE of Tsaochiao station) = Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Munseyella japonica* (Hanai, 1957) (by Hu, 1986)]

***Murrayina japonica* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 86, 87, Pl. 12, figs. 3~8, text-fig. 19-1

Holotype: RV, UMUT CA 15860 (Pl. 12, figs. 3, 6, 8, text-fig. 19-1), Paratype: LV, UMUT CA 15861 (Pl. 12, figs. 4, 5, 7)

Loc. SW2 = An exposure along the Sawauchizawa River, 3.6 km N of Daishaka railway station, Namioka-machi, Minami-Tsugaru-gun, Aomori Prefecture (40 °47'13''N, 140 °35'14''E)

Daishaka Formation

Plio-Pleistocene

[Sample horizon = 17 m above the top surface of Key tuff bed (DT-5)]

***Mutilus ishizakii* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 5/6, p. 405, 408, figs. 6a~i, 7c, d, 11e~g

Holotype: CC male with appendages, MO 818 (=NSMT-Cr 15289) (figs. 6a~i, 7c, d), Allotype: CC female, MO 819 (no figures) (the specimen missing), Paratypes: CC male, MO 1035 (figs. 11e, f) (the specimen missing); LV female, MO 1036 (fig. 11g) (the specimen missing)

St. 10 = The intertidal zone, rocky shore, Iwaya, Kurashiki-shi, Okayama Prefecture (34 °29.4'N, 133 °37.5'E)

Recent

[=*Robustaurila ishizakii* (Okubo, 1980) (by Ikeya and Kashima, 1988)]

***Mutilus kianbesani* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 73, 75, Pl. 3, figs. 12, 24, text-fig. 10

Holotype: TNUM 4158, Paratype: TNUM 4157, Holotype: TNUM 4157 (Pl. 3, fig. 24), Paratype: TNUM 4157a (Pl. 3, fig. 12)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Mutilus kianohybridus* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 187~189, Pl. 4, figs. 21, 26, text-fig. 9

Holotype: CC, TNUM 7283 (Pl. 4, figs. 21, 26)

An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan
Hengchun Limestone

Pleistocene

[=*Robustaurila kianohybrida* (Hu, 1982) (by Hino and Ikeya, 1990)]

***Nearocytherura taiwanica* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 136, 137, Pl. 3, figs. 5, 10, 12, text-fig. 8

Holotype: CKUM 3796 (Pl. 3, fig. 12), Paratypes: CC, CKUM 3794 (Pl. 3, fig. 5); CKUM 3795 (Pl. 3, fig. 10); CKUM 3800 (no figures)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

Neocyprideis Hanai, 1959

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 3, p. 299, 300

Type species: *Neocyprideis pseudadonta* Hanai, 1959

[=Junior homonym of *Neocyprideis* Apostolescu, 1956. The new name, *Parakerithella* was proposed for *Neocyprideis* Hanai, 1959 by Hanai, 1959b, p. 418.]

***Neocyprideis periformis* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 75, 76, Pl. 10, figs. 18, 20, 29, text-fig. 7

Holotype: CC, TNUM 8211, Paratype: CC, TNUM 8212

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

[Three figures (Pl. 10, figs. 18, 20, 29) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8211, 8212).]

***Neocyprideis pseudadonta* Hanai, 1959**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 3, p. 300, Pl. 17, figs. 5~9, text-figs. 2a, b

Holotype: CC female, UMUT CA 2901 (Pl. 17, figs. 5a~5d, text-figs. 2a, b), Allotype: CC male, UMUT CA 2902 (Pl. 17, figs. 7a, b), Paratypes: CC immature form, UMUT CA 2903 (Pl. 17, figs. 8a~8d); CC female, UMUT CA 2904 (Pl. 17, figs. 6a, b); CC female, UMUT CA 2905 (Pl. 17, fig. 9)

The shore in front of the Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

[=*Parakerithella pseudadonta* (Hanai, 1959) (by Hanai,

1959b)]

***Neocytheretta aculeata* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 111, 112, Pl. 2, figs. 7, 12

Holotype: CC, CKUM 1042 (Pl. 2, figs. 7, 12), Paratype: CKUM 1043 (no figures)

Mc-1 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

***Neocytheretta branchia* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 200, 201, Pl. 3, figs. 12~15, text-fig. 11

Holotype: CKUM 3101 (Pl. 3, fig. 12), Paratypes: RV, CKUM 3102 (Pl. 3, fig. 13); LV, CKUM 3103 (Pl. 3, fig. 14); CC, CKUM 3104 (Pl. 3, fig. 15); CKUM 3105~3115 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

***Neocytheretta formosana* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 81, 82, Pl. 2, figs. 25, 28~30, text-fig. 19

Holotype: CC, TNUM 4142 (Pl. 2, figs. 29, 30), Paratypes: RV, TNUM 4140 (Pl. 2, fig. 25); RV, TNUM 4141 (Pl. 2, fig. 28)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Neocytherideis aoi* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 185, 186, Pl. 10, figs. 1~6, text-figs. 13-3, 4

Holotype: LV female, UMUT CA 9805 (Pl. 10, fig. 4, text-fig. 13-3), Paratypes: RV female, UMUT CA 9806 (Pl. 10, fig. 2, text-fig. 13-4); RV male, UMUT CA 9807 (Pl. 10, fig. 1); CC male, UMUT CA 9808 (Pl. 10, fig. 5); CC female, UMUT CA 9809 (Pl. 10, fig. 6); RV female, UMUT CA 9810 (Pl. 10, fig. 3)

Loc. 189 = An exposure, 3.5 km SSE of Kobayashi railway station, Imba-mura, Imba-gun, Chiba Prefecture (35° 47'52''N, 140°12'38''E)

Kioroshi Formation (Kioroshi Member)

Pleistocene

***Neocytherideis punctata* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 44, 45, Pl. 2, figs. 13a, 13b, 14a, 14b, 15~17, Pl. 6, fig. 11, Pl. 7, fig. 2; text-figs.

14a, b

Holotype: CC, IGSU-O-18 (Pl. 2, figs. 16, 17), Paratypes: CC, IGSU-O-17 (Pl. 2, figs. 13a, 13b, 14a, 14b, 15, Pl. 6, fig. 11, Pl. 7, fig. 2); CC, IGSU-O-71 (text-figs. 14a, b)
St. 52 = Off Enshu-nada, 2 km W of Imagire-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34 ° 40'22''N, 137 °34'48''E) (well-sorted medium sand, depth 5.6 m)
Recent

***Neomonoceratina crispata* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 27, 28, Pl. 1, figs. 1~5, text-fig. 2

Holotype: RV, CKUM 2048 (Pl. 1, figs. 3, 4), Paratypes: LV, CKUM 2049 (Pl. 1, figs. 1, 2); CKUM 2050 (Pl. 1, fig. 5)

Loc. 13 or 14 = 2.5 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miadi city, Taiwan

Cholan Formation

Upper Pliocene

***Neomonoceratina delicata* Ishizaki and Kato, 1976**

Takayanagi, Y. and Saito, T. (eds.), Progress in Micro-paleontology, Micropaleont. Press, Amer. Mus. Nat. Hist., New York, p. 136, 138, Pl. 3, figs. 7~10, Pl. 4, figs. 1~3, text-fig. 8

Holotype: LV, IGPS 91733 (Pl. 3, figs. 8~10), Paratypes: RV, IGPS 91732 (Pl. 3, fig. 7); RV, IGPS 91731 (Pl. 4, figs. 1, 2); LV, IGPS 91734 (Pl. 4, fig. 3, text-fig. 8)

Loc. 10 = A cliff, N of Sagara-cho, 375 m NE of Kitahara Post Office, Asahinabara, Hamaoka-cho, Ogasa-gun, Shizuoka Prefecture

Furuya Formation

Pleistocene

[Sample horizon 10B= Ca. 2 m below the top of Furuya Fm.]

***Neomonoceratina diptera* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 108, Pl. 1, figs. 19, 20

Holotype: CC, CKUM 1017 (Pl. 1, figs. 19, 20), Paratypes: CKUM 1018, 1019 (no figures)

Mc-4 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoali district, Taiwan

Chinshui Shale

Pliocene

***Neomonoceratina donghaiensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 149, 150, Pl. 166, figs. 6~9

Holotype: CC, DJ 0055a (Pl. 166, figs. 6, 7), Paratypes: CC, DJ 0055b (Pl. 166, figs. 8, 9); CC, DJ 0052; CC, DJ 0053 (no figures)

East China Sea

Lingfeng Formation

Paleocene

[=*Paijenborchella donghaiensis* (Liu, 1989) (by Yang *et al.*, 1990)]

***Neomonoceratina hatatatensis* (Ishizaki, 1966)**

[See *Paijenborchella hatatatensis* Ishizaki, 1966.]

***Neomonoceratina japonica* (Ishizaki, 1966)**

[See *Paijenborchella japonica* Ishizaki, 1966.]

***Neomonoceratina optima* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 149, 150, Pl. 166, figs. 6~9

Holotype: CC, DJ 0055a (Pl. 166, figs. 6, 7), Paratypes: CC, DJ 0055b (Pl. 166, figs. 8, 9); CC, DJ 0052; CC, DJ 0053 (no figures)

East China Sea

Lingfeng Formation

Paleocene

[= *Paijenborchella optima* (Liu, 1989) (by Yang *et al.*, 1990).]

***Neomonoceratina parva* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 150, Pl. 166, figs. 2, 3

Holotype: CC, DJ 0099 (Pl. 166, figs. 2, 3)

East China Sea

Lingfeng Formation

Paleocene

***Neonesidea hanaii* Yajima, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 146, p. 60, figs. 5-1, 2, 11-1a, b, 2a, b

Holotype: LV, UMUT CA 17979 (figs. 5-1, 11-1a, b), Paratype: RV, UMUT CA 17980 (figs. 5-2, 11-2a, b)

Loc. 1103 = An outcrop of Takamatsu, Atsumi-gun, Aichi Prefecture (34 °37'30''N, 137 °15'38''E)

Tahara Formation (Toshima Sand Member)

Pleistocene

[Sample horizon 1103 = Ca. 4 m above the base of Tonna Bed]

***Neonesidea mutsuensis* (Ishizaki, 1971)**

[See *Bairdia mutsuensis* Ishizaki, 1971.]

Neonesidea oligodentata* (Kajiyama, 1913)**[See *Bairdia oligodentata* Kajiyama, 1913.]Neonesidea posteroacuta* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 65, 66, Pl. 1, figs. 4a~c, 5a, b, 6

Holotype: LV, JC-1354 (Pl. 1, figs. 4a~c), Paratypes: LV, JC-1355 (Pl. 1, figs. 5a, b); CC, JC-1356 (Pl. 1, fig. 6)

No. 56 (GH84-3) = Ca. 36 km SE off Misaki, Tanegashima, Kagoshima Prefecture (30°33.4'N, 131°16.2'E) (muddy-fine to medium sand, depth 444 m)

Recent

Neopellucistoma Ikeya and Hanai, 1982

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 55, 56

Type species: *Neopellucistoma inflatum* Ikeya and Hanai, 1982***Neopellucistoma inflatum* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 56~58, Pl. 6, figs. 5a, 5b, 6a, 6b, 7~10, Pl. 7, fig. 6, text-fig. 19

Holotype: CC female, IGSU-O-35 (Pl. 6, figs. 5a, 5b, 6a, 6b, 7, 8, 10, Pl. 7, fig. 6), Paratypes: CC, IGSU-O-36 (Pl. 6, fig. 9); CC, IGSU-O-67 (text-figs. 19a, b)

St. 53 = Off Enshu-nada, 1.5 km SW of Imagire-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34°39'59"N, 137°34'09"E) (well-sorted fine sand, depth 13.2 m)

Recent

***Nereina japonica* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 143, 144, Pl. 19, figs. 1~4, text-fig. 1, figs. 3, 4

Holotype: LV, IGPS 87036 (Pl. 17, fig. 4, text-fig. 1, fig. 3), Paratypes: LV, IGPS 87034 (Pl. 19, fig. 2); RV, IGPS 87035 (Pl. 19, fig. 1); RV, IGPS 87038 (Pl. 17, fig. 3, text-fig. 1, fig. 4)

An exposure S of Yamada, Soma-mura, Nakatsugaru-gun, Aomori Prefecture

Higashimeya Formation

Pliocene

[=*Finmarchinella japonica* (Ishizaki, 1966) (by Hanai *et al.*, 1977)]***Nipponocythere* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 88

Type species: *Nipponocythere asamushiensis* Ishizaki, 1971***Nipponocythere asamushiensis* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 89, Pl. 1, fig. 1, Pl. 5, figs. 7, 12, 13, Pl. 6, fig. 2, Pl. 7, figs. 8, 11

Holotype: RV male, IGPS 91567 (Pl. 5, fig. 13, Pl. 7, figs. 8, 11), Paratypes: LV, IGPS 91568 (Pl. 5, fig. 12, Pl. 6, fig. 2); RV, IGPS 91569 (Pl. 1, fig. 1, Pl. 5, fig. 7)

Aomori Bay, Aomori Prefecture

Recent

[=*Nipponocythere bicarinata* (Brady, 1880) (by Hanai *et al.*, 1977)]***Nipponocythere bicarinata* (Brady, 1880)**[See *Cythere bicarinata* Brady, 1880.]***Nipponocythere delicata* Ishizaki and Kato, 1976**

Takayanagi, Y. and Saito, T. (eds.), Progress in Micro-paleontology, Micropaleont. Press, Amer. Mus. Nat. Hist., New York, p. 134, 136, Pl. 3, figs. 2~6

Holotype: LV, IGPS 91742 (Pl. 3, figs. 2, 3), Paratypes: RV male, IGPS 91741 (Pl. 3, fig. 6); LV female, IGPS 91743 (Pl. 3, figs. 4, 5)

Loc. 13 = A cliff, E of Hamaoka-cho, 750 m NW of Yokofune Elementary School, Asahina, Hamaoka-cho, Ogasa-gun, Shizuoka Prefecture

Furuya Formation

Pleistocene

[Sample horizon 13B = Ca. 5 m below the top of Furuya Fm.]

***Nipponocythere parva* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 148, Pl. 165, fig. 6

Holotype: CC, DJ 0062 (Pl. 165, fig. 6)

East China Sea

Oujiang Formation

Early Eocene

***Nipponocythere punctata* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 137, 138, Pl. 3, figs. 24, 28, text-fig 10

Holotype: CKUM 3798, Paratype: CKUM 3799

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[Two figures (Pl. 3, figs. 24 and 28) in the original description (Hu, 1978) cannot be correlated with each type specimen (CKUM 3798, 3799).]

***Nodobythere cristata* Schornikov, 1987**

Zool. Jour., v. 66, no. 7, p. 997, 999, figs. 1, 2-1~7

Holotype: CC male, FESC 1779 (figs. 1, 2-1~5), Paratypes: 2 females, 1 juvenile (A-1 Stage), 2 juveniles (A-4 Stage) (no numbers)

Off Urup Island, Kuril Islands (46°06.5'N, 150°07.5'E) (depth 100 m)

Recent

[The figures (figs. 2-6, 7) in the original description (Schornikov, 1987) cannot be correlated with each type specimen.]

***Nodosocosta* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 101

Type species: *Costa costa* Hu, 1977

***Nodosocosta costa* (Hu, 1977)**

[See *Nodosocosta costa* Hu, 1977.]

***Normanicysthere japonica* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 69, 70, Pl. 8, figs. 11~14, Pl. 9, figs. 1, 3

Holotype: RV female, UMUT CA 15774 (Pl. 8, figs. 11, 13, Pl. 9, fig. 3), Paratypes: RV male, UMUT CA 15775 (Pl. 8, figs. 12, 14); RV immature form, UMUT CA 15776 (Pl. 9, fig. 1); LV immature form, UMUT CA 15777 (Pl. 9, fig. 2)

Loc. SH1 = An exposure along riverbed of the Shoheizu River, 5 km E of Namioka railway station, Kita-nakano-kaitaku, Namioka-machi, Minami-Tsugaru-gun, Aomori Prefecture (40°42'45"N, 140°38'30"E)

Daishaka Formation

Plio-Pleistocene

***Obesostoma obesum* (Schornikov, 1974)**

[See *Paradoxostoma obesum* (Schornikov, 1974).]

***Oliganisus muratai* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 36, Pl. 1, figs. 8a~c

Holotype: RV, IGPS 78401 (Pl. 1, fig. 8a), Paratypes: LV, IGPS 78397 (Pl. 1, fig. 8c); RV, IGPS 78399 (Pl. 1, fig. 8b)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

***Orionina elongata* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 38, 39, Pl. 3, figs. 4, 12, 20, 21, text-fig. 10

Holotype: CC, CKUM 2012 (Pl. 3, figs. 20, 21), Paratype: RV, CKUM 2013 (Pl. 3, figs. 4, 12)

Loc. 14 = 2.5 km SE of Tsaochiaio station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Orionina* ? *elongata* Hu, 1976 (by Hanai *et al.*, 1980)]

***Orlovibairdia formosana* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 85, Pl. 2, figs. 9, 10, text-fig. 4

Holotype: LV, TNUM 7026 (Pl. 2, figs. 9, 10)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21°56.3'N, 120°48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Orthonotacythere sinensis* Yang, 1990**

Acta Micropalaeontologica Sinica, v. 7, no. 4, p. 372, Pl. 3, figs. 16, 17

Holotype: CC, 111250 (Pl. 3, figs. 16, 17)

Hole W6-1-1 (core) = 160 km E of Wenzhou City, SW of East China Sea (27°50'N, 122°50'E)

Lower Wenzhou Formation

Middle Eocene

Pacambocythere Malz, 1982

Senckenbergiana lethaea v. 63, nos. 5/6, p. 385

Type species: *Pacambocythere cytherelloidae* Malz, 1982

***Pacambocythere buntoniae* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 387, Pl. 3, figs. 12~18, table 2

Holotype: CC male, SMF Xe 12308 (Pl. 3, fig. 17), Paratypes: LV female, SMF Xe 12309a (Pl. 3, figs. 12a, b); CC male, SMF Xe 12309b (Pl. 3, fig. 15); RV female, SMF Xe 12309c (Pl. 3, figs. 16a, b); CC male, SMF Xe 12310a (Pl. 3, fig. 13); RV female, SMF Xe 12310b (Pl. 2, fig. 14); LV female, SMF Xe 12310c (Pl. 2, fig. 18); SMF Xe 12311~12315 (no figures)

Toukou, near Tsailuhsian, SW Taiwan

Szekou Formation

Pleistocene

10.5

***Pacambocythere cytherelloidae* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 386, 387, Pl. 2, figs. 4~10, table 2

Holotype: CC female, SMF Xe 12265 (Pl. 2, fig. 6), Paratypes: LV female, SMF Xe 12266 (Pl. 2, fig. 7); LV female, SMF Xe 12267 (Pl. 2, fig. 4); RV female, SMF Xe 12268a (Pl. 2, fig. 8); LV female, SMF Xe 12268b (Pl. 2, fig. 9); LV male, SMF Xe 12269a (Pl. 2, fig. 5); RV male, SMF Xe 12269b (Pl. 2, fig. 10); SMF Xe 12270~12272 (no figures)

SSW of Maanshan, SW Taiwan

Maanshan Formation

Pleistocene

***Pacambocythere ishizakii* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 46, Pl. 2, figs. 3a~c

Holotype: RUEG 120 (no figures), Paratype: RV, RUEG 121 (Pl. 2, figs. 3a~c)

Loc. 76121501A = Ca. 500 m SE of Shinzato, Sashiki-cho, Shimajiri-gun, Okinawa Prefecture (Type locality of Shinzato Formation) (26°9'40"N, 127°46'36"E)

Shinzato Formation

Pliocene

[Sample horizon = Ca. 5 m below the base of the upper most carbonized woods bed (bluish gray silt)]

***Pacambocythere japonica* (Ishizaki, 1968)**

[See *Ambocythere japonica* Ishizaki, 1968.]

***Pacambocythere humilitorus* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 387, 388, Pl. 1, fig. 3, Pl. 4, figs. 19~23, Pl. 5, figs. 24~27, table 2

Holotype: CC female, SMF Xe 12243 (Pl. 5, fig. 27), Paratype: LV female, SMF Xe 12328a (Pl. 4, fig. 20); RV female, SMF Xe 12328b (Pl. 1, figs. 3a~c, Pl. 4, figs. 22a, b); LV female, SMF Xe 12329a (Pl. 4, figs. 23a, b); CC female, SMF Xe 12329b (Pl. 5, fig. 26); RV male, SMF Xe 12329c (Pl. 5, fig. 25); CC female, SMF Xe 12329d (Pl. 5, fig. 26); RV female, SMF Xe 12330a (Pl. 4, fig. 19); CC female, SMF Xe 12330b (Pl. 4, fig. 21); RV female, SMF Xe 12331 (Pl. 5, fig. 24); SMF Xe 12332, 12333 (no figures)

SSW of Maanshan, SW Taiwan

Maanshan Formation

Pleistocene

***Pacambocythere mediopunctata* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 388, 389, Pl. 5, figs. 28~33, table 2

Holotype: CC female, SMF Xe 12285 (Pl. 5, fig. 33), Paratypes: LV female, SMF Xe 12286 (Pl. 5, fig. 29); RV female, SMF Xe 12287a (Pl. 5, fig. 28); LV male, SMF Xe 12287b (Pl. 5, fig. 31); RV female, SMF Xe 12288a (Pl. 5, fig. 30); LV female, SMF Xe 12288b (Pl. 5, fig. 32); SMF Xe 12289~12298 (no figures)

SSW of Maanshan, SW Taiwan

Maanshan Formation

Pliocene

***Pacambocythere semifacta* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 389, 390, Pl. 6, figs. 39~42, table 2

Holotype: LV male, SMF Xe 12299 (Pl. 6, fig. 41), Paratypes: RV male, SMF Xe 12300 (Pl. 6, fig. 40); RV female, SMF Xe 12301a (Pl. 6, fig. 39); LV female, SMF Xe 12301b (Pl. 6, fig. 42); SMF Xe 12302~12307 (no figures)

SSW of Maanshan, SW Taiwan

Maanshan Formation

Pliocene

***Pacambocythere similis* Malz, 1982**

Senckenbergiana lethaea v. 63, nos. 5/6, p. 389, Pl. 5, fig. 34, Pl. 6, figs. 35~38, table 2

Holotype: CC female, SMF Xe 12316 (Pl. 5, fig. 34), Paratypes: RV female, SMF Xe 12317a (Pl. 6, fig. 35);

LV female, SMF Xe 12317b (Pl. 6, fig. 37); RV male, SMF Xe 12318a (Pl. 6, fig. 36); LV male, SMF Xe 12318b (Pl. 6, fig. 38); SMF Xe 12319~12327 (no figures)

SSW of Maanshan, SW Taiwan

Maanshan Formation

Pliocene

***Paijenborchella alata* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 152, Pl. 167, fig. 7

Holotype: RV, DJ 0046 (Pl. 167, fig. 7)

East China Sea

Oujiang Formation

Early Eocene

***Paijenborchella convernosa* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 152, Pl. 167, figs. 5, 6

Holotype: CC, DJ 0047 (Pl. 167, figs. 5, 6)

East China Sea

Oujiang Formation

Early Eocene

***Paijenborchella favosa* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 153, Pl. 168, figs. 5~8

Holotype: RV, DJ 0050a (Pl. 168, fig. 5), Paratypes: LV, DJ 0050b (Pl. 168, fig. 6); RV, DJ 0050c (Pl. 168, fig. 7); LV, DJ 0050d (Pl. 168, fig. 8)

East China Sea

Oujiang Formation

Early Eocene

***Paijenborchella oujiangensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 152, 153, Pl. 168, figs. 1~4

Holotype: CC, DJ 0049 (Pl. 168, figs. 1, 2), Paratype: CC, DJ 0044 (Pl. 168, figs. 3, 4)

East China Sea

Oujiang Formation

Early Eocene

***Paijenbochella paica* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 115, 117, Pl. 12, figs. 1~5, 7, 8, text-fig. 5B

Holotype: CC female, TNUM 11285 (Pl. 12, fig. 5), Paratypes: 3 CC males, TNUM 11281~11283 (Pl. 12, figs. 1, 2, 4); CC, TNUM 11284 (Pl. 12, fig. 3); CC female, TNUM 11286 (Pl. 12, fig. 8); LV, TNUM 11287 (Pl. 12, fig. 7)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24°37.7'N, 120°45.1'E)

Tungshiao Formation (Nanwo Member)

Pleistocene

***Paijenborchella dissecta* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 187, figs. 26-20, 23, 25, 27, 28, text-fig. 5

figured specimens: CKUM 3507-3513

unfigured specimens: CKUM 3514-3516

Holotype: RV, CKUM 3613 (figs. 26-25, 28), Paratypes: CKUM 3611 (fig. 26-20); CKUM 3612 (figs. 26-27); CKUM 3614 (figs. 26-23)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Paijenborchella formosana* Hu, 1976 (by this paper). When *Paijenborchella formosana* was proposed by Hu (1976), he figured an internal view (Pl. 1, fig. 15) and an external view (Pl. 1, fig. 20) of the same specimen as the holotype specimen (CKUM 2021=LV). In Hu (1986), however, he identified Pl. 1, fig. 20 with *P. formosana* Hu, 1976, and Pl. 1, fig. 15 with *P. dissecta* Hu, 1977. *P. dissecta* was proposed after *P. formosana*, therefore, *P. dissecta* is recognized as the synonym of *P. formosana*.]

***Paijenborchella donghaiensis* (Liu, 1989)**

[See *Neomonoceratina donghaiensis* Liu, 1989.]

***Paijenborchella formosana* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 28, 29, Pl. 1, figs. 15, 18~20, text-fig. 3

Holotype: LV, CKUM 2021 (Pl. 1, figs. 15, 20), Paratypes: CKUM 2022; CKUM 2023; CKUM 2024, 2025 (no figures)

Loc. 13 or 14 = 2.5 km SE of Tsaochiaio station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[Two figures (Pl. 1, figs. 18 and 19) in the original description (Hu, 1976) cannot be correlated with each type specimen (CKUM 2022, 2023).]

***Paijenborchella hanaii* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p.67, 68, Pl. 3, figs. 3~10, text-fig. 18-5

Holotype: RV female, UMUT CA 15768 (Pl. 3, figs. 3, 8, 10), Paratypes: LV female, UMUT CA 15769 (Pl. 3, figs. 4, 7, 9);

RV male, UMUT CA 15770 (Pl. 3, fig. 5, text-fig. 18-5); LV immature form, UMUT CA 15771 (Pl. 3, fig. 6)

Loc. OT1 = An exposure along the Otanizawa River, 4 km SE of Tsurugasaka railway station, Magonai, Aomori-shi, Aomori Prefecture (40°45'10"N, 140°39'08"E)

Daishaka Formation

Plio-Pleistocene

***Paijenborchella hatatensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 154, 155, Pl. 19, figs. 16, 17

Holotype: LV, IGPS 87039 (Pl. 19, fig. 17), Paratype: RV, IGPS 87040 (Pl. 19, fig. 16)

A cliff near the Taihakan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

[=*Neomonoceratina hatatensis* (Ishizaki, 1966) (by Hanai *et al.*, 1977)]

***Paijenborchella japonica* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 155, 156, Pl. 19, figs. 14, 15

Holotype: LV, IGPS 87041 (Pl. 19, fig. 14), Paratype: RV, IGPS 87042 (Pl. 19, fig. 15)

A cliff near the Taihakan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

[=*Neomonoceratina japonica* (Ishizaki, 1966) (by Hanai *et al.*, 1977)]

***Paijenborchella miurensis* Hanai, 1970**

Jour. Paleont., v. 44, no. 4, p. 725, 726, Pl. 107, fig. 2, Pl. 108, figs. 2a~e, text-figs. 7C, D, 11H

Holotype: CC female, UMUT CA 3834 (Pl. 108, figs. 2c, d), Paratypes: UMUT CA 3833, CC female, UMUT CA 3835 (Pl. 108, fig. 2e); LV male, UMUT CA 3836 (Pl. 108, fig. 2b);

RV male, UMUT CA 3837 (Pl. 108, fig. 2a)

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

[=*Hanaiborchella miurensis* (Hanai, 1970) (by Ikeya and Itoh, 1991)]

***Paijenborchella optima* (Liu, 1989)**

[See *Neomonoceratina optima* Liu, 1989.]

***Paijenborchella shiocumbatzui* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 86, 87, Pl. 5, fig. 17, text-fig. 19

Holotype: CC, TNUM 8180 (Pl. 5, fig. 17)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

***Paijenborchella sinensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 151, Pl. 167, figs. 1, 2

Holotype: CC, DJ 0042 (Pl. 167, figs. 1, 2)

East China Sea

Oujiang Formation

Early Eocene

***Paijenborchella spinosa* Hanai, 1970**

Jour. Paleont., v. 44, no. 4, p. 726, Pl. 108, figs. 1a~e

Holotype: RV, UMUT CA 3838 (Pl. 108, fig. 1c), Paratypes: LV, UMUT CA 3839 (Pl. 108, fig. 1d); RV, UMUT CA 3840 (Pl. 108, fig. 1e); LV immature, UMUT CA 3841 (Pl. 108, fig. 1b); RV immature, UMUT CA 3842 (Pl. 108, fig. 1a)

Central reaches of Todorokigawa, Ishigaki, Island, Okinawa Prefecture (24°22'N, 124°13'E)

Pleistocene

[=*Hanaiborchella spinosa* (Hanai, 1970) (by this paper)]

***Paijenborchella triangularis* Hanai, 1970**

Jour. Paleont., v. 44, no. 4, p. 724, 725, Pl. 107, fig. 1, Pl. 108, figs. 3a~f, text-figs. 7A, B

Holotype: CC female, UMUT CA 3828 (Pl. 108, fig. 3d), Paratypes: LV female, UMUT CA 3829 (Pl. 108, fig. 3e); CC female, UMUT CA 3830 (Pl. 108, fig. 3f); RV male, UMUT CA 3831 (Pl. 108, fig. 3a); LV male, UMUT CA 3832 (Pl. 108, 3b)

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

[=*Hanaiborchella triangularis* (Hanai, 1970) (by Ikeya and Shiozaki, 1988)]

Recent

***Paijenborchella tsurugasakensis* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 65-67, Pl. 3, figs. 11-18, Pl. 20, fig. 3, text-fig. 18-4

Holotype: LV female, UMUT CA 15764 (Pl. 3, figs. 12, 15, 17, text-fig. 18-4), Paratypes: RV female, UMUT CA 15765 (Pl. 3, figs. 11, 16, 18, Pl. 20, fig. 3); RV male, UMUT CA 15766 (Pl. 3, fig. 13); LV male, UMUT CA 15767 (Pl. 3, fig. 14)

Loc. O5 = An exposure along the Otakizawa River, 2 km NW of Tsurugasaka railway station, Aomori-shi, Aomori Prefecture (40°48'07''N, 140°37'06''E)

Daishaka Formation

Plio-Pleistocene

***Palmoconcha irizukii* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 18, figs. 5-10, 9-7a~d, 8a~e, 9a~c

Holotype: CC male, SUM CO 1258 (figs. 9-7a~d), Paratypes: LV female, SUM CO 1259 (figs. 9-8a~e); RV female, SUM CO 1260 (figs. 9-9a~c); LV female, SUM CO 1261 (fig. 5-10)

Loc. 1-A15 = An outcrop, ca. 0.5 km NE of Fujina, Yatsuka-gun, Shimane Prefecture (35°25.5'N, 133°02.3'N)

Fujina Formation (Lower Member)

Middle Miocene

[Sample horizon = Ca. 5 m below the top of the Lower Member of Fujina Formation]

***Palusleptocythere migrans* Nakao and Tsukagoshi, 2002**

Species Diversity, v. 7, no. 1, p. 82~85, figs. 8A~L, 9A~J

Holotype: CC male, SUM CO 1138 (fig. 8A), Paratypes: CC male, SUM CO 1139 (fig. 8B); CC female, SUM CO 1140 (fig. 8C); CC female, SUM CO 1141 (fig. 8D); CC male, SUM CO 1142 (fig. 8E); CC female, SUM CO 1143 (fig. 8F); CC male, SUM CO 1144 (figs. 8G~L); CC male, SUM CO 1145 (fig. 9A); CC female, SUM CO 1146 (fig. 9B); male appendages, SUM CO 1147 (figs. 9C~J)

Loc. B = A small creek with associated flora of halophilous grass, at mouth of Obitsu River, Kisarazu-shi, Chiba Prefecture (35°24.6'N, 139°54.2'E) (muddy sand, depth 5 cm at lowest low tide)

Recent

***Palusleptocythere* Nakao and Tsukagoshi, 2002**

Species Diversity, v. 7, no. 1, p. 81, 82

Type species: *Palusleptocythere migrans* Nakao and Tsukagoshi, 2002

***Paracyprretta ? petila* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 423, 424, Pl. 1, figs. 6, 7

Holotype: RV, UMUT MA 8523 (Pl. 1, fig. 6), Paratype: RV, UMUT MA 8524 (Pl. 1, fig. 7)

Well at Tiehlipu, E Tiehli, Tiehli-hsien, Liaoning Province, Manchuria (depth 84.9~91.6 m)

Nengkiang Formation

Cretaceous

***Paracyprria inujimensis* (Okubo, 1980)**

[See *Thalassocyprria inujimensis* Okubo, 1980.]

***Paracypris donghaiensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 142, 143, Pl. 164, figs. 2, 3

Holotype: CC, DJ 0068 (Pl. 164, figs. 2, 3), Paratype: CC, DJ 0155 (no figure)

East China Sea

Oujiang Formation

Early Eocene

***Paracypris lenticularis* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 73, Pl. 8, figs. 13, 21, 22, text-fig. 4

Holotype: RV, TNUM 8035 (Pl. 8, fig. 22), Paratypes: RV, TNUM 8033 (Pl. 8, fig. 13); LV, TNUM 8034 (Pl. 8, fig. 21)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

***Paracypris orientalis* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 170, 171, Pl. 4, fig. 2, text-fig. 20

Holotype: LV, TNUM 7172 (Pl. 4, fig. 2)

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan

Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Paracytheridea ? minaminipponica* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 60, 61, Pl. 9, fig. 9; Pl. 12, fig. 5; Pl. 13, figs. 1~3, 19; Pl. 14, fig. 7

Holotype: LV, IGPS 97092 (Pl. 13, fig. 2), Paratypes: LV, IGPS 97089 (Pl. 13, fig. 19; Pl. 14, fig. 7); RV, IGPS 97090 (Pl. 9, fig. 9; Pl. 13, fig. 3); RV, IGPS 97091 (Pl. 12, fig. 5; Pl. 13, fig. 1)

St. 26 = E of Hainan (28°24.2'N, 124°14.0'E) (fine sand, depth 90 m)

Recent

***Paracytheridea bosoensis* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 403, 404, Pl. 50, figs. 6a, b, text-fig. 10, figs. 2a, b

Holotype: RV, UMUT CA 8415 (Pl. 50, fig. 6a, text-fig. 10, fig. 2b) (Sample no. 55), Paratype: LV, UMUT CA 8416 (Pl. 50, fig. 6b, text-fig. 10, fig. 2a)

Loc. 18 = An exposure, 200 m NNE of the Sengen Shrine, Hatazawa, Kisarazu-shi, Chiba Prefecture (35°20'53''N, 139°54'30''E)

Yabu Formation

Pleistocene

***Paracytheridea dissecta* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 163, 164, Pl. 1, figs. 8, 11, Pl. 3, fig. 13, text-fig. 13

Holotype: LV, TNUM 7109 (Pl. 1, figs. 8, 11), Paratype: LV, TNUM 7110 (Pl. 3, fig. 13)

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan

Maanshan Mudstone

Late Pliocene / Early Pleistocene

***Paracytheridea echinata* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 79, Pl. 2, figs. 14, 16, 17, 19, 26, text-fig. 16

Holotype: LV, TNUM 4131 (Pl. 2, figs. 16, 19), Paratypes: 3V, TNUM 4132~4134 (Pl. 2, figs. 14, 17, 26)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Paracytheridea minatogawae* Nohara, 1981**

Bull. Coll. Educ., Univ. Ryukyus, no. 25, pt. 2, p. 42, Pl. 1, fig. 1

Holotype: RUEG 59 (no figures), Paratypes: RV, RUEG 60 (Pl. 1, fig. 1); RV, RUEG 61 (no figures); LV, RUEG 62 (no figures)

Loc. 1 A-C = Minatogawa, Urazoe-shi, Okinawa Prefecture (26°15'48''N, 127°43'42''E)

Naha Formation

Pleistocene

***Paracytheridea minuta* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 135, 136, Pl. 3, figs. 22, 27, text-fig. 7

Holotype: LV, CKUM 3888 (Pl. 3, figs. 22, 27)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

***Paracytheridea neolongicaudata* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 141, Pl. 19, figs. 20~22

Holotype: LV, IGPS 87049 (Pl. 19, fig. 20), Paratypes: LV, IGPS 87051 (Pl. 19, fig. 21); RV, IGPS 87052 (Pl. 19, fig. 22)

A cliff near the Taihakusan station of the abandoned Akyu Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

***Paracytheridea polyspinosa* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 202, 203, Pl. 1, figs. 15~17, text-fig. 13

Holotype: CKUM 3028 (Pl. 1, fig. 15), Paratypes: RV, CKUM 3029 (Pl. 1, figs. 16, 17); CKUM 3030~3033 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

***Paracytheridea wawa* Hu, 1978**

Hu, 1978b, p. 134, 135, Pl. 3, figs. 26, 29, 32, text-fig. 6

Holotype: CKUM 3806, Paratype: CKUM 3805

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[Three figures (Pl. 3, figs. 26, 29 and 32) in the original description (Hu, 1978) cannot be correlated with each type specimen (CKUM 3805, 3806).]

***Paracytheroidea mutsuensis* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 91, Pl. 1, figs. 10, 11, Pl. 4, figs. 21~23

Holotype: CC, IGPS 91579 (Pl. 4, fig. 22), Paratypes: RV, IGPS 91580 (Pl. 1, fig. 11, Pl. 4, fig. 21); LV, IGPS 91581 (Pl. 1, fig. 10, Pl. 4, fig. 23)

St. 24 = Aomori Bay, Aomori Prefecture (40°53'33"N, 140°51'36"E) (adhering to plant, depth 5 m)

Recent

***Paracytheroidea tosaensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 37, Pl. 2, figs. 10, 11, Pl. 9, figs. 7, 8

Holotype: LV, IGPS 90297 (Pl. 2, fig. 10, Pl. 9, fig. 8), Paratype: RV, IGPS 90298 (Pl. 2, fig. 11, Pl. 9, fig. 7)

St. 212 = Uranouchi Bay, Kochi Prefecture (33°25'51"N, 133°24'51"E) (fine sand, depth 13 m)

Recent

***Paradoloria pellucida* (Kajiyama, 1912)**

[See *Cypridina pellucida* Kajiyama, 1912.]

***Paradoxostoma aculeoliferum* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 22, 23, fig. 10

Holotype: male, FESC 1123~1124, Paratypes: 15 females, 5 males, 4 juveniles (A-1 stage), 7 juveniles (A-2 stage), 8 juveniles (A-3 stage) (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[The figures (fig. 10) in the original description (Schornikov, 1975b) cannot be correlated with each type specimen.]

***Paradoxostoma affine* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 117~119, figs. 2g, h, p, 6b, 13a~i

Holotype: CC male with appendages, MO 429 (=NSMT-Cr 15290) (figs. 2g, h, 13a, b, d, e), Paratypes: CC male with appendages, MO 428 (fig. 13c) (the specimen missing); CC male with appendages, MO 430 (figs. 2p, 4b, 13f~i) (the specimen missing); CC female with appendages, MO 431 (=NSMT-Cr 15291) (no figures)

The intertidal zone, Mae-jima, Ushimado-cho, Oku-gun, Okayama Prefecture (34°36.0'N, 134°10.4'E)

Recent

[=Junior homonym of *Paradoxostoma affine* Scott, 1890. The new name was proposed as *Paradoxostoma hartmanni* Okubo, 1980 (by Okubo, 1980).]

***Paradoxostoma arcticum ochotense* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 203~206, text-fig. 39

Holotype: CC male, FESC 448~449, Paratypes: no numbers Kasatka Bay, Pacific seashore and probably in Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Island, Kuril Island Recent

[The figures (text-fig. 39) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma assimile* Okubo, 1978**

Proc. Japan Soc. Syst. Zool., no. 14, p. 12~14, text-figs. 2a~j, Pl. 1, figs. c, d, l

Holotype: CC male with appendages, MO 657 (=NSMT-Cr 15292) (text-figs. 2a, b, d, e, h~j), Allotype: CC female with appendages, MO 658 (=NSMT-Cr 15293) (no figures), Paratypes: CC male with appendages, MO 794 (=NSMT-Cr 15294) (no figures); CC female with appendage, MO 795 (=NSMT-Cr 15295) (text-fig. 2f); male appendage, MO 656 (text-fig. 2c) (the specimen missing); male appendage, MO 471 (text-fig. 2g) (the specimen missing)

The coast of Ootabu-jima, Hirase-cho, Wake-gun, Okayama Prefecture (34°40.9'N, 134°17.6'E)

Recent

***Paradoxostoma bingoense* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 110~112, figs. 1e, f, k, 5b, 9a~I

Holotype: CC male with appendages, MO 386 (=NSMT-Cr 15296) (no figures), Paratypes: CC male with appendages, MO 495 (=NSMT-Cr 15297) (figs. 1e, f, k, 5b, 9a~i) (the specimen missing); CC, MO 496 (no figures)

The intertidal zone of Ategi-jima, Numakuma-gun, Hiroshima Prefecture (34°19.7'N, 133°15.6'E)

Recent

[Paratype specimen (MO 495) is figured as figs. 1e, f, k, 5b, 9a~i, but the figure of holotype specimen (MO 386) is not shown.]

***Paradoxostoma brunneatum* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 18, 19, fig. 7A
Holotype: CC male with appendages, FESC 1117~1118 (fig. 7A), Paratypes: 3 females (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[=*Paradoxostoma brunneum brunneatum* Schornikov, 1975 (by Hanai *et al.*, 1977)]

***Paradoxostoma brunneum brunneatum* Schornikov, 1975**

[See *Paradoxostoma brunneatum* Schornikov, 1975.]

***Paradoxostoma brunneum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 207~209, text-fig. 41

Holotype: CC male, FESC 452~453, Paratypes: no numbers
Coastal water, Shikotan Island, Kuril Islands (on *Zostera*, depth 2.5 m)

Recent

[=*Brunnestoma brunneum* (Schornikov, 1974) (by Schornikov, 1993a). The figures (text-fig. 41) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma caudatum* Okubo, 1978**

Proc. Japan Soc. Syst. Zool., no. 14, p. 15~17, text-fig. 4a~j, Pl. 1, figs. g~j, m

Holotype: CC male with appendage, MO 803 (=NSMT-Cr 15298) (text-fig. 4c), Allotype: CC female with appendages, MO 654 (=NSMT-Cr 15299) (text-figs. 4a, b, d~j)

The coast of Nagasaki, S of Shodo-shima, Shodo-gun, Kagawa Prefecture (34 °28.7'N, 134 °12.6'E)

Recent

[=Junior homonim of *Paradoxostoma caudatum* Hartmann, 1974. The new name was proposed as *Paradoxostoma vandenboldi* Okubo, 1980 (by Okubo, 1980).]

***Paradoxostoma coniforme* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 5, 6, Pl. 1, figs. 30~33

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Paradoxostoma contendum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p.

200~202, text-fig. 37

Holotype: CC male, FESC 444~445, Paratypes: no numbers
The littoral zone of Krabovaya Bay, Shikotan Is., Kuril Islands

Recent

[The figures (text-fig. 37) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma convexum* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 115~117, figs. 2e, f, m, o; 4c~e, 6a, 12a~i

Holotype: CC male with appendages, MO 504 (=NSMT-Cr 15300) (figs. 2o, 6a, 12a, b, e), Paratypes: CC male with appendages, MO 503 (=NSMT-Cr 15301) (figs. 2e, f, m, 12c, d, f~i); CC female with appendages, MO 505 (=NSMT-Cr 15302) (no figures); CC juvenile (A-1 stage), MO 506 (fig. 4e) (the specimen missing); CC female, MO 510 (no figures) (the specimen missing); CC female with appendages, MO 511 (fig. 4d) (the specimen missing)

The intertidal zone, near the Mukaishima Marine Biological Station, Hiroshima University, Mukaishima-cho, Mitsugi-gun, Hiroshima Prefecture (34 °21.7'N, 133 °13.2'E)

Recent

[=Junior homonim of *Paradoxostoma convexum* Schornikov, 1965. The new name was proposed as *Paradoxostoma inabai* Okubo, 1980 (by Okubo, 1980).]

***Paradoxostoma denticulatum* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 124, figs. 3i~k, 5d, 17a~i

Holotype: CC male with appendages, MO 373 (=NSMT-Cr 15303) (figs. 3i~k, 5d, 17a~i)

The intertidal zone, Wasa-jima, Marugame-shi, Kagawa Prefecture (34 °23.4'N, 133 °47.4'E)

Recent

***Paradoxostoma depressum* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 119, 120, figs. 2i, j, n, 4b, 6c, 14a~i

Holotype: CC male with appendages, MO 408 (=NSMT-Cr 15304) (figs. 2i, j, n, 6c, 14a, b), Paratype: RV female, MO 403 (4b) (the specimen missing); CC female with appendages, MO 409 (=NSMT-Cr 15305) (figs. 14c~i)

The intertidal zone, Ko-jima, Hinase-cho, Wake-gun, Okayama Prefecture (34 °41.6'N, 134 °15.9'E)

Recent

***Paradoxostoma elongatum* Okubo, 1978**

Proc. Japan Soc. Syst. Zool., no. 14, p. 14, text-figs. 3a~i, Pl. 1, figs. e, f

Holotype: CC female with appendages, MO 694 (=NSMT-Cr 15306) (text-figs. 3a~i)

The intertidal zone, Ohama, Kurashiki-shi, Okayama

Prefecture (34°25.6'N, 133°49.4'E)

Recent

[=Junior homonym of *Paradoxostoma elongata* [sic] Puri, 1954. The new name was proposed as *Paradoxostoma sohni* Okubo, 1980 (by Okubo, 1980).]

***Paradoxostoma ezoense* Hiruta, 1975**

Jour. Fac. Sci., Hokkaido Univ., Ser. 6 (Zool.), v. 20, no. 1, p. 133~139, Pl. 4, fig. 4, text-figs. 9-1~2, 10-1~3, 11-1~5, 12-1~5

Lectotype: CC male with appendages, ZIHU 2136 (figs. 9-1,2, 11-1,2,4,5, 12-1~4), Paralectotypes: CC female with appendages, ZIHU 2137 (fig. 10-1~3); CC female with appendages, ZIHU 2138 (no figures); CC female with appendages, ZIHU 2139 (no figures); CC male with appendages, ZIHU 2140 (no figures); CC male with appendages, ZIHU 2141 (figs. 11-3, 12-5, Pl. 4, fig. 4) Oshoro Bay, Oshoro, W. of Otaru-shi, Ishikari Bay, Hokkaido (43°13'N, 140°52'E) (on algae, depth 0~1 m)

Recent

[=*Paradoxostoma faccidum* Schornikov, 1975 (by Hanai *et al.*, 1977). Hiruta (1975) presented 3 males and 3 females as the type specimens (syntypes), but failed to designate holotype. In this paper, therefore, the male specimen (ZIHU 2136) is designated as the lectotype by Hiruta.]

***Paradoxostoma faccidum* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 25~27, fig. 13

Holotype: male, FESC 1127~1128, Paratypes: 4 males, 6 females, 4 juveniles (A-1 stage), 2 juveniles (A-2 stage) (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[The figures (fig. 13) in the original description (Schornikov, 1975b) cannot be correlated with each type specimen.]

***Paradoxostoma fragile* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 120~122, figs. 3a~c, 6d, 15a~i

Holotype: CC male with appendages, MO 426 (=NSMT-Cr 15307) (figs. 3a, b, 15a~d, g, h), Paratypes: CC with appendages, MO 418 (=NSMT-Cr 15308) (no figures); CC male with appendages, MO 424 (figs. 3a, 6d, 15e, f, i); CC female with appendages, MO 427 (=NSMT-Cr 15309) (no figures)

The intertidal zone, Mae-jima, Ushimado-cho, Oku-gun, Okayama Prefecture (34°36.0'N, 134°10.4'E)

Recent

***Paradoxostoma gibberum* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 19, 20, fig. 8

Holotype: male, FESC 1119~1120, Paratypes: 1 male, 3

females (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[The figures (fig. 8) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma hartmanni* Okubo, 1980**

[See *Paradoxostoma affine* Okubo, 1977.]

***Paradoxostoma honssuense* Schornikov, 1975**

[See *Paradoxostoma honssuensis* Schornikov, 1975.]

***Paradoxostoma honssuensis* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 21, 22, fig. 9

Holotype: male, FESC 1121~1122, Paratypes: 3 females, 1 juveniles (A-1 stage) (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[=*Paradoxostoma honssuense* Schornikov, 1975 (by Hanai *et al.*, 1977). The figures (fig. 9) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma inabai* Okubo, 1980**

[See *Paradoxostoma convexum* Okubo, 1977.]

***Paradoxostoma japonicum* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 28, 29, fig. 15

Holotype: CC male with appendages, FESC 1131~1132 (fig. 15)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

***Paradoxostoma kunashiricum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 200, text-fig. 36

Holotype: CC male, FESC 442~443, Paratypes: no numbers Ivanovskiy Peninsula, Kunashir Island, Kuril Islands (depth 4~6 m)

Recent

[The figures (text-fig. 36) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma kurilense* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 198, 199, text-fig. 35

Holotype: CC male, FESC 440~441, Paratypes: no numbers

The littoral zone of Krabovaya Bay, Shikotan Island, Kuril Islands

Recent

[The figures (text-fig. 35) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma lunatum* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 122~124, figs. 3d~h, 6 e, 16a~j

Holotype: CC female with appendages, MO 491 (=NSMT-Cr 15310) (figs. 16a~d, g~i), Paratypes: CC female with appendages, MO 382 (=NSMT-Cr 15311) (figs. 3g, h, 16f); CC male with appendages, MO 415 (figs. 3d~f, 6e, 16j); CC female with appendages, MO 447 (fig. 16e)

The intertidal zone, near the Mukaishima Marine Biological Station, Hiroshima University, Mukaishima-cho, Mitsugi-gun, Hiroshima Prefecture (34 °21.7'N, 133 °13.2'E)

Recent

***Paradoxostoma micum* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 24, 25, fig. 12

Holotype: female, FESC 1125~1126, Paratypes: 4 specimens, 2 males, 4 juveniles (A-1 stage), 2 juvenile (A-2 stage) (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[The figures (fig. 12) in the original description (Schornikov, 1975b) cannot be correlated with each type specimen.]

***Paradoxostoma nigromaculatum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 196, 197, text-fig. 33

Holotype: CC male, FESC 436~437, Paratypes: no numbers
Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (text-fig. 33) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma obesum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 206, 207, text-fig. 40

Holotype: CC female, FESC 450~451, Paratypes: no numbers
Lower littoral zone of Krabovaya Bay, Shikotan Is., Kuril Islands

Recent

[=*Obesostoma obesum* (Schornikov, 1974) (by Schornikov, 1994). The figures (text-fig. 40) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma oblongum* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 6, Pl. 1, figs. 34, 35

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Paradoxostoma ondae* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 202, 203, text-fig. 38

Holotype: CC female, FESC 446~447, Paratypes: no numbers
The SW shore of Kamchatka Peninsula, Russia (on algae, depth 1~5 m)

Recent

[The figures (text-fig. 38) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma oshoroense* Hiruta, 1975**

Jour. Fac. Sci., Hokkaido Univ., Ser. 6 (Zool.), v. 20, no. 1, p. 127~133, Pl. 4, fig. 3, text-figs. 7-1~9, 8-1~6

Lectotype: CC male with appendages, ZIHU 2130 (figs. 7-1,2, 8-5,6), Paralectotypes: CC female with appendages, ZIHU 2131 (figs. 7-3~9, 8-1~4); CC female with appendages, ZIHU 2132 (no figures); CC female with appendages, ZIHU 2133 (no figures); CC male with appendages, ZIHU 2134 (Pl. 4, fig. 3); CC male with appendages, ZIHU 2135 (no figures)
Oshoro Bay, Oshoro, W of Otaru-shi, Ishikari Bay, Hokkaido (43 °13'N, 140 °52'E) (on algae, depth 0~1 m)

Recent

[Hiruta (1975) presented 3 males and 3 females as the type specimens (syntypes), but failed to designate holotype. In this paper, therefore, the male specimen (ZIHU 2130) is designated as the lectotype by Hiruta.]

***Paradoxostoma ovulare* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 6, Pl. 1, figs. 36, 40

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Paradoxostoma pedale* Hiruta, 1975**

Jour. Fac. Sci., Hokkaido Univ., Ser. 6 (Zool.), v. 20, no. 1, p. 118~123, Pl. 4, fig. 1, text-figs. 1-1~7, 2-1~4, 3-1~6

Lectotype: CC male with appendages, ZIHU 2116 (figs. 1-3,4,7, 2-3,4, 3-1~5, Pl. 4, fig. 1), Paralectotypes: CC female with appendages, ZIHU 2117 (fig. 3-6); CC female with appendages, ZIHU 2118 (figs. 1-5,6) (shell specimen missing); CC female with appendages, ZIHU 2119 (no figures); CC female with appendages, ZIHU 2120 (no figures); CC male with appendages, ZIHU 2121 (figs. 1-1,2,

2-1,2); CC male with appendages, ZIHU 2122 (no figures); CC male with appendages, ZIHU 2123 (no figures)
Oshoro Bay, Oshoro, W. of Otaru-shi, Ishikari Bay, Hokkaido (43 °13'N, 140 °52'E) (on algae, depth 0~1 m)

Recent

[Hiruta (1975) presented 4 males and 4 females as the type specimens (syntypes), but failed to designate holotype. In this paper, therefore, the male specimen (ZIHU 2116) is designated as the lectotype by Hiruta.]

***Paradoxostoma pilosum* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 6, Pl. 1, figs. 37, 38

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Paradoxostoma quadratum* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 6, 7, Pl. 1, fig. 39

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Paradoxostoma rhomboideum* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 125~127, figs. 3l~n, 5e, 18a~i

Holotype: CC male with appendages, MO 412 (=NSMT-Cr 15312) (figs. 3l, m, 18a~d, f~i), Paratypes: female appendage, MO 419 (fig. 18e) (the specimen missing); CC females with appendages, MO 420 (=NSMT-Cr 15313) (no figures); CC female, MO421 (no figures); CC male with appendages, MO 422 (=NSMT-Cr 15314) (figs. 3n, 5e)

The intertidal zone, Mae-jima, Ushimado-cho, Oku-gun, Okayama Prefecture (34 °36.0'N, 134 °10.4'E)

Recent

***Paradoxostoma setoense* Schornikov, 1975**

[See *Paradoxostoma setoensis* Schornikov, 1975.]

***Paradoxostoma setoensis* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 27, 28, fig. 14

Holotype: female, FESC 1129~1130, Paratypes: 1 female, 1 male (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[=*Paradoxostoma setoense* Schornikov, 1975 (by Hanai *et al.*, 1977).]

***Paradoxostoma setosum* Okubo, 1977**

Publ. Seto Mar. Biol. Lab., v. 24, nos. 1/3, p. 127~129, figs. 4f~h, 19a~h

Holotype: CC male with appendages, MO 423 (=NSMT-Cr 15315) (figs. 4f~h, 19a~h)

The intertidal zone, Mae-jima, Ushimado-cho, Oku-gun, Okayama Prefecture (34 °36.0'N, 134 °10.4'E)

Recent

***Paradoxostoma sohni* Okubo, 1980**

[See *Paradoxostoma elongatum* Okubo, 1978.]

***Paradoxostoma spineum* Hiruta, 1975**

Jour. Fac. Sci., Hokkaido Univ., Ser. 6 (Zool.), v. 20, no. 1, p. 123~127, Pl. 4, fig. 2, text-figs. 4-1~6, 5-1~5, 6-1~6

Lectotype: CC male with appendages, ZIHU 2124 (figs. 6-6, Pl. 4, fig. 2), Paralectotypes: CC female with appendages, ZIHU 2125 (figs. 4-1,2,5,6, 5-1,2,4,5, 6-1~4); CC female with appendages, ZIHU 2126 (no figures); CC female with appendages, ZIHU 2127 (no figures); CC male with appendages, ZIHU 2128 (figs. 4-3,4, 5-3, 6-5); CC male with appendages, ZIHU 2129 (no figures)

Oshoro Bay, Oshoro, W. of Otaru-shi, Ishikari Bay, Hokkaido (43 °13'N, 140 °52'E) (on algae, depth 0~1 m)

Recent

[Hiruta (1975) presented 3 males and 3 females as the type specimens (syntypes), but failed to designate holotype. In this paper, therefore, the male specimen (ZIHU 2124) is designated as the lectotype by Hiruta.]

Recent

[Hiruta (1975) presented 3 males and 3 females as the type specimens (syntypes), but failed to designate holotype. In this paper, therefore, the male specimen (ZIHU 2124) is designated as the lectotype by Hiruta.]

***Paradoxostoma subcyloidea* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 169, 170, Pl. 4, figs. 6, 8, 10, 12, text-fig. 19

Holotype: TNUM 7176, Paratypes: TNUM 7177~TNUM 7179

Outcrop along the N side of the Hengchun to Olanp: highway, the Nanwa Bay area, Hengchun Peninsula, southern Taiwan
Maanshan Mudstone

Late Pliocene / Early Pleistocene

[=*Neocytherideis subcycloides* (Hu, 1983) (by Hu, 1984). Four figures (Pl. 4, figs. 6, 8, 10, 12) in the original description (Hu, 1983) cannot be correlated with each type specimen (TNUM 7176~7179).]

[=*Neocytherideis subcycloides* (Hu, 1983) (by Hu, 1984). Four figures (Pl. 4, figs. 6, 8, 10, 12) in the original description (Hu, 1983) cannot be correlated with each type specimen (TNUM 7176~7179).]

***Paradoxostoma taiwanica* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 84, Pl. 10, fig. 12, text-fig. 16

Holotype: RV, TNUM 8203 (Pl. 10, fig. 12)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

[=*Sclerochilus taiwanica* (Hu, 1984) (by Hu, 1986)]

***Paradoxostoma triangulum* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 7, Pl. 1, figs. 41, 42

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Paradoxostoma ussuricum* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 197, 198, text-fig. 34

Holotype: CC male, FESC 438~439, Paratypes: no numbers Kuril Islands (on algae, depth 3~4 m)

Recent

[=*Boreostoma ussuricum* (Schornikov, 1974) (by Schornikov, 1993a). The figures (text-fig. 34) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Paradoxostoma vandenboldi* Okubo, 1980**

[See *Paradoxostoma caudatum* Okubo, 1978.]

***Paradoxostoma yatsui* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 7, Pl. 1, figs. 43~49

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

Paraeoleperditia Adachi and Igo, 1980

Proc. Japan Acad., v. 56 (B), no. 8, p. 504~506

Type species: *Paraeoleperditia fukujiensis* Adachi and Igo, 1980

***Paraeoleperditia fukujiensis* Adachi and Igo, 1980**

Proc. Japan Acad., v. 56 (B), no. 8, p. 506, 507, figs. 1~4

Holotype: LV, IGUT 5269 (figs. 1, 2), Paratypes: RV, IGUT 5270~5275

Ichinotani Valley, Fukuji, Yoshiki-gun, Gifu Prefecture

Yoshiki Formation

Ordovician

***Parakrithe japonica* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 69, 70, Pl. 2, figs. 5a~c, 6

Holotype: LV, JC-1364 (Pl. 2, figs. 5a~c), Paratype: RV, JC-1365 (Pl. 2, fig. 6)

No. 301 (GH83-2) = Hyuga-nada, ca. 45 km SE off Miyazaki-shi, Miyazaki Prefecture (31°41.5'N, 131°46.1'E) (muddy fine sand, depth 360 m)

Recent

***Parakrithe subjaponica* Zhou, 1995**

Mem. Fac. Sci., Kyoto Univ. Ser. Geol. & Mineral., v. 57, no. 2, p. 70, 71, Pl. 2, figs. 8a~c, 9

Holotype: LV, JC-1366 (Pl. 2, figs. 8a~c), Paratype: RV, JC-1367 (Pl. 2, fig. 9)

No. 47 (GH82-2) = Kumano-nada, ca. 25 km SW off Daio-zaki, Mie Prefecture (34°06.6'N, 136°35.5') (very fine sand, depth 351 m)

Recent

Parakrithella Hanai, 1959

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 11, pt. 4, p. 418

Type species: *Neocyprideis pseudadonta* Hanai, 1959

[See *Neocyprideis Hanai*, 1959 (by Hanai, 1959).]

***Parakrithella oblongata* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 149, 150, Pl. 2, figs. 18~21, text-fig. 23

Holotype: CKUM 3778 (Pl. 2, fig. 18), Paratypes: CKUM 3779 (Pl. 2, fig. 20); CKUM 3780 (Pl. 2, fig. 21); RV, CKUM 3781 (Pl. 2, fig. 19)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

***Parakrithella pseudadonta* (Hanai, 1959)**

[See *Neocyprideis pseudadonta* Hanai, 1959.]

***Paraparchites hanaii* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 36, 37, Pl. 1, figs. 9a~c

Holotype: CC, IGPS 78404 (Pl. 1, figs. 9a~c)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

***Parasterope jenseni* Poulsen, 1965**

Dana-Report, Copenhagen, Carlsberg, Fdn., v. 57, p. 387~391, text-fig. 128

Holotype: female, ZMUC-collection, Paratype: female, ZMUC-collection

Okinose, Sagami Bay (depth 180 m)

Recent

***Parasterope obesa* Poulsen, 1965**

Dana-Report, Copenhagen, Carlsberg, Fdn., v. 57, p. 364~367, text-fig. 120

Holotype: CC female with 12 embryos, ZMUC-collection

Misaki, Miura-shi, Kanagawa Prefecture (shallow water)

Recent

***Patagonacythere robusta* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 77, 78, Pl.

9, figs. 4~12, text-fig. 20-1

Holotype: RV female, UMUT CA 15818 (Pl. 9, fig. 4), Paratypes: LV female, UMUT CA 15819 (Pl. 9, figs. 5, 10); RV male, UMUT CA 15820 (Pl. 9, figs. 6, 11, text-fig. 20-1); LV male, UMUT CA 15821 (Pl. 9, fig. 7); CC male, UMUT CA 15822 (Pl. 9, fig. 12); RV immature form, UMUT CA 15823 (Pl. 9, fig. 8); LV immature form, UMUT CA 15824 (Pl. 9, fig. 9)

Loc. SH1 = An exposure along riverbed of the Shoheizu River, 5 km E of Namioka Railway station, Kita-nakano-kaitaku, Namioka-machi, Minami-Tsugaru-gun, Aomori Prefecture (40°42'45''N, 140°38'30''E)

Daishaka Formation

Plio-Pleistocene

***Patagonacythere sasaokensis* Irizuki, 1993**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 170, p. 208, figs. 2-21, 13-5~8c

Holotype: RV female, IGPS 101824 (figs. 13-8a~c) (Loc. HIR-5S), Paratypes: LV female, IGPS 101822 (figs. 13-6a, b) (Loc. SUN-1S); LV male, IGPS 101821 (fig. 13-5) (Loc. HIR-3S); RV male, IGPS 101823 (figs. 2-21, 13-7) (Loc. HIR-3S)

Locality HIR-5S, Akita-city, Akita Prefecture (39°44'25''N, 140°13'59''E)

Sasaoka Formation

Upper Pliocene

***Patagonacythere sendaiensis* Ishizaki, Fujiwara and Irizuki, 1996**

Proc. 2nd European Ostracodologists Meeting, Glasgow (1993), p. 118, 119, Pl. 1, figs. 10~13

Holotype: RV, IGPS 102452 (Pl. 1, fig. 10), Paratypes: LV, IGPS 102453 (Pl. 1, fig. 11); LV, IGPS 102454 (Pl. 1, figs. 12, 13)

A riverbank outcrop of the Natori River S of Kagitori near the southern border of Sendai-shi, Miyagi Prefecture

Tsunaki Formation

Upper Miocene

***Pectocythere daishakaensis* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 59, 60, Pl. 2, figs. 1~7, text-figs. 16-1, 2

Holotype: LV female, UMUT CA 15749 (Pl. 2, figs. 2, 5, text-fig. 16-1), Paratypes: CC female, UMUT CA 15750 (Pl. 2, fig. 1); CC female, UMUT CA 15751 (Pl. 2, fig. 7); RV male, UMUT CA 15752 (Pl. 2, figs. 3, 6, Text-fig. 16-2); CC male, UMUT CA 15753 (Pl. 2, fig. 4)

Loc. TA1 = An exposure along the Takizawa River, 7 km NE of Namioka railway station, Namioka-machi, Minami-Tsugaru-gun, Aomori Prefecture (40°44'39''N, 140°38'57''E)

Daishaka Formation

Plio-Pleistocene

Pectocythere Hanai, 1957

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 474

Type species: *Pectocythere quadrangulata* Hanai, 1957

***Pectocythere pseudoamphidonta* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 475~477, Pl. 11, figs. 4a~c, text-fig. 2

Holotype: LV, UMUT CA 2596 (Pl. 11, fig. 4a, text-fig. 2), Paratype: CC, UMUT CA 2597 (Pl. 11, figs. 4b, c)

The valley of Toshihetsu-gawa, about 800 m W of Omagari, Toshihetsu-mura, Setana-gun Hokkaido

Setana Formation

Upper Pliocene

***Pectocythere quadrangulata* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 474, 475, Pl. 11, figs. 3a, b, text-figs. 6a, b

Holotype: CC, UMUT CA 2594 (Pl. 11, figs. 3a, b, text-figs. 6a, b), Paratype: CC, UMUT CA 2595

The valley of Toshihetsu-gawa, about 800 m W of Omagari, Toshihetsu-mura, Setana-gun, Hokkaido

Setana Formation

Upper Pliocene

***Pellucistoma ovaliphylla* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 105, Pl. 2, fig. 5, text-fig. 26

Holotype: TNUM 7021 (Pl. 2, fig. 5)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21°56.3'N, 120°48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

Pleistocene

[=*Paradoxostoma ovaliphylla* (Hu, 1981) (by Hu, 1984)]

***Perissocytheridea formosana* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 77, 78, Pl. 5, figs. 1~4, 6, 7, text-fig. 9

Holotype: TNUM 8169, Paratypes: TNUM 8170~8172, 8174; RV, TNUM 8173 (Pl. 5, fig. 6)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

[=*Clithrocytheridea trapeziformis* (Hou and Chen, 1982) (by Hu, 1986). Five figures (Pl. 5, figs. 1~4, 7) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8169~8172, 8174).]

***Perissocytheridea haha* Hu, 1977**

Proc. Geol. Soc. China, no. 20, p. 84, 85, Pl. 1, figs. 13, 14, 23, text-fig. 3

Holotype: CKUM 3729 (Pl. 1, fig. 13), Paratypes: CKUM

3730; CKUM 3731

The left bank of the Houlung River, S of Kueishan, Miaoli Area, Taiwan

Toukoshan Formation

Pleistocene

[Two figures (Pl. 1, figs. 14 and 23) in the original description (Hu, 1977a) cannot be correlated with each type specimen (CKUM 3730, 3731).]

***Perissocytheridea japonica* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 18, Pl. 1, fig. 4, Pl. 3, figs. 4, 5

Holotype: CC, IGPS 90204 (Pl. 1, fig. 4, Pl. 3, figs. 4, 5)

St. 21 = Uranouchi Bay, Kochi Prefecture (33°25'54''N, 133°26'44''E) (fine sand, depth 2.5 m)

Recent

[=*Perissocytheridea* ? *japonica* Ishizaki, 1968 (by Nakao and Tsukagoshi, 2002)]

***Perissocytheridea oblonga* Hu, 1976**

Proc. Geol. Soc. China, no. 19, P. 47, 48, Pl. 3, figs. 18, 22, 23, 26, 27, text-fig. 18

Holotype: RV, CKUM 2051 (Pl. 3, figs. 18, 26), Paratypes: CKUM 2052; CKUM 2053

Loc. 13 = 2.5 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Clithrocytheridea oblonga* (Hu, 1976) (by Hu, 1986). Three figures (Pl. 3, figs. 22, 23 and 27) in the original description (Hu, 1976) cannot be correlated with each type specimen (CKUM 2052, 2053).]

***Philomedes horikoshii* Hiruta, 1987**

Res. Crustacea, no. 16, p. 47~55, figs. 2-1~6, 3-1~6, 4-1~4, 5-1~4

Holotype: CC female with appendages, ZIHU 2245 (figs. 2-1~6, 3-1~6, 4-1~4, 5-1~4) (shell specimen missing)

St. T-1 = Off Toi, Suruga Bay (34°54.6'~55.4'N, 138°45.8'E) (mud, depth 125~130 m)

Recent

***Philomedes ijimai* Kajiyama, 1912**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 24, no. 289, p. 614, Pl.9, figs. 20~22

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Philomedes japonica* G. W. Müller, 1890**

Zool. Jahrb. System., no. 5, p. 236, 237, Pl. 25, figs. 18, 19, Pl. 26, figs. 5, 6, 11, 13, 18, Pl. 27, figs. 26, 27, 29, 31, 32

Syntypes: 20 females, 2 males, ZMB collection (the number

of ZMB 6906 is given for a part of the specimens. (by Yajima, 1997, p. 31, fig. 10))

Off Enoshima, Fujisawa-shi, Kanagawa Prefecture (depth ca. 18~22 m)

Recent

[=*Euphilomedes japonica* (G. W. Müller, 1890) (by Poulsen, 1962). The specimens of G. W. Müller were collected by F. Hilgendorf in the period of 1873 to 1876 (G. W. Müller, 1890).]

***Philomedes sordida* G. W. Müller, 1890**

Zool. Jahrb. System., no. 5, p. 237, 238, Pl.25, fig. 17, Pl. 26, fig. 17, Pl. 27, figs. 28, 33

Syntypes: 12 females, ZMB collection (the number of ZMB 6907 is given for a part of the specimens. (by Yajima, 1997, p. 31, fig. 10))

Port of Hakodate, Hokkaido

Recent

[=*Euphilomedes sordida* (G. W. Müller, 1890) (by Poulsen, 1962). The specimens of G. W. Müller were collected by F. Hilgendorf in the period of 1873 to 1876 (G. W. Müller, 1890).]

***Phlyctocythere hamanensis* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 52, 53, Pl. 4, figs. 1a, 1b, 2a, 2b, 3, 4, Pl. 6, figs. 12, 13, text-figs. 17a, b

Holotype: CC, IGSU-O-21 (Pl. 4, figs. 1a, 1b, 2a, 2b, 3, 4, Pl. 6, figs. 12, 13), Paratype: CC, IGSU-O-68 (text-figs. 17a, b)

St. 51 = Off Enshu-nada, 3 km WSW of Imagire-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34°39'56''N, 137°35'12''E) (well-sorted fine sand, depth 13.6 m)

Recent

***Phlyctocythere japonica* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 62, 63, Pl. 11, fig. 13; Pl. 12, fig. 10; Pl. 13, figs. 11, 12, 13a, b; Pl. 14, fig. 4

Holotype: LV, IGPS 97086 (Pl. 12, fig. 10; Pl. 13, fig. 12), Paratypes: RV, IGPS 97087 (Pl. 11, fig. 13; Pl. 13, figs. 13a, b; Pl. 14, fig. 4); RV, IGPS 97088 (Pl. 13, fig. 11)

St. 7 = Off Haimen (27°58.0'N, 123°5.0'E) (fine sand, depth 80 m)

Recent

***Phlyctocythere yueyunnae* Hu, 1986**

Jour. Taiwan Mus., v. 39, no. 1, p. 162, 163, Pl. 19, figs. 14, 15, 17, 19

Holotype: CC, TNUM 11469 (Pl. 19, fig. 14), Paratypes: CC, TNUM 11470 (Pl. 19, fig. 17); CC, TNUM 11471 (Pl. 19, fig. 15); CC, TNUM 11472 (Pl. 19, fig. 19)

An outcrop along the coast, ca. 3 km N of Baishaton, 10 km W of Miaoli, Miaoli District, Taiwan (24°37.7'N, 120°45.1'E)

Tungshiao Formation (Nanwo Member)
Pleistocene

***Physocypria nipponica* Okubo, 1990**

Res. Crustacea, no. 19, p. 3, 4, figs. 1 E~H, 2 B, E, F
Holotype: CC male with appendages, FO 524 (figs. 2B, E, F),
Allotype: CC female, FO 26 (no figures), Paratypes: CC
male with appendages, FO 18 (figs. 1E~H); CC female, FO
626 (no figures)
A paddy field, Shiono, Seto-cho, Okayama Prefecture (34 °
45.7'N, 134 °03.3'E)
Recent

***Pistocythereis bradyformis* (Ishizaki, 1968)**

[See *Echinocythereis bradyformis* Ishizaki, 1968.]

***Pistocythereis bradyi* (Ishizaki, 1968)**

[See *Echinocythereis bradyi* Ishizaki, 1968.]

***Platymicrocythere* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 13
Type species: *Platymicrocythere tokiokai* Schornikov, 1975

***Platymicrocythere tokiokai* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 14, 15, fig. 5
Holotype: female, FESC 361~362, Paratype: 1 female (no
numbers)
The intertidal zone of rocky shore, Shirahama, near the Seto
Marine Biological Laboratory of Kyoto University,
Wakayama Prefecture.

Recent

[The figures (fig. 5) in the original description (Schornikov,
1975b) cannot be correlated with each type specimen.]

***Pokornyella japonica* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 25,
Pl. 1, fig. 10, Pl. 5, figs. 5, 6
Holotype: RV, IGPS 90240 (Pl. 1, fig. 10, Pl. 5, fig. 5),
Paratype: LV, IGPS 90241 (Pl. 5, fig. 6)
St. 311 = Uranouchi Bay, Kochi Prefecture (33 °25'55''N,
133 °28'28''E) (medium sand, depth 14 m)

Recent

[=*Pseudoaurila japonica* (Ishizaki, 1968) (by Ishizaki and
Kato, 1976, p. 132, 133)]

***Polycope japonica* Hiruta, 1983**

Jour. Hokkaido Univ. Educ. Sec. B, v. 33, no. 2, p. 1~9, figs.
1-1~5, 2-1~5, 3-1~4, 4-1~5, 5-1~3, 6-1~6
Holotype: CC female with appendages, ZIHU 2226 (figs.
1-1,2, 2-1,3,4), Allotype: CC male with appendages, ZIHU
2227 (figs. 3-1~4, 4-1~5, 5-1,3, 6-3), Paratypes: CC male
with appendages, ZIHU 2228 (figs. 5-2, 6-5); CC male with
appendages, ZIHU 2229 (no figures); CC male with
appendages, ZIHU 2230 (no figures); CC male with

appendages, ZIHU 2231 (fig. 6-6); CC male with appendages,
ZIHU 2232 (fig. 6-4); CC male with appendages, ZIHU 2233
(no figures); CC female with appendages, ZIHU 2234 (no
figures); CC female with appendages, ZIHU 2235 (figs.
1-3~5, 2-2,5, 6-1,2); CC female with appendages, ZIHU
2236 (no figures); CC female with appendages, ZIHU 2237
(no figures); CC female with appendages, ZIHU 2238 (no
figures)

The coast near the Mukaishima Marine Biological Station,
Hiroshima University, Mukaishima-cho, Mitsugi-gun,
Hiroshima Prefecture (34 °27.3'N, 133 °9.1'E) (sand, depth
0~0.3 m)

Recent

***Polytylites kitanipponica* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 151,
Pl. 18, figs. 3~6, text-figs. 6, 7

Holotype: LV male, IGPS 85795 (Pl. 18, fig. 3, text-fig. 6),
Paratypes: RV female IGPS 85796 (Pl. 18, fig. 4, text-fig. 7);
RV immature female, IGPS 85797 (Pl. 18, fig. 5); RV
immature male, IGPS 85798 (Pl. 18, fig. 6)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi
Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

[=*Polytylites kitanipponicus* Ishizaki, 1964 (by Hanai *et al.*,
1977)]

***Polytylites kitanipponicus* Ishizaki, 1964**

[See *Polytylites kitanipponica* Ishizaki, 1964.]

***Pontocypris kanazawensis* Ishizaki, 1963**

Japan. Jour. Geol. Geogr., v. 34, no. 1, p. 21, 22, Pl. 2, fig. 1

Holotype: CC, IGPS 78885 (Pl. 2, fig. 1)

Nishiichinose, W of Kanazawa-shi, Ishikawa Prefecture

Yatsuo Formation (Sunakosaka Member)

Miocene

[=*Propontocypris kanazawensis* (Ishizaki, 1963) (by Hanai *et al.*,
1977)]

***Pontocythere japonica* (Hanai, 1959)**

[See *Cushmanidea japonica* Hanai, 1959.]

***Pontocythere kashiwarensis* (Hanai, 1959)**

[See *Cushmanidea kashiwarensis* Hanai, 1959.]

***Pontocythere minuta* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 43, 44, Pl. 2, figs. 6a,
6b, 7a, 7b, 8~12, Pl. 3, fig. 11, text-figs. 13a, b

Holotype: CC, IGSU-O-15 (Pl. 2, figs. 6a, 6b, 7a, 7b, 8,
10~12), Paratypes: LV, IGSU-O-16 (Pl. 2, fig. 9, Pl. 3, fig.
11); CC, IGSU-O-70 (text-figs. 13a, b)

St. 53 = Off Enshu-nada, 3 km WSW of Imagire-guchi,
Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34 °39'59''N,

137°34'09''E) (well-sorted fine sand, depth 13.2 m)
Recent

***Pontocythere miurensis* (Hanai, 1959)**

[See *Cushmanidea miurensis* Hanai, 1959.]

***Pontocythere sekiguchii* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 41, 42, Pl. 2, figs. 1a, 1b, 2a, 2b, 3~5, Pl. 7, fig. 1, text-figs. 12a, b

Holotype: CC, IGSU-O-13 (Pl. 2, figs. 1a, 1b, 2a, 2b, 3, 4, Pl. 7, fig. 1), Paratypes: RV, IGSU-O-14 (Pl. 2, fig. 5); CC, IGSU-O-69 (text-figs. 12a, b)

St. 56 = Off Enshu-nada, 6 km W of Imagire-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34°40'18''N, 137°32'03''E) (well-sorted medium sand, depth 5.9 m)

Recent

***Pontocythere subjaponica* (Hanai, 1959)**

[See *Cushmanidea subjaponica* Hanai, 1959.]

***Pontocythere xiphoidea* Nakao and Tsukagoshi, 2002**

Species Diversity, v. 7, no. 1, p. 78~80, figs. 5E~Q, 6A~J

Holotype: CC male, SUM CO 1120 (fig. 5E), Paratypes: CC male, SUM CO 1121 (fig. 5F); CC female, SUM CO 1122 (fig. 5G, H); CC male, SUM CO 1123 (fig. 5D); CC female, SUM CO 1124 (fig. 5J); CC male, SUM CO 1125 (figs. 5K, L, O); LV female, SUM CO 1126 (fig. 5M); RV female, SUM CO 1127 (figs. 5N, P, Q); RV male, SUM CO 1125 (fig. 5O); RV female, SUM CO 1127 (figs. 5P, Q); RV male, SUM CO 1128 (fig. 6A); CC female, SUM CO 1129 (fig. 6B); CC male with appendages, SUM CO 1130 (figs. 6C~J, L~R); CC male appendage, SUM CO 1131 (fig. 6K)

Loc. 6 = 1 km off beach ridge on sand flat, at mouth of Obitsu River, Kisarazu-shi, Chiba Prefecture (35°25.7'N, 139°53.4'E) (medium sand, depth 10cm at lowest low tide)

Recent

***Potamocypris ? itunghensis* Hanai, 1951**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 7, pt. 9, p. 421~423, Pl. 2, fig. 9, text-figs. 11~13

Holotype: CC, UMUT MA 8505 (Pl. 2, fig. 9), Paratype: CC, UMUT MA 8506

On the bank at the junction of the Itunghé with the Sungari river, Manchuria

Nengkiang Formation

Cretaceous

***Potamocypris sudzukii* Okubo and Terauchi, 1992**

Proc. Japan Soc. Syst. Zool., no. 46, p. 104, 105, text-figs. 1g~m, Pl. 1, figs. N~Q

Holotype: CC female with appendages, FO 788 (text-figs. 1g~m, Pl. 1, figs. N, O), Paratypes: 2 CC females, FO 780, 787 (no figures); CC juvenile (A-1 stage), FO 779 (no figures); CC juvenile (A-1 stage), FO 783 (Pl. 1, figs. P, Q)

A paddy field, Kuro-shima, Okinawa Prefecture (ca. 24°N, ca. 124°E)

Recent

***Propontocypris subtriangularis* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 74, Pl. 8, figs. 3~6, 10, text-fig. 5

Holotype: CC, TNUM 8025, Paratypes: TNUM 8026, 8027; LV, TNUM 8028 (Pl. 8, fig. 6); CC, TNUM 8029 (Pl. 8, fig. 10)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

[Three figures (Pl. 8, figs. 3, 4, 5) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8025~8027).]

***Propontocypris japonica* Okubo, 1979**

Proc. Japan Soc. Syst. Zool., no. 17, p. 34~36, figs. 2a~c, 3a~h

Holotype: CC female with appendages, MO 442 (=NSMT-Cr 15316) (figs. 2a, b, 3a~c, d', e~h), Allotype: CC male with appendages, MO 445 (=NSMT-Cr 15317) (figs. 2c, 3b', b'', d, e', e''), Paratype: CC female with appendages, MO 441 (=NSMT-Cr 15318) (no figures)

The intertidal zone of sand beach, Hishio, Mukaishima-cho, Hiroshima Prefecture (sandy mud) (34°22.0'N, 133°13.2'E)

Recent

***Propontocypris kanazawensis* (Ishizaki, 1963)**

[See *Pontocypris kanazawensis* Ishizaki, 1963.]

***Propontocypris maculata* Schornikov, 1973**

Vestnik Zool., no. 4, p. 57~59, fig. 2-1~13

Holotype: CC male with appendages, ZIANL 54327

Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is. (sublittoral zone)

Recent

***Propontocypris ovata* Schornikov, 1973**

Vestnik Zool., no. 4, p. 60, figs. 3-1~13

Holotype: CC male with appendages, ZIANL 54326

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is.

Recent

***Propontocypris postconcava* Schornikov, 1973**

Vestnik Zool., no. 4, p. 56, 57, figs. 1-1~17

Holotype: CC male with appendages, ZIANL 54329

Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is.

Recent

***Propontocypris uranipponica* Ishizaki and Irizuki, 1990**

Cour. Forsch.-Inst. Senckenberg, no. 123, p. 62, 63, Pl. 1, figs. 7~12, Text-figs. 7, 8

Holotype: LV, IGPS 101224 (Pl. 1, fig. 7), Paratypes: RV, IGPS 101225 (Pl. 1, fig. 10); LV, IGPS 101226 (Pl. 1, fig. 12); LV, IGPS 101227 (Pl. 1, fig. 8, text-fig. 8); RV, IGPS 101228 (Pl. 1, fig. 9, text-fig. 7); CC, IGPS 101229 (Pl. 1, fig. 11)

St. 120 = Toyama Bay (37 °20.0'N, 137 °39.8'E) (clayey silt, depth 890 m)

Recent

***Psammocythere oviformis* Hiruta, 1991**

Zool. Sci., no. 8, p. 113~119, figs. 1-1~4, 2-1~12, 3-1~10, 4-1~5

Holotype: CC male with appendages, ZIHU 462 (figs. 1-1, 2-1~10, 12, 4-1~4), Allotype: CC female with appendages, ZIHU 470 (figs. 1-3, 3-1~8, 4-5), Paratypes: CC male with appendages, ZIHU 463 (fig. 1-2); CC male with appendages, ZIHU 464 (fig. 2-11); 5 CC males with appendages, ZIHU 465~469 (no figures); CC female with appendages, ZIHU 471 (fig. 1-4); CC female with appendages, ZIHU 472 (figs. 3-9,10); 4 CC females with appendages, ZIHU 473~476 (no figures)

The intertidal zone of Mataitoki, near Kushiro-shi, Hokkaido (42 °56.3'N, 144 °29.3'E) (sand, depth 20~50 cm)

Recent

***Pseudaurila* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 102, 103

Type species: *Pseudaurila loxoconchia* Hu, 1981

***Pseudaurila loxoconchia* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 103, 104, Pl. 2, figs. 6~8, 13, 15, text-fig. 24

Holotype: RV, TNUM 7022 (Pl. 2, figs. 6, 7), Paratypes: TNUM 7023; TNUM 7024; TNUM 7025 (Pl. 2, fig. 15)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °56.3'N, 120 °48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Two figures (Pl. 2, figs. 8, 13) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7023, 7024).]

***Pseudoaurila* Ishizaki and Kato, 1976**

Takayanagi, Y. and Saito, T. (eds.), Progress in Micropaleontology, Micropaleont. Press, Amer. Mus. Nat. Hist., New York, p. 132,133

Type species: *Pokorniyella japonica* Ishizaki, 1968

***Pseudoaurila japonica* (Ishizaki, 1968)**

[See *Pokorniyella japonica* Ishizaki, 1968.]

***Pseudocythere frydli* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 216, 217, Pl. 13, fig. 15, text-figs. 16-7, 8

Holotype: RV, UMUT CA 9876 (Pl. 13, fig. 15), Paratypes: a broken LV, UMUT CA 9877 (text-fig. 16-7); a broken RV, UMUT CA 9878 (text-fig. 16-8)

Loc. 262 = A small exposure, in front of Sakaida elementary school, Imba-mura, Imba-gun, Chiba Prefecture (35 °47'16''N, 140 °13'22''E)

Kioroshi Formation (Kioroshi Member)

Pleistocene

***Pseudocythereis arachis* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 197, 198, Pl. 1, figs. 18, 19, Pl. 2, figs. 5, 6, 13, 14, Pl. 3, figs. 1~3, text-fig. 8

Holotype: CC, CKUM 3040 (Pl. 3, fig. 1), Paratypes: RV, CKUM 3034 (Pl. 1, fig. 18); LV, CKUM 3035 (Pl. 1, fig. 19); LV, CKUM 3036 (Pl. 2, fig. 5); RV, CKUM 3037 (Pl. 2, fig. 6); LV, CKUM 3038 (Pl. 2, fig. 13); RV, CKUM 3039 (Pl. 2, fig. 14); CC, CKUM 3041 (Pl. 3, fig. 2); LV, CKUM3042 (Pl. 3, fig. 3); CKUM 3043~3050 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

[=*Wichmanella miaoliensis* (Hu and Yang, 1975) (by Hu, 1986)]

***Pseudocythereis miaoliensis* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 112, 113, Pl. 1, figs. 12, 14, 17, 22, 23, Pl. 2, fig. 9

Holotype: CC, CKUM 1003 (Pl. 1, figs. 22, 23), Paratypes: CKUM 1000 (Pl. 1, fig. 12); CC, CKUM 1001 (Pl. 1, fig. 17, Pl. 2, fig. 9); CKUM 1002 (Pl. 1, fig. 14)

Mc-4 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

[=*Wichmanella miaoliensis* (Hu and Yang, 1975) (by Hu, 1986). =*Echinocythereis miaoliensis* (Hu and Yang, 1975) (by Hanai *et al.*, 1980)]

***Pseudopsammocythere tokyoensis* Yajima, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 391~393, Pl. 50, figs. 3a, b, text-fig. 7, figs. 1a, b

Holotype: RV, UMUT CA 8410 (Pl. 50, fig. 3a, text-fig. 7, fig. 1b) (Sample no. 512), Paratype: LV, UMUT CA 8411 (Pl. 50, fig. 3b, text-fig. 7, fig. 1a)

Loc. 28 = A cliff, 300 m ESE of the Shofukuji Temple, Josai, Kisarazu-shi, Chiba Prefecture (35 °21'35''N, 139 °55'52''E)

Narita Formation (Kioroshi Member)

Pleistocene

***Puriana gibba* Hu, 1976**

Proc. Geol. Soc. China, no. 19, p. 32~34, Pl. 1, figs. 11~14, 21, text-fig. 7

Holotype: CKUM 2017 (Pl. 1, fig. 13), Paratypes: CC, CKUM 2018 (Pl. 1, figs. 11, 21); CKUM 2019 (Pl. 1, fig. 12)

Loc. 13 or 14 = 2.5 km SE of Tsaochiao station, Chinshui county, ca. 8 km NE of Miaoli city, Taiwan

Cholan Formation

Upper Pliocene

[=*Coquimba gibba* (Hu, 1976) (by Hanai *et al.*, 1980)]

***Puriana nodosa* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 110, 111, Pl. 1, figs. 4~6, 8

Holotype: CKUM 1049 (Pl. 1, fig. 5), Paratypes: CC, CKUM 1050 (Pl. 1, figs. 6, 8); CKUM 1048 (Pl. 1, fig. 4)

Mc-4 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

[=*Coquimba ? nodosa* (Hu and Yang, 1975) (by Hanai *et al.*, 1980)]

***Puriana pustulata* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 196, 197, Pl. 2, figs. 7~9, Pl. 3, figs. 16, 17, text-fig. 7

Holotype: male, CKUM 3071, Paratype: male, CKUM 3072; CKUM 3073 (Pl. 2, fig. 9); CKUM 3074 (Pl. 3, fig. 16); CC, CKUM 3075 (Pl. 3, fig. 17); CKUM 3076~3080 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

[=*Coquimba pustulata* (Hu and Cheng, 1977) (by Hu, 1986).

Two figures (Pl. 2, figs. 7, 8) in the original description (Hu and Cheng, 1977) cannot be correlated with each type specimen (CKUM 3071, 3072).]

***Pussella fijiensis* Hiruta, 1994**

Proc. Biol. Soc. Washington, v. 107, no. 4, p. 661~664, figs. 3-1~12, 4-1~9

Holotype: CC male with appendages, NSMT Cr 11413 (figs. 3-1~12, 4-1~9)

The intertidal zone of Suva Barrier Reef, Suva, Viti Levu, Fiji (18°09'S, 178°26'E) (coarse sand)

Recent

***Quadracythere ? subquadrata* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 105, 106, Pl. 2, figs. 20, 21

Holotype: CC, CKUM 1007 (Pl. 2, figs. 20, 21), Paratype: CKUM 1008 (no figures)

Mc-1 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

***Radimella costata* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 61~63, Pl. 1, figs. 23~29, text-fig. 2

Holotype: TUM 4013, Paratypes: TUM 4014~4018

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limstone, Hungchun peninsula, southern Taiwan

Hungchun Limstone

Late Pleistocene / Holocene

[Seven figures (Pl. 1, figs. 23~29) in the original description (Hu, 1979) cannot be correlated with each type specimen (TUM4013~4018).]

***Radimella elongata* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 63, Pl. 1, figs. 11, 12, text-fig. 3

Holotype: LV, TUM 4007 (Pl. 1, figs. 11, 12)

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limstone, Hungchun peninsula, southern Taiwan

Hungchun Limstone

Late Pleistocene / Holocene

***Radimella macroloba* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 88, 89, Pl. 1, figs. 2, 8, 18, text-fig. 7

Holotype: RV, TNUM 7006 (Pl. 1, figs. 2, 8), Paratype: TNUM 7007 (Pl. 1, fig. 18)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21° 56.3'N, 120° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Radimella microreticulata* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 90, Pl. 1, figs. 4, 9, 10, text-figs. 8C, D

Holotype: LV, TNUM 7004, Paratypes: LV, TNUM 7005; TNUM 7005a (Pl. 1, fig. 9)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21° 56.3'N, 120° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Radimella minor* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 63~65, Pl. 1, figs. 8~10, 16, text-fig. 5

Holotype: LV, TUM 4005 (Pl. 1, figs. 8, 9), Paratype: LV, TUM 4006 (Pl. 1, figs. 10, 16)

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limstone, Hungchun peninsula, southern Taiwan

Hungchun Limstone

Late Pleistocene / Holocene

***Radimella nodulosa* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 196, 197, figs. 25-1, 3, 5, 18, text-fig. 15

Holotype: CC, CKUM 3534 (figs. 25-3, 5), Paratypes: CKUM 3535 (figs. 25-1); LV, CKUM 3536; (figs. 25-18); CKUM 3614 (no figures)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Robstaurila nodulosus* (Hu, 1977) (by this paper)]

***Radimella parviloba* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 89, Pl. 1, figs. 1, 3, 5, 7, text-figs. 8A, B

Holotype: TNUM 7000, Paratypes: TNUM 7001~TNUM 7003

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21° 56.3'N, 120° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[=*Scizocythere parviloba* (Hu, 1981) (by Hu, 1982). Four figures (Pl. 1, figs. 1, 3, 5, 7) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7000~7003).]

***Radimella virgata* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 63, Pl. 1, figs. 18~20, 22, text-fig. 4

Holotype: LV, TUM 4009 (Pl. 1, figs. 18, 19), Paratype: CC, TUM 4010 (Pl. 1, figs. 20, 22), TUM 4011 (no figures)

The area between Tanzi and shiniuxi, the outcrops of Hungchun Limestone, Hungchun peninsula, southern Taiwan

Hungchun Limestone

Late Pleistocene / Holocene

***Reymontia taiwanica* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 191~193, figs. 27-13, -14, text-figs. 10A, B

Holotype: CKUM 3572, Paratype: CKUM 3571

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

[=*Sinoleberis tosaensis* (Ishizaki, 1968) (by Malz and Ikeya, 1982). Two figures (figs. 27-13, 14) in the original description (Hu, 1977b) cannot be correlated with each type specimen (CKUM 3571, 3572).]

***Robertsonites hanaii* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 90, 91, Pl. 13, figs. 1~12, text-figs. 16-9, 10

Holotype: RV female, UMUT CA 15869 (Pl. 13, figs. 1, 6,

12, text-fig. 16-10), Paratypes: LV female, UMUT CA 15870 (Pl. 13, figs. 2, 5, 11, text fig. 16-9); RV male, UMUT CA 15871 (Pl. 13, fig. 3); LV male, UMUT CA 15872 (Pl. 13, fig. 4); RV immature form (A-1 stage), UMUT CA 15873 (Pl. 13, fig. 7); LV immature form (A-1 stage), UMUT CA 15874 (Pl. 13, fig. 8); RV immature form (A-3 stage), UMUT CA 15875 (Pl. 13, fig. 9); RV immature form (A-5 stage), UMUT CA 15876 (Pl. 13, fig. 10)

Loc. K1 = A small exposure along the Kujirasawa River, 2 km N of eastern entrance of Shin-Daishaka tunnel, Aomori-shi, Aomori Prefecture (40° 47'23''N, 140° 36'44''E)

Daishaka Formation

Plio-Pleistocene

***Robertsonites japonicus* (Ishizaki, 1966)**

[See *Buntonia japonica* Ishizaki, 1966.]

***Robertsonites reticuliformis* (Ishizaki, 1966)**

[See *Buntonia reticuliformis* Ishizaki, 1966.]

***Robertsonites tsugaruana* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 93, 94, Pl. 15, figs. 1~12, Pl. 20, fig. 6

Holotype: LV female, UMUT CA 15887 (Pl. 15, figs. 2, 5, 11), Paratypes: RV female, UMUT CA 15888 (Pl. 15, fig. 1, Pl. 20, fig. 6); RV female, UMUT CA 15889 (Pl. 15, figs. 6, 12); RV male, UMUT CA 15890 (Pl. 15, fig. 3); LV male, UMUT CA 15891 (Pl. 15, fig. 4); RV immature form (A-1 stage), UMUT CA 15892 (Pl. 15, fig. 7); LV immature form (A-1 stage), UMUT CA 15893 (Pl. 15, fig. 8); RV immature form (A-3 stage), UMUT CA 15894 (Pl. 15, fig. 9); RV immature form (A-5 stage), UMUT CA 15895 (Pl. 15, fig. 10)

Loc. K1 = A small exposure along the Kujirasawa River, 2 km NW of eastern entrance of Shin-Daishaka tunnel, Aomori-shi, Aomori Prefecture (40° 47'23''N, 140° 36'44''E)

Daishaka Formation

Plio-Pleistocene

***Robertsonites yatsukanus* Tanaka, 2002**

Paleontological Research, v. 6, no. 1, p. 15, 17, figs. 5-7, 8-9a~e, 10a~c, 11a~e, 12a~c

Holotype: LV male, SUM CO 1245 (figs. 8-9a~e), Paratypes: RV male, SUM CO 1246 (figs. 8-10a~c); LV female, SUM CO 1247 (figs. 8-11a~e); RV female, SUM CO 1248 (figs. 8-12a~c); LV male, SUM CO 1249 (fig. 5-7) Loc. 2-B1 = An outcrop, ca. 0.4 km NW of Fujina, Yatsuka-gun, Shimane Prefecture (35° 25.6'N, 133° 01.4'N)

Fujina Formation (Upper Member)

Middle Miocene

[Sample horizon = Ca. 94 m above the base of the Upper Member of Fujina Formation]

Robustaurila Yajima, 1982

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 213

Type species: *Cythereis assimilis* Kajiyama, 1913

***Robustaurila ishizakii* (Okubo, 1980)**

[See *Mutilus ishizakii* Okubo, 1980.]

***Robustaurila kianohybrida* (Hu, 1982)**

[See *Mutilus kianohybridus* Hu, 1982.]

***Robustaurila salebroso* (Brady, 1869)**

[See *Cythere salebroso* Brady, 1869.]

***Roundyella neopapillosa* Ishizaki, 1964**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 36, no. 1, p. 152,

Pl. 18, figs. 7, 8, text-fig. 8

Holotype: male, IGPS 85799 (Pl. 18, fig 7, text-fig. 8),

Paratype: IGPS 85800 (Pl. 18, fig. 8)

Iwaizaki, Hashikami-machi, Motoyoshi-gun, Miyagi Prefecture

Iwaizaki Limestone (Unit G, black limestone)

Permian

[Holotype specimen is a LV (?) (by Hanai *et al.*, 1977)]

***Samarella hataii* Ishizaki, 1964**

Saito Ho-on Kai Mus. Nat. Hist., Res. Bull., no. 33, p. 37, 38,

Pl. 1, figs. 10a~c

Holotype: CC, IGPS 78405 (Pl. 1, figs. 10a~c)

Nagaiwa, Hikoroichi-machi, Ofunato-shi, Iwate Prefecture

Nagaiwa Formation

Lower Pennsylvanian

[=*Samarella ? hataii* Ishizaki, 1964 (by Hanai *et al.*, 1977)]

***Sarsiella japonica* Hiruta, 1977**

Jour. Fac. Sci., Hokkaido Univ., Ser. 6, (Zool.), v. 21, no. 1, p.

44~60, text-figs. 1-1~5, 2-1~6, 3-1~4, 4-1~4, 5-1~5, 6-1~6,

7-1~5, 8-1~4, 9-1~9, 10-1~5, 11-1~6, 12-1~8, Pl. 4, figs. 1~5

Holotype: CC female with appendages, ZIHU 2167 (figs.

1-1~5, 2-1, 2, 4, 6, 3-1~4, 4-2,3), Allotype: CC male with

appendages, ZIHU 2168 (figs. 5-1~5, 6-1~6, 7-1~5),

Paratypes: CC male with appendages, ZIHU 2169 (no

figures); CC male with appendages, ZIHU 2170 (no figures);

CC female with appendages, ZIHU 2171 (Pl. 4, figs. 1~5);

CC female with appendages, ZIHU 2172 (fig. 2-3); CC

female with appendages, ZIHU 2173 (figs. 2-5, 4-4); CC

female with appendages, ZIHU 2174 (fig. 4-1); CC female

with appendages, ZIHU 2175 (no figures); CC juvenile (A-4

stage) with appendages, ZIHU 2176 (no figures); CC

juvenile (A-4 stage) with appendages, ZIHU 2177 (figs. 8-1,

9-1~9); CC juvenile (male) (A-3 stage) with appendages,

ZIHU 2178 (fig. 10-5); CC juvenile (male) (A-3 stage) with

appendages, ZIHU 2179 (no figures); CC juvenile (female)

(A-3 stage) with appendages, ZIHU 2180 (fig. 10-2); CC

juvenile (female) (A-3 stage) with appendages, ZIHU 2181

(figs.10-1,3,4); CC juvenile (male) (A-2 stage) with

appendages, ZIHU 2182 (no figures); CC juvenile (male)

(A-2 stage) with appendages, ZIHU 2183 (figs. 11-5,6); CC

juvenile (female) (A-2 stage) with appendages, ZIHU 2184

(figs.11-1~4); CC juvenile (female) (A-2 stage) with

appendages, ZIHU 2185 (no figures); CC juvenile (male)

(A-1 stage) with appendages, ZIHU 2186 (no figures); CC

juvenile (male) (A-1 stage) with appendages, ZIHU 2187

(figs. 12-6~7); CC juvenile (female) (A-1 stage) with

appendages, ZIHU 2188 (figs.12-1~5); CC juvenile (female)

(A-1 stage) with appendages, ZIHU 2189 (no figures)

Oshoro Bay, Oshoro, W of Otaru-shi, Ishikari Bay, Hokkaido

(43°13'N, 140°52'E) (muddy sand, depth 3~5 m)

Recent

***Sarsiella misakiensis* Kajiyama, 1912**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 24, no. 289, p.

615, Pl.9, figs. 23~28

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Schizocythere asgao* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 192, 193, Pl. 11, figs.

14, 15

Holotype: LV female, UMUT CA 9833 (Pl. 11, fig. 15),

Paratype: RV female, UMUT CA 9834 (Pl. 11, fig. 14)

Loc. 305 = A cliff, 1.5 km S of Makuta railway station,

Mariyatsu, Fukita-machi, Kisarazu-shi, Chiba Prefecture

(35°21'47''N, 140°04'46''E)

Yabu Formation (Yabu Member)

Pleistocene

***Schizocythere costatus* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 109, Pl. 1, figs. 10, 11, 15

Holotype: CC, CKUM 1035 (Pl. 1, figs. 11, 15), Paratypes:

CKUM 1034 (Pl. 1, fig. 10); CKUM 1036, 1037 (no figures)

Mc-4 = An outcrop of S side along the Houlung River, ca. 2

km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

[=*Schizocythere costata* Hu and Yang, 1975 (by Hanai *et al.*,

1980)]

***Schizocythere hatatensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 154,

Pl. 19, figs. 24, 25

Holotype: LV, IGPS 87053 (Pl. 19, fig. 25), Paratype: LV,

IGPS 87054 (Pl. 19, fig. 24)

A cliff near the Taihakusan station of the abandoned Akyu

Line, Sendai-shi, Miyagi Prefecture

Hatatate Formation

Miocene

***Schizocythere ikeyai* Tsukagoshi and Briggs, 1998**

Stereo-Atlas of Ostracod Shells, v. 25, parts. 1/2, p. 43~52, Pl. 25-44, figs. 1~4, Pl. 25-46, figs. 1~4, Pl. 25-48, figs. 1~5, Pl. 25-50, figs. 1~9, Pl. 25-51, figs. 1~7, text-figs. 1A~E, 2A~G, 3, 4

Holotype: CC male with appendages, UMUT RA 27688 (Pl. 25-44, figs. 1, 2, text-figs. 1A, B, E, 2A~D, F, G), Paratypes: CC male, UMUT RA 27689 (Pl. 25-44, figs. 3, 4); CC female, UMUT RA 27690 (Pl. 25-46, figs. 1, 2, Pl. 25-50, figs. 7, 8); CC female, UMUT RA 27691 (Pl. 25-46, fig. 3); CC female, UMUT RA 27692 (Pl. 25-46, fig. 4); RV female, UMUT RA 27693 (Pl. 25-48, fig. 1, Pl. 25-50, figs. 1, 2, 5); LV female, UMUT RA 27694 (Pl. 25-48, fig. 2, Pl. 25-50, figs. 3, 4, 6, 9); CC male, UMUT RA 27695 (Pl. 25-48, fig. 3); RV juvenile (A-1 stage), UMUT RA 27696 (Pl. 25-48, fig. 4); LV juvenile (A-1 stage), UMUT RA 27697 (Pl. 25-48, fig. 5); CC female with appendages, UMUT RA 27698 (text-figs. 1C, D, 2E); RV female, UMUT RA 27773 (Pl. 25-51, figs. 1, 6); LV juvenile (A-1 stage), UMUT RA 27774 (Pl. 25-51, figs. 2, 7); RV juvenile (A-1 stage), UMUT RA 27775 (Pl. 25-51, fig. 3); LV juvenile (A-3 stage), UMUT RA 27776 (Pl. 25-51, fig. 4); RV juvenile (A-3 stage), UMUT RA 27777 (Pl. 25-51, fig. 5)

Nakase, Akkeshi Bay, eastern Hokkaido (ca. 43 °N, 144 ° 48'E) (depth ca. 10 m)

Recent

***Schizocythere kishinouyei* (Kajiyama, 1913)**

[See *Cythere kishinouyei* Kajiyama, 1913.]

***Schizocythere okhotskensis* Hanai, 1970**

Jour. Paleont., v. 44, no. 4, p. 722, text-figs. 4C~F, G, 6A, 19A~D

Holotype: RV, UMUT CA 3861 (text-fig. 19A), Paratypes: UMUT CA 3862, UMUT CA 3863, UMUT CA 3864, UMUT CA 3865 (text-fig. 4E), UMUT CA 4246, UMUT CA 4247, UMUT CA 4248, UMUT CA 4249, UMUT CA 4250, UMUT CA 4251

St. 4 = Okhotsk Sea, 40 km off Tonbetsu (Hamatonbetsu), Soya-gun, Hokkaido (45 °24'N, 142 °41'E) (fine to medium sand)

Recent

***Schizocythere pacifica* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 151~153, Pl. 2, figs. 1a~c, text-fig. 8

Holotype: CC male, FESC-359~360, Paratypes: no numbers Tryekhpaliy Peninsula, Pacific seashore, Iturup Is., Kuril Islands (depth 40~41 m)

[The figures (Pl. 2, figs. 1a~c, text-fig. 8) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Schizocythere taiwanensis* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 109, Pl. 2, figs. 3, 4, 24, 25
Holotype: CKUM 1020 (Pl. 2, fig. 25), Paratypes: CKUM 1021 (Pl. 2, fig. 3); CKUM 1022 (Pl. 2, fig. 4); CKUM 1023 (Pl. 2, fig. 24)

Mc-1 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

***Schizocythere yokatsuensis* Nohara, 1981**

Bull. Coll. Educ., Univ. Ryukyus, no. 25, pt. 2, p. 42, 43, Pl. 1, figs. 2a, b

Holotype: RUEG 63 (no figures), Paratype: CC, RUEG 64 (no figures); RV, RUEG 65 (Pl. 1, figs. 2a, b); CC, RUEG 66 (no figures); CC, RUEG 67 (no figures)

Loc. 4B-C = The Campas of Yokatsu Senior High School (26 °18'30"N, 127 °53'47"E)

Naha Formation

Pleistocene

***Sclerochilus mukaishimensis* Okubo, 1977**

Proc. Japan Soc. Syst. Zool., no. 13, p. 59~62, text-figs. 1a~c, 2a~g, Pl. 6, figs. a~k

Holotype: CC male with appendages, MO 400 (=NSMT-Cr 15319) (text-figs. 1a, b, 2b', Pl. 6, figs. i, k), Allotype: CC female with appendages, MO 399 (=NSMT-Cr 15320) (text-figs. 2a~g, Pl. 6, figs. a, b), Paratypes: CC male with appendages, MO 395 (Pl. 6, figs. C, d, h, j); male appendage, MO 396 (text-fig. 1c); CC female, MO 436 (no figures); CC juvenile (A-1 stage), CC juvenile (A-1 stage), MO 475 (Pl. 6, figs. e, f); CC male with appendage, MO 480 (Pl. 6, fig. g) (all of paratype specimens are missing)

The intertidal zone, Misaki, Ako-shi, Hyogo Prefecture (34 ° 43.4'N, 134 °24.7'E)

Recent

***Sclerochilus oshoroensis* Hiruta, 1976**

Annot. Zool. Japon, v. 49, no. 2, p. 142~147, figs. 1-1~4, 2-1~9, 3-1~3

Holotype: CC female with appendages, ZIHU 2153 (figs. 1-1~4, 2-1~6, 3-1,3), Allotype: CC male with appendages, ZIHU 2154 (figs. 2-7~9, 3-2), Paratypes: 2 CC males with appendages, ZIHU 2155, 2156 (no figures); 2 CC females with appendages, ZIHU 2157, 2158 (no figures)

Oshoro Bay, Oshoro, W of Otaru-shi, Ishikari Bay, Hokkaido (43 °13'N, 140 °52'E) (on algae, depth 0~1 m)

Recent

***Sclerochilus ovatoides* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 82, 83, Pl. 10, figs. 11, 13, text-fig. 14

Holotype: TNUM 8208, Paratype: TNUM 8207

The east slope of the Hengchun West Table-land, ca. 3 km W

of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

[Two figures (Pl. 10, figs. 11, 13) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8207, 8208).]

***Scleroconcha kubotai* Hiruta, 1981**

Jour. Hokkaido Univ., Educ., Sec. B, v. 31, no. 2, p. 59~71, figs. 1-1~3, 2-1~4, 3-1~5, 4-1~4, 5-1~5, 6-1~4, 7-1~5, 8-1~4

Holotype: CC female with appendages, ZIHU 2218 (figs. 1-1~3, 2-1~5, 3-1,2, 4-2~4), Allotype: CC male with appendages, ZIHU 2219 (figs. 5-1~5, 6-1,3, 7-1~5, 8-1~3), Paratypes: CC male with appendages, ZIHU 2220 (figs. 6-2,4, 8-4); CC female with appendages, ZIHU 2221 (no figures); CC female with appendages, ZIHU 2222 (figs. 3-3,4); CC female with appendages, ZIHU 2223 (figs. 3-5, 4-1)

2 km off Sahara fishery harbor, Uchiura Bay, Hokkaido (42 ° 8.5'N, 140 °41'E) (sandy mud, depth 51 m)

Recent

***Semicytherura ? daishakaensis* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 98, 99, Pl. 17, figs. 1~6, text-fig. 19-3

Holotype: RV, UMUT CA 15909 (Pl. 17, figs. 1, 4, 6), Paratype: LV, UMUT CA 15910 (Pl. 17, figs. 2, 3, 5, text-fig. 19-3)

Loc. N4 = A small exposure 4.5 km NE of Namioka railway station, Namioka-machi, Minami Tsugaru-gun, Aomori Prefecture (40 °43'19"N, 140 °38'05"E)

Daishaka Formation

Plio-Pleistocene

[=*Cytherura daishakaensis* (Tabuki, 1986) (by Zhou, 1995)]

***Semicytherura ? miurensis* (Hanai, 1957)**

[See *Cytherura miurensis* Hanai, 1957.]

***Semicytherura elongata* Ikeya and Hanai, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 51, Pl. 5, figs. 4a, 4b, 5, Pl. 7, fig. 5

Holotype: RV, IGSU-O-29 (Pl. 5, figs. 4, 5, Pl. 7, fig. 5)

St. 39 = Hamana-ko, near Imagire-guchi, Maisaka-cho, Hamana-gun, Shizuoka Prefecture (34 °40'37"N, 137 ° 36'12"E) (well-sorted medium sand, depth 3.1 m)

Recent

[=*Semicytherura mukaishimensis* Okubo, 1980 (by this paper) *Semicytherura elongata* Ikeya and Hanai, 1982 is a junior homonym for *Semicytherura elongata* (Edwards, 1944), Darby, 1965. Therefore, the new name was proposed as *Semicytherura enshuensis* Ikeya and Hanai, 1991 (by Ikeya and Itoh, 1991, p. 123, 124).]

***Semicytherura enshuensis* Ikeya and Hanai, 1991**

[See *Semicytherura elongata* Ikeya and Hanai, 1982.]

***Semicytherura hanaii* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 53, 54, Pl. 11, figs. 3, 4, 6, 7a, b; Pl. 13, fig. 14; Pl. 14, fig. 6

Holotype: RV, IGPS 97058 (Pl. 11, fig. 3), Paratypes: LV, IGPS 97055 (Pl. 11, fig. 6); RV, IGPS 97056 (Pl. 11, figs. 7a, b; Pl. 13, fig. 14; Pl. 14, fig. 6); LV, IGPS 97057 (Pl. 11, fig. 4)

St. 7 = Off Haimen (27 °58.0'N, 123 °5.0'E) (fine sand, depth 80 m)

Recent

***Semicytherura henryhowei* Hanai and Ikeya, 1977**

[See *Cytherura quadrata* Hanai, 1957.]

***Semicytherura hiberna* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 1/4, p. 22~24, figs. 3d~g, 8a~j, 9a~h

Holotype: CC male with appendages, MO 990 (=NSMT-Cr 15321) (figs. 3e~g, 8a~j), Paratypes: juvenile (A-1 stage), MO 991 (fig. 3d); CC juvenile (A-1 stage) with appendages, MO 992 (=NSMT-Cr 15322) (figs. 9a~h)

The intertidal zone, near the Mukaishima Marine Biological Station, Hiroshima University, Mukaishima-cho, Mitsugi-gun, Hiroshima Prefecture (34 °21.7'N, 133 °13.2'E)

Recent

***Semicytherura minaminipponica* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 54, 55, Pl. 11, figs. 8a, b, 9a, b, 10; Pl. 13, fig. 10

Holotype: RV, IGPS 97093 (Pl. 11, fig. 10; Pl. 13, fig. 10), Paratypes: LV, IGPS 97094 (Pl. 11, figs. 9a, b); RV, IGPS 97095 (Pl. 11, figs. 8a, b)

St. 7 = Off Haimen (27 °58.0'N, 123 °5.0'E) (fine sand, depth 80 m)

Recent

***Semicytherura mukaishimensis* Okubo, 1980**

Publ. Seto Mar. Biol. Lab., v. 25, nos. 1/4, p. 24~26, figs. 3h~k, 10a~k

Holotype: CC male with appendages, MO 561 (=NSMT-Cr 15323) (figs. 3i, j), Allotype: CC female with appendages, MO 869 (=NSMT-Cr 15324) (figs. 10a~c), Paratypes: male appendage, MO 562 (fig. 10d); CC female, MO 563 (fig. 3k); CC male, MO 564 (=NSMT-Cr 15325) (no figures); male, MO 564' (no figures) (the specimen missing); CC female, MO 571 (fig. 3h) (the specimen missing); female appendages, MO 573 (=NSMT-Cr 15326) (figs. 10e~j, g')

The intertidal zone, near the Mukaishima Marine Biological Station, Hiroshima University, Mukaishima-cho, Mitsugi-gun, Hiroshima Prefecture (34 °21.7'N, 133 °13.2'E)

Recent

Semicytherura neosubundata* (Ishizaki, 1966)**[See *Cytherura neosubundata* Ishizaki, 1966.]Semicytherura okinawaensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 59, Pl. 8, figs. 6a~c

Holotype: LV, RUEG 150 (Pl. 8, figs. 6a~c)

Loc. 74122302 = Ca. 500m E of Horikawa, Tamagusuku-son, Okinawa Prefecture (26 °08'20''N, 127 °47'00''E)

Shinzato Formation

Pliocene

***Semicytherura polygonoreticulata* Ishizaki and Kato, 1976**

Takayanagi, Y. and Saito, T. (eds.), Progress in Micro-paleontology, Micropaleont. Press, Amer. Mus. Nat. Hist., New York, p. 131, 132, Pl. 1, figs. 9, 10, Pl. 2, fig. 1, text-fig. 6

Holotype: LV, IGPS 91740 (Pl. 1, fig. 10, Pl. 2, fig. 1), Paratype: RV, IGPS 91739 (Pl. 1, fig. 9, text-fig. 6)

Loc. 12 = A cliff, E of an agricultural lane, 2 km SW of Oyori Tunnel of Loc. 11 (A cliff, E of an agricultural lane, 950 m SE of Oyori Tunnel, Sagara-cho, Haibara-gun, Shizuoka Prefecture)

Furuya Formation

Pleistocene

[Sample horizon 12C = Ca. 1.5 m below the top of Furuya Fm.]

***Semicytherura ryukyuensis* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 59, 60, Pl. 8, fig. 4

Holotype: LV, RUEG 151 (Pl. 8, fig. 4)

Loc. So-6b = Ca. 300 m NW of Somachi, Kikai-cho, Oshima-gun, Kagoshima Prefecture (28 °20'10''N, 130 °00'02''E)

Somachi Formation

Pliocene

***Semicytherura simplex* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 133, 134, Pl. 3, figs. 1, 4, text-fig. 5

Holotype: RV, CKUM 3782 (Pl. 3, figs. 1, 4), Paratype: CKUM 3783 (Pl. 3, fig. 11)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

Semicytherura skippa* (Hanai, 1957)**[See *Cytherura skippa* Hanai, 1957.]Semicytherura subundata* (Hanai, 1957)**[See *Cytherura subundata* Hanai, 1957.]***Semicytherura tetragona* (Hanai, 1957)**[See *Cytherura tetragona* Hanai, 1957.]***Semicytherura wakamurasaki* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 218~220, Pl. 14, figs. 1~8, 17, text-figs. 16-1, 2

Holotype: LV female, UMUT CA 9882 (Pl. 14, fig. 6), Paratypes: RV female, UMUT CA 9883 (Pl. 14, figs. 3, 17); RV male, UMUT CA 9884 (Pl. 14, fig. 1); LV female, UMUT CA 9885 (Pl. 14, fig. 7; text-fig. 16-1); RV female, UMUT CA 9886 (Pl. 14, fig. 8); LV male, UMUT CA 9887 (Pl. 14, fig. 2); CC male, UMUT CA 9888 (Pl. 14, fig. 4); CC female, UMUT CA 9889 (Pl. 14, fig. 5); RV female, UMUT CA 9890 (text-fig. 16-2)

Loc. 190 = An exposure, 3.6 km SE of Kobayashi railway station, Imba-mura, Imba-gun, Chiba Prefecture (35 °47'50''N, 140 °12'46''E)

Kioroshi Formation (Kioroshi Member)

Pleistocene

***Semicytherura yajimae* Ikeya and Zhou, 1992**

In Ishizaki, K. and Saito, T. (eds.), Centenary of Japanese Micro-paleontology, 1992, p. 351, figs. 11-1a, 1b, 2, 3a, 3b, 4. Terra Sci. Publ., Tokyo

Holotype: RV, IGSU-O-768 (figs. 11-1a, b, 2), Paratype: LV, IGSU-O-769 (figs. 11-3a, 3b, 4)

St. 11 = Otuschi Bay, Iwate Prefecture (39 °20.0'N, 141 °55.6'E) (mud, depth 35 m)

Recent

Sinocytheridea impressa* (Brady, 1869)**[See *Cytheridea impressa* Brady, 1869.]Sinoleberis* Hu, 1979**

Petr. Geol. Taiwan, no. 16, p. 66, 67

Type species: *Reymontia taiwanica* Hu, 1977***Sinoleberis punctualis* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 183, Pl. 4, figs. 5, 6

Holotype: RV, TNUM 7273 (Pl. 4, figs. 5, 6)

An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan
Hengchun Limestone

Pleistocene

Sinoleberis tosaensis* (Ishizaki, 1968)**[See *Trachyleberis tosaensis* Ishizaki, 1968.]Spinileberis costatus* Hu, 1977**

Petr. Geol. Taiwan, no. 14, p. 205~207, figs. 24-1, 4, 10, 11, 15, text-fig. 23

Holotype: CKUM 3503 (fig. 24-11), Paratypes: LV, CKUM 3500 (figs. 24-1, 4); CKUM 3501 (fig. 24-10); CKUM 3502

(fig. 24-15); CKUM 3504~3506 (no figures)

An outcrop about 2 km S of Miaoli city, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

***Spinileberis furuyaensis* Ishizaki and Kato, 1976**

Takayanagi, Y. and Saito, T. (eds.), Progress in Micro-paleontology, Micropaleont. Press, Amer. Mus. Nat. Hist., New York, p. 142, Pl. 4, figs. 4~9

Holotype: LV, IGPS 91724 (Pl. 4, figs. 8, 9), Paratypes: RV, IGPS 91725 (Pl. 4, fig. 7); LV, IGPS 91723 (Pl. 4, figs. 4~6)

Loc. 4 = A cliff, S of an agricultural lane, 1.5 km SW of the town hall of Loc. 1 (A cliff, S of an agricultural lane, 3,200 m NW of a town hall, Shizunami-cho, Haibara-gun, Shizuoka Prefecture)

Furuya Formation

Pleistocene

[Sample horizon 4C = The top of the cliff]

***Spinileberis* Hanai, 1961**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 44, p. 167

Type species: *Cythere quadriaculeata* Brady, 1880

***Spinileberis marginocarinalis* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 105, 106, Pl. 2, figs. 11, 17, text-fig. 27

Holotype: RV, TNUM 7027 (Pl. 2, figs. 11, 17)

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21° 56.3'N, 120° 48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

***Spinileberis quadriaculeata* (Brady, 1880)**

[See *Cythere quadriaculeata* Brady, 1880.]

***Stenocypris viridis* Okubo, 1990**

Bull. Biogeogr. Soc. Japan, v. 45, nos. 1~22, p. 42, 44, figs. 2f~I

Holotype: CC female with appendages, FO 477 (figs. 2f~i), Paratypes: 3 CC females, FO 475, 476, 629 (no figures) (the specimen missing)

A paddy field, Shiono, Seto-cho, Okayama Prefecture (34° 45.8'N, 134° 03.3'E)

Recent

***Swainocythere* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 58, 59

Type species: *Swainocythere chejudoensis* Ishizaki, 1981

***Swainocythere chejudoensis* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p.

59, 60, Pl. 12, figs. 12a, b, 13~15; Pl. 13, figs. 17, 18; Pl. 15, figs. 12, 13

Holotype: LV, IGPS 97059 (Pl. 12, fig. 14; Pl. 13, fig. 17; Pl. 15, fig. 12), Paratypes: RV, IGPS 97062 (Pl. 12, figs. 12a, b); RV, IGPS 97060 (Pl. 12, fig. 15; Pl. 13, fig. 18; Pl. 15, fig. 13); LV, IGPS 97061 (Pl. 12, fig. 13)

St. 28 = S of Cheju-do (31° 4.8'N, 126° 54.7'E) (mud, depth 105 m)

Recent

***Taiwanocythere* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 103, 104

Type species: *Basslerites taiwanensis* Hu and Yeh, 1978

***Tanella miurensis* Hanai, 1957**

Jour. Fac. Sci., Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 462, 463, Pl. 9, figs. 1a~e, text-figs. 2I, J

Holotype: CC male UMUT CA 2582 (Pl. 9, figs. 1a, b), Allotype: CC female, UMUT CA 2583 (Pl. 9, figs. 1c~e), Paratype: CC male, UMUT CA 2584

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

[=*Tanella pacifica* Hanai, 1957 (new name, not new species)]

T. miurensis Hanai is identical with *Cythere inflata* Brady, 1890, the name *C. inflata* has, however, been preoccupied by Muenster (1830), M'Coy (1844), Norman (1862), Terguemc (1878). Therefore since Brady's *C. inflata* belongs to genus *Tanella*, a new name *T. pacifica* is proposed (by Hanai, 1957, p. 465) [= *Ishizakiella miurensis* (Hanai, 1957) (by Tsukagoshi, 1994)]

***Tanella pacifica* Hanai, 1957**

[See *Tanella miurensis* Hanai, 1957.]

***Tanella supralittoralis* Schornikov, 1974**

Vestnik Zool., no. 4, p. 158-160, text-fig. 11

Holotype: CC male, FESC-418~419, Paratypes: 89 males, 72 females, 100 juveniles

Supralittoral zone of Cirip peninsula, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[=*Ishizakiella supralittoralis* (Schornikov, 1974) (by Tsukagoshi, 1994). The figures (text-fig. 11) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Terrestricythere ivanovae* Schornikov, 1969**

Zool. Jour., v. 48, no. 4, p. 495~497, text-figs. 1-1~16

Holotype: male, FESC141~142, Paratypes: 45 females, 32 males, 6 juveniles (no numbers)

Supralittoral zone of 200 m SW of Kitovaya Bay, Iturup Island, Kuril Islands

Recent

[The figures (text-figs. 1-1~16) in the original description (Schornikov, 1969) cannot be correlated with each type specimen.]

***Terrestricythere* Schornikov, 1969**

Zool. Jour., v. 48, no. 4, p. 495

Type species: *Terrestricythere ivanovae* Schornikov, 1969

***Tetracytherura* miii Ishizaki, 1969**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 41, no. 2, p. 216, 217, Pl. 26, figs. 10, 11, Pl. 24, figs. 1~3

Holotype: RV, IGPS 90328 (Pl. 26, fig. 10, Pl. 24, fig. 2), Paratypes: LV, IGPS 90329 (Pl. 26, fig. 11, Pl. 24, fig. 1); LV, IGPS 90330 (Pl. 24, fig. 3)

St. 17 = Nakanoumi Estuary, Shimane Prefecture (35 ° 28'01''N, 133 °08'32''E) (muddy sand, depth 1.9 m)

Recent

[=*Angulicytherura* ? *miii* (Ishizaki, 1969) (by Nakao and Tsukagoshi, 2002)]

***Thalassocyprina inujimensis* Okubo, 1980**

Proc. Japan Soc. Syst. Zool., no. 18, p. 22~25, text-figs. 3a~k, Pl. 1, figs. i, j

Holotype: CC female with appendages, MO 1152 (=NSMT-Cr 15327) (text-figs. 3a~k), Paratype: CC female with appendages, MO 1153 (=NSMT-Cr 15328) (Pl. 1, figs. i, j)

The intertidal zone, stony shore, Inu-jima, Okayama-shi, Okayama Prefecture

(34 °33.5'N, 134 °06.4'E)

Recent

[=*Paracyprina inujimensis* (Okubo, 1980) (by Wouters, 1998)]

***Tongacythere hanaii* Nohara, 1987**

Bull. Coll. Educ., Univ. Ryukyus, no. 30, pt. 2, p. 50, 51, Pl. 10, figs. 2a~e

Holotype: LV, RUEG 131 (Pl. 10, figs. 2a~e)

St. 400 = Ca. 6 km SSW of Minami-daito-jima, E of Okinawa (25 °45'02''N, 131 °13'52''E) (sandy mud, depth 2450 m)

Recent

***“Toulminia” hokkaidoana* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 479~481, Pl. 11, figs. 2a, b, text-figs. 5a, b

Holotype: CC female, UMUT CA 2593 (Pl. 11, figs. 2a, b, text-figs. 5a, b)

The valley of Toshibetsugawa, about 800 m W of Omagari, Toshibetsu-mura, Setana-gun, Hokkaido

Setana Formation

Upper Pliocene

[=*Munseyella hokkaidoana* (Hanai, 1957) The new name, *Munseyella* was proposed by Van den Bold, 1957 for *Toulminia* Munsey, 1953 (preoccupied by the sponge genus

Toulminia Zittel, 1878) (by Hanai, 1957, p. 481).]

***“Toulminia” japonica* Hanai, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, v. 10, pt. 3, p. 478, 479, Pl. 11, figs. 1a~e, text-figs. 3a, b, 4a, b

Holotype: CC male, UMUT CA 2589 (Pl. 11, figs. 1a, b), Allotype: CC female, UMUT CA 2590 (Pl. 11, figs. 1c, d, text-figs. 4a, b), Paratypes: CC male, UMUT CA 2591 (text-figs. 3a, b); CC male, UMUT CA 2592 (Pl. 11, fig. 1e)

The shore behind an Imperial villa, Hayama-cho, Kanagawa Prefecture (beach sand)

Recent

[=*Munseyella japonica* (Hanai, 1957). The generic name, *Munseyella* was proposed by Van den Bold, 1957 for *Toulminia* Munsey, 1953 (preoccupied by the sponge genus *Toulminia* Zittel, 1878) (by Hanai, 1957, p. 481).]

***Trachyleberidea pitalia* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 86, 87, Pl. 1, figs. 12, 14, 20, 21, 22, text-fig. 6

Holotype: TNUM 4014, Paratypes: TNUM 7015~7018

Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 °48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[=*Bradleya pitalia* (Hu, 1981) (by Zhou, 1995). Five figures (Pl. 1, figs. 12, 14, 20, 21, 22) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 4014, 7015~7018).]

***Trachyleberidea polyclada* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 86, Pl. 1, figs. 6, 11, 13, 15, 16, 17, 19, text-fig. 5

Holotype: TNUM 7013, Paratypes: CC, TNUM 7008 (Pl. 1, figs. 6, 13); 2 RV, TNUM 7009, 7013a (Pl. 1, figs. 15, 17);

TNUM 7010~7012 Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 °56.3'N, 120 °48.2'E)

Maanshan Mudstone

Late Pliocene to Early Pleistocene

[Four figures (Pl. 1, figs. 11, 13, 16, 19) in the original description (Hu, 1981b) cannot be correlated with each type specimen (TNUM 7010~7013).]

***Trachyleberis* Brady, 1898**

Trans. zool. Soc. Lond., v. 14, p. 444, 445, Pl. 47, figs. 1~7, 18~25

Type species: *Cythere scabrocuneata* Brady, 1880

***Trachyleberidea acrocaudalis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the

continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 156, Pl. 169, figs. 7~10
Holotype: CC, DJ 0082 (Pl. 169, figs. 9, 10), Paratypes: CC, RV 0080 (Pl. 169, fig. 7); CC, DJ 0081 (Pl. 169, fig. 8)

East China Sea

Oujiang Formation

Early Eocene

[=*Caudites?acrocaudalis* (Liu, 1989) (by Yang *et al.*, 1990)]

***Trachyleberis costus* Hu, 1983**

Petr. Geol. Taiwan, no. 19, p. 150, 151, Pl. 1, figs. 17~19

Holotype: TNUM 7116, Paratypes: TNUM 7117; TNUM 7118

Outcrops along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21 ° 56.3'N, 120 °48.2'E)

Maanshan Mudstone

Plio-Pleistocene

[=*Acanthocythereis niitsumai* (Ishizaki, 1971) (by Hu, 1986). Three figures (Pl. 1, figs. 17~19) in the original description (Hu, 1983) cannot be correlated with each type specimen (TNUM 7116~7118).]

***Trachyleberis cuneatelles* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 98, 99, Pl. 7, figs. 15~17, 19, 21, text-fig. 32

Holotype: TNUM 8162, Paratypes: CC, TNUM 8161 (Pl. 7, fig. 19); TNUM 8163; TNUM 8164; LV, TNUM 8165 (Pl. 7, figs. 17)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22 °00.5'N, 120 °44.1'E)

Ssukou Formation

Pleistocene

[=*Trachyleberis scabrocuneata* (Brady, 1880) (by Hu, 1986). Three figures (Pl. 7, figs. 15, 16, 21) in the original description (Hu, 1984) cannot be correlated with each type specimen (TNUM 8162~8164).]

***Trachyleberis echinatus* Hu, 1981**

Quart. Jour. Taiwan Mus., v. 34, nos. 1/2, p. 66, 67, Pl. 1, fig. 4, text-fig. 4

Holotype: RV, TNUM 4102 (Pl. 1, fig. 4)

An outcrop of the west edge of the Hengchun Table Land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

[=*Acanthocythereis niitsumai* (Ishizaki, 1971) (by Hu, 1986)]

***Trachyleberis ishizakii* Yasuhara *et al.*, 2002**

Paleontological Research, v. 6, no. 1, p. 93, figs. 7-1~10

Holotype: RV male, OCUCO 0005 (fig. 7-1), Paratypes: RV male, OCUCO 0006 (fig. 7-2); LV male, OCUCO 0007 (fig. 7-3); LV male, OCUCO 0008 (figs. 7-4a, 4b); RV female,

OCUCO 0009 (fig. 7-5); RV female, OCUCO 0010 (figs. 7-6a, 6b); LV female, OCUCO 0011 (fig. 7-7); LV female, OCUCO 0012 (figs. 7-8); RV juvenile (A-1 Stage), OCUCO 0013 (fig. 7-9); LV juvenile (A-1 Stage), OCUCO 0014 (figs. 7-10)

T1-6 (core sample) = Ca. 8 km NW of Wakayama-shi, Wakayama Prefecture (34 °14.7'N, 135 °05.2'E) (depth ca. 20 m)

Holocene

[Sample horizon = Ca. 15 m below the sea floor]

***Trachyleberis leei* Huh and Whatley, 1997**

Jour. Micropalaeont., v. 16, p. 37, Pl. 2, figs. 10~15

Holotype: LV female, CNU O 523 (Pl. 2, fig. 12), Paratypes: RV female, CNU O 524 (Pl. 2, fig. 10); LV female, CNU O 525 (Pl. 2, fig. 11); RV female, CNU O 526 (Pl. 2, fig. 13); RV female, CNU O 527 (Pl. 2, fig. 14); LV male, CNU O 528 (Pl. 2, fig. 15)

Sample SJ2-3 = Seojeongri area of Yeongil-gun, ca. 8.5 km NNW of Pohang, SE coast of Korean Peninsula

Yeonil Group

Middle Miocene

***Trachyleberis lungkangensis* Hu and Cheng, 1977**

Mem. Geol. Soc. China, no. 2, p. 194, 195, Pl. 1, figs. 7~14, text-fig. 5

Holotype: CCfemale, CKUM 3020 (Pl. 1, fig. 14), Paratypes: CC male, CKUM 3016 (Pl. 1, figs. 7, 13); female, CKUM 3017 (Pl. 1, fig. 8); LV male, CKUM 3018 (Pl. 1, fig. 9); RV male, CKUM 3021 (Pl. 1, fig. 11); RV female, CC, CKUM 3019 (Pl. 1, fig. 12); CKUM 3017 (Pl. 1, fig. 10); CKUM 3022~3027 (no figures)

An outcrop along the coast near the mouth of the Wumei River, 1.2 km SW of Lungkang, Houlung, Miaoli-hsien, Taiwan

Lungkang Formation

Pleistocene

***Trachyleberis macrus* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 110, Pl. 2, figs. 15, 17~19, 22

Holotype: CC, CKUM 1030 (Pl. 2, figs. 17, 19), Paratypes: CKUM 1031; CKUM 1032; CC, CKUM 1033 (Pl. 2, fig. 22)

Mc-1 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan

Chinshui Shale

Pliocene

[Two figures (Pl. 2, figs. 15 and 18) in the original description (Hu and Yang, 1975) cannot be correlated with each type specimen (CKUM 1031, 1032).]

***Trachyleberis mizunamiensis* Yajima, 1992**

Bull. Mizunami Fossil Mus., no. 19, p. 257, 258, Pl. 32, figs. 7~10

Holotype: CC female, UMUT CA 19087 (Pl. 32, fig. 8), Paratypes: LV female, UMUT CA 19088 (Pl. 32, fig. 7); CC male, UMUT CA 19089 (Pl. 32, fig. 9); CC male, UMUT CA 19090 (Pl. 32, fig. 10)

Loc. 1 = A small exposure, right bank of the Hiyoshi River, 2.5 km N of the Mizunami Fossil Museum, Hiyoshi-machi, Mizunami-shi, Gifu Prefecture (35°23'29''N, 137°14'27''E) Akeyo Formation (Shukunohora Sandstone Member) Early Miocene

***Trachyleberis niitsumai* Ishizaki, 1971**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 43, no. 1, p. 93, Pl. 1, fig. 5, Pl. 4, figs. 15, 18, Pl. 5, fig. 3, Pl. 6, fig. 10, Pl. 7, fig. 9

Holotype: RV male, IGPS 91705 (Pl. 6, fig. 10, Pl. 7, fig. 9), Paratypes: LV female, IGPS 91706 (Pl. 1, fig. 5, Pl. 4, fig. 18, Pl. 5, fig. 3); LV immature form, IGPS 91707 (Pl. 4, fig. 15) St. 72 = Aomori Bay, Aomori Prefecture (40°53'22''N, 140°47'49''E) (mud, depth 41 m)

Recent

[=*Acanthocythereis*? *niitsumai* (Ishizaki, 1971) (by Hanai *et al.*, 1977)]

***Trachyleberis praeniitsumai* Huh and Whatley, 1997**

Jour. Micropalaeont., v. 16, p. 37, 39, Pl. 3, figs. 1~5

Holotype: LV female, CNU O 529 (Pl. 3, fig. 3), Paratypes: CC female, CNU O 530 (Pl. 3, figs. 1, 2); RV female, CNU O 531 (Pl. 3, fig. 4); RV female, CNU O 532 (Pl. 3, fig. 5)

Sample SJ2-3 = Seojeongri area of Yeongil-gun, ca. 8.5 km NNW of Pohang, SE coast of Korean Peninsula Yeonil Group Middle Miocene

***Trachyleberis scabrocuneata* (Brady, 1880)**

[See *Cythere scabrocuneata* Brady, 1880.]

***Trachyleberis shukunohorensis* Yajima, 1992**

Bull. Mizunami Fossil Mus., no. 19, p. 258, 259, Pl. 32, figs. 1~4

Holotype: CC female, UMUT CA 19091 (Pl. 32, fig. 2), Paratypes: CC female, UMUT CA 19092 (Pl. 32, fig. 1); CC male, UMUT CA 19093 (Pl. 32, fig. 3); RV male, UMUT CA 19094 (Pl. 32, fig. 4)

Loc. 1 = A small exposure, right bank of the Hiyoshi River, 2.5 km N of the Mizunami Fossil Museum, Hiyoshi-machi, Mizunami-shi, Gifu Prefecture (35°23'29''N, 137°14'27''E) Akeyo Formation (Shukunohora Sandstone Member) Early Miocene

***Trachyleberis spinosus* Hu and Yang, 1975**

Proc. Geol. Soc. China, no. 18, p. 110, Pl. 1, figs. 1~3, 7, 9

Holotype: CC, CKUM 1024 (Pl. 1, figs. 1, 7), Paratypes: CKUM 1025 (Pl. 1, fig. 2); CC, CKUM 1026 (Pl. 1, figs. 3, 9); CKUM 1027~1029 (no figures)

Mc-4 = An outcrop of S side along the Houlung River, ca. 2 km W of Fuchi county, Miaoli district, Taiwan Chinshui Shale Pliocene

***Trachyleberis tosaensis* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 38, 39, Pl. 2, figs. 7, 8, Pl. 8, figs. 5, 6

Holotype: RV, IGPS 90304 (Pl. 2, fig. 8, Pl. 8, fig. 5), Paratype: LV, IGPS 90305 (Pl. 2, fig. 7, Pl. 8, fig. 6)

St. 318 = Uranouchi Bay, Kochi Prefecture (33°26'22''N, 133°28'10''E) (fine sand, depth 10 m)

Recent

[=*Sinoleberis tosaensis* (Ishizaki, 1968) (by Malz and Ikeya, 1982)]

***Trachyleberis uncuneatelles* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 100, Pl. 7, figs. 18, 23, text-fig. 33

Holotype: TNUM 8160 (Pl. 7, fig. 23), Paratype: TNUM 8159 (Pl. 7, fig. 18)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

***Trachyleberis volubilis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 154, Pl. 168, figs. 12~16

Holotype: CC, DJ 0092 (Pl. 168, fig. 13), Paratypes: CC, DJ 0084 (Pl. 168, figs. 15, 16); CC, DJ 0093 (Pl. 168, fig. 12); CC, DJ 0100 (Pl. 168, fig. 14)

East China Sea

Oujiang Formation

Early Eocene

***Trachyleberis wenzhouensis* Chen, 1990**

Acta Micropalaeontologica Sinica, v. 7, no. 4, p. 376, Pl. 1, fig. 16

Holotype: CC, 111224 (Pl. 1, fig. 16)

Hole W6-1-1 (core) = 160 km E of Wenzhou City, SW of East China Sea (27°50'N, 122°50'E)

Oujiang Formation

Early Eocene

***Trachyleberis? zhoushanensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological

Publishing House Press, Beijing, p. 154, Pl. 168, figs. 9, 10
 Holotype: LV, DJ 0120a (Pl. 168, fig. 9), Paratype: RV, DJ 0120b (Pl. 168, fig. 10)
 East China Sea
 Donghai Group
 Pleistocene to Holocene

***Triebelina lata* Hu, 1984**

Jour. Taiwan Mus., v. 37, no. 1, p. 72, 73, Pl. 9, figs. 1, 4, text-fig. 3
 Holotype: LV, TNUM 8046 (Pl. 9, figs. 1, 4)
 The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)
 Ssukou Formation
 Pleistocene

***Triebelina rectangulata* Hu, 1981**

Petr. Geol. Taiwan, no. 18, p. 84, 85, Pl. 2, figs. 12, 18, 22, text-fig. 3
 Holotype: RV, TNUM 7031 (Pl. 2, figs. 12, 18, 22)
 Outcrop along the Hengchun to Olanpi Highway, N coast of the Nanwan Bay, Hengchun Peninsula, Taiwan (ca. 21°56.3'N, 120°48.2'E)
 Maanshan Mudstone
 Late Pliocene to Early Pleistocene

***Typhlocythere japonica* Ishizaki, 1981**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 51, nos. 1/2, p. 51~53, Pl. 10, figs. 10, 11a, b; Pl. 11, figs. 1, 2, 5; Pl. 14, figs. 9, 10; Pl. 15, fig. 7
 Holotype: RV, IGPS 97074 (Pl. 10, fig. 10; Pl. 11, fig. 5), Paratypes: LV, IGPS 97071 (Pl. 11, fig. 1; Pl. 14, fig. 10; Pl. 15, fig. 7); RV, IGPS 97072 (Pl. 11, fig. 2; Pl. 14, fig. 9); LV, IGPS 97073 (Pl. 10, figs. 11a, b)
 St. 24 = W of East China Sea (28°21.4'N, 124°32.0'E) (fine sand, depth 99 m)
 Recent

***Urocythereis ? abei* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 71~73, Pl. 7, figs. 1~11, Pl. 20, fig. 5, text-fig. 18-6
 Holotype: LV female, UMUT CA 15792 (Pl. 7, fig. 2, Pl. 20, fig. 5), Paratypes: RV female, UMUT CA 15793 (Pl. 7, fig. 1); RV female, UMUT CA 15794 (Pl. 7, fig. 9); RV female, UMUT CA 15795 (Pl. 7, fig. 11, text-fig. 18-6); LV female, UMUT CA 15796 (Pl. 7, fig. 8); LV female, UMUT CA 15797 (Pl. 7, fig. 10); RV male, UMUT CA 15798 (Pl. 7, fig. 3); RV immature form (A-1 stage), UMUT CA 15799 (Pl. 7, fig. 4); LV immature form (A-1 stage), UMUT CA 15800 (Pl. 7, fig. 5); RV immature form (A-2 stage), UMUT CA 15801 (Pl. 7, fig. 6); LV immature form (A-2 stage), UMUT CA 15802 (Pl. 7, fig. 7)
 Loc. OT3 = An exposure along the Otanizawa River, 4 km S

of Tsurugasaka railway station, Magonai, Aomori-shi, Aomori Prefecture (40°45'12''N, 140°39'03''E)
 Daishaka Formation
 Plio-Pleistocene

***Urocythereis ? posterocostata* Tabuki, 1986**

Bull. Coll. Educ., Univ. Ryukyus, no. 29, pt. 2, p. 73, 74, Pl. 8, figs. 1~10, text-fig. 18-7
 Holotype: LV, UMUT CA 15803 (Pl. 8, figs. 2, 5), Paratypes: RV, UMUT CA15804 (Pl. 8, figs. 1, 6); RV, UMUT CA15805 (Pl. 8, fig. 10, text-fig. 18-7); LV, UMUT CA15806 (Pl. 8, fig. 9); RV immature form (A-1 stage), UMUT CA15807 (Pl. 8, fig. 3); LV immature form (A-1 stage), UMUT CA15808 (Pl. 8, fig. 4); RV immature form (A-2 stage), UMUT CA15809 (Pl. 8, fig. 7); LV immature form (A-2 stage), UMUT CA15810 (Pl. 8, fig. 8)
 Loc. T1 = A small exposure along the Tanosawa River, 1 km NE of eastern entrance of Shin-Daishaka tunnel, Aomori-shi, Aomori Prefecture (40°46'54''N, 140°37'05''E)
 Daishaka Formation
 Plio-Pleistocene

***Urocythereis gorokuensis* Ishizaki, 1966**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 37, no. 2, p. 144, 145, Pl. 19, figs. 9, 10, text-fig. 1, fig. 7
 Holotype: RV, IGPS 87061 (Pl. 19, fig. 9, text-fig. 1, fig. 7), Paratype: LV immature form, IGPS 87060 (Pl. 3, fig. 10)
 Goroku, in the western border of Sendai-shi, Miyagi Prefecture
 Tatsunokuchi Formation (upper horizon)
 Pliocene
 [= *Urocythereis ? gorokuensis* Ishizaki, 1966 (by Hanai *et al.*, 1977)]

***Urocythereis miii* Ishizaki, 1969**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 41, no. 2, p. 218, 219, Pl. 25, figs. 11, 12, Pl. 24, figs. 5, 6
 Holotype: RV, IGPS 90332 (Pl. 25, fig. 24, Pl. 24, fig. 6), Paratype: LV, IGPS 90333 (Pl. 25, fig. 12, Pl. 24, fig. 5)
 St. 12 = Nakanoumi Estuary, Shimane Prefecture (35°31'12''N, 133°11'22''E) (muddy sand, depth 6.3 m)
 Recent
 [= *Hemicythere ? miii* (Ishizaki, 1969) (by Hanai *et al.*, 1977)]

***Urocythereis pohangensis* Huh and Whatley, 1997**

Jour. Micropalaeont., v. 16, p. 36, 37, Pl. 2, figs. 3~9
 Holotype: LV male, CNU O 516 (Pl. 2, fig. 6), Paratypes: LV female, CNU O 517 (Pl. 2, fig. 3); RV female, CNU O 518 (Pl. 2, fig. 4); RV male, CNU O 519 (Pl. 2, fig. 5); LV female, CNU O 520 (Pl. 2, fig. 7); RV female, CNU O 521 (Pl. 2, fig. 8); RV juvenile, CNU O 522 (Pl. 2, fig. 9)
 Sample SJ2-3 = Seojeongri area of Yeongil-gun, ca. 8.5 km NNW of Pohang, SE coast of Korean Peninsula
 Yeonil Group

Middle Miocene

***Urocythereis yuquanensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 146, Pl. 165, fig. 7

Holotype: LV, DJ 0106 (Pl. 165, fig. 7)

East China Sea

Donghai Group

Pleistocene to Holocene

***Uroleberis ovatus* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 151, 152, Pl. 4, figs. 16, 18, text-fig 25

Holotype: LV, CKUM 3876 (Pl. 4, figs. 16, 18), Paratypes: CKUM 3877~3879 (no figures)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

***Uroleberis pseudodemocrace* Hu, 1982**

Quart. Jour. Taiwan Mus., v. 35, nos. 3/4, p. 173, 174, Pl. 2, figs. 2~5, text-fig. 1

Holotype: RV, TNUM 7223 (Pl. 2, figs. 2, 5), Paratype: RV, TNUM 7224 (Pl. 2, figs. 3, 4)

An outcrop of the west edge of the Hengchun Table land, near Shanhai-li, 3 km W of the city of Hengchun, Taiwan

Hengchun Limestone

Pleistocene

***Vargula hilgendorffii* (G. W. Müller, 1890)**

[See *Cypridina hilgendorffii* G. W. Müller, 1890.]

***Vargula sekiguchii* Hiruta, 1984**

Jour. Hokkaido Univ. Educ. Sec. B, v. 35, no. 1, p. 55~61, figs. 1-1~9, 2-1~7, 3-1~7, 4-1~4, 5-1~5

Holotype: CC female with appendages, ZIHU 2239 (figs. 1-1~4, 6~8, 2-1,3,4,6, 3-1~5, 7, 4-1~4, 5-1~3, 5) (shell specimen missing), Paratypes: CC female with appendages, ZIHU 2240 (no figures); CC female with appendages, ZIHU 2241 (figs. 1-5, 2-5,7, 3-6, 5-4); CC female with appendages, ZIHU 2242 (fig. 2-2); CC female with appendages, ZIHU 2243 (no figures); CC juvenile (male) (A-1 stage) with appendages, ZIHU 2244 (fig.1-9)

Off Enshunada, Pacific coast of Shizuoka Prefecture (34 ° 21.0'N, 137 °59.5'E) (depth 520 m)

Recent

***Vargula spinosa* Poulsen, 1962**

Dana-Report, Copenhagen, Carlsberg, Fdn., v. 57, p. 192~196, text-figs. 95, 96

Holotype: CC female with 15 embryos, ZMUC-collection, Paratype: juvenile female, ZMUC-collection
Okinose, Sagami-nada, Sagami Bay, (hard bottom, depth 180 m)

***Violacytheroïs sargassicola* (Hiruta, 1976)**

[See *Cytheroïs sargassicola* (Hiruta, 1976).]

***Vitjasiella belyaevi* Schornikov, 1976**

Abh. Verh. naturwiss. Ver. Hamburg, nos. 18/19 (Suppl.), p. 254~257, figs. 3, 4-1~12, 5-1~5, 6-1~10

Holotype: CC female with appendages, FESC1581 (figs. 4-1, 2, 6, 7~12, 5-1~5, 6-1~3, 6, 8), Paratype: CC female with appendages (no number) (fig. 3, 4-3~5, 6-4, 5, 7)

Kurile-Kamchatka trough (45 °14'N, 155 °05'E) (depth 5090~5100 m)

Recent

***Vitjasiella* Schornikov, 1976**

Abh. Verh. naturwiss. Ver. Hamburg, nos. 18/19 (Suppl.), p. 252, 254

Type species: *Vitjasiella balyaevi* Schornikov, 1976

***Xenoleberis yamadai* (Hiruta, 1979)**

[See *Bathyleberis yamadai* Hiruta, 1979.]

***Xestoleberis bulbous* Hu, 1978**

Petr. Geol. Taiwan, no. 15, p. 150, 151, Pl. 4, figs. 1~8, text-fig 24

Holotype: CKUM 3866 (Pl. 4, figs. 1, 7), Paratypes: CKUM 3861 (Pl. 4, fig. 2); CKUM 3862 (Pl. 4, fig. 4); CKUM 3863 (Pl. 4, fig. 5); CKUM 3864 (Pl. 4, fig. 8); CKUM 3865 (Pl. 4, fig. 3); CKUM 3867~3872 (no figures)

An outcrop about 2 km S of Miaoli City, Miaoli District, Taiwan

Toukoshan Formation

Pleistocene

***Xestoleberis dentata* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 7~9, fig. 3

Holotype: male, FESC 496~497, Paratypes: 2 males, 6 females, 1 female valve, 1 juvenile valve (A-1 stage) (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[The figures (fig. 3) in the original description (Schornikov, 1975b) cannot be correlated with each type specimen.]

***Xestoleberis hanaii* Ishizaki, 1968**

Sci. Rep., Tohoku Univ., 2nd Ser. (Geol.), v. 40, no. 1, p. 41, 42, Pl. 9, figs. 1, 2

Holotype: LV, IGPS 90316 (Pl. 9, fig. 2), Paratype: RV, IGPS

90317 (Pl. 9, fig. 1)

St. 67 = Uranouchi Bay, Kochi Prefecture (33°25'18''N, 133°23'54''E) (mud, depth 16 m)

Recent

***Xestoleberis inabai* Okubo, 1985**

Spec. Publ. Mukaishima Marine Biological Station, no. 244, p. 123~126, figs. 1a~j, 2a~g

Holotype: CC male with appendages, MO 1692a (=NSMT-Cr 15329) (figs. 2c, d), Paratypes: CC female with appendages, MO 1692b (=NSMT-Cr 15330) (figs. 1a, b, 2a, b); CC male with appendages, MO 1707 (figs. 1c~j, 2g); CC female, MO 2000 (no figures)

The intertidal zone, rocky shore, Abratsubo, Miura-shi, Kanagawa Prefecture (35°09.2'N, 139°36.9'E) (on algae)

Recent

***Xestoleberis ishizakii* Schornikov, 1975**

Publ. Seto Mar. Biol. Lab., v. 22, nos. 1/4, p. 5~7, fig. 2

Holotype: male, FESC 494~495, Paratypes: 2 males, 10 females, 1 juvenile (A-4 stage), 3 valves (no numbers)

The intertidal zone of rocky shore, Shirahama, near the Seto Marine Biological Laboratory of Kyoto University, Wakayama Prefecture

Recent

[=*Xestoleberis sagamiensis* Kajiyama, 1913 (by Hanai *et al.*, 1977). The figures (fig. 2) in the original description (Schornikov, 1975b) cannot be correlated with each type specimen.]

***Xestoleberis iturupica* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 180~182, text-fig. 24

Holotype: CC male, FESC 420~421, Paratypes: no numbers
Sublittoral zone of Ryeyd Udobniy Bay, Okhotsk seashore of Iturup Is., Kuril Islands

Recent

[The figures (text-fig. 24) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Xestoleberis lingfengensis* Liu, 1989**

In Research party of marine geology, ministry of geology and mineral resources and institute of geology, chinese academy of geological sciences (eds.), Cenozoic Paleobiota of the continental shelf of the East China Sea, Geological Publishing House Press, Beijing, p. 160, Pl. 165, fig. 10

Holotype: CC, DJ 0057 (Pl. 165, fig. 10)

East China Sea

Lingfeng Formation

Paleocene

***Xestoleberis opalescenta* Schornikov, 1974**

Acad. Sci. USSR, Far East Br., Inst. Mar. Biol., no. 1, p. 183,

184, text-fig. 25

Holotype: CC male, FESC 422~423

Southern shore of Kunashir Island, Kuril Islands

Recent

[The figures (text-fig. 25) in the original description (Schornikov, 1974) cannot be correlated with each type specimen.]

***Xestoleberis sagamiensis* Kajiyama, 1913**

Zool. Mag. Tokyo (Dobutsugaku-zasshi), v. 25, no. 291, p. 8, Pl. 1, figs. 26~29

Holotype: not designated. (UMUT collection = all of the original type material missing)

Misaki, Miura-shi, Kanagawa Prefecture

Recent

***Xestoleberis setouchiensis* Okubo, 1979**

Proc. Japan Soc. Syst. Zool., no. 16, p. 10~14, text-figs. 2a~f, 3a~r, Pl. 1, figs. a~l

Holotype: CC male with appendages, MO 578 (=NSMT-Cr 15331) (text-figs. 2a, b, Pl. 1, figs. a~d), Paratypes: CC male with appendages, MO 515 (=NSMT-Cr 15332) (text-figs. 2c, d, 3j~r, Pl. 1, figs. g~j); CC male, MO 516 (no figures) (the specimen missing); CC female, MO 556a (text-fig. 2e); CC female, MO 556b (text-fig. 2f); CC male with appendages, MO 575 (text-figs. 3d, e, Pl. 1, figs. e, f) (the specimen missing); male appendages, MO 743 (text-figs. 3a~c, e~j) (the specimen missing); CC male, MO 747 (no figures) (the specimen missing); CC male with appendages, MO 750 (Pl. 1, figs. k, l) (the specimen missing)

The intertidal zone of rocky shore, Aioi-shi, Hiyogo Prefecture (34°45.7'N, 134°28.4'E)

Recent

***Xestoleberis suetsumuhana* Yajima, 1982**

Univ. Mus. Univ. Tokyo, Bull. no. 20, p. 224~226, Pl. 15, figs. 11, 12, text-figs. 16-5, 6

Holotype: LV, UMUT CA 9913 (Pl. 15, fig. 12, text-fig. 16-5), Paratype: RV, UMUT CA 9914 (Pl. 15, fig. 11, text-fig. 16-6)

Loc. 138 = A cliff, 2.75 km NE of Higashiyokota railway station, Sodegaura-machi, Kimitsu-gun, Chiba Prefecture (35°24'12''N, 140°03'20''E)

Yabu Formation (Kamiizumi Member)

Pleistocene

***Xiphichilus fusiformis* Hu, 1984**

Jour. Taiwan Mus. v. 37, no. 1, p. 85, 86, Pl. 8, figs. 15, 20, text-fig. 18

Holotype: RV, TNUM 8040 (Pl. 8, figs. 15, 20)

The east slope of the Hengchun West Table-land, ca. 3 km W of Hengchun city, Hengchun Peninsula, Taiwan (22°00.5'N, 120°44.1'E)

Ssukou Formation

Pleistocene

Yezocythere Hanai and Ikeya, 1991

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 163, p. 868, 871

Type species: *Yezocythere hayashii* Hanai and Ikeya, 1991

Yezocythere hayashii Hanai and Ikeya, 1991

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 163, p. 871, 872,
figs. 4-1~9, 5-1~5, 6

Holotype: LV male, IGSU-O-150 (fig. 3-1a, b, 3-8a, b),
Paratypes: RV male, IGSU-O-151 (figs. 4-2a, b, 4-3a, b, 4-9a,
b); RV female, IGSU-O-153 (figs. 4-4a, b, 5-3a, b, 5-4a, b);
RV young instars, IGSU-O-154~156 (figs. 5-5~7); LV
female, IGSU-O-152 (figs. 5-1a, b, 5-2a, b, 5-5a, b); RV
male, IGSU-O-681 (fig. 6)

Loc. Hayashi-818a = Northern entrance of the Kuromatusnai
Tunnel of JR Hakodate Main Line, S of Kuromatusnai,
Suttsu-gun, Hokkaido (42°38'39"N, 140°18'29"E)

Setana Formation

Lower Pleistocene

Zabythocypris kurilensis Schornikov, 1980

Zool. Jour., v. 59, no. 2, p. 189~191, figs. 1a~s, 2h, 1~n

Holotype: male, FESC 1532~1533, Paratype: 5 males, 2
females, 4 juveniles (A-1 Stage), 4 juveniles (A-2 Stage) (no
numbers)

Near the Kurile-Kamchatka trough (45°26'N, 154°12'E)
(depth 5200 m)

Recent

[The figures (figs. 1a~s, 2h, 1~n) in the original description
(Schornikov, 1980) cannot be correlated with each type
specimen.]

Jurassic Ammonoidea

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***Arietoceras* (?) *japonicum* Matsumoto, 1947 (= *Canavaria japonica* (Matsumoto, 1947))**

Sci. Rep. Fac. Sci., Kyushu Univ., Geol., vol. 2, no. 1, p. 26, pl. 2, fig. 2.

Lectotype: KUGK. G. 2002

Anda-dani, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Pliensbachian, Jurassic

***Arnioceras yokoyamai* Sato, 1957**

Jour. Fac. Sci. Univ. Tokyo, Sect 2, vol. 10, part 3, p. 344, pl. 1, figs. 3-5.

Nakazai, Utatsu Town, Motoyoshi County, Miyagi Prefecture, Japan

Hosoura Formation

Sinemurian to Aalenian, Jurassic

***Ataxioceras kurisakense* Kobayashi and Fukada, 1947**

Japanese Jour. Geol. Geogr., vol. 20, p. 46, pl. 11, figs. 2, 3.

Holotype: UMUTMM. 7042

Kurisaka, Kaminaka Town, Tokushima Prefecture, Japan

Kurisaka Formation

Oxfordian to Kimmeridgian, Jurassic

***Cadomites bandoi* Takahashi, 1969**

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, pp. 61-62, pl. 5, figs 4, 6-8, 13.

Holotype: IGPS coll. cat. no. 87908

About 1 km NE of Niida, northeast of Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan

Aratozaki Formation

Bajocian to Oxfordian, Jurassic

***Choffatia* ? *oginohamaensis* Takahashi, 1969**

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, pp. 72-73, pl. 11, fig. 2, pl. 12, fig. 1.

Holotype: IGPS coll. cat. no. 87938

North coast of Oginohama Bay, at about 700 m west of Oginohama village, west coast of Ojika Peninsula, Miyagi Prefecture, Japan

Oginohama Formation

Bajocian to Oxfordian, Jurassic

***Coeloceras subfibulatum* Yokoyama, 1904 (= *Peronoceras subfibulatum* (Yokoyama, 1904))**

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 19, art. 20, pp. 15-16,

pl. 3, fig. 6.

Lectotype: UMUTMM. 7066

Nishinagano, Toyoda City, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Toarcian, Jurassic

***Dactyloceras helianthoides* Yokoyama, 1904 (= *Dactyloceras (Dactyloceras) helianthoides* Yokoyama, 1904)**

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 19, art. 20, pp. 16-17, pl. 4, fig. 6.

Lectotype: UMUTMM. 7073

Nishinakayama, Kikukawa Town, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Pliensbachian to Toarcian, Jurassic

***Dichotomosphinctes kiritaniensis* Sato, 1962 (= *Discosphinctes kiritaniensis* (Sato, 1962))**

Mem. Soc. geol. France, nouv. ser., vol. 41, fasc. 1, no. 94, p. 88, pl. 8, figs. 1, 2, 6, 11.

Holotype: UMUTMM. 3793

Niranohama, Utatsu Town, Motoyoshi County, Miyagi Prefecture, Japan

Niranohama Formation

Oxfordian, Jurassic

***Grammoceras chibai* Yokoyama, 1914 (= *Planammatoceras chibai* (Yokoyama, 1914))**

Jour. Geol. Soc. Tokyo, vol. 21, no. 253, p. 41, pl. 20.

Holotype: IGPS coll. cat. no. 4328

Sea bottom near Hosoura, Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan

***Grammoceras (Pseudogrammoceras) nakayamense* Matsumoto, 1947 (= *Fucinoceras nakayamense* (Matsumoto, 1947))**

Sci. Rep. Fac. Sci., Kyushu Univ., Geol., vol. 2, no. 1, p. 27, pl. 1, fig. 4.

Lectotype: KUGK. G. 2004

Higashinagano, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan

Higashinagano Formation

Pliensbachian to Toarcian, Jurassic

***Grammoceras* (s. s.) *nipponicum* Matsumoto, 1947 (= *Protogrammoceras nipponicum* (Matsumoto, 1947))**

Sci. Rep. Fac. Sci., Kyushu Univ., Geol., vol. 2, no. 1, p. 27, pl. 2, fig. 3.

Lectotype: KUGK. G. 2013

Sakuraguchi-dani, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Pliensbachian to Toarcian, Jurassic

***Grammoceras* (?) *okadai* Yokoyama, 1904 (= *Harpoceras* (*Harpoceras*) *okadai* (Yokoyama, 1904))**

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 19, art. 20, p. 14, pl. 4, fig. 3.

Holotype: UMUTMM. 7072

Nishinakayama, Kikukawa Town, Toyora County, Yamaguchi Prefecture, Japan
Nishinakayama Formation
Pliensbachian to Toarcian, Jurassic

***Grammoceras* (s. l.) *primordium* Matsumoto, 1947 (= *Fuciniceras primordium* (Matsumoto, 1947))**

Sci. Rep. Fac. Sci., Kyushu Univ., Geol., vol. 2, no. 1, p. 27, pl. 1, fig. 3.

Lectotype: KUGK. G. 2003

Sakuraguchi-dani, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan
Nishinakayama Formation
Pliensbachian, Jurassic

***Grossouvria laeviradiata* Sato, 1962**

Mem. Soc. geol. France, nouv. ser., v. 41, fasc. 1, no. 94, pp. 82-83, pl. 6, fig. 2.

Holotype: UMUTMM. 3773

Kuzuryu, Izumi Village, Ono County, Fukui Prefecture, Japan
Kaizara Formation
Bathonian to Callovian, Jurassic

***Hammatoceras hosourense* Sato, 1954 (= *Planammatoceras hosourense* (Sato, 1954))**

Japanese Jour. Geol. Geogr., vol. 25, p. 91, pl. 7, figs. 2, 5, 6, pl. 8, figs. 5, 6.

Holotype: UMUTMM. 2776

Hosoura, Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan
Hosoura Formation
Aalenian, Jurassic

***Hammatoceras kitakamiense* Sato, 1954**

Japanese Jour. Geol. Geogr., vol. 25, p. 84, pl. 7, fig. 4, pl. 8, figs. 3, 55, pl. 9, fig. 4, text-figs. 1, 2.

Holotype: IGPS coll. cat. no. 36806a

Ippaishimizu, Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan
Hosoura Formation
Sinemurian to Aalenian, Jurassic

***Hammatoceras subtile* Sato, 1954 (= *Planammatoceras subtile* (Sato, 1954))**

Japanese Jour. Geol. Geogr., vol. 25, p. 89, pl. 7, fig. 3, pl. 8, figs. 1, 4, 7, pl. 9, fig. 3, text-figs. 6, 7.

Holotype: UMUTMM. 2771

Hosoura, Shizukawa Town, Motoyoshi County, Miyagi

Prefecture, Japan

Hosoura Formation

Sinemurian to Aalenian, Jurassic

***Hammatoceras tuberculatum* Sato, 1954**

Japanese Jour. Geol. Geogr., vol. 25, p. 80, pl. 7, fig. 1, pl. 8, fig. 2, pl. 9, figs. 1, 2, text-figs. 3-5.

Holotype: UMUTMM. 2767

Hosoura Formation

Sinemurian to Aalenian, Jurassic

***Harpoceras ikianum* Yokoyama, 1904 (= *Hosoureites ikianus* (Yokoyama, 1904))**

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 18, art. 6, p. 55, pl. 1, fig. 5.

Holotype: UMUTMM. 7076

West coast of Hosoura, Miyagi Prefecture, Japan

Hosoura Formation

Sinemurian to Aalenian, Jurassic

***Harpoceras* (*Harpoceratoides*) *nagatoensis* Hirano, 1973**

Mem. Fac. Sci., Kyushu Univ., Ser. D, Geol., vol. 21, no. 1, pp. 7-9, pl. 3, fig. 4.

Holotype: KUGK. G. 2007

Higashinagano, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan
Nishinakayama Formation
Toarcian, Jurassic

***Harpoceras* (s. l.) (*Nagatoceras*) *toyoranum* Matsumoto, 1947 (= *Paltarpites toyoranus* (Matsumoto, 1947))**

Sci. Rep. Fac. Sci., Kyushu Univ., Geol., vol. 2, no. 1, p. 28, pl. 1, fig. 6.

Lectotype: KUGK. G. 2006

Nishinagano, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan
Nishinakayama Formation
Pliensbachian, Jurassic

***Hildoceras chrysanthemum* Yokoyama, 1904 (= *Hapoceras* (*Harpoceras*) *chrysanthemum* (Yokoyama, 1904))**

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 19, art. 20, pp. 11-12, pl. 2, fig. 1.

Lectotype: UMUTMM. 7058a

Nishinakayama, Kikukawa Town, Toyora County, Yamaguchi Prefecture, Japan
Nishinakayama Formation
Toarcian, Jurassic

***Hildoceras inouyei* Yokoyama, 1904 (= *Harpoceras* (*Harpoceras*) *inouyei* (Yokoyama, 1904))**

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 19, art. 20, pp. 13-14, pl. 2, fig. 6.

Lectotype: UMUTMM. 7063

Nishinakayama, Kikukawa Town, Toyora County, Yamaguchi Prefecture, Japan
Nishinakayama Formation
Toarcian, Jurassic

***Hildoceras (Brodeia) yokoyamai* Matsumoto, 1947**
(=*Katrolicerias yokoyamai* Kobayashi and Fukada, 1947
(=*Neuquenicerias yokoyamai* (Kobayashi and Fukada, 1947))

Japanese Jour. Geol. Geogr., vol. 20, p. 50, pl. 12, fig. 1.
Holotype: UMUTMM. 7048
Kuzuryu, Izumi Village, Ono County, Fukui Prefecture, Japan
Kaizara Formation
Bathonian to Callovian, Jurassic

***Hosoureites satoi* Takahashi, 1969**

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, pp. 52-53, pl. 2, fig. 3.
Holotype: IGPS coll. cat. no. 54349
Gongen, Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan
Hosoura Formation
Sinemurian to Aalenian, Jurassic

***Keplerites (Gowericeras) mabutii* Takahashi, 1969**

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, p. 66, pl. 8, figs. 1, 5.
Holotype: IGPS coll. cat. no. 54348
Hayashi, Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan
Arato Formation
Bajocian to Oxfordian, Jurassic

***Keplerites (Gowericeras) oyamai* Takahashi, 1969**

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, pp. 64-65, pl. 8, fig. 7, pl. 9, figs. 7, 8.
Holotype: IGPS coll. cat. no. 62556
Owada, Inai Town, Ojika County, Miyagi Prefecture, Japan
Arato Formation
Bajocian to Oxfordian, Jurassic

***Lillia toyorana* Matsumoto, 1947 (= *Phymatoceras toyoranum* (Matsumoto, 1947))**

Sci. Rep. Fac. Sci., Kyushu Univ., Geol., vol. 2, no. 1, p. 29, pl. 2, fig. 1.
Lectotype: KUGK. G. 2763
Nishinakayama, Kikukawa Town, Toyora County, Yamaguchi Prefecture, Japan
Utano Formation
Toarcian, Jurassic

***Lioceratoides matsumotoi* Hirano, 1971**

Mem. Fac. Sci., Kyushu Univ., Ser. D, Geol., vol. 21, no. 1,

pp. 118-119, pl. 15, fig. 11.

Holotype: KUGK. G. 2692

Nishinagano, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Pliensbachian to Toarcian, Jurassic

***Lithacoceras onukii* Takahashi, 1969**

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, pp. 78-79, pl. 13, figs. 2, 4, pl. 14, fig. 4.

Holotype: IGPS coll. cat. no. 87945

Kozumitoge, Ishinomaki City, Miyagi Prefecture, Japan

Kozumitoge Formation

Kimmeridgian to Tithonian, Jurassic

***Lioceratoides yokoyamai* (Matsumoto, 1947))**

Sci. Rep. Fac. Sci., Kyushu Univ., Geol., vol. 2, no. 1, p. 28, pl. 1, fig. 9.

Lectotype: KUGK. G. 2009

Nishinagano, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Pliensbachian to Toarcian, Jurassic

***Neuquenicerias maedai* Sato, 1962**

Mem. Soc. geol. France, nouv. ser., v. 41, fasc. 1, no. 94, pp. 78-79, pl. 2, fig. 1, pl. 5, figs. 7, 9.

Holotype: UMUTMM. 3771

Horadani, Izumi Village, Ono County, Fukui Prefecture, Japan

Kaizara Formation

Bathonian to Callovian, Jurassic

***Neuquenicerias yokoyamai alticostatium* Sato, 1962**

Mem. Soc. geol. France, nouv. ser., v. 41, fasc. 1, no. 94, p. 78, pl. 1, fig. 16, pl. 6, figs. 6, 14.

Holotype: UMUTMM. 3776

?Horadani, Izumi Village, Ono County, Fukui Prefecture, Japan

Kaizara Formation

Bathonian to Callovian, Jurassic

***Obtusicoelites hataii* Takahashi, 1969**

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, p. 71, pl. 7, fig. 9, pl. 9, fig. 6.

Holotype: IGPS coll. cat. no. 87926

Hashiura, Kitakami Town, Mono County, Miyagi Prefecture, Japan

Arato Formation

Bajocian to Oxfordian, Jurassic

***Perisphinctes (Grossouvria) hikii* Yokoyama, 1904**
(=*Klematosphinctes ? hikii* (Yokoyama, 1904))

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 18, art. 6, pl. 1, fig. 2

non fig. 3.

Syntype: UMUTMM. 7052

Kuzuryu, Izumi Village, Ono County, Fukui Prefecture, Japan

Kaizara Formation

Bathonian to Callovian, Jurassic

Perisphinctes (Procerites) matsumotoi Yokoyama, 1904
(=*Kranaosphinctes matsumotoi (Yokoyama, 1904)*)

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 18, art. 6, pl. 1, fig. 1.

Holotype: UMUTMM. 7054

Kuzuryu, Izumi Village, Ono County, Fukui Prefecture, Japan

Yambarazaka Formation

Oxfordian, Jurassic

Perisphinctes (Prisphinctes) ozikaensis Fukada, 1950

Jour. Fac. Sci., Hokkaido Univ., Ser. 4, vol. 7, no. 3, p.212, pl. 1, fig. 2.

Holotype: UMUTMM. 6470

Sea bottom northeast of Makinohama of the west coast of the Ojika Peninsula, Miyagi Prefecture, Japan

Protogrammoceras onoi Hirano, 1971

Mem. Fac. Sci., Kyushu Univ., Ser. D, Geol., vol. 21, no. 1, pp. 126-127, pl. 16, fig. 5.

Holotype: KUGK. G. 11181

Higashinagano, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Toarcian, Jurassic

Protogrammoceras yabei Hirano, 1971

Mem. Fac. Sci., Kyushu Univ., Ser. D, Geol., vol. 21, no. 1, pp. 125-126, pl. 18, fig. 6.

Holotype: KUGK. G. 2352

Sakuraguchi-dani, Toyoda Town, Toyora County, Yamaguchi Prefecture, Japan

Nishinakayama Formation

Toarcian, Jurassic

Schlotheimia jimboi Yokoyama, 1904

Jour. Coll. Sci., Imp. Univ. Tokyo, vol. 18, art. 6, p. 4, pl. 1, figs. 6a, b.

Holotype: UMUTMM. 7077

Hosoura Formation

Sinemurian to Aalenian, Jurassic

Schlotheimia shimizui Takahashi, 1969

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, p.46, pl. 1, fig. 6.

Holotype: IGPS coll. cat. no. 36802

Hosoura, Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan

Hosoura Formation

Sinemurian to Aalenian, Jurassic

Stephanoceras (Stephanoceras) hashiurensis Takahashi, 1969

Sci. Rep. Tohoku Univ., Sendai, 2nd. Ser. (Geol.), vol. 41, no. 1, pp. 59-60, pl. 5, fig. 5.

Holotype: IGPS coll. cat. no. 51803

Takisawa, Honji, Kitakami Town, Mono County, Miyagi Prefecture, Japan

Arato Formation

Bajocian to Oxfordian, Jurassic

Tmetoceras (Tmetoceras) recticostatum Sato, 1954

Japanese Jour. Geol. Geogr., vol. 24, p. 118, pl. 13, figs. 1-18.

Holotype: UMUTMM. 2745

Gongen, Shizukawa Town, Motoyoshi County, Miyagi Prefecture, Japan

Hosoura Formation

Sinemurian to Aalenian, Jurassic

Yebisites onoderai Matsumoto, 1956 (=Alsatites onoderai (Matsumoto, 1956))

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 23, p. 207, pl. 30, fig. 1, 2.

Holotype: KUGK. G. 1001

Niranohama, Utatsu Town, Motoyoshi County, Miyagi Prefecture, Japan

Niranohama Formation

Hettangian, Jurassic

Triassic and Jurassic Bivalvia

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Aequipecten? kotsubu (Kimura) see *Neithea kotsubu* Kimura, 1951

Aequipecten ogawensis Kimura, 1951

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 343, pl. 1, fig. 7

Holotype: UMUT.MM7129 (fig. 7)

West of Nioigataki, Ogawa-mura (Hongou, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Yatsuji Formation, Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

(*Chlamys* (*Radulopecten*) *ogawensis* (Kimura) by Tamura (1959); *Radulopecten ogawensis* (Kimura) by Hayami (1975))

“*Aequipecten? toyorensis* Hayami, 1959

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 55, pl. 6, figs. 1-5

Holotype: UMUT.MM3384 (figs. 1a, b); Paratypes: UMUT.MM3385 (fig. 2), UMUT.MM3386 (fig. 3), UMUT.MM3387 (fig. 5), UMUT.MM3388 (fig. 4)

Loc. 5 (Holotype and UMUT.MM3385-3387) and Loc. 6 (UMUT.MM3388) at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed (Holotype and UMUT.MM3385-3387) and *Prosogyrotrigonia inouyei* bed (UMUT.MM3388) of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

(*Aequipecten? toyorensis* Hayami by Hayami (1975))

Aequipecten vulgaris Kimura, 1951

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 342, pl. 1, figs. 5-6

Holotype: UMUT.MM7114 (figs. 5a, b); Paratypes: UMUT.MM7115 (figs. 6a, b), UMUT.MM7116

Arinoki, Sakawa-cho, (Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

(“*Aequipecten? vulgaris* Kimura by Tamura (1959); *Aequipecten? vulgaris* Kimura by Hayami (1975))

Anodontophora canalensis var. *bittneri* Ichikawa & Yabe, in Yabe (1956)

Sci. Rept. Tokyo Kyoiku Daigaku, Ser. C, vol. 39, p.284, pl. 16, figs. 1-7

Holotype: TKD.no.5422 (fig. 2a, b); Paratypes: TKD.no.5421 (fig. 1), TKD.no.5423 (fig. 3), TKD.no.5424 (fig. 4), TKD.no.5425 (fig. 5), TKD.no.5426 (fig. 6), TKD.no.5427 (fig. 7)

Entrance of the Kamakakezawa of Shionosawa valley, Ueno-mura, Tano-gun, Gumma Prefecture, Japan
Shimonosawa limestone

Early Triassic (Scythian, Triassic by Hayami (1975))

(Synonymous with *Unionites canalensis* (Catullo) by Hayami (1975))

Anodontophora carinata Kobayashi & Ichikawa, 1950

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 233, pl. 4, figs. 6a-b

Holotype: UMUT.MM5157 (figs. 6a, b)

Togo in the Sakawa basin (Togo, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Halobia bed (lower part of Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(*Unionites carinatus* (Kobayashi & Ichikawa) by Hayami (1975))

Anodontophora kochigataniensis Kobayashi & Ichikawa, 1950

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 231, pl. 4, figs. 1-4

Holotype: UMUT.MM5152 (figs. 1a-c); Paratypes: UMUT.MM5153 (figs. 2a, b), UMUT.MM5154 (figs. 3a-c), UMUT.MM5155 (fig. 4)

Nezukamiishi (Holotype and UMUT.MM5153), Kuromagari (UMUT.MM5154), and Umenokidani (UMUT.MM5155) in the Sakawa basin (Nezukamiishi, Kuromagari, and Umenokidani, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapecten bed (Holotype and UMUT.MM5153-5154) and *Myoconcha* bed (UMUT.MM5155) (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(*Unionites kochigataniensis* (Kobayashi & Ichikawa) by Hayami (1975))

Anodontophora kochigataniensis var. *hiratai* Kobayashi & Ichikawa, 1950

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 232, pl. 4, fig. 5

Holotype: UMUT.MM5156 (fig. 5)

Kanaidani-no-oku in the Sakawa basin (Kanaidani, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapecten bed (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(Synonymous with *Unionites kochigataniensis* (Kobayashi & Ichikawa) by Hayami (1975))

***Anodontophora takiguchiensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, nos. 2-4, p. 214, pl. 12, figs. 14-17

Holotype: UMUT.MM4580 (fig. 16); Paratypes: UMUT.MM4578 (fig. 14), UMUT.MM4579 (fig. 15), UMUT.MM4581 (fig. 17)

Takiguchi, south of Omine, Mine City, Yamaguchi Prefecture, Japan

Lower part of the Takiguchi Formation, Mine Group

Ladinian - Carnian (Carnian, Triassic by Hayami (1975))

(*Unionites? takiguchiensis* (Tokuyama) by Hayami (1975))

***Anodontophora trigona* Nakazawa, 1964**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 30, no. 4, p. 16, pl. 2, figs. 1-3

Holotype: UK.JM11069 (fig. 1); Paratypes: UK.JM11069B (fig. 2), UK.JM11070 (fig. 3)

Uonashi, (Shirokawa-cho, Higashi-uwa-gun), Ehime Prefecture, Japan

Ussurites bed (Unnamed formation in Uonashi area, mentioned by Hayami (1975))

Anisian, Triassic

(*Unionites trigona* (Nakazawa) by Hayami (1975))

***Antiquilima nagatoensis* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 66, pl. 7, figs. 4a-c

Holotype: UMUT.MM3421 (figs. 4a-c); Paratype: UMUT.MM3422

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Arcomylus dairensis* Kobayashi & Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 29, p. 158, pl. 23, figs. 5, 6

Holotype: UMUT.MM2734 (fig. 5)

At the lower stream of the Daira River, Asahi-machi, Shimoniikawa-gun, Toyama Prefecture, Japan

Shinatani Formation, Kuruma Group

Early Hettangian (Pliensbachian or Toarcian), Jurassic

***Arctica (Somarctica) abukumensis* Tamura, 1960**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 39, p. 290, pl. 33, figs. 25-28

Holotype: UMUT.MM3319 (figs. 27, 28); Paratypes: UMUT.MM3320 (fig. 26), UMUT.MM3321 (fig. 25), UMUT.MM3322

Loc. 8 at west of Yamashita, (Yasukurasawa), Kamimano-mura (Yamashita, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan

5th zone of the Nakanosawa Formation, Soma Group

Late Jurassic (Kimmeridgian by Hayami (1975))

(*Somarctica abukumensis* (Tamura) by Hayami (1975))

***Asoella confertoradiata* (Tokuyama) see *Eumorphotis (Asoella) confertoradiata* Tokuyama, 1959**

***Asoella laevigata* (Tokuyama) see *Eumorphotis (Asoella) laevigata* Tokuyama, 1959**

***Asoella nakatsukensis* (Tokuyama) see *Eumorphotis (Asoella) nakatsukensis* Tokuyama, 1959**

***Astarte defecta* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 33, p. 29, pl. 5, figs. 4-7

Holotype: UMUT.MM2978 (fig. 4); Paratypes: UMUT.MM2979 (figs. 5, 6), UMUT.MM2980 (fig. 7)

Loc. 12 (Holotype) at Uminoura, Tanoura-mura (Tanoura-cho), Ashikita-gun, Kumamoto Prefecture; Loc. 1 (UMUT.MM2979) at Eri, Shimomatsukukma-mura, Yatsushiro-gun (Eri, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture; Loc. 6 (UMUT.MM2980) at Tsurubami, Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture, Japan

Horizon 5 of the Torinosu Group

Late Jurassic

(*Astarte (Astarte) defecta* Tamura by Hayami (1975))

***Astarte higoensis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 33, p. 28, pl. 5, figs. 11-12

Holotype: UMUT.MM2986 (figs. 11, 12)

Loc. 6 at Tsurubami, Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture, Japan

Horizon 5 of the Torinosu Group

Late Jurassic

(*Astarte (Nicanella) higoensis* Tamura by Hayami (1975))

***Astarte (Nicanella) higoensis* Tamura see *Astarte higoensis* Tamura, 1959**

***Astarte? iwayai* Ichikawa, 1954**

Jour. Inst. Polytech. Osaka City Univ., Ser. G, vol. 2, p. 65, pl. 4, figs. 4-5

Holotype: UMUT.MM5469 (fig. 5); Paratype: UMUT.MM5470 (fig. 4)

Ura of Usugatani, Kaminaka-cho, (Naka-gun), Tokushima Prefecture, Japan

Lower part of the Kochigatani Group
Late Triassic (Carnian, Triassic by Hayami (1975))

***Astarte kambarensis* Kimura, 1956**

Jour. Earth Sci. Nagoya Univ., vol. 4, no.2, p. 85, pl. 1, fig. 7
Holotype: UMUT.MM7166 (fig. 7); Paratype:
UMUT.MM7167

Kambaradani in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Kambaradani Formation, Torinosu Group
Kimmeridgian (Late Jurassic - Berriasian, Cretaceous by Hayami (1975))
(*Astarte (Yabea) kambarensis* Kimura by Hayami (1975))

Astarte (Yabea) kambarensis Kimura see *Astarte kambarensis* Kimura, 1956

***Astarte kambarensis* var. *elongata* Kimura, 1956**

Jour. Earth Sci. Nagoya Univ., vol. 4, no.2, p. 86, pl. 1, fig. 8
Holotype: UMUT.MM7168

Kambaradani in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Kambaradani Formation, Torinosu Group
Kimmeridgian (Late Jurassic - Berriasian, Cretaceous by Hayami (1975))
(Synonymous with *Astarte (Yabea) kambarensis* Kimura by Hayami (1975))

Astarte? kumamotoensis (Tamura) see *Eomiodon kumamotoensis* Tamura, 1959

***Astarte (Astarte) mindoroensis* Hayami, 1968**

Geol. Palaeont. SE Asia, vol. 5, p. 179, pl. 22, figs. 5-7
Holotype: UMUT.MM3928 (fig. 6); Paratypes:
UMUT.MM3929 (fig. 7), UMUT.MM3930,
UMUT.MM3931, UMUT.MM3932, UMUT.MM3933,
UMUT.MM3934 (fig. 5)
Loc. MD-9 (Holotype and UMUT.MM3929-3933) and Loc. MD-16 in the middle-upper stream of the Amaga River, ca. 5 km west of Mansalay, Mindoro, Philippine Islands
Mansalay Formation
Callovian, Jurassic

***Astarte ogawensis* Kimura, 1956**

Jour. Earth Sci. Nagoya Univ., vol. 4, no.2, p. 86, pl. 1, fig. 9
Holotype: UMUT.MM7164
Nioigataki in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Yatsuji Formation, Torinosu Group
Late Jurassic
(*Astarte (Trautscholdia) ogawensis* Kimura by Hayami (1975))

Astarte (Trautscholdia) ogawensis Kimura see *Astarte ogawensis* Kimura, 1956

***Astarte sakamotoensis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 33, p. 29, pl. 5, figs. 1-3
Holotype: UMUT.MM2976 (figs. 2, 3); Paratype:
UMUT.MM2977 (fig. 1)
Loc. 9 (Holotype) at Ohira, Yatsushiro City; Loc.2 (Paratype) at Kozaki, Shimomatsukuma-mura (Sakamoto-mura), Yatsushiro-gun, Kumamoto Prefecture, Japan
Sakamoto Formation (Torinosu Group)
Late Jurassic
(*Astarte (Astarte) sakamotoensis* Tamura by Hayami (1975))

***Astarte (Astarte) satoi* Hayami, 1968**

Geol. Palaeont. SE Asia, vol. 5, p. 181, pl. 21, figs. 13-16; pl. 22, figs. 1-4
Holotype: UMUT.MM3935 (pl. 22, fig. 3); Paratypes:
UMUT.MM3936, UMUT.MM3937 (pl. 21, fig. 13),
UMUT.MM3938 (pl. 21, fig. 14), UMUT.MM3939 (pl. 22, fig. 2),
UMUT.MM3940 (pl. 21, fig. 16; pl. 22, fig. 4),
UMUT.MM3941 (pl. 22, fig. 1), UMUT.MM3942,
UMUT.MM3943, UMUT.MM3944, UMUT.MM3945 (pl. 21, fig. 15)
Loc. MD-16 (Holotype and UMUT.MM3936-3938) in the middle-upper stream of the Amaga River, ca. 5 km west of Mansalay, Mindoro; and Loc. MD-6 (UMUT.MM3939-3945), Colasi Point, ca. 7.5 km south of Mansalay, Mindoro, Philippine Islands
Mansalay Formation
Callovian, Jurassic

***Astarte (Coelastarte) somensis* Tamura, 1960**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 39, p. 287, pl. 33, figs. 11-13
Holotype: UMUT.MM3314 (fig. 13); Paratypes:
UMUT.MM3315 (fig. 12), UMUT.MM3316 (fig. 11)
Loc. 8 (Holotype) at west of Yamashita (Yasukurasawa), Kamimono-mura (Yamashita, Kashima-machi), Soma-gun, Fukushima Prefecture; Loc. 1 (UMUT.MM3316) at Nakanosawa, Tomizawa, Soma City, Fukushima Prefecture, Japan
5th zone (Holotype) and 6th zone (Paratype) of the Nakanosawa Formation, Soma Group
Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))
(*Coelastarte somensis* (Tamura) by Hayami (1975))

Bakevellia (Neobakevellia?) araiensis (Ichikawa) see "Gervillia" *araiensis* Ichikawa, 1954

Bakevellia (Neobakevellia?) cassianelloides Kobayashi & Hayami* see *Bakevellia (s. l.) cassianelloides Kobayashi and Hayami, 1957

Bakevellia (s. l.) cassianelloides Kobayashi and Hayami, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 57, pl. 3, figs. 7-9

Holotype: UMUT.MM2667 (fig. 7); Paratype: UMUT.MM2670 (figs. 8a-c)

Kuruma, Kitaotari-mura (Otari-mura), Kitaadumi-gun, Nagano Prefecture, Japan

Tsuchizawa Formation, Kuruma Group

Lias (Pliensbachian, Jurassic by Hayami (1975))

***(Bakevellia (Neobakevellia?) cassianelloides Kobayashi & Hayami* by Hayami (1975))**

Bakevellia hekiensis (Kobayashi & Ichikawa)* see "*Gervillia*" *hekiensis Kobayashi & Ichikawa, 1952

Bakevellia (Bakevelloides) hekiensis (Kobayashi & Ichikawa)* see "*Gervillia*" *hekiensis Kobayashi & Ichikawa, 1952

Bakevellia (Maizuria) kambei Nakazawa, 1959

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 26, no. 2, p. 204, text-fig. 7, pl. 4, figs. 1-12

Holotype: UK.JM10582 (fig. 1); Paratypes: UK.JM10568 (fig. 6), UK.JM10569 (fig. 9), UK.JM10570, UK.JM10571a (fig. 7), UK.JM10572, UK.JM10573, UK.JM10574, UK.JM10575, UK.JM10576, UK.JM10577 (fig. 5), UK.JM10578, UK.JM10579 (fig. 3), UK.JM10580, UK.JM10581, UK.JM10582, UK.JM10583 (fig. 4), UK.JM10584, UK.JM10585 (fig. 10), UK.JM10586, UK.JM10587, UK.JM10588, UK.JM10589, UK.JM10590, UK.JM10591, UK.JM10592, UK.JM10593, UK.JM10594, UK.JM10595, UK.JM10596, UK.JM10597, UK.JM10598 (fig. 2), UK.JM10599, UK.JM10600, UK.JM10601, UK.JM10602, UK.JM10603, UK.JM10604 (fig. 11), UK.JM10605, UK.JM10606, UK.JM10611, UK.JM10612, UK.JM10613, UK.JM10614 (fig. 12), UK.JM10615 (fig. 8), UK.JM10616, UK.JM10617, UK.JM10618

Holotype from Hosokubi, Oya-cho, (Yabu-gun), Hyogo Prefecture; Paratypes: UK.JM10568-10569 and UK.JM10571a from Yuradani, UK.JM10577 from Iwai, UK.JM10583 and UK.JM10585 from Kasamatsudani, Itohara, Oya-cho, (Yabu-gun), and UK.JM10579 and UK.JM10614 from Shirodani, Takinoya, Yabu-cho, (Yabu-gun), Hyogo Prefecture; UK.JM10615 from Shidaka, Maizuru City, Kyoto Prefecture; UK.JM10598 from the south of Koge, Fukumoto, and UK.JM10604 from Iguchi, Aita-cho (Aida-cho, Aida-gun), Okayama Prefecture, Japan Gannosudani Formation, Miharaiyama Group (Holotype, UK.JM10568, 10569, 10571a, 10577, 10579, 10583, 10585,

10614); Kyogakubo Formation (UK.JM10598), Okadashimo Formation (UK.JM10615) and fine-grained facies (UK.JM10604), Fukumoto Group Eo-Triassic (Scythian (?), Triassic by Hayami (1975)) (*Bakevellia (Neobakevellia) kambei kambei Nakazawa* by Hayami (1975))

Bakevellia (Neobakevellia) kambei kambei Nakazawa* see *Bakevellia (Maizuria) kambei Nakazawa, 1959

Bakevellia (Maizuria) kambei dannensis Nakazawa, 1959

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 26, no. 2, p. 206, pl. 4, figs. 13-14

Holotype: UK.JM10607 (figs. 13a, b); Paratype: UK.JM10608 (fig. 14), UK.JM10609

Dan, Aita-cho (Aida-cho, Aida-gun), Okayama Prefecture, Japan

Fukumoto Group

Eo-Triassic (Scythian, Triassic by Hayami (1975))

***(Bakevellia (Neobakevellia) kambei dannensis Nakazawa* by Hayami (1975))**

Bakevellia (Neobakevellia) kambei dannensis Nakazawa* see *Bakevellia (Maizuria) kambei dannensis Nakazawa, 1959

Bakevellia magnissima Hayami, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 52, pl. 2, figs. 6-10; pl. 3, fig. 1

Holotype: UMUT.MM2655 (pl. 2, fig. 9); Paratypes: UMUT.MM2656, UMUT.MM2657 (pl. 3, fig. 1)

Shinatani, Omi-machi, Nishikubiki-gun, Niigata Prefecture, Japan

Shinatani Formation, Kuruma Group

Liassic (Pliensbachian - Toarcian, Jurassic by Hayami (1975))

***(Bakevellia (Neobakevellia) magnissima Hayami* by Hayami (1975))**

Bakevellia (Neobakevellia) magnissima Hayami* see *Bakevellia magnissima Hayami, 1957

Bakevellia matsushitai Nakazawa, 1954

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 21, no. 2, p. 214, pl. 3, figs. 1-5, 8

Holotype: UK.JM10060 (fig. 4); Paratypes: UK.JM10061 (fig. 5), UK.JM10062A (fig. 8), UK.JM10063, UK.JM10064A (figs. 2, 3), UK.JM10065 (fig. 1), UK.JM10066, UK.JM10067

Kongoin (Holotype and UK.JM10061, 10062A, 10064A), Maizuru City; Miuchi (UK.JM10065), Ayabe City, Kyoto Prefecture, Japan

Middle part of N2 Formation, Nabae Group

Carnian, Triassic

(Bakevellia (Neobakevellia) matsushitai Nakazawa by Hayami (1975))

Bakevellia (Neobakevellia) matsushitai Nakazawa see *Bakevellia matsushitai Nakazawa, 1954*

Bakevellia monobensis Nakazawa, 1954

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 21, no. 2, p. 217, pl. 4, figs. 5-9; pl. 5, figs. 1-2

Holotype: UK.JM10089a (pl. 4, fig. 9a); Paratypes: UK.JM10089b, c (pl. 4, fig. 8), UK.JM10090 (pl. 4, fig. 5), UK.JM10091B (fig. 7), UK.JM10092, UK.JM10093 (pl. 4, fig. 6)

Monobe, Ayabe City, Kyoto Prefecture, Japan

N3 Formation, Nabae Group

Carnian, Triassic

(Bakevellia (Neobakevellia) monobensis Nakazawa by Hayami (1975))

Bakevellia (Neobakevellia) monobensis Nakazawa see *Bakevellia monobensis Nakazawa, 1954*

Bakevellia (Maizuria) narawarensis Nakazawa, 1959

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 26, no. 2, p. 207, pl. 4, figs. 16-21

Holotype: UK.JM10558a (fig. 16); Paratype: UK.JM10558b (fig. 17), UK.JM10558c (fig. 16), UK.JM10559 (fig. 18), UK.JM10560, UK.JM10561, UK.JM10562, UK.JM10563, UK.JM10564, UK.JM10565, UK.JM10566, UK.JM10567,

Okuyama, Oe-cho, Kasa-gun, Kyoto Prefecture, Japan

Narawara Formation, Yakuno Group

Eo-Triassic (Scythian, Triassic)

(Bakevellia (Neobakevellia) narawarensis Nakazawa by Hayami (1975))

Bakevellia (Neobakevellia) narawarensis Nakazawa see *Bakevellia (Maizuria) narawarensis Nakazawa, 1959*

Bakevellia negoyensis Hayami, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 54, pl. 3, figs. 6a-b

Holotype: UMUT.MM2664 (figs. 6a, b); Paratype: UMUT.MM2665

At the middle stream of Aisawadani, Omi-machi, Nishikubiki-gun, Niigata Prefecture, Japan

Negoya Formation, Kuruma Group

Middle Liassic? (Pliensbachian, Jurassic by Hayami (1975))

(Bakevellia (Neobakevellia) negoyensis Hayami by Hayami (1975))

Bakevellia (Neobakevellia) negoyensis Hayami see *Bakevellia negoyensis Hayami, 1957*

Bakevellia ohishiensis Hayami, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 56, pl. 3, figs. 11-12

Holotype: UMUT.MM2667 (fig. 10); Paratype: UMUT.MM2668 (fig. 3)

Ohishi, Itoigawa City, Niigata Prefecture, Japan

Kitamatadani Formation, Kuruma Group

Middle or early Liassic (Pliensbachian (or earlier), Jurassic by Hayami (1975))

(Bakevellia (Neobakevellia) ohishiensis Hayami by Hayami (1975))

Bakevellia (Neobakevellia) ohishiensis Hayami see *Bakevellia ohishiensis Hayami, 1957*

Bakevellia (Maizuria) okuyamensis Nakazawa, 1959

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 26, no. 2, p. 202, text-figs. 5-6, pl. 3, figs. 13-21

Holotype: UK.JM10530a (figs. 15, 16); Paratypes: UK.JM10531a (figs. 13, 14), UK.JM10532, UK.JM10533, UK.JM10534 (fig. 18), UK.JM10535, UK.JM10536, UK.JM10537, UK.JM10538, UK.JM10539, UK.JM10540, UK.JM10541b (fig. 17), UK.JM10542, UK.JM10543, UK.JM10544, UK.JM10545, UK.JM10546, UK.JM10547, UK.JM10548

Okuyama, Oe-cho, (Kasa-gun), Kyoto Prefecture, Japan

Lower part of the Narawara Formation, Yakuno Group

Eo-Triassic (Scythian, Triassic by Hayami (1975))

(Bakevellia (Neobakevellia) okuyamensis Nakazawa by Hayami (1975))

Bakevellia (Neobakevellia) okuyamensis Nakazawa see *Bakevellia (Maizuria) okuyamensis Nakazawa, 1959*

Bakevellia otariensis Hayami, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 53, pl. 3, figs. 2-5

Holotype: UMUT.MM2660 (fig. 4); Paratypes: UMUT.MM2661 (fig. 3), UMUT.MM2662 (fig. 2), UMUT.MM2663 (fig. 5)

Holotype and two-paratypes from Kuruma, and another paratype from the middle stream of Tsuchizawa, Kitaotari-mura (Otari-mura), Kitaadumi-gun, Nagano Prefecture, Japan

“Tsuchizawa Formation”, Kuruma Group

Liassic (Pliensbachian, Jurassic by Hayami (1975))

(Bakevellia (Neobakevellia) otariensis Hayami by Hayami (1975))

Bakevellia (Neobakevellia) otariensis Hayami see *Bakevellia otariensis Hayami, 1957*

Bakevellia oyogiensis Nakazawa, 1954

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 21, no. 2, p. 216, pl.

3, fig. 9, pl. 4, figs. 1-4

Holotype: UK.JM10076 (pl. 4, fig. 3a); Paratypes: UK.JM10077, UK.JM10078 (pl. 4, fig. 2), UK.JM10079, UK.JM10080 (pl. 4, fig. 1), UK.JM10081, UK.JM10082 (pl. 3, fig. 9)

Miuchi (Holotype) and Shinmichi (UK.JM10082), Ayabe City; Terada (UK.JM10078, 10080), Maizuru City, Kyoto Prefecture, Japan

N3 Formation, Nabae Group

Carnian, Triassic

(Bakevellia (Neobakevellia) oyogiensis Nakazawa by Hayami (1975))

Bakevellia (Neobakevellia) oyogiensis Nakazawa see *Bakevellia oyogiensis Nakazawa, 1954*

Bakevellia (Neobakevellia) rostrata Yabe see *Bakevellia ussurica Kiparisova var. rostrata Yabe, 1956*

Bakevellia (Bakevelloides?) saekii (Kobayashi & Ichikawa) see "*Gervillia saekii Kobayashi & Ichikawa, 1952*"

Bakevellia subhekiensis Nakazawa, 1954

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 21, no. 2, p. 219, pl. 6, figs. 4-7

Holotype: UK.JM10107-10108 (figs. 4a, 6a); Paratypes: UK.JM10106 (fig. 5a), UK.JM10107 (fig. 4a), UK.JM10108, UK.JM10109, UK.JM10110

Nabae, Takahama-cho, (Oi-gun), Fukui Prefecture

N1 Formation, Nabae Group

Carnian, Triassic

(Bakevellia (Bakevelloides) subhekiensis Nakazawa by Hayami (1975))

Bakevellia (Bakevelloides) subhekiensis Nakazawa see *Bakevellia subhekiensis Nakazawa, 1954*

Bakevellia (Neobakevellia) trigona (Yokoyama) see *Gervillia trigona Yokoyama, 1904*

Bakevellia (Neobakevellia) tsuzuradaniensis Nakazawa, 1959

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 26, no. 2, p. 200, text-fig. 4, pl. 3, figs. 10-12

Holotype: UK.JM10527 (fig.10); Paratypes: UK.JM10528a (fig. 12), UK.JM10529 (fig. 11a, b)

Loc. KH3a at Okuyama, Oe-cho, (Kasa-gun), Kyoto Prefecture, Japan

Lower part of the Narawara Formation, Yakuno Group

Eo-Triassic (Scythian, Triassic)

Bakevellia ussurica Kiparisova var. rostrata Yabe, 1956

Sci. Rept. Tokyo Kyoiku Daigaku, Ser. C, vol. 39, p. 288, pl.

17, figs. 1-10

Holotype: TKD.no.5433 (fig. 1); Paratypes: TKD.no.5434 (fig. 2), TKD.no.5435 (fig. 3), TKD.no.5436 (fig. 4), TKD.no.5437 (fig. 5), TKD.no.5438 (fig. 6), TKD.no.5439 (fig. 7), TKD.no.5440 (fig. 8), TKD.no.5441 (fig. 9), and 7 specimens without registered numbers (TKD)

Entrance of Kamakakezawa of Shionosawa valley, Ueno-mura, Tano-gun, Gumma Prefecture, Japan

Shionosawa limestone

Early Triassic (Scythian, Triassic by Hayami (1975))

(Bakevellia (Neobakevellia) rostrata Yabe by Nakazawa (1959))

Bakevelloides hekiensis (Kobayashi & Ichikawa) see "*Gervillia hekiensis Kobayashi & Ichikawa, 1952*"

Batissa antiqua Kobayashi & Suzuki, 1937

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 42, pl. 4, figs. 1-2

Holotype: UMUT.MM7002 (fig. 1); Paratype: UMUT.MM7003 (figs. 2a, b)

Izuki (Holotype), Province of Etizen (Itsuki, Izumi-mura, Ono-gun, Fukui Prefecture); Kurouti (Paratype), Province of Hida (Kurouchi, Furukawa-cho, Yoshiki-gun, Gifu Prefecture), Japan

Tetori series (Izuki Formation (Holotype) and Kurouchi Formation (Paratype), Tetori Group)

Late Jurassic

(Tetoria (Tetoria) antiqua (Kobayashi & Suzuki) by Hayami (1975))

Batissa yokoyamai Kobayashi & Suzuki, 1937

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 44, pl. 4, figs. 3-6

Holotype: UMUT.MM7004 (figs. 3a, b); Paratypes: UMUT.MM4234 (fig. 5: missing, reported by Ichikawa and Hayami (1978)), UMUT.MM4235 (fig. 6: missing, reported by Ichikawa and Hayami (1978)), UMUT.MM7005 (figs. 4a, b)

Kurouti (Holotype and UMUT.MM7005) (Kurouchi, Furukawa-cho, Yoshiki-gun) and Ushimaru (UMUT.MM4236) (Ushimaru, Shokawa-mura, Ono-gun), Province of Hida (Gifu Prefecture); Izuki, Province of Etizen (UMUT.MM4234) (Itsuki, Izumi-mura, Ono-gun, Fukui Prefecture), Japan

Corbicula tetoriensis bed, Tetori series (Kurouchi Formation (Holotype and UMUT.MM7005), Izuki Formation (UMUT.MM4234) and Ushimaru Formation (UMUT.MM4236), Tetori Group)

Late Jurassic

(Tetoria (Tetoria) yokoyamai (Kobayashi & Suzuki) by Hayami (1975))

***Bositra japonica* (Kobayashi & Hukasawa) see *Posidonia japonica* Kobayashi & Hukasawa, 1940**

***Burmesia japonica* Hayami, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 74, pl. 7, figs. 13-18

Holotype: UMUT.MM2936 (figs. 13a, b, c); Paratype: UMUT.MM2937 (fig. 14), UMUT.MM2939 (fig. 16)

Futamataji, Mizunuma, Ishinomaki City, Miyagi Prefecture, Japan

Niranohama Formation, Shizukawa Group

Hettangian

Jurassic

***Camptonectes* (*Camptonectes*) *fromageti* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 195, pl. 34, figs. 5-8

Holotype: GK.G10096 (pl. 34, fig. 8); Paratypes:

GK.G10097 (pl. 34, fig. 7), GK.G10098 (pl. 34, fig. 6),

GK.G10099, GK.G10100 (pl. 34, fig. 5)

Locs. 2 (Holotype and GK.G10097-10098), Loc. 1 (GK.G10100) of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

***Camptonectes* (*s. s.*) *inexpectatus* Hayami, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 70, pl. 7, figs. 4-5

Holotype: UMUT.MM2927 (figs. 4a, b, c); Paratype: UMUT.MM2928 (fig. 5)

Futamataji, Mizunuma, Ishinomaki City, Miyagi Prefecture, Japan

Niranohama Formation, Shizukawa Group

Hettangian, Jurassic

(*Camptonectes* (*Camptonectes*) *inexpectatus* Hayami by Hayami (1975))

***Camptonectes* (?) *mimikirensis* Kurata & Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 341, pl. 1, fig. 13

Holotype: UMUT.MM7100 (fig. 13)

Mimikire, Sakawa-cho, (Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

(*Camptonectes?* *mimikirensis* Kurata & Kimura by Hayami (1975))

“*Camptonectes?* *oishii* Kobayashi & Hayami, 1957

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 28, p. 122, pl. 20, figs. 7-10

Holotype: UMUT.MM2705 (fig. 8); Paratypes: UMUT.MM2706 (fig. 10), UMUT.MM2707 (fig. 7),

UMUT.MM2708 (fig. 9)

Holotype and Paratypes (UMUT.MM2707, 2708) collected from Kuruma, Kitaotari-mura (Otari-mura), Kitaadumi-gun, Nagano Prefecture, Japan; Paratype (UMUT.MM2706) from Ohishi in Kotaki, Itoigawa City, Niigata Prefecture, Japan

Black shales of Kuruma Group (Tsuchizawa Formation and Kitamatadani Formation)

Lias (Pliensbachian (or thereabout), Jurassic by Hayami (1975))

(*Camptonectes?* *oishii* Kobayashi & Hayami by Hayami (1975))

“*Camptonectes?* *subflabelliformis* Hayami, 1957

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 28, p. 123, pl. 20, figs. 11-12

Holotype: UMUT.MM2709 (fig. 11); Paratype: UMUT.MM2710 (fig. 12)

Holotype from the mouth of Yogorozawa in Odokoro and Paratype from Ohishi in Kotaki, Itoigawa City, Niigata Prefecture, Japan

Black shales of the Kitamatadani Formation, Kuruma Group

Lias (Early Jurassic by Hayami (1975))

(*Camptonectes?* *subflabelliformis* Hayami by Hayami (1975))

***Camptonectes torinosuensis* Kurata & Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 340, pl. 1, figs. 10-11

Holotype: UMUT.MM7095 (fig. 10); Paratype: UMUT.MM7096 (fig. 11)

Mimikire, Sakawa-cho, (Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

(*Camptonectes?* *torinosuensis* Kurata & Kimura by Hayami (1975))

***Camptonectes triadicus* Nakazawa, 1952**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 96, pl. 7, figs. 1-2

Holotype: UK.JM10001 (figs. 1a, b, 2)

Kongoin, Maizuru City, Kyoto Prefecture, Japan

N2 Formation, Nabae Group

Carnian, Triassic

***Cardinia indochinensis* Hayami, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 170, text-fig. 3, pl. 7, fig. 12

Holotype: UMUT.MM3889 (fig. 12); Paratype: UMUT.MM3888 (text-fig. 3)

Ho Nuoc (Holotype) and Ho Bui (Paratype) in the Huu-Nien area, South Viet-Nam

Black shale

Hettangian (?), Jurassic

***Cardinia misawensis* Kobayashi & Ichikawa, 1952**

Japan. Jour. Geol. Geogr., vol. 22, p. 265, pl. 10, figs. 7-8
 Holotype: UMUT.MM5399a (fig. 7) (corrected by Ichikawa and Hayami (1978); Paratype: UMUT.MM5400 (fig.8)
 Loc. 3, a cliff of the Misawa stream at a point adjacently east of Jito in the Nariwa-District in the Bitchu (east of Jito, Kawakami-cho, Kawakami-gun, Okayama Prefecture), Japan
 Upper division containing *Entomonotis ochotica* s. l. of the Nariwa series (Nariwa Group)
 Approximate equivalent to Norian (Carnian - (?)Norian, Triassic by Hayami (1975))

***Cardinia orientalis* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 70, pl. 8, fig. 1
 Holotype: UMUT.MM3439 (fig. 1); Paratype: UMUT.MM3440 (not illustrated)
 Loc. 3 at Higashinagano in the Toyora area (Toyota-cho, Toyoura-gun), Yamaguchi Prefecture, Japan
 Higashinagano Formation, Toyora Group
 Early Liassic (Sinemurian, Jurassic by Hayami (1975))

***Cardinia toriyamai* Hayami, 1958**

Jour. Fac. Sci. Univ. Tokyo, Sec 2, vol. 11, no. 2, p. 121, pl. 9, figs. 1-11.
 Holotype: UMUT.MM2918 (fig. 6); Paratypes: UNUT.MM2917 (fig. 5), UMUT.MM2921 (fig. 9)
 At a small valley southeast of Higashinagano, Toyoda-machi, Toyora-gun (Toyota-cho, Toyoura-gun), Yamaguchi Prefecture, Japan (= loc. 97 of Nbs by Matsumoto & Ono, 1947: Sci. Rept. Kyushu Univ., Geol, Vol. 2, no. 1)
 Higashinagano Formation, Toyora Group
 Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Cardinia triadica* Kobayashi & Ichikawa, 1952**

Japan. Jour. Geol. Geogr., vol. 22, p. 62, pl. 1, figs. 1-5
 Holotype: UMUT.MM5380a (figs. 1a, b); Paratypes: UMUT.MM5380b (figs. 2a, b), UMUT.MM5380c (fig. 3), UMUT.MM5380d (fig. 4), UMUT.MM5380e (fig. 5)
 Loc. 1 at the river floor of the Maki-gawa near the small dam a little to the west of Heki in the Province of Tamba (west of Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan
 Heki Formation
 Carnian, Triassic

***Cardinioides japonicus* Kobayashi & Ichikawa, 1952**

Japan. Jour. Geol. Geogr., vol. 22, p. 66, pl. 1, figs. 10a-b
 Holotype: UMUT.MM5371 (figs. 10a, b); Paratype: UMUT.MM5372
 Loc. 1 at the river floor of the Maki-gawa near the small dam a little to the west of Heki in the Province of Tamba (west of Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan

Heki Formation
 Carnian, Triassic

***Cardinioides japonicus* var. *elongatus* Kobayashi & Ichikawa, 1952**

Japan. Jour. Geol. Geogr., vol. 22, p. 67, pl. 1, figs. 8-9
 Holotype: UMUT.MM5374a (fig. 8); Paratype: UMUT.MM5374b (fig. 9)
 Loc. 1 at the river floor of the Maki-gawa near the small dam a little to the west of Heki in the Province of Tamba (west of Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan
 Heki Formation
 Carnian, Triassic
 (Synonymous with *Cardinioides japonicus* Kobayashi & Ichikawa by Hayami (1975))

***Cardinioides magnus* Kobayashi & Hayami, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 188, pl. 11, figs. 3a-c
 Holotype: not registered (specimen no. 4; figs. 3a-c)
 Locality at km. 39.25 on Highway from Changwat Udon Thani to Amphoe Nong Bua Lamphu, NE Thailand
 Unit 47 (Calcareous sandstone), Khorat Series
 Early Jurassic (?)

***Cardinioides ovatus* Hayami, 1957**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 26, p. 71, pl. 12, figs. 7-12
 Holotype: UMUT.MM2643 (fig. 7); Paratypes: UMUT.MM2644, UMUT.MM2645 (fig. 8), UMUT.MM2647 (fig. 9)
 Ohishi, Kotaki, Itoigawa City, Niigata Prefecture, Japan
 Kitamatadani Formation, Kuruma Group
 Liassic (Early Jurassic (not younger than Pliensbachian) by Hayami (1975))

***Cardinioides splendidus* Kobayashi & Ichikawa, 1952**

Japan. Jour. Geol. Geogr., vol. 22, p. 68, pl. 2, figs. 1a-b
 Holotype: UMUT.MM5375 (figs. 1a, b)
 Loc. 1 at the river floor of the Maki-gawa near the small dam a little to the west of Heki in the Province of Tamba (west of Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan
 Heki Formation
 Carnian, Triassic
 (Synonymous with *Cardinioides japonicus* Kobayashi & Ichikawa by Hayami (1975))

***Cardinioides subtrigonalis* Kobayashi & Ichikawa, 1952**

Japan. Jour. Geol. Geogr., vol. 22, p. 67, pl. 1, figs. 6-7
 Holotype: UMUT.MM5411 (fig. 6); Paratype: UMUT.MM5410 (figs. 7a, b)
 Loc. 1 at the river floor of the Maki-gawa near the small dam a little to the west of Heki in the Province of Tamba (west of Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan
 Heki Formation

Carnian, Triassic

(Synonymous with *Cardinioides japonicus* Kobayashi & Ichikawa by Hayami (1975))

***Cardinioides varidus* Hayami, 1957**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 26, p. 70, pl. 12, figs. 1-6

Holotype: UMUT.MM2637 (figs. 1a-d); Paratypes: UMUT.MM2638 (figs. 2a-c), UMUT.MM2639 (figs. 5a, b), UMUT.MM2640 (figs. 3a-c)

The middle stream of the Tsuchizawa (Holotype), and Kuruma (Paratypes), Kitaotari-mura (Otari-mura), Kitaadumi-gun, Nagano Prefecture, Japan

Tsuchizawa Formation, Kuruma Group

Liassic (Pliensbachian (or thereabout), Jurassic by Hayami (1975))

***Cardium* (s. l.) *naganoense* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 77, pl. 8, figs. 14-15

Holotype: UMUT.MM3461 (figs. 14a, b); Paratype: UMUT.MM3462 (fig. 15)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

(*Cardium?* *naganoense* Hayami by Hayami (1975))

***Cardium* (s. l.) *scrivenori* Kobayashi & Tamura, 1968**

Geol. Palaeont. SE Asia, vol. 5, p. 147, text-figs. 2, pl. 15, figs. 23-25

Syntype: three specimens, deposited in the Department of Geology, University of Malaya, not registered (figs. 23, 24, 25)

Locs. 4478 and 4486, at the Jurong Industrial Estate, Singapore

Mesozoic formations

Late Triassic

“*Cassianella*” *dubia* Kobayashi & Ichikawa, 1949

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 184, pl. 6, figs. 10a-b

Holotype: UMUT.MM5219 (fig. 10a, b)

Umenokidani, Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Myoconcha bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Cassianella?* *dubia* Kobayashi & Ichikawa by Hayami (1975))

***Cassianella malayensis* Tamura, 1970**

Geol. Palaeont. SE Asia, vol. 8, p. 143, text-fig. 3, pl. 25, figs.

1-7

Holotype: KE1040 (fig.2); Paratypes: KE1039 (fig. 1), KE1041 (figs. 3, 4), KE1042 (fig. 5), KE1043 (fig. 6), KE1044 (fig. 7)

Locs. LF1 (Holotype and KE1042) and LF21 (KE1041), LF26 (KE1043), LF124 (KE1044), YZ1 (KE1039) in the Chegar Perah area, Pahang State, Malaya, Malaysia

“*Myophoria*” Sandstone

Middle Triassic

***Catella* (*Torinosucatella*) *kobayashii* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 55, text-fig. 1, pl. 6, figs. 11-16

Holotype: UMUT.MM3024 (fig. 11); Paratypes: UMUT.MM3025 (figs. 12, 16), UMUT.MM3026 (fig. 13), UMUT.MM3027 (fig. 14), UMUT.MM3028 (fig. 15)

Loc. 6 (Holotype and UMUT.MM3025-3027) at Tsurubami, Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura, Yatsushiro-gun), and Loc. 11 (UMUT.MM3028) at Tanoura, Tanoura-mura (Tanoura-cho), Ashikita-gun Sakamoto, Kumamoto Prefecture, Japan

Horizon 5 of the Torinosu Group

Late Jurassic (especialy Kimmeridgian - Tithonian, Jurassic by Hayami (1975))

(*Parallelodon* (*Torinosucatella*) *kobayashii* (Tamura) by Hayami, Sugita & Nagumo (1960))

***Chlamys awazuensis* Hayami, 1961**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 43, p. 118, pl. 16, figs. 6a-b

Holotype: UMUT.MM3681

At the west of Awazu, Soma City, Fukushima Prefecture, Japan

1st trigonian zone of the Awazu Formation, Soma Group

Bajocian (or Bathonian), Jurassic

***Chlamys camptonectoides* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 36, p. 174, pl. 19, figs. 16-17.

Holotype: UMUT.MM3212 (fig. 16); Paratypes: UMUT.MM3209 (fig. 17), UMUT.MM3210, UMUT.MM3211

Loc. 14 (Holotype) at Koike and Loc. 15 (Paratype) at Tatenosawa, Koike, Kamimano-mura (Koike, Kashima-machi, Soma-gun), Fukushima Prefecture, Japan

8th zone (Holotype) and 7th zone (Paratype) of the Nakanosawa Formation, Soma Group

Late Jurassic (Kimmeridgian by Hayami (1975))

***Chlamys chegarperahensis* Tamura, 1973**

Geol. Palaeont. SE Asia, vol. 12, p. 123, pl. 18, figs. 1, 2, 5, 6

Holotype: KE1075a, b (figs. 1, 2); Paratype: KE1076 (figs. 5, 6)

Locs. KNM14 (Holotypa) and LF1 (Paratype) near Chegar Perah, Pahang State, Malaya, Malaysia,

Myophoria sandstone
Anisian, Triassic

***Chlamys iboibo* Kurata & Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 339, pl. 1, figs. 2-4

Holotype: UMUT.MM7091 (fig. 2); Paratypes: UMUT.MM7092 (fig. 4) (missing), UMUT.MM7093 (fig. 3), UMUT.MM7094

Mimikire, Sakawa-cho, (Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

***Chlamys kobayashii* Hayami, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 133, pl. 14, figs. 1-2

Holotype: UMUT.MM3124 (fig. 1); Paratype: UMUT.MM3125 (figs. 2a, b)

Kodaijima strait, south of Tsukinoura, Ishinomaki City, Miyagi Prefecture, Japan

Tsukinoura Formation, Ojika Group

Early Dogger (Bajocian, Jurassic by Hayami (1975))

***Chlamys kotakiensis* Takai & Hayami, 1957**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 28, p. 121, pl. 20, figs. 3-5

Holotype: UMUT.MM2700 (fig. 5); Paratypes: UMUT.MM2701 (fig. 3), UMUT.MM2702 (fig. 4), UMUT.MM2703

Holotype and UMUT.MM2702 collected from Ohishi in Kotaki, Itoigawa City, Niigata Prefecture, Japan; UMUT.MM2701 from the upper stream of Kitamatadani in

Kurobe national forest, Toyama Prefecture, Japan

Black shales of the Kitamatadani Formation, Kuruma Group

Early or middle Lias (Early Jurassic by Hayami (1975))

***Chlamys kurumensis* Kobayashi & Hayami, 1957**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 28, p. 119, pl. 20, figs. 1a-b

Holotype: UMUT.MM2697 (figs. 1a, b); Paratype: UMUT.MM2698

Kamikawara, Kuruma, Kitaotari-mura (Otari-mura), Kitaadumi-gun, Nagano Prefecture, Japan

Sandstone of the Kuruma Group

Lias (Early Jurassic by Hayami (1975))

***Chlamys mitaraiensis* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 151, pl. 12, figs. 17-20

Holotype: UMUT.MM3160 (fig. 19); Paratypes: UMUT.MM3161 (fig. 20), UMUT.MM3162 (fig. 18), UMUT.MM3163 (fig. 17)

At the west (Holotype) and east (Paratypes) of Mitarai,

Shokawa-mura, Ono-gun, Gifu Prefecture, Japan
M3 Member of the Mitarai Formation, Tetori Group
Callovian, Jurassic

***Chlamys mojsisovicsi* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 165, pl. 5, figs. 1-5

Holotype: UMUT.MM5187 (figs. 1, 2); Paratypes: UMUT.MM5188 (fig. 3), UMUT.MM5189 (fig. 4), UMUT.MM5190 (fig. 5)

Kasayadani (Holotype), Kashiwai (UMUT.MM5188), Tokombo (UMUT.MM5189) and Minami-Kuwabata of Kuromagari (UMUT.MM5190) in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Tosapecten bed (Holotype and UMUT.MM5190), *Oxytoma-Mytilus* bed (UMUT.MM5188) and *Halobia* bed (UMUT.MM5189) (lower part of Kochigatani Group)

Late Triassic (Carnian - (?)Norian, Triassic by Hayami (1975))

***Chlamys mojsisovicsi* var. *toyamai* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 166, pl. 5, figs. 6-8

Holotype: UMUT.MM5191 (fig. 6); Paratypes: UMUT.MM5192 (fig. 7), UMUT.MM5193 (fig. 8)

Kasayadani (Holotype), Shimoyama (UMUT.MM5192) and Tokombo (UMUT.MM5193) in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Tosapecten bed (Holotype and UMUT.MM5192) and *Halobia* bed (UMUT.MM5193) (lower part of Kochigatani Group)

Late Triassic (Carnian - (?)Norian, Triassic by Hayami (1975))

(Synonymous with *Chlamys mojsisovicsi* Kobayashi & Ichikawa by Hayami (1975))

***Chlamys nagatakensis* Kurata & Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 338, pl. 1, fig. 1

Holotype: UMUT.MM7090 (fig. 1)

Nagatake, Kamo-mura (Kamo, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

(*Chlamys (Radulopecten) nagatakensis* Kurata & Kimura by Tamura (1959); *Radulopecten nagatakensis* (Kurata & Kimura) by Hayami (1975))

Chlamys (Radulopecten) nagatakensis Kurata & Kimura see *Chlamys nagatakensis* Kurata & Kimura, 1951

Chlamys (Radulopecten) ogawensis (Kimura) see *Aequipecten ogawensis* Kimura, 1951

Claraia pulchella (Nakazawa) see *Pseudomonotis (Claraia) pulchella* Nakazawa, 1953

Coelastarte cardiniiiformis Hayami, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 106, pl. 7, figs. 12-16

Holotype: UMUT.MM2880 (fig. 12); Paratypes: UMUT.MM2881 (fig. 15), UMUT.MM2882 (fig. 12), UMUT.MM2883 (fig. 13)

Hosoura (Holotype) and Niranohama (Paratypes), Shizukawa-machi (Shizugawa-cho), Motoyoshi-gun, Miyagi Prefecture, Japan

Niranohama Formation, Shizukawa Group
Hettangian, Jurassic

Coelastarte somensis (Tamura) see *Astarte (Coelastarte) somensis* Tamura, 1960

Coelopsis tanourensis (Tamura) see *Opis (Coelopsis) tanourensis* Tamura, 1959

Corbicula amagashiraensis Kobayashi & Suzuki, 1937

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 45, pl. 5, figs. 8-12

Holotype: UMUT.MM7007a (fig. 8); Paratypes: UMUT.MM7007b (fig. 9), UMUT.MM7007c (fig. 10), UMUT.MM7007d (fig. 11), UMUT.MM7007e (fig. 12)

Amagashiradani, Province of Etizen (Amagashiradani, Izumi-mura, Ono-gun, Fukui Prefecture), Japan

Conglomeratic sandstone of the Tetori series (Shimoanama Formation, Tetori Group)

Late Jurassic

(*Neomiodon? amagashiraensis* (Kobayashi & Suzuki) by Ohta (1973))

Corbicula tetoriensis Kobayashi & Suzuki, 1937

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 46, text-fig. 2, pl. 4, figs. 7-15; pl. 5, figs. 1-7

Holotype: UMUT.MM7008 (pl. 4, figs. 9a, b); Paratypes: UMUT.MM7009 (pl. 4, fig. 7), UMUT.MM7010 (pl. 4, fig. 8), UMUT.MM7011a (pl. 4, fig. 13), UMUT.MM7011b (pl. 4, fig. 14), UMUT.MM7012 (pl. 4, fig. 11), UMUT.MM7013 (pl. 4, fig. 10), UMUT.MM7014 (pl. 4, fig. 12), UMUT.MM7015 (pl. 4, fig. 15), UMUT.MM7016a (text-fig. 2; numerous individuals on a slab reported by Ichikawa and Hayami (1978)), UMUT.MM7016b (pl. 5, fig. 4), UMUT.MM7017a (pl. 5, fig. 1), UMUT.MM7017b (pl. 5, fig. 3), UMUT.MM7018 (pl. 5, fig. 2), UMUT.MM7019 (pl. 5, figs. 5a, b), UMUT.MM7020 (pl. 5, fig. 6), UMUT.MM7021 (pl. 5, fig. 7)

Izumi, Province of Etizen (Holotype and

UMUT.MM7009-7018, 7021) (Itsuki, Izumi-mura, Ono-gun, Fukui Prefecture); Yanagi-dani, Province of Kaga (UMUT.MM7019) (Yanagidani, Shiramine-mura, Ishikawa-gun, Ishikawa Prefecture); Kurouti, Province of Hida (UMUT.MM7020) (Kurouchi, Furukawa-cho, Yoshiki-gun, Gifu Prefecture), Japan

Tetori series (Izumi Formation (Holotype and UMUT.MM7009-7018, 7021), Ushimaru Formation (UMUT.MM7019) and Kurouchi Formation (UMUT.MM7020), Tetori Group)

Late Jurassic

(*Myrene (Mesocorbicula) tetoriensis* (Kobayashi & Suzuki) by Ohta (1973))

Corbula globosa Tamura, 1959

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 114, pl. 12, figs. 1-4

Holotype: UMUT.MM3093 (fig. 1); Paratype: UMUT.MM3094 (fig. 2), UMUT.MM3095 (fig. 3), UMUT.MM3096 (fig. 4), UMUT.MM3097

Loc. 4 (Holotype) at Sakamoto and Loc. 5 (UMUT.MM3094, 3095) at Matsuzaki, Kamimatsukuma-mura (Sakamoto-mura), Yatsushiro-gun, and Loc. 12 (UMUT.MM3097) at Uminoura, Tanoura-mura (Tanoura-machi), Ashikita-gun, Kumamoto Prefecture, Japan

5th horizon of the Torinosu Group
Late Jurassic (Late Jurassic - Berriasian, Cretaceous by Hayami (1975))

(*Corbula? globosa* Tamura by Hayami (1975))

Costatoria chegarperahensis Kobayashi & Tamura, 1968

Geol. Palaeont. SE Asia, vol. 5, p. 100, text-figs. 2c, 3a-g, pl. 13, figs. 14-27

Holotype: not registered (figs. 24, 25); Paratype: 10 specimens not registered (figs. 14-15, 16, 17, 18, 19, 20, 21, 22-23, 26, 27)

Locs. LF26 (Holotype) about 4 miles SW of Temerloh, and LF11, 12, 24, 112, YZ1 (Paratypes) near Chegar Perah, in Sout Pahang, Malaya, Malaysia

Middle and lower beds of the Chegar Perah Trias
Middle Triassic

Costatoria kobayashii (Kambe) see *Myophoria goldfussi* Alberti var. *kobayashii* Kambe, 1951

Costatoria multistriata (Kobayashi & Ichikawa) see *Myophoria multistriata* Kobayashi & Ichikawa, 1954

Costatoria pahangensis Kobayashi & Tamura, 1968

Geol. Palaeont. SE Asia, vol. 5, p. 98, text-fig. 2d, pl. 13, figs. 10-13

Holotype: not registered (figs. 11, 12); Paratype: two specimens not registered (figs. 10, 13)

Locs. PSF43 (Holotype) about 4 miles SW of Temerloh, and

PSF 8 (Paratype) about 6 miles SWW of Temerloh, in Sout Pahang, Malaya, Malaysia
Lower *Myophoria* sandstone
Late Triassic

***Costatoria quinquicostata* Kobayashi & Tamura, 1968**

Geol. Palaeont. SE Asia, vol. 5, p. 94, text-fig. 2a, pl. 12, figs. 9-14

Holotype: not registered (figs. 9, 10, 12, 13); Paratype: two specimens not registered (figs. 11, 14)

Locs. LF19 in the Chegar Perh area, Malaya, Malaysia
Upper part of Chegar Perah Trias
Middle Triassic

***Costatoria singaporensis* Kobayashi & Tamura, 1968**

Geol. Palaeont. SE Asia, vol. 5, p. 100, text-figs. 2b, pl. 13, figs. 1-3

Holotype: not registered (figs. 2); Paratype: two specimens not registered (figs. 1, 3)

Loc. 4466 near Chegar Perah, in Sout Pahang, Malaya, Malaysia
Middle and lower beds of the Chegar Perah Trias
Late Triassic

***Crenotrapezium kitakamiense* Hayami, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 17, text-fig. 2, pl. 3, figs. 8-10

Holotype: UMUT.MM3570 (fig. 9); Paratypes: UMUT.MM3571 (fig. 8), UMUT.MM3572a (fig. 10)

Loc. 27 at the west of Nagashioya, Hashiura, Kitakami-mura (Kitakami-machi), Mounou-gun, Miyagi Prefecture, Japan
Light grey sandstone of the Tategami Member, Jusanhama Group

Presumably Wealden, Early Cretaceous (Tithonian, Jurassic or early Neocomian, Cretaceous by Hayami (1975))

***Crenotrapezium kurigata* Hayami, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 16, pl. 2, figs. 29-30

Holotype: UMUT.MM2832 (fig. 29); Paratype: UMUT.MM2831 (fig. 30)

At the middle stream of Tsuchizawa, Otari-mura, Kitaadumi-gun, Nagano Prefecture; Paratype collected from Ohishi, Itoigawa City, Niigata Prefecture, Japan
Tsuchizawa Formation (Holotype), Kitamatadani Formation (Paratype), Kuruma Group

Lias (especially Pliensbachian - Toarcian, Jurassic by Hayami (1975))

(Synonymous with *Crenotrapezium kurumense kurumense* Hayami by Hayami (1975))

***Crenotrapezium kurumense* Hayami, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 14, pl. 2, figs. 22-28

Holotype: UMUT.MM2823 (figs. 22a, b); Paratypes: UMUT.MM2824 (fig. 26), UMUT.MM2825 (figs. 28a, b), UMUT.MM2826

At the middle stream of Tsuchizawa, Otari-mura, Kitaadumi-gun, Nagano Prefecture, Japan

Tsuchizawa Formation, Kuruma Group

Lias (especially Pliensbachian - Toarcian, Jurassic by Hayami (1975))

(*Crenotrapezium kurumense kurumense* Hayami by Hayami (1975))

***Crenotrapezium kurumense grossum* Hayami, 1961**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 43, p. 115, pl. 16, fig. 4

Holotype: UMUT.MM3678 (fig. 4)

At the west of Ochiai, Oosa-cho, Atetsu-gun, Okayama Prefecture, Japan

Y1 Member of the Yamaoku Formation

Toarcian, Jurassic

***Ctenoides tosanus* (Kurata & Kimura) see *Lima* (*Ctenoides*) *tosana* Kurata & Kimura, 1951**

***Ctenostreon japonicum* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 67, pl. 7, figs. 5-6

Holotype: UMUT.MM3424 (figs. 5a, b); Paratype: UMUT.MM3425 (fig. 6)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Ctenostreon ojikense* Hayami, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 135, pl. 14, figs. 3a, b

Holotype: UMUT.MM3126 (figs. 3a, b); Paratype: UMUT.MM3127

Kodaijima strait, south of Tsukinoura, Ishinomaki City, Miyagi Prefecture, Japan

Tsukinoura Formation, Ojika Group

Early Dogger (Bajocian, Jurassic by Hayami (1975))

***Cucullaea (Idonearca) mabuchii* Hayami see *Cucullaea* (s. l.) *mabuchii* Hayami, 1958**

***Cucullaea* (s. l.) *mabuchii* Hayami, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 102, text-fig. 2, pl. 7, figs. 7-10

Holotype: UMUT.MM2874 (fig. 8); Paratype: UMUT.MM2875 (fig. 9)

Hosoura, Shizukawa-machi (Shizugawa-cho),

Motoyoshi-gun, Miyagi Prefecture, Japan
Niranohama Formation, Shizukawa Group
Hettangian, Jurassic
(*Cucullaea (Idonearca) mabuchii* Hayami by Hayami (1975))

“*Cultellus*”? *ellipsoidalis* Kobayashi & Ichikawa, 1950
Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 237, pl. 4, figs. 9a-b
Holotype: UMUT.MM5161 (figs. 9a, b)
Umenokidani in the Sakawa basin (Umenokidani, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Myoconcha sandstone (lower part of the Kochigatani Group)
Carnian or thereabout (Carnian, Triassic by Hayami (1975))
(*Cultellus? ellipsoidalis* Kobayashi & Ichikawa by Hayami (1975))

***Cultriopsis (Angustella?) hosonaga* Kobayashi & Ichikawa, 1954**
Japan. Jour. Geol. Geogr., vol. 24, p. 55, pl. 7, figs. 1a-b
Holotype: UMUT.MM5415 (figs. 1a, b)
Loc. 7 at the southern side of the small ridge south of “M-valley”, Arai, Okuno-mura (Hinode-machi), Nishitama-gun, Tokyo Prefecture, Japan
Arai Formation
Triassic
(*Gervillia (Cultriopsis) hosonaga* (Kobayashi & Ichikawa) by Hayami (1975))

“*Cuspidaria*” *ayabensis* Nakazawa, 1956
Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 23, no. 2, p. 242, pl. 3, figs. 13-14
Holotype: UK.JM10384 (figs. 13a, b); Paratype: UK.JM10385 (fig. 14), UK.JM10386 UK.JM10387, UK.JM10388
Miuchi, (Ayabe City), Kyoto Prefecture, Japan
Lower part of N3 Formation, Nabae Group
Carnian, Triassic
(*Cuspidaria? ayabensis* Nakazawa by Hayami (1975))

***Cuspidaria (?) praenipponica* Hayami, 1959**
Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 73, pl. 7, figs. 9-12
Holotype: UMUT.MM2932 (fig. 9); Paratype: UMUT.MM2935 (fig. 12)
Futamataji, Mizunuma, Ishinomaki City, Miyagi Prefecture, Japan
Niranohama Formation, Shizukawa Group
Hettangian, Jurassic
(*Cuspidaria? praenipponica* Hayami by Hayami (1975))

***Cyrena elliptica* Yokoyama, 1904**
Jour. Coll. Sci. Imp. Univ. Tokyo, vol. 18, no. 6, p. 11, pl. 1, fig. 4

Holotype: monotypy (UMUT.MM7173) (figs. 4a, b)
Hosoura, Province of Rikuzen (Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi Prefecture), Japan
Cyrena bed (Niranohama Formation, Shizukawa Group)
Dogger (early Hettangian, Jurassic by Hayami (1958))
(*Yokoyamaina elliptica* (Yokoyama) by Hayami (1958); new name as *Yokoyamaina hayamii* Keen & Casey, 1969 because of non *Cyrena elliptica* Dunker, 1843; *Integricardium (Yokoyamaina) hayamii* (Keen & Casey) by Hayami (1972))

***Cyrena lunulata* Yokoyama, 1904**
Jour. Coll. Sci. Imp. Univ. Tokyo, vol. 18, no. 6, p. 10, pl. 2, fig. 9
Holotype: monotypy (UMUT.MM7178) (figs. 9a-c)
Hosoura, Province of Rikuzen (Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi Prefecture), Japan
Cyrena bed (Niranohama Formation, Shizukawa Group)
Dogger (Early Hettangian, Jurassic by Hayami (1975))
(*Eomiodon lunulatus* (Yokoyama) by Hayami (1958))

***Daonella alta* Yabe & Shimizu see *Daonella kotoi* var. *alta* Yabe & Shimizu, 1927**

***Daonella asymmetrica* Kobayashi & Tokuyama, 1959**
Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 22, pl. 2, fig. 13
Holotype: UMUT.MM3534 (fig. 13)
Zohoin in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Zohoin series (Zohoin Group)
Ladinian, Triassic

***Daonella burutoni* Kobayashi & Tokuyama, 1966**
Geol. Palaeont. SE Asia, vol. 3, p. 117, pl. 24, fig. 15
Holotype: Burton's Collection not registered (fig. 15)
Loc. J-17, a low cutting on the north side of an unmetalled estate road, one mile south of Kampong Ulu Bakai; 6 miles south of Tawar in the Tawar area, Kedah Perak, Malaya, Malaysia (5°30'N, 100°45'E)
Triassic shell beds
Ladinian to ?Norian, Triassic

***Daonella densisulcata* Yabe & Shimizu, 1927**
Sci. Rept. Tohoku Imp. Univ., Ser. 2, vol. 11, no. 2, p. 124, pl. 11, fig. 13; pl. 12, fig. 9
Syntype: Holotype: IGPS.no.7571 (pl. 12, fig. 9a); Paratypes: IGPS.no.7571 (pl. 12, fig. 9b), IGPS.no.7891 (pl. 11, fig. 13)
Zohoin (Holotype) near Sakawa, Province of Tosa (Sakawa-cho, Takaoka-gun, Kochi Prefecture); northeast of the Rifu Station (IGPS.no.7891), Province of Rikuzen (Rifu-cho, Miyagi-gun, Miyagi Prefecture), Japan
Daonella beds (Zohoin Group and Rifu Formation)
Ladinian, Triassic

***Daonella densisulcata* var. *subquadrata* Yabe & Shimizu, 1927**

Sci. Rept. Tohoku Imp. Univ., Ser. 2, vol. 11, no. 2, p. 124, pl. 12, fig. 8

Holotype: monotypy (IGPS.no.7890)

Zohoin near Sakawa, Province of Tosa (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Daonella beds (Zohoin Group)

Ladinian, Triassic

(Synonymous with *Daonella densisulcata* Yabe & Shimizu by Hayami (1975))

***Daonella hiratai* Kobayashi & Tokuyama, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 22, pl. 2, fig. 14

Holotype: UMUT.MM3535 (fig. 14)

Zohoin in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Zohoin series (Zohoin Group)

Ladinian, Triassic

***Daonella iwayai* Kobayashi & Tokuyama, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 15, pl. 2, fig. 15; pl. 3, figs. 8-9; pl. 4, fig. 4

Holotype: UMUT.MM3497 (pl. 3, fig. 8); Paratypes: UMUT.MM3481 (pl. 3, fig. 9), UMUT.MM3498 (pl. 2, fig. 15), UMUT.MM3537 (pl. 4, fig. 4)

Tsuzurazaka (Holotype and UMUT.MM3537) at Usugatani in Sakuradani region, Province of Awa (Usugatani, Kaminaka-cho, Naka-gun, Tokushima Prefecture); Kuroiwadani (UMUT.MM3481) near Ino, Province of Tosa (Ino-cho, Agawa-gun, Kochi Prefecture); Zohoin (UMUT.MM3498) in the Sakawa basin, Province of Tosa (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Zohoin series (Zohoin Group)

Ladinian, Triassic

***Daonella Kotoi* Mojsisovics, 1888**

Beitr. Geol. Pal. Oesterreich-Ungarns usw., vol. 7, p. 174, pl. 2, fig. 3

Holotype: now missing (Plaster cast: UMUT.MM5001; reported by Ichikawa & Hayami (1978))

Zohoin in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Zohoin Group

Ladinian, Triassic

(*Daonella kotoi* Mojsisovics by Kobayashi & Tokuyama (1959))

***Daonella kotoi* var. *alta* Yabe & Shimizu, 1927**

Sci. Rept. Tohoku Imp. Univ., Ser. 2, vol. 11, no. 2, p. 122, pl. 12, fig. 10

Holotype: monotypy (IGPS.no.5298) (fig. 10)

Zohoin near Sakawa, Province of Tosa (Sakawa-cho,

Takaoka-gun, Kochi Prefecture), Japan

Daonella beds (Zohoin Group)

Ladinian, Triassic

(*Daonella alta* Yabe & Shimizu by Kobayashi & Tokuyama (1959))

***Daonella kotoi* Mojs. var. *multistriata* Yabe & Shimizu, 1927**

Sci. Rept. Tohoku Imp. Univ., Ser. 2, vol. 11, no. 2, p. 123, pl. 11, figs. 12, 14; pl. 13, fig. 11

Syntype: IGPS.no.22998 (pl. 11, fig. 12), IGPS.no.7892 (pl. 11, fig. 14), IGPS.no.35278 (pl. 13, fig. 11)

Okonoi (IGPS.no.22998), Yawata, Tagajo-mura, Province of Rikuzen (Tagajo City, Miyagi Prefecture); Northeast of Rifu Station (IGPS.no.789), and Hamada (IGPS.no.35278), Rifu-mura, Province of Rikuzen (Rifu-cho, Miyagi-gun, Miyagi Prefecture), Japan

Daonella beds (Rifu Formation)

Monophyllites Zone (Ladinian, Triassic by Kobayashi and Tokuyama (1959))

(*Daonella multistriata* Yabe & Shimizu by Kobayashi & Tokuyama (1959))

Daonella multistriata* Yabe & Shimizu see *Daonella kotoi* Mojs. var. *multistriata* Yabe & Shimizu, 1927**Daonella pahangensis* Kobayashi, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 110, pl. 5, fig. 11

Holotype: Geol. Surv., Ipoh, Malaya?, not registered (fig. 11)

Loc. 4, Sungei Tekal Besar 2 miles NE of Bukit Pot and 14 miles NNW of Mentakab in the Temerloh area, Central Pahang, Malaya, Malaysia (3°40'N, 102°16'E)

Pichleri-pahangensis horizon, Upper rhythmic sediments

Late Ladinian, Triassic

***Daonella pectinoides* Kobayashi & Tokuyama, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 20, text-figure (in p. 21), pl. 2, fig. 12; pl. 3, fig. 6

Holotype: UMUT.MM3532 (pl. 2, fig. 12); Paratype: UMUT.MM3533 (pl. 3, fig. 6)

Zohoin (Holotype) in the Sakawa basin, Province of Tosa (Sakawa-cho, Takaoka-gun, Kochi Prefecture); Koyanomizo (Paratype) at Usugatani in Sakuradani region, Province of Awa (Usugatani, Kaminaka-cho, Naka-gun, Tokushima Prefecture), Japan

Zohoin series (Zohoin Group)

Ladinian, Triassic

***Daonella posidoniformis* Kobayashi & Tokuyama, 1966**

Geol. Palaeont. SE Asia, vol. 3, p. 116, pl. 24, fig. 13

Holotype: Burton's Collection not registered (fig. 13)

Loc. P-30, a tributary of the Charok Kapas Pendiati in the Tawar area, Kedah Perak, Malaya, Malaysia

Triassic shell beds

Ladinian to ?Norian, Triassic

***Daonella procteri* Kobayashi & Tokuyama, 1966**

Geol. Palaeont. SE Asia, vol. 3, p. 118, text-fig. 3b, pl. 24, fig. 16

Syntype: Burton's new Collection not registered (pl. 24, fig. 16), Burton's new Collection not registered (text-fig. 3b)

Loc. C-2, Ketumbar Estate, 2 miles NNE of Tawar, in a cutting on the south side of the railway, directly opposite Bukit Merah railway section in the Tawar area, Kedah Perak, Malaya, Malaysia (5°37'N, 100°47'30"E)

Triassic shell beds

Ladinian to ?Norian, Triassic

***Daonella Sakawana* Mojsisovics, 1888**

Beitr. Geol. Pal. Oesterreich-Ungarns usw., vol. 7, p. 174, pl. 2, figs. 4-5

Lectotype: not registered (fig. 4; designated by Ichikawa (1963, p. 10) but now missing (Plaster cast: UMUT.MM5002)); Syntype: not registered two specimens (fig. 5; Plaster cast: UMUT.MM5003, referred to *Daonella* cf. *densisulcata* Yabe & Shimizu by Ichikawa (1963))

Zohoin in the Sakawa basin, (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Zohoin Group

Ladinian, Triassic

(*Daonella sakawana* Mojsisovics by Diener (1915))

***Daonella subquadrata symmetrica* Kobayashi & Tokuyama, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 19, pl. 1, figs. 8-11

Holotype: UMUT.MM3525 (fig. 8); Paratypes: UMUT.MM3526 (fig. 9), UMUT.MM3527 (fig. 10), UMUT.MM3528 (fig. 11)

Zohoin in the Sakawa basin, Province of Tosa (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Zohoin series (Zohoin Group)

Ladinian, Triassic

(Synonymous with *Daonella densisulcata* Yabe & Shimizu by Hayami (1975))

***Daonella subquadrata zohoinensis* Kobayashi & Tokuyama, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 19, pl. 1, figs. 12-13; pl. 2, figs. 9, 11; pl. 3, fig. 5

Holotype: UMUT.MM3510 (pl. 1, fig. 12); Paratypes: UMUT.MM3511 (pl. 1, fig. 13), UMUT.MM3512 (pl. 2, fig. 11), UMUT.MM3514 (pl. 3, fig. 5), UMUT.MM5003 (pl. 2, fig. 9; original specimen in Wien but now missing by Ichikawa and Hayami (1978)),

Zohoin (Holotype and UMUT.MM3511, 5003) in the Sakawa basin, Province of Tosa (Sakawa-cho, Takaoka-gun, Kochi Prefecture); Koretomo (UMUT.MM3514), Ino-cho,

Agawa-gun, Kochi Prefecture), Japan

Zohoin series (Zohoin Group)

Ladinian, Triassic

(Synonymous with *Daonella densisulcata* Yabe & Shimizu by Hayami (1975))

***Daonella tenuistriata* Kobayashi & Tokuyama, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 13, pl. 3, fig. 10

Holotype: UMUT.MM3473 (fig. 10)

Zohoin in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Zohoin series (Zohoin Group)

Ladinian, Triassic

***Daonella yoshimurai* Kobayashi, 1935**

Japan. Jour. Geol. Geogr., vol. 12, nos. 1-2, p. 30, pl. 7, fig. 7

Holotype: UMUT.MM5520 (fig. 7)

Shirogahara, Isa-mura, Mine-gun, Province of Nagato (Shirogawara, Mine City, Yamaguchi Prefecture), Japan

Daonella bed (Atsu Group)

Ladinian (Carnian (or late Ladinian), Triassic by Hayami (1975))

***Dicerocardium kuwagataforme* Tamura, 1983**

Mem. Fac. Educ. Kumamoto Univ., Nat. Sci., no. 32, p. 15, pl. 7, figs. 1-2; pl. 8, figs. 1a-f; pl. 9, figs. 1a-g; pl. 10, figs. 1a-d

Syntype: KE not registered (pl. 7, figs. 1-2; pl. 8, figs. 1a-f; pl. 9, figs. 1a-g; pl. 10, figs. 1a-d)

Yaritaoshi rapid of the Kuma River, Kuma-mura, Kuma-gun, Kumamoto Prefecture, Japan

Yaritaoshi Limestone, Sanbosan terrane

Late Triassic

***Edentula ozawai* Kobayashi, 1935**

Japan. Jour. Geol. Geogr., vol. 12, nos. 1-2, p. 30, pl. 7, figs. 3-6

Syntype: UMUT.MM5521 (pl. 7, fig. 3), UMUT.MM4222 (pl. 7, fig. 4; missing, reported by Ichikawa and Hayami (1978)), UMUT.MM4223 (pl. 7, fig. 5; missing, reported by Ichikawa and Hayami (1978)), UMUT.MM4224 pl. 7, fig. 6; missing, reported by Ichikawa and Hayami (1978))

Shirogahara, Isa-mura, Mine-gun, Province of Nagato (Shirogawara, Mine City, Yamaguchi Prefecture), Japan

Uppermost part of the Atsu Series (upper part of the Atsu Group)

Carnian (Ladinian - Carnian, Triassic by Hyami (1975))

(*Waagenoperna ozawai* (Kobayashi) by Hayami (1975))

***Edentula (?) triangularis* Kobayashi & Ichikawa, 1952**

Japan. Jour. Geol. Geogr., vol. 22, p. 268, text-figs. 1-2

Holotype: UMUT.MM5399c (figs. 1a, b); Paratype: UMUT.MM5399d (fig. 2) (corrected by Ichikawa and

Hayami (1978))

Loc. 3, a cliff of the River Misawa at a point east of Jito, Nariwa District in the Bitchu (east of Jito, Kawakami-cho, Kawakami-gun, Okayama Prefecture), Japan

Upper division containing *Entomotis ochotica* s. l. of the Nariwa series (Nariwa Group)

Approximate equivalent to Norian (Carnian - Norian, Triassic by Hayami (1975))

(*Waagenoperna triangularis* (Kobayashi & Ichikawa) by Tokuyama (1959))

***Entomonotis iwaiensis* Ichikawa, 1951**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 2, p. 46, text-figs. 1-2

Holotype: UMUT.MM5369 (text-figs. 1a-c); Paratype: UMUT.MM5370 (text-figs. 2a-c)

Loc. 50 KI-6a, along the M-valley at Iwai, near Itsukaichi, (Iwai, Hinode-machi, Nishitama-gun), Tokyo Prefecture, Japan

Entomonotis-bearing formation (upper part of the Kochigatani Group)

Late Triassic (Norian, Triassic by Hayami (1975))

(*Monotis* (*Entomonotis*) *iwaiensis* (Ichikawa) by Hayami (1975); synonymous with *Monotis ochotica denseplicata* (Teller) by Ando (1987))

***Entomonotis kurosawai* Sakaguti, 1939**

Jub. Publ. Comm. Prof. H. Yabe 60th Birthday, vol. 1, p. 299, pl. 15, figs. 1-6

Syntype: IGPS. not registered (two specimens as Holotypes: figs. 1, 5, and four specimens: figs. 2-4, 6)

Nisi-Togaki, Hosoura, Motoyosi-gun, (north of Hosoura, Utatsu-cho, Motoyoshi-gun), Miyagi Prefecture, Japan

Saragai beds (Saragai Group)

Norian, Triassic

(Synonymous with *Monotis* (*Entomonotis*) *zabaikalica* (Kiparisova) by Hayami (1975); *Monotis zabaikalica* (Kiparisova) by Ando (1987))

***Entomonotis multistriata* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 255, pl. 9, figs. 11, 14

Holotype: UMUT.MM5273 (fig. 11); Paratype: UMUT.MM5274 (fig. 14)

Umenokidani (Holotype) and, Takenotani (Paratype), Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture, Japan)

Entomotis bed (upper part of Kochigatani Group)

Late Triassic (Norian, Triassic by Hayami (1975))

(*Monotis* (*Entomonotis*) *multistriata* (Kobayashi & Ichikawa) by Tamura (1965); synonymous with *Monotis ochotica ochotica* (Keyserling) by Ando (1987))

***Entomonotis tenuicostata* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 259, pl. 9, figs. 6-7

Holotype: UMUT.MM5276 (fig. 6); Paratype: UMUT.MM5277 (fig. 7)

Kasayadani-1 (Holotype) and Sakanoshiri (Paratype) in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture, Japan)

Entomonotis bed (upper part of the Kochigatani Group)

Late Triassic (Norian, Triassic by Hayami (1975))

(*Monotis* (*Entomonotis*) *tenuicostata* (Kobayashi & Ichikawa) by Hayami (1975); synonymous with *Monotis mabara* (Kobayashi & Ichikawa) by Ando (1987))

***Entomonotis tenuicostata* var. *mabara* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 260, pl. 9, fig. 8

Holotype: UMUT.MM5278 (fig. 8)

Kasayadani in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Entomotis bed (upper part of the Kochigatani Group)

Late Triassic (Norian, Triassic by Hayami (1975))

(*Monotis mabara* (Kobayashi & Ichikawa) by Ando (1987); synonymous with *Monotis* (*Entomonotis*) *tenuicostata* (Kobayashi & Ichikawa) by Hayami (1975))

***Entomonotis zabaikalica* (Kiparisova) var. *intermedia* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 258, pl. 10, figs. 19-20

Holotype: UMUT.MM5261 (fig. 20); Paratype: UMUT.MM5260 (fig. 19)

Sakuradani in the Sakawa basin, Shikoku (Inotani, Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan (described by Hayami (1975))

Entomonotis bed (upper part of the Kochigatani Group)

Late Triassic (Norian, Triassic by Hayami (1975))

(New name as *Monotis* (*Entomonotis*) *zabaikalica semiradiata* Ichikawa, 1958 because of non *Monotis intermedia* de Gregorio, 1930, non *Monotis* “*salinaria intermedia* Trechamann, 1918; synonymous with *Monotis* (*Entomonotis*) *zabaikalica* (Kiparisova) by Hayami (1975); *Monotis zabaikalica* (Kiparisova) by Ando (1987))

***Entolium inequivalve* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 154, text-fig. (in p. 155), pl. 13, figs. 3-8

Holotype: UMUT.MM3166 (fig. 8); Paratypes: UMUT.MM3167 (figs. 6a, b), UMUT.MM3168 (fig. 3), UMUT.MM3169 (fig. 7), UMUT.MM3170 (fig. 5)

At the east of Mitarai (Holotype and UMUT.MM3168-3169) and at Mitarai (UMUT.MM3167, 3170-3171), Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M3 Member of the Mitarai Formation, Tetori Group
Callovian, Jurassic

***Entolium japonicum* Kurata & Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 345,
pl. 1, figs. 16-17

Holotype: UMUT.MM7102 (fig. 16); Paratype:
UMUT.MM7103 (fig. 17)

Mimikire, Sakawa-cho, (Takaoka-gun), Kochi Prefecture,
Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami
(1975))

***Entolium kimurai* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 60, pl. 6,
figs. 23-29

Holotype: UMUT.MM3041 (fig. 29); Paratypes:
UMUT.MM3035 (fig. 23), UMUT.MM3036 (fig. 24),
UMUT.MM3037 (fig. 26), UMUT.MM3038 (fig. 27),
UMUT.MM3039 (fig. 25), UMUT.MM3040 (fig. 28),
UMUT.MM3042, UMUT.MM3043, UMUT.MM3044

Loc. 6 (Holotype and UMUT.MM3036-3038) at Tsurubami,
Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura,
Yatsushiro-gun), Loc. 2 (UMUT.MM3039, 3040) at Kozaki,
Shimomatsukuma-mura, Yatsushiro-gun (Kozaki,
Sakamoto-mura, Yatsushiro-gun), and Loc. 12
(UMUT.MM3035) at Uminoura, Tanoura-mura
(Tanoura-cho), Ashikita-gun, Kumamoto Prefecture, Japan
Horizon 5 of the Torinosu Group

Late Jurassic (Late Jurassic - Berriassian, Cretaceous by
Hayami (1975))

***Entolium yatsujiense* Kurata & Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 346,
pl. 1, fig. 18

Holotype: UMUT.MM7105 (fig. 18)

Yatsuji, Kitahara-mura (Sakawa-cho, Takaoka-gun), Kochi
Prefecture, Japan

Yatsuji Formation, Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami
(1975))

***“Eocallista” regularis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 116,
text-fig. 1, pl. 12, figs. 8-10

Holotype: UMUT.MM3107 (figs. 8-10)

Loc. 5 at Matsuzaki, Kamimatsukuma-mura
(Sakamoto-mura), Yatsushiro-gun, Kumamoto Prefecture,
Japan

5th horizon of the Torinosu Group

Late Jurassic

(*Eocallista? regularis* Tamura by Hayami (1975))

***Eomiodon* (?) *giganteus* Hayami, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 21, pl. 3, figs.
7-10

Holotype: UMUT.MM2857 (fig. 8); Paratypes:
UMUT.MM2858, UMUT.MM2859 (fig. 9),
UMUT.MM2860 (fig. 7)

Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi Prefecture,
Japan

Niranohama Formation, Shizukawa Group

Early Hettangian, Jurassic

(*Eomiodon? giganteus* Hayami by Hayami (1975))

***Eomiodon kumamotoensis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 115, pl. 12,
figs. 17-18

Holotype: UMUT.MM3105 (fig. 18); Paratype:
UMUT.MM3104 (fig. 17)

Loc. 6 (Holotype) at Tsurubami, Kutaragi-mura
(Sakamoto-mura), and Loc. 4 (Paratype) at Sakamoto,
Kamimatsukuma-mura (Sakamoto-mura), Yatsushiro-gun,
Kumamoto Prefecture, Japan

5th horizon of the Torinosu Group

Late Jurassic

(*Astarte? kumamotoensis* (Tamura) by Hayami (1975))

***Eomiodon lunulatus* (Yokoyama) see *Cyrena lunulata*
Yokoyama, 1904**

***Eomiodon vulgaris* Hayami, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 19, pl. 2, figs.
15-21; pl. 3, figs. 1-3

Holotype: UMUT.MM2844 (pl. 2, fig. 18); Paratypes:
UMUT.MM2845 (pl. 2, fig. 17), UMUT.MM2846 (pl. 2, fig.
19), UMUT.MM2847 (pl. 3, fig. 2)

Type locality at the lower course of the Daira-gawa (Daira
River), Asahi-machi, Shimoniikawa-gun, Toyama Prefecture,
Japan; Paratype (UMUT.MM2845) collected from Shinatani,
and UMUT.MM2846, 2847 from the middle stream of
Aisawadani, Omi-machi, Nishikubiki-gun, Niigata Prefecture,
Japan

Shinatani Formation (Holotype and UMUT.MM2845), and
Negoya Formation (UMUT.MM2846, 2847), Kuruma Group
Late Pliensbachian - Toarcian, Jurassic

***Eopecten? infrequens* (Kobayashi & Ichikawa) see
“*Velata*” *infrequens* Kobayashi & Ichikawa, 1949**

***Eopecten kurisakensis* Tamura, 1960**

Mem. Fac. Educ. Kumamoto Univ., vol. 8, p. 235, pl. 2, fig.
18

Holotype: UMUT.MM3627 (fig. 18)

Kurisaka, (Kaminaka-cho, Naka-gun), Tokushima Prefecture,
Japan

Kurisaka Formation, Torinosu Group

Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

Eopecten maizurensis (Nakazawa) see *Velata maizurensis* Nakazawa, 1952

Eopecten punctus (Kimura) see *Velata puncta* Kimura, 1951

Eopecten? sumeriensis (Kobayashi & Ichikawa) see “*Velata*” *sumeriensis* Kobayashi & Ichikawa, 1949

Eumorphotis (*Asoella*) *confertoradiata* Tokuyama, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 4, text-fig. 1, pl. 1, figs. 1-6, 12

Holotype: UMUT.MM4498 (fig. 1); Paratypes: UMUT.MM4499 (fig. 2), UMUT.MM4500 (fig. 3; missing, reported by Ichikawa and Hayami (1978)), UMUT.MM4501 (fig. 4), UMUT.MM4502 (fig. 5), UMUT.MM4503 (fig. 6), UMUT.MM4504 (fig. 12)

Higaeribara, north of Aso, Mine, Province of Nagato (Higaeribara, Aso, Mine City, Yamaguchi Prefecture), Japan Aso Formation, Mine Group

Early Norian (Carnian (or early Norian), Triassic by Hayami (1975))

(*Asoella confertoradiata* (Tokuyama) by Hayami (1975))

Eumorphotis (*Asoella*) *laevigatata* Tokuyama, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 5, text-fig. 2, pl. 1, figs. 7-10

Holotype: UMUT.MM4505 (fig. 7); Paratypes: UMUT.MM4506 (fig. 8; missing, reported by Ichikawa and Hayami (1978)), UMUT.MM4507 (fig. 9), UMUT.MM4508 (fig. 10; missing, reported by Ichikawa and Hayami (1978))

Higaeribara, north of Aso, Mine, (Higaeribara, Aso, Mine City), Yamaguchi Prefecture, Japan

Aso Formation, Mine Group

Early Norian (Carnian (or early Norian), Triassic by Hayami (1975))

(*Asoella laevigatata* (Tokuyama) by Hayami (1975))

Eumorphotis multiformis (Bittner) *shionosawensis* Ichikawa & Yabe, 1955

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 17, p. 6, pl. 2, figs. 1-15

Holotype: UMUT.MM5401 (fig. 8); Paratypes: UMUT.MM5402 (fig. 13), UMUT.MM5403 (figs. 1, 2), UMUT.MM5405, (fig. 3), UMUT.MM5406 (fig. 11), UMUT.MM5407 (fig. 6), UMUT.MM5408 (fig. 7), UMUT.MM5409 (fig. 9), UMUT.MM5410 (fig. 10), UMUT.MM5411 (fig. 14), UMUT.MM5412 (fig. 15), UMUT.MM5413 (fig. 5), OCU.252 (fig. 4), OCU.251 (fig. 12)

Entrance of the Kamakake-zawa of Shionosawa, Ueno-mura, Tano-gun, Gumma Prefecture, Japan

Shionosawa limestone

Early Triassic (Scythian, Triassic by Hayami (1975))

(Synonymous with *Eumorphotis multiformis* (Bittner) by Hayami (1975))

Eumorphotis (*Asoella*) *nakatsukensis* Tokuyama, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 6, pl. 1, figs. 11, 13, 14

Holotype: UMUT.MM4510 (figs. 13a, b); Paratypes: UMUT.MM4509 (fig. 11), UMUT.MM4511 (fig. 14)

Morimoto near Tsubuta, Asa (Tsubuta, San'yo-cho, Asa-gun, Yamaguchi Prefecture, Japan)

Aso Formation, Mine Group

Early Norian (Carnian, Triassic by Hayami (1975))

(*Asoella nakatsukensis* (Tokuyama) by Hayami (1975))

Exogyra kumensis Tamura, 1959

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 33, p. 27, pl. 5, figs. 29-31

Holotype: UMUT.MM3003 (fig. 29); Paratypes: UMUT.MM3004 (fig. 30), UMUT.MM3005 (fig. 31)

Loc. 6 at Tsurubami, Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture, Japan

Horizon 5 of the Torinosu Group

Late Jurassic

(*Nanogyra kumensis* (Tamura) by Tamura (1960))

“*Exogyra*” *vietnamensis* Hayami, 1964

Geol. Palaeont. SE Asia, vol. 1, p. 168, text-fig. 2, pl. 7, figs. 11a-b

Holotype: UMUT.MM3887 (figs. 11a, b); Paratypes: UMUT.MM3888 (text-fig. 2)

Khe Ren in the Huu-Nien area, South Viet-Nam

Black shale

Hettangian (?), Jurassic

Filosina jusanhamensis Hayami, 1960

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 15, text-fig. 1, pl. 3, figs. 1-7

Holotype: UMUT.MM3562 (figs. 4a-b); Paratypes: UMUT.MM3563 (fig. 2), UMUT.MM3564 (fig. 3), UMUT.MM3565 (fig. 6), UMUT.MM3566 (fig. 7), UMUT.MM3567 (fig. 1), UMUT.MM3568 (fig. 5)

Loc. 27 at the west of Nagashioya, Hashiura, Kitakami-mura (Kitakami-machi), Monou-gun, Miyagi Prefecture, Japan

Light grey sandstone of the Tategami Member, Jusanhama Group

Presumably, Wealden, Early Cretaceous (Tithonian, Jurassic - early Neocomian, Cretaceous by Hayami (1975))

Fimbria somensis Hayami, 1961

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 43, p. 120, pl. 16, figs. 11-13

Holotype: UMUT.MM3687 (fig. 11); Paratypes:

UMUT.MM3688 (fig. 12), UMUT.MM3689 (fig. 13)
At the north of Sugaya and the Primary School of Sugaya,
Soma City, Fukushima Prefecture, Japan
3rd and 4th trigonian zones of the Yamagami Formation,
Soma Group
Older than Oxfordian and probably Callovian or thereabout
(Bathonian (or thereabout), Jurassic by Hayami (1975))

***Fimbria* (?) *tenuiconcha* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 68, pl. 5, fig. 32.

Holotype: UMUT.MM2973 (fig. 32)

Akaiwazaki (Hosoura), Shizukawa-cho (Shizugawa-cho),
Motoyoshi-gun, Miyagi Prefecture, Japan
Aratozaki Formation, Hashiura Group
Bajocian, Jurassic

***Frenguelliella* (*Kumatrigonia*) *tanourensis* Tamura, 1959**

Mem. Fac. Educ. Kumamoto Univ., vol. 7, p. 214, text-fig. 2,
pl. 2, figs. 1-6

Holotype: UMUT.MM3080 (fig. 1); Paratypes:
UMUT.MM3081 (fig. 2), UMUT.MM3082 (fig. 3),
UMUT.MM3083 (fig. 4), GK.F302 (figs. 5, 6a, b)

Okiba (Holotype and UMUT.MM3081-3083) and Miyanoura
(GK.F302), Tanoura-mura (Tanoura-machi), Ashikita-gun,
Kumamoto Prefecture, Japan

Tanoura Formation (lower part of Kochigatani Group)

Carnian, Triassic

(*Frenguelliella tanourensis* Tamura by Kobayashi and
Tamura (1968))

Frenguelliella tanourensis Tamura see *Frenguelliella*
(*Kumatrigonia*) *tanourensis* Tamura, 1959

Geratrighonia hosourensis (Yokoyama) see *Trigonia*
hosourensis Yokoyama, 1904

Geratrighonia hosourensis (Yokoyama) var. *convexa*
Kobayashi, in Kobayashi and Mori (1954)

Japan. Jour. Geol. Geogr., vol. 25, nos. 3-4, p. 172, pl. 16,
figs. 9a-b

Holotype: monotypy of IGPS (plaster cast:
UMUT.MM4314 : figs. 9a, b)

Niranohama, near Shizukawa-cho, Motoyoshi-gun Province
Rikuzen (Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi
Prefecture), Japan

Sandstone of the Niranohama beds, Shizukawa series
(Niranohama Formation, Shizukawa Group)

Hettangian, Jurassic

(Synonymous with *Geratrighonia hosourensis* (Yokoyama)
by Kobayashi & Mori (1954))

***Geratrighonia kurumensis* Kobayashi, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 44, pl. 1, fig.
19

Holotype: monotypy (UMUT.MM4388) (fig. 19)

Otaki-dani, a branch of the Daira-gawa in Agero village,
Omi-machi, Province of Echigo (Otakidani, Omi-machi,
Nishikubiki-gun, Niigata Prefecture), Japan

Dark gray fine sandstone boulder derived from the Otakidani
beds, Kuruma series (Otakidani Formation, Kuruma Group)
Lias (Toarcian, Jurassic by Hayami (1975))

***Geratrighonia lata* Kobayashi, in Kobayashi and Mori (1954)**
Japan. Jour. Geol. Geogr., vol. 25, nos. 3-4, p. 173, pl. 15,
figs. 6-7

Holotype: IGPS. not registered (plaster cast:
UMUT.MM4315; missing, reported by Ichikawa and Hayami
(1978)) (fig. 6); Paratype: UMUT.MM4316 (fig. 7)

Niranohama, near Shizukawa area, Province Rikuzen
(Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi
Prefecture), Japan

Cyrenid shale (Holotype) and a sandstone (Paratype) of the
Niranohama beds, Shizukawa series (Niranohama Formation,
Shizukawa Group)

Early Liassic or Rhaetic (Hettangian, Jurassic by Hayami
(1975))

“*Gervillia*” *araiensis* Ichikawa, 1954

Japan. Jour. Geol. Geogr., vol. 24, p. 51, pl. 7, fig. 14

Holotype: UMUT.MM5417 (fig. 14)

Loc. 8 along the path from Arai to Hakusan shrine, Arai,
Okuno-mura (Hinode-machi), Nishitama-gun, Tokyo
Prefecture, Japan

Arai Formation

Triassic

(*Bakevellia* (*Neobakevellia*?) *araiensis* (Ichikawa) by
Hayami (1975))

***Gervillia* (*Cultripsis*) *counilloni* Hayami, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 256, pl. 7, figs. 5-7

Holotype: UMUT.MM3877 (fig. 7); Paratypes:
UMUT.MM3878, UMUT.MM3879, UMUT.MM3880 (fig.
5), UMUT.MM3881 (fig. 6), UMUT.MM3882,
UMUT.MM3883

Ho Bui (Holotype and UMUT.MM3878-3879) and Ho Nuoc
(UMUT.MM38890-3889) in the Huu-Nien area, South
Viet-Nam

Black shale

Hettangian(?), Jurassic

“*Gervillia*” *hekiensis* Kobayashi & Ichikawa, 1952

Japan. Jour. Geol. Geogr., vol. 22, p. 76, pl. 2, figs. 4-6

Holotype: UMUT.MM5387 (figs. 4a, b); Paratypes:
UMUT.MM5388a (figs. 6a, b), UMUT.MM5388a (figs. 5a,
b)

Loc. 2, northern side of the high way between Heki and
Takauchi near Loc. 1 in the Province of Tamba (Heki,
Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan

Heki Formation

Carnian, Triassic

(*Bakevillia hekiensis* (Kobayashi & Ichikawa) by Nakazawa (1954); *Bakevelloides hekiensis* (Kobayashi & Ichikawa) by Tokuyama (1959); *Bakevillia (Bakevelloides) hekiensis* (Kobayashi & Ichikawa) by Hayami (1975))

Gervillia (Cultriopsis) hosonaga (Kobayashi & Ichikawa) see *Cultriopsis (Angustella?) hosonaga* Kobayashi & Ichikawa, 1954

“*Gervillia*” *saekii* Kobayashi & Ichikawa, 1952

Japan. Jour. Geol. Geogr., vol. 22, p. 75, pl. 2, figs. 3a-c

Holotype: UMUT.MM5379 (figs. 3a-c)

Loc. 2, northern side of the high way between Heki and Takauchi near Loc. 1 in the Province of Tamba (Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan

Heki Formation

Carnian, Triassic

(*Bakevillia (Bakevelloides?) saekii* (Kobayashi & Ichikawa) by Hayami (1975))

Gervillia (Cultriopsis) shizukawensis Hayami, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 97, pl. 6, figs. 1a-b

Holotype: UMUT.MM2672 (figs. 1a, b)

Haragoe, Kahoku-cho, Monou-gun, Miyagi Prefecture, Japan
Haragoe sandstone (comparable with Nirano Formation, Shizukawa Group)

Hettangian(?), Jurassic

Gervillia takiensis Tamura, 1960

Mem. Fac. Educ. Kumamoto Univ., vol. 8, p. 233, pl. 2, figs. 1-3

Holotype: UMUT.MM3613 (figs. 1, 2); Paratype: UMUT.MM3614 (fig. 3)

Nioigataki (Holotype) in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture); Kurisaka (Paratype) in the Sakuradani area, (Kaminaka-cho, Naka-gun), Tokushima Prefecture, Japan

Yatsuji Formation (Holotype) and Kurisaka Formation (Paratype), Torinosu Group

Late Jurassic

Gervillia tatenosawensis Tamura, 1960

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 37, p. 227, text-fig. 3, pl. 26, figs. 9-14

Holotype: UMUT.MM3255 (fig. 9); Paratypes: UMUT.MM3254, UMUT.MM3256 (fig. 10), UMUT.MM3257 (fig. 11), UMUT.MM3258 (fig. 12), UMUT.MM3259 (fig. 13), UMUT.MM3260 (fig. 14)

Loc. 15 at Tatenosawa, Koike, Kamimano-mura (Koike, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan

7th zone of the Nakanosawa Formation, Soma Group

Kimmeridgian, Jurassic

(*Gervillia (Gervillia) tatenosawensis* Tamura by Hayami (1975))

Gervillia trigona Yokoyama, 1904

Jour. Coll. Sci. Imp. Univ. Tokyo, vol. 18, no. 6, p. 12, pl. 2, figs. 7, 8

Lectotype: UMUT.MM7175 (designated by Hayami, 1957, p. 51) (fig. 7); Paralectotype: UMUT.MM6918 (fig. 8)

Hosoura, Province of Rikuzen (Shizugawa-cho, Motoyoshi-gun, Miyagi Prefecture), Japan

Cyrena bed (Nirano Formation, Shizukawa Group)

Dogger (Hettangian, Jurassic by Hayami (1975))

(*Bakevillia (Neobakevillia) trigona* (Yokoyama) by Hayami (1975))

Goniomya fontainei Hayami, 1964

Geol. Palaeont. SE Asia, vol. 1, p. 172, text-fig. 4, pl. 7, fig. 15

Holotype: UMUT.MM3892 (fig. 15); Paratypes: UMUT.MM3893 (text-fig. 4), UMUT.MM3894

Khe Ren in the Huu-Nien area, South Viet-Nam

Black shale

Hettangian (?), Jurassic

Goniomya (?) khoratensis Kobayashi & Hayami, 1964

Geol. Palaeont. SE Asia, vol. 1, p. 189, pl. 11, figs. 4-6

Holotype: not registered (specimen no. 4; fig. 4); Paratypes: not registered (figs. 5a, b), not registered (fig. 6)

Core Hole No. 3 at the depth of 70'-72'2" of Ban Krok Namtao, at km. 49.80 southwest of Khorat-Krabin Buri Road, NE Thailand

Siltstone of Khorat Series

Early Jurassic(?)

Goniomya nonvscripta Tamura, 1960

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 38, p. 281, pl. 32, figs. 15-18

Holotype: UMUT.MM3292 (fig. 16); Paratypes: UMUT.MM3289, UMUT.MM3290, UMUT.MM3291 (fig. 18), UMUT.MM3293 (fig. 17), UMUT.MM3294 (fig. 15)

Loc. 15 (Holotype and UMUT.MM3291) at Tatenosawa, Koike, and Loc. 8 (UMUT.MM3293, 3294) at the west of Yamashita, Kamimano-mura (Kashima-machi, Soma-gun), Fukushima Prefecture, Japan

7th zone (Holotype and UMUT.MM3291) and 5th zone (other Paratypes) of the Nakanosawa Formation, Soma Group

Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

(*Goniomya (Goniomya) nonvscripta* Tamura by Hayami (1975))

***Grammatodon (Indogrammatodon) densistriatus* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 36, p. 173, pl. 19, figs. 4-6

Holotype: UMUT.MM3202 (fig. 4); Paratypes: UMUT.MM3201, UMUT.MM3203 (fig. 5), UMUT.MM3204, UMUT.MM3205 (fig. 6)

Loc. 8 at west of Yamashita (Yasukurasawa), Kamimano-mura (Yamashita, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan

5th zone of the Nakanosawa Formation, Soma Group

Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

(*Grammatodon (Indogrammatodon) nakanoi* Hayami by Hayami (1975))

***Grammatodon kherensis* Hayami, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 165, pl. 7, figs. 1-2

Holotype: UMUT.MM3868 (fig. 2); Paratypes: UMUT.MM3866, UMUT.MM3867 (fig. 1),

UMUT.MM3869, UMUT.MM3870, UMUT.MM3871, UMUT.MM3872, UMUT.MM3873, UMUT.MM3874

Khe Ren in the Huu-Nien area, South Viet-Nam

Black shale

Hettangian (?), Jurassic

***Grammatodon (Indogrammatodon?) nakanoi* Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 36, p. 173, pl. 19, figs. 5-6

Holotype: UMUT.MM3202 (figs. 6a, b)

Hosoura, Shizukawa-machi (Shizugawa-cho),

Motoyoshi-gun, Miyagi Prefecture, Japan

Niranohama Formation, Shizukawa Group

Hettangian, Jurassic

Grammatodon (Grammatodon) takiensis* Kimura see *Grammatodon takiensis* Kimura, 1956**Grammatodon takiensis* Kimura, 1956**

Jour. Earth Sci. Nagoya Univ., vol. 4, no. 2, p. 84, pl. 1, figs. 5-6

Holotype: UMUT.MM7158 (figs. 5, 6)

Nioigataki in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Yatsuji Formation, Torinosu Group

Late Jurassic (Late Jurassic - Berriassian, Cretaceous by Hayami (1975))

(*Grammatodon (Grammatodon) takiensis* Kimura by Hayami, Sugita, Nagumo (1960))

***Grammatodon tenuis* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 184, pl. 33, figs. 5-7; pl. 38, figs. 3-4

Holotype: GK.G10019 (pl. 33, fig. 7; pl. 38, fig. 4);

Paratypes: GK.G10020 (pl. 33, fig. 3; pl. 38, fig. 3), GK.G10021 (pl. 33, fig. 5), GK.G10022, GK.G10023, GK.G10024, GK.G10025, GK.G10026, GK.G10027, GK.G10028, GK.G10029, GK.G10030, GK.G10031, GK.G10032

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

***Grammatodon toyorensis* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 45, pl. 5, figs. 9-12

Holotype: UMUT.MM3361 (fig. 9); Paratypes: UMUT.MM3362 (fig. 10), UMUT.MM3363 (fig. 12), UMUT.MM3364 (fig. 11)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

(*Grammatodon (Grammatodon) toyorensis* Hayami by Hayami (1975))

***Halobia alta* Kobayashi & Aoti, 1943**

Jour. Shigenkagaku Kenkyusho, vol. 1, no. 2, p. 249, pl. 24, figs. 5-6

Holotype: UMUT.MM5040 (figs. 5, 6)

Tokombo in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia beds (lower part of Kochigatani Group)

Middle Carnian (Carnian, Triassic by Hayami (1975))

***Halobia aotii* Kobayashi & Ichikawa, 1949 (nom. nov.)**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 185

(See *Halobia multistriata* Kobayashi & Aoti, 1943)

***Halobia atsuensis* Tokuyama, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 14, pl. 1, fig. 28.

Holotype: UMUT.MM4525 (fig. 28)

At a pass in the highway between Shirogawara and Minamiomine, Mine, Province of Nagato (Shirogawara, Mine City, Yamaguchi Prefecture, Japan)

Atsu Group

Ladinian-Carnian (Carnian (or late Ladinian), Triassic by Hayami (1975))

***Halobia kashiwaiensis* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 185, pl. 6, fig. 11

Holotype: UMUT.MM5220 (fig. 11)

Kashiwai in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of Kochigatani

Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

***Halobia Kawadai* Yehara, 1927**

Japan. Jour. Geol. Geogr., vol. 5, nos. 1-2, p. 31, pl. 3, figs. 5-6

Syntype: UK? not registered (two specimens: figs. 5, 6)

Shimoyama, Sakawa-cho, Province of Tosa (Takaoka-gun, Kochi Prefecture), Japan

Kochigatani series (lower part of Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Halobia kawadai* Yehara, by Kobayashi and Aoti (1943))

***Halobia longissima* Kobayashi & Aoti, 1943**

Jour. Shigenkagaku Kenkyusho, vol. 1, no. 2, p. 251, pl. 24, fig. 7

Holotype: UMUT.MM5041 (fig. 7)

Shimoyama, Kamo-mura (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Kochigatani series (lower part of Kochigatani Group)

Middle Carnian (Carnian, Triassic by Hayami (1975))

***Halobia multilineata* Kobayashi & Aoti, 1943**

Jour. Shigenkagaku Kenkyusho, vol. 1, no. 2, p. 249, pl. 25, fig. 6

Holotype: UMUT.MM5050 (fig. 6)

Nakajima in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia beds (lower part of Kochigatani Group)

Middle Carnian (Carnian, Triassic by Hayami (1975))

***Halobia multistriata* Kobayashi & Aoti, 1943**

Jour. Shigenkagaku Kenkyusho, vol. 1, no. 2, p. 250, pl. 24, figs. 12-13; pl. 25, figs. 10-14

Holotype: UMUT.MM5054 (pl. 25, fig. 11); Paratypes: UMUT.MM5045 (pl. 24, fig. 13), UMUT.MM5055 (pl. 24, fig. 12), UMUT.MM5056 (pl. 25, fig. 13), UMUT.MM5057 (pl. 25, fig. 14), UMUT.MM5058 (pl. 25, fig. 10)

Holotype and UMUT.MM5045, 5055 collected from Aisaka in Funaki-machi and UMUT.MM5057-5058 from Okibe in Asa-machi (Aisaka, Funaki and Okibe, Funaki, Kusunoki-cho, Asa-gun, Yamaguchi Prefecture; UMUT.MM5056 from Yamamuro in the Sakawa basin (Ochi-cho, Takaoka-gun, Kochi Prefecture), Japan Kajiura formation, Mine series (Mine Group in Yamaguchi) and Kochigatani series (lower part of Kochigatani Group in Kochi)

Late Carnian (Carnian, Triassic by Hayami (1975))

(New name as *Halobia aotii* Kobayashi & Ichikawa, 1949 as preoccupied by *H. kwaluana* var. *multistriata* Volz, 1899, p. 34, pl. 1, fig. 11)

***Halobia obsoleta* Kobayashi & Aoti, 1943**

Jour. Shigenkagaku Kenkyusho, vol. 1, no. 2, p. 248, pl. 24,

figs. 8-11

Holotype: UMUT.MM5043 (figs. 10, 11); Paratype: UMUT.MM5042 (figs. 8, 9)

Shimoyama in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia beds (lower part of Kochigatani Group)

Middle Carnian (Carnian, Triassic by Hayami (1975))

***Halobia parallela* Kobayashi, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 124, pl. 6, figs. 11-12

Holotype: Geol. Surv., Ipoh, Malaya?, not registered (fig. 12); Paratypes: not registered (fig. 11)

Loc. KKF6 (Holotype) along the Naka-Nami road and Loc. KKF22 along the Nami-Sik road in north Kedah, Federation of Malaya, Malaysia

Halobia shales, Upper rhythmic sediments

Carnian - Norian, Triassic

***Halobia sedaka* Kobayashi & Aoti, 1943**

Jour. Shigenkagaku Kenkyusho, vol. 1, no. 2, p. 247, pl. 25, fig. 7

Holotype: UMUT.MM5051 (fig. 7)

Kasayadani in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia beds (lower part of Kochigatani Group)

Middle Carnian (Carnian, Triassic by Hayami (1975))

***Halobia subquadrata* Kobayashi, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 123, pl. 6, figs. 21-22

Holotype: Geol. Surv., Ipoh, Malaya?, not registered (fig. 21) Loc. KKF22 along the Nami-Sik road in north Kedah, Federation of Malaya, Malaysia

Halobia shales

Carnian - Norian, Triassic

***Halobia subsedaka* Tokuyama, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 15, pl. 1, fig. 29

Holotype: UMUT.MM4526 (fig. 29)

At a pass in the highway between Shirogawara and Minamiomine, Mine, Province of Nagato (Shirogawara, Mine City, Yamaguchi Prefecture, Japan)

Atsu Group

Ladinian-Carnian (Carnian (or late Ladinian), Triassic by Hayami (1975))

***Homomya matsuoensis* Nakazawa, 1956**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 23, no. 2, p. 237, pl. 2, figs. 1-2

Holotype: UK.JM10358 (figs. 1a-e); Paratype: UK.JM10359, UK.JM10360 (figs. 2a-d), UK.JM10361, UK.JM10362, UK.JM10363

Higashiarata, Matsuo, Maizuru City, Kyoto Prefecture, Japan

Upper part of N2 Formation, Nabae Group

Carnian, Triassic

***Homomya satoi* Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 30, p. 196, pl. 28, figs. 10a-c

Holotype: UMUT.MM2810 (figs. 10a-c)

Shinatani, Omi-machi, Nishikubiki-gun, Niigata Prefecture, Japan

Shinatani Formation, Kuruma Group

Lias (Pliensbachian - Toarcian, Jurassic by Hayami (1975))

***Ibotrignia masatanii* Kobayashi & Tamura, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 38, pl. 1, figs. 5-6

Holotype: UMUT.MM4381 (fig. 5); Paratype: UMUT.MM4382 (fig. 6)

Sugaya, Yamagami-mura, Soma-gun, Province of Iwaki (Sugaya, Yamakami, Soma City, Fukushima Prefecture), Japan

Sugaya Formation (Yamagami Formation by Hayami (1975)), Soma Group

Probably Middle Jurassic (Bathonian (or thereabout), Jurassic by Hayami (1975))

***Ibotrignia tetoriensis* Maeda, 1963**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 49, p. 4, pl. 1, figs. 8, 9

Holotype: DESC.R. no. 61121512 (figs. 8, 9); Paratype: DESC.R. no. 61121516

At Taniyamadani, Izumi-mura, Ono-gun, Fukui Prefecture, Japan

Yambarazaka alternation (Yambarazaka Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

***Inoceramus* (s. l.) *fukadae* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 313, text-fig. 3, pl. 16, fig. 10

Holotype: UMUT.MM3605 (pl. 16, fig. 10); Paratype: UMUT.MM3606 (text-fig. 3)

Kodajijima (an island at the neck of the Ojika Peninsula), Ishinomaki City, Miyagi Prefecture, Japan

Kodajijima Formation, Ojika Group

Aalenian or Bajocian (Bajocian, Jurassic by Hayami (1975))

(*Inoceramus fukadae* Hayami by Hayami (1975))

***Inoceramus furukawensis* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 311, pl. 16, fig. 8

Holotype: UMUT.MM3604 (fig. 8)

Wakidani, Kawai-mura, Yoshiki-gun, Gifu Prefecture, Japan

Sugizaki Formation, Tetori Group

Oxfordian, Jurassic

***Inoceramus hamadae* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 302, pl.

15, figs. 14a-b

Holotype: UMUT.MM3601 (figs. 14a, b)

Shimoyama, Izumi-mura, Ono-gun, Fukui Prefecture, Japan

Kaizara Formation, Tetori Group

Callovian, Jurassic

(*Inoceramus* (*Mytiloides*) *hamadae* Hayami by Hayami (1975))

Inoceramus (*Mytiloides*) *hamadae* Hayami see *Inoceramus hamadae* Hayami, 1960

***Inoceramus hashiurensis* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 303, pl. 15, fig. 16

Holotype: UMUT.MM3602 (fig. 16)

Kuromorizawa, Hashiura, Kitakami-mura (Kitakami-cho), Monou-gun, Miyagi Prefecture, Japan

Arato Formation, Hashiura Group

Bajocian to Kimmeridgian, Jurassic

(*Inoceramus* (*Mytiloides*) *hashiurensis* Hayami by Hayami (1975))

Inoceramus (*Mytiloides*) *hashiurensis* Hayami see *Inoceramus hashiurensis* Hayami, 1960

***Inoceramus* (*Mytiloceramus*) *karakuwensis* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 299, pl. 15, fig. 17

Holotype: UMUT.MM3597 (fig. 17); Paratype: UMUT.MM3598

Tsunakizaka-pass, Shishiori, Kesenuma City, Miyagi Prefecture, Japan

Tsunakizaka Formation, Karakuwa Group

Middle Bajocian or thereabout, Jurassic

Inoceramus? *kudoii* Hayami see *Inoceramus* (s. l.) *kudoii* Hayami, 1960

***Inoceramus* (s. l.) *kudoii* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 312, pl. 16, fig. 9; pl. 18, figs. 3-4

Holotype: UMUT.MM9088 (pl. 18, fig. 3); Paratypes: UMUT.MM9089, UMUT.MM9090 (pl. 16, fig. 9), UMUT.MM9093 (pl. 18, fig. 4)

Hosoura, Shizukawa-cho (Shizugawa-cho), Motoyoshi-gun, Miyagi Prefecture, Japan

Hosoura Formation, Shizukawa Group

Aalenian (Toarcian - Bajocian, Jurassic by Hayami (1975))

(*Inoceramus?* *kudoii* Hayami by Hayami (1975))

***Inoceramus maedae* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 308, text-fig. 2, pl. 17, figs. 1-3

Holotype: UMUT.MM9076 (figs. 3a-c); Paratypes:

UMUT.MM9077 (figs. 1a-b), UMUT.MM9078 (figs. 2a-b)
Mitarai, Shokawa-mura, Ono-gun, Gifu Prefecture, Japan
M1 Member of the Mitarai Formation, Tetori Group
Callovian, Jurassic

Inoceramus (Inoceramus) maedae Hayami by Hayami (1975))

Inoceramus (Mytiloides) morii Hayami see *Inoceramus (s. l.) morii* Hayami, 1959

Inoceramus (s. l.) morii Hayami, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 59, pl. 5, figs. 12-14

Holotype: UMUT.MM2953 (fig. 12); Paratypes:

UMUT.MM2954 (fig. 14), UMUT.MM2955 (fig. 13)

Akaiwazaki (Hosoura), Shizukawa-cho (Shizugawa-cho),
Motoyoshi-gun, Miyagi Prefecture, Japan

Aratozaki Formation, Hashiura Group

Bajocian, Jurassic

(Inoceramus (Mytiloides) morii Hayami by Hayami (1975))

Inoceramus (?) naganoensis Hayami, 1960

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 315, pl. 18, fig. 6.

Holotype: UMUT.MM3611 (fig. 6)

Nagano, Izumi-mura, Ono-gun, Fukui Prefecture, Japan

Nagano Formation, Tetori Group

Callovian or Oxfordian (Oxfordian, Jurassic by Hayami (1975))

Inoceramus Ogurai Kobayashi, 1926

Jour. Geol. Soc. Tokyo, vol. 33, no. 398, p. 7, pl. 11, fig. 3

Holotype: UMUT.MM9086 (fig. 3: monotypy)

Utano, Okaeda-mura (Kikukawa-cho), Toyora-gun
(Toyoura-gun), Yamaguchi Prefecture, Japan

Utano group (Utano Formation, Toyora Group by Hayami (1975))

Upper Jurassic (Bathonian, Jurassic by Hayami (1975))

(Inoceramus (Retroceramus) ogurai Kobayashi by Hayami (1975))

Inoceramus (Retroceramus) ogurai Kobayashi see *Inoceramus Ogurai Kobayashi, 1926*

Inoceramus utanoensis Kobayashi, 1926

Jour. Geol. Soc. Tokyo, vol. 33, no. 398, p. 7, pl. 11, figs. 1-2

Lectotype: UMUT.MM9081 (fig. 1: designated by Hayami (1960), Jour. Fac. Sci. Univ. Tokyo, p. 305); Paralectotype:

UMUT.MM9082 (fig. 2: designated by Ichikawa and Hayami (1978, p. 59); Cotype: UMUT.MM9085 (Hayami (1960), pl. 16, fig. 4), UMUT.MM9084 (Hayami (1960), pl. 16, fig. 5)

Utano, Okaeda-mura (Kikukawa-cho), Toyora-gun
(Toyoura-gun), Yamaguchi Prefecture, Japan

Utano group (Utano Formation, Toyora Group by Hayami (1960))

Upper Jurassic (Bathonian, Jurassic by Hayami (1975))

(Inoceramus (Retroceramus) utanoensis Kobayashi by Hayami (1975))

Inoceramus (Retroceramus) utanoensis Kobayashi see *Inoceramus utanoensis* Kobayashi, 1926

Integricardium (Yokoyamaina) globosum Hayami, 1972

Geol. Palaeont. SE Asia, vol. 10, p. 205, pl. 35, figs. 1-2; pl. 38, fig. 9

Holotype: GK.G10122 (pl. 35, figs. 2a, b; pl. 38, fig. 9);

Paratypes: GK.G10123 (pl. 35, figs. 1a, b), GK.G10124,

GK.G10125, GK.G10126, GK.G10127, GK.G10128,

GK.G10129, GK.G10130, GK.G10131, GK.G10132,

GK.G10133, GK.G10134, GK.G10135, GK.G10136

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

Integricardium (Yokoyamaina) hayamii (Keen & Casey) see *Cyrena elliptica* Yokoyama, 1904

Isocyprina shizuhimensis Hayami, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 67, pl. 5, figs. 29-31

Holotype: UMUT.MM2970 (fig. 29); Paratypes:

UMUT.MM2971 (fig. 30), UMUT.MM2972 (fig. 31)

Akaiwazaki (Hosoura), Shizukawa-cho (Shizugawa-cho),
Motoyoshi-gun, Miyagi Prefecture, Japan

Aratozaki Formation, Hashiura Group

Bajocian, Jurassic

Isognomon (Mytiloperna) ageroensis Hayami, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 101, pl. 6, figs. 4-8

Holotype: UMUT.MM2680 (fig. 4); Paratypes:

UMUT.MM2681 (fig. 6), UMUT.MM2682 (fig. 5)

Shinatani, Agero, Omi-machi, Nishikubiki-gun, Niigata
Prefecture, Japan

Shinatani Formation, Kuruma Group

Domerian or Toarcian (Pliensbachian - Toarcian, Jurassic by Hayami (1975))

Isognomon (Isognomon) rikuzenicus (Yokoyama) see *Perna rikuzenica* Yokoyama, 1904

Kobayashites hemicylindricus Hayami, 1959

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 139,
text-fig. 1, pl. 14, figs. 6-10

Holotype: UMUT.MM3130 (figs. 6a, b); Paratypes:

UMUT.MM3131 (fig. 7), UMUT.MM3132 (fig. 8)

Shizuhama, Shizukawa-machi (Shizugawa-cho),

Motoyoshi-gun, Miyagi Prefecture, Japan

Aratozaki Formation, Hashiura Group

Bajocian, Jurassic

***Kyushutrigonia hachibarensis* Tamura & Nishimura, 1994**

Mem. Fac. Educ. Kumamoto Univ., Nat. Sci., no. 43. p. 18, pl. 1, figs. 1-9

Holotype: KE3536 (fig. 1); Paratypes: KE3537-3544 (figs. 2-8)

Loc. 1 at Hachibaru, Itsuki-mura, Kuma-gun, Kumamoto Prefecture, Japan

Maybe Norian formation of the Sambosan terrane

Norian, Triassic

***Latitrigonia horii* Maeda, 1963**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 49, p. 3, pl. 1, figs. 1-6

Holotype: DESC.R. no. 61121501 (figs. 1-3); Paratypes: DESC.R. no. 61121502 (fig. 4), DESC.R. no. 61121503 (fig. 5), DESC.R. no. 61121504 (fig. 6)

At the left bank of the Taniyamadani River and the east of Goribashiri, Izumi-mura, Ono-gun, Fukui Prefecture, Japan

Yambarazaka alternation (Yambarazaka Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

***Latitrigonia kasaii* Maeda, 1963**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 49, p. 4, pl. 1, fig. 7

Holotype: DESC.R. no. 61121511 (fig. 7)

At Taniyamadani, Izumi-mura, Ono-gun, Fukui Prefecture, Japan

Yambarazaka alternation (Yambarazaka Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

***Latitrigonia orbicularis* Kobayashi, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 45, pl. 1, figs. 14-15

Holotype: UMUT.MM4392 (figs. 14a, b); Paratype: UMUT.MM4393 (fig. 15)

Umagatani, north of Asahi, Shimoanama-mura, Ono-gun, Province of Echizen (Umagatani, Yambara, Izumi-mura, Ono-gun, Fukui Prefecture), Japan

Yambarazaka sandstone of Kuzuryu stage (Yambarazaka Formation, Tetori Group)

Probably latest Jurassic (Oxfordian, Jurassic by Hayami (1975))

***Latitrigonia pyramidalis* Kobayashi & Tamura, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 36, pl. 1, figs. 8a-b

Holotype: monotypy (UMUT.MM4378) (figs. 8a, b)

Nodezawa, Ono-mura, Soma-gun, Province of Iwaki (Ono, Soma City, Fukushima Prefecture), Japan

Awazu Formation, Soma Group

Probably Middle Jurassic (Bajocian (or Bathonian), Jurassic by Hayami (1975))

***Latitrigonia tetoriensis* Kobayashi, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 45, pl. 1, figs. 11-13

Holotype: UMUT.MM4389 (figs. 11a, b); Paratypes: UMUT.MM4390 (fig. 12), UMUT.MM4391 (fig. 13)

Umagatani, north of Asahi, Shimoanama-mura, Ono-gun, Province of Echizen (Umagatani, Yambara, Izumi-mura, Ono-gun, Fukui Prefecture), Japan

Yambarazaka sandstone of Kuzuryu stage (Yambarazaka Formation, Tetori Group)

Probably latest Jurassic (Oxfordian, Jurassic by Hayami (1975))

***Latitrigonia unicarinata* Kobayashi & Tamura, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 37, pl. 1, fig. 9

Holotype: UMUT.MM4379 (fig. 9)

Sugaya, Yamagami-mura, Soma-gun, Province of Iwaki (Sugaya, Yamakami, Soma City, Fukushima Prefecture), Japan

Sugaya Formation (Yamagami Formation by Hayami (1975)), Soma Group

Probably late Middle Jurassic (Bathonian (or thereabout), Jurassic by Hayami (1975))

***Latitrigonia unituberculata* Kobayashi & Tamura, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 37, pl. 1, fig. 10

Holotype: UMUT.MM4380 (fig. 10)

Sugaya, Yamagami-mura, Soma-gun, Iwaki Province (Sugaya, Yamakami, Soma City, Fukushima Prefecture), Japan

Sugaya Formation (Yamagami Formation by Hayami (1975)), Soma Group

Probably late Middle Jurassic (Bathonian (or thereabout), Jurassic by Hayami (1975))

***Leptochondria? hataii* Murata, 1973**

Sci. Rept. Tohoku Univ., Ser. 2, spec. vol. 6, p. 273, pl. 29, figs. 1-13

Holotype: IGPS.no.92661 (figs. 1a, b); Paratypes: IGPS.no.92662 (figs. 2a, b), IGPS.no.92663 (figs. 3, 4), IGPS.no.92664 (fig. 5), IGPS.no.92665 (figs. 6, 7), IGPS.no.92666 (figs. 8, 9), IGPS.no.92667 (fig. 10), IGPS.no.92668 (figs. 11a, b), IGPS.no.92669 (fig. 13), IGPS.no.92670 (figs. 12a, b)

Hikado (Holotype and IGPS.no.92662-92668, 92670), Motoyoshi-cho; Tatzaki (IGPS.no.92669), Utatsu-cho, Motoyoshi-gun, Miyagi Prefecture, Japan

Osawa Formation

Scythian, Triassic

***Leptochondria (?) okuyamensis* Nakazawa, 1961**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 27, no. 3, p. 262, pl. 12, figs. 19-21

Holotype: UK.JM10663a (fig. 19); Paratypes: UK.JM10663b (fig. 19), UK.JM10663c (fig. 20), UK.JM10663d (fig. 20), UK.JM10664a (fig. 21), UK.JM10675, UK.JM10676, UK.JM10677, UK.JM10678

Loc. KH31 at Miyagatake, Bessho, Fukuchiyama City, Kyoto Prefecture, Japan

Lower member of Hirobatake formation (Hirobatake Formation, Yakuno Group)

Eo-Triassic (Scythian, Triassic, by Hayami (1975))

(*Leptochondria? okuyamensis* Nakazawa by Hayami (1975))

***Lima (Plagiostoma) enormicosta* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 36, p. 177, pl. 19, figs. 32-34

Holotype: UMUT.MM3228 (fig. 34); Paratypes: UMUT.MM3226 (fig. 32), UMUT.MM3227 (fig. 33)

Loc. 2 at Nakanosawa, Tomizawa, Soma City, Fukushima Prefecture, Japan

5th zone of the Nakanosawa Formation, Soma Group

Late Lurassic (especially Kimmeridgian by Hayami (1975))

(*Plagiostoma enormicosta* (Tamura) by Hayami (1975))

***Lima (Plagiostoma?) kuromagariensis* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 179, pl. 6, figs. 18a-b

Holotype: UMUT.MM5218 (figs. 18a, b)

Kuromagari in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Tosapecten bed (lower part of Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Plagiostoma? kuromagariensis* (Kobayashi & Ichikawa) by Hayami (1975))

***Lima (Pseudolimea?) naumanni* Kobayashi & Ichikawa see *Lima naumanni* Kobayashi & Ichikawa, 1949**

***Lima naumanni* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 177, pl. 6, figs. 13-15

Holotype: UMUT.MM5211 (figs. 14a, b); Paratypes: UMUT.MM5212 (figs. 15a, b), UMUT.MM5213 (fig. 13) (missing, reported by Ichikawa and Hayami (1978))

Togo in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia bed (lower part of Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Lima (Pseudolimea?) naumanni* Kobayashi & Ichikawa by Nakazawa (1952); *Pseudolimea? naumanni* (Kobayashi & Ichikawa) by Ichikawa (1954); *Pseudolimea naumanni* (Kobayashi & Ichikawa) by Ozawa & Hayami (1969))

***Lima naumanni lata* Katayama, 1939 (nom. nud.)**

Jour. Geol. Soc. Japan, vol. 46, no. 546, p. 135

(Synonymous with *Pseudolimea naumanni* (Kobayashi & Ichikawa) by Ozawa & Hayami (1969))

***Lima naumanni obliqua* Katayama, 1939 (nom. nud.)**

Jour. Geol. Soc. Japan, vol. 46, no. 546, p. 135, pl. 8, fig. 6

(*Pseudolimea? naumanni* var. *obliqua* (Kobayashi & Ichikawa) by Ichikawa (1954); synonymous with *Pseudolimea naumanni* (Kobayashi & Ichikawa) by Ozawa & Hayami (1969))

***Lima naumanni* var. *obliqua* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 178, pl. 6, figs. 16-17

Holotype: UMUT.MM5214 (fig. 17); Paratype: UMUT.MM5215 (fig. 16)

Togo in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia bed (lower part of Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(Synonymous with *Pseudolimea naumanni* (Kobayashi & Ichikawa) by Ozawa & Hayami (1969))

***Lima (Ctenoides) tosana* Kurata & Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 349, pl. 1, fig. 22

Holotype: UMUT.MM7126 (figs. 22a, b)

Mimikire, Sakawa-cho, (Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

(*Ctenoides tosanus* (Kurata & Kimura) by Hayami (1975))

***Lima yataensis* Nakazawa, 1952**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 102, text-fig. 3, pl. 9, figs. 9-11; pl. 10, figs. 1-2, 6.

Holotype: UK.JM10032a, b (pl. 9, figs. 10-11); Paratype UK.JM10023b (pl. 9, fig. 9), UK.JM10023c (pl. 10, fig. 1), UK.JM10032, UK.JM10033, UK.JM10034 (pl. 10, fig. 2), UK.JM10035, UK.JM10036, UK.JM10037, UK.JM10038, UK.JM10040 (pl. 10, fig. 6)

Miuchi (Holotype and UK.JM10023b, c), Ayabe City; Shinmichi (UK.JM10034, 10040), Maizuru City, Kyoto Prefecture, Japan

Lower part of N3 Formation, Nabae Group

Carnian, Triassic

(*Pseudolimea yataensis yataensis* (Nakazawa) by Hayami (1975))

***Lima yataensis* var. *kuredaniensis* Nakazawa, 1952**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 103, pl. 10, figs. 4-5, 7

Holotype: UK.JM10039b (figs. 4, 5); Paratypes: UK.JM10041, UK.JM10042 (fig. 7), UK.JM10043 Kuredani in Kichisaka (Holotype) and Kongoin (UK.JM10042), Maizuru City, Kyoto Prefecture, Japan N2 Formation?, Nabae Group and lower part of Heki Formation
Carnian, Triassic
(*Pseudolimea yataensis kuredaniensis* (Nakazawa) by Hayami (1975))

***Limatula asoensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 33, pl. 4, figs. 4-5
Holotype: UMUT.MM4551 (figs. 4a, b); Paratype: UMUT.MM4552 (figs. 5a, b)
South of Mishime, near Aso, Mine City, Province of Nagato (Yamaguchi Prefecture, Japan)

Waagenoperna sandstone at the boundary between the Mitsugi sandstone and the Oda coal measure of the Aso Formation (Aso Formation, Mine Group)

Late Carnian, probably to early Norian (Carnian (or Norian), Triassic by Hayami (1975))

(*Limatula? asoensis* Tokuyama by Hayami (1975))

***Limatula iwayae* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 157, pl. 13, figs. 9, 10
Holotype: UMUT.MM3173 (figs. 9a, b); Paratypes: UMUT.MM3174 (fig. 10), UMUT.MM3175
At the east of Mitarai, Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M3 Member of the Mitarai Formation, Tetori Group
Callovian, Jurassic

(*Limatula? iwayae* Hayami by Hayami (1975))

***Limatula reticulata* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 62, text-fig. 4, pl. 6, fig. 43

Holotype: UMUT.MM3064 (fig. 43)

Loc. 6 at Tsurubami Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture, Japan

Horizon 5 of the Torinosu Group

Late Jurassic

(*Limatula? reticulata* Tamura by Hayami (1975))

***Linotrigonia* (*Oistotrigonia?*) *prima* (Kobayashi & Tamura) see *Oistotrigonia prima* Kobayashi & Tamura, 1955**

***Linotrigonia toyamai* (Yehara) see *Trigonia Toyamai* Yehara, 1923**

***Liostrea* (*Catinula*) *shiraiwensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, nos. 2-4, p. 209, pl. 12, figs. 8-12

Holotype: UMUT.MM4575 (figs. 11a, b); Paratypes: UMUT.MM4572 (fig. 8), UMUT.MM4573 (fig. 9), UMUT.MM4574 (figs. 10a, b), UMUT.MM4576 (fig. 12) Shiraiwa (Holotype and UMUT.MM4573-4576), north of Omine, and Yaguchi (UMUT.MM4572), south of Aso, Mine City, Yamaguchi Prefecture, Japan

Hirabara Formation (Holotype and UMUT.MM4573-4576) and Aso Formation (UMUT.MM4572), Mine series (Mine Group)

Early Carnian - early Norian (Carnian, Triassic by Hayami (1975))

(*Liostrea shiraiwensis* Tokuyama by Hayami (1975))

***Liostrea shiraiwensis* Tokuyama see *Liostrea* (*Catinula*) *shiraiwensis* Tokuyama, 1960**

***Liostrea toyorensis* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 68, pl. 7, figs. 7-8

Holotype: UMUT.MM3428 (fig. 7); Paratypes: UMUT.MM3429, UMUT.MM3430 (fig. 8)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Lopha* (*Actinostreon*) *sazanami* Hayami see *Lopha sazanami* Hayami, 1959**

***Lopha sazanami* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 69, pl. 7, figs. 9-11

Holotype: UMUT.MM3432 (fig. 11); Paratypes: UMUT.MM3431 (fig. 9), UMUT.MM3433 (fig. 10)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

(*Lopha* (*Actinostreon*) *sazanami* Hayami by Hayami (1975))

***Lucina* (*s. l.*) *hasei* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 76, pl. 8, figs. 6-8

Holotype: UMUT.MM3455 (figs. 7a, b); Paratypes: UMUT.MM3456 (fig. 8), UMUT.MM3457 (fig. 6), UMUT.MM3458

Loc. 1 (Holotype) at Takayama, and Loc. 5 (Paratypes) at Higashinagano, Province of Nagato (Takayama and Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi

Prefecture), Japan

Basal conglomerate and *Cardinia toriyamai* bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))
(*Luciniola hasei* (Hayami) by Hayami (1975))

“Lucina” toishiyamensis Tamura, 1960

Mem. Fac. Educ. Kumamoto Univ., vol. 8, p. 241, pl. 2, figs. 15-17

Holotype: UMUT.MM3624 (fig. 15); Paratypes: UMUT.MM3625 (fig. 16), UMUT.MM3626 (fig. 17)

Toishiyama in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Toishiyama Formation, Torinosu Group
Late Jurassic

Lucina tsunoensis Kimura, 1956

Jour. Earth Sci. Nagoya Univ., vol. 4, no.2, p. 87, pl. 1, figs. 11-13

Holotype: UMUT.MM7160 (fig. 11); Paratype: UMUT.MM7161 (figs. 12-13)

Holotype from Komiguchi, Go district (Komiguchi, Higashitsuno-mura, Takaoka-gun); Paratype from south of Hongo in the Sakawa basin (Hongo, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group
Late Jurassic

(*Mesomiltha? tsunoensis* (Kimura) by Hayami (1975))

Luciniola hasei (Hayami) see Lucina (s. l.) hasei Hayami, 1959

Meleagrinnella japonica Hayami, 1959

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 47, pl. 5, figs. 20-22

Holotype: UMUT.MM3368 (figs. 21a, b); Paratypes: UMUT.MM3369 (fig. 22), UMUT.MM3370 (fig. 20)

Loc. 8 (Holotype and UMUT.MM3370) at Higashinakayama in the Province of Nagato (Higashinakayama, Kikugawa-cho, Toyoura-gun, Yamaguchi Prefecture), Loc. 3 (UMUT.MM3369) at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Prosogyrotrigonia inouyei bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian (or Pliensbachian), Jurassic by Hayami (1975))

Meleagrinnella okayamensis Hayami, 1961

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 43, p. 115, pl. 16, figs. 2-3

Holotype: UMUT.MM3676 (fig. 2); Paratype: UMUT.MM3677 (fig. 3)

At the northwest of Ochiai, Oosa-cho, Atestu-gun, Okayama

Prefecture, Japan

Y2 Member of Yamaoku Formation
Toarcian, Jurassic

Mesolinga masatanii Hayami, 1961

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 43, p. 119, text-fig. 1, pl. 16, figs. 8-10

Holotype: UMUT.MM3686 (text-fig. 1; pl. 16, figs. 10a-b); Paratypes: UMUT.MM3684 (pl. 16, fig. 8), UMUT.MM3685 (pl. 16, fig. 9)

At the north of Sugaya and the Primary school of Sugaya, Soma City, Fukushima Prefecture, Japan

3rd and 4th trigonian zones of the Yamagami Formation, Soma Group

Older than Oxfordian and probably Callovian or thereabout (Bathonian (or thereabout), Jurassic by Hayami (1975))

Mesomiltha? tsunoensis (Kimura) see Lucina tsunoensis Kimura, 1956

Minepharus triadicus (Tokuyama) see Palaeopharus (Minepharus) triadicus Tokuyama, 1958

Minetrigonia hegiensis (Saeki) see Trigonia hegiensis Saeki, 1925

Minetrigonia hegiensis (Saeki) obsoleta Nakazawa, 1956

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 23, no. 2, p. 246, pl. 4, figs. 5-9

Holotype: UK.JM10408 (fig. 5); Paratypes: UK.JM10409 (fig. 8), UK.JM10410 (fig. 7), UK.JM10411, UK.JM10412, UK.JM10413, UK.JM10421 (fig. 9), UK.JM10455 (fig. 6)

Higashiarata, Matsuo, (Takahama-cho, Oi-gun), Fukui Prefecture, Japan

N2 Formation, Nabae Group
Carnian, Triassic

Minetrigonia katayamai (Kobayashi & Ichikawa) see Trigonia (Minetrigonia) katayamai Kobayashi & Ichikawa, 1949

Modiolus bakevelloides (Hayami) see Volsella bakevelloides Hayami, 1958

Modiolus maedae Hayami, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 145, pl. 12, figs. 8-10

Holotype: UMUT.MM3145 (figs. 8a-c); Paratypes: UMUT.MM3146, UMUT.MM3147 (figs. 10a-c), UMUT.MM3148 (figs. 9a, b)

At the east of Nonomata, Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M3 Member of the Mitarai Formation, Tetori Group
Callovian, Jurassic

***Modiolus magatama* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 46, pl. 5, fig. 13

Holotype: UMUT.MM3366 (fig. 13); Paratype: UMUT.MM3367

Loc. 3 (Holotype) at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Prosogyrotrigonia inouyei bed of the Higashinagano Formation, Toyora Group

Ealry Lias (Sinemurian, Jurassic by Hayami (1975))

***Modiolus nagatoensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 36, pl. 4, figs. 14a-b

Holotype: UMUT.MM4561 (figs. 14a, b)

Higaeribara, Mine City, Province of Nagato (Yamaguchi Prefecture), Japan

Asoella sandstone of the Aso Formation, Mine Group

Late Carnian, probably to early Norian, Triassic

***Modiolus okubatensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, nos. 2-4, p. 210, pl. 13, figs. 6-8

Holotype: UMUT.MM4587 (figs. 6a, b); Paratypes: UMUT.MM4588 (fig. 7), UMUT.MM4589 (fig. 8)

Hirabarazaka (Holotype), and north of Okubata (Paratypes), (Omine, Mine City, Yamaguchi Prefecture), Japan

Transgressive shales of the middle (Holotype) and upper (Paratypes) Hirabara Formation, Mine series (Mine Group)

Early Carnian, Triassic

Modiolus paronaiiformis* (Kobayashi & Ichikawa) see *Volsella paronaiiformis* Kobayashi & Ichikawa, 1950**Modiolus saurini* Hayami, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 165, pl. 7, figs. 3-4

Holotype: UMUT.MM3875 (fig. 4); Paratype: UMUT.MM3876 (fig. 3)

Khe Ren in the Huu-Nien area, South Viet-Nam

Black shale

Hettangian (?), Jurassic

***Modiolus sestinae* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 186, pl. 33, figs. 8-16

Holotype: GK.G10034 (fig. 9); Paratypes: GK.G10035 (fig. 12), GK.G10036 (fig. 11), GK.G10037 (fig. 10), GK.G10038 (fig. 8), GK.G10039, GK.G10040 (fig. 15), GK.G10041, GK.G10042, GK.G10043 (fig. 13), GK.G10044 (fig. 14), GK.G10045, GK.G10046, GK.G10047, GK.G10048, GK.G10049, GK.G10050, GK.G10051, GK.G10052, GK.G10053, GK.G10054, GK.G10055, GK.G10056, GK.G10057, GK.G10058, GK.G10059, GK.G10060, GK.G10061, GK.G10062, GK.G10063, GK.G10064 (fig. 16),

GK.G10065, GK.G10066, GK.G10067, GK.G10068, GK.G10069, GK.G10070, GK.G10071, GK.G10072, GK.G10073, GK.G10074, GK.G10075, GK.G10076, GK.G10077, GK.G10078, GK.G10079, GK.G10080, GK.G10081, GK.G10082, GK.G10083, GK.G10084, GK.G10085, GK.G10086, GK.G10087, GK.G10088

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

Monotis (Entomonotis) iwaiensis* (Ichikawa) see *Entomonotis iwaiensis* Ichikawa, 1951**Monotis mabara* (Kobayashi & Ichikawa) see *Entomonotis tenuicostata* var. *mabara* Kobayashi & Ichikawa, 1949*****Monotis (Entomonotis) mukaihataensis* Hase, 1961**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 42, p. 83, pl. 12, figs. 12-18

Holotype: IGSH-HA311 (figs. 12a, b); Paratypes: IGSH-HA312 (figs. 13a, b), IGSH-HA313 (fig. 14), IGSH-HA314 (fig. 15), IGSH-HA315 (fig. 16), IGSH-HA316 (figs. 17a, b, c)

About 1 km north of Mukaihata, Miwa-cho, Kuga-gun, Yamaguchi Prefecture, Japan

Monotis beds (Kuga Group by Hayami (1975))

Norian, Triassic

(Synonymous with *Monotis scutiformis* (Teller) by Ando (1987))

Monotis (Entomonotis) multistriata* (Kobayashi & Ichikawa) see *Entomonotis multistriata* Kobayashi & Ichikawa, 1949**Monotis (Entomonotis) ochotica jitoensis* Nakazawa, 1963**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 30, no. 2, p.52, pl. 2, figs. 5-7

Holotype: UK.JM10984 (fig. 5); Paratypes: UK.JM10985 (fig. 7), UK.JM10986 (fig. 6)

Jito, (Kawakami-cho, Kawakami-gun), Okayama Prefecture, Japan

Monotis beds (Nariwa Group)

Norian, Triassic

(Synonymous with *Monotis (Entomonotis) ochotica* (Keyserling) by Hayami (1975); *Monotis ochotica ochotica* (Keyserling) by Ando (1987))

***Monotis ochotica wingia* Bando, 1961**

Mem. Fac. Lib. Arts & Educ. Kagawa Univ., Pt. II, no. 102, p.4, pl. 1, figs. 1-2

Holotype: KU-101 (figs. 1, 2)

Near Jito, southern part of Nariwa basin, (Kawakami-cho, Kawakami-gun), Okayama Prefecture, Japan

Monotis beds (Nariwa Group)

Norian, Triassic

(Synonymous with *Monotis ochotica ochotica* (Keyserling) by Ando (1987))

Monotis (Entomonotis) subcycloidea (Kobayashi) see *Pseudomonotis subcycloidea* Kobayashi, 1935

Monotis (Entomonotis) tenuicostata (Kobayashi & Ichikawa) see *Entomonotis tenuicostata* Kobayashi & Ichikawa, 1949

Monotis (Entomonotis) zabaikalica semiradiata Ichikawa, 1958 (nom. nov.)

Palaeontographica Abt. A, vol. 111, p. 139

(See *Entomonotis zabaikalica* (Kiparisova) var. *intermedia* Kobayashi & Ichikawa, 1949; synonymous with *Monotis zabaikalica* (Kiparisova) by Ando (1987))

Myoconcha hamadaensis Yabe & Shimizu, 1927

Sci. Rept. Tohoku Imp. Univ., Ser. 2, vol. 11, no. 2, p. 134, pl. 13, figs. 13-16

Holotype: IGPS.no.35286 (fig. 13); Paratypes: IGPS.no.35286 (figs. 14-16)

Hamada, Rifu-mura (Rifu-cho), Miyagi-gun, Province of Rikuzen (Miyagi Prefecture), Japan

Monophyllites Zone (Rifu Formation)

Ladinian, Triassic

(*Triaphorus hamadaensis* (Yabe & Shimizu) by Hayami (1975))

Myoconcha planata Kobayashi & Ichikawa, 1954

Japan. Jour. Geol. Geogr., vol. 24, p. 62, pl. 7, fig. 7

Holotype: UMUT.MM5422 (fig. 7)

Loc. 7 at the southern side of the small ridge south of "M-valley", Arai, Okuno-mura (Hinode-machi), Nishitama-gun, Tokyo Prefecture, Japan

Arai Formation

Triassic

Myoconcha trapezoidalis Kobayashi & Ichikawa, 1950

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 213, pl. 1, figs. 12-13

Holotype: UMUT.MM5148 (figs. 13a, b); Paratype: UMUT.MM5149 (fig. 12)

Umenokidani in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Myoconcha sandstone (lower part of the Kochigatani Group) Late Triassic (Carnian, Triassic by Hayami (1975))

(*Triaphorus trapezoidalis* (Kobayashi & Ichikawa) by Hayami (1975))

Myoconcha trapezoidalis var. *posteroexpansa* Kobayashi & Ichikawa, 1950

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 214, pl.

1, fig. 11

Holotype: UMUT.MM5151 (fig. 11)

Umenokidani in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Myoconcha sandstone (lower part of the Kochigatani Group) Late Triassic (Carnian, Triassic by Hayami (1975))

(Synonymous with *Triaphorus trapezoidalis* (Kobayashi & Ichikawa) by Hayami (1975))

Myophorella (Haidaia) crenulata Kobayashi & Tamura, 1955

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 100, pl. 5, figs. 8-10

Holotype: UMUT.MM4358 (fig. 8); Paratypes: UMUT.MM4359 (figs. 9a, b), UMUT.MM4360 (fig. 10)

Minahara (Holotype and UMUT.MM4359), Kamimano-mura (Kashima-machi); Nakanosawa (UMUT.MM4360), Tomisawa (Tomizawa), Hachiman-mura (Kashima-machi), Soma-gun, Fukushima Prefecture, Japan

Nakanosawa Formation, Soma Group

Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

Myophorella (Haidaia) crenulata var. *lanulata* Kobayashi & Tamura, 1955

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 101, pl. 6, figs. 1-2

Holotype: UMUT.MM4361 (figs. 1a, b); Paratype: IGPS. no.? (UMUT.MM4362 by Ichikawa and Hayami (1978)) (fig. 2)

Minamisawa (Holotype), Tomisawa (Tomizawa); upper Tomisawa stream (UMUT.MM4362), Hachiman-mura (Kashima-machi), Soma-gun, Fukushima Prefecture, Japan Bituminous limestone (Nakanosawa Formation, Soma Group)

Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

(*Myophorella (Haidaia) clenulata lanulata* Kobayashi & Tamura by Kobayashi, Mori and Tamura (1959); synonymous with *Myophorella (Haidaia) clenulata* Kobayashi & Tamura by Hayami (1975))

Myophorella (Haidaia) clenulata lanulata Kobayashi & Tamura see *Myophorella (Haidaia) crenulata* var. *lanulata* Kobayashi & Tamura, 1955

Myophorella (Myophorella) dekaiboda Kobayashi & Tamura, 1955

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 95, pl. 6, figs. 6-9

Holotype: UMUT.MM4346 (figs. 6a, b); Paratypes: UMUT.MM4347 (fig. 7), UMUT.MM4348 (fig. 8), UMUT.MM4349 (fig. 9)

Minahara, Kamimano-mura (Kashima-machi), Soma-gun, Fukushima Prefecture, Japan

Lima sandstone of Nakanosawa Formation, (Soma Group)

Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

***Myophorella (Haidaia) gracilenta* Kobayashi, 1956**

Japan. Jour. Geol. Geogr., vol. 27, no. 1, p. 4, pl. 1, fig. 8

Holotype: UMUT.MM4373 (fig. 8)

Arinoki in the Sakawa basin, Province of Tosa (Arinoki, Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan
Shales of Torinosu series (Torinosu Group)

Late Jurassic

***Myophorella (Promyophorella?) hashimotoi* Kobayashi, 1956**

Japan. Jour. Geol. Geogr., vol. 27, no. 1, p. 3, pl. 1, figs. 4-7

Holotype: UMUT.MM4369 (fig. 4); Paratypes: UMUT.MM4370 (fig. 5), UMUT.MM4371 (fig. 6), UMUT.MM4372 (fig. 7)

Todoroki, Kurisaka of Haigyu, Miyahama-mura, Naka-gun, Province of Awa (Kurisaka, Haigyu, Kaminaka-cho, Naka-gun, Tokushima Prefecture), Japan
Kurisaka Formation, (Torinosu Group)

Kimmeridgian, Jurassic

***(Myophorella (Promyophorella) hashimotoi* Kobayashi by Hayami (1975))**

***Myophorella (Promyophorella) hidensis* Maeda & Kawabe, 1966**

Annual Rept. Foreign Students' Coll. Chiba Univ., no. 1, p. 46, pl. 2, figs. 1-29

Holotype: CU.R.m-269 (fig. 1); Paratypes: CU.R.m-211 (fig. 11), CU.R.m-251a (fig. 25), CU.R.m-251b (fig. 26), CU.R.m-254a (fig. 3), CU.R.m-254b (fig. 4), CU.R.m-256a (fig. 7), CU.R.m-256b (fig. 8), CU.R.m-257a (fig. 6), CU.R.m-257b (fig. 6), CU.R.m-258a (fig. 9), CU.R.m-258b (fig. 10), CU.R.m-259 (fig. 5), CU.R.m-263 (fig. 2), CU.R.m-267a (figs. 15, 16), CU.R.m-267b (fig. 17), CU.R.m-272 (figs. 13, 14), CU.R.m-273a (fig. 21), CU.R.m-273b (fig. 22), CU.R.m-275a (fig. 18), CU.R.m-275b, CU.R.m-279 (fig. 27), CU.R.m-298 (figs. 19, 20), CU.R.m-304 (fig. 12), CU.R.m-342a (fig. 23), CU.R.m-342b (fig. 24)

Magawa, Oyama-machi, Kaminiikawa-gun, Toyama Prefecture, Japan

Arimine shale (Arimine Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

***Myophorella (Promyophorella) imamurai* Kobayashi, 1956**

Japan. Jour. Geol. Geogr., vol. 27, no. 1, p. 3, pl. 1, fig. 3

Holotype: UMUT.MM4368 (fig. 3)

Kiritani, Unohana-mura, Niu-gun, Province of Etchu (Kiritani, Yatsuo-machi, Nei-gun, Toyama Prefecture), Japan
Ushioi sandstone and shale of the Kiritani beds in the Tetori series (Kiritani Formation, Tetori Group)

Kimmeridgian? (Oxfordian, Jurassic by Hayami (1975))

***Myophorella (Haidaia) kappazakensis* Maeda & Adachi, 1965**

Jour. Coll. Arts and Sci. Chiba Univ., Nat. Sci., vol. 4, no. 3, p. 322, text-fig. 3, pl. 1, figs. 1-5

Holotype: CU.R. no. 64100402 (figs. 1, 2); Paratypes: CU.R. no. 65073002 (figs. 3, 4), CU.R. no. 65082406 (fig. 5)

Hirose, Minamimaki-mura, Minamisaku-gun, Nagano Prefecture, Japan

Kappazaka Formation, Torinosu Group

Late Jurassic (precisely unknown by Hayami(1975))

***Myophorella (Promyophorella) magawensis* Maeda & Kawabe, 1966**

Annual Rept. Foreign Students' Coll. Chiba Univ., no. 1, p. 47, pl. 1, figs. 15-19

Holotype: CU.R.M-71 (fig. 15); Paratypes: CU.R.m-11 (fig. 18), CU.R.m-12 (fig. 19), CU.R.m-26" (fig. 16), CU.R.M-73 (fig. 17)

Magawa, Oyama-machi, Kaminiikawa-gun, Toyama Prefecture, Japan

Arimine shale (Arimine Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

***Myophorella (Promyophorella) obsoleta* Kobayashi & Tamura, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 99, pl. 5, fig. 7

Holotype: UMUT.MM4357

Yobaiji-pass, Shishiore-mura (Kesenuma City), Miyagi Prefecture, Japan

Kogoshio Formation, (Shishiori Group)

Jurassic (Tithonian, Jurassic - Berriasian, Cretaceous by Hayami (1975))

***Myophorella (Haidaia) ohmachii* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 33, p. 26, pl. 5, figs. 23-26

Holotype: UMUT.MM2998 (figs. 24, 25); Paratypes: UMUT.MM2997 (fig. 23), UMUT.MM2999 (fig. 26), UMUT.MM3000

Loc. 12 (Holotype) at Uminoura and Loc. 11 (Paratypes) at Tanoura, Tanoura-mura (Tanoura-cho), Ashikita-gun, Kumamoto Prefecture, Japan

Horizon 5 of the Torinosu Group

Late Jurassic

***Myophorella (Promyophorella) orientalis* Kobayashi & Tamura, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 98, pl. 5, figs. 6a-b

Holotype: UMUT.MM4355 (figs. 6a, b)

Umazawa, Koyamada, Kamimano-mura (Kashima-machi), Soma-gun, Fukushima Prefecture, Japan

Koyamada Formation, Soma Group

Jurassic (Callovian, Jurassic - Berriasian, Cretaceous by Hayami (1975))

***Myophorella (Haidaia) pulex* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 33, p. 25, text-fig. 2, pl. 5, figs. 15-18

Holotype: UMUT.MM2988 (fig. 15); Paratypes: UMUT.MM2989 (fig. 16), UMUT.MM2990 (fig. 17), UMUT.MM2991 (fig. 18)

Loc. 4 at Sakamoto, Kamimatsukuma-mura (Sakamoto, Sakamoto-mura), Yatsushiro-gun, Kumamoto Prefecture, Japan

Horizon 5 of the Torinosu Group

Late Jurassic

***Myophorella saurini* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 201, pl. 34, figs. 15-20; pl. 38, fig. 8

Holotype: GK.G10110 (pl. 34, fig. 15; pl. 38, fig. 8); Paratypes: GK.G10111 (pl. 34, fig. 18), GK.G10112 (pl. 34, fig. 16), GK.G10113 (pl. 34, fig. 17), GK.G10114 (pl. 34, fig. 19), GK.G10115 (pl. 34, figs. 20a, b), GK.G10116, GK.G10117, GK.G10118, GK.G10119, GK.G10120, GK.G10121

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

***Myophorella (Promyophorella) sigmoidalis* Kobayashi & Tamura, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 96, pl. 5, figs. 1-3

Holotype: UMUT.MM4350 (fig. 1); Paratype: UMUT.MM4351 (fig. 2), UMUT.MM4352 (fig. 3)

Akaiwazaki, southwest of Hosoura, Shizukawa-cho (Shizugawa-cho), Motoyoshi-gun, Miyagi Prefecture, Japan Aratozaki Formation, (Hashiura Group)

Jurassic (Bajocian, Jurassic by Hayami (1975))

***Myophorella (Haidaia) subcircularis* Kobayashi & Tamura, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 101, pl. 6, fig. 3

Holotype: UMUT.MM4363 (fig. 3)

Nakanosawa, Tomisawa, Hachiman-mura (Tomizawa, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan Nakanosawa Formation, Soma Group

Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

***Myophorella (Promyophorella) sugayensis* Kobayashi & Tamura, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 97, pl. 5, fig. 4

Holotype: UMUT.MM4353 (fig. 4)

Sugaya, Yamagami-mura (Yamagami, Soma City),

Fukushima Prefecture, Japan

Sugaya Formation (Yamagami Formation, Soma Group)

Jurassic (Bathonian, Jurassic by Hayami (1975))

***Myophorella (Promyophorella) sugayensis geniculata* Kobayashi & Tamura see *Myophorella (Promyophorella) sugayensis* var. *geniculata* Kobayashi & Tamura, 1955**

***Myophorella (Promyophorella) sugayensis* var. *geniculata* Kobayashi & Tamura, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 97, pl. 5, fig. 5

Holotype: UMUT.MM4354 (fig. 5)

Sugaya, Yamagami-mura (Yamagami, Soma City), Fukushima Prefecture, Japan

Sugaya Formation (Yamagami Formation, Soma Group)

Jurassic (Bathonian, Jurassic by Hayami (1975))

***(Myophorella (Promyophorella) sugayensis geniculata* Kobayashi & Tamura by Kobayashi, Mori and Tamura (1959); synonymous with *Myophorella (Promyophorella) sugayensis* Kobayashi & Tamura by Hayami (1975))**

***Myophorella (Promyophorella) tetoriensis* Maeda & Kawabe, 1966**

Annual Rept. Foreign Students' Coll. Chiba Univ., no. 1, p. 48, pl. 1, figs. 20-22

Syntype: CU.R.m-280a, b (figs. 20-22)

Magawa, Oyama-machi, Kaminiikawa-gun, Toyama Prefecture, Japan

Arimine shale (Arimine Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

(Synonymous with *Myophorella (Promyophorella) magawensis* Maeda & Kawabe by Hayami (1975))

***Myophorella (Promyophorella) toyamensis* Maeda & Kawabe, 1966**

Annual Rept. Foreign Students' Coll. Chiba Univ., no. 1, p. 43, pl. 1, figs. 1-14

Holotype: CU.R.H-1a, b (figs. 1-3); Paratypes: CU.R.H-1c, CU.R.H-1d, CU.R.H-2a (fig. 7), CU.R.H-2b (fig. 8), CU.R.H-2c (fig. 12), CU.R.H-5 (fig. 4), CU.R.H-8 (fig. 13), CU.R.H-28 (fig. 5), CU.R.H-34 (figs. 9, 10), CU.R.H-51 (fig. 14), CU.R.H-54 (fig. 6), CU.R.H-56 (fig. 11)

Higashi-sakamoridani, Oyama-machi, Kaminiikawa-gun, Toyama Prefecture, Japan

Magawa sandstone and conglomerate (Magawa Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

***Myophoria dieneri* Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 181, pl. 6, figs. 1-2

Holotype: UMUT.MM5223 (fig. 1); Paratype: UMUT.MM5224 (fig. 2)

Umenokidani (Holotype) and Nakajima (Paratype) in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Myoconcha sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Neoschizodus* (*Neoschizodus*) *dieneri* (Ichikawa) by Hayami (1975))

***Myophoria dieneri* var. *longa* Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 181, pl. 6, fig. 3

Holotype: UMUT.MM5225 (fig. 3)

Nakajima in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(Synonymous with *Neoschizodus* (*Neoschizodus*) *dieneri* (Ichikawa) by Hayami (1975))

***Myophoria goldfussi* Alberti var. *kobayashii* Kambe, 1951**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 2, p. 54, pl. 4, figs. 7a-b

Lectotype: UMUT. MM6477 (Kambe, 1951, pl. 4, fig. 7: designated by Hayami, 1975)

At the garden of the Guzyo primary school, Guzyo, Kawanishi-mura (Gujo, Oe-cho), Kasa-gun, Kyoto Prefecture, Japan

Guzyo fossil bed (Gujo Formation).

Either Carnian or Ladinian?, Triassic (Late Permian, corrected by Nakazawa (1960))

(*Myophoria kobayashii* Kambe by Nakazawa (1958); *Costatoria kobayashii* (Kambe) by Nakazawa (1960))

***Myophoria kobayashii* Kambe see *Myophoria goldfussi* Alberti var. *kobayashii* Kambe, 1951**

***Myophoria laevigata* (Zieten) var. *miharaiensis* Kambe, 1957**

Rept. Geol. Surv. Japan, no. 173, p. 10, pl. 1, fig. 12

Holotype: GSJ F3159 (fig. 12)

Loc. 658, Miharaiyama, Takinoya-mura (Oya-cho), Yabu-gun, Hyogo Prefecture, Japan

Miharaiyama Group

Carnian - Norian (Scythian, Triassic by Hayami (1975))

(*Neoschizodus* (*Neoschizodus*) sp. cf. *N. (N.) laevigata* (Zieten) by Hayami (1975))

***Myophoria multistriata* Kobayashi & Ichikawa, 1954**

Japan. Jour. Geol. Geogr., vol. 24, p. 59, pl. 7, figs. 2-4

Holotype: UMUT.MM5427 (fig. 2); Paratypes: UMUT.MM5428 (fig. 3), UMUT.MM5429 (fig. 4)

Loc. 8 (Holotype and UMUT.MM5429) along the path from Arai to Hakusan Shrine, and Loc. 7 (UMUT.MM5428) at the southern side of the small ridge south "M-valley", Arai,

Okuno-mura (Hinode-machi), Nishitama-gun, Tokyo Prefecture, Japan

Arai Formation

Triassic

(*Costatoria multistriata* (Kobayashi & Ichikawa) by Hayami (1975))

***Myophoria nakajimensis* Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 180, pl. 6, fig. 4

Holotype: UMUT.MM5227 (fig. 4)

Nakajima in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Neoschizodus* (*Neoschizodus*) *nakajimensis* (Ichikawa) by Hayami (1975))

***Myophoria* (?) *newtoni* Kobayashi & Tamura, 1968**

Geol. Palaeont. SE Asia, vol. 5, p. 94, text-fig. 2e, pl. 12, figs. 1-3

Holotype: not registered (figs. 2, 3); Paratype: not registered (fig. 1)

Locs. PSF43 (Holotype) and PSF42 (Paratype) about 4 miles SW of Temerloh, Pahang, Malaya, Malaysia

Lower *Myophoria* sandstone

Late Triassic

***Myophoria okunometaniensis* Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 181, pl. 6, figs. 7-9

Holotype: UMUT.MM5231 (fig. 8); Paratype: UMUT.MM5232 (fig. 9)

Okunometani in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Neoschizodus* (*Okunometania*) *okunometaniensis* (Ichikawa) by Ichikawa (1954))

***Myophoria shidakensis* Kambe, 1951**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 2, p. 51, pl. 4, figs. 2a-b

Holotype: monotypy (UMUT.MM6472) (figs. 2a, b)

Miroku-dani of Shidaka, Okadashimo-mura, Kasa-gun, Kyoto Prefecture (Mirokudani, Shidaka, Maizuru City, Kyoto Prefecture), Japan

Lower part of the Shidaka Formation, "Shidaka series" (Shidaka Group)

Late Carnian - Norian (Scythian, Triassic; regarded as Late Triassic by some authors, mentioned by Hayami (1975))

(*Neoschizodus* (*Neoschizodus*) sp. cf. *N. (N.) laevigata* (Zieten) by Hayami (1975))

***Myophoria tajimensis* Kambe, 1957**

Rept. Geol. Surv. Japan, no. 173, p. 6, text-fig. 2, pl. 1, figs. 1-4

Holotype: GSJ F3148 (fig. 1); Paratypes: GSJ F3149 (fig. 2), GSJ F3150 (fig. 3), GSJ F3151 (fig. 4)

Loc. 601 (Holotype), Loc. 622 (GSJ F3149, 3150) in the Minamidani-mura and Loc. 657 (GSJ F3151) in the Tokinoya-mura (both localities around Miharai-yama, Oya-cho), Yabu-gun, Hyogo Prefecture, Japan

Miharaiyama Group

Carnian (Scythian, Triassic by Hayami (1975))

(*Neoschizodus* (*Neoschizodus*) **sp. cf. *N. (N.) laevigata***

(Zieten) by Hayami (1975))

***Myophoria tangoensis* Kambe, 1951**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 2, p. 51, text-fig. 1, pl. 4, figs. 1a-b

Holotype: monotypy (UMUT.MM6471) (figs. 1a, b)

Miroku-dani of Shidaka, Okadashimo-mura, Kasa-gun, Kyoto Prefecture (Mirokudani, Shidaka, Maizuru City, Kyoto Prefecture), Japan

Lower part of the Shidaka Formation, "Shidaka series" (Shidaka Group)

Late Carnian - Norian (Scythian, Triassic; regarded as Late Triassic by some authors, mentioned by Hayami (1975))

(*Neoschizodus* (*Neoschizodus*) ***tangoensis*** (Kambe) by Hayami (1975))

***Myophoria tokyoensis* Ichikawa, 1954**

Japan. Jour. Geol. Geogr., vol. 24, p. 58, pl. 7, figs. 6a-c

Holotype: UMUT.MM5431 (figs. 6a-c)

Loc. 8 along the path from Arai to Hakusan Shrine, Arai, Okuno-mura (Hinode-machi), Nishitama-gun, Tokyo Prefecture, Japan

Arai Formation

Triassic

(*Neoschizodus* (*Neoschizodus*) ***tokyoensis*** (Ichikawa) by Hayami (1975))

***Myophoria umenokiensis* Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 183, pl. 6, fig. 6

Holotype: UMUT.MM5229 (fig. 6)

Umenokidani in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Myoconcha bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(Synonymous with *Neoschizodus* (*Neoschizodus*) ***dieneri*** (Ichikawa) by Hayami (1975))

***Myophoriopsis* (*Pseudocorbula*?) *orbicularis* Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 249, pl. 5, figs. 10-11

Holotype: UMUT.MM5183 (fig. 10); Paratype: UMUT.MM5184 (fig. 11)

Holotype from Usugatani in the Sakuradani area (Usugatani, Kaminaka-cho, Naka-gun), Tokushima Prefecture; Paratype from Umenokidani in the Sakawa basin (Sakawa-cho Takaoka-gun), Kochi Prefecture, Japan

Lower part of Kochigatani Group

Late Triassic (Carnian, Triassic by Hayami (1975))

(New name as *Neoschizodus usugataniensis* Ichikawa, 1954 as homonym of *Myophoria orbicularis* Bronn, 1837 (= *Neoschizodus orbicularis* (Bronn) by Ichikawa (1954))

(*Neoschizodus* (*Neoschizodus*) ***usugataniensis*** Ichikawa by Hayami (1975))

Myrene* (*Mesocorbicula*) *tetoriensis* (Kobayashi & Suzuki) see *Corbicula tetoriensis* Kobayashi & Suzuki, 1937**Mysidioptera circularis* Nakazawa, 1961**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 27, no. 3, p. 263, pl. 13, figs. 1-7

Holotype: UK.JM10699 (fig. 1); Paratypes: UK.JM10692 (fig. 4), UK.JM10693, UK.JM10694 (figs. 3, 6), UK.JM10695, UK.JM10696, UK.JM10697 (fig. 7), UK.JM10698 (fig. 5), UK.JM10699, UK.JM10700 (fig. 2) UK.JM10701, UK.JM10702

Loc. K11 (Holotype and UK.JM10700) at Muikadani, Gujo, Oe-cho, (Kasa-gun), and Loc. Y38 (UK.JM10692, 10694, 10697, 10698) north of Kamiyakuno Station, Yakuno-cho, (Amata-gun), Kyoto Prefecture, Japan

Oro Formation (Holotype and UK.JM10700) and undivided (UK.JM10692, 10694, 10697, 10698), Yakuno Group

Eo-Triassic (Scythian, Triassic by Hayami (1975))

***Mysidioptera ominensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, nos. 2-4, p. 208, pl. 13, figs. 10-11

Holotype: UMUT.MM4592 (figs. 11a, b); Paratype: UMUT.MM4591 (fig. 10)

Omine (Omine, Mine City, Yamaguchi Prefecture), Japan

1st cycle of the Hirabara Formation, Mine Series (Mine Group)

Early Carnian, Triassic

***Mytilus* (?) *chohi* Ichikawa, 1954**

Japan. Jour. Geol. Geogr., vol. 24, p. 48, pl. 7, figs. 11-12

Holotype: UMUT.MM5419 (fig. 11); Paratype: UMUT.MM5420 (fig. 12)

Loc. 7 at the southern side of the small ridge of "M-valley", Arai, Okuno-mura (near Iwai, Hinode-machi), Nishitamagun, Tokyo Prefecture, Japan

Arai Formation

Triassic

(*Mytilus chohi* Ichikawa by Hayami (1975))

***Mytilus (Falcimytilus) heranirus* Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 29, p. 160, pl. 24, figs. 3-4

Holotype: UMUT.MM2723 (fig. 3)

Kuruma, Kitaotari-mura (Otari-mura, Kitaadumi-gun), Nagano Prefecture, Japan

Tsuchizawa Formation, Kuruma Group

Lias (Pliensbachian (or thereabout), Jurassic by Hayami (1975))

***Mytilus (Falcimytilus) hirabarensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, nos. 2-4, p. 210, pl. 13, fig. 9

Holotype: UMUT.MM4590 (fig. 9)

Okubata, (Mine City, Yamaguchi Prefecture, Japan)

Transgressive shales of the middle and upper Hirabara Formation of Mine series (Hirabara Formation, Mine Group)

Early Carnian, Triassic

***Mytilus (Falcimytilus) nasai* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 208, pl. 1, figs. 2-3

Holotype: UMUT.MM5134a (fig. 2); Paratype: UMUT.MM5134b (fig. 3)

Kashiwai in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

***Mytilus (Falcimytilus) nasai* var. *hirataides* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 209, pl. 1, fig. 5

Holotype: UMUT.MM5136 (fig. 5)

Loc. 47Tk-49 at Oowada Horiake in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Mytilus (Falcimytilus) nasai* Kobayashi & Ichikawa by Hayami (1975))

***Mytilus (Falcimytilus) nasai* var. *nagaides* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 209, pl. 1, fig. 4

Holotype: UMUT.MM5135 (fig. 4)

Loc. 47Tk-50 at Kashiwai in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Mytilus (Falcimytilus) nasai* Kobayashi & Ichikawa by

Hayami (1975))

***Mytilus (?) punctus* Ichikawa, 1954**

Japan. Jour. Geol. Geogr., vol. 24, p. 50, pl. 7, figs. 9-10

Holotype: UMUT.MM5424 (fig. 9); Paratype: UMUT.MM5425 (fig. 10)

Loc. 8 along the path from Arai to Hakusan Shrine, Arai, Okuno-mura (Hinodé-machi), Nishitama-gun, Tokyo Prefecture, Japan

Arai Formation

Triassic

(*Mytilus punctus* Ichikawa by Hayami (1975))

***Mytilus (Pachymytilus?) rectangularis* Kobayashi & Hayami, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 188, pl. 11, fig. 7

Holotype: not registered (specimen no. 2; fig. 7)

Locality at km. 39.04 on Highway from Changwat Udon Thani to Amphoe Nong Bua Lamphu, NE Thailand

Unit 48 (Calcareous conglomerate), Khorat Series

Early Jurassic(?)

***Mytilus (Falcimytilus) stricapillatus* Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 29, p. 159, pl. 23, figs. 8-11

Holotype: UMUT.MM2726 (fig. 9); Paratypes: UMUT.MM2727 (fig. 11), UMUT.MM2728 (fig. 8)

Kuruma, Kitaotari-mura (Otari-mura, Kitaadumi-gun), Nagano Prefecture, Japan

Tsuchizawa Formation, Kuruma Group

Lias (Pliensbachian - Toarcian, Jurassic by Hayami (1975))

Mytilus (Falcimytilus?) tenuiformis* Kobayashi & Ichikawa see *Mytilus tenuiformis* Kobayashi & Ichikawa, 1950**Mytilus tenuiformis* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 207, pl. 1, fig. 7

Holotype: UMUT.MM5139 (fig. 7)

Kashiwai in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Mytilus (Falcimytilus?) tenuiformis* Kobayashi & Ichikawa by Hayami (1975))

***Mytilus tenuiformis* var. *punctatus* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, no. 3-5, p. 208, pl. 1, fig. 8

Holotype: monotypy (UMUT.MM5140) (fig. 8)

Loc. 47TK-4 at Okunometani in the Sakawa basin

(Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan
Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(Mytilus (Falcimytilus?) tenuiformis Kobayashi & Ichikawa by Hayami (1975))

Nanogyra kumensis (Tamura) see *Exogyra kumensis Tamura, 1959*

Neithea kotsubu Kimura, 1951

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 343, pl. 1, figs. 8-9

Holotype: UMUT.MM7109 (figs. 8a, b); Paratype: UMUT.MM7110 (fig. 9)

Nagatake, Kamo-mura (Kamo, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Torinosu Group

Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))

(“*Aequipecten*” *kotsubu (Kimura)* by Tamura (1959); *Aequipecten? kotsubu (Kimura)* by Hayami (1975))

Neoburmesia iwakiensis Yabe & Sato, 1942

Proc. Imp. Acad. Tokyo, vol. 18, no. 5, p. 251, text-figs. 1-3

Holotype: IGPS. no. 65274 (text-figs. 1-3)

At a locality 1.5 km west of Koike, Kamimano-mura (Kashima-machi), Soma-gun, Fukushima Prefecture, Japan
Dark gray sandstone underlying the Torinosu limestone (Nakanosawa Formation, Soma Group)

Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

Neomiodon? amagashiraensis (Kobayashi & Suzuki) see *Corbicula amagashiraensis Kobayashi & Suzuki, 1937*

Neomiodon (?) khoratensis Hayami, 1968

Geol. Palaeont. SE Asia, vol. 4, p. 104, pl. 19, figs. 1-9

Holotype: UMUT.MM3898 (fig. 4); Paratype: UMUT.MM3899 (fig. 3), UMUT.MM3900 (fig. 2), UMUT.MM3901 (fig. 7), UMUT.MM3902 (fig. 1), UMUT.MM3903 (fig. 6), UMUT.MM3904 (fig. 8), UMUT.MM3905, UMUT.MM3906 (fig. 5), UMUT.MM3907 (fig. 9), UMUT.MM3908 (fig. 9), UMUT.MM3909, UMUT.MM3910, UMUT.MM3911, UMUT.MM3912, UMUT.MM3913, UMUT.MM3914, UMUT.MM3915

Ban Khok Sung (Ban Nan Sun), Amphoe Chum Phae, Changwat Hhon Kaen, Thailand (16°30'30"N, 122°14'00"E)

Lower part of the Phu Kadung Formation, Khorat Group

Early Jurassic

Neoschizodus (Neoschizodus) dieneri (Ichikawa) see *Myophoria dieneri Ichikawa, 1949*

Neoschizodus (Okunometania) kawarensis Nakazawa, 1956

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 23, no. 2, p. 245, pl. 4, figs. 11-15

Holotype: UK.JM10389A (fig. 11a); Paratypes: UK.JM10389B (figs. 11a, b), UK.JM10390, UK.JM10391 (fig. 13), UK.JM10392, UK.JM10393, UK.JM10394, UK.JM10395 (fig. 12), UK.JM10396 (fig. 14), UK.JM10397, UK.JM10398

Kongoin, Maizuru City, Kyoto Prefecture, Japan

N2 Formation, Nabae Group

Carnian, Triassic

Neoschizodus (Neoschizodus) nakajimensis (Ichikawa) see *Myophoria nakajimensis Ichikawa, 1949*

Neoschizodus (Okunometania) okunometaniensis (Ichikawa) see *Myophoria okunometaniensis Ichikawa, 1949*

Neoschizodus semicostatus Nakazawa, 1955

Mem. Fac. Sci. Univ. Kyoto, Ser. B, vol. 22, no. 2, p. 252, pl. 15, figs. 1-5

Holotype: UK.JM10289 (fig. 1); Paratypes: UK.JM10290 (fig. 5), UK.JM10291a (fig. 2), UK.JM10291b (fig. 3), UK.JM10292 (fig. 4), UK.JM10293, UK.JM10294, UK.JM10295

Nishimitsu, (Takahama-cho, Oi-gun), Fukui Prefecture, Japan

N4 Formation, Nabae Group

Carnian? (Carnian (or Norian), Triassic by Hayami (1975))

(*Neoschizodus (Neoschizodus) semicostatus Nakazawa* by Hayami (1975))

Neoschizodus (?) shikii Nakazawa, 1960

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 59, pl. 6, figs. 34-38

Holotype: UK.JM10468 (figs. 34, 36); Paratypes: UK.JM10469, UK.JM10470a (fig. 35), UK.JM10470b (fig. 38), UK.JM10471, UK.JM10472, UK.JM10473 (fig. 37), UK.JM10474

Loc. KH16 at Katsuradani, Hirobatake, Oe-cho, Kasa-gun, Kyoto Prefecture, Japan

Lower part of the Hirobatake Formation, Yakuno Group

Eo-Triassic (Scythian, Triassic by Hayami (1975))

(*Neoschizodus? shikii Nakazawa* by Hayami (1975))

Neoschizodus (Neoschizodus) tangoensis (Kambe) see *Myophoria tangoensis Kambe, 1951*

Neoschizodus (Neoschizodus) tokyoensis (Ichikawa) see *Myophoria tokyoensis Ichikawa, 1954*

Neoschizodus usugataniensis Ichikawa, 1954 (nom. nov.)
 Jour. Inst. Polytech. Osaka City Univ., Ser. G, vol. 2, p. 60
 (See *Myophoriopsis (Pseudocorbula?) orbicularis* Ichikawa, 1950)

***Nipponitrigonia furukawensis* Maeda, 1962**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 47, p. 274, pl. 42, figs. 1-15

Holotype: CU.R. no. 6192101 (figs. 1, 2); Paratypes: CU.R. no. 6192102 (fig. 3), CU.R. no. 6192103 (fig. 4), CU.R. no. 6192104 (figs. 5, 6), CU.R. no. 6192105 (figs. 7, 8), CU.R. no. 6192106 (fig. 9), CU.R. no. 6192107 (fig. 10), CU.R. no. 6192108 (figs. 11, 12), CU.R. no. 6192109 (fig. 13), CU.R. no. 6192110 (fig. 14), CU.R. no. 6192111 (fig. 15)

Sugizaki (Holotype and CU.R. nos. 6192102-6192109) and south of Nonaka (CU.R. nos. 6192110-6192111), Furukawa City, Gifu Prefecture, Japan

Sugizaki sandstone, Kuzuryu Subgroup, Tetori Group
 Probably Oxfordian, Jurassic

***Nipponitrigonia imamurai* Maeda, 1962**

Jour. Coll. Arts and Sci. Chiba Univ., Nat. Sci., vol. 3, no. 4, p. 506, pl. 3, figs. 1-12

Holotype: DESC.R. no. 627601 (figs. 1, 2); Paratypes: DESC.R. no. 627602 (figs. 6, 7), DESC.R. no. 627603 (figs. 9, 10), DESC.R. no. 627604 (fig. 5), DESC.R. no. 627605 (fig. 4), DESC.R. no. 627606, DESC.R. no. 627607 (fig. 12), DESC.R. no. 627608 (fig. 11), DESC.R. no. 627609 (fig. 3), DESC.R. no. 627610, DESC.R. no. 627611, DESC.R. no. 627612

Kiritani, Yatsuo-machi, Nehi-gun (Nei-gun), Toyama Prefecture, Japan

Kiritani alternation (Kiritani Formation), Tetori Group
 Oxfordian, Jurassic

(Synonymous with *Nipponitrigonia sagawai kobayashii* Maeda by Hayami (1975))

***Nipponitrigonia kobayashii* Maeda, 1962**

Jour. Coll. Arts and Sci. Chiba Univ., Nat. Sci., vol. 3, no. 4, p. 505, pl. 2, figs. 1-15; pl. 3, figs. 13-15

Holotype: DESC.R. no. 627501 (pl. 2, figs. 1-3, 10-12); Paratypes: DESC. R. no. 627502, DESC. R. no. 627503 (pl. 2, fig. 13), DESC. R. no. 627504 (pl. 3, fig. 14), DESC. R. no. 627505 (pl. 2, figs. 4-6), DESC. R. no. 627506 (pl. 2, fig. 14), DESC. R. no. 627507 (pl. 2, fig. 7), DESC. R. no. 627508 (pl. 3, fig. 15), DESC. R. no. 627509 (pl. 3, fig. 13), DESC. R. no. 627510 (pl. 2, fig. 15)

Kiritani, Yatsuo-machi, Nehi-gun (Nei-gun), Toyama Prefecture, Japan

Kiritani alternation (Kiritani Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

(*Nipponitrigonia sagawai kobayashii* Maeda by Hayami (1975))

Nipponitrigonia sagawai (Yehara) see *Trigonia Sagawai* Yehara, 1927

Nipponitrigonia sagawai kobayashii Maeda see *Nipponitrigonia kobayashii* Maeda, 1962

“*Nucula*” *iwayai* Ichikawa, 1949

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 269, pl. 10, fig. 7

Holotype: UMUT.MM5246 (fig. 7)

Otagao in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Halobia bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Nucula? iwayai* Ichikawa by Hayami (1975))

***Nuculana (Rollieria?) erinoensis* Kimura, 1956**

Jour. Earth Sci. Nagoya Univ., vol. 4, no. 2, p. 84, pl. 1, figs. 3-4

Holotype: UMUT.MM7153 (figs. 3, 4)

Erinono in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Yatsuji Formation, Torinosu Group

Late Jurassic

(*Nuculana (Praesacella) erinoensis* Kimura by Tamura (1959))

***Nuculana (Dacryomya) konishii* Hayami, 1961**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 43, p. 114, pl. 16, fig. 1

Holotype: UMUT.MM3675 (fig. 1)

At the northwest of Ochiai, Oosa-cho, Atesu-gun, Okayama Prefecture, Japan

Y2 member of Yamaoku Formation

Toarcian, Jurassic

***Nuculana (Dacromya) minutula* Kimura, 1956**

Jour. Earth Sci. Nagoya Univ., vol. 4, no. 2, p. 83, pl. 1, fig. 2

Holotype: UMUT.MM7157 (fig. 2)

Habunokawa in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Yatsuji Formation, Torinosu Group

Late Jurassic

(Correct name as *Nuculana (Dacryomya) minutula* Kimura by Tamura (1960))

Nuculana (Dacryomya) minutula Kimura see *Nuculana (Dacromya) minutula* Kimura, 1956

***Nuculana (Dacryomya) nogamii* Nakazawa, 1961**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 27, no. 3, p. 269, pl. 13, figs. 23-27

Holotype: UK.JM10460a (figs. 24a, b); Paratypes: UK.JM10460b (figs. 25a, b), UK.JM10461 (fig. 26),

UK.JM10462 (fig. 23), UK.JM10463 (fig. 27)
 Loc. KI4 (Holotype and UK.JM10460b, 10461, 10463) at Kamiouchi, and Loc. KI15 (UK.JM10462) at Hanzaka, Oro, Fukuchiyama City, Kyoto Prefecture, Japan
 Lower (Holotype and UK.JM10460b, 10461, 10463) and uppermost (UK.JM10462) parts of the Oro Formation, Yakuno Group
 Late Eo-Triassic (Holotype and UK.JM10460b, 10461, 10463) and latest Anisian (UK.JM10462) (Scythian - Anisian, Triassic, by Hayami (1975))

Nuculana (Dacryomya) nogamii yakunoensis Nakazawa, 1961

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 27, no. 3, p. 270, pl. 14, figs. 1-3, (?)4
 Holotype: UK JM10715 (fig. 1); Paratypes: UK.JM10716 (fig. 2), UK.JM10717 (fig. 3)
 Loc. Y38 north of Kamiyakuno Station, Yakuno-cho, Amata-gun, Kyoto Prefecture, Japan
 Undivided Yakuno group (Oro Formation, Yakuno Group, by Hayami (1975))
 Eo-Triassic (Scythian, Triassic by Hayami (1975))

Nuculana (Dacromya) stenodolichos Kimura, 1956

Jour. Earth Sci. Nagoya Univ., vol. 4, no. 2, p. 83, pl. 1, fig. 1
 Holotype: UMUT.MM7154 (fig. 1)
 Kambaradani in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
 Kambaradani Formation, Torinosu Group
 Kimmeridgian (Kimmeridgian - Tithonian, Jurassic by Hayami (1975))
 (Correct name as *Nuculana (Dacryomya) stenodolichos Kimura* by Tamura (1959))

Nuculana (Dacryomya) stenodolichos Kimura* see *Nuculana (Dacromya) stenodolichos Kimura, 1956

Nuculana (Dacryomya) toriyamae Hayami, 1959

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 41, pl. 5, figs. 2-3
 Holotype: UMUT.MM3352 (fig. 3), Paratype: UMUT.MM3353 (fig. 2)
 Loc. 9 (Holotype) at Higashinakayama in the Province of Nagato (Higashinakayama, Kikugawa-cho, Toyoura-gun), and Loc. 5 (Paratype) at Higashinagano in the Province of the Nagato (Higashinagano, Toyota-cho, Toyoura-gun), Yamaguchi Prefecture, Japan
Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group
 Early Lias (Sinemurian, Jurassic by Hayami (1975))

Nuculana (Praesacella) erinoensis Kimura* see *Nuculana (Rollieria?) erinoensis Kimura, 1956

Nuculana (Praesacella) yatsushiroensis Tamura, 1959

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 57, pl. 6, figs. 7-8
 Holotype: UMUT.MM3020 (figs. 7, 8)
 Loc. 2 at Kozaki, Shimomatsukuma-mura Yatsushiro-gun (Kozaki, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture, Japan
 Horizon 5 of the Torinosu Group
 Late Jurassic

Nuculopsis (Palaeonucula) makitoensis Hayami, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 143, pl. 12, figs. 4-6
 Holotype: UMUT.MM3141 (fig. 4); Paratypes: UMUT.MM3142 (figs. 6a, b), UMUT.MM3143 (fig. 5)
 At the east of Nonomata (Holotype and UMUT.MM3143) and, at the east of Mitarai (another Paratype), Shokawa-mura, Ono-gun, Gifu Prefecture, Japan
 M2 Member (Holotype and Paratype: UMUT.MM3143) and M3 Member (UMUT.MM3142) of the Mitarai Formation, Tetori Group
 Callovian, Jurassic
 (Erroneously spelled *mitaraiensis* in Hayami (1959, p. 143))

Nuculopsis (Palaeonucula) mitaraiensis Hayami, 1959* see *Nuculopsis (Palaeonucula) makitoensis Hayami, 1959

Oistotrigonia prima Kobayashi & Tamura, 1955

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 102, pl. 6, figs. 4-5
 Holotype: UMUT.MM4364 (figs. 4a, b); Paratype: UMUT.MM4365 (fig. 5)
 Western valley of Yamashita (Holotype); Minahara (UMUT.MM4365), Kamimano-mura (Kashima), Soma-gun, Fukushima Prefecture, Japan
 Nakanosawa Formation, Soma Group
 Jurassic (Kimmeridgian, Jurassic by Hayami (1975))
 (*Linotrigonia (Oistotrigonia?) prima (Kobayashi & Tamura)* by Hayami (1975))

Opis (Coelopsis) tanourensensis Tamura, 1959

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 114, pl. 12, figs. 5-7
 Holotype: UMUT.MM3091 (figs. 5-7); Paratype: UMUT.MM3092
 Loc. 11 at Tanoura, Tanoura-mura (Tanoura-machi), Ashikita-gun, Kumamoto Prefecture, Japan
 5th horizon of the Torinosu Group
 Late Jurassic
 (*Coelopsis tanourensensis (Tamura)* by Hayami (1975))

Opis (Trigonopsis) torinosuensis Kimura, 1956

Jour. Earth Sci. Nagoya Univ., vol. 4, no.2, p. 87, pl. 1, fig. 10
 Holotype: UMUT.MM7170 (fig. 10)

Yatsuji in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Yatsuji Formation, Torinosu Group
Late Jurassic

***Opis (Trigonopis) trigonalis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 114, pl. 12, figs. 14-16

Holotype: UMUT.MM3099 (fig. 15); Paratypes: UMUT.MM3098 (fig. 14), UMUT.MM3100 (fig. 16)

Loc. 4 (Holotype and UMUT.MM3100) at Sakamoto, Kamimatsukuma-mura, Yatsushiro-gun (Sakamoto, Sakamoto-mura, Yatsushiro-gun); Loc. 6 (UMUT.MM3098) at Tsurubami, Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture, Japan

5th horizon of the Torinosu Group

Late Jurassic

***Orthotrigonia corrugata* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 87, pl. 4, fig. 10

Holotype: UMUT.MM4345 (fig. 10)

Nirano-hama, Utatsu-cho, Motoyoshi-gun, Province of Rikuzen (Miyagi Prefecture), Japan

Nirano-hama Formation, (Shizukawa Group)

Hettangian - Bajocian (Hettangian, Jurassic by Hayami (1975))

(Synonymous with *Orthotrigonia? midareta* Kobayashi & Mori by Hayami (1975))

***Orthotrigonia midareta* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 87, pl. 4, figs. 11a-b

Holotype: UMUT.MM4344 (figs. 11a, b)

Nirano-hama, Utatsu-cho, Motoyoshi-gun, Province of Rikuzen (Miyagi Prefecture), Japan

Nirano-hama Formation, (Shizukawa Group)

Hettangian - Bajocian (Hettangian, Jurassic by Hayami (1975))

(*Orthotrigonia? midareta* Kobayashi & Mori by Hayami (1975))

***Otapiria dubia* (Ichikawa) see *Pleuromysidia dubia* Ichikawa, 1954**

***Otapiria kanmerai* (Tamura) see "*Pleuromysidia*" *kanmerai* Tamura, 1959**

***Oxytoma atsuense* Tokuyama, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 7, pl. 1, fig. 25

Holotype: UMUT.MM4522 (fig. 25)

Northeast of Shirogawara, Mine City, Province of Nagato (Yamaguchi Prefecture), Japan

Atsu series (Atsu Group)

Late Ladinic or Ladio-Carnic (Carnian (or late Ladinian), Triassic by Hayami (1975))

(*Oxytoma (Oxytoma) atsuensis* Tokuyama by Hayami (1975))

"*Oxytoma*" *dieneri* Kobayashi & Ichikawa, 1950

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 226, pl. 2, fig. 9

Holotype: UMUT.MM5112 (fig. 9)

Togo in the Sakawa basin (Togo, Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Halobia bed (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(*Oxytoma? dieneri* Kobayashi & Ichikawa by Hayami (1975))

***Oxytoma kashiwaiensis* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 223, pl. 3, figs. 1-3

Holotype: UMUT.MM5116 (figs. 1a, b); Paratypes: UMUT.MM5117 (fig. 2), UMUT.MM5118 (fig. 3)

Kashiwai in the Sakawa basin (Kashiwai, Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(*Oxytoma (Oxytoma) kashiwaiensis* Kobayashi & Ichikawa by Hayami (1975))

***Oxytoma kobayashii* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 49, pl. 5, figs. 15-17

Holotype: UMUT.MM3372 (fig. 15); Paratypes: UMUT.MM3373 (fig. 16), UMUT.MM3374 (fig. 17)

Loc. 9 at Higashinakayama in the Province of Nagato (Higashinakayama, Kikugawa-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Oxytoma bed of the Higashinagano Formation, Toyora Group Early Lias (Sinemurian (or Pliensbachian), Jurassic by Hayami (1975))

(*Oxytoma (Oxytoma) kobayashii* Hayami by Hayami (1975))

***Oxytoma multistriatum* Tokuyama, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 10, pl. 1, figs. 26-27.

Holotype: UMUT.MM4523 (fig. 26a, b); Paratype: UMUT.MM4524 (figs. 27a, b)

Higaeribara, north of Aso, Mine, Province of Nagato (Higaribara, Aso, Mine City, Yamaguchi Prefecture, Japan)

Aso Formation, Mine Group

Early Norian (Carnian (or early Norian), Triassic by Hayami (1975))

(*Oxytoma (Oxytoma) multistriata* Tokuyama by Hayami

(1975))

***Oxytoma pulchra* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 224, pl. 3, fig. 4

Holotype: UMUT.MM5119 (fig. 4)

Kashiwai in the Sakawa basin (Kashiwai, Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(Synonymous with *Oxytoma (Oxytoma) kashiwaiensis* Kobayashi & Ichikawa by Hayami (1975))

***Oxytoma sedaka* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 225, pl. 3, figs. 8-12

Holotype: UMUT.MM5123 (figs. 8a, b); Paratypes: UMUT.MM5124 (fig. 9), UMUT.MM5125 (fig. 10), UMUT.MM5126 (fig. 11), UMUT.MM5127 (fig. 12)

Kashiwai (Holotype) and Oowada-Horiake (Paratypes) in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(*Oxytoma (Oxytoma) kashiwaiensis* Kobayashi & Ichikawa by Hayami (1975))

***Oxytoma subzitteli* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 221, pl. 2, figs. 7-8

Holotype: UMUT.MM5109 (figs. 7a, b); Paratype: UMUT.MM5119 (fig. 8)

Umenokidani in the Sakawa basin, (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Myoconcha sandstone (lower part of the the Kochigatani Group)

Carnian or threabout (Carnian - Norian, Triassic by Hayami (1975))

(Synonymous with *Oxytoma (Oxytoma) mojsisovicsi* Teller by Ozawa & Hayami (1969))

***Oxytoma sujimabara* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 224, pl. 3, figs. 5-7

Holotype: UMUT.MM5120 (fig. 5); Paratypes: UMUT.MM5121 (fig. 6), UMUT.MM5122 (fig. 7)

Oowada-Horikawa (Holotype and UMUT.MM5121) and Kashiwai (UMUT.MM5122) in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

***Oxytoma tetoriense* Hayami [sic], 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 148, pl. 12, figs. 14, 15

Holotype: UMUT.MM3155 (fig. 14); Paratype: UMUT.MM3156 (fig. 15)

At the west of Mitarai, Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M3 Member of the Mitarai Formation, Tetori Group

Callovian, Jurassic

(*Oxytoma (Oxytoma) tetoriensis* Hayami by Hayami (1975))

***Oxytoma yeharai* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 222, pl. 2, figs. 1-2; pl. 3, figs. 13a-b

Holotype: UMUT.MM5101 (pl. 2, fig. 1); Paratypes: UMUT.MM5102 (pl. 2, fig. 2), UMUT.MM5111 (pl. 3, figs. 13a, b)

Sandai of Shimoyama in the Sakawa basin (Umenokidani, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapecten sandstone (lower part of the the Kochigatani Group)

Carnian or thereabout (Carnian - Norian, Triassic by Hayami (1975))

(Synonymous with *Oxytoma (Oxytoma) mojsisovicsi* Teller by Ozawa & Hayami (1969))

***Pachymya? malayensis* Tamura, 1973**

Geol. Palaeont. SE Asia, vol. 12, p. 146, text-fig. 5, pl. 20, figs. 1-3

Holotype: KE1134a, b, c (figs. 1a, a', b, b'); Paratypes: KE1135 (fig. 2), KE1136 (fig. 3)

Loc. LF2 (Holotype), KNM13 (KE1135) and LF23 (KE1136) near Chegar Perah, Pahang State, Malaya, Malaysia

Myophoria sandstone

Anisian-earliest Ladinian, Triassic

***Palaeoneilo fujinohira* Ichikawa, 1954**

Jour. Inst. Polytech. Osaka City Univ., Ser. G, vol. 1, p. 43, pl. 1, figs. 5-7

Holotype: UMUT.MM5464a (fig. 7); Paratypes: UMUT.MM5464b (fig. 6), UMUT.MM5464c (figs. 5a, b)

Loc. 51KI-27 at the entrance of Kayanomizo-2, (Kaminaka-cho, Naka-gun), Tokushima Prefecture, Japan

Upper member of the Lower Kochigatani Subgroup (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

***Palaeoneilo iwaiensis* Ichikawa, 1954**

Japan. Jour. Geol. Geogr., vol. 25, nos. 3-4, p. 187, pl. 17, figs. 1-3

Holotype: UMUT.MM5441a (fig. 1); Paratypes: UMUT.MM5441b (fig. 2), UMUT.MM5442 (fig. 3)

Loc. 3, about 40m to the east of the Loc. 2 (along the small

ridge to the north of the M-valley), Iwai, near Itsukaichi, Tokyo Prefecture (Iwai, Hinode-machi, Nishitama-gun, Tokyo Prefecture), Japan
Halobia-bearing formation of the lower part of the Kochigatani Group
 Early Neo-Triassic (Carnian, Triassic by Hayami (1975))

***Palaeoneilo sakuradaniensis* Ichikawa, 1954**

Jour. Inst. Polytech. Osaka City Univ., Ser. G, vol. 1, p. 42, pl. 1, figs. 1-2

Holotype: UMUT.MM5445 (figs. 1a, b); Paratype: UMUT.MM5446 (fig. 2)

Loc. 51KI-9 (Holotype) at Ura of Usugatani, and Loc. 51KI-29 (Paratype) at the roadside of Fujinohira (Kaminaka-cho, Naka-gun), Tokushima Prefecture, Japan
 Upper member of the Lower Kochigatani Subgroup (lower part of the Kochigatani Group)
 Late Triassic (Carnian, Triassic by Hayami (1975))

***Palaeoneilo tenelliformis* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 271, pl. 10, fig. 8

Holotype: UMUT.MM5247 (fig. 8)

Umenokidani in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Myoconcha bed (lower part of the Kochigatani Group)
 Late Triassic (Carnian, Triassic by Hayami (1975))

***Palaeonucula saigonensis* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 182, pl. 33, figs. 1-3; pl. 38, figs. 1-2

Holotype: GK.G10001 (pl. 33, fig. 3; pl. 38, fig. 1); Paratypes: GK.G10002 (pl. 38, fig. 2), GK.G10003 (pl. 33, fig. 2), GK.G10004 (pl. 33, fig. 1), GK.G10005, GK.G10006, GK.G10007, GK.G10008, GK.G10009, GK.G10010, GK.G10011, GK.G10012, GK.G10013, GK.G10014, GK.G10015, GK.G10016, GK.G10017, GK.G10018

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam
 Lower Jurassic deposits
 Toarcian, Jurassic

***Palaeopharus maizurensis* Kobayashi & Ichikawa, 1951**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 1, p. 9, pl. 1, figs. 1-6

Holotype: UMUT.MM5301 (figs. 1a, b, 2, 3a, b); Paratypes: UMUT.MM5302 (figs. 4a, b), UMUT.MM5303 (figs. 5a-c), UMUT.MM5304 (fig. 6)

Maizuru area (not precisely recorded) in Kyoto or Fukui Prefecture, Japan
 N1 - N3 Formations, Nabae Group
 Carnian, Triassic

***Palaeopharus maizurensis* var. *flexicostatus* Nakano, 1957**

Jour. Sci. Hiroshima Univ., Ser. C, vol. 2, no. 1, p. 66, pl. 9,

fig. 15

Holotype: monotypy (IGSH Ky.Pf.2) (fig. 15)
 Onji (Kyowa), Shitsuki-machi (Yoshii-cho), Shitsuki-gun, Okayama Prefecture, Japan
 Kyowa Formation
 Carnian, Triassic
 (Synonymous with *Palaeopharus maizurensis* Kobayashi & Ichikawa by Hayami (1975))

***Palaeopharus maizurensis* var. *imamurai* Nakano, 1957**

Jour. Sci. Hiroshima Univ., Ser. C, vol. 2, no. 1, p. 66, pl. 9, fig. 14

Holotype: monotypy (IGSH Ky.Pi.1) (fig. 14)
 Onji (Kyowa), Shitsuki-machi (Yoshii-cho), Shitsuki-gun, Okayama Prefecture, Japan
 Kyowa Formation
 Carnian, Triassic
 (Synonymous with *Palaeopharus maizurensis* Kobayashi & Ichikawa by Hayami (1975))

***Palaeopharus oblongatus* (Kobayashi & Ichikawa) see *Pleurophorus oblongatus* Kobayashi & Ichikawa, 1950**

***Palaeopharus paucicostatus* Nakazawa, 1955**

Mem. Fac. Sci. Univ. Kyoto, Ser. B, vol. 22, no. 2, p. 258, pl. 16, figs. 11a-b

Holotype: UK.JM10301 (figs. 11a, b); Paratype: UK.JM10302

Shinmichi, Maizuru City, Kyoto Prefecture, Japan
 N3 Formation, Nabae Group
 Carnian, Triassic

***Palaeopharus (Minepharus) triadicus* Tokuyama, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 32, p. 297, text-fig. 2, pl. 43, figs. 1-4, 6-7 (non fig. 5 by Hayami (1975))

Holotype: UMUT.MM4470 (fig. 1); Paratypes: UMUT.MM4471 (fig. 2), UMUT.MM4472 (fig. 3), UMUT.MM4473 (fig. 4), UMUT.MM4474 (fig. 5), UMUT.MM4475 (fig. 6), UMUT.MM4476 (fig. 7)

Hirabarazaka, west of Omine, Mine City, Province of Nagato (Yamaguchi Prefecture), Japan
 Middle Hirabara stage of Mine series (Hirabara Formation, Mine Group)
 Early Carnian, Triassic
 (*Minepharus triadicus* (Tokuyama) by Hayami (1975))

***Parainoceramus lunaris* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 295, pl. 15, fig. 1

Holotype: UMUT.MM3582 (fig. 1); Paratype: UMUT.MM3583

Sakuraguchi, southwest of Ishimachi, Toyoda-cho (Toyota-cho), Toyora-gun (Toyoura-gun), Yamaguchi

Prefecture, Japan
Nishinakayama Formation, Toyora Group
Pliensbachian, Jurassic
(*Pseudomytiloides lunaris* (Hayami) by Hayami (1975))

***Parainoceramus matsumotoi* Hayami, 1960**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, vol. 12, pt. 2, p. 296, pl. 15, figs. 2-8

Holotype: UMUT.MM3584 (figs. 2a-b); Paratypes: UMUT.MM3585 (fig. 4), UMUT.MM3586 (fig. 3), UMUT.MM3587 (fig. 6), UMUT.MM3588 (fig. 5), UMUT.MM3589 (fig.7), UMUT.MM3590 (fig. 8)

Ishimachi, Toyoda-cho (Toyota-cho), Toyora-gun (Toyoura-gun), Yamaguchi Prefecture, Japan
Nishinakayama Formation, Toyora Group
Toarcian, Jurassic
(*Pseudomytiloides matsumotoi* (Hayami) by Hayami (1975))

***Parallelodon (Cosmetodon) niranohamensis* Hayami see *Parallelodon niranohamensis* Hayami, 1958**

***Parallelodon inflatus* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 34, p. 53, pl. 6, figs. 9-10

Holotype: UMUT.MM3023 (fig. 10); Paratype: UMUT.MM3022 (fig. 9)

Loc. 6 (Holotype) at Tsurubami, Kutaragi-mura, Ashikita-gun (Tsurubami, Sakamoto-mura, Yatsushiro-gun), and Loc. 3 (Paratype) at Sakamoto, Kamimatsukuma-mura, Yatsushiro-gun (Sakamoto, Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture, Japan
Horizon 5 of the Torinosu Group
Late Jurassic

(*Parallelodon (Cosmetodon) inflatus* Tamura by Hayami (1975))

***Parallelodon (Cosmetodon) inflatus* Tamura see *Parallelodon inflatus* Tamura, 1959**

***Parallelodon infraliassicus* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 42, pl. 5, figs. 4-6

Holotype: UMUT.MM3355 (fig. 4); Paratypes: UMUT.MM3356 (fig. 5), UMUT.MM3357 (fig.6)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

(*Parallelodon (Cosmetodon) infraliassicus* Hayami by Hayami (1975))

***Parallelodon (Cosmetodon) infraliassicus* Hayami see *Parallelodon infraliassicus* Hayami, 1959**

“*Parallelodon*” *infrequens* Kobayashi & Ichikawa, 1950

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 239, pl. 4, fig. 12

Holotype: UMUT.MM5164 (fig. 12)

Shimoyama in the Sakawa basin (Shimoyama, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapecten bed (lower part of the Kochigatani Group)
Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(*Parallelodon?* *infrequens* Kobayashi & Ichikawa by Hayami (1975))

***Parallelodon?* *infrequens* Kobayashi & Ichikawa see “*Parallelodon*” *infrequens* Kobayashi & Ichikawa, 1950**

***Parallelodon kesenumensis* Hayami, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 89, pl. 8, figs. 3-4

Holotype: UMUT.MM3636 (figs. 3a, b); Paratype: UMUT.MM3637 (figs. 4a, b)

Wakagihama in Oshima island (Oshima, Kesenuma City, Miyagi Prefecture), Japan

Wakagihama Member, Kogoshio Formation, Shishiori Group
Late(?) Tithonian, Jurassic

(*Parallelodon (Cosmetodon) kesenumensis* Hayami by Hayami (1975))

***Parallelodon (Cosmetodon) kesenumensis* Hayami see *Parallelodon kesenumensis* Hayami, 1960**

***Parallelodon (Torinosucatella) kobayashii* (Tamura) see *Catella (Torinosucatella) kobayashii* Tamura, 1959**

***Parallelodon koikensis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 36, p. 169, pl. 19, figs. 9-11

Holotype: UMUT.MM3193 (fig. 10); Paratypes: UMUT.MM3194 (fig. 9), UMUT.MM3195 (fig. 11)

Loc. 15 at Tatenosawa, Koike, Kamimano-mura (Tatenosawa, Koike, Kashima-machi, Soma-gun), Fukushima Prefecture, Japan

7th zone of the Nakanosawa Formation, Soma Group

Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

(*Parallelodon (Cosmetodon) koikensis* Tamura by Hayami (1975))

***Parallelodon (Cosmetodon) koikensis* Tamura see *Parallelodon koikensis* Tamura, 1959**

***Parallelodon (Palaeocucullaea) monobensis* Nakazawa see *Parallelodon monobensis* Nakazawa, 1955**

***Parallelodon monobensis* Nakazawa, 1955**

Mem. Fac. Sci. Univ. Kyoto, Ser. B, vol. 22, no. 2, p. 255, pl. 15, figs. 17a, b; pl. 16, figs. 1-3

Holotype: UK.JM10310 (pl. 15, figs. 17a, b); Paratypes: UK.JM10311 (pl. 16, fig. 3), UK.JM10312, UK.JM10313 (pl. 16, fig. 1),

Monobe (Holotype and UK.JM10311), Monobe-mura (Ayabe City); Heki (UK.JM10313), Nakayakuno-mura (Yakuno-cho, Amata-gun), Kyoto Prefecture, Japan

N3 Formation, Nabae Group

Carnian, Triassic

(*Parallelodon (Palaeocucullaea) monobensis* Nakazawa by Tokuyama (1960))

***Parallelodon niranohamensis* Hayami, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 100, text-fig. 1, pl. 7, figs. 1-4

Holotype: UMUT.MM2871 (fig. 2); Paratypes: UMUT.MM2872 (fig. 3), UMUT.MM2873 (fig. 1)

Hosoura, Shizukawa-machi (Shizugawa-cho), Motoyoshi-gun, Miyagi Prefecture, Japan

Niranohama Formation, Shizukawa Group

Hettangian, Jurassic

(*Parallelodon (Cosmetodon) niranohamensis* Hayami by Hayami (1975))

Parallelodon (Palaeocucullaea?) subnavicellus* Hayami see *Parallelodon (?) subnavicellus* Hayami, 1959**Parallelodon (?) subnavicellus* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 44, pl. 5, figs. 8a-b

Holotype: UMUT.MM3360 (figs. 8a, b)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun), Yamaguchi Prefecture, Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

(*Parallelodon (Palaeocucullaea?) subnavicellus* Hayami by Hayami (1975))

Parvamussium habunokawense* (Kimura) see *Propeamussium habunokawensis* Kimura, 1951**Pecten (Chlamys) courtieri* Kobayashi, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 126, pl. 6, fig. 19

Holotype: Geol. Surv., Ipoh, Malaya?, not registered (fig. 19)

Loc. KKF4 at Kuala Nerang in north Kedah, Federation of Malaya, Malaysia

Halobia shales, Upper rhythmic sediments

Carnian, Triassic

***Pecten fujimotoi* Kobayashi, 1935**

Japan. Jour. Geol. Geogr. vol. 12, no. 1-2, p. 31, pl. 7, figs. 8, 9

Lectotype: UMUT.MM4225 (fig. 8: Holotype designated by Kobayashi and Ichikawa (1949) between two syntypes) (missing, reported by Ichikawa and Hayami (1978); original specimen in Tokyo University of Education); Paratype: UMUT.MM5032 (fig. 9: one of two syntypes)

Holotype: Kamosho near Asa, Province of Nagato (Kamonosho, Asa, San'yo-cho, Asa-gun, Yamaguchi Prefecture); Paratype: Shimoyama, Sakawa basin, Province of Tosa (Shimoyama, Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Holotype: Mine series (Mine Group); Paratype: *Pecten* bed (lower part of the Kochigatani Group)

Ladinian - Carnian (Carnian - Norian, Triassic by Hayami (1975))

(*Tosapekten suzukii* var. *fujimotoi* (Kobayashi) by Kobayashi and Ichikawa (1949); synonymous with *Tosapekten suzukii suzukii* (Kobayashi) by Hayami (1975))

***Pecten (Velopecten) suzukii* Kobayashi, 1931**

Japan. Jour. Geol. Geogr., vol. 8, no. 4, p. 258, pl. 25, figs. 16-18

Holotype: UMUT.MM5029 (fig. 16); Paratypes: UMUT.MM5030 (fig. 17) (missing, reported by Ichikawa and Hayami (1978)), UMUT.MM5031 (fig. 18)

Shimoyama (Holotype and UMUT.MM5030) in the Sakawa basin (Shimoyama, Sakawa-cho, Takaoka-gun, Kochi Prefecture); the Toganotoge tunnel (UMUT.MM5031) on the southern border of the Sakawa basin, Province of Tosa (the pass of Togano, Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Pecten bed between the *Halobia* bed and the *Pseudomonotis* bed (lower part of the Kochigatani Group)

Carnian - Norian, Triassic

(*Tosapekten suzukii* (Kobayashi) by Kobayashi and Ichikawa (1949); *Tosapekten suzukii suzukii* (Kobayashi) by Hayami (1975))

***Perna rikuzenica* Yokoyama, 1904**

Jour. Coll. Sci. Imp. Univ. Tokyo, vol. 18, no. 6, p. 13, pl. 1, fig. 1

Holotype: UMUT.MM7176 (figs. 1a, b)

Hosoura, Province of Rikuzen (Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi Prefecture), Japan

Cyrena bed (Niranohama Formation, Shizukawa Group)

Dogger (Hettangian - Toarcian, Jurassic by Hayami (1975))

(*Isognomon rikuzenicus* (Yokoyama) by Hayami (1957); *Isognomon (Isognomon) rikuzenicus* (Yokoyama) by Hayami (1975))

***Pholadomya? ashikitensis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 118, pl. 12,

figs. 26-27

Holotype: UMUT.MM3119 (figs. 26, 27); Paratype: UMUT.MM3120 (missing, reported by Ichikawa and Hayami (1978))

Loc. 12 (Holotype) at Uminoura, Tanoura-mura (Tanoura-machi), Ashikita-gun, Kumamoto Prefecture, Japan 5th horizon of the Torinosu Group

Late Jurassic

***Pholadomya (Bucardiomya) fontainei* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 212, pl. 36, figs. 3-11

Holotype: GK.G10167 (figs. 9a-c); Paratypes: GK.G10168 (figs. 8a, b), GK.G10169 (figs. 3a, b), GK.G10170 (figs. 4a, b), GK.G10171 (figs. 6a, b), GK.G10172 (figs. 11a, b), GK.G10173 (figs. 10a, b), GK.G10174 (figs. 5a, b), GK.G10175 (fig. 7), GK.G10176, GK.G10177, GK.G10178, GK.G10179, GK.G10180, GK.G10181, GK.G10182, GK.G10183, GK.G10184, GK.G10185, GK.G10186, GK.G10187, GK.G10188, GK.G10189, GK.G10190, GK.G10191, GK.G10192, GK.G10193, GK.G10194, GK.G10195, GK.G10196, GK.G10197

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

***Pholadomya somensis* Tamura, 1960**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 38, p. 279, pl. 32, figs. 10-11

Holotype: UMUT.MM3278 (figs. 10, 11); Paratypes: UMUT.MM3279, UMUT.MM3280, UMUT.MM3281

Loc. 8 at west of Yamashita Yasukurasawa, Kamimano-mura, Soma-gun (Yamashita, Kashima-machi, Soma-gun), Fukushima Prefecture, Japan

5th zone of the Nakanosawa Formation, Soma Group

Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

(*Pholadomya (Bucardiomya) somensis* Tamura by Hayami (1975))

***Pholadomya (Bucardiomya) somensis* Tamura see *Pholadomya somensis* Tamura, 1960**

***Pinna muikadaniensis* Nakazawa, 1961**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 27, no. 3, p. 267, pl. 13, figs. 14-17

Syntype: UK.JM10711 (fig. 14), UK.JM10712 (fig. 17), UK.JM10713 (fig. 15), UK.JM10714 (fig. 16)

Loc. KI1 (UK.JM10711-10713) at Muikadani, Gujo, Oe-cho, (Kasa-gun), and Loc. KI4 (UK.JM10714) at Kamiochi, Fukuchiyama City, Kyoto Prefecture, Japan

Oro Formation, Yakuno Group

Late Eo-Triassic (Scythian, Triassic by Hayami (1975))

(*Pinna (Pinna) muikadaniensis* Nakazawa by Hayami (1975))

***Plagiostoma enormicosta* (Tamura) see *Lima (Plagiostoma) enormicosta* Tamura, 1959**

***Plagiostoma higaeribarensis* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 34, pl. 4, figs. 1-2

Holotype: UMUT.MM4548 (figs. 1a, b); Paratype: UMUT.MM4549 (figs. 2a, b)

Higaeribara, north of Aso, Mine City, Province of Nagato (Yamaguchi Prefecture), Japan

Asoella sandstone in the middle Aso Formation (Aso Formation, Mine Group)

Late Carnian, probably to early Norian, Triassic

***Plagiostoma higaeribarensis* var. *yuguchiense* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 35, pl. 4, fig. 13

Holotype: UMUT.MM4550 (fig. 3) (missing, reported by Ichikawa and Hayami (1978))

Kami-yuguchi, south of Aso, Mine City, Province of Nagato (Yamaguchi Prefecture), Japan

Waagenoperna sandstone in the top of the Mitsusugi sandstone of the Aso Formation (Aso Formation, Mine Group)

Late Carnian, probably to early Norian, Triassic

***Plagiostoma kobayashii* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 63, pl. 6, figs. 21-23

Holotype: UMUT.MM3411 (figs. 21a, b); Paratypes: UMUT.MM3412 (fig. 23), UMUT.MM3413 (fig. 22)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Plagiostoma? kuromagariensis* (Kobayashi & Ichikawa) see *Lima (Plagiostoma?) kuromagariensis* Kobayashi & Ichikawa, 1949**

***Plagiostoma matsumotoi* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 64, pl. 6, figs. 24-25; pl. 7, figs. 1-3

Holotype: UMUT.MM3414 (pl. 6, fig. 25); Paratypes: UMUT.MM3415 (pl. 7, fig. 2), UMUT.MM3416 (pl. 7, fig. 1), UMUT.MM3417 (pl. 6, fig. 24), UMUT.MM3418 (pl. 7, fig. 3)

Loc. 3 (Holotype) and Loc. 5 (Paratypes) at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Prosogyrotrigonia inouyei bed (Holotype) and *Cardinia toriyamai* bed (Paratypes) of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Pleuromya forsbergi* (Böhm) nipponica Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 235, pl. 4, figs. 8a-c

Holotype: UMUT.MM5159 (figs. 8a-c)

Nezukamiishi in the Sakawa basin (Nezukamiishi, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapecten bed (lower part of the Kochigatani Group)

Carnian or thereabout (Carnian, Triassic by Hayami (1975))

(*Pleuromya forsbergi nipponica* Kobayashi & Ichikawa by Tamura (1959))

***Pleuromya forsbergi nipponica* Kobayashi & Ichikawa see *Pleuromya forsbergi* (Böhm) nipponica Kobayashi & Ichikawa, 1950**

***Pleuromya hashidatensis* Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 30, p. 195, pl. 28, fig. 9

Holotype: UMUT.MM2808 (fig. 9)

Kanayamadani, Omi-machi, Nishikubiki-gun, Niigata Prefecture, Japan

Teradani Formation, Kuruma Group

Domerian (Pliensbachian, Jurassic by Hayami (1975))

***Pleuromya hidensis* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 158, pl. 13, figs. 12, 13

Holotype: UMUT.MM3179 (figs. 12a, b); Paratype: UMUT.MM3180 (fig. 13)

At the east of Mitarai, Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M3 Member of the Mitarai Formation, Tetori Group

Callovian, Jurassic

***Pleuromya? punctostriae* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 117, pl. 12, figs. 29-32

Holotype: UMUT.MM3113 (figs. 30, 31); Paratypes: UMUT.MM3112 (fig. 29), UMUT.MM3114 (fig. 32)

Loc. 4 at Sakamoto, Kamimatsukuma-mura (Sakamoto-mura), Yatsushiro-gun, Kumamoto Prefecture, Japan

5th horizon of the Torinosu Group

Late Jurassic

(*Pleuromya punctostriae* Tamura by Tamura (1960))

***Pleuromya wakasana* Nakazawa, 1956**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 23, no. 2, p. 239, pl. 3, figs. 1-3

Holotype: UK.JM10364 (figs. 1a-c); Paratypes: UK.JM10365 (fig. 2), UK.JM10366 (fig. 3), UK.JM10367, UK.JM10368, UK.JM10369, UK.JM10370, UK.JM10372

Nishimitsumatsu, (Takahama-cho, Oi-gun), Fukui Prefecture, Japan

N4 Formation, Nabae Group

Carnian, Triassic

***Pleuromysidia dubia* Ichikawa, 1954**

Jour. Inst. Polytech. Osaka City Univ., Ser. G, vol. 1, p. 52, pl. 1, figs. 13-14; pl. 2, figs. 1-5

Holotype: UMUT.MM5475 (pl. 1, figs. 14a, b); Paratypes: UMUT.MM5476 (pl. 1, fig. 13; pl. 2, figs. 3a, b), UMUT.MM5477 (pl. 2, fig. 2), UMUT.MM5478 (pl. 2, fig. 1), UMUT.MM5479 (pl. 2, fig. 4), UMUT.MM5486 (pl. 2, figs. 5a, b)

Loc. 51KI-29 at the roadside of Fujinohira, (Kaminaka-cho, Naka-gun), Tokushima Prefecture, Japan

Upper Member of the lower part of the Kochigatani Group

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Otapiria dubia* (Ichikawa) by Hayami (1975))

“*Pleuromysidia*” kanmerai Tamura, 1959

Mem. Fac. Educ. Kumamoto Univ., vol. 7, p. 222, pl. 2, figs. 27a-b

Holotype: GK.F319 (figs. 27a, b)

Loc. 2 at Mameguri, Shimomatsukuma-mura (Sakamoto-mura), Yatsushiro-gun, Kumamoto Prefecture, Japan

(lower part of the Kochigatani Group)

Carnian, Triassic

(*Otapiria kanmerai* (Tamura) by Hayami (1975); synonymous with *Otapiria dubia* (Ichikawa) by Ando (1988))

***Pleuronectites hirabarensis* Amano, 1955**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 17, p. 25, pl. 5, figs. 1-7

Holotype: not registered (figs. 1, 3); Paratype: not registered (fig. 2)

At a small valley near Hirabara, Omime-mura, Mine-gun (Omime-cho, Mine City), Yamaguchi Prefecture, Japan

Hirabara Formation, Mine Group

Carnian, Triassic

***Pleurophorus oblongatus* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 212, pl. 1, fig. 10

Holotype: UMUT.MM5144 (fig. 10)

Owada-Horiake in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Palaeopharus oblongatus* (Kobayashi & Ichikawa) by Tokuyama (1958))

***Pleurophorus oblongatus* var. *compressus* Kobayashi & Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 212, pl. 1, fig. 9

Holotype: UMUT.MM5145 (fig. 9)

Kashiwai in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Oxytoma-Mytilus sandstone (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(Synonymous with *Palaeopharus oblongatus* (Kobayashi & Ichikawa) by Hayami (1975))

***Plicatula dichotomocosta* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 36, p. 178, pl. 19, figs. 35-37

Holotype: UMUT.MM3234 (fig. 37); Paratypes: UMUT.MM3232 (fig. 35), UMUT.MM3233 (fig. 36), UMUT.MM3235

Loc. 7 at east of Minahara, Kamimano-mura (Minahara, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan
Nakanosawa Formation, Soma Group
Kimmeridgian, Jurassic

***Plicatula hekiensis* Nakazawa, 1955**

Mem. Fac. Sci. Univ. Kyoto, Ser. B, vol. 22, no. 2, p. 251, pl. 14, figs. 3-7

Holotype: UK.JM10246a (fig. 5); Paratypes: UK.JM10247 (fig. 6), UK.JM10248 (figs. 7a, b), UK.JM10249, UK.JM10250a (fig. 3), UK.JM10250b (fig. 4), UK.JM10251, UK.JM10252

Heki (Holotype and UK.JM10247-10248), Nakayakuno-mura (Yakuno-cho, Amata-gun); Monobe (UK.JM10250a, b), Monobe-mura (Ayabe City), Kyoto Prefecture, Japan

Heki Formation, Nabae Group

Carnian? (Carnian - (?)Norian, Triassic by Hayami (1975))

***Plicatula praenipponica* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 61, pl. 6, figs. 17-19

Holotype: UMUT.MM3406 (figs. 19a, b); Paratypes: UMUT.MM3407 (fig. 17), UMUT.MM3408, UMUT.MM3409 (fig. 18)

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Plicatula subcircularis* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 60, pl. 6, figs. 14-16

Holotype: UMUT.MM3401 (fig. 14); Paratypes: UMUT.MM3402 (fig. 15), UMUT.MM3403 (fig. 16), UMUT.MM3404

Loc. 5 at Higashinagano in the Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

***Plicatula yatsujiensis* Tamura, 1960**

Mem. Fac. Educ. Kumamoto Univ., vol. 8, p. 237, pl. 2, figs. 9-12

Holotype: UMUT.MM3621 (figs. 10, 11); Paratypes: UMUT.MM3620 (fig. 9), UMUT.MM3622 (fig. 12)

Nishikaraiwa (Holotype and UMUT.MM3620) in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture); Miyakodani (UMUT.MM3622), Sakuradani area, (Kaminaka-cho, Naka-gun), Tokushima Prefecture, Japan

Torinosu Group

Late Jurassic

***Posidonia japonica* Kobayashi & Hukasawa, 1940**

Jour. Geol. Soc. Japan, vol. 47, no. 567, p. 517, text-figs. A-D

Syntype: UMUT.MM5035a (text-fig. A), UMUT.MM5035b (text-fig. B), UMUT.MM5035c (text-fig. C), UMUT.MM5035d (text-fig. D),

At the shore east of the beak of Biwa, Shizukawa-machi, Motoyoshi-gun (Biwazaki, Utatsu-cho, Motoyoshi-gun), Miyagi Prefecture, Japan

Upper Inai series (?) (Inai Group)

Anisian?, Triassic

(*Bositra japonica* (Kobayashi & Hukasawa) by Hayami (1975))

***Posidonia kedahensis* Kobayashi, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 120, pl. 6, figs. 2-8

Holotype: Geol. Surv., Ipoh, Malaya?, not registered (fig. 4); Paratypes: other 6 specimens not registered (figs. 2, 3, 5, 6, 7, 8)

Loc. KKF22 (Holotype and two of paratypes) along the Nami-Sik and Locs. KKF6, KKF19, KKF20 along the Naka-Nami road in north Kedah, Federation of Malaya, Malaysia

Halobia shales, Upper rhythmic sediments

Carnian, Triassic

***Posidonia tawarensis* Kobayashi & Tokuyama, 1966**

Geol. Palaeont. SE Asia, vol. 3, p. 114, pl. 24, figs. 3-4

Holotype: Burton's Collection not registered (figs. 3a-c)

Loc. P-30, a tributary of the Charok Kapas Pendi in the Tawr area, Kedah Perak, Malaya, Malaysia

Triassic shell beds

Ladinian to ?Norian, Triassic

***Promyalina minuta* Nakazawa, 1961**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 27, no. 3, p. 265, pl. 13, fig. 10

Holotype: monotypy (UK.JM10707: fig. 10)

Loc. KH9 at Katsuradani, Hirobatake, Oe-cho, (Kasa-gun), Kyoto Prefecture, Japan

Lower member of Hirobatake Formation, Yakuno Group

Early Eo-Triassic (Scythian, Triassic by Hayami (1975))

***Pronoella sugayensis* Hayami, 1961**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 43, p. 121, pl. 16, figs. 14-16

Holotype: UMUT.MM3692 (fig. 16); Paratypes: UMUT.MM3690 (fig. 14), UMUT.MM3691 (fig. 15)

At the Primary School of Sugaya, Soma City, Fukushima Prefecture, Japan

3rd and 4th trigonian zones of the Yamagami Formation, Soma Group

Older than Oxfordian and probably Callovian or thereabout (Bathonian (or thereabout), Jurassic by Hayami (1975))

***Propeamussium habunokawensis* Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 344, pl. 1, figs. 14-15

Holotype: UMUT.MM7117a (fig. 14); Paratype: UMUT.MM7117b (fig. 15)

Habunokawa, Togano-mura (Habunokawa, Togano, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Yatsuji Formation, Torinosu Group

Probably Callovian to Tithonian (Late Jurassic - Berriassian, Cretaceous by Hayami (1975))

(*Variamussium habunokawense* (Kimura) by Tamura (1959); *Parvamussium habunokawense* (Kimura) by Hayami (1975))

***Prosogyrotrigonia inouyei* (Yehara) see *Trigonia Inouyei* Yehara, 1921**

***Protocardia inaii* Hayami, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 140, pl. 14, figs. 11-13

Holotype: UMUT.MM3135 (Fig. 11); Paratypes: UMUT.MM3136 (fig. 12), UMUT.MM3137 (fig. 13)

Shizuhama, Shizukawa-cho (Shizugawa-cho), Motoyoshi-gun, Miyagi Prefecture, Japan

Aratozaki Formation, Hashiura Group

Bajocian, Jurassic

(*Protocardia (Protocardia) inaii* Hayami by Hayami (1975))

***Protocardia kurumensis* Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 30, p. 194, pl. 28, figs. 5-8

Holotype: UMUT.MM2803 (fig. 5); Paratype: UMUT.MM2804 (fig. 6)

Shinatani, Omi-machi, Nishikubiki-gun, Niigata Prefecture, Japan

Shinatani Formation, Kuruma Group

Lias (Pliensbachian - Toarcian, Jurassic by Hayami (1975))

(*Protocardia (Protocardia) kurumensis* Hayami by Hayami (1975))

***Protocardia morii* Hayami, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 18, pl. 3, figs. 11-15

Holotype: UMUT.MM3574 (fig. 13); Paratypes: UMUT.MM3572b (fig. 16), UMUT.MM3575 (fig. 14), UMUT.MM3576 (fig.12), UMUT.MM3577 (fig.11), UMUT.MM3578 (fig.15)

Loc. 27 (most of specimens, except for UMUT.MM3575) at the west of Nagashioya and Loc. 25 (UMUT.MM3575) at Furumine Shrine of Oppa, Hashiura, Kitakami-mura (Kitakami-machi), Monou-gun, Miyagi Prefecture, Japan

Light grey sandstone of Tategami Member (most of types), and sandstones and shales of Tsukimine Member (only UMUT.MM3575), Jusanhama Group

Presumably Wealden, Early Cretaceous (Tithonian, Jurassic - Neocomian, Cretaceous by Hayami (1975))

(*Protocardia (Protocardia) morii* Hayami by Hayami (1975))

***Protocardia onoi* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 77, pl. 8, figs. 16-18

Holotype: UMUT.MM3463 (fig. 17); Paratypes: UMUT.MM3464 (fig. 16), UMUT.MM3465 (fig. 18)

Loc. 5 at Higashinagano, Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan
Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group

Early Lias (Sinemurian, Jurassic by Hayami (1975))

(*Protocardia (Protocardia) onoi* Hayami by Hayami (1975))

***Protocardia tosensis* Kimura, 1956**

Jour. Earth Sci. Nagoya Univ., vol. 4, no.2, p. 88, pl. 1, fig. 14

Holotype: UMUT.MM7159

Yatsuji in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Yatsuji Formation, Torinosu Group

Late Jurassic (Late Jurassic - Berriassian, Cretaceous by Hayami (1975))

(*Protocardia (Protocardia) tosensis* Kimura by Hayami (1975))

***Pseudolimea? naumanni* (Kobayashi & Ichikawa) see *Lima naumanni* Kobayashi & Ichikawa, 1949**

Pseudolimea yataensis kuredaniensis (Nakazawa) see *Lima yataensis* var. *kuredaniensis* Nakazawa, 1952

Pseudolimea yataensis yataensis (Nakazawa) see *Lima yataensis* Nakazawa, 1952

Pseudomonotis (Claraia) pulchella Nakazawa, 1953

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 4, p. 264, pl. 3, figs. 1-7

Holotype: UK.JM10047A-a (fig. 7a); Paratype: UK.JM10047A-b (fig. 4)

Chigono, Shimoyakuno-mura (Yakuno-cho), Amata-gun, Kyoto Prefecture, Japan

Lower Formation of the Yakuno Group

Scythian, Triassic

(*Claraia pulchella* (Nakazawa) by Hayami (1975))

Pseudomonotis subcycloidea Kobayashi, 1935

Japan. Jour. Geol. Geogr., vol. 12, nos. 1-2, p. 29, pl. 7, fig. 1

Holotype: UMUT.MM4221 (fig. 1) (missing, reported by Ichikawa and Hayami (1978))

Kamosho, near Asa in the Province of Nagato (Kamonosho, Asa, San'yo-cho, Asa-gun, Yamaguchi Prefecture), Japan

Pseudomonotis bed, Mine Series (Kamosho Formation, Mine Group)

Norian, Triassic

(*Monotis (Entomonotis) subcycloidea* (Kobayashi) by Hayami (1975); synonymous with *Monotis scutiformis* (Teller) by Ando (1987))

Pseudomytiloides lunaris (Hayami) see *Parainoceramus lunaris* Hayami, 1960

Pseudomytiloides matsumotoi (Hayami) see *Parainoceramus matsumotoi* Hayami, 1960

Pteria jaaferi Tamura, 1970

Geol. Palaeont. SE Asia, vol. 8, p. 140, text-fig. 2, pl. 25, figs. 10-16

Holotype: KE1049a, b (figs. 14, 15); Paratypes: KE1045a, b (fig. 8), KE1046a, b (figs. 10, 11), KE1047a, b (fig. 12), KE1048 (fig. 13), KE1050 (fig. 16)

Loc. LF26 (Holotype) and Loc. YZ9 (KE1046a, b, KE1047a, b, KE1048) in the Chegar Perah area, Pahang State, Malaya, Malaysia

"Myophoria" Sandstone

Middle Triassic

Pteria (s. l.) *kitakamiensis* Hayami, 1958

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 29, p. 163, pl. 24, figs. 10-11

Holotype: UMUT.MM2737 (fig. 11); Paratype: UMUT.MM2738 (fig. 10)

Nirano-hama, Utatsu-mura (Utatsu-cho, Motoyoshi-gun),

Miyagi Prefecture, Japan

Nirano-hama Formation, Shizukawa Group

Early Hettangian, Jurassic

(*Pteria kitakamiensis* Hayami by Hayami (1975))

Pteria masatanii Tamura, 1960

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 37, p. 224, pl. 26, figs. 19-20

Holotype: UMUT.MM3236 (figs. 19, 20)

Loc. 15 at Tatenosawa, Koike, Kamimano-mura (Koike, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan
7th zone of the Nakanosawa Formation, Soma Group
Kimmeridgian, Jurassic

"*Pteria*" *mugikawensis* Tokuyama, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 11, pl. 1, fig. 18

Holotype: UMUT.MM4515 (fig. 18)

At a point of NNE of Omine station, Mine City, Yamaguchi Prefecture, Japan

Hirabara Formation, Mine Group

Early Carnian, Triassic

(*Pteria? mugikawensis* Tokuyama by Hayami (1975))

Pteria (s. l.) *ussurica yabei* Nakazawa, 1959

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 26, no. 2, p. 197, text-fig. 2, pl. 3, figs. 1-3

Holotype: UK.JM10628a (fig. 1); Paratypes: UK.JM10629 (fig. 2), UK.JM10635 (fig. 3)

Shionosawa, Sanchu Graben, (Ueno-mura, Tano-gun), Gumma Prefecture, Japan

Shionosawa limestone

Eo-Triassic (Scythian, Triassic by Hayami (1975))

Pteroperna lingulata Tamura, 1960

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 37, p. 226, pl. 26, figs. 16-18

Holotype: UMUT.MM3248 (fig. 16); Paratypes: UMUT.MM3249 (fig. 18), UMUT.MM3250 (fig. 17)

Loc. 15 at Tatenosawa, Koike, Kamimano-mura (Koike, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan
7th zone of the Nakanosawa Formation, Soma Group
Kimmeridgian, Jurassic

Pteroperna pauciradiata Tamura, 1960

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 37, p. 226, pl. 26, figs. 1-2

Holotype: UMUT.MM3246 (fig. 1); Paratype: UMUT.MM3247 (fig. 2)

Loc. 15 at Tatenosawa, Koike, Kamimano-mura (Koike, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan
7th zone of the Nakanosawa Formation, Soma Group
Kimmeridgian, Jurassic

***Radulonectites japonicus* Hayami, 1957**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 27, p. 90, pl. 16, figs. 1-7

Holotype: UMUT.MM2689 (figs. 2a-d); Paratypes: UMUT.MM2690 (figs. 1a, b), UMUT.MM2691 (figs. 6a, b)

At the lower stream (Holotype and UMUT.MM2689) and middle stream (UMUT.MM2691) of Tsuchizawa, Kuruma, Otari-mura (Kitaotari-mura), Kitaadumi-gun, Nagano Prefecture, Japan

Tsuchizawa Formation, Kuruma Group

Lias (Pliensbachian (or thereabout), Jurassic by Hayami (1975))

***Radulonectites japonicus* var. *convexus* Hayami, 1957**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 27, p. 92, pl. 16, fig. 8

Holotype: UMUT.MM2696 (fig. 8)

At the middle stream of Tsuchizawa, Kuruma, Otari-mura (Kitaotari-mura), Kitaadumi-gun, Nagano Prefecture, Japan
Tsuchizawa Formation, Kuruma Group

Lias (Pliensbachian (or thereabout), Jurassic by Hayami (1975))

(Synonymous with *Radulonectites japonicus* Hayami by Hayami (1975))

Radulopecten nagatensis* (Kurata & Kimura) see *Chlamys nagatakensis* Kurata & Kimura, 1951**Radulopecten ogawensis* (Kimura) see *Aequipecten ogawensis* Kimura, 1951*****Sakawanella triadica* Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 246, pl. 5, figs. 1-7

Holotype: UMUT.MM5169 (figs. 1a, b); Paratypes: UMUT.MM5170 (fig. 2), UMUT.MM5171 (fig. 3), UMUT.MM5172 (fig. 4)

Okunominetani (Holotype), Oowada-Horiake (UMUT.MM5170, 5172), and Kashiwai (UMUT.MM5171) in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Oxytoma-Mytilus bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

***Scaphotrignonia somensis* Kobayashi & Tamura, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 40, pl. 1, figs. 1-3

Holotype: UMUT.MM4385 (fig. 1); Paratypes: UMUT.MM4386 (fig. 2), UMUT.MM4387 (fig. 3)

Holotype: Minahara, Kamimano-mura, Soma-gun, Province of Iwaki (Kashima-machi, Soma-gun, Fukushima Prefecture); Paratypes: Sugaya, Yamagami-mura, Soma-gun, Province of Iwaki (Sugaya, Yamakami, Soma City, Fukushima Prefecture), Japan

Sugaya Formation (Yamagami Formation, Soma Group)

Probably late Middle Jurassic (Bathonian (or thereabout), Jurassic by Hayami (1975))

***Schafhäutlia mellingi* Hauer *japonica* Ichikawa, 1950**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 250, pl. 5, figs. 8a-b

Holotype: UMUT.MM5177 (figs. 8a, b)

Shimoyama in the Sakawa basin (Shimoyama, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapecten bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Schafhaeutlia mellingi japonica* Ichikawa by Hayami (1975))

Schafhaeutlia mellingi japonica* Ichikawa see *Schafhäutlia mellingi* Hauer *japonica* Ichikawa, 1950**Schafhäutlia nakazawai* Tokuyama, 1960**

Japan. Jour. Geol. Geogr., vol. 31, nos. 2-4, p. 211, pl. 13, figs. 12-14

Holotype: UMUT.MM4593 (figs. 12a-d); Paratypes: UMUT.MM4594 (fig. 13), UMUT.MM4595 (fig. 14)

Hirabarazaka (Holotype) and Shiraiwa (Paratypes), (Omine, Mine City, Yamaguchi Prefecture), Japan

Middle (Holotype) and upper (Paratypes) Hirabarazaka Formation, Hiarabara Formation, Mine series (Mine Group)

Early Carnian, Triassic

(*Schafhaeutlia nakazawai* Tokuyama by Hayami (1975))

Schafhaeutlia nakazawai* Tokuyama see *Schafhäutlia nakazawai* Tokuyama, 1960**Solemya kobayashii* Tamura, 1960**

Mem. Fac. Educ. Kumamoto Univ., vol. 8, p. 231, pl. 2, figs. 4-5

Holotype: UMUT.MM3615 (figs. 4, 5)

Iwasa in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Torinosu Group

Late Jurassic

***Solemya suprajurensis* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 141, pl. 12, figs. 1a, b

Holotype: UMUT.MM3138 (figs. 1a, b)

At the east of Mitarai, Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M3 Member of the Mitarai Formation, Tetori Group

Callovian, Jurassic

***Somapekten kamilanensis* Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 347, pl. 1, figs. 19-20

Holotype: UMUT.MM7119 (figs. 19a, b); Paratype: UMUT.MM7120 (fig. 20)

Yasukurazawa, Kamimano-mura (Kashima-machi, Soma-gun), Fukushima Prefecture, Japan
Nakanosawa Formation, Soma Group
Probably Callovian to Tithonian (Late Jurassic (especially Kimmeridgian) by Hayami (1975))

***Somapteria koikensis* Tamura, 1960**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 37, p. 225, text-figs. 1-2, pl. 26, figs. 3-8

Holotype: UMUT.MM3242 (fig. 7); Paratypes: UMUT.MM3238 (fig. 5), UMUT.MM3239 (fig. 4), UMUT.MM3240 (fig. 8), UMUT.MM3241 (fig. 6), UMUT.MM3243, UMUT.MM3244 (fig. 3), UMUT.MM3245
Loc. 14 at Koike, Kamimano-mura (Koike, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan
8th zone of the Nakanosawa Formation, Soma Group, Japan
Kimmeridgian, Jurassic

***Somarctica abukumensis* (Tamura) see *Arctica* (*Somarctica*) *abukumensis* Tamura, 1960**

***Sphaeriola nipponica* Hayami, 1959**

Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 12, no. 1, p. 74, pl. 8, figs. 10-13

Holotype: UMUT.MM3450 (figs. 12a, b); Paratypes: UMUT.MM3451 (fig. 10), UMUT.MM3452 (figs. 11a, b), UMUT.MM3453 (fig. 13)

Loc. 5 at Higashinagano, Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan
Cardinia toriyamai bed of the Higashinagano Formation, Toyora Group
Early Lias (Sinemurian, Jurassic by Hayami (1975))

“*Streblochondria*” *matsushitai* Nakazawa, 1971

Mem. Fac. Sci. Univ. Kyoto, Ser. B, vol. 38, no. 1, p. 122, text-fig. 2, pl. 23, figs. 20-21; pl. 24, figs. 1-9, 11.

Holotype: UK.JM11237 (pl. 23, fig. 20); Paratypes: UK.JM11238 (pl. 24, fig. 6), UK.JM11239a (pl. 24, fig. 1), UK.JM11239b, UK.JM11240, UK.JM11241, UK.JM11242 (pl. 24, fig. 5), UK.JM11244, UK.JM11246 (pl. 24, fig. 3), UK.JM11247 (pl. 24, fig. 7), UK.JM11249 (pl. 23, fig. 21), UK.JM11250, UK.JM11253 (pl. 24, fig. 8), UK.JM11255 (pl. 24, fig. 4), UK.JM11256 (pl. 24, fig. 9), UK.JM11274 (pl. 24, fig. 2), UK.JM11275, UMUT.MM3952 (pl. 24, fig. 11)

Kurotaki, Nangoku City (Nankoku City, Kochi Prefecture), Japan

Kurotaki limestone (Kurotaki Formation)

Scythian, Triassic

(*Streblochondria matsushitai* Nakazawa by Hayami (1975))

***Tancredia (Paratancredia) latoniformis* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 207, pl. 35, figs. 5-7

Holotype: GK.G10144 (pl. 35, figs. 5a-c); Paratypes: GK.G10145 (pl. 35, figs. 6a-c), GK.G10146, GK.G10147 (pl.

35, fig. 7a-c), GK.G10148, GK.G10149, GK.G10150, GK.G10151, GK.G10152, GK.G10153, GK.G10154, GK.G10155, GK.G10156, GK.G10157

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

***Tancredia rostrata* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 35, p. 117, text-fig. 3, pl. 12, fig. 23

Holotype: UMUT.MM3110 (fig. 23); Paratype: UMUT.MM3111

Loc. 6 (Holotype) at Tsurubami, Kutaragi-mura (Sakamoto-mura), Yatsushiro-gun, Kumamoto Prefecture, Japan

5th horizon of the Torinosu Group

Late Jurassic

***Terquemia? malayensis* Tamura, 1973**

Geol. Palaeont. SE Asia, vol. 12, p. 141, pl. 20, figs. 5a, b, b', text-figs. 4a, b

Monotype: KE1138a, b (figs. 5a, b, b')

Loc. LF124 near Chegar Perah, Pahang State, Malaya, Malaysia

Myophoria sandstone

Anisian-earliest Ladinian, Triassic

***Tetoria (Tetoria) antiqua* (Kobayashi & Suzuki) see *Batissa antiqua* Kobayashi & Suzuki, 1937**

***Tetoria (Tetoria) yokoyamai* (Kobayashi & Suzuki) see *Batissa yokoyamai* Kobayashi & Suzuki, 1937**

***Tetorimya carinata* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 161, pl. 13, figs. 14-16

Holotype: UMUT.MM3181 (figs. 16a-c); Paratypes: UMUT.MM3182 (figs. 15a, b), UMUT.MM3183, UMUT.MM3184, UMUT.MM3185, UMUT.MM3186 (fig. 14)

At the east of Nonomata, Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M2 Member of the Mitarai Formation, Tetori Group

Callovian, Jurassic

***Thracia fukushimensis* Tamura, 1960**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 39, p. 290, pl. 33, figs. 8-10

Holotype: UMUT.MM3326 (fig. 9); Paratypes: UMUT.MM3325, UMUT.MM3327 (fig. 8), UMUT.MM3328 (fig. 10), UMUT.MM3329

Loc. 14 at Koike, Kamimano-mura (Koike, Kashima-machi), Soma-gun, Fukushima Prefecture, Japan

8th zone of the Nakanosawa Formation, Soma Group

Late Jurassic (Kimmeridgian, Jurassic by Hayami (1975))

***Thracia loducensis* Hayami, 1972**

Geol. Palaeont. SE Asia, vol. 10, p. 219, pl. 37, figs. 10-12
 Holotype: GK.G10234 (figs. 12a-c); Paratypes: GK.G10235 (figs. 11a, b), GK.G10236 (figs.10a-c), GK.G10237, GK.G10238, GK.G10239, GK.G10240, GK.G10241, GK.G10242, GK.G10243, GK.G10244, GK.G10245, GK.G10246, GK.G10247, GK.G10248, GK.G10249, GK.G10250, GK.G10251, GK.G10252, GK.G10253, GK.G10254, GK.G10255, GK.G10256, GK.G10257, GK.G10258, GK.G10259, GK.G10260, GK.G10261, GK.G10262, GK.G10263

Loc. 2 of Lo-Duc, about 30 km NNE of Saigon, Viet Nam

Lower Jurassic deposits

Toarcian, Jurassic

***Thracia shokawensis* Hayami, 1959**

Japan. Jour. Geol. Geogr., vol. 30, p. 162, pl. 13, figs. 17-19
 Holotype: UMUT.MM3188 (figs. 17a, b); Paratypes: UMUT.MM3189 (fig. 18), UMUT.MM3190, UMUT.MM3191 (fig. 19)

At the west of Mitarai (Holotype and UMUT.MM3191) and at Mitarai (UMUT.MM3189), Shokawa-mura, Ono-gun, Gifu Prefecture, Japan

M3 Member of the Mitarai Formation, Tetori Group

Callovian, Jurassic

***Thracia subrhombica* Hayami, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 30, p. 196, pl. 28, figs. 12-14

Holotype: UMUT.MM2812 (fig. 12); Paratypes: UMUT.MM2813 (fig. 14), UMUT.MM2814 (fig. 13)

Niranohama, Utatsu-mura (Utatsu-cho, Motoyoshi-gun), Miyagi Prefecture, Japan

Niranohama Formation, Shizukawa Group

Early Hettangian, Jurassic

***Tosapekten nabaensis* Nakazawa, 1952**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 98, pl. 8, figs. 1-2, 5

Holotype: UK.JM10004a (fig. 2); Paratypes: UK.JM10005, UK.JM10006a (fig. 1), UK.JM10008 (fig. 5)

Nabae (Holotype and UK.JM10006a), and Nishimitsumatsu (UK.JM10008), Takahama-cho, Oi-gun, Fukui Prefecture, Japan

Middle and upper part of N3 Formation, Nabae Group

Carnian, Triassic

(*Tosapekten suzukii nabaensis* Nakazawa by Nakazawa (1963))

***Tosapekten nabaensis* forma *distincticostatus* Nakazawa, 1952**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 100, pl. 8, figs. 6-8

Nishimitsumatsu, Takahama-cho, Oi-gun, Fukui Prefecture,

Japan

Upper part of N3 Formation, Nabae Group

Carnian, Triassic

(Synonymous with *Tosapekten suzukii nabaensis* Nakazawa by Nakazawa (1963))

***Tosapekten okadai* Nakazawa, 1952**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 100, pl. 8, figs. 3-4

Holotype: UK.JM10009a, b (figs. 3, 4)

Nishimitsumatsu, Takahama-cho, Oi-gun, Fukui Prefecture, Japan

Upper part of N3 Formation, Nabae Group

Carnian (Carnian - (?)Norian, Triassic by Hayami (1975))

(*Tosapekten suzukii okadai* Nakazawa by Tokuyama (1960))

***Tosapekten pseudohiemalis* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 169, pl. 5, fig. 19

Holotype: UMUT.MM5204 (fig. 19)

Umenokidani in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Myoconcha bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

***Tosapekten pseudohiemalis* var. *mabarus* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 170, pl. 5, fig. 20

Holotype: UMUT.MM5205 (fig. 20)

First gully of Otago in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

(lower part of Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(Synonymous with *Tosapekten pseudohiemalis* Kobayashi & Ichikawa by Tamura (1959))

Tosapekten suzukii* (Kobayashi) see *Pecten (Velopecten) suzukii* Kobayashi, 1931**Tosapekten suzukii* var. *fujimotoi* (Kobayashi) see *Pecten fujimotoi* Kobayashi, 1935*****Tosapekten suzukii* forma *hirogariformis* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 168, pl. 5, fig. 13

Holotype: UMUT.MM5199 (fig. 13)

Yamaguchi in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

(Lower part of the Kochigatani Group)

Late Triassic (Carnian - Norian, Triassic by Hayami (1975))

(Synonymous with *Tosapekten suzukii suzukii* (Kobayashi) by Hayami (1975))

***Tosapecten suzukii* var. *inflatus* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 169, pl. 5, figs. 17-18

Holotype: UMUT.MM5032 (fig.17); Paratype: UMUT.MM5203 (fig. 18) (corrected by Ichikawa and Hayami (1978))

Localities at Kuromagari (Holotype) and near Shimoyama (Paratype) in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapecten bed (lower part of the Kochigatani Group)

Late Triassic (Carnian - Norian, Triassic by Hayami (1975))

(Synonymous with *Tosapecten suzukii suzukii* (Kobayashi) by Hayami (1975))

Tosapecten suzukii nabaensis* Nakazawa see *Tosapecten nabaensis* Nakazawa, 1952**Tosapecten suzukii okadai* Nakazawa see *Tosapecten okadai* Nakazawa, 1952*****Tosapecten suzukii* var. *paucicostatus* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 169, pl. 5, fig. 16

Holotype: UMUT.MM5202 (fig. 16)

Tokombo in the Sakawa basin (Tokombo, Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Halobia bed (lower part of the Kochigatani Group)

Late Triassic (Carnian - Norian, Triassic by Hayami (1975))

(Synonymous with *Tosapecten suzukii suzukii* (Kobayashi) by Hayami (1975))

***Tosapecten suzukii* forma *regularis* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 168, pl. 5, fig. 14

Holotype: UMUT.MM5200 (fig. 14)

Kuromagari in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

(Lower part of the Kochigatani Group)

Late Triassic (Carnian - Norian, Triassic by Hayami (1975))

(Synonymous with *Tosapecten suzukii suzukii* (Kobayashi) by Hayami (1975))

***Tosapecten teradensis* Nakazawa, 1952**

Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 100, pl. 7, figs. 7-9

Holotype: UK.JM10011a, b (figs. 8, 9); Paratypes: UK.JM10012a (fig. 7), UK.JM10013

Terada, Maizuru City, Kyoto Prefecture, Japan

Lower part of N3 Formation, Nabae Group

Carnian, Triassic

Triaphorus hamadaensis* (Yabe & Shimizu) see *Myoconcha hamadaensis* Yabe & Shimizu, 1927**Triaphorus trapezoidalis* (Kobayashi & Ichikawa) see *Myoconcha trapezoidalis* Kobayashi & Ichikawa, 1950*****Trigonia hegiensis* Saeki, 1925**

Jour. Geol. Soc. Tokyo, vol. 32, no. 373, p. 35, pl. 12, figs. 1-3

Lectotype: UMUT.MM5026 (figs. 1-2) (designated by Kobayashi and Ichikawa (1952)); Paratype: UMUT.MM5027 (fig. 3)

Hegi, Nakayakuno-mura, Amata-gun, Province of Tamba (west of Nukata, Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan

(Heki Formation)

Perhaps Late Jurassic (Carnian, Triassic by Hayami (1975))

(*Minetrigonia hegiensis* (Saeki) by Kobayashi & Ichikawa (1952); *Minetrigonia hegiensis hegiensis* (Saeki) by Hayami (1975))

***Trigonia hosourensis* Yokoyama, 1904**

Jour. Coll. Sci. Imp. Univ. Tokyo, vol. 18, no. 6, p. 11, pl. 1, fig. 3

Lectotype: UMUT.MM7174 (figs. 3a, b, c: one of illustrated two specimens, designated by Hayami (1975))

Hosoura, Province of Rikuzen (Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi Prefecture), Japan

Cyrena slate (Niranohama Formation, Shizukawa Group)

Dogger (Hettangian, Jurassic by Hayami (1975))

(*Geratrigonia hosourensis* (Yokoyama) by Kobayashi & Mori (1954))

***Trigonia Inouyei* Yehara, 1921**

Jour. Geol. Soc. Tokyo, vol. 28, no. 329, p. 8, pl. 5, figs. 1-2

Syntype: UK.JM10151 (two specimens) (figs. 1, 2)

Higashi-Nagano, Province of Nagato (Higashinagano, Toyota-cho, Toyoura-gun, Yamaguchi Prefecture), Japan

(Higashinagano Formation, Toyora Group)

Lias (Sinemurian, Jurassic by Hayami (1975))

(*Prosogyrotrigonia inouyei* (Yehara) by Kobayashi and Mori (1954))

***Trigonia (Minetrigonia) katayamai* Kobayashi & Ichikawa, 1949**

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 184

Syntype: UMUT.MM4238, UMUT.MM4239 (= Proc. Imp. Acad. Tokyo, vol. 14, no. 5, p. 188, text-figs. 1-2, designated by Kobayashi and Ichikawa (1949)) (missing, reported by Ichikawa and Hayami (1978))

(Mugikawa, Mine City, Yamaguchi Prefecture, Japan)

(Hirabara Formation, Mine Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

(*Minetrigonia katayamai* (Kobayashi & Ichikawa) by

Ichikawa (1954))

Trigonia Sagawai Yehara, 1927

Japan. Jour. Geol. Geogr., vol. 5, nos. 1-2, p. 34, pl. 3, fig. 10
Holotype: monotypy (UK. not registered) (figs. 10, 10a)

Kambaradani, Kusaka-mura, Province of Tosa (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan

Torinosu Group

Late Jurassic (Bajocian - Tithonian, Jurassic by Hayami (1975))

(*Nipponitrigonia sagawai* (Yehara) by Kobayashi (1954); *Nipponitrigonia sagawai sagawai* (Yehara) by Hayami (1975))

Trigonia senex Kobayashi & Mori, 1954

Japan. Jour. Geol. Geogr., vol. 25, nos. 3-4, p. 167, pl. 16, figs. 8a-b

Holotype: monotypy (UMUT.MM4305: figs. 8a, b)

Niranohama, near Shizukawa-cho, Motoyoshi-gun Province of Rikuzen (Niranohama, Utatsu-cho, Motoyoshi-gun, Miyagi Prefecture), Japan

Trigonian sandstone of the Niranohama beds, Shizukawa series (Niranohama Formation, Shizukawa Group)

Hettangian, Jurassic

Trigonia (Lyriodon) sumiyagura Kobayashi & Kaseno, 1947

Japan. Jour. Geol. Geogr., vol. 20, nos. 2-4, p. 42, pl. 10, figs. 1-2

Holotype: UMUT.MM4301 (figs. 1-2)

Seashore, northwest of Kosaba, Karakuwa-mura (Karakuwa-cho), Motoyoshi-gun, Province of Rikuzen (Miyagi Prefecture), Japan

Kosaba sandstone, Karakuwa series (Kosaba Formation, Karakuwa Group)

Liassic (Bajocian, Jurassic by Kobayashi and Mori (1954))

(*Trigonia sumiyagura Kobayashi & Kaseno* by Kobayashi and Mori (1954))

Trigonia sumiyagura Kobayashi & Kaseno* see *Trigonia (Lyriodon) sumiyagura Kobayashi & Kaseno, 1947

Trigonia Toyamai Yehara, 1923

Japan. Jour. Geol. Geogr., vol. 2, no. 3, p. 78, pl. 9, figs. 4-5

Syntype: UK.? not registered (two specimens) (figs. 4, 5)

Nioigatake and Yoshidayashiki and Torinosu, Sakawa-cho, (Takaoka-gun, Kochi Prefecture), Japan

Torigonia Sandstone of Ryoseki-Torinosu-Series (Torinosu Group by Hayami (1975))

Early Cretaceous (Late Jurassic by Kobayashi (1954))

(*Linotrigonia toyamai* (Yehara) by Kobayashi (1954);

Linotrigonia (Linotrigonia) toyamai (Yehara) by Hayami (1975))

Trigonia yeharai Saeki, 1925

Jour. Geol. Soc. Tokyo, vol. 32, no. 373, p. 36, pl. 12, figs. 4-5

Holotype: UMUT.MM5028 (figs. 4, 5)

Hegi, Nakayakuno-mura, Amata-gun, Province of Tamba (west of Nukata, Heki, Yakuno-cho, Amata-gun, Kyoto Prefecture), Japan

(Heki Formation)

Perhaps Late Jurassic (Carnian, Triassic by Hayami (1975))

(Synonymous with *Minetrigonia hegiensis* (Saeki) by Kobayashi & Ichikawa (1952); *Minetrigonia hegiensis hegiensis* (Saeki) by Hayami (1975))

Trigonodus? hashimotoi Ichikawa, 1954

Jour. Inst. Polytech. Osaka City Univ., Ser. G, vol. 2, p. 59, pl. 3, figs. 8-10

Holotype: UMUT.MM5484a (fig. 10); Paratypes: UMUT.MM5484b (fig. 9), UMUT.MM5485 (fig. 8)

Ura of Usugatani in the Sakuidadani area (Usugatani, Kaminaka-cho, Naka-gun), Tokushima Prefecture, Japan

Lower part of the Kochigatani Group

Late Triassic (Carnian, Triassic by Hayami (1975))

Trigonucula sakawana Ichikawa, 1949

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 268, pl. 10, figs. 1-3

Holotype: UMUT.MM5242 (fig. 1); Paratype: UMUT.MM5243 (figs. 2, 3)

Umenokidani in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Myoconcha bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))

Trigonucula sakawana Ichikawa var. inequilatera Ichikawa, 1954

Japan. Jour. Geol. Geogr., vol. 25, nos. 3-4, p. 183, pl. 17, figs. 7a-b

Holotype: UMUT.MM5438 (figs. 7a, b)

Loc. 3a at ten and several meters to the east of the Loc. 3 (about 40m to the east of Loc. 2 along the small ridge to the north of the M-valley) near Itsukaichi, Tokyo Prefecture

(Iwai, Hinode-machi, Nishitama-gun, Tokyo Prefecture), Japan

Halobia-bearing formation of the lower part of Kochigatani Group

Early Neo-Triassic (Carnian, Triassic by Hayami (1975))

(*Trigonucula sakawana Ichikawa* by Hayami (1975))

Trigonucula sakawana var. lata Ichikawa, 1949

Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 269, pl. 10, fig. 6

Holotype: UMUT.MM5245 (fig. 6)

Kuromagari in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Tosapekten bed (lower part of the Kochigatani Group)

Late Triassic (Carnian, Triassic by Hayami (1975))
(*Trigonucula sakawana* Ichikawa by Hayami (1975))

***Trigonucula sakawana* var. *tokombensis* Ichikawa, 1949**
Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 269, pl. 10, figs. 4-5

Holotype: UMUT.MM5244 (figs. 4, 5)
Kasayadani in the Sakawa basin (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan

Halobia bed (lower part of the Kochigatani Group)
Late Triassic (Carnian, Triassic by Hayami (1975))
(*Trigonucula sakawana* Ichikawa by Hayami (1975))

***Tutcheria itoi* Hayami, 1969**

Trans. Proc. Palaeont. Soc. Japan, N.S. no. 73, p. 28, pl. 3, figs. 1-5

Holotype: GK.G6859 (figs. 2a-b, 3); Paratypes: GK.G6860, GK.G6861 (fig.3), GK.G6862 (figs. 1a, b), GK.G6863 (figs. 4a, b), GK.G6864 (fig. 5a), GK.G6865 (figs. 5a-c)

Loc. It.108, Higashinagano, Toyoda-cho, Toyoda-gun (Toyota-cho, Toyoura-gun), Yamaguchi Prefecture, Japan
Basal part of the Higashinagano Formation, Toyora Group
Sinemurian, Jurassic

***Unio ogamigoensis* Kobayashi & Suzuki, 1937**

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 41, pl. 4, fig. 16

Holotype: UMUT.MM7001 (fig. 16)
Ogamigo, Hida Province (Okamigo, Shokawa-mura, Ono-gun, Gifu Prefecture), Japan
Tetori series (Tetori Group, horizon uncertain, mentioned by Hayami (1975))

Late Jurassic (Late Jurassic (or Early Cretaceous) (precisely unknown) by Hayami (1975))

(*Unio? ogamigoensis* Kobayashi & Suzuki by Hayami (1975))

***Unio thailandica* Hayami, 1968**

Geol. Palaeont. SE Asia, vol. 4, p. 101, pl. 19, figs. 10-11
Holotype: UMUT.MM3895 (figs. 10a, b, c); Paratype: UMUT.MM3896 (figs. 11a, b)

Wat Raeri, Amphoe Khonsa, Changwat Chaiyapum, Thailand
Phu Kadung Formation, Khorat Group
Early Jurassic

Unionites carinatus (Kobayashi & Ichikawa) see *Anodontophora carinata* Kobayashi & Ichikawa, 1950

Unionites kochigataniensis (Kobayashi & Ichikawa) see *Anodontophora kochigataniensis* Kobayashi & Ichikawa, 1950

Unionites? takiguchiensis (Tokuyama) see *Anodontophora takiguchiensis* Tokuyama, 1960

Unionites trigona (Nakazawa) see *Anodontophora trigona* Nakazawa, 1964

Variamussium habunokawense (Kimura) see *Propeamussium habunokawensis* Kimura, 1951

***Vaugonia ariminensis* Maeda & Kawabe, 1963**

Jour. Coll. Arts and Sci. Chiba Univ., Nat. Sci., vol. 4, no. 1, p. 57, pl. 1, fig. 1

Holotype: CU.R.I-14 (fig. 1)

Inodedani, Oyama-machi, (Kaminiikawa-gun), Toyama Prefecture, Japan

Magawa sandstone and conglomerate (Magawa Formation), Kuzuryu Subgroup, Tetori Group

Jurassic (Oxfordian, Jurassic by Hayami (1975))

(*Vaugonia* (*Vaugonia*) *ariminensis* Maeda & Kawabe by Hayami (1975))

***Vaugonia awazuensis* Kobayashi, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 39, pl. 1, fig. 4
Holotype: monotypy (UMUT.MM4384) (fig. 4)

West valley of Ono, Ono-mura in Soma District (Ono, Soma City, Fukushima Prefecture), Japan

Awazu Formation, Soma Group

Probably Middle Jurassic (Bajocian (or thereabout), Jurassic by Hayami (1975))

(*Vaugonia* (*Vaugonia*) *awazuensis* Kobayashi by Hayami (1975))

***Vaugonia fukuiensis* Maeda, 1962**

Jour. Coll. Arts and Sci. Chiba Univ., Nat. Sci., vol. 3, no. 4, p. 515, pl. 1, figs. 1-16; pl. 2, figs. 2-16

Holotype: CU.R. no. 627703 (pl. 1, figs. 1-4); Paratypes: CU.R. no. 627708 (pl. 1, fig. 9), CU.R. no. 627723 (pl. 1, fig. 5)

Aradani, Nishidani-mura, Ono-gun (Aradani, south of Kurotodo, Ono City), Fukui Prefecture, Japan

Yambarazaka alternation (Yambarazaka Formation), Kuzuryu Subgroup, Tetori Group

Jurassic (Oxfordian, Jurassic by Hayami (1975))

(*Vaugonia* (*Vaugonia*) *fukuiensis* Maeda by Hayami (1975))

***Vaugonia* (*Hijitrigonia*) *geniculata* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 84, pl. 4, figs. 4-9

Holotype: UMUT.MM4337 (fig. 5); Paratypes: UMUT.MM4336 (fig. 4), UMUT.MM4338 (fig. 6), UMUT.MM4339 (fig. 7), UMUT.MM4340 (fig. 8) (missing, reported by Ichikawa and Hayami (1978)), UMUT.MM4341 (fig. 9)

Akaiwazaki (Holotype and UMUT.MM4336-4340), Hosoura in the Shizukawa area (Shizugawa-cho, Motoyoshi-gun); Aikawasawa (UMUT.MM4341), Jusanhama in the Hashiura area, Kitakami-cho, Monou-gun, Province of Rikuzen (Miyagi Prefecture), Japan

Aratozaki Formation, (Hashiura Group)

Hettangian - Bajocian (Bajocian, Jurassic by Hayami (1975))

***Vaugonia kodaijimensis* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 82, pl. 3, figs. 12-15

Holotype: UMUT.MM4329 (fig. 13); Paratypes: UMUT.MM4328 (fig. 12), UMUT.MM4330 (fig. 14), UMUT.MM4331 (fig. 15)

Kodaijima, Ojika Peninsula, Ishinomaki City, Province of Rikuzen (Miyagi Prefecture), Japan

Kodaijima Formation, (Ojika Group)

Hettangian - Bajocian (Bajocian, Jurassic by Hayami (1975))

(*Vaugonia* (*Vaugonia*) *kodaijimensis* Kobayashi & Mori by Hayami (1975))

***Vaugonia (Hijitrigonia) kojiwa* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 85, pl. 4, figs. 2-3

Holotype: UMUT.MM4342 (fig. 2); Paratype: UMUT.MM4343 (fig. 3)

Yokokurazawa, Jusanhama-mura in the Hashiura area (Kitakami-cho, Monou-gun), Province of Rikuzen (Miyagi Prefecture), Japan

Niranohama Formation, (Shizukawa Group)

Hettangian - Bajocian (Hettangian, Jurassic by Hayami (1975))

***Vaugonia kuzuryuensis* Maeda, 1963**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 49, p. 5, pl. 1, fig. 10

Holotype: DESC.R.no.61121513 (fig. 10)

At Taniyamadani, Izumi-mura, Ono-gun, Fukui Prefecture, Japan

Yambarazaka alternation (Yambarazaka Formation), Kuzuryu Subgroup, Tetori Group

Oxfordian, Jurassic

***Vaugonia namigashira* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 83, pl. 3, figs. 10-11

Holotype: UMUT.MM4333 (fig. 11); Paratype: UMUT.MM4332 (fig. 10)

Hoinyashiki, Hosoura in the Shizukawa area, (Shizugawa-cho, Motoyoshi-gun), Province of Rikuzen (Miyagi Prefecture), Japan

Niranohama Formation, (Shizukawa Group)

Hettangian - Bajocian, Jurassic

(*Vaugonia* (*Vaugonia*) *namigashira* Kobayashi & Mori by Hayami (1975))

***Vaugonia niranohamensis* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 80, pl. 3, figs. 1-4; pl. 4, fig. 1

Holotype: UMUT.MM4323 (pl. 4, fig. 1); Paratypes: UMUT.MM4317 (pl. 3, fig. 1), UMUT.MM4318 (pl. 3, fig. 2), UMUT.MM4319 (pl. 3, fig. 3), UMUT.MM4320 (pl. 3, fig. 4)

Niranohama (Holotype), Utatsu-cho, Motoyoshi-gun; north coast of Bentenzaki (UMUT.MM4317) and Hosoura (UMUT.MM4320), Shizugawa-cho, Motoyoshi-gun; Tonokizawa (UMUT.MM4318) and Oiwasawa (UMUT.MM4319), Jusanhama, Kitakami-cho, Monou-gun, Province of Rikuzen (Miyagi Prefecture), Japan

Niranohama Formation (Holotype and UMUT.MM4320) and Hosoura Formation (UMUT.MM4318-4319) and Aratozaki Formation (UMUT.MM4317), Shizukawa Group

Hettangian - Bajocian, Jurassic

(*Vaugonia* (*Vaugonia*) *niranohamensis* Kobayashi & Mori by Hayami (1975))

***Vaugonia niranohamensis* forma *irregularis* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 80, pl. 3, figs. 5-6

Syntype: UMUT.MM4321 (fig. 5), UMUT.MM4322 (fig. 6)

Gongenzaki (UMUT.MM4321) and Hosoura (UMUT.MM4322), Shizugawa-cho, Motoyoshi-gun, Province Rikuzen (Miyagi Prefecture), Japan

Aratozaki Formation, Shizukawa Group

Hettangian - Bajocian, Jurassic

(Synonymous with *Vaugonia* (*Vaugonia*) *niranohamensis* Kobayashi & Mori by Hayami (1975))

***Vaugonia yambaraensis* Kobayashi, 1956**

Japan. Jour. Geol. Geogr., vol. 27, no. 1, p. 1, pl. 1, figs. 1a-b

Holotype: monotypy (UMUT.MM4366) (figs. 1a, b)

Yambara, Shimoanama-mura, Ono-gun, Province of Echizen (Yambara, Shimoanama, Izumi-mura, Ono-gun, Fukui Prefecture), Japan

Yambara conglomeratic sandstone at the base of the Itoshiro division of the Tetori series (Yambara Formation, Tetori Group)

Not older than Kimmeridgian (Late Jurassic (not older than Oxfordian) by Hayami (1975))

(*Vaugonia* (*Vaugonia*) *yambaraensis* Kobayashi by Hayami (1975))

***Vaugonia yokoyamai* Kobayashi & Mori, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 81, pl. 3, figs. 7-8

Syntype: UMUT.MM4324 (fig. 7), UMUT.MM4325 (fig. 8, right), UMUT.MM4326 (fig. 8, left)

Hoinyashiki near Hosoura, Shizukawa-cho (Shizugawa-cho), Motoyoshi-gun, Province of Rikuzen (Miyagi Prefecture),

- Japan
Niranohama sandstone (Aratozaki Formation, Hashiura Group)
Hettangian - Bajocian, Jurassic
(Synonymous with *Vaugonia (Vaugonia) namigashira Kobayashi & Mori* by Hayami (1975))
- Vaugonia yokoyamai forma gracilis Kobayashi & Mori, 1955***
Japan. Jour. Geol. Geogr., vol. 26, nos. 1-2, p. 81, pl. 3, fig. 9
Holotype: monotypy (UMUT.MM4327)
Hoinyashiki, Hosoura, (Shizugawa-cho), Motoyoshi-gun, Province of Rikuzen (Miyagi Prefecture), Japan
Niranohama sandstone (Aratozaki Formation, Hashiura Group)
Hettangian - Bajocian, Jurassic
(Synonymous with *Vaugonia (Vaugonia) namigashira Kobayashi & Mori* by Hayami (1975))
- “*Velata*” *infrequens Kobayashi & Ichikawa, 1949***
Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 163, pl. 5, fig. 21.
Holotype: UMUT.MM5208 (fig. 21)
Kanaidani in the Sakawa basin, Shikoku (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan
Entomonotis bed (upper part of the Kochigatani Group)
Late Triassic (Norian, Triassic by Hayami (1975))
(*Eopecten?* *infrequens (Kobayashi & Ichikawa)* by Hayami (1975))
- Velata maizurensis Nakazawa, 1952***
Mem. Coll. Sci. Univ. Kyoto, Ser. B, vol. 20, no. 2, p. 97, pl. 7, figs. 3-6
Holotype: UK.JM10022a-b (figs. 3, 4); Paratypes: UK.JM10023a (fig. 6), UK.JM10024 (fig. 5), UK.JM10025, UK.JM10026
Shinmachi (Holotype), Maizuru City; Heki (UK.JM10024), Nakayakuno-mura (Yakuno-cho, Amata-gun); Miuchi (UK.JM10023a), (Fukuchiyama City), Kyoto Prefecture, Japan
N2 and N4 Formations, Nabae Group, and uppermost part of the lower bed of the Heki Formation
Carnian, Triassic
(*Eopecten maizurensis (Nakazawa)* by Hayami (1975))
- Velata puncta Kimura, 1951***
Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 6-10, p. 348, pl. 1, fig. 21
Holotype: UMUT.MM7125 (fig. 21)
Mimikire, Sakawa-cho, (Takaoka-gun), Kochi Prefecture, Japan
Torinosu Group
Probably Callovian to Tithonian (Late Jurassic by Hayami (1975))
- (*Eopecten punctus (Kimura)* by Tamura (1959))
- “*Velata*” *sumeriensis Kobayashi & Ichikawa, 1949***
Japan. Jour. Geol. Geogr., vol. 21, nos. 1-4, p. 164, pl. 5, figs. 22
Holotype: UMUT.MM5209 (fig. 22)
Sumeri near Sakawa (Sakawa-cho, Takaoka-gun), Kochi Prefecture, Japan
Tosapecten bed (?) (lower part of the Kochigatani Group)
Late Triassic (Carnian, Triassic by Hayami (1975))
(*Eopecten?* *sumeriensis (Kobayashi & Ichikawa)* by Hayami (1975))
- Volsella bakevelloides Hayami, 1958***
Trans. Proc. Palaeont. Soc. Japan, N.S. no. 29, p. 156, pl. 23, figs. 1-3
Holotype: UMUT.MM2719 (fig. 1)
Niranohama, Utatsu-mura (Utatsu-cho, Motoyoshi-gun), Miyagi Prefecture, Japan
Niranohama Formation, Shizukawa Group
Early Hettangian, Jurassic
(*Modiolus bakevelloides (Hayami)* by Hayami (1958))
- Volsella paronaiiformis Kobayashi & Ichikawa, 1950***
Jour. Fac. Sci. Univ. Tokyo, Ser. 2, vol. 7, nos. 3-5, p. 210, pl. 1, fig. 1
Holotype: UMUT.MM5133 (fig. 1)
Umenokidani in the Sakawa basin (Sakawa-cho, Takaoka-gun, Kochi Prefecture), Japan
Myoconcha sandstone (lower part of the Kochigatani Group)
Late Triassic (Carnian, Triassic by Hayami (1975))
(*Modiolus paronaiiformis (Kobayashi & Ichikawa)* by Hayami (1975))
- Waagenoperna ozawai (Kobayashi)* see *Edentula ozawai Kobayashi, 1935***
- Waagenoperna triangularis (Kobayashi & Ichikawa)* see *Edentula (?) triangularis Kobayashi & Ichikawa, 1952***
- Yokoyamaina hayamii Keen & Casey, 1969* (nom. nov.)**
Treatise on invertebrate paleontology. Part N (vol.2 of 3), Geol. Soc. America and Univ. Kansas, p. N668, fig. E140-12
Hettangian, Jurassic
(See *Cyrena elliptica Yokoyama, 1904*; *Integricardium (Yokoyamaina) hayamii (Keen & Casey)* by Hayami (1972))

Cretaceous Bivalvia

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Acanthotrigonia higoensis Tamura and Tashiro, 1967

Mem. Fac. Educ. Kumamoto Univ., no.15, nat. sci., p. 17, pl. 1, figs. 14-17, text-fig. 2

Holotype: KE1725 (pl. 1, fig. 15)

At road side east of Kawauchi, Yabe-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group (Mitakeyama Formation) in Yabe area

Turonian (Cenomanian), Cretaceous

(*Pterotrigonia* (*Acanthotrigonia*) *higoensis* (Tamura and Tashiro) by Hayami (1975); *Pterotrigonia* (*Ptilotrigonia*) *higoensis* (Tamura and Tashiro) by Tashiro and Matsuda (1983))

Acanthotrigonia mashikensis Tamura and Tashiro, 1967

Mem. Fac. Educ. Kumamoto Univ., no. 15, nat. sci., p. 19, pl. 1, figs. 1-7, text-fig. 2

Holotype: KE1712 (pl.1, fig. 3)

Itoishi, Toyono-mura, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Toyono area

Cenomanian, Cretaceous

(*Pterotrigonia* (*Acanthotrigonia*) *mashikensis* (Tamura and Tashiro) by Hayami (1975); *Pterotrigonia* (*Ptilotrigonia*) *mashikensis* (Tamura and Tashiro) by Tashiro and Matsuda (1983))

Acanthotrigonia mifunesis Tamura and Tashiro, 1967

Mem. Fac. Educ. Kumamoto Univ., no. 15, nat. sci., p. 20, pl. 1, figs. 8-13, text-fig. 2

Holotype: KE1719 (pl. 1, fig. 10)

Itoishi, Toyono-mura, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Toyono area

Cenomanian, Cretaceous

(*Pterotrigonia* (*Acanthotrigonia*) *mifunesis* (Tamura and Tashiro) by Hayami (1975); *Pterotrigonia* (*Ptilotrigonia*) *mifunesis* (Tamura and Tashiro) by Tashiro and Matsuda (1983))

Acanthotrigonia moriana (Yehara) see *Trigonia moriana* Yehara, 1927

Acanthotrigonia yeharai (Nakano and Numano) see *Pterotrigonia* (*Rinetrigonia*) *yeharai* Nakano and Numano, 1961

Acesta goliathiformis (Hayami) see *Plagiostoma* (*Acesta*) *goliathiformis* Hayami, 1965

Acesta kasabensis Tashiro and Tanaka, 1993

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol. vol. 14, p. 6, pl. 2, figs.1-3

Holotype: KSG4385 (pl. 2, fig. 3), Paratype: KSG4386 (pl. 2, figs. 1, 2)

Loc. 1 at Kasabe, Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture

Kasabe Formation in Gokase area

Aptian, Cretaceous

Acila (*Truncacila*) *himenouremis* Tashiro, 1994

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 15, p. 7

Holotype: KE2007 (see Tashiro (1976, pl. 1, fig.13: *Acila* (*Truncacila*) *hokkaidoensis* Nagao))

Loc. A6 at Wadanohama, Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture

Lower Himenoura Subgroup – Middle Formation of the Upper Himenoura Subgroup in Amakusa area

Coniasian - Maastrichtian, Cretaceous

Acila (*Truncacila*) *hokkaidoensis* (Nagao) see *Nucula* (*Acila*) *hokkaidoensis* Nagao, 1932

Acila (*Truncacila*) *monobensis* Tashiro and Matsuda, 1982

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 127, p. 397, pl. 62, figs. 1-6, 8-10, text-fig. 4

Holotype: KSG3101 (pl. 62, fig. 1), Paratypes: KSG3102 (pl. 62, fig. 2), KSG3103 (pl. 62, fig. 3), KSG3104 (pl. 62, fig. 4), KSG3105, KSG3106, KSG3107 (pl. 62, fig. 9), KSG3108, KSG3109 (pl. 62, fig. 9)

At the southern bank of the Monobe River at and near the Nagae Dam, about 1500 m northwest of Odochi, Monobe area, Kochi Prefecture

Upper member of the Fukigoshi Formation in Monobe area

Lower Cenomanian, Cretaceous

Acila (*Truncacila*) *pusilla* Tashiro, 1976

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 36, pl. 1, figs. 19a-19c, text-fig. 11

Holotype: KE2022 (pl. 1, fig. 19), Paratype: KE2023

Loc. A6 at Wadanohama of Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture

Lower Formation of the Lower Himenoura Subgroup in Amakusa area

Upper Urakawan (Santonian), Cretaceous

Acila (*Truncacila*) *shimajimensis* Tashiro, 1976

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 37, pl. 1, figs. 20-25, text-fig. 12

Holotype: KE2024 (pl. 1, fig. 20), Paratypes: KE2025 (pl. 1, fig. 21), KE2026, KE2027 (pl. 1, fig. 22), KE2028 (pl. 1, fig.

23)

Loc. O24 (Holotype and Paratype (KE2025)) at Kamihira and Loc. O21 (Paratypes: KE2027, KE2028) about 150 m northwest of Hongo of Miyanakawachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture
Upper and Uppermost Formation of the Upper Himenoura Subgroup in Amakusa area
Upper Hetonaian (Maastrichtian), Cretaceous

***Acila (Truncacila) tomiuchiensis* Tashiro, 1994**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol. vol. 15, p. 8, pl. 1, figs. 17, 18

Holotype: KSG4430 (pl. 1, fig. 17), Paratypes: KSG4431 (pl. 1, fig. 18), KSG4432, KSG4433

Panke-tosanosawa of Tomiuchi, Hobetsu-cho, Yufutsu-gun, Hobetsu area, Hokkaido

Hakobuchi Group in Hobetsu area

Upper Campanian, Cretaceous

***Acila (Truncacila) yoshidai* Tashiro and Otsuka, 1980**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 1, p. 44, pl. 1, figs. 8-9, text-fig. 3

Holotype: KSG2136 (pl. 1, fig. 9), Paratypes: KSG2137, KSG2138, KSG2139, KSG2140

Loc. 1 at roadside exposure, about 2 km west of Nishikone, Miyanakawachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Upper Himenoura Subgroup in Amakusa area

Upper Hetonaian (Maastrichtian), Cretaceous

***Actinoceramus nipponicus* (Nagao and Matsumoto) see *Inoceramus concentricus* Parkinson var. *nipponicus* Nagao and Matsumoto, 1939**

***Actinoceramus tamurai* (Matsumoto and Noda) see *Birostrina tamurai* Matsumoto and Noda, 1986**

***Aequipecten kesadoensis* Tashiro, 1990**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 11, p. 10, pl. 1, figs. 15-18, text-fig. 6

Holotype: KSG5040 (pl. 1, fig. 15), Paratypes: KSG5041 (pl. 1, fig. 18), KSG5042 (pl. 1, fig. 16), KSG5043 (pl. 1, fig. 17)

Loc. 2 about 1200 m north of Shimofukami of Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture

Kesado Formation in Sakamoto area

Upper Barremian or Lower Aptian, Cretaceous

***Aequipecten vulgaris* Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, Vol. 7, p. 342, pl. 1, figs. 5-6

Holotype: UMUT MM7114 (pl.1, fig.5a, b), Paratype: UMUT MM7115 (pl. 1, fig. 6a, b)

Arinoki, Sakawa-machi, Takaoka-gun, Kochi Prefecture

Torinosu Group in Sakawa area

Upper Jurassic (Uppermost Jurassic to Valanginian, Cretaceous by Tashiro (1992))

***Agapella hyugaensis* Tashiro and Tanaka, 1993**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol. vol. 14, p. 10, pl. 3, figs. 2-4

Holotype: KSG4420 (pl. 3, fig. 2), Paratypes: KSG4421 (pl. 3, figs. 3, 4), KSG4422

Loc. 1 (Holotype and Paratypes: KSG4420-4422) at Kasabe, Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture

Kasabe Formation in Gokase area

Aptian, Cretaceous

***Agapella (?) koikorobensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol.17, no. 2, p. 144, pl. 20, fig. 14

Holotype: GK.H6495 (pl. 20, fig. 14)

Loc. Hn.0803 at Koikorobe, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Tanohata Formation in Tanohata area

Lower Miyakoan (Aptian), Cretaceous

***Agnomyax elegans* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 67, pl. 9, figs. 1-4

Holotype: KE2194 (pl. 9, fig. 3), Paratypes: KE2195 (pl. 9, fig. 2), KE2196 (pl. 9, fig. 1)

Loc. O21 (Holotype and Paratype: KE2195) about 150 m northwest of Hongo and Loc. O24 (Paratype:KE2196) at Kamihira of Miyanakawachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Upper Formation of the Upper Himenoura Subgroup in Amakusa-Shimojima area

Upper Hetonaian (Maastrichtian), Cretaceous

***Aguilerella (Yoshimopsis) nagatoensis* (Ohta) see *Bakevelloides (Yoshimopsis) nagatoensis* Ohta, 1974**

***Aguilerella quadrata* (Nakazawa and Murata) see *Cuneigervillia quadrata* Nakazawa and Murata, 1966**

***Alectryonia cf. carinata* Lamarck: Yokoyama, 1890**

Palaeontographica, Bd. 36, p. 198

Miyako Group (Hiraiga Formation) in Tanohata area, Oshima Formation in Oshima area, Ishido Formation and "Kawarazawa Formation" in Sanchu area, Arida Formation in Arida area, Monobe Formation in Monobe area, Haidateyama Formation in Haidateyama area, Hachiryuzan Formation in Sakamoto area, and Choshi Formation in Choshi area

Upper Neocomian-Albian (Upper Hauterivian by Tashiro and Kozai (1986)), Cretaceous

***(Lopha (Arctostrea) carinatum* (Lamarck) by Hayami (1965); *Rastellum (Arctostrea) carinatum* (Lamarck) by Hayami (1975))**

***Aloidis (Caryocorbula) higoensis* Matsumoto, 1938**

Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 19, pl. 2, fig. 8, text-fig. 9

Lectotype designated by Ota (1964, p. 153): UMUT MM7755 (pl. 2, fig. 8), Para-lectotype: UMUT MM7841 (text-fig. 9b), UMUT MM7844 (text-fig. 9a)

A locality 2 km south of Miyaji, Yatsushiro City, Kumamoto Prefecture (32°29'N, 130°39'E) by Ohta (1964))

Hinagu Formation in Yatsushiro area..

Aptian - Cenomanian, Cretaceous

(*Pulsidis higoensis* (Matsumoto) by Ota (1964))

***Amakusatapes ovatus* Tashiro and Otsuka, 1982**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 3, p.16, pl. 3, figs. 8-9, pl. 4, figs. 6-16, text-figs. 4-5

Holotype: KSG3031 (pl. 4, fig. 6), Paratypes: KSG3032, KSG3033 (pl. 4, fig. 10), KSG3034 (pl. 4, fig. 9), KSG3035 (pl. 4, fig. 8), KSG3036 (pl. 4, fig. 11), KSG3037, KSG3038, KSG3039 (pl. 4, fig. 16), KSG3040 (pl.4, fig. 15), KSG3041, KSG3042

At roadside exposure of Tobashida, Oniki-machi, Ushibuka City, Kumamoto Prefecture

Uppermost Formation of the Upper Himenoura Subgroup in Amakusa area

Maastrichtian, Cretaceous

Amphidonte (Amphidonte) subhaliotoidea* (Nagao) see *Exogyra subhaliotoidea* Nagao, 1934**Amphidonte (Ceratostreaon) yabei* (Nagao) see *Exogyra yabei* Nagao, 1934*****Amygdalum ishidoense* (Yabe and Nagao) see *Modiola* (?) *ishidoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926*****Anomia foldia* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 110, pl. 1, figs. 8-22

Holotype: KE2469 (pl. 1, fig. 8a, b, c)

Loc. 12 at the east of Kawauchida, Mashiki-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Middle Cenomanian, Cretaceous

***Anomia hataei* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 56, pl. 4, figs. 12-16

Holotype: KE2124 (pl. 4, fig. 14), Paratypes: KE2122 (pl. 4, fig. 12), KE2123 (pl. 4, fig. 13), KE2125 (pl. 4, fig. 15), KE2126 (pl. 4, fig. 16)

Loc. O21 (Holotype and Paratypes) about 150 m northwest of Hongo, Miyanakawachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Upper Formation of the Upper Himenoura Subgroup in

Amakusa area

Upper Hetonaian (Maastrichtian), Cretaceous

***Anomia linensis* Whiteaves: Matsumoto, 1932**

Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 14, text-fig. 3, pl.1, fig. 4

Goshonoura Group in Goshonoura island, Goshoura-machi, Amakusa-gun, Kumomoto Prefecture

(*Placunopsis* sp. aff. *P. linensis* (Whiteaves) by Hayami (1975))

***Anomia pseudotruncata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 62, pl. 12, figs. 26, 27, pl. 13, figs. 26, 27, 36, 37

Syntype: IGPS no. 22522

Bomeki of Ohinata, Saku-machi, Minamisaku-gun, Nagano Prefecture

Shiroi Formation in Sanchu area

Neocomian (Hauterivian by Tashiro (1992)), Cretaceous

(*Placunopsis pseudotruncata* (Yabe and Nagao) by Hayami (1975))

***Anomia (Paraplacuna) reticularis* Tashiro and Otsuka, 1980**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 1, p. 54, pl. 3, figs. 10-12, pl. 4, figs. 3-8

Holotype: KSG2200 (pl. 3, fig. 10), Paratypes: KSG2201 (pl. 3, fig. 11), KSG2202 (pl. 3, fig. 12; pl. 4 fig. 3), KSG2203, KSG2204, KSG2205 (pl. 4, fig. 5), KSG2206 (pl. 4, fig. 4), KSG2207 (pl. 4, fig. 6), KSG2208, KSG2209, KSG2210

At Katsuzaki beach of Kutama-machi, Ushibuka City, Kumamoto Prefecture

Uppermost Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area

Paleocene, Tertiary or Maastrichtian, Cretaceous

***Anomia subovalis* Nagao, 1938**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 130, pl. 16, figs. 12-17

Holotype: GMH no. 8228 (fig. 12)

Takinosawa near the Kawakami Colliery, south Saghalin, (Russia)

Upper Ammonite Beds in Kawakami and Abeshinai areas (Mikasa Formation)

Coniacian-Santonian (Cenomanian; Tashiro (1992)), Cretaceous

***Anthonya amakusensis* Tashiro and Takatsuka, 1991**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 12, p. 7, pl. 2, figs. 4-11, text-fig. 3

Holotype: KSG5129 (pl. 2, figs. 4, 5), Paratypes: KSG5130, KSG5131 (pl. 2, fig. 9), KSG5132, KSG5133, KSG5134, KSG5135 (pl. 2, figs. 6, 7)

Loc. 2 about 300 m south west of Eboshi of the Goshonoura islet, Goshoura-machi, Amakusa-gun, Kumamoto Prefecture
Lower Formation of the Goshonoura Group in Goshonoura area
Upper Albian, Cretaceous

***Anthonya apicalis* Nagao, 1938**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 134, pl. 15, figs. 1-3
Syntype: GMH no. 8203
Poronai, Mikasa City, Hokkaido
Trigonia Sandstone (Mikasa Sandstone (Mikasa Formation), Middle Yezo Group) in Ikushunbetsu area
Cenomanian - Turonian, Cretaceous

***Anthonya apicalis* Nagao see *Anthonya apicalis shishijimensis* Amano, 1956**

***Anthonya apicalis shishijimensis* Amano, 1956**

Kumamoto Jour. Sci. ser. B, sec.1, vol. 2, no. 1, p. 75, pl. 2, figs. 6-12
Syntype: KU not registered
Miyano-hara (figs. 6, 7, 8), Ochi-machi, Takaoka-gun, Kochi Prefecture; Shishijima (figs. 9, 10, 11), Azuma-machi, Izumi-gun, Kagoshima Prefecture
Goshonoura Group in Shishijima island, and Miyano-hara Formation in Ochi area
Albian (?) - Cenomanian, Cretaceous
(*Anthonya apicalis* Nagao by Tashiro (1992))

***Anthonya ensiformis* Nagao, 1938**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 135, pl. 15, figs. 4-8
Syntype: GMH no. 8250
Ikusumbetu (Ikushumbetsu, Mikasa City), Hokkaido
Trigonia Sandstone (Maikasa sandstone (Mikasa Formation), Middle Yezo Group) in Ikushumbetsu area.
Cenomanian – Turonian (Uppermost Albian – Lower Cenomania by Tashiro (1992)), Cretaceous
(Synonymous with *Anthonya japonica* Matsumoto by Nagao (1938, p. 142))

***Anthonya igenokiensis* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 46, pl. 3, figs. 9-13, text-fig. 5
Holotype: KSG3995a (pl. 3, fig. 11), Paratypes: KSG3995b (pl. 3, fig. 12), KSG3996 (pl. 3, fig. 9), KSG3997, KSG3998 (pl. 3, fig. 10), KSG3999 (pl. 3, fig. 13), KSG4000
Igenoki, Tosayamada-machi, Kami-gun, Kochi Prefecture
Igenoki Formation in Tosayamada area
Upper Hauterivian (?) or Aptian, Cretaceous

***Anthonya japonica* Matsumoto, 1938**

Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 16, text-figs. 6, 7

Syntype: UMUT MM7788a (text-fig. 6), UMUT MM7788b (text-fig. 7)

Arakuchi, Goshonoura-machi, Amakusa-gun, Kumamoto
Goshonoura Group in Goshonoura island
Cenomanian – Turonian (Uppermost Albian – Lower Cenomania by Tashiro (1992)), Cretaceous

***Anthonya mifunensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 116, pl. 4, figs. 13-19
Holotype: KE2530 (pl. 4, fig. 16a, b)
Loc. 39 at Yaseto, Toyono-mura, Shimomashiki-gun, Kumamoto Prefecture
Mifune Group in Mifune area
Cenomanian, Cretaceous

***Anthonya monobensis* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 44, pl. 2, figs. 1-11, text-fig. 4
Holotype: KSG3971a (pl. 2, fig. 1), Paratypes: KSG3972 (pl. 2, fig. 5), KSG3973 (pl. 2, fig. 10), KSG3974, KSG3975 (pl. 2, fig. 7), KSG3976 (pl. 2, fig. 3), KSG3977, KSG3978, KSG3979 (pl. 2, fig. 8), KSG3980 (pl. 2, fig. 2), KSG3981 (pl. 2, fig. 6), KSG3982, KSG3983, KSG3984 (pl. 2, fig. 12)
Sasa (holotype and KSG3972-KSG3982) of Doiban, Odochi of Monobe-mura, Kami-gun, Kochi Prefecture; Hoji (KSG3983-KSG3984), Kamikatsu-machi, Katsuura-gun, Tokushima Prefecture
Lower part of the Hibihara Formation in Monobe area
Aptian, Cretaceous

***Anthonya subcantiana* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 222, pl. 25, fig. 11, pl. 30, figs. 6, 7
Lectotype designated by Hayami (1965, p. 110): GMH no. 6768 (pl. 30, fig. 11)
Locs. Hn.0016, 0017, 0018, southern coast of Hiraiga, and at the north of Haipe (exact locality unknown), both in Tanohata-mura, Shimohei-gun, Iwate Prefecture
Hiraiga Formation in Tanohata area
Aptian – Albian, Cretaceous

***Antiquilima ultima* Hayami, 1965**

Mem.Fac.Sci.Kyushu Univ. ser.D, vol. 15, no.2, p. 329, pl. 49, fig. 6.
Holotype: GK.H6318 (pl. 49, fig. 6)
Loc. Hn.4053 at Oshima island, off the coast of Moshi, Iwaizumi-machi, Shimohei-gun, Iwate Prefecture.
Hiraiga Formation in Omoto area.
Lower Miyakoan (Aptian), Cretaceous

***Aphrodina hataii* Katto and Hattori, 1964**

Res. Rept. Kochi Univ., no. 13, Nat. Sci., vol. 1, no. 2, p. 8, pl. 1, figs. 1-6

Holotype: (KSG not registered) (pl. 1, fig. 3)
Sada, Nakamura City, Kochi Prefecture
Shimantogawa Group (Nakamura Formation) in Nakamura area
Upper Cretaceous (Upper Campanian – Maastrichtian by Tashiro (1992))
(Thyasia (s.l.) hataii (Katto and Hattori) by Tashiro (1992))

***Aphrodina hirokoi* Tashiro, 1994**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 15, p. 12, pl. 2, figs. 10-12
Holotype: KSG4454 (pl. 2, fig. 10), Paratypes: KSG4455 (pl. 2, fig. 11), KE2210, KE2011
Panke-tosanosawa (holotype and KSG4455) of Tomiuchi, Hobetsu-cho, Yufutsu-gun, Hokkaido; Higire (KE2210) of Shimo-Koshikijima, Kashima-mura, Satsuma-gun, Kagoshima Prefecture; Ikusagaura (KE2211) of Amakusa-Shimajima, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture
Hakobuchi Group in Hobetsu area.
Upper Campanian, Cretaceous

***Aphrodina izumensis* Ichikawa and Maeda, 1963**

Jour. Geosci. Osaka City Univ., vol. 7, art. 5, p. 128, pl. 11, fig. 7
Holotype: OCU MM286 (pl. 11, fig. 7)
Loc.36 at Yamamoto of Nada, Nandan-machi, Mihara-gun, Hyogo Prefecture
Izumi Group in Awaji area.
Maastrichtian, Cretaceous

***Aphrodina japonica* (Amano) see *Callistina (Larma) japonica* Amano, 1957**

***Aphrodina pseudoplana* (Yabe and Nagao) see *Callista pseudoplana* Yabe and Nagao, 1925**

***Apiotrigonia (Apiotrigonia) amanoi* (Nakano) see *Microtrigonia amanoi* Nakano, 1957**

***Apiotrigonia (Microtrigonia) amanoi* (Nakano) see *Microtrigonia amanoi* Nakano, 1957**

***Apiotrigonia (Microtrigonia) amanoi* (Nakano) see *Apiotrigonia tuberculata* Nakano, 1957**

***Apiotrigonia crassoradiata* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 113, pl. 8, figs. 11-12
Holotype: GT.C.T.1-1 (pl. 8, figs. 11a, 11b), Paratype: GT.C.T.1-2 (pl. 8, figs. 12a, 12b)
Aonami, Yuyama-mura, Onsen-gun (Matsuyama City), Ehime Prefecture
Izumi Group in Onsen area

Campanian (Lower and Middle Campanian by Tashiro (1979)), Cretaceous
***(Apiotrigonia (Apiotrigonia) crassoradiata* Nakano by Hayami (1975))**

***Apiotrigonia (Apiotrigonia) crassoradiata* Nakano see *Apiotrigonia crassoradiata* Nakano, 1957**

***Apiotrigonia (?Apiotrigonia) dubia* Tashiro, 1979**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 116, p. 194, pl. 25, figs. 11-17, text-fig. 6
Holotype: KSG2087 (pl. 25, fig. 11), Paratypes: KSG2089 and KE1935 (pl. 25, fig. 13), KE1936 (pl. 25, fig. 14), KSG2090 (pl. 25, figs. 15, 16), KSG2091 (pl. 25, fig. 17)
Azenotani, Sakai City, Osaka Prefecture
Azenotani shale of the Izumi Group in Izumi Mountain
Uppermost Campanian and Maastrichtian, Cretaceous

***Apiotrigonia (Heterotrigonia) granosa* (Nakano) see *Heterotrigonia granosa* Nakano, 1957**

***Apiotrigonia (Apiotrigonia) hetonaiana* Tashiro, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 424, pl. 54, figs. 1-4, text-fig. 2
Holotype: KE2776 (pl. 54, fig. 1), Paratypes: KE2777 (pl. 54, fig. 2), KE2778, KE2779 (pl. 54, fig. 3), KE2780 (pl. 54, fig. 4), KE2781
Panketosanosawa (holotype and KE2777-KE2779) of Tomiuchi, Hobetsu-cho, Yufutsu-gun, Iburi District; Chinomigawa (KE2780-2781), Urakawa-cho, Urakawa-gun, Hidaka district, Hokkaido
Hakobuchi Group in Tomiuchi area
Upper Campanian – Maastrichtian, Cretaceous

***Apiotrigonia (Heterotrigonia) himenourensensis* (Tashiro) see *Heterotrigonia himenourensensis* Tashiro, 1972**

***Apiotrigonia (Microtrigonia) imutensis* (Tashiro) see *Microtrigonia imutensis* Tashiro, 1972**

***Apiotrigonia jimboi* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 115, pl. 8, figs. 5-7
Holotype: GT. Cr.1284a (pl. 8, figs. 5a, 5b), Paratypes: GT.Cr.1284b (pl. 8, fig. 6), GT.Cr.1295 (pl. 8, fig. 7)
Ikushunbetsu, Mikasa City, Hokkaido
Mikasa Group in Ikushunbetsu area
Cenomanian-Turonian (Turonian by Tashiro (1979)), Cretaceous
(Synonymous with *Apiotrigonia (Heterotrigonia) subovalis* (Jimbo) by Hayami (1975); synonymous with *Heterotrigonia (Heterotrigonia) subovalis* (Jimbo) by Tashiro (1979))

***Apiotrigonia (Apiotrigonia) mikasaensis* Tashiro, 1979**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 116, p. 187, pl. 25, figs. 1-6, text-fig. 3

Holotype: KSG2061 (pl. 25, fig. 5), Paratypes: KSG2068, KSG2069, KSG2070 (pl. 25, fig. 6), GK.H6910 (pl. 25, fig. 1), GK.H6911 (pl. 25, fig. 4), GK.H6912 (pl. 25, fig. 2), GK.H6913 (pl. 25, fig. 3)

Loc.IK2016 (holotype and KSG2068-2070) at Ponbetsu, Mikasa City and Yonosawa (GK.H6910-6913) of Ponhorokabetsu, Yubari City (Yb67r, see Matsumoto and Harada (1964)), Hokkaido

Mikasa Formation in Ikushunbetsu area
Upper Gyliakian (Turonian), Cretaceous

***Apiotrigonia (Microtrigonia) minima* (Nakano) see *Microtrigonia minima* Nakano, 1957**

***Apiotrigonia obliquecostata* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 113, pl. 8, figs. 9-10

Holotype: IGSH NM.Am.1 (pl. 8, figs. 9a, 9b)
Wadanohama, Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture
Himenoura Group in Amakusa island
Santonian, Cretaceous

***(Apiotrigonia (Apiotrigonia) obliquecostata* Nakano by Hayami (1975))**

***Apiotrigonia (Apiotrigonia) obliquecostata* Nakano see *Apiotrigonia obliquecostata* Nakano, 1957**

***Apiotrigonia obsoleta* Nakano, 1957**

Japan. Jour. Geol. Geogr., Vol. 28, nos. 1-3, p. 114, pl. 9, figs. 5-7

Holotype: IGSH NM .Aw .1 (pl. 9, figs. 6a, 6b), Paratype: IGSH NM.Aw.2 (pl. 9, figs. 5a, 5b)
Hirota, Midori-machi, Mihara-gun, Hyogo Prefecture
Minato shale and Shichi shale of the Izumi Group in Awaji island

Campanian (Upper Santonian – Campanian by Tashiro (1979)), Cretaceous

***(Apiotrigonia (Apiotrigonia) obsoleta* Nakano by Hayami (1975))**

***Apiotrigonia (Apiotrigonia) obsoleta* Nakano see *Apiotrigonia obsoleta* Nakano, 1957**

***Apiotrigonia postonodosa* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 114, pl. 9, fig. 8-14

Holotype: GH.NM.00004 (pl. 9, figs. 11a, 11b), Paratypes: GH.NM.00005 (pl. 9, fig. 12), GH.NM.00005, GH.NM.00006 (pl. 9, figs. 8a, 8b), GH.NM.00008, GK.H6021 (pl. 9, figs. 10a, 10b)

Nodden, Miyanokawachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Upper Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima island

Campanian (Uppermost Campanian by Tashiro (1979)), Cretaceous

***(Apiotrigonia (Microtrigonia) postonodosa* Nakano by Hayami (1975))**

***Apiotrigonia (Microtrigonia) postonodosa* Nakano see *Apiotrigonia postonodosa* Nakano, 1957**

***Apiotrigonia subovalis* (Jimbo) see *Trigonia subovalis* Jimbo, 1894**

***Apiotrigonia (Heterotrigonia) subovalis* (Jimbo) see *Trigonia subovalis* Jimbo, 1894**

***Apiotrigonia (Heterotrigonia) subovalis* (Jimbo) see *Trigonia sawatai* Yehara, 1923**

***Apiotrigonia tuberculata* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 113, pl. 9, figs. 15-16

Holotype: GH.NM.00011 (pl. 9, figs. 15a, 15b, 15c)
Hansanji, Shichi, Seidan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island
Campanian, Cretaceous

***(Microtrigonia tuberculata* (Nakano) by Hayami (1975); *Apiotrigonia (Microtrigonia) amanoi* (Nakano) by Tashiro (1979))**

***Apiotrigonia undulosa* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 112, pl. 8, Fig. 8

Holotype: GT.Ct. F-3a (pl. 8, figs. 8a, 8b), Paratype: GT.Ct.I-17

Taikorin, Oriki, Hirono-machi, Futaba-gun, Fukushima Prefecture

Futaba Group in Futaba area

Coniacian (Turonian and Coniacian by Tashiro (1979)), Cretaceous

***(Apiotrigonia (Apiotrigonia) undulosa* Nakano by Hayami (1975))**

***Apiotrigonia (Apiotrigonia) undulosa* Nakano see *Apiotrigonia undulosa* Nakano, 1957**

***Apiotrigonia (Apiotrigonia) utoensis* Tashiro, 1972**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 86, p. 333, pl. 41, figs. 9-11, text-fig. 7

Holotype: KE1881 (pl. 41, figs. 9a, 9b, 9c), Paratype: KE1882 (pl. 41, figs. 10a, 10b)

At Okoshiki beach, Ohda-machi, Uto City, Kumamoto Prefecture

Upper Formation of the Lower Himenoura Subgroup in Uto area

Upper Santonian or Lower Campanian, Cretaceous

***Arca (Eonavicula) kesadoensis* Tashiro, 1990**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 11, p. 5, pl. 1, figs. 8-10, text-figs. 4

Holotype: KSG5016 (pl. 1, fig. 8), Paratypes: KSG5017 (pl. 1, fig. 9), KSG5018 (pl. 1, fig. 10), KSG5019

Loc. 2 about 1200 m north of Shimofukami, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture

Kesado Formation in Sakamoto area

Upper Barremian or Lower Aptian, Cretaceous

***Arca (Eonavicula) minima* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 277, pl. 1, fig. 20, pl. 3, figs. 2-3, pl. 4, fig. 21, text-fig. 8

Holotype: KSG3694 (pl. 1, fig. 20); pl. 4, fig. 21), Paratypes: KSG3695, KSG3696 (pl. 3, fig. 2)

Sasa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Lower part of the Hibihara Formation in Monobegawa area

Lower Aptian, Cretaceous

***Arca prolata* Amano, 1957**

Kumamoto Jour. Sci., ser. B, sec. 1, vol. 2, no. 2, p. 80, pl.1, figs. 1-3

Holotype: UMUT KML0017 (pl. 1, fig. 1)

At the south of Hagino, Kahoku-machi, Kami-gun, Kochi Prefecture (133 °43'E, 33 °37'N)

Hagino Formation in Monobe area, and Bunjo Formation in Sakawa area (Tashiro and Matsuda, 1986)

Aptian, Cretaceous

(*Eonavicula prolata* (Amano) by Hayami (1965); *Arca (Eonavicula) prolata* Amano by Hayami (1975))

Arca (Eonavicula) prolata Amano see *Arca prolata* Amano, 1957

***Arca shinanoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rept. Tohoku. Imp. Univ., ser. 2, vol. 9, no. 2, p. 42, pl. 13, figs. 33-35

Syntype: IGPS no.22521

Bomekizawa, Ohinata of Saku-machi, Minamisaku-gun, Nagano Prefecture

Shiroi Formation in Sanchu area

Neocomian (Upper Hauterivian – Barremian by Tashiro (1992)), Cretaceous

(*Arca (Eonavicula) shinanoensis* Yabe and Nagao by Hayami (1975))

Arca (Eonavicula) shinanoensis Yabe and Nagao see *Arca shinanoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

***Arca (Eonavicula) tashiroi* Matsuda, 1985**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 137, p. 4, pl. 2, figs. 1-10, text-fig. 2

Holotype: KSG3372 (pl. 2, fig. 3), Paratypes: KSG3373 (pl. 2, fig. 1), KSG3374 (pl. 2, fig. 5), KSG3375 (pl. 2, fig. 9), KSG3376 (pl. 2, fig. 8), KSG3377 (pl. 2, fig. 4)

Enokuchi (KSG3372 and KSG3373), Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture; Miyanohara (KSG3374 and KSG3375), Sakawa-machi, Takaoka-gun, Kochi Prefecture; Kashiwaguri (KSG3376 and KSG3377) of Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture Miyanohara Formation in Sakawa area, and Goshonoura Group in Shishijima and Goshonoura islands

Upper Albian – Lower Cenomanian, Cretaceous

***Astarte (Yabea) akatsui* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 3, p. 95, pl. 9, figs. 2-5, pl. 14, figs. 10, 11

Holotype: GK.H6171 (pl. 9, fig. 2), Paratypes: GK.H6172, GK.H6173 (pl. 9, fig. 3), GK.H6174 (pl. 9, fig. 4), GK.H6175 (pl. 9, fig. 5)

Loc. At.328 at the south of Bisho, Toyo-mura, Yatsushiro-gun, Kumamoto Prefecture

Yatsushiro Formation in Yatsushiro area (Hachiryuzan Formation)

Upper Miyakoan (Albian), (Lower Albian by Tashiro (1992)), Cretaceous

(*Yabea akatsui* (Hayami) by Tashiro (1992))

Astarte (Astarte) costata Yabe and Nagao see *Astarte subsenecta* var. *costata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Astarte (Nicaniella) costata Yabe and Nagao see *Astarte subsenecta* var. *costata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

***Astarte (Nicaniella) makibaensis* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 40, pl. 3, figs. 20-27

Holotype: KSG4126 (pl. 3, fig. 27), Paratypes: KSG4127 (pl. 3, fig. 24), KSG4128, KSG4129 (pl. 3, fig. 25), KSG4130, KSG4131 (pl. 3, fig. 21), KSG4132 (pl. 3, fig. 23), KSG4133 (pl. 3, fig. 26), KSG4134 (pl. 3, fig. 22), KSG4135 (pl. 3, fig. 20)

Igenoki of Tosayamada-machi, Kami-gun, Kochi Prefecture

Hagino Formation in Monobe area

Aptian, Cretaceous

(*Astarte (Nicaniella) makibaensis makibaensis* Tashiro and Kozai by Tashiro (1992))

Astarte (Nicaniella) makibaensis makibaensis Tashiro and Kozai see *Astarte (Nicaniella) makibaensis* Tashiro and Kozai, 1988

***Astarte (Nicaniella) makibaensis kawajii* Tashiro, 1994**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol. vol. 15, p. 11, pl. 1, figs. 9-13

Holotype: KSG4446 (pl. 1, fig. 9), Paratypes: KSG4447 (pl. 1, fig. 11), KSG4448, KSG4449 (pl. 1, fig. 10), KSG4450 (pl. 1, fig. 13)

Ikuna (KSG4446, KSG4447, KSG4448 and KSG4449) of Katsuura-cho, Katsuura-gun, Tokushima Prefecture; Jougusan (KSG4450) of Miyaji, Yatsushiro City, Kumamoto Prefecture

Ikuna Formation in Katsuura area

Lower Albian., Cretaceous

***Astarte minor* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 220, pl. 28, figs. 5-10

Lectotype designated by Hayami (1965, p. 91): IGPS no.66425 (pl. 28, fig. 5)

Locs. Hn.0017, 0018, southern coast of Hiraiga and at locs. Hn.0914, 0916, north of Haipe, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Aptian – Lower Albian, Cretaceous

(*Astarte (Nicaniella) minor* Nagao by Hayami (1965);

Astarte (Trautscholdia) minor Nagao by Hayami (1975))

Astarte (Nicaniella) minor Nagao see *Astarte minor* Nagao, 1934

Astarte (Trautscholdia) minor Nagao see *Astarte minor* Nagao, 1934

***Astarte miyakoensis* Nagao, in Yabe, 1927 (nom. nud.)**

Sci. Rept. Tohoku Imp. Univ., Ser. 2, vol. 11, no. 1, pl. 4, fig. 5

***Astarte miyakoensis* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 218, pl. 30, fig. 8, pl. 32, figs. 1, 3-5

Lectotype designated by Hayami (1965, p. 101, erroneously regarded as holotype): IGPS no. 7105 (pl. 32, fig. 3; illustrated by Yabe (1927, pl. 4, fig. 5))

Locs. Hn.0010, 0017, 0018, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Aptian – Lower Albian, Cretaceous

(*Eriphyla (Miyakoella) miyakoensis* (Nagao) by Hayami

(1965); *Eriphyla (Eriphyla) miyakoensis* (Nagao) by Hayami (1975))

***Astarte sakawana* Kobayashi and Suzuki, 1939**

Japan. Jour. Geol. Geogr., vol. 16, nos. 3-4, p. 219, pl. 13, figs. 11-13

Lectotype designated by Ohta (1973): UMUT MM7910 (pl. 13, fig. 11), Paralectotypes: UMUT MM7911 (pl. 13, fig. 12), UMUT MM7912 (pl. 13, fig. 13)

Kaisekiyama, Sakawa-machi, Takaoka-gun, Kochi Prefecture Ryoseki Formation in Sakawa area

Neocomian, Lower Cretaceous

(*Eomiodon sakawanus* (Kobayashi and Suzuki) by Ohta (1973))

***Astarte semicostata* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 221, pl. 31, figs. 3-5, pl. 32, fig. 6

Lectotype designated by Hayami (1965, p. 86): GMH no.6792 (pl. 31, fig. 3)

Locs. Hn.0017, 0018, southern coast of Hiraiga and at locs. Hn.0914, 0916, 0920 northern coast of Haipe, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga Formation) in Tanohata area

Aptian, Cretaceous

(*Astarte (Astarte) semicostata* Nagao by Hayami (1965);

Astarte (Nicaniella) semicostata Nagao by Hayami (1975))

Astarte (Astarte) semicostata Nagao see *Astarte semicostata* Nagao, 1934

Astarte (Nicaniella) semicostata Nagao see *Astarte semicostata* Nagao, 1934

***Astarte shinanoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 47, pl. 13, figs. 29, 30

Lectotype designated by Hayami (1965, p. 93): IGPS no. 22544 (pl. 13, fig. 30)

Loc. Hy.4003, Ichinosebashi, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture

Ishido Formation in Sanchu area

Upper Neocomian-Aptian (Upper Hauterivian and Lower Barremian by Tashiro and Kozai (1988)), Cretaceous

(*Astarte (Yabea) shinanoensis* Yabe and Nagao by Hayami

(1965); *Yabea shinanoensis* (Yabe and Nagao) by Chavan (1969))

Astarte (Yabea) shinanoensis Yabe and Nagao see *Astarte shinanoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

***Astarte subomalioides* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 219, pl. 27, figs. 3, 4

Lectotype designated by Hayami (1965, p.88): IGPS

no.66446 (pl. 27, fig. 3)

At the north of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Aptian – Lower Albian, Cretaceous

(*Astarte (Freiastarte) subomalioides* Nagao by Hayami (1965); *Astarte (Leckhamptonia?) subomalioides* Nagao by Hayami (1975))

Astarte (Freiastarte) subomalioides Nagao see *Astarte subomalioides* Nagao, 1934

Astarte (Leckhamptonia?) subomalioides Nagao see *Astarte subomalioides* Nagao, 1934

Astarte subsenecta Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol.9, pt. 3, p. 47, pl. 13, figs. 14-16, pl. 14, fig.10, 11

Lectotype designated by Hayami (1965, p.82): IGPS no. 22534 (pl. 14, fig. 11)

Ichinosebashi, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture

Ishido Formation in Sanchu area

Upper Neocomian-Albian (Upper Hauterivian-Barremian by Tashiro and Kozai (1988)), Cretaceous

(*Astarte (Astarte) subsenecta subsenecta* Yabe and Nagao by Tashiro (1992))

Astarte (Astarte) subsenecta subsenecta Yabe and Nagao see *Astarte subsenecta* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Astarte subsenecta var. *costata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 48, pl. 14, fig. 10

Holotype by monotypy : IGPS no. 22483 (pl. 14, fig. 10)

Ozu, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture

Ishido Formation in Sanchu area

Upper Neocomian-Aptian (Upper Hauterivian or Barremian by Tashiro and Kozai (1988)), Cretaceous

(*Astarte (Astarte) costata* Yabe and Nagao by Hayami (1965); *Astarte (Nicaniella) costata* Yabe and Nagao by Tashiro (1992))

Astarte (Astarte) subsenecta obsoleta Tashiro, 1993

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 14, p. 7, pl. 2, figs. 4-9

Holotype: KSG4397, Paratypes: KSG4398 (pl. 2, fig. 5), KSG4399 (pl. 2, fig. 4), KSG 4400 (pl. 2, fig. 7), KSG4401 (pl. 2, fig. 8), KSG4402 (pl. 2, fig. 6), KSG4403, KSG4404

Loc. 1 (holotype) at Shigasaka, Nakazato-mura, Tano-gun,

Gumma Prefecture; Kasabe (all paratypes) of Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture
Sanyama Formation in Sanchu area
Aptian, Cretaceous

Astarte (Nicaniella) sukuboensis Tashiro and Matsuda, 1985

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 5- 6 , p. 11, pl. 3, figs. 4-7, text-fig. 4

Holotype: KSG3454 (pl. 3, fig. 7), Paratypes: KSG3455 (pl. 3, fig. 4), KSG3456 (pl. 3, fig. 6), KSG3457 (pl. 3, fig. 5)

Loc. 2 at the northeast of Kamikoshigoe, Honjo-mura, Minamiamabe-gun, Oita Prefecture

Sukubo Formation in Haidateyama area

Upper Albian, Cretaceous

Astarte (Trautscholdia) tosaensis Tashiro and Kozai, 1988

Res. Rep. Kochi Univ., vol. 37, p. 41, pl. 4, figs. 22-29

Holotype: KSG3985a (pl. 4, fig. 25), Paratypes: KSG3985b (pl. 4, fig. 26), KSG3986, KSG3987, KSG3988 (pl. 4, fig. 27), KSG3989 (pl. 4, fig. 22), KSG3990, KSG3991 (pl. 4, fig. 29), KSG3992 (pl. 4, fig. 24), KSG3993 (pl. 4, fig. 28), KSG3994 (pl. 4, fig. 23)

Sasa of Doiban, Monobe-mura, Kami-gun, Kochi Prefecture
Lower part of the Hibihara Formation in Monobe area, Hoji Formation in Katsuura area, and Miyaji Formation in Yatsushiro area

Aptian, Cretaceous

Astarte (Astarte) yatsushiroensis Tashiro and Tanaka, 1992

Res. Rep. Kochi Univ., vol. 41, p. 150-151, pl. 2, figs. 1-7, 10-12

Holotype: KSG4343 (pl. 2, fig. 1), Paratypes: KSG4344 (pl. 2, fig. 4), KSG4345 (pl. 2, fig. 12), KSG4346 (pl. 2, fig. 5), KSG4347 (pl. 2, fig. 2), KSG4348 (pl. 2,fig. 10),KSG4349, KSG4350, KSG4351, KSG4352

Loc. TK01 (Paratypes: KSG4344, KSG4348) about 700 m northwest of Takahata and Loc.Tk03 (Holotype and Paratypes: KSG4347, KSG4346, KSG4345) about 600m southwest of Kubo, Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture

Takahata Formation in Gokase area

Albian, Cretaceous

Astartemya (Freiastarte) yokakuensis Tashiro and Otsuka, 1982

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol. vol.3, p.10, pl. 5, figs. 1-3, text-fig. 1

Holotype: KSG3007 (pl. 5, figs. 1-2), Paratype: KSG3008 (pl.5, fig.3)

Kameura (Loc. 9), Ushibuka City, Kumamoto Prefecture

Uppermost Formation of the Upper Himenoura Subgroup

Maastrichtian, Cretaceous

***Atreta intulaevis* Tashiro, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 110, p. 322, pl. 44, figs. 1-4, text-fig. 3

Holotype: KE2759 (pl. 44, figs. 1a-d), Paratypes: KE2760 (pl. 44, figs. 3a, b), KE2761 (pl.44, fig.2), KE2762, KE2763 (pl. 44, fig. 4), KE2764

At roadside exposure of northwest beach of Hinosima island of Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture

Lower Formation of the Lower Himenoura Subgroup in Amakusa area

Middle Urakawan (Lower Santonian), Cretaceous

***Atrina heiensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 283, pl. 40, figs. 7a, b

Holotype: GK.H6262 (pl. 40, figs. 7a, b)

Loc. Hn.6203, northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Upper part of the "Orbitolina sandstone" of the Miyako group in Tanohata area

Lower (?) and upper Miyakoan (?Aptian to Albian), Cretaceous

***Avicula haradae* Yokoyama, 1890**

Palaeontographica, vol. 36, p. 199, pl. 26, figs. 12a, b

Lectotype designated by Hayami in Matsumoto, Hayami and Asano (1963, p. 32)

Ichinose-bashi of Sebayashi, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture

Ishido Formation in Sanchu area

Upper Neocomian–Albian (Aptian by Tashiro and Kozai (1986)), Cretaceous

(*Gervillia haradae* (Yokoyama) by Yabe, Nagao and Shimizu (1926); *Gervillaria haradae* (Yokoyama) by Matsumoto, Hayami and Asano (1963))

***Bakevella iwatensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 275, pl. 35, figs. 7, 8

Holotype: GK.H6249 (pl. 35, fig. 8), Paratypes: GK.H6250, GK.H6251 (pl. 35, fig. 7)

Loc.Hn.0018 at southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga Formation) in Tanohata area

Aptian (Albian), Cretaceous

(*Bakevella pseudorostrata* (Nagao) by Hayami (1965); *Bakevella* (*Neobakevella*?) *pseudorostrata* (Nagao) by Hayami (1975))

Bakevella (*Yoshimopsis*) *nagatoensis* (Ohta) see *Bakevelloides* (*Yoshimopsis*) *nagatoensis* Ohta, 1974

Bakevella (*Neobakevella*) *ominensis* Nakazawa and Murata., 1966

Mem. Coll. Sci. Univ. Kyoto, ser.B, vol. 32, no.4, p. 309, pl. 3, figs. 1-7

Holotype: UK JM11131 (pl. 3, figs. 1a, b), Paratypes: IGPS Coll.no.85763 (pl. 3, fig. 2), UK JM11133 (pl. 3, fig. 3), UK JM11134 (pl. 3, fig. 4), UK JM11137 (pl. 3, fig. 5), UK JM11140 (pl. 3, fig. 6), UK JM11152 (pl. 3, fig. 7)

Obirakizawa, near the Omine mine, Tono City, Iwate Prefecture

Kamihei Group in Kamihei area

Neocomian (Upper Hauterivian – Lower Barremian by Kozai and Tashiro (1993)), Cretaceous

Bakevella pseudorostrata (Nagao) see *Bakevella iwatensis* Hayami, 1965

Bakevella (*Neobakevella*?) *pseudorostrata* (Nagao) see *Gervillia pseudorostrata* Nagao, 1934

Bakevella shinanoensis (Yabe and Nagao) see *Gervillia shinanoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Bakevella (*Neobakevella*) *shinanoensis* (Yabe and Nagao) see *Gervillia shinanoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Bakevella (*Neobakevella*?) *tadai* Nakazawa and Murata, 1966

Mem. Coll. Sci. Univ. Kyoto, ser. B, vol. 32, no. 4, p. 310, pl. 3, figs. 8a, b

Holotype: UK JM11142 (pl. 3, figs. 8a, b)

Obirakizawa, near the Omine mine, Tono City, Iwate Prefecture

Kamihei Group in Kamihei area

Neocomian, Cretaceous

***Bakevelloides* (*Yoshimopsis*) *nagatoensis* Ohta, 1974**

Bull. Fukuoka Univ. Educ., vol. 23, pt. 3, p. 81, pl. 1, figs. 1-11, text-fig. 1-4

Holotype: FG.Y423 (pl.1, fig.11), Paratypes: FG.Y401, FG.Y402 (pl. 1, figs.7a, b), FG.Y407 (pl. 1, fig. 4), FG.Y409 (pl. 1, fig. 8), FG.Y410 (pl. 1, fig. 5), FG.Y411 (pl. 1, fig. 9), FG.Y413 (pl. 1, fig. 3), FG.Y437, FG.Y6302 (pl. 1, fig. 1), FG.Y6303, FG.Y6305, FG.Y6307, FG.Y6330, FG.K731 (pl. 1, fig. 10)

Loc. Y51 (holotype and paratypes) at Yoshimo, Shimonoseki City, Yamaguchi Prefecture; Loc.K121 (FG.K731), Tanoura-machi, Ashikita-gun, Kumamoto Prefecture

Yoshimo Formation in Shimonoseki area, and Kawaguchi Formation in Tanoura area

Neocomian, Cretaceous

(*Bakevella* (*Yoshimopsis*) *nagatoensis* (Ohta) by Hayami (1975); *Aguilerella* (*Yoshimopsis*) *nagatoensis* (Ohta) by Tashiro (1992))

***Barbatia (Barbatia) hayamii* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol.32, nat. sci., p. 281, pl. 3, figs. 1, 8, 9, text-fig. 11

Holotype: KSG3649 (pl. 3, fig. 9)

About 300 m of Todoronotaki, Yunoki, Monobe-mura, Kami-gun, Kochi Prefecture

Monobe Formation in Monobegawa area

Uppr Hauterivian – Barremian, Cretaceous

***Barbatia (Barbatia) hibiharensis* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 280, pl. 3, figs. 10, 12, text-fig. 10

Holotype: KSG3646 (pl. 3, fig. 10), Paratypes: KSG3647 (pl. 3, fig. 12), KSG3648

Dam site of Hibihara, Kahoku-machi, Kami-gun, Kochi Prefecture

Basal part of the Hibihara Formation in Monobegawa area

Uppermost Barremian or Lowest Aptian, Cretaceous

***Barbatia (Barbatia) kochiensis* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 278, pl. 3, figs. 13-14, text-fig. 9

Holotype: KSG3654 (pl. 3, fig. 13), Paratype: KSG3655 (pl. 3, fig. 14)

Sasa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Middle part of the Hibihara Formation in Monobegawa area

Lower Aptian, Cretaceous

***Batissa yokoyamai* Kobayashi and Suzuki, 1937**

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 44. pl. 4, figs. 3-6

Holotype: UMUT MM7004 (pl. 4, fig. 3a, b), Paratype: UMUT MM7005 (pl. 4, fig. 4a, b)

Kurouchi, Furukawa-machi, Yoshiki-gun, Gifu Prefecture

Tetori Group (Izumi, Ushimaru and Kurouchi Formations) in Izukim Izumi-mura, Oono-gun, Fukui Prefecture; Furukawa area of Furukawa-cho and Makito area of Shokawa-mura, Gifu Prefecture

Upper Jurassic (or Lower Cretaceous)

(*Corbicula (Tetoria) yokoyamai* (Kobayashi and Suzuki) by Suzuki and Oyama (1943); *Tetoria (Tetoria) yokoyamai* (Kobayashi and Suzuki) by Hayami (1975))

***Birostrina concentrica costata* (Nagao and Matsumoto) see *Inoceramus concentricus* var. *costatus* Nagao and Matsumoto, 1939**

***Birostrina? concentrica nipponica* (Nagao and Matsumoto) see *Inoceramus concentricus* Parkinson var. *nipponicus* Nagao and Matsumoto, 1939**

***Birostrina nipponica* (Nagao and Matsumoto) see *Inoceramus concentricus* Parkinson var. *nipponicus* Nagao and Matsumoto, 1939**

***Birostrina tamurai* Matsumoto and Noda, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 143, 411, pl. 81, figs. 1-6; pl. 82, figs. 1-3; pl. 83, figs. 1-3; pl. 85, figs. 4-5

Holotype: KE 1976 (pl. 81, figs. 1a-d, 2); Paratypes: KE1977, KE1978, KE1979, KE1706, GK.H10082, GK.H10153, GK.H10154, GK.H10155, GK.H10156, GK.H10157, GK.H10158, GK.H10159, GK.H10160, GK.H10161, GK.H10162, GK.H10164, GK.H10165, GK.H10166, GK.H10167, GK.H10168, GK.H10169

Loc. 4 (Holotype) at Yaseto, Toyono-mura, and Loc. 3 (KE1706) at Subayashi, Chuo-mura, Shimomashiki-gun, Kumamoto Prefecture; Loc. 5 (KE1978) at Okadake, Matsubase-machi, Loc. 1 (KE1977) at Omine, Yabe-machi, and Loc. 2 (KE1979) at Asanoyabu, Mashiki-cho, Kamimashiki-gun, Kumamoto Prefecture; Loc. Ik2021a (GK.H10164-10169), Pombets Gorge in a tributary of the River Ikushumbets, Mikasa district (Mikasa City), Hokkaido; Loc. R100 (GK.H10082, 10157-10159) and Loc. R101 (GK.H10153-10156, 10160-10162), on road side of Highway 239, about 800 m linearly west of Kiritachi Pass, Kotanbetsu area (Tomamae-cho, Tomamae-gun), Hokkaido, Japan
Lower Formation of the Mifune Group

Middle Cenomanian, Cretaceous

(*Inoceramus tamurai* (Matsumoto and Noda) by Zonova (1993); *Actinoceramus tamurai* (Matsumoto and Noda) by Crampton (1996), *Inoceramus (Actinoceramus) tamurai* (Matsumoto and Noda) by Noda (2002))

***Brachidontes igenokiensis* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol.32, nat. sci., p. 288, pl. 4, figs. 9-16, text-fig. 14

Holotype: KSG3626 (pl. 4, fig. 11), Paratypes: KSG3627 (pl. 4, fig. 10), KSG3628 (pl. 4, fig. 12), KSG3629 (pl. 4, figs. 13, 15), KSG3630 (pl. 4, fig. 16), KSG3631, KSG3632 (pl. 4, fig. 9), KSG3633 (pl. 4, fig. 14), KSG3634, KSG3635

Sano of Tosayamada-machi, Kami-gun, Kochi Prefecture

Igenoki Formation in Ryoseki area

Upper Barremian, Cretaceous

***Brachidontes mashikensis* Tamura, 1976**

Mem. Fac. Educ. Kumamoto Univ., no. 25, nat. sci., p. 53, pl. 2, figs. 20-31

Holotype: KE2376 (pl. 2, fig. 28)

Loc. 11 at the east of Kawauchida, Mashiki-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian, Cretaceous

***Brachidontes nankoi* Ichikawa and Maeda, 1958**

Jour. Inst. Polyt. Osaka City Univ., ser. G, vol. 4, p. 95, pl. 6,

figs. 1a, b

Holotype: OCU MM232 (pl. 6, figs. 1a, b)

Loc. 64 at Chikusa, Sumoto City, Hyogo Prefecture

Izumi Group in Awaji island

Lower Heterian (Campanian by Tashiro (1975)),
Cretaceous

***Brachidontes pyriformis* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 289, pl. 3, figs. 21-26, text-fig. 15

Holotype: KSG3636 (pl. 3, figs. 24, 25), Paratypes: KSG3637 (pl. 3, figs. 21, 26), KSG3638 (pl. 3, fig. 22), KSG3639, KSG3640 (pl. 3, fig. 23), KSG3641, KSG3642

Yunoki, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Basal part of the Hibihara Formation in Monobe area

Lowest Aptian, Cretaceous

***Breviarca unisulcata* Amano, 1956**

Kumamoto Jour. Sci. ser. B, sec.1, vol. 2, no. 1, p. 66, pl. 1, figs. 6-8

Holotype: KU not registered (pl. 1, fig. 8)

Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture

Goshonoura Group in Shishijima island

Cenomanian, Cretaceous

(*Matsumotoa unisulcata unisulcata* (Amano) by Hayami (1975))

***Bungoella yabeaformis* Tashiro and Matsuda, 1985**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 5, 6, p. 12, pl. 3, figs. 8-13, text-fig. 5

Holotype: KSG3459 (pl. 3, fig. 11), Paratypes: KSG3460 (pl. 3, fig. 9), KSG3461 (pl. 3, fig. 8), KSG3462 (pl. 3, fig. 10), KSG3463 (pl. 3, fig. 12)

Loc.2 about 400 m north east of Kamikoshigoe, Honjo-mura, Minamiyamabe-gun, Oita Prefecture

Sukubo Formation in Haidateyama area

Albian, Cretaceous

***Caestcorbula* (s. l.) *antiqua* Kozai, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 326, Figs. 3- 21-28

Holotype: KSG-K074 (fig. 3-22), Paratypes: KSG-K077 (fig. 3-24), KSG-K080, KSG-K081, KSG-K082 (fig. 3-26), KSG-K083, KSG-K085 (fig. 3-25)

Loc.1 about 800 m south of Hiroyasu, Katsuura-cho, Katsuura-gun, Tokushima Prefecture

Tatsukawa Formation in Katsuura area

Upper Hauterivian - Barremian, Cretaceous

***Caestcorbula minima* Hayami, 1980**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 120, p. 437, pl. 53, figs. 15-16

Holotype: UMUT MM9764 (pl. 53, fig. 15), Paratypes: UMUT MM9765, UMUT MM9766 (pl. 53, fig. 16)

Loc. 2 (holotype and paratypes), northern coast of Kimigahama about 1 km north of the Cape Inubo-zaki, Choshi City, Chiba Prefecture (35°42'54"N, 140°52'24"E) Kimigahama Formation in Choshi area, and Tosakamo Formation in Sakawa area

Barremian (Aptian by Tashiro and Matsuda, 1986) , Cretaceous

(*Caestcorbula* (?*Parmicorbula*) *minima* Hayami by Kozai (1987))

Caestcorbula (?*Parmicorbula*) *minima* Hayami see *Caestcorbula minima* Hayami, 1980

***Caestcorbula* (?*Parmicorbula*) *monobensis* Kozai, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 328, figs. 3- 1-11

Holotype: KSG-K063 (Fig. 3-1), Paratypes: KSG-K062 (Fig. 3-5), KSG-K064 (Fig. 3-11), KSG-K065 (Fig. 3-10), KSG-K066 (Fig. 3-3), KSG-K067, KSG-K068 (Fig. 3-7), KSG-K069 (Fig. 3-8), KSG-K070 (Fig. 3-4), KSG-K071 (Fig. 3-2), KSG-K072 (Fig. 3-6). KSG-K073 (Fig. 3-9)

About 1 km northwest of Kaminaro, Monobe-mura, Kami-gun, Kochi Prefecture

Hibihara Formation in Monobe area

Aptian, Cretaceous

***Caestcorbula* (s. l.) *morinoi* Tashiro and Kozai, 1991**

Res. Rep. Kochi Univ., vol. 40, p. 193, pl. 1, figs. 12-18, text-fig. 5

Holotype: KSG4383 (pl. 1, fig. 17), Paratypes: KSG4384 (pl. 1, fig. 14), KSG4385 (pl. 1, fig. 13), KSG4386 (pl. 1, fig. 18), KSG4387 (pl. 1, fig. 12), KSG4388 (pl. 1, fig. 16), KSG4389 (pl. 1, fig. 15)

Birafu, Kahoku-machi, Kami-gun, Kochi Prefecture

Birafu Formation in Birafu area

Valanginian - Barremian, Cretaceous

***Caestcorbula* (*Parmicorbula*) *obsoleta* Tashiro and Otsuka, 1982**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol. vol. 3, p. 18, pl. 5, figs. 15-18, 20-22

Holotype: KSG3053 (pl. 5, figs. 15, 16), Paratypes: KSG3054 (pl. 5, fig. 17), KSG3055, KSG3056 (pl. 5, fig. 21), KSG3057

Loc.7 at Masuno, Oniki-machi, Ushibuka City, Kumamoto Prefecture

Uppermost Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area

Maastrichtian, Cretaceous

***Caestcorbula* (s. l.) *ohtai* Kozai, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 148, p. 329, figs. 3- 12-20

Holotype: KSG-K050 (Fig. 3-14), Paratypes: KSG-K051

(Fig. 3-17), KSG-K052 (Fig. 3-13), KSG-K053 (Fig. 3-19), KSG-K054 (Fig. 3-12), KSG-K055 (Fig. 3-18), KSG-K056, KSG-K057, KSG-K058 (Fig. 3-20), KSG-K059 (Fig. 3-16), KSG-K060 (Fig. 3-15), KSG-K061

Loc.6 (holotype and KSG-K051) about 150 m north of Masunoo, loc. 7 (KSG-K057 and KSG-K053) about 1 km southeast of Asanoyabu and loc. 8 (KSG-K059 – KSG-K061, KSG-K052, KSG-K055, KSG-K056, KSG-K058 and KSG-K054) about 1.5 km east of Kawauchida, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture Mifune Group in Mifune area Cenomanian, Cretaceous

***Caestcorbula shikamai* Hayami, 1980**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 120, p. 436, pl. 53, figs. 8-12

Holotype: UMUT MM9735 (pl. 53, fig. 10), Paratypes: UMUT MM9754, UMUT MM9755 (pl. 53, fig. 11), UMUT MM9756, UMUT MM9757, UMUT MM9758, UMUT MM9759 (pl. 53, fig. 12), UMUT MM9760, UMUT MM9761, UMUT MM9762 (pl. 53, fig. 9), UMUT MM9763 (pl. 53, fig. 8)

Loc. 7 (holotype: UMUT MM9735), small hill at the south of Ashikajima, Choshi City, Chiba Prefecture (35°43'00"N, 140°52'24"E); Loc.4 (paratypes: UMUT MM9755, UMUT MM9759, UMUT MM9762, UMUT MM9763), western coast of Nagasaki harbor, Choshi City, Chiba Prefecture (35°41'31"N, 140°51'51"E)

Ashikajima Formation, "Kimigahama Formation" in Choshi area

Barremian or Lower Aptian, Cretaceous

(*Caestcorbula* (?*Parmicorbula*) *shikamai* Hayami by Kozai (1987))

***Caestcorbula* (?*Parmicorbula*) *shikamai* see *Caestcorbula shikamai* Hayami, 1980**

"*Callista*" (*Pseudamiantis*) *crenulatus* Matsumoto, 1938

Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 19, pl. 1, fig. 5, text-fig. 12, 13

Lectotype: UMUT MM7751 (pl. 1, fig. 5), Paralectotypes: UMUT MM7752 (pl. 1, fig. 6), UMUT MM7826 (text-fig. 12), UMUT MM7830 (text-fig. 13)

Kobunenosako and Umedo, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group, Mifune Group, Sotoizumi Group, Mikasa Group (Mikasa Formation, Middle Yezo Group)

Cenomanian (Uppermost Albian – Cenomanian by Tashiro (1992)), Cretaceous

(*Pseudamiantis crenulatus* (Matsumoto) by Amano (1956);

Pseudamiantis crenulata (Matsumoto) by Hayami (1975);

Goshoraia crenulata (Matsumoto) by Tamura (1977))

***Callista pseudoplana* Yabe and Nagao, 1925**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 7, no. 4, p. 120, pl. 28, figs. 9, 10, pl. 29, figs. 2, 4

Lectotype designated by Ichikawa and Maeda (1963, p.130): IGPS no.8553

The upper course of Ponnebetsu (a tributary of the Horomui), Manji, Kurisawa-cho, Sorachi-gun, Ishikari Prov., Hokkaido

Middle Yezo Group in Manji area

Cenomanian-Turonian, Cretaceous

(*Aphrodina pseudoplana* (Yabe and Nagao) by Nagao and Otatume (1938))

***Callistina* (*Larma*) *japonica* Amano, 1957**

Kumamoto Jour. Sci. ser. B, sec.1, geol., vol. 2, no. 2, p. 59, pl. 1, figs. 14-18

Holotype: UMUT KML0068 (pl. 1, figs. 15 – 18?).

The back cliff of a junior high school of Imuta, Kashima-mura, Satsuma-gun, Kagoshima Prefecture Himenoura Group in Koshikijima area.

Santonian – Campanian (Upper Campanian and Maastrichtian by Tashiro (1976)), Cretaceous

(*Aphrodina japonica* (Amano) by Hayami (1975); *Loxo japonica* (Amano) as a senior synonymy of *Trigonocallista ornata* Ichikawa and Maeda, 1963 by Tashiro (1976))

***Caprina uwajimensis* Shikama and Tanabe, 1970**

Sci. Rept. Yokohama Nat. Univ., ser. 2, vol. 17, p. 53, pl. 6, figs. 1-2, pl. 7, fig. 1, text-fig. 7-2

Holotype: GYU M-17 (pl. 6, fig. 1), Paratypes: GYU M-18 (pl. 7, fig. 1), GYU M-19 (text-fig. 7-2), GYU M-20 (pl. 6, fig. 2)

Northeastern foot of Mt. Kushima island, west of Uwajima City, Ehime Prefecture; (33°13'48"N, 132°31'37"E)

Uwajima Group (Makinoyama Formation) in Uwajima area

Santonian, Cretaceous

"*Cardita*" *sulcataria* Hayami, in Matsumoto, Hayami and Hashimoto, 1965

Petrol. Geol. Taiwan, no. 4, p. 11, pl. 2, figs. 2-4

Holotype: CPCno.13 (pl. 2, fig. 4), Paratypes: CPCno.14 (pl. 2, fig. 2), CPCno.15 (pl. 2, fig. 3)

Holotype (CPC no.13) and paratype (CPC no.14), obtained from the level of 2062.00-2065.66 m of PK3 well, Peikan, west Formosa; P (CPC no.15), obtained from the level of 2050.00-2052.80 m of PK-3well, the same locality

Unnamed buried Cretaceous formation in west Formosa

Aptian, Cretaceous

***Cardium corpulentum* Amano, 1957**

Kumamoto Jour. Sci. ser.B, sec.1, vol. 2, no. 2, p. 99, pl. 2, fig. 30

Holotype: UMUT KML0004 (pl. 2, fig. 30)

At the south of Hagino, Kahoku-machi, Kami -gun, Kochi Prefecture (133°43'E, 33°37'N)

Hagino Formation in Monobe area, Bunjo Formation in Sakawa area and Nakaizu Formation in Nakaizu area
Aptian, Cretaceous
(Laevicardium (?) corpulentum (Amano) by Hayami (1965); "*Granocardium*" *corpulentum (Amano)* by Tashiro and Kozai (1988))

***Cardium ishidoense* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, pt. 3, p. 48, pl. 12, figs. 9, 16, 18

Lectotype designated by Hayami (1965, p.123): IGPS no. 22533 (pl. 12, fig. 18)

Ishido, Ohinata-mura, Minamisaku-gun, Nagano Prefecture
Ishido Formation in Sanchu area; Tosakamo Formation in Sakawa area

Upper Hauterivian – Aptian, (Aptian by Tashiro and Matsuda, (1986)), Cretaceous

(Laevicardium (?) ishidoensis (Yabe and Nagao) by Hayami (1965); "*Granocardium*" *ishidoense (Yabe and Nagao)* by Tashiro and Kozai (1988))

***Catinula? oshimensis (Hayami)* see *Gryphaea* (s. l.) *oshimensis* Hayami, 1965**

***Ceratostreon japonica* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 113, pl. 2, figs. 6-12, pl. 12, figs. 25-28

Holotype: KE2498 (pl. 2, fig. 18)

Loc. 12 at the east of Kawauchida, Mashiki-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Middle Cenomanian, Cretaceous

***Ceratostreon yabei* (Nagao) see *Exogyra yabei* Nagao, 1934**

***Cercomya (Cercomya) gurgitis* (Pictet and Campiche): Hayami (1966)**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 17, no. 3, p. 166, pl. 24, figs. 8-10

Loc. Hn.0018, southern coast of Hiraiga and Loc. Hn.6202, northern of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga and Aketo Formations in Tanohata area and Hagino Formation in Monobe area

Lower and upper Miyakoan (Aptian to Albian), Cretaceous

***Chlamys* (s. l.) *asperacrispata* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 53, pl. 4, figs. 25-26, text-fig. 18

Holotype: KE2113 (pl. 4, fig. 25), Paratype: KE2114 (pl. 4, fig. 26)

Loc. A16 (Holotype and Paratype) about 100 m west of Kojima, Himeura, Himedo-machi, Amakusa-gun, Kumamoto

Prefecture

Middle Formation of the Lower Himenoura Subgroup in Amakusa-Kamijima area

Upper Urakawan (Santonian), Cretaceous

***Chlamys hayamii* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, nat. sci., p. 37, pl. 2, fig. 1, pl. 8, fig. 5

Holotype: GKH 6289 (pl. 8, fig. 5)

A point about 300 m, north of Todoronotaki, Hibihara, Monobe -mura, Kami -gun, Kochi prefecture

Monobe Formation in Monobe area

Lower Barremian, Cretaceous

(On the holotype (GKH6289) of *Chlamys hayamii* n. sp., described as *Chlamys (?) shikokuensis* Amano by Hayami (1965))

***Chlamys kawajii* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, nat. sci., p. 36, pl. 10, figs. 3-4

Holotype: KSG3754 (pl. 10, fig. 4), Paratype: KSG3753 (pl. 10, fig. 3)

Tatsukawa of Katsuura-machi, Katsuura -gun, Tokushima Prefecture

Hanoura Formation in Katsuura area

Upper Hauterivian (Barremian by Tashiro (1992)), Cretaceous

***Chlamys robinaldina* (d'Orbigny): Hayami (1965)**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 310, pl. 44, figs. 5-7

Loc. Hn.0017, southern coast of Hiraiga and at loc.Hn.0103, southern coast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga Formation) in Tanohata area

Lower Miyakoan (Aptian), Cretaceous

***Chlamys shikokuensis* Amano, 1957**

Kumamoto Jour. Sci., ser. B, sec.1, Geol., vol. 2, no. 2, p. 90, pl. 2, fig. 2

Holotype: UMUT KML0019 (pl. 2, fig. 2)

At the south of Hagino, Kahoku-machi, Kami -gun, Kochi Prefecture (133 °43'E, 33 °37'N)

Nankai Group (Hagino Formation) in Monobe area

Aritan and lower Miyakoan (upper Neocomian to Aptian), Cretaceous

***Chlamys* sp. cf. *C. subacuta* (Lamarck): Hayami (1965)**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 312, pl. 45, fig. 1

Loc.Hn.6201 at the northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Aketo Formation) in Tanohata area

Upper Miyakoan (Albian), Cretaceous

***Chlamys (s. l.) tamurai* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 52, pl. 6, figs. 1-7
 Holotype: KE2239 (pl. 6, fig. 1), Paratypes: KE2107 (pl. 6, fig. 6), KE2110 (pl. 6, fig. 2), KE2111, KE2112, KE2108 (pl. 6, fig. 3), KE2109 (pl. 6, fig. 7)
 Loc. S4 (Holotype), road-cut of Fukkireura and Loc. S7 (Paratypes: KE2107, KE2110-2), roadside exposure of Kashima-mura, Satsuma-gun, Kagoshima Prefecture
 Himezuka (Paratypes: KE2108-9) of Dogo, Matsuyama City, Ehime Prefecture
 Middle Formation of the Upper Himenoura Subgroup in Koshikijima area
 Lower Heterian (Upper Campanian), Cretaceous
 (*Nippononectes tamurai tamurai* (Tashiro) by Tashiro (1982))

***Chlamys tamurai immodesta* Tashiro, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 110, p. 320, pl. 43, figs. 1-4, text-fig. 2
 Holotype: KE2751 (pl. 43, figs. 1a-b), Paratypes: KE2752, KE2753 (pl. 43, fig. 4), KE2754, KE2755, KE2756 (pl. 43, fig. 3), KE2757, KE2758 (pl. 43, fig. 2)
 A roadside exposure of northwest beach of Hinoshima island, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture
 Lower Formation of the Lower Himenoura Subgroup in Hinoshima island
 Middle Urakawan (Lower Santonian), Cretaceous
 (*Nippononectes tamurai immodesta* (Tashiro) by Tashiro (1982))

***Chlamys tanakai* Kozai and Tashiro, 1993**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 14, p. 25-43, pl. 6
 Holotype: KSG-K255 (pl. 6, fig. 15), Paratypes: KSG-K250A, KSG-K250B (pl. 6, fig. 12), KSG-K251, KSG-K252 (pl. 6, fig. 14), KSG-K253 (pl. 6, fig. 16), KSG-K254A (pl. 6, fig. 13), KSG-K254B, KSG-K256
 Loc. 3 about 2000 m west-south-west and Loc. 4 about 2500 m northwest of Ofunato City, Iwate Prefecture
 Funagawa Formation in Ofunato area
 Upper Hauterivian – Lower Barremian, Cretaceous

***Clisocolus (Crenocolus) crenulatus* Ichikawa and Maeda, 1966**

Prof. Matsushita Memorial Vol., Kyoto, p. 236, pl. 7, fig. 1-3
 Holotype: OMM F1025 (pl. 7, fig. 1)
 Loc. 150 at Azenotani, Senan City, Osaka Prefecture
 Izumi Group in Izumi mountains
 Maastrichtian, Cretaceous

***Clisocolus (Clisocolus) japonica* Tashiro and Otsuka, 1982**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 3, p. 8, pl. 3, figs. 13-17
 Holotype: KSG3001 (pl. 3, figs. 13, 14), Paratypes:

KSG3002 (pl. 3, fig. 16), KSG3003 (pl. 3, fig. 15), KSG3004 (pl. 3, fig. 17)
 Masuno (KSG3001), Oniki-machi and Onoura (KSG3003), Kutama-machi, Ushibuka City, Kumamoto Prefecture
 Uppermost Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area
 Uppermost Campanian - Maastrichtian, Cretaceous

***Clisocolus (Clisocolus) odochiensis* Tashiro and Kozai, 1982**

Palaeont. Soc. Japan, Sp. Pap., vol. 25, p. 85, pl. 14, fig. 5-10
 Holotype: KSG 3048 (pl. 14, fig. 10), Paratypes: KSG3049 (pl. 14, fig. 6), KSG3050 (pl. 14, fig. 8)
 Loc. M-03 about 1500 m northwest of Odochi, Monobe-mura, Kami-gun, Kochi Prefecture
 Kajisako Formation in Monobe area
 Turonian - Coniacian, Cretaceous

Corbicula (Tetoria) antiqua* (Kobayashi and Suzuki) see *Batissa antiqua* Kobayashi and Suzuki, 1937**Corbicula (Leptesthes?) coreanica* Kobayashi and Suzuki, 1936**

Japan. Jour. Geol. Geogr., vol. 13, nos. 3-4, p. 255, pl. 29, figs. 1-10
 Holotype: UMUT MM7935 (pl. 29, fig. 1), Paratypes: UMUT MM7936a (pl. 29, fig. 2), UMUT MM7936b (pl. 29, fig. 7), UMUT MM7936c (pl. 29, fig. 8), UMUT MM7937a (pl. 29, fig. 3), UMUT MM7937b (pl. 29, fig. 4), UMUT MM7937c (pl. 29, fig. 5), UMUT MM7937d (pl. 29, fig. 6), UMUT MM7938 (pl. 29, fig. 9)
 Shinshu near Taikyo (Daegu), south Korea
 Naktong Group in various areas in Keisyo-nan-do and Keisyo-hoku-do, south Korea
 Lower Cretaceous (precisely unknown)
 (*Nakamuraia chingshanensis* (Grabau) by Suzuki (1943))

***Corbicula (Veloritina?) sanchuensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 53, pl. 12, fig. 8, pl. 13, figs. 8-10, 17
 Syntype: IGPS no. 22449, IGPS no. 22467
 Bomekizawa, Ohinata of Saku-machi, Minamisaku-gun, Nagano Prefecture
 Shiroy Formation in Sanchu area
 Neocomian (Hauterivian – Barremian), Cretaceous
 (*Tetoria (Paracorbicula) sanchuensis* (Yabe and Nagao) by Ota (1965); *Tetoria sanchuensis* (Yabe and Nagao) by Tashiro (1992))

***Corbicula tetoriensis* Kobayashi and Suzuki, 1937**

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 46, text-fig. 2, pl. 4, figs. 7-15, pl. 5, figs. 8-12

Holotype: UMUT MM7008 (pl. 4, figs. 9a, b), Paratypes: UMUT MM7009 (pl. 4, fig. 7), UMUT MM7010 (pl. 4, fig. 8), UMUT MM7011a (pl. 4, fig. 13), UMUT MM7011b (pl. 4, fig. 14), UMUT MM7012 (pl. 4, fig. 11), UMUT MM7013 (pl. 4, fig. 10), UMUT MM7014 (pl. 4, fig. 12), UMUT MM7015 (pl. 4, fig. 15), UMUT MM7016a (text-fig. 2), UMUT MM7016b (pl. 5, fig. 4), UMUT MM7017a (pl. 5, fig. 1), UMUT MM7017b (pl. 5, fig. 3), UMUT MM7018 (pl. 5, fig. 2), UMUT MM7019 (pl. 5, figs. 5a, b), UMUT MM7020 (pl. 5, fig. 6), UMUT MM7021 (pl. 5, fig. 7)

Izuki (UMUT MM7008, UMUT MM7009 - UMUT MM7018, UMUT MM7021), Izumi-mura, Oono-gun, Fukui Prefecture; Yanagidani and Seto (UMUT MM7019), Nomi-gun (Oguchi-mura, Ishikawa-gun), Ishikawa Prefecture; Kurouchi (UMUT MM7020), Furukawa-machi, Yoshiki-gun, Gifu Prefecture
Tetori Group (Izuki and Ushimaru Formations) in Izumi and Makito areas

Upper Jurassic (or Lower Cretaceous)

(Myrene (Mesocorbicula) tetoriensis (Kobayashi and Suzuki) by Ohta (1973))

Corbicula (Tetoria) yokoyamai (Kobayashi and Suzuki) see Batissa yokoyamai Kobayashi and Suzuki, 1937

Corbula amagashiraensis Kobayashi and Suzuki, 1937

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 45, pl. 5, figs. 8-12

Holotype: UMUT MM7007a (pl. 5, fig. 8), Paratypes: UMUT MM7007b (pl. 5, fig. 9), UMUT MM7007c (pl. 5, fig. 10), UMUT MM7007d (pl. 5, fig. 11), UMUT MM7007e (pl. 5, fig. 12)

Amagashiradani, Izumi-mura, Oono-gun, Fukui Prefecture
Tetori Group (Shimoanama Formation) in Izumi area..

Upper Jurassic (or Lower Cretaceous)

(Neomiodon? amagashiraensis (Kobayashi and Suzuki) by Ohta (1973))

Corbula (s. l.) imamuræ Hase see Corbula? imamuræ Hase, 1960

Corbula? imamuræ Hase, 1960

Jour. Sci. Hiroshima Univ., ser. C, vol. 3, no. 2, p. 324, pl. 37, figs. 16-22, pl. 39, figs. 2-4

Holotype: IGSH-HA271 (pl. 37, fig. 16), Paratypes: IGSH-HA272 (pl. 37, fig. 17), IGSH-HA273 (pl. 37, fig. 18), IGSH-HA274 (pl. 37, fig. 19)

About 1100 m southeast of Ohata southeastward to Toishi-yama (bench mark 410.2 m), Utsui, Shimonoseki City, Yamaguchi Prefecture

Toyonishi Group (Yoshimo Formation) in Shimonoseki area
Lower Cretaceous (precisely unknown)

(Corbula (s. l.) imamuræ Hase by Tashiro (1992))

Corbula matsumotoi Hase, 1960

Jour. Sci. Hiroshima Univ., ser. C, vol. 3, no. 2, p. 322, pl. 39, figs. 5-21, text-fig. 6

Holotype: GK.H6084 (pl. 39, fig. 5), Paratypes: GK.H6085 (pl. 39, fig. 6), GK.H6086 (pl. 39, fig. 7), GK.H6087 (pl. 39, fig. 8)

Saka-yori-ue of Kawamata, Toyo-son, Yatsushiro-gun, Kumamoto Prefecture

Kawaguchi Formation in Yatsushiro area

Neocomian, Cretaceous

(Eoursivivas matsumotoi (Hase) by Hayami (1975); Corbula (s. l.) matsumotoi Hase by Tashiro (1992))

Corbula (s. l.) matsumotoi Hase see Corbula matsumotoi Hase, 1960

Corbula (Bicorbula) pyriforma Kozai, 1989

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 153, p. 36-47, figs. 1-4

Holotype: KSG-K133 (Fig. 4-10), Paratypes: KSG-K134 (Fig. 4-2), KSG-K135, KSG-K136 (Fig. 4-5), KSG-K137, KSG-K138 (Fig. 4-3), KSG-K139 (Fig. 4-7), KSG-K140 (Fig. 4-4), KSG-K141, KSG-K142, KSG-K143, KSG-K144, KSG-K145 (Fig. 4-9), KSG-K146 (Fig. 4-11), KSG-K147 (Fig. 4-6), KSG-K148 (Fig. 4-1)

Loc. 1 about 750 m southeast of Gungaura, Amakusa-machi, Amakusa-gun, Kumamoto Prefecture; Locs. 2 and 3, about 500m south of Gungaura, Amakusa-machi, Amakusa-gun, Kumamoto Prefecture

Upper Himenoura Subgroup in Gungaura area

Maastrichtian, Cretaceous

Corbula (Varicorbula) ushibukensis Tashiro and Otsuka, 1982

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 3, p. 17, pl. 5, figs. 12-14, 19

Holotype: KSG3043 (pl. 5, fig. 19), Paratypes: KSG3044 (pl. 5, fig. 12), KSG3045 (pl. 5, fig. 14), KSG3046, KSG3047, KSG3048, KSG3049 (pl. 5, fig. 13), KSG3050, KSG3051

Roadside exposure of Myokengaura, Amakusa-machi, Amakusa-gun, Kumamoto Prefecture

Uppermost Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area

Maastrichtian, Cretaceous

Cordiceramus codrdiformis mukawaensis (Nagao and Matsumoto) see Inoceramus sp. nov.? (Inoceramus mukawensis Otatume MS.), in Nagao and Matsumoto, 1939

Corymya? tanohatensis Hayami, 1966

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 17, no. 3, p. 171, pl. 26, figs. 4, 5

Holotype: GK.H6724 (pl. 26, fig. 4), Paratype: GK.H6725 (pl. 26, fig. 5)

Southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
 Tanohata Formation in Tanohata area
 Lower Miyakoan (Aptian), (Aptian – Lower Albian by Tashiro (1992)), Cretaceous
 (*Corymya? tanohatensis* Hayami by Hayami (1975))

Corymya? tanohatensis Hayami see *Corimya? tanohatensis* Hayami, 1966

***Cosmetodon monobensis* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 269, pl. 1, figs. 10-18, pl. 2, figs. 17-18
 Holotype: KSG3606 (pl. 2, fig. 17), Paratypes: KSG3607 (pl. 1, fig. 11), KSG3608 (pl. 1, figs. 10, 16), KSG3609, KSG3610 (pl. 1, figs. 17, 18), KSG3611 (pl. 1, fig. 15), KSG3612, KSG3613, KSG3614
 About 300 m north of Todoronotaki, Yunoki, Kahoku-machi, Kami-gun, Kochi Prefecture
 Monobe Formation in Monobe area
 Upper Hauterivian or lower Lower Barremian, Cretaceous

Cosmetodon nipponicus (Nagao) see *Grammatodon nipponica* Nagao, 1934

***Cosmetodon tomochiensis* Tashiro and Matsuda, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 142, p. 369, pl. 74, figs. 9-15, pl. 76, fig. 4, text-fig. 2
 Holotype: KSG3487 (pl. 74, figs. 10-11), Paratypes: KSG3488 (pl. 74, fig. 12), KSG3489 (pl. 74, fig. 13), KSG3490 (pl. 74, fig. 14), KSG3491 (pl. 74, fig. 15), KSG3492 (pl. 74, fig. 9), KSG3493 (pl. 76, fig. 4)
 Kashiwagawa of Tomochi-machi, Shimomashiki-gun, Kumamoto Prefecture
 Tomochi Formation in Kashiwagawa area
 Upper Aptian or ?Lower Albian, Cretaceous

Costocyrena crenatus Ohta see *Cyrena otsukai* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

***Costocyrena hojiensis* Tashiro, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 147, p. 98, figs. 3, 5- 28-37
 Holotype: KSG3869 (fig. 5-34), Paratypes: KSG3870 (fig. 5-31), KSG3871 (fig. 5-30), KSG3872 (fig. 5-29), KSG3873 (fig. 5-33), KSG3874, KSG3875 (fig. 5-32), KSG3877 (fig. 5-35), KSG3878 (fig. 5-37), KSG3879 (fig. 5-36)
 All from Tatsukawa, Katsuura-machi, Kami-katsu-gun, Tokushima Prefecture
 Hoji Formation in Katsuura area
 Aptian, Cretaceous

***Costocyrena matsumotoi* Hayami, 1965**

Mem.Fac.Sci.Kyushu Univ. ser. D, vol.17, no. 2, p. 133, pl.

18, figs. 2-12

Holotype: GK.H6502 (pl. 18, fig. 3), Paratypes: GK.H6503 (pl. 17, fig. 2), GK.H6504 (pl. 17, fig. 6), GK.H6505 (pl. 17, fig. 4), GK.H6506 (pl. 17, fig. 9), GK.H6507 (pl. 17, fig. 5), GK.H6673 (pl. 17, fig. 10), GK.H6674 (pl. 17, fig. 11), GK.H6675, GK.H6676 (pl. 17, fig. 7), GK.H6677

Locs. Hy.1017 and Km.3035 (holotype and paratypes) at the west of Mt. Jogusan, Miyaji-machi, Yatsushiro City, Kumamoto Prefecture
 Yatsushiro Formation in Yatsushiro area
 Upper Miyakoan (Albian), (Lower Albian by Tashiro (1992)), Cretaceous

***Costocyrena mifunensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 107, pl. 12, figs. 12-20
 Holotype: KE2669 (pl. 12, fig. 13)
 Loc. 43 at the south of Hakamano, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture
 Mifune Group in Mifune area
 Middle Cenomanian, Cretaceous

***Costocyrena minor* Ohta, 1981**

Bull. Fukuoka Univ. Educ., vol. 31, part III, p. 126, pl. 8, figs. 19-36
 Holotype: GF.15207 (pl. 8, fig. 19), Paratypes: GF.15201 (pl. 8, fig. 20), GF.15202 (pl. 8, fig. 32), GF.15203 (pl. 8, fig. 22), GF.15204 (pl. 8, fig. 21), GF.15205 (pl. 8, fig. 23), GF.15206 (pl. 8, fig. 35), GF.15209 (pl. 8, fig. 25), GF.15210 (pl. 8, fig. 34), GF.15211, GF.15212 (pl. 8, fig. 29), GF.15213 (pl. 8, fig. 26), GF.15214 (pl. 8, fig. 27), GF.15215, GF.15216 (pl. 8, fig. 33)
 At the quarry of road side, north of Imaizumi, Yatsushiro City, Kumamoto Prefecture
 Miyaji Formation in Yatsushiro area
 Upper Albian (Aptian by Tashiro, 1987), Cretaceous

***Costocyrena ohnishi* Tashiro, 1987**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 147, p. 99, figs. 2- 1-12, 4
 Holotype: KSG3880 (fig. 2-5), Paratypes: KSG3881 (fig. 2-2), KSG3882 (fig. 2-3), KSG3883 (fig. 2-6), KSG3884 (fig. 2-1) KSG3885 (fig. 2-4), KSG3886 (fig.2-11), KSG3887 (fig.2-7), KSG3888 (fig. 2-12), KSG3889, KSG3890, KSG3891 (fig. 2-10), KSG3892 (fig. 2-8), KSG3893 (fig.2-9), KSG3894, KSG3895
 Tatsukawa (holotype and paratypes (KSG3881-KSG3885)), Katsuura-machi, Katsuura-gun, Tokushima Prefecture; Idaira (paratypes (KSG3886-KSG3895)) of Inasa-machi, Inasa-gun in Shizuoka Prefecture
 Tatsukawa Formation in Katsuura area, and Idaira Formation in Inasa area
 Barremian (?) – Upper Hauterivian, Cretaceous

- Costocyrena ominensis* (Nakazawa and Murata) see “*Eomiodon*” *ominensis* Nakazawa and Murata, 1966
- Costocyrena otsukai* (Yabe and Nagao) see *Cyrena otsukai* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926
- Costocyrena otsukai obsoleta* Tashiro, 1987
Trans. Proc. Palaeont. Soc. Japan, N.S., no. 147, p. 102, figs. 1-31-37, 6
Holotype: KSG3896 (fig. 1-31), Paratypes: KSG3897 (fig. 1-35), KSG3898 (fig. 1-37), KSG3899 (fig. 1-32), KSG3900 (fig. 1-33), KSG3901 (fig. 1-34), KSG3902 (fig. 1-36)
Idaira of Inasa-machi, Inasa-gun, Shizuoka Prefecture
Idaira Formation in Inasa area
Hauterivian - Barremian, Cretaceous
- Costocyrena otsukai otsukai* (Yabe and Nagao) see *Cyrena otsukai* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926
- Costocyrena peikangensis* Hayami, in Matsumoto, Hayami and Hashimoto, 1965
Petrol. Geol. Taiwan, no. 4, p. 12, pl. 2, figs. 5-6
Holotype: CPC no.17 (pl. 2, fig. 6), Paratypes: CPC no.18 (pl. 2, fig. 5) and CPC no.19
Holotype (CPC no.17), obtained from the core sample (1977.65 m) of PK2 well, Peikan, western Tauwan; Paratype (CPC no.18), obtained from the level of 2005.30 m of PK-2, the same locality
Unnamed buried Cretaceous formation in west Formosa
Lower Cretaceous (not younger than Aptian), Cretaceous
- Costocyrena radiatostriata* (Yabe and Nagao) see *Cyrena radiatostriata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926
- Costocyrena radiatostriata* (Yabe and Nagao) see “*Eomiodon*” *ominensis* Nakazawa and Murata, 1966
- Crassatella kagaharensis* Yokoyama, 1890
Palaeontographica, vol. 36, no. 3, p. 200, pl. 25, figs. 14-15
Syntype: depository unknown
Ichinosebashi at the south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture
Ishido Formation in Sanchu area
Upper Neocomian–Aptian (Upper Hauterivian to Lower Barremian by Tashiro and Kozai (1988)), Cretaceous
(*Pachythaerus kagaharensis* (Yokoyama) by Matsumoto, Hayami and Asano (1963))
- Crassatella (Pachythaerus) nagaoui* Matsumoto, 1938
Jour. Geol. Soc. Japan., vol. 45, no. 532, p. 16, text-figs. 10, 11
Syntype: UMUT MM7797 (text-fig. 10), UMUT MM7798 (text-fig. 11)
Kobunenosako and Enokuchi, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture
Goshonoura Group in Goshonoura and Shishijima islands
Albian (?) - Cenomanian, Cretaceous
(*Pachythaerus nagaoui* (Matsumoto) by Hayami (1975))
- Crassatella? sp. cf. Crassatella (?) protracta* Collignon: Tashiro (1978)
Mem. Fac. Sci. Kochi Univ., ser. E, Geol. vol. 3, p. 11, pl. 5, fig. 11
Shirahama, Kutama-machi, Ushibuka City (loc. 4), Kumamoto Prefecture
Maastrichtian, Cretaceous
- Crassatella (Pachythaerus) yanagisawai* Tashiro, 1988
Saito-ho-on kai Sp. Pub. (Prof. T. Kotaka Commem. vol.) , p. 290, pl. 2, figs. 12-19, 3
Holotype: KSG3950 (pl.2, figs. 12, 13), Paratypes: KSG3951 (pl.2, fig. 17), KSG3952 (pl. 2, fig. 19), KSG3953 (pl. 2,fig. 14), KSG3954 (pl. 2, fig. 18)
Kokisawa of Misakubo-machi, Iwata-gun, Shizuoka Prefecture
Misakubo Formation in Akaishi Mountains
Lower Cenomanian, Cretaceous
(*Pachythaerus yanagisawai* (Tashiro) by Tashiro (1992))
- Crassostrea kawauchidensis* Tamura, 1977
Mem. Fac. Educ. Kumamoto Univ., no. 26, nat., sci., p. 114, pl. 2, figs. 1-5, pl. 12, figs. 21-24
Holotype: KE2490 (pl. 2, fig. 3)
Loc. 12 at the east of Kawauchida, Mashiki-machi, Kamimashiki-gun, Kumamoto Prefecture
Mifune Group in Mifune area
Middle Cenomanian, Cretaceous
- Crassostrea ryosekiensis* (Kobayashi and Suzuki) see *Ostrea ryosekiensis* Kobayashi and Suzuki, 1939
- Crassostrea yoshimoensis* (Kobayashi and Suzuki) see *Ostrea (Crassostrea) yoshimoensis* Kobayashi and Suzuki, 1939
- Crenella gyliakiana* Matsumoto, 1938
Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 16, pl. 1, figs. 9, 10, 11
Holotype: UMUT MM7747a (pl. 1, fig. 9), Paratypes: UMUT MM7747b, UMUT MM7748
Loc. G-275 at Ikusyunbetsu (Ikushumbetsu), Mikasa City, Hokkaido
Middle Yezo Group (Mikasa sandstone) in Ikushunbetsu area, and Goshonoura Group in Goshonoura island
Cenomanian – Turonian, Cretaceous

***Crenotrapezium kitakamiensis* Hayami, 1960**

Japan. Jour. Geol. Geogr., vol.31, no.1, p. 17, pl. 3, figs. 8-10

Holotype: UMUT MM3570 (pl. 3, fig. 9), Paratypes: UMUT MM3571 (pl. 3, fig. 8), UMUT MM3572 (pl. 3, fig. 10)

At the west of Nagashioya (Loc. 27 by Mori, 1949), Kitakami-machi, Monou-gun, Miyagi Prefecture
Jusanhama Group in Hashiura area
Tithonian, Jurassic to lower Neocomian, (Berriasian-Valanginian by Tashiro (1992)), Cretaceous

Crenotrapezium? kobayashii* (Maeda) see *Polymesoda (Isodomella) kobayashii* Maeda, 1959**Ctenocardia spinosa* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat., sci., p. 118, pl. 5, figs. 1-6, pl. 13, fig. 13

Holotype: KE2534 (pl. 5, fig. 1)

Loc.8 at the south of Asanoyabu, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture
Mifune Group in Mifune area
Middle Cenomanian, Cretaceous

Ctenoides subrapa* (Nagao) see *Lima (Ctenoides?) subrapa* Nagao, 1934**Cucullaea acuticarinata* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 192, pl. 24, figs.10-14, pl. 30, fig. 5

Holotype: GMH no. 6756 (pl. 24, fig.11)

Tokuzo, southern coast of Hiraiga inlet, Tanohata-mura, Shimohei-gun, Iwate Prefecture
Hiraiga and Aketo Formations in Tanohata area
Aptian-Albian, Cretaceous

(*Cucullaea (Idonearca) acuticarinata* Nagao by Hayami (1975))

Cucullaea (Idonearca) acuticarinata* Nagao see *Cucullaea acuticarinata* Nagao, 1934**Cucullaea (Idonearca) acuticarinata* Nagao see *Cucullaea fujii* Hayami, 1965*****Cucullaea (Idonearca) amaxensis* Matsumoto see *Cucullaea ezoensis* Yabe and Nagao var. *amaxensis* Matsumoto, 1938*****Cucullaea delicatostriata* Yabe and Nagao, 1925**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol.7, no. 4, p. 113, pl. 28, fig.1

Lectotype designated by Hayami (1975, p. 32): IGPS no.8555 (pl. 28, fig. 1)

At the south of Cape Khoi, near Alexandrovsk, north Saghalin
Werblud Group ("Cape Khoi beds") in Alexandrovsk area

Cenomanian - Turonian, Cretaceous

***Cucullaea ezoensis* Yabe and Nagao, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 81, pl. 16, figs. 1-3

Holotype: IGPS no.22611

Futamatanosawa of Miruto, Kurisawa-machi, Sorachi-gun, Hokkaido

Middle Yezo Group (Mikasa Group (Mikasa Formation)) in Miruto and Ikushumbetsu areas

Cenomanian - Turonian, (Middle Cenomanian by Tashiro (1992))

(*Cucullaea (Idonearca) ezoensis ezoensis* Yabe and Nagao by Hayami (1975))

Cucullaea (Idonearca) ezoensis ezoensis* Yabe and Nagao see *Cucullaea ezoensis* Yabe and Nagao, 1926**Cucullaea ezoensis* Yabe and Nagao var. *amaxensis* Matsumoto, 1938**

Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 13, pl. 1, fig. 1

Lectotype designated by Hayami (1975, p. 31): UMUT MM7745 (pl. 1, fig. 1)

Arakuchisaki and Kobunenosako, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshomoura Group in Goshonoura island

Cenomanian, (Upper Albian - Lower Cenomanian by Tashiro (1992)), Cretaceous

(*Cucullaea (Idonearca) ezoensis amaxensis* Matsumoto by Hayami (1975); *Cucullaea (Idonearca) amaxensis* Matsumoto by Tashiro (1992))

Cucullaea (Idonearca) ezoensis amaxensis* Matsumoto see *Cucullaea ezoensis* Yabe and Nagao var. *amaxensis* Matsumoto, 1938**Cucullaea fujii* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 246, pl. 28, figs. 14-15

Holotype: GK.H6216 (pl. 28, fig. 14), Paratypes: GK.H6217 (pl. 28, fig. 15)

Loc. U.1005, between Tamarimizu and Ochiai, Nozu-machi, Ono-gun, Oita Prefecture

Tamarimizu Formation in Haidateyama area

Aptian-Lower Albian, Cretaceous

(*Cucullaea (Idonearca) acuticarinata* Nagao by Tashiro (1990))

Cucullaea (Cucullaea) obliquata* (Amano) see *Trigonarca (?) obliquata* Amano, 1957**Cucullaea sachalinensis* Schmidt, 1873**

Mem. Acad. Imp. Sci. St. Petersburg, VII Ser., vol. 19, no. 3, p. 24, pl. 5, fig. 5, pl. 8, figs. 6, 7

Lectotype designated by Ichikawa and Maeda (1958, p. 67) (depository unknown) from Saghalin

At the south-western beach of Kugujima islet, Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture
Himenoura Group in Shimokoshiki island, and Upper Yezo Group and Hakobuchi Group in various areas of North and Central Hokkaido

Coniacian–Maastrichtian (Coniacian, Santonian and Lower Campanian by Tashiro (1976)), Cretaceous

(*Nanonavis sachalinensis* (Schmidt) by Saito (1962); *Grammatodon* (*Nanonavis*) *sachalinensis sachalinensis* (Schmidt) by Hayami (1975); *Nanonavis sachalinensis* (Schmidt) by Tashiro (1976))

***Cucullaea transversa* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 193, pl. 25, figs. 1, 3-6

Holotype: GMH no. 6797 (pl.25, fig.1)

Tokuzo, southern coast of Hiraiga inlet, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Aptian-Albian, Cretaceous

***Cuneigervillia quadrata* Nakazawa and Murata, 1966**

Mem. Coll. Sci. Univ. Kyoto, ser. B, vol. 32, no. 4, p. 311, pl. 3, figs. 9-11

Holotype: UK JM11143 (pl. 3, figs. 11a, b), Paratypes: UK JM11148 (pl. 3, fig. 9), UK JM11145 (pl. 3, figs. 10a, b)

Obirakizawa, near the Omine mine, Tono City, Iwate Prefecture

Kamihei Group in Kamihei area

Neocomian (Upper Hauterivian-Barremian by Tashiro (1992)), Cretaceous

(*Aguilerella quadrata* (Nakazawa and Murata) by Hayami (1975))

***Cuspidaria brevirostis* Nagao, 1938**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 132, pl. 16, figs. 7-9a

Holotype: GMH no.8226 (pl. 16, fig. 7)

The Kawakami colliery, south Saghalin and the Tomatsu-zawa, Ikushunbetsu, Mikasa-City, Hokkaido

Upper Yezo Group in Kawakami area, and Middle Yezo Group in Ikushunbetsu area

Upper Cretaceous (precisely unknown)

***Cymbophora ezoensis* (Yabe and Nagao) see *Spisula* (*Cymbophora*) *ezoensis* Yabe and Nagao, 1928**

***Cymbophora hetonaiensis* (Nagao and Otatume) see *Spisula* (*Cymbophora*) *ezoensis* Yabe and Nagao var. *hetonaiensis* Nagao and Otatume, 1938**

***Cymbophora okadakensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat., sci., p. 119, pl. 5, figs. 8-15

Holotype: KE2549 (pl. 5, fig. 8a, b)

Loc. 41 at Okadake, Matsubase-machi, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Matsubase area

Middle Cenomanian, Cretaceous

***Cymbophora? tellinoides* (Nagao and Otatume) see *Spisula* (*Cymbophora?*) *tellinoides* Nagao and Otatume, 1938**

***Cyprina aliquantula* Amano, 1957**

Kumamoto Jour. Sci., ser. B, sec. 1, vol. 2, no. 2, p. 95, pl. 2, figs. 13-18

Holotype: UMUT KML0026 (pl. 2, fig. 14)

At the south of Hagino, Kahoku-machi, Kami-gun, Kochi Prefecture (133 °43'E, 33 °37'N)

Nankai Group (Hagino Formation) in Monobe area

Aptian, Cretaceous

(*Isocyprina aliquantula* (Amano) by Hayami (1965))

***Cyrena naumanni* Neumayr, in Naumann and Neumayr, 1890**

Denkschr. Kaiserl. Akad. Wiss., Math – Naturw. Cl., vol. 57, p. 33, pl. 4, figs. 3, 4

Syntype (Naturhistorischen Museum, Wien) from Yanagidani, Kamikatsu-machi, Katsuura-gun, Tokushima Prefecture

Tatsukawa Formation in Katsuura-gawa area, Shiroy Formation in Sanchu area, Yuasa Formation in Yuasa area, and Tetori Group (Kuwajima Formation) in Tetori area

Neocomian (Upper Hauterivian by Tashiro (1989)), Cretaceous

(*Protocyprina naumanni* (Neumayr) by Hayami and Nakai (1965); *Neumayria bungoensis* Ohta (1981); *Hayamina naumanni* (Neumayr) by Ohta (1982))

***Cyrena otsukai* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 50, pl. 2, figs. 20-24

Syntype: IGPS no. 22453, IGPS no. 22476

Bomeki of Ohinata, Saku-machi, Minamisaku-gun, Nagao Prefecture

Shiroy Formation in Sanchu area, Yuasa Formation in Yuasa area, and Ryoseki Formation in Kochi area

Neocomian, (Hauterivian by Tashiro (1987)), Cretaceous (*Costocyrena otsukai* (Yabe and Nagao) by Ohta (1973); *Costocyrena crenatus* Ohta (1973); *Costocyrena otsukai* (Yabe and Nagao) by Tashiro (1987))

***Cyrena radiatostriata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 51, pl. 12,

figs. 29-35

Lectotype designated by Hayami (1965, p. 135): IGPS no. 35523

Lower valley of Hachimanzawa, northeast of Sebayashi, north of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture

Sebayashi Formation in Sanchu area

Aptian – Albian, (Upper Barremian by Tashiro (1987)), Cretaceous

(*Costocyrena radiatostriata* (Yabe and Nagao) by Hayami (1965))

***Cyrena shiroiensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 52, pl. 14, figs. 4-6, 19, 20, 22, 25

Syntype: IGPS no. 22451

Bomeki of Ohinata, Saku-machi, Minamisaku-gun, Nagao Prefecture

Shiroi Group (Shiroi Formation) in Sanchu area, Toyonishi Group (Yoshimo Formation) in Shimonoseki area, and Matsuo Formation in Shima area

Neocomian, (Upper Hauterivian by Tashiro (1989)), Cretaceous

(*Polymesoda shiroiensis* (Yabe and Nagao) by Kobayashi and Suzuki (1939); Synonymous with *Polymesoda* (*Isodomella*) *naumanni* (Neumayr) by Yamagiwa (1955); *Isodomella shiroiensis* (Yabe and Nagao) by Hayami (1975))

***Cyrena shiroiensis* var. *alata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 53, pl. 14, figs. 15, 28

Syntype: IGPS not registered

Shiroi, Ohinata, Saku-machi, Minamisaku-gun, Nagao Prefecture

Shiroi Group (Shiroi Formation) in Sanchu area

Neocomian, (Upper Hauterivian by Tashiro (1989)), Cretaceous

(Synonymous with *Polymesoda shiroiensis* (Yabe and Nagao) by Kobayashi and Suzuki (1939); Synonymous with *Polymesoda* (*Isodomella*) *naumanni* (Neumayr) by Yamagiwa (1955); Synonymous with *Isodomella shiroiensis* (Yabe and Nagao) by Hayami (1975))

***Dentonia japonica* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 132, pl. 7, figs. 1-6

Holotype: KE 2599 (pl. 7, fig. 2)

Loc. 30 at Tashiro, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian, Cretaceous

***Dosiniopsis corrugata* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 229, pl. 24, figs. 2-6, 9

Holotype: GMH no.6791 (pl. 24, fig. 2)

Locs. Hn0017, 0018, southern coast of Hiraiga, at loc.Hn.0916, north of Haipe and at loc.Hn.1904, south of Haipe, all in Tanohata-mura, Shimohei-gun, Iwate Prefecture; Loc.Hn.6203 and at loc.Hn 6201, northeast of Raga, Tanohata-mura, Shimohei-gun, the same Prefecture; Loc. Hn.4051, Oshima, off the coast of Moshi, Iwaizumi-machi, Shimohei-gun, the same Prefecture Miyako Group (Tanohata, Hiraiga and Aketo Formations) in Tanohata, Omoto and Miyako areas

Lower and upper Miyakoan (Aptian - Albian), Cretaceous (*Nagaoella corrugata* (Nagao) by Hayami (1965))

***Didymotis akamatsui* (Yehara) see *Inoceramus akamatsui* Yehara, 1924**

***Dimya akasakiensis* Tashiro and Otsuka, 1980**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 1, p. 53, pl. 4, figs. 9-15.,text-fig. 7

Holotype: KSG2195 (pl. 4, figs. 11-13), Paratypes: KSG2196 (pl. 4, figs. 14-16), KSG2197 (pl. 4, figs. 9-10), KSG2198, KSG2199, KSG2200

Loc. 18, southern beach of Akashi-misaki, Kutama-machi, Ushibuka City, Kumamoto Prefecture

“Akasaki Formation” of the Miroku Group in Amakusa area Lower part of the Middle Eocene

***Eburneopecten? miyakoensis* (Nagao) see *Pecten* (*Camptonectes*) *miyakoensis* Nagao, 1934**

***Electoroma shiranuiensis* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 50, pl. 4, figs. 17-19, text-fig. 17

Holotype: KE2097 (pl. 4, fig. 18), Paratypes: KE2098, KE2099 (pl. 4, fig. 19), KE2100 (pl. 4, fig. 17)

Loc. A16 (Holotype and Paratypes) about 100 m west of Kojima, Himeura, Himedo-machi, Amakusa-gun, Kumamoto Prefecture

Middle Formation of the Lower Himenoura Subgroup in Amakusa-Kamijima area

Upper Urakawan (Santonian), Cretaceous

***Entolium ikedai* Tashiro, 1990**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 11, p. 8, pl. 2, figs. 1-5.,text-fig. 5

Holotype: KSG5031 (pl. 2, figs. 1, 2), Paratype: KSG5032 (pl. 2, figs. 3, 4, 5)

Loc. 2 about 1200 m north of Shimofukami, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture

Kesado Formation in Sakamoto area

Upper Barremian or Lower Aptian, Cretaceous

***Entolium sanchuensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 315, pl. 45, figs. 12, 13, pl. 52, fig. 5
 Holotype: GK.H6291 (pl. 45, fig. 12); Paratypes: GK.H6292 (pl. 45, fig. 13; pl. 52, fig. 5), GK.H6293
 Loc. Hy.4001 at Ichinose-bashi, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture
 Ishido Formation in Sanchu area
 Aritan (upper Neocomian), Cretaceous

***Entolium tosaense* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, p. 30 pl. 2, figs. 14-16
 Holotype: KSG3665 (pl. 2, fig. 15), Paratypes: KSG3666 (pl. 2, fig. 16), KSG3667
 About 300 m north of Todoronotaki of Hibihara, Kahoku-machi, Kami-gun, Kochi Prefecture
 Monobe Formation in Monobe area
 Lower Barremian, Cretaceous

***Entolium yatsujiense* Kurata and Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 7, nos. 6-10, p. 346, pl. 1, fig. 18
 Holotype: UMUT MM7105 (pl. 1, fig. 18a, b)
 Yatsuji at Togano, Sakawa-machi, Takaoka-gun, Kochi Prefecture
 Torinosu Group in Sakawa area
 Upper Jurassic, (Uppermost Jurassic-Valanginian, Cretaceous by Tashiro (1992))

***Entolium? yatsushiroense* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 316, pl. 48, fig. 6
 Holotype: GK.H6294 (pl. 48, fig. 6), Paratypes: GK.H6373, GK.H6374
 Loc. Km.1843 at the north of Shimofukami, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture
 Yatsushiro Formation in Yatsushiro area
 Upper Miyakoan (Albian), Cretaceous

***Eocallista ofunatoensis* Kozai and Tashiro, 1993**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 14, p. 32, pl. 6, figs. 1-4, 6
 Holotype: KSG-K315, Paratypes: KSG-K316, KSG-K320 - KSG-K322 (pl. 6, fig. 6), KSG-K234, KSG-K326 (pl. 6, fig. 1)
 Loc. 2 about 2000 m southwest and Loc. 4 about 3000 m northwest of Ofunato City, Iwate Prefecture
 Funagawa Formation in Ofunato area
 Upper Hauterivian – Lower Barremian, Cretaceous

***Eomiodon hayamii* Ohta, 1973**

Bull. Fukuoka Univ. Educ., vol. 22, pt. 3, p. 254, pl. 1, figs. 12-14
 Holotype: GF.Y239 (pl. 1, fig. 12), Paratypes: GF.Y215 (pl. 1,

fig. 13), GF.Y238 (pl. 1, fig. 14)

Loc. 51, coastal region about 500 m north of Yoshimo, Shimonoseki City, Yamaguchi Prefecture
 Yoshimo Formation in Shimonoseki area
 Lower Neocomian (Neocomian by Hayami (1975)), Cretaceous

***Eomiodon kumamotoensis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 35, p. 115, pl. 12, figs. 17, 18
 Holotype: UMUT MM3105 (pl. 12, fig. 18), Paratype: UMUT MM3104 (pl. 12, fig. 17)
 Loc. 4 (UMUT MM3104) at Sakamoto and loc. 6 (UMUT MM3105) at Tsurubami, Skamoto-mura, Yatsushiro-gun, Kumamoto Prefecture
 Torinosu Group in Sakamoto area
 Upper Jurassic, (Uppermost Jurassic-Valanginian, Cretaceous by Tashiro (1992))

***Eomiodon matsubasensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 127, pl. 6, figs. 9-19, pl. 12, figs. 10, 11
 Holotype: KE ?
 Okadake and Magano of Matsubase-machi, Shimomashiki-gun, Kumamoto Prefecture
 Mifune Group in Matsubase area
 Cenomanian, Cretaceous

***Eomiodon matsumotoi* Ohta, 1973**

Bull. Fukuoka Univ., vol. 22, no. 3, p. 245, pl. 2, figs. 1-13
 Holotype: GF K102 (pl. 2, fig. 1), Paratypes: GF.K106, GF.K107 (pl. 2, fig. 6), GF.K110 (pl. 2, fig. 9), GF.K112, GF.R658 (pl. 2, fig. 7), GF.R659 (pl. 2, fig. 3), GF.R923
 Loc. 151 at Sakayoriue, Kawamata, Touyo-son, Yatsushiro-gun, Kumamoto Prefecture
 Kawaguchi Formation in Kawamata area, and Ryoseki Formation in Kochi and Sakawa areas
 Lower Neocomian (Hauterivian by Tashiro (1987)), Cretaceous

***Eomiodon nipponicus* Ohta, 1973**

Bull. Fukuoka Univ. Educ., vol.22, pt. 3, p. 252, pl. 1, figs. 15-22, pl. 2, figs. 14-19
 Holotype: GF.Y230 (pl. 1, fig. 19), Paratypes: GF.Y201 (pl. 2, fig. 17), GF.Y202 (pl. 1, fig. 17), GF.Y210, GF.Y219 (pl. 1, fig. 20), GF.Y214, GF.Y222, GF.Y224 (pl. 1, fig. 16), GF.Y225 (pl. 1, fig. 15), GF.Y229 (pl. 2, fig. 19), GF.Y250 (pl. 2, fig. 15)
 Loc. 51, west coast of Yoshimo, Shimonoseki City, Yamaguchi Prefecture
 Yoshimo Formation in Shimonoseki area
 Lower Neocomian (Neocomian by Hayami (1975)), Cretaceous

“*Eomiodon*” *ominensis* Nakazawa and Murata, 1966

Mem. Coll. Sci. Univ. Kyoto, ser. B, vol. 32, no. 4, p. 315, pl. 5, figs. 5-12, 15

Holotype: UK JM11159 (pl. 5, figs. 5a, b, 7, 8), Paratypes: UK JM11161 (pl. 5, fig. 6), UK JM11163 (pl. 5, figs. 9a, b), UK JM11164 (pl. 5, fig. 10), UK JM11165 (pl. 5, figs. 11, 12), UK JM11166 (pl. 5, fig. 15)

Kanabori-zawa, Kanayama-zawa and Obiraki-zawa, near the Omine mine, Tono City, Iwate Prefecture

Kamihei Group in Kamihei area

Neocomian (Barremian by Tashiro (1992)), Cretaceous

(*Costocyrena ominensis* (Nakazawa and Murata) by Hayami (1975); *Costocyrena radiatostriata* (Yabe and Nagao) by Tashiro (1992))

Eomiodon sakawanus (Kobayashi and Suzuki) see *Astarte sakawana* Kobayashi and Suzuki, 1939

Eonavicula prolata (Amano) see *Arca prolata* Amano, 1957

Eopinctada matsumotoi (Tamura) see *Pinctada (Eopinctada) matsumotoi* Tamura, 1961

Eoursivivas matsumotoi (Hase) see *Corbula matsumotoi* Hase, 1960

***Eriphyla elegans* Ichikawa and Maeda, 1963**

Jour. Geosci. Osaka City Univ., vol. 7, no. 5, p. 117, pl. 8, figs. 1-3

Holotype: OCU MM304 (pl. 8, fig. 1)

Loc. 36, Yamamoto of Nada, Nandan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island

Upper Heteronaiian (Maastrichtian by Hayami (1975)), Cretaceous

(*Eriphyla (Eriphyla) elegans* Ichikawa and Maeda by Hayami (1975))

Eriphyla (Eriphyla) elegans Ichikawa and Maeda see *Eriphyla elegans* Ichikawa and Maeda, 1963

***Eriphyla (Eriphyla) higoensis* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., No. 19, p. 64, pl. 8, figs. 6-12

Holotype: KE2182 (pl. 8, fig. 6), Paratypes: KE2183, KE2184 (pl. 8, fig. 11), KE2185 (pl. 8, fig. 12)

Loc. U5 (Holotype and Paratype: KE2183), Okoshiki of Oda-machi, Uto City, and Loc. A6 (Paratypes: KE2184-5), Wadanohama, Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture

Lower and Middle Formations of the Lower Himenoura Subgroup in Amakusa-Kamijima and Uto areas

Upper Urakawan (Santonian), Cretaceous

***Eriphyla japonica* Ichikawa and Maeda, 1963**

Jour. Geosci. Osaka City Univ., vol. 7, no. 5, p. 114, text-fig. 1a-b, pl. 8, figs. 4-11

Holotype: OCU MM312 (pl. 8, fig. 4a-b)

Loc. 40, Yamamoto of Nada, Nandan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island and Izumi mountains

Heteronaiian (Campanian – Maastrichtian by Hayami (1975)), Cretaceous

(*Eriphyla (Eriphyla) japonica* Ichikawa and Maeda by Hayami (1975))

Eriphyla (Eriphyla) japonica Ichikawa and Maeda see *Eriphyla japonica* Ichikawa and Maeda, 1963

***Eriphyla (Eriphyla) minima* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 99, pl. 9, figs. 13-16; pl. 14, figs. 12, 13

Holotype: GK.H6181 (pl. 9, fig. 15), Paratypes: GK.H6182 (pl. 9, fig. 13; pl. 14, fig. 13), GK.H6183, GK.H6184 (pl. 9, fig. 14), GK.H6449 (pl. 9, fig. 16; pl. 14, fig. 12)

Loc. At.328 (GK.H6181 - GK.H6184) at the south of Bisho, Toyo-mura, Yatsushiro-gun, Kumamoto Prefecture; Loc. Hy.4003 (GK.H6449), Ichinose-bashi, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture

Yatsushiro Formation (Hachiryuzan Formation) in Yatsushiro area, and Ishido Formation in Sanchu area

Aritan and upper Miyakoan (upper Neocomian to Albian), (Aptian – Lower Albian by Tashiro, 1992), Cretaceous

Eriphyla (Eriphyla) miyakoensis (Nagao) see *Astarte miyakoensis* Nagao, 1934

Eriphyla (Miyakoella) miyakoensis (Nagao) see *Astarte miyakoensis* Nagao, 1934

***Eriphyla (Eriphyla) monobensis* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 48, pl. 4, figs. 33, 34, text-fig. 6

Holotype: KSG4013 (pl. 4, fig. 33), Paratype: KSG4014 (pl. 4, fig. 34)

Todoronotaki of Hibihara, Kahoku-machi, Kami-gun, Kochi Prefecture

Monobe Formation in Monobe area

Upper Hauterivian to Lower Barremian, Cretaceous

***Eriphyla (Eriphyla) pulchella* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 98, pl. 9, figs. 6-12; pl. 14, fig. 6

Holotype: GK.H6442 (pl. 9, fig. 6), Paratypes: GK.H6443 (pl. 9, fig. 10), GK.H6444 (pl. 9, fig. 11), GK.H6445 (pl. 9, fig. 12), GK.H6446 (pl. 9, fig. 9; pl. 14, fig. 6), GK.H6447 (pl. 9, fig. 8)

Loc. Hn.6203 (holotype and paratypes), northeast of Raga,

Tanohata-mura, Shimohei-gun, Iwate Prefecture
 “*Orbitolina* sandstone” of the Miyako Group in Tanohata area
 Upper Miyakoan (Albian), (Aptian (?) – Albian by Hayami, 1975)), Cretaceous

***Exogyra subhaliotoidea* Nagao, 1934**

Jour. Fac. Sci., Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 203, pl. 30, figs. 1-4

Holotype: GMH no.6622 (pl. 30, fig. 3)

An exposure in “Tokuzo” district, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
 Miyako Group (Hiraiga, Tanohata and Aketo Formations) in Tanohata area

Aptian –Albian (Upper Hauterivian by Tashiro and Kozai (1986)), Cretaceous

(*Amphidonte* (*Amphidonte*) *subhaliotoidea* (Nagao) by Hayami (1965))

***Exogyra yabei* Nagao, 1934**

Jour. Fac. Sci., Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 202, pl. 25, fig. 7, pl. 26, fig. 1, pl. 27, fig. 1, pl. 28, figs. 1, 2, pl. 29, figs. 1, 14

Lectotype designated by Hayami (1965, p. 345): GMH not registered (pl. 29, fig. 1)

An exposure in “Tokuzo” district, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
 Miyako Group in Omoto and Tanohata areas

Aptian (Aptian - Lower Albian by Tashiro (1992)), Cretaceous

(*Amphidonte* (*Ceratostreon*) *yabei* (Nagao) by Hayami (1965); *Ceratostreon yabei* (Nagao) by Tashiro (1992))

***Ezonuculana dubia* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 42, pl. 2, figs. 13-15
 Holotype: KE2057 (pl. 2, fig. 15), Paratypes: KE2058 (pl. 2, fig. 13), KE2059 (pl. 2, fig. 14), KE2060

Loc. O21 (Holotype and Paratype: KE2058) about 150 m northwest of Hongo and Loc. O24 (Paratypes: KE2059, KE2060) at Kamihira of Miyakowachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Upper Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area

Upper Hetonaian (Maastrichtian), Cretaceous

***Ezonuculana mactraeformis* (Nagao) see *Nuculana mactraeformis* Nagao, 1932**

***Ezonuculana mactraeformis obsoleta* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 42, pl. 2, figs. 8-12, text-fig. 14A

Holotype: KE2050 (pl. 2, fig. 11), Paratypes: KE2051 (pl. 2, fig. 8), KE2052, KE2053 (pl. 2, figs. 9, 12), KE2054 (pl. 2, fig. 10), KE2055

Loc. S7 at roadside exposure of Ukimizuura, Kashima-mura, Satsuma-gun, Kagoshima Prefecture
 Middle Formation of the Upper Himenoura Subgroup in Koshikijima island
 Lower Hetonaian (Upper Campanian), Cretaceous

***Fenestricardita densigranulata* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 61, pl. 8, figs. 19-24
 Holotype: KE2166 (pl. 8, fig. 20), Paratypes: KE2167, KE2168 (pl. 8, figs. 21, 22), KE2169, KE2170

Loc. A6 (KE2166, KE2167 and KE2170) at wadanohama, Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture

Lower Formation of the Lower Himenoura Subgroup in Amakusa-Kamijima area

Upper Urakawan (Santonian), Cretaceous

***Fenestricardita ovata* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 63, pl. 8, figs. 14-18
 Holotype: KE2173 (pl. 8, fig. 14), Paratypes: KE2172 (pl. 8, fig. 16), KE2174 (pl. 8, fig. 15), KE2175

Loc. S7 (Holotype and Paratypes) at roadside exposure of Ukimizuura, Kashima-mura, Satsuma-gun, Kagoshima Prefecture

Middle Formation of the Upper Himenoura Subgroup in Koshikijima area

Lower Hetonaian (Upper Campanian), Cretaceous

***Filosina jusanhamensis* Hayami, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 15, pl. 3, figs. 1-7
 Holotype: UMUT MM3562 (pl. 3, fig. 4), Paratypes: UMUT MM 3563 (pl. 3, fig. 2), UMUT MM 3564 (pl. 3, fig. 3), UMUT MM 3565 (pl. 3, fig. 6), UMUT MM 3566 (pl. 3, fig. 7), UMUT MM 3567 (pl. 3, fig. 1), UMUT MM 3568 (pl. 3, fig. 5)

At the west of Nagashioya (Loc. 27 by Mori (1949)) and at Furumine shrine of Oppa (Loc. 25 by Mori (1949)) in Kitakami-machi, Monou-gun, Miyagi Prefecture
 Jusanhama Group in Hashiura area

Tithonian, Jurassic or lower Neocomian, Cretaceous (Berriasian-Valanginian, Cretaceous by Tashiro (1992))

***Gervillaria haradae* (Yokoyama) see *Avicula haradae* Yokoyama, 1890**

***Gervillaria hokutoi* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, p. 27, pl. 1, fig. 11, pl. 2, figs. 19, 20, pl. 4, figs. 1, 2

Holotype: KSG3698 (pl. 2, fig. 20), Paratypes: KSG3699, KSG3700, KSG3701 (pl. 2, fig. 19)

Sasa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Lower part of the Hibihara Formation in Monobe area
 Aptian, Cretaceous

***Gervillaria miyakoensis* (Nagao) see *Gervillia miyakoensis* Nagao, 1934**

***Gervillia (Pseudoptera) acuticarinata* Nagao, 1932**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no.1, p. 37, pl. 5, figs. 13-15

Syntype: GMH not registered

Pombetsu, Mikasa City, Hokkaido

Middle Yezo Group in Ikushumbetsu area

Cenomanian - Turonian, Cretaceous

(*Pseudoptera acuticarinata* (Nagao) by Hayami (1975))

***Gervillia forbesiana* d'Orbigny: Yabe, Nagao and Shimizu (1926)**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 57, pl. 12, figs. 36, 37, pl. 14, figs. 8, 9

Ishido Formation in Sanchu area, Miyako Group (Hiraiga Formation) in Tanohata and Omoto areas, Yatsushiro Formation in Yatsushiro area, Arida Formation in Yuasa area, Oshima Formation in Oshima area, Ofunato Group (Funagawa Formation) in Ofunato area, Hanoura Formation in Katsuuragawa area, and Choshi Formation in Choshi area Upper Neocomian-Albian, Cretaceous

***Gervillia haradae* (Yokoyama) see *Avicula haradae* Yokoyama, 1890**

***Gervillia metaforbesiana* Amano and Matsumoto, 1956**

Kumamoto Jour. Sci. ser. B, sec.1, vol. 2, no. 1, p. 72, pl. 1, figs. 14, 15

Holotype: not registered

Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture

Goshonoura Group in Shishijima island

Albian(?) - Cenomanian, Cretaceous

***Gervillia miyakoensis* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 197, pl. 31, fig. 2, pl. 32, fig. 7

Lectotype designated by Hayami (1965.): GMH.no.6777 (pl. 31, fig. 2 and pl. 32, fig. 7)

Loc. Hn.0017, southern coast of Hiraiga and at loc. Hn.0920, north of Haipe, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Aketo and Hiraiga Formations in Tanohata area

Lower and upper Miyakoan (Aptian – Albian), Cretaceous

(*Gervillaria miyakoensis* (Nagao) by Hayami (1965))

***Gervillia pseudorostrata* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p.199, pl. 31, figs. 6–9

Lectotype designated by Hayami (1965, p.273): GMH no.6758

Locs. Hn.0017, 0018, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga and Tanohata Formations) in Tanohata and Omoto areas

Aptian-Albian (Upper(?) Albian by Tashiro and Kozai (1986)), Cretaceous

(*Bakevellia* (*Neobakevellia*?) *pseudorostrata* (Nagao) by Hayami (1965))

***Gervillia shinanoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rept. Tohoku Imp.Univ., ser. 2, vol. 9, no. 2, p. 59, pl. 14, figs. 17, 18

Syntype: IGPS no. 22507

Kagikake and Bomeki of Ohinata, Saku-machi, Minamisaku-gun, Nagano Prefecture

Shiroi Formation in Sanchu area

Neocomian (Barremian by Tashiro (1992)), Cretaceous

(*Bakevellia shinanoensis* (Yabe and Nagao) by Yamagiwa (1955); *Bakevellia* (*Neobakevellia*) *shinanoensis* (Yabe and Nagao) by Hayami (1975))

***Globocardium minor* (Tashiro and Kozai) see *Protocardia* (*Globocardium*) *minor* Tashiro and Kozai, 1988**

***Globocardium spaeroidea* (Forbes) see *Protocardia* (*Globocardium*) *spaeroidea* (Forbes) by Hayami (1965)**

***Glycymeris amakusensis* Nagao, 1930**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 1, no. 1, p. 15, pl. 2, figs. 4-7

Syntype: GMH not registered

Wadanohama of Takado, Ryugatake-machi, Amakusa-gun, Kumamoto Prefecture

Himenoura Group in Amakusa island, Goshonoura island and Uto area

Coniacian - Santonian (Santonian by Matsukuma (1979)), Cretaceous

(*Glycymeris* (*Glycymerita*) *amakusaensis* Nagao by Tashiro (1971))

***Glycymeris* (*Glycymerita*) *amakusaensis* see *Glycymeris amakusensis* Nagao, 1930**

***Glycymeris amakusensis* var. *solida* Nagao, 1930**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 1, no. 1, p. 15, pl. 2, figs. 4-7

Syntype: GMH not registered

Enokuchi, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group in Goshonoura and Shishijima islands

Upper Albian - Cenomanian, Cretaceous

(*Glycymeris* (*Hanaia*) *solida* Nagao by Tashiro (1971);

Glycymeris (*Glycymeris*) *solida* Nagao by Hayami (1975);

new name as *Glycymeris goshonouraensis* Matsukuma, 1979 because of a secondary junior homonym of

Pectunculus solidus Locard and Caziot, 1901, p. 247)

***Glycymeris densilineata* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 195, pl. 32, figs. 8, 9

Holotype: GMH no.6759 (pl. 32, fig. 8)

Tokuzo, southern coast of Hiraiga inlet, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Lower and upper Miyakoan (Aptian – Albian), Cretaceous

(*Glycymeris (Hanaia) densilineata* Nagao by Hayami (1965))

Glycymeris (Hanaia) densilineata Nagao see *Glycymeris densilineata* Nagao, 1934

***Glycymeris goshonouraensis* Matsukuma, 1979 (nom. nov.)**

Venus (Malacol. Soc. Japan), vol. 38, no. 1, p. 98

(see *Glycymeris amakusensis* var. *solida* Nagao, 1930)

***Glycymeris (Glycymerita?) haipensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 254, pl. 29, figs. 16, 17

Holotype: GK.H6226 (pl. 29, fig. 16), Paratype: GK.H6227 (pl. 29, fig. 17)

Loc. Hn.0914 at the north of Haibe, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga Formation) in Tanohata area

Aptian, Cretaceous

(*Glycymeris (Hanaia) haipensis* Hayami by Tashiro (1992))

Glycymeris (Hanaia) haipensis Hayami see *Glycymeris (Glycymerita?) haipensis* Hayami, 1965

***Glycymeris (Glycymerita) himenourensis* Tashiro, 1971**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 84, p. 229, pl. 27, figs. 23-27, text-fig. 4

Holotype: KE1779 (pl. 27, figs. 23a, b), Paratypes: KE1780 (pl. 27, fig. 25a, b), KE1781 (pl. 27, fig. 24), KE1782 (pl. 27, fig. 26), KE1783 (pl. 27, fig. 27), KE1784

Kugu-island of Takado, Ryugatake-machi, Amakusa-gun, Kumamoto Prefecture

Himenoura Group in Amakusa island

Santonian, Cretaceous

Glycymeris (Hanaia) hokkaidoensis (Yabe and Nagao) see *Pectunculus hokkaidoensis* Yabe and Nagao, 1928

Glycymeris (Glycymerita) hokkaidoensis (Yabe and Nagao) see *Pectunculus hokkaidoensis* Yabe and Nagao, 1928

***Glycymeris hokkaidoensis* var. *multicostata* Nagao, 1932**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 1, p. 34, pl. 5, figs. 10, 11

Syntype: GMH not registered (or GMH no. 4551?; not found by Matsukuma (1979))

Right bank of the Abeshinai, about 100 m south of the junction of this river and tributary Sakaigawa, Nakagawa-machi, Nakagawa-gun, Kamikawa Branch, Hokkaido

Upper Yezo Group in Abeshinai area

Coniacian – Campanian (Santonian by Tashiro (1992)), Cretaceous

(*Glycymeris (Glycymeris) multicostata* Nagao by Tashiro (1971); new name as *Glycymeris nagaoi* Matsukuma, 1979 because of a secondary junior homonym of *Pectunculus multicostata* G. B. Sowerby, I, 1833, p. 195, 196, and a primary junior homonym of *Glycymeris lloydsmithi multicostata* Weisbord, 1929, p. 10, 11, pl. 2, figs. 1, 2)

***Glycymeris (Glycymerita) japonica* Tashiro, 1971**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 84, p. 228, pl. 27, figs. 17-22, text-fig. 3

Holotype: KE1786 (pl. 27, fig. 17), Paratypes: KE1787, KE1788, KE1789, KE1790

Hongo, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Himenoura Group in Amakusa island

Campanian (Maastrichtian by Matsukuma (1979)), Cretaceous

***Glycymeris (Hanaia) katurazawensis* Tashiro, 1971**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 84, p. 235, pl. 28, figs. 9-15

Holotype: KE1854 (pl. 28, fig. 12), Paratypes: KE1855 (pl. 28, figs. 12, 13), KE1856 (pl. 28, fig. 14), GK.H6980, GK.H6981 (pl. 28, figs. 10a, b), GK.H6982 (pl. 28, fig. 11)

About 500 m south of the Katurazawa-dam, Ikushumbetsu, Mikasa City, Hokkaido

Mikasa Group in Ikushumbetsu area

Turonian, Cretaceous

***Glycymeris kogata* Ichikawa and Maeda, 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, vol. 4, p. 90, pl. 5, figs. 4-7, 10

Holotype: OCU MM206 (pl. 5, fig. 5), Topotypes: OCU MM207 (pl. 5, fig. 10), OCU MM 211 (pl. 5, fig. 7), OCU MM 213 (pl. 5, fig. 6), OCU MM 214 (pl. 5, fig. 4)

Loc. 35 at Kamikunugidani of Haraikawa, Nada, Nandan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island, and Himenoura Group in Amakusa island

Upper and ?Lower Heterian (Campanian - Maastrichtian by Hayami (1975)), Cretaceous

(*Limopsis kogata* (Ichikawa and Maeda) by Tashiro (1971))

***Glycymeris (Hanaia) matsumotoi* Tashiro, 1971**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 84, p. 233, pl. 28, figs. 17-21, text-fig. 5-d

Holotype: KE1870 (pl. 28, fig. 19), Paratypes: KE1870, KE1871, KE1872, KE1873

Tani of Miyaji-machi, and Naraki of Koda-machi, Yatsushiro City, Kumamoto Prefecture

Miyaji Formation in Yatsushiro area

Cenomanian (Lower Aptian by Tashiro and Kozai (1984)), Cretaceous

***Glycymeris (Pseudoveletuceta) mifunensis* Tashiro, 1971**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 84, p. 236, pl. 28, figs. 24-30, text-fig. 6

Holotype: KE1774, Paratypes: KE1770, KE1771 (pl. 28, fig. 25), KE1769, KE1776, KE1777 (pl. 28, fig. 26)

Asanoyabu, Mifune-machi, Kamimashiki-gun, and Nishiyama of Katashida-machi, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Turonian (Cenomanian-Turonian by Hayami (1975)), Cretaceous

Glycymeris (Glycymeris) multicostata* Nagao see *Glycymeris hokkaidoensis* var. *multicostata* Nagao, 1932**Glycymeris nagaoui* Matsukuma, 1979 (nom. nov.)**

Venus (Malacol. Soc. Japan), vol. 38, no. 1, p. 100

(see *Glycymeris hokkaidoensis* var. *multicostata* Nagao, 1932)

Glycymeris (Glycymerita) sachalinensis* (Yabe and Nagao) see *Pectunculus sachalinensis* Yabe and Nagao, 1925**Glycymeris shimonadensis* Ichikawa and Maeda, 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, vol. 4, p. 92, pl. 5, figs. 8-9

Holotype: OCU MM225 (pl. 5, fig. 8), Topotype: OCU MM228 (pl. 5, fig. 9)

Loc. 35 at Kamikunugidani of Haraikawa, Nada, Nandan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island

Upper Heterian (Maastrichtian by Hayami (1975)), Cretaceous

(Possibly conspecific with *Limopsis kogata* (Ichikawa and Maeda) by Tashiro (1971))

Glycymeris (Glycymeris) solida* Nagao see *Glycymeris amakusensis* var. *solid* Nagao, 1930**Glycymeris (Hanaia) solida* Nagao see *Glycymeris amakusensis* var. *solid* Nagao, 1930*****Goniomya hayamii* Tashiro and Kozai, 1991**

Res. Rep. Kochi Univ., vol. 40, p. 198, pl. 2, figs. 1-6, text-fig. 10

Holotype: KSG4350 (pl. 2, fig. 4), Paratypes: KSG4351 (pl. 2, fig. 5), KSG4352 (pl. 2, fig. 2), KSG4353 (pl. 2, fig. 1), KSG4354 (pl. 2, fig. 6), KSG4355 (pl. 2, fig. 3)

Kasanokawa (holotype) at Okuminotani (KSG4351, KSG4353), at Ryoseki (KSG4354), Nankoku City, and at Yunoki (KSG4352, KSG4355), Kahoku-machi, Kami-gun, Kochi Prefecture

Monobe Formation in Monobe area

Barremian, Cretaceous

***Goniomya subarchiaci* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 215, pl. 29, figs. 2, 3

Holotype: GMH no. 6786 (pl. 29, fig. 3)

Locs. Hn.0016, 0017, 0018, southern coast of Hiraiga, at loc. Hn.0220, northern coast of Hiraiga, at locs. Hn.6202, 6203, northeast of Raga and at loc. Hn.6201, northeast of Raga, all in Tanohata-mura, Shimohei-gun, Iwate Prefecture

Aketo, Hiraiga and Tanoha Formations in Tanohata area

Lower and upper Miyakoan (Aptian to Albian), Cretaceous

Goshoraia crenulata* (Matsumoto) see “*Callista*” (*Pseudamiantis*) *crenulata* Matsumoto, 1938**Goshoraia minor* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 136, pl. 2, figs. 14-21, text-figs. 8, 13 (1-4)

Holotype: KSG4066, Paratypes: KSG4063 (pl. 2, fig. 16), KSG4064, KSG4065 (pl. 2, fig. 21), KSG4067 (pl. 2, fig. 20), KSG4068, KSG4069, KSG4070, KSG4071 (pl. 2, fig. 17), KSG4072 (pl. 2, fig. 18), KSG4073 (pl. 2, fig. 15), KSG4074 (pl. 2, fig. 19)

All the type materials, from Sasa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Lower part of the Hibihara Formation in Monobe area

Aptian, Cretaceous

***Goshoraia miyanoharaensis* Tashiro and Katto, 1995**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 16, p. 4, pl. 2, figs. 1-7, text-fig. 3

Holotype: SGM0012 (pl. 2, fig. 6), Paratypes: SGM0013 (pl. 2, fig. 3), SGM0014 (pl. 2, fig. 4), SGM0015 (pl. 2, fig. 2), SGM0016 (pl. 2, fig. 5), SGM0017, SGM0018 (pl. 2, fig. 1)

Shouda of Miyanohara, Sakawa-machi, Takaoka-gun, Kochi Prefecture

Miyanohara Formation in Sakawa area

Middle Cenomanian, Cretaceous

***Grammatodon (Indogrammatodon) awajianus* (Ichikawa and Maeda) see *Indogrammatodon awajianus* Ichikawa and Maeda, 1958**

***Grammatodon nipponica* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 190, pl. 28, fig. 3

Holotype by monotypy (GMH no. 6787 (pl. 28, fig. 3))

Tokuzo, southern coast of Hiraiga inlet, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga Formation) in Tanohata area

Aptian - Albian, Cretaceous

(*Parallelodon nipponicus* (Nagao) by Hayami (1965); *Cosmetodon nipponicus* (Nagao) by Tashiro (1984))

Grammatodon (Nanonavis) sachalinensis brevis* (Ichikawa and Maeda) see *Nanonavis sachalinensis brevis* Ichikawa and Maeda, 1958**Grammatodon (Nanonavis) sachalinensis sachalinensis* (Schmidt) see *Cucullaea sachalinensis* Schmidt, 1873*****Grammatodon yokoyamai* Yabe and Nagao, 1926**

Sci. Rept. Tohoku. Imp. Univ., ser. 2, vol. 9, no. 2, p. 44, pl. 12, figs. 12-13, 25

Lectotype designated by Hayami (1965, p. 238): IGPS no. 22555

Ishido, Ohinata of Saku-machi, Minamisaku-gun, Nagano Prefecture

Ishido Formation in Sanchu area

Upper Neocomian-Albian (Upper Hauterivian - Barremian by Tashiro (1992)), Cretaceous

(*Nanonavis yokoyamai* (Yabe and Nagao) by Matsumoto, Hayami and Asano (1963))

“*Granocardium*” *brevis* Tashiro and Kozai, 1988

Res. Rep. Kochi Univ., vol. 37, p. 56, pl. 4, figs. 1-13, text-fig. 8

Holotype: KSG4013, Paratypes: KSG4014, KSG4015, KSG4016, KSG4017, KSG4061 (pl. 4, fig. 2)

Sasa of Doiban, Monobe-mura, Kami-gun, Kochi Prefecture

Lower part of the Hibihara and Monobe Formations in Monobe area, and Hoji Formation in Katsuura area

Aptian, Cretaceous

“*Granocardium*” *corpulentum* (Amao) see *Cardium corpulentum* Amano, 1957**“*Granocardium*” *ishidoense* (Yabe and Nagao) see *Cardium ishidoense* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926****“*Granocardium*” *kochiensis* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 57, pl. 1, figs. 19-24, text-fig. 9

Holotype: KSG4018, Paratypes: KSG4019, KSG4020, KSG4021, KSG4022, KSG4023, KSG4024

All typical specimens, from Sasa of Doiban, Monobe-mura,

Kami-gun, Kochi Prefecture

Lower part of the Hibihara Formation in Monobe area
Aptian, Cretaceous

***Granocardium miyajiense* Tashiro, 1994**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., Vol. 15, p. 11, pl. 2, figs. 7-9

Holotype: KSG4451 (pl. 1, fig. 7), Paratypes: KSG4452 (pl. 1, fig. 8), KSG4453 (pl. 1, fig. 9)

South (holotype and paratypes) of Toyohara, Yatsushiro City, Kumamoto Prefecture

Miyaji Formation? in Yatsushiro area

Aptian, Cretaceous

“*Granocardium*”? *multicostata* Tashiro and Kozai, 1988

Res. Rep. Kochi Univ., vol. 37, p. 58, pl. 3, figs. 14-16

Holotype: KSG4049 (pl. 3, fig. 14), Paratypes: KSG4050, KSG4051, KSG4052 (pl. 3, fig. 15), KSG4053 (pl. 3, fig. 16), KSG4054

Igenoki, Tosayama-machi, Kami-gun, Kochi Prefecture

Igenoki Formation in Tosayamada area

Upper Barremian – Aptian, Cretaceous

***Granocardium nipponense* Tasiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 65, pl. 9, figs. 14, 15, text-fig. 20

Holotype: KE2186 (pl. 9, fig. 14), Paratypes: KE2187 (pl. 9, fig. 15), KE2188

Loc. O21 (Holotype and Paratype: KE2187) about 150m and Loc. O22 (Paratype: KE2188) about 220 m northwest Hongo, Miyanakawachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Upper Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area

Upper Hetonaian (Maastrichtian), Cretaceous

***Gryphaea* (s. l.) *oshimensis* Hayami, 1965**

Mem.Fac.Sci.Kyushu Univ., ser. D, vol. 15, no. 2, p. 348, pl. 51, figs. 3-7, pl. 52, fig. 9

Holotype: GK.H6346 (pl. 51, fig. 5), Paratypes: GK.H6347 (pl. 51, fig. 4), GK.H6348 (pl. 51, fig. 3), GK.H6349 (pl. 51, fig. 6), GK.H6635, GK.H6636, GK.H6637 (pl. 52, fig. 9), GK.H6638, GK.H6639 (pl. 51, fig. 7)

Loc. Hy.1009 (holotype and paratypes), Yokonuma of Oshima, Kesenuma City, Miyagi Prefecture

Oshima Formation in Tanohata area

Aritan (Berriasian? - Aptian), Cretaceous

(*Catinula?* *oshimensis* (Hayami) by Hayami (1975))

***Gryphaeostrea kochiensis* Tashiro and Kozai, 1982**

Palaeont. Soc. Japan, Sp. Pap., no. 25, p. 78, pl. 14., figs. 1-2, 22-23

Holotype: KSG3056 (pl. 14, fig. 2), Paratypes: KSG3057 (pl. 14, fig. 1), KSG2085 (pl. 14, fig. 22), KSG2086 (pl. 14, fig.

23), KSG2087, KSG2088, KSG2089, KSG2090
 Loc. M-03, right bank of the River Kajisako, a tributary to the River Monobe from Doiban southward to Odochi, Monobe-mura, Kami-gun, Kochi Prefecture
 Kajisako Formation of the Sotoizumi Group
 Middle Turonian, Cretaceous

***Hayamina carinata* Tashiro and Ohnishi, 1985**

Res. Rep. Kochi Univ., vol. 34, nat. sci., p. 6, pl. 3, figs. 8-14, text-fig. 6

Holotype: KSG3650 (pl. 3, figs. 8-10), Paratypes: KSG3651 (pl. 3, fig. 11), KSG3652 (pl. 3, fig. 12), KSG3653 (pl. 3, fig. 13), KSG3654 (pl. 3, fig. 14)

Aioi near Mamidani (Katsuura area), Katsuura-machi, Katsuura-gun, Tokushima Prefecture
 Shobu Formation in Katsuura area
 Upper Barremian or Lower Aptian, Cretaceous

***Hayamina matsukawai* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 130, pl. 1, figs. 19-22, text-figs. 5A, 5B

Holotype: KSG4210 (pl. 1, fig. 21), Paratypes: KSG4200 (pl. 1, fig. 22), KSG4201 (pl. 1, fig. 20), KSG4202, KSG4203, KSG4204, KSG4205, KSG4206, KSG4207 (pl. 1, fig. 19), KSG4208, KSG4209, KSG4211, KSG4212, KSG4213, KSG4214, KSG4215, KSG4216

Sebayashi at the south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture
 Sebayashi Formation in Sanchu area, and Yunoki Formation in Monobe area
 Upper Barremian, Cretaceous

***Hayamina minor* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 132, pl. 5, figs. 1-10, text-figs. 6A, 6B

Holotype: KSG4319 (pl. 5, fig. 6), Paratypes: KSG4320, KSG4321 (pl. 5, fig. 3), KSG4322 (pl. 5, fig. 4), KSG4323 (pl. 5, fig. 5), KSG4324 (pl. 5, fig. 9), KSG4325 (pl. 5, fig. 8), KSG4326 (pl. 5, fig. 1), KSG4327 (pl. 5, fig. 7), KSG4328 (pl. 5, fig. 10), KSG4329 (pl. 5, fig. 2)

Taniai, Kahoku-machi, Kami-gun, Kochi Prefecture
 Ryoseki Formation in Kahoku area and Tatsukawa Formation in Hanoura area
 Upper Hautrivian, Cretaceous

***Hayamina naumanni* (Neumayr) see *Cyrena naumanni* Neumayr, in Naumann and Neumayr, 1890**

***Hayamina naumanni* (Neumayr) see *Neumayria bungoensis* Ohta, 1982**

***Hayamina solida* Tashiro and Ohnishi, 1985**

Res. Rep. Kochi Univ., vol. 34, nat. sci., p. 4, pl. 1, figs. 1-5, pl. 2, figs. 1-15, text-fig. 3

Holotype: KSG3635 (pl. 1, fig. 1), Paratypes: KSG3636 (pl. 1, fig. 2), KSG3637 (pl. 1, fig. 3), KSG3638 (pl. 1, fig. 5), KSG3639 (pl. 2, fig. 1), KSG3640 (pl. 2, fig. 3), KSG3641 (pl. 2, fig. 5), KSG3642, KSG3643, KSG3644, KSG3645, KSG3649

Holotype and paratypes (KSG3636 - KSG3645), from Kawanouchi of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture; Another paratype (KSG3649), from north of Kawanishi, Tatsukawa-machi, Katsuura area (Katuura-machi, Katsuura-gun), Tokushima Prefecture
 Hibihara Formation in Monobe area, and Hoji Formation in Katsuura area
 Aptian, Cretaceous

***Hayamina? tamurai* (Ohta) see *Veloritina tamurai* Ohta, 1982**

***Heterotrigonia granosa* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 119, pl. 8, fig. 16

Holotype: IGSH NM Am 5 (pl. 8, fig. 16)
 Wadanohama of Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture
 Middle Formation of the Lower Himenoura Subgroup in Amakusa island
 Santonian, Cretaceous

(*Apiotrigonia* (*Heterotrigonia*) *granosa* (Nakano) by Hayami (1975); *Heterotrigonia* (*Nakanotrigonia*) *granosa* Nakano by Tashiro (1979))

***Heterotrigonia* (*Nakanotrigonia*) *granosa* Nakano see *Heterotrigonia granosa* Nakano, 1957**

***Heterotrigonia himenourensis* Tashiro, 1972**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 86, p. 334, pl. 41, figs. 14-16, text-fig. 8

Holotype: KE1884 (pl. 41, figs. 14a, b, c, d), Paratype: KE1885 (pl. 41, figs. 15a, b)

Okoshiki and Hiraiwa, Ohda-machi, Uto City, Kumamoto Prefecture
 Upper Formation of the Lower Himenoura Subgroup in Amakusa and Shimkoshiki islands
 Santonian or Campanian (Lower Campanian; Tashiro (1979)), Cretaceous

(*Apiotrigonia* (*Heterotrigonia*) *himenourensis* (Tashiro) by Hayami (1975); *Heterotrigonia* (*Nakanotrigonia*) *himenourensis* Tashiro by Tashiro (1979))

***Heterotrigonia* (*Nakanotrigonia*) *himenourensis* Tashiro see *Heterotrigonia himenourensis* Tashiro, 1972**

***Heterotrigonia sawadai* (Yehara) see *Trigonia Sawatai* Yehara, 1923**

Heterotrigonia (Heterotrigonia) sawatai (Yehara) see *Trigonia Sawatai Yehara, 1923*

Heterotrigonia subovalis (Jimbo) see *Trigonia subovalis Jimbo, 1894*

Heterotrigonia (Heterotrigonia) subovalis (Jimbo) see *Trigonia subovalis Jimbo, 1894*

Heterotrigonia (Heterotrigonia) subovalis (Jimbo) see *Apiotrigonia jimboi Nakano, 1957*

Homomya? dubia Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 55, pl. 12, figs. 11, 39, pl. 14, fig. 1

Syntype: IGPS no. 22505

Hachimanzawa, Nakazato-mura, Tano-gun, Gumma Prefecture

Sebayashi Formation in Sanchu area

Aptian, Cretaceous

Horiopleura yaegashii Yehara, 1920

Jour. Geol. Soc. Tokyo, vol. 27, no. 321, p. 41, pl. 1, figs. 1-3, pl. 2, figs. 1-3

Syntype: IGPS not registered

Moshi, Iwaizumi and Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group in Tanohata area.

Aptian, Cretaceous

(Praecaprotina yaegashii (Yehara) by Yabe and Nagao (1926))

Indogrammatodon awajianus Ichikawa and Maeda, 1958

Jour. Inst. Polyt. Osaka City Univ., ser. G, vol. 3, p. 71, pl. 2, figs. 3-4

Holotype: OCU MM156 (pl. 2, figs. 3a, b), Paratype: OCU MM157 (pl. 2, figs. 4a, b)

Kuroiwa in Awaji island, Nandan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group (Shimonada siltstone) in Awaji island.

Upper Heterotriassic (Maastrichtian), Cretaceous

(Grammatodon (Indogrammatodon) awajianus (Ichikawa and Maeda) by Hayami (1975); Nanonavis awajianus (Ichikawa and Maeda) by Tashiro (1976))

Inoceramus akamatsui Yehara, 1924

Japan. Jour. Geol. Geogr., vol. 3, no. 1, p. 37, pl. 2, figs. 2-4

Syntype: UK? not registered (figs. 2, 3, 4; three specimens)

Furushiroyama, Uwajima City, Province of Iyo (Ehime Prefecture), Japan

Furushiroyama Shale, Izumi-Sandstone Group (Furushiroyama Formation, Uwajima Group)

(Coniacian, Cretaceous)

(Inoceramus (Sergipia?) akamatsui Yehara by Nagao and Matsumoto (1940); *Didymotis akamatsui (Yehara)* by Hayami (1975); *Sergipia akamatsui (Yehara)* by Kuffman (1977))

Inoceramus (Sergipia?) akamatsui Yehara see *Inoceramus akamatsui Yehara, 1924*

Inoceramus amakusaensis Nagao and Matsumoto, 1940

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 13, pl. 4, figs. 1, 3, 4; pl. 5, fig. 1

Lectotype: UMUT I-960 (pl. 5, fig. 1; designated by Matsumoto and Ueda (1962, p. 161)); Syntype: UMUT I-961 (pl. 4, fig. 4), IGPS not registered (pl. 4, fig. 1)

Type locality at Hinoshima in Amakusa (Loc. K60, a quarry in the western part of Hinoshima, Ryugatake-machi, Amakusa-gun, Kumamoto Prefecture, Japan

Middle division of the Himenoura Group (Lower part of the Himenoura Group)

Santonian, Cretaceous

(Inoceramus (Inoceramus) amakusensis Nagao and Matsumoto by Hayami (1975); *Inoceramus (Platyceramus) amakusensis Nagao and Matsumoto* by Matsumoto, Noda and Kozai (1982))

Inoceramus (Inoceramus) amakusensis Nagao and Matsumoto see *Inoceramus (Inoceramus) amakusensis Nagao and Matsumoto, 1940*

Inoceramus (Platyceramus) amakusensis Nagao and Matsumoto see *Inoceramus amakusensis Nagao and Matsumoto, 1940*

Inoceramus angulosus Jimbo, 1894

Paläont. Abhand., N. F., vol. 2, no. 3, p. 189, pl. 24, fig. 6

Holotype: monotypy (UMUT MM7534) (fig. 6)

Sandstone on the right side of the Ponhorokabets, Yubari coal-field, Ishikari Province (Yubari City), Hokkaido, Japan
Cretaceous formation (Mikasa sandstone, Middle Yezo Group)

Cretaceous (Turonian (or thereabout), Cretaceous by Hayami (1975))

(Inoceramus (Inoceramus) angulosus Jimbo by Kauffman (1977))

Inoceramus (Inoceramus) angulosus Jimbo see *Inoceramus angulosus Jimbo, 1894*

Inoceramus awajiensis Matsumoto, in Tanaka, Matsumoto and Mayeda, 1952

Jour. Geogr., vol. 61, no. 2, p. 72, text-fig. 1

Syntype: GK.H641, GK.H642, GK.H643, GK.H644, GK.H645, GK.H646, GK.H647, GK.H648, GK.H649, GK.H650, GK.H651

Awaji island (Shimonada, Nandan-cho, Mihara-gun), Hyogo Prefecture, Japan

Shimonada fine-sandy siltstone and Shimonada white sandstone, Izumi Group

Maastrichtian (Upper Maastrichtian, Cretaceous by Noda and Matsumoto (1976))

(Inoceramus (?) *awajiensis* Matsumoto by Hayami (1975); *Tenuipteria* (?) *awajiensis* (Matsumoto) by Matsumoto (1977))

Inoceramus (?) *awajiensis* Matsumoto see *Inoceramus awajiensis* Matsumoto, in Tanaka, Matsumoto and Mayeda, 1952

Inoceramus balticus Boehm var. *kunimiensis* Nagao and Matsumoto, 1940

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 22, text-fig. 1, pl. 11, fig. 4

Lectotype: UMUT I-994 (fig. 4; designated by Noda (1980) p.273, pl. 43, fig. 9); Syntype: UMUT I-996 (text-fig. 1), UMUT I-997, UMUT I-1004 (text-fig. 1)

Kunimi, Province of Tosa (Loc. Ar003 (Lectotype) at Kunimi, Nakamura City, Kochi Prefecture), Japan (32° 58' 32'' N, 132° 53' 05'' E)

(Arioka Formation by Katto (1961))

Santonian to Maastrichtian (?) (upper Campanian to lower Maastrichtian by Noda (1985)), Cretaceous

(Inoceramus balticus kunimiensis Nagao and Matsumoto by Katto and Tashiro (1980); *Inoceramus (Endocostea) kunimiensis* Nagao and Matsumoto by Noda (1980))

Inoceramus balticus kunimiensis Nagao and Matsumoto see *Inoceramus balticus* Boehm var. *kunimiensis* Nagao and Matsumoto, 1940

Inoceramus balticus Boehm var. *toyajoanus* Nagao and Matsumoto, 1940

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 20, pl. 9, fig. 3

Lectotype: IGPS no.4539 (fig. 3; designated by Matsumoto in Takai and Matsumoto (1961, p. 274)); Syntype: IGPS no.4540, UMUT I-990

Toyazo, Province of Kii (Toyajo, Kanaya-cho, Arida-gun, Wakayama Prefecture), Japan

Toyazo Series (Toyajo Formation, Sotoizumi Group)

Santonian to Campanian (Campanian, Cretaceous)

(Inoceramus balticus toyajoanus Nagao and Matsumoto by Takai and Matsumoto (1961); *Inoceramus (Endocostea) balticus toyajoanus* Nagao and Matsumoto by Tanaka and Teraoka (1973); *Inoceramus (Cataceramus) balticus toyajoanus* Nagao and Matsumoto by Hayami (1975))

Inoceramus balticus toyajoanus Nagao and Matsumoto see *Inoceramus balticus* Boehm var. *toyajoanus* Nagao and

Matsumoto, 1940

Inoceramus (Endocostea) balticus toyajoanus Nagao and Matsumoto see *Inoceramus balticus* Boehm var. *toyajoanus* Nagao and Matsumoto, 1940

Inoceramus (Cataceramus) balticus toyajoanus Nagao and Matsumoto see *Inoceramus balticus* Boehm var. *toyajoanus* Nagao and Matsumoto, 1940

Inoceramus concentricus Parkinson var. *nipponicus* Nagao and Matsumoto, 1939

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 267, pl. 24, fig. 2, pl. 25, figs. 1-6

Lectotype: IGPS not registered (pl.25, figs.1a-d; designated by Pergament (1966, p.32)); Syntype: GMH no.7167a (pl. 25, figs. 6a-c), IGPS no.58017, GMH no.5965 (pl. 25, figs. 2a, b), UMUT I-687 (pl. 24, fig. 2)

Type locality on the Ugoizawa, a tributary of the Naibuti (Ugui-zawa, Naibuchi, south Sakhalin, Russia); GMH no.7167a from a pebble on the Yubari-gawa (on the River Yubari, Yubari City), Hokkaido; IGPS no.58017 collected from Naibuti (Naibuchi, south Sakhalin, Russia); GMH no.5965 collected from in the upper course of the Hobetu-gawa, Iburu Prov. (River Hobetsu, Hobetsu-cho, Yufutsu-gun), Hokkaido; UMUT I-687 collected in the middle course of the Obirashibe, Tesio Prov. (River Obirashibe, Obira-cho, Rumoi-gun), Hokkaido, Japan Lower part of the Upper Ammonite beds (Middle Yezo Group)

Cenomanian to Turonian (?upper Middle to lower Upper Cenomanian, Cretaceous by Matsumoto and Asai (1989))

(Inoceramus concentricus nipponicus Nagao and Matsumoto by Matsumoto (1959); *Inoceramus nipponicus* Nagao and Matsumoto by Pergament (1971); *Inoceramus (Birostrina) concentricus nipponicus* Nagao and Matsumoto by Hayami (1975); *Birostrina? concentrica nipponica* (Nagao and Matsumoto) by Kauffman (1977); *Birostrina nipponica* (Nagao and Matsumoto) by Matsumoto and Asai (1989); *Actinoceramus nipponicus* (Nagao and Matsumoto) by Crampton (1996), *Inoceramus (Actinoceramus) nipponicus* (Nagao and Matsumoto) by Noda (2002))

Inoceramus concentricus nipponicus Nagao and Matsumoto see *Inoceramus concentricus* Parkinson var. *nipponicus* Nagao and Matsumoto, 1939

Inoceramus (Birostrina) concentricus nipponicus Nagao and Matsumoto see *Inoceramus concentricus* Parkinson var. *nipponicus* Nagao and Matsumoto, 1939

Inoceramus concentricus var. *costatus* Nagao and Matsumoto, 1939

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 270, pl. 24, figs. 1, 4, 5, pl. 27, fig. 2

Lectotype: UMUT I-690 (pl. 24, figs. 1a-c; designated by Tamura in Tamura and Matsumura (1974, p. 49)); Syntype: UMUT I-689 (pl. 24, figs. 5a-b), UMUT I-691, UMUT I-695 (pl. 24, fig. 4), IGPS no.22725 (pl. 27, figs. 2a-b), GMH no.7173, GMH no.7178

Lectotype collected from the Obirasibe district, Province of Tesio (Obira-cho, Rumoi-gun, Hokkaido); UMUT I-690 and GMH no.7178, 7173 from the Ikushumbetu district, and UMUT I-689 from Pombetu, Province of Isikari (Mikasa City, Hokkaido), Japan; UMUT I-691 from Karahuto (south Sakhalin, Russia)

Trigonia sandstone and Scaphites beds (Middle Yezo Group) Cenomanian-Turonian (middle Turonian by Matsumoto, Noda and Maiya (1991)), Cretaceous

(Invalid Lectotype designated by Zonova (1987, p. 106) without priority; *Inoceramus concentricus costatus* Nagao and Matsumoto by Tamura in Tamura and Matsumura (1966); *Inoceramus (Birostrina) concentricus costatus* Nagao and Matsumoto by Hayami (1975); *Birostrina concentrica costat* (Nagao and Matsumoto) by Kauffman (1977); *Inoceramus costatus* Nagao and Matsumoto by Matsumoto, Noda and Maiya (1991); New name as *Inoceramus sorachiensis* Noda and Matsumoto MS, in Noda, 2002, because of preoccupation of the specific name as *Inoceramus planus* var. *costatus* Fric, 1893)

Inoceramus concentricus costatus Nagao and Matsumoto see *Inoceramus concentricus* var. *costatus* Nagao and Matsumoto, 1939

Inoceramus (Birostrina) concentricus costatus Nagao and Matsumoto see *Inoceramus concentricus* var. *costatus* Nagao and Matsumoto, 1939

Inoceramus costatus Nagao and Matsumoto see *Inoceramus concentricus* var. *costatus* Nagao and Matsumoto, 1939

Inoceramus (Platyceramus) cycloides vanuxemiformis Nagao and Matsumoto see *Inoceramus ezoensis* var. *vanuxemiformis* Nagao and Matsumoto, 1940

Inoceramus elegans pseudosulcatus Nagao and Matsumoto see *Inoceramus pseudosulcatus* (Otatume MS.) Nagao and Matsumoto, 1940

Inoceramus elegans pseudosulcatus Nagao and Matsumoto see *Inoceramus pseudosulcatus* (Otatume MS.) Nagao and Matsumoto, 1940

Inoceramus (Sphenoceramus) elegans pseudosulcatus Nagao and Matsumoto see *Inoceramus pseudosulcatus* (Otatume MS.) Nagao and Matsumoto, 1940

Inoceramus ezoensis Yokoyama, in Yabe, 1915

Sci. Rept. Tohoku Imp. Univ. Ser. 2, vol. 4, no. 1, p. 23, pl. 4, fig. 1

Lectotype: not registered (one of Syntype by Yokoyama (1890, pl. 18, figs. 7a, b; designated by Matsumoto, Noda and Kozai (1982, p. 62)); Syntype: not registered (another specimen illustrated in Yokoyama (1890, pl. 18, fig. 6))

Urakawa, Hidaka Province (Urakawa-cho, Urakawa-gun), Hokkaido

Horomui group (Upper Ammonite beds by Yabe (1915) = Upper Yezo Group)

Upper Cretaceous (Santonian by Matsumoto (1963))

(*Inoceramus (Cataceramus) ezoensis* Yokoyama by Hayami (1975); *Inoceramus (Platyceramus) ezoensis* Yokoyama by Noda (1985); *Platyceramus ezoensis* (Yokoyama) by Toshimitsu (1988))

Inoceramus (Cataceramus) ezoensis Yokoyama see *Inoceramus ezoensis* Yokoyama, in Yabe, 1915

Inoceramus (Platyceramus) ezoensis Yokoyama see *Inoceramus ezoensis* Yokoyama, in Yabe, 1915

Inoceramus ezoensis var. *vanuxemiformis* Nagao and Matsumoto, 1940

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 17, pl. 10, fig. 4; pl. 11, fig. 2

Lectotype: UMUT I-985 (pl. 11, fig. 2; designated by Seitz (1961), p. 70); Syntype: GMH no.7251 (pl. 10, figs. 4a, b)

Lectotype collected from the upper course of the Bannosawa, Province of Isikari (Mikasa City, Hokkaido); GMH.no.7251 from Hetonai, Province of Iburi (Tomiuchi, Hoboetsu-cho, Yufutu-gun, Hokkaido), Japan

Upper Ammonite beds (Upper Yezo Group) (Lectotype) and Lower Hakobuti Sandstone, Lower Hetonai group (Hakobuchi Group) (GMH no.7251)

Santonian to Maastrichtian (Santonian (Lectotype) and Campanian (GMH no.7251), Cretaceous by Matsumoto and Yoshimatsu (1982))

(*Inoceramus (Platyceramus) cycloides vanuxemiformis* Nagao and Matsumoto by Seitz (1961); *Inoceramus (Cataceramus) ezoensis* Yokoyama by Hayami (1975))

Inoceramus (Cataceramus) ezoensis Yokoyama see *Inoceramus ezoensis* var. *vanuxemiformis* Nagao and Matsumoto, 1940

Inoceramus hetonianus Matsumoto, in Tanaka, Matsumoto and Mayeda, 1952

Jour. Geogr., vol. 61, no. 2, p. 72, text-fig. 2

Lectotype: GK.H626a (designated by Matsumoto, Toshimitsu and Noda (1993, p. 4, pl. 1, figs. 3, 4)); Syntype: GK.H629, GK.H630, GK.H631, GK.H634a, GK.H634b, GK.H634c, GK.H634d, GK.H634e, GK.H638a, GK.H638b, GK.H638c, GK.H638d, GK.H638e, GK.H638f

(Locs. H33 (Lectotype and GK.H629) and H36 (GK.H634a-e) on the Panke-rusa-no-sawa, Hobetsu-cho, Yufutsu-gun, Hokkaido, Japan)

Upper part of the Hakobuchi Group

Upper Maastrichtian (Middle Maastrichtian, Cretaceous by Matsumoto, Toshimitsu and Noda (1993))

(Inoceramus (Inoceramus) hetonaianus Matsumoto by Hayami (1975); *Inoceramus (Sphenoceramus) hetonaianus (Matsumoto)* by Matsumoto, Kinoshita, Inoma, Kido, Nishijima and Kao (1980); *Sphenoceramus hetonaianus (Matsumoto)* by Noda (1980)

Inoceramus (Inoceramus) hetonaianus Matsumoto see *Inoceramus hetonaianus Matsumoto, in Tanaka, Matsumoto and Mayeda, 1952*

Inoceramus (Sphenoceramus) hetonaianus (Matsumoto) see *Inoceramus hetonaianus Matsumoto, in Tanaka, Matsumoto and Mayeda, 1952*

Inoceramus (Platyceramus) higoensis Noda, 1983

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 132, p. 205, text-figs. 7, 8-4, pl. 44, figs. 1, 2; pl. 45, figs. 1, 2; pl. 46, figs. 1-6

Holotype: JG.H2727 (pl. 44, figs. 1, 2); Paratypes: JG.H2701 (pl. 46, fig. 1), JG.H2702 (pl. 46, fig. 2), JG.H2708 (pl. 46, fig. 3), JG.H2709 (pl. 46, fig. 4), JG.H2712 (pl. 46, fig. 5), JG.H2713 (pl. 46, fig. 6), JG.H2719 (pl. 45, fig. 2), JG.H2720 (pl. 45, fig. 1), JG.H2736, JG.H2737, JG.H2745, JG.H2746, OES41001, OES14047, OES14103, HK7134, HK7232

Loc. HI1009 (Holotype and JG.H2719, JG.H2720, JG.H2736, JG.H2737, JG.H2745, JG.H2746), a northern shore of Kojima, Himedo-machi, Amakusa-gun, Kumamoto Prefecture; Loc. HI1023 (JG.H2701, JG.H2702, JG.H2708, JG.H2709, JG.H2712, JG.H2713), a western beach of Kugushima, Ryugatake-machi, Amakusa-gun, Kumamoto Prefecture; OES41001, OES14047 and OES14103 collected from the upper reaches of the River Kajisako, Monobe area, Monobe-son, Kamigun, Kochi Prefecture; HK7232 from Wakkawen, Nakagawa-cho, Nakagawa-gun, Hokkaido, Japan; HK7134 from Kawakami, south Sakhalin, Russia

Lower part of Middle Formation, Himenoura Group in Kumamoto; upper part of the Kajisako Formation in Kochi; Upper part of the Upper Yezo Group in Hokkaido; precisely unknown in Sakhalin

Upper Santonian (? Campanian, Cretaceous)

(Pennatoceramus higoensis (Noda) by Zonova (1993))

Inoceramus hobetsensis Nagao and Otatume, in Nagao, 1935 (nom. nud.)

Warerano-koubutsu, vol. 4, no. 5, p. 198, pl. 1

Inoceramus hobetsensis (Nagao and Otatume MS.) Nagao and Matsumoto, 1939

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 281, pl. 28, fig. 3, pl. 29, figs. 1, 3-6; pl. 30, figs. 2-3

Lectotype: HMG not registered (pl. 29, fig. 3) (illustrated in Nagao (1935, pl. 1) under this specific name (nom. nud.); designated by Noda (1975, p. 249); Syntype: GMH no.442, UMUT I-793 (pl. 29, fig. 1), UMUT I-813, GMH no.7143 (pl. 28, figs. 3a-c), IGPS no.8057, IGPS no.37285

UMUT I-1369 collected from Penke-yuparo, Province of Isikari (Yubari City, Hokkaido); GMH no.7143 from Hakkinzawa, in Oyubari (Yubari City, Hokkaido); UMUT I-793 from from obirasibe (Obira-cho, Rumoi-gun, Hokkaido), Japan; others from unknown localities

“Scaphites beds”, lower part of the Upper Ammonite beds (upper part of the Middle Yezo Group)

Upper Cenomanian to Turonian (Middle Turonian by Matsumoto (1977)), Cretaceous

(Invalid Lectotype designated by Pergament (1971, p. 76) not based on the original specimen illustrated by Nagao (1935, pl. 1); *Inoceramus lamarcki hobetsensis Nagao and Matsumoto* by Pergament (1971); *Inoceramus (Inoceramus) hobetsensis Nagao and Matsumoto* by Hayami (1975); *Inoceramus (Inoceramus) hobetsensis hobetsensis Nagao and Matsumoto* by Kauffman (1977))

Inoceramus (Inoceramus) hobetsensis Nagao and Matsumoto see *Inoceramus hobetsensis (Nagao and Otatume MS.) Nagao and Matsumoto, 1939*

Inoceramus (Inoceramus) hobetsensis hobetsensis Nagao and Matsumoto see *Inoceramus hobetsensis (Nagao and Otatume MS.) Nagao and Matsumoto, 1939*

Inoceramus hobetsensis var. nonsulcatus Nagao and Matsumoto, 1939

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 282, pl. 27, fig. 3; pl. 28, fig. 4; pl. 29, fig. 2; pl. 30, fig. 1

Syntype: UMUT I-817 (pl. 29, fig. 2), HMG no.5645 (pl. 30, fig. 1)

UMUT I-817 collected from the Onogawa basin, Province of Bungo (Oita Prefecture); HMG no.5645 from Oyubari, (Yubari City, Hokkaido), Japan

Zones O1' and O1, Onogawa Cretaceous (Ryozen Formation, Onogawa Group); “Scaphites beds”, lower Part of the Upper Ammonite beds (upper part of the Middle Yezo Group)

Upper Cenomanian to Turonian (Middle Turonian by Matsumoto (1977)), Cretaceous

(Inoceramus (Inoceramus) hobetsensis Nagao and Matsumoto by Hayami (1975); *Inoceramus hobetsensis*

nonsulcatus Nagao and Matsumoto by Noda and Matsumoto (1976); *Inoceramus (Inoceramus) hobetsensis nonsulcatus* Nagao and Matsumoto by Kauffman (1977); *Inoceramus (Inoceramus) nonsulcatus* Nagao and Matsumoto by Noda (1985))

Inoceramus (Inoceramus) hobetsensis Nagao and Matsumoto see *Inoceramus hobetsensis* var. *nonsulcatus* Nagao and Matsumoto, 1939

Inoceramus hobetsensis nonsulcatus Nagao and Matsumoto see *Inoceramus hobetsensis* var. *nonsulcatus* Nagao and Matsumoto, 1939

Inoceramus (Inoceramus) hobetsensis nonsulcatus Nagao and Matsumoto see *Inoceramus hobetsensis* var. *nonsulcatus* Nagao and Matsumoto, 1939

***Inoceramus iburiensis* Nagao and Matsumoto, 1939**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 291, pl. 31, figs. 1, 2, pl. 32, fig. 2

Lectotype: GMH no.7270 (pl. 32, fig. 2; designated by Pergament (1971, p. 120) as the Holotype, erroneously); Syntype: GMH no.5968, GMH no.7207 (pl. 31, figs. 2a, b), GMH no.7208 (pl. 31, figs. 1a-c), GMH no.7260, GMH no.7270 (pl. 32, fig. 2), IGPS no.57829

Lectotype collected from Obirasibe dsitric, Province of Tesio (Obira-cho, Rumoi-gun), Hokkaido, GMH no.7207, 7208 from the Hakkin-zawa, in Oyubari, Province of Ishikari (Yubari City), Hokkaido, Japan; others from unknown localities

Scaphites beds, lower part of the Upper Ammonite beds (upper part of the Middle Yezo Group)

Turonian (Middle to upper Turonian by Noda (1985)), Cretaceous

(Invalid Lectotype designated by Matsumoto (1981, p. 15) without priority; *Inoceramus (Inoceramus) iburiensis* Nagao and Matsumoto by Hayami (1975))

Inoceramus (Inoceramus) iburiensis Nagao and Matsumoto see *Inoceramus iburiensis* Nagao and Matsumoto, 1939

***Inoceramus incertus* Jimbo, 1894**

Palaeont. Abhand., N. F., vol. 2, no. 3, p. 189, pl. 24, fig. 7

Lectotype: UMUT MM7535-3 (one of Syntypes illustrated by Matsumoto and Noda (1983, p. 111, fig. 3); Noda (1984, p. 459, pl. 84, fig. 1)), Paralectotypes: UMUT MM7535-2 (Noda (1984, pl. 84, fig. 2)), UMUT MM7535-1 (Noda (1984, pl. 84, fig. 4))

A pebble in the River Pombets, (Mikasa City), Hokkaido, Japan

Cretaceous formation (lower part of the Upper Yezo Group)

Cretaceous (Upper Turonian, Cretaceous by Matsumoto

(1963))

(*Mytiloides incertus* (Jimbo) by Kuffman (1977))

***Inoceramus incertus* Jimbo var. *yubariensis* Nagao and Matsumoto, 1940**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 11, pl. 6, fig. 1

Holotype: GMH no.5960 (fig. 1)

Hetonai district near Yubari, Province of Isikari (Loc. H3019, a cliff on the left bank of the main course of the River Hobetsu, Kamihobetsu (Osawa), Hobetsu-cho, Yufutu-gun, Hokkaido, Japan) (42° 55'44''N, 142° 12'30''E)

Parapachydiscus beds, Upper Ammonite beds (upper part of the Upper Yezo Group)

Coniacian to Santonian (Santonian, Cretaceous)

(*Inoceramus yubarensis* [sic] Nagao and Matsumoto by Matsumoto and Noda (1968); *Inoceramus walterdorfensis yubariensis* Nagao and Matsumoto by Kauffman (1977); *Inoceramus (Platyceramus) yubarensis* [sic] Nagao and Matsumoto by Noda (1983); *Platyceramus yubariensis* (Nagao and Matsumoto) by Toshimitsu (1988); *Inoceramus (Platyceramus) mantelli* de Mercey by Noda and Toshimitsu (1990))

***Inoceramus japonicus* (Sasa MS.) Nagao and Matsumoto, 1940**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 24, pl. 5, fig. 2; pl. 6, figs. 2, 3; pl. 7, figs. 2, 3; pl. 8, figs. 2-4; pl. 9, figs 1, 2

Lectotype: UMUT I-1013 (pl. 9, fig. 1; designated by Matsumoto and Ueda (1962) p. 165, pl. 24, figs. 1a, b); Syntype: GMH no.7232 (pl. 9, fig. 2), GMH no.7233, GMH no.7134 (pl. 6, fig. 2), GMH no.241 (pl. 8, fig. 2), GMH no.5445 (pl. 8, fig. 4)

Lectotype collected from Kunitan, Kuji district, Province of Rikutyu (Kuji City, Iwate Prefecture); GMH no.7232 from Abesinai district, Province of Tesio (Abeshinai, Nakagawa-cho, Nakagawa-gun, Hokkaido); GMH nos.7233, 7134 from Amakusa Islands, (Amakusa-gun, Kumamoto Prefecture); GMH no.241 from the Hetonai district and GMH no.5445 from the Sanusibe, Hobetu, Province of Iburu (Tomiuchi and Sanushibe, Hobetsu-cho, Yuufutu-gun, Hokkaido), Japan

Kunitan beds (Kunitan Formation, Kuji Group) (Lectotype); middle division of the Himenoura group (middle formation of the Himenoura Group) (GMH nos.7233, 7134); Upper Ammonite beds (Upper Yezo Group) (GMH nos.241, 5445, 7232)

Santonian to Campanian (Campanian, Cretaceous by Toshimitsu (1988))

(*Inoceramus (Platyceramus) japonicus* Nagao and Matsumoto by Hayami (1975); *Inoceramus (Platyceramus) japonicus japonicus* Nagao and Matsumoto by Noda (1983); *Platyceramus japonicus* (Nagao and Matsumoto)

by Toshimitsu (1988))

Inoceramus (Platyceramus) japonicus Nagao and Matsumoto* see *Inoceramus japonicus (Sasa MS.) Nagao and Matsumoto, 1940

Inoceramus (Platyceramus) japonicus japonicus Nagao and Matsumoto* see *Inoceramus japonicus (Sasa MS.) Nagao and Matsumoto, 1940

Inoceramus (Platyceramus) japonicus hokkaidoensis Noda, 1983

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 132, p. 205, text-figs. 8-2, 8-3, pl. 41, fig. 2; pl. 42, figs. 1-3; pl. 43, figs. 1-3

Holotype: MC.510621 (pl. 41, fig. 2); Paratypes: JG.H0115, JG.H0176, JG.H2805, JG.H2806, JG.H2807, JG.H2738 (pl. 43, fig. 3), JG.H2739 (pl. 42, fig. 1), JG.H2740, JG.H2741 (pl. 42, fig. 2), GK.H10027 (pl. 42, fig. 3), GK.H10079 (pl. 43, fig. 2), GK.H10105 (pl. 43, fig. 1)

Loc. IK8015 (Holotype) on the upper reaches of Kikume-zawa, a tributary of the River Ikushumbetsu, near the Lake Katsura-zawa, Ikushumbetsu area, Mikasa City, Hokkaido; JG.H2805-2807 collected from the locality near the type locality; Locs. Hb1997 (JG.H0115, H0176, H2738), Hb2000 (JG.H2739-2740) and Hb2001 (JG.H2741) in the Migino-sawa, a tributary of the River Haboro, Haboro-cho, Tomamae-gun, Hokkaido; Loc. H2 (GK.H10027), a road cutting on the left bank near Tomiuchi Bridge, Hobetsu-cho, Yufutsu-gun, Hokkaido; GK.H10079 from Panke-zawa, a tributary of the River Chikubetsu, Haboro-cho, Tomamae-gun Hokkaido; Loc. SK62 (GK.H10105) on the upper reaches of the River Haboro, Sankei area, Haboro-cho, Tomamae-gun, Hokkaido, Japan

Upper part of the Upper Yezo Group

Upper Santonian (Campanian, Cretaceous by Toshimitsu (1988))

Inoceramus kamuy Matsumoto and Asai, 1996

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 181, p. 376, figs. 1-3

Holotype: GK.H500 (fig. 1-1); Paratypes: GK.H501 (fig. 1-3), GK.H502A (fig. 1-2), GK.H502B (fig. 2-1), GK.H502C, GK.H502D, GK.H502E, GK.H506 (fig. 2-2), GK.H507A (fig. 2-4), GK.H507B, GK.H478, GK.H8381A, GK.H8381B, GK.H8382, GK.H8383, GK.H8430 (fig. 2-5), GK.H8431, GK.H8432 (fig. 2-6), GK.H8440 (fig. 2-3), GK.H8476, GK.H8477, GK.H8478, GK.H8440 (fig. 2-3), WE.P033T (fig. 4-1), WE.P034T (fig. 3-5), WE.P035T (fig. 3-4), WE.P036T (fig. 3-3), WE.P110T, WE.P111T, WE.P112T (fig. 4-2), WE.P115T (fig. 5-5), WE.P116T, WE.P117T, WE.P118, WE.P119T, WE.P120T, WE.P121T, WE.P135T, WE.P138T (fig. 4-3), WE.P106Y (fig. 3-1), WE.P108Y, WE.P109Y, WE.P122Y, WE.P123Y (fig. 3-2), WE.P124Y (fig. 3-1),

WE.P125A (fig. 5-1), WE.P126A (fig. 5-2), WE.P127A, WE.P128A (fig. 5-4), WE.P129A (fig. 5-3), WE.P134A, WE.P136Y (fig. 3-1)

Loc. Y415 (Holotype, and GK.H501, H502A-D) at right bank of the Hinata-zawa, about 50 m upstream from its confluence with the River Shuparo (=Syubari or Siyubari) of the Oyubari area, and Loc. Y223p (GK.H507A-B), a pebble on the River Shuparo, somewhat downstream from Y415, (Yubari City); Loc. Y139 (GK.H506) at left bank of the Hikage-zawa at its confluence with the River Shuparo, and Loc. 139e (GK.H478) at the left bank of the Hikage-zawa, 300 m upstream from the confluence, (Yubari City); Loc. Y5109 (GK.H8381-H8383) along the forestry road on the right side of the Taki-no-sawa (=Penkemoyuparo), and Loc. Y5154a (GK.H8430, H8431) on the left bank of the same stream, (Yubari City); Loc. Y5233a (GK.H8440) at the right side of the Sirakin River (=Hakkin-zawa), Loc. Y5228f (GK.H8432), about 250 m downstream from Y5233a, (Yubari City); Locs. Y070077 (WE.P106Y, WEP108Y, WEP109Y), Y070091 (WE.P122Y), Y070093b (WE.P123Y, WEP124Y), Y070075Y (WE.P136Y) along the Hakkin-zawa, (Yubari City); Loc. As4049a (WEP125A-WEP129A) along the stream called Hachigetsu-zawa, and Loc. As3037a (WE.P134A) along the stream called Tsukimi-zawa, in the Ashibetsu area, (Ashibetsu City); Loc. T4507x (WE.P033T, WEP034T, WEP116T-WREP121T) as a transported boulder in the Okufutamata-zawa (= Kechikauen-Obirashibe), a tributary of the River Obirashibe, and Locs. T6046c (WE.P035T, WEP036T, WEP110T), T6042c (WE.P111T, WEP112T), T6048a (WE.P115T), T6047a (WE.P135T), T6038g (WE.P138T) in the Obira area, (Obiracho, Rumoi-gun); Loc. R5211 (GK.H8476-GK.H8478) on the left side of the River Obirashibe, (Obira-cho, Rumoi-gun), Hokkaido, Japan

Middle part of the Yezo Group

Lower Turonian, Cretaceous

Inoceramus (Cordiceramus) kanmerai Toshimitsu, 1986

Proc. Japan Acad., Ser. B, vol. 62, no. 7, p. 227, figs. 1a-b

Holotype: GK.H8111 (figs. 1a, b); Paratypes: GK.H8112, GK.H8113, GK.H8114, GK.H8115, GK.H8116, GK.H8117, GK.H8118

Locs. RH4007c (Holotype and GK.H8112, GK.H8113, GK.H8114) and RH4007c (GK.H8115) on the Otodo-zawa, Loc. RH5025a (GK.H8116, GK.H8117, GK.H8118) on the Chimei-zawa, tributaries of the River Haboro, Haboro-cho, Tomamae-gun, Hokkaido, Japan

Upper Haborogawa Formation, Upper Yezo Group

Uppermost Santonian to lower Campanian (Lower Campanian, Cretaceous)

***(Inoceramus (subgen. nov.) kanmerai Toshimitsu* by Noda and Hauakawa, 1999, p. 12; *Inoceramus (Biformoceramus) kanmerai Toshimitsu* by Noda, 2001, p. 50)**

***Inoceramus (Cordiceramus) kawashitai* Noda, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no.142, p. 355, text-figs. 2, 6, pl. 69, fig. 1; pl. 70, figs. 1-2; pl. 71, figs. 1-3; pl. 72, figs. 1-2; pl. 73, figs. 1-5

Holotype: KW2002 (text-fig. 6, pl. 70, figs. 1a-c); Paratypes: KW2001 (text-fig. 6, pl. 69, figs. 1a-d), KW2003 (pl. 70, figs. 2a-b), JG.H2876 (pl. 71, figs. 1a-d), JG.H2877 (text-fig. 6, pl. 72, figs. 1a-d), JG.H2878, JG.H2879, JG.H2880, JG.H2881 (pl. 73, fig. 5), JG.H2882, JG.H2883 (pl. 71, fig. 2), JG.H2884 (pl. 72, figs. 2a-b), JG.H2885 (pl. 73, fig. 4), JG.H2886, JG.H2887 (pl. 71, fig. 3), JG.H2888 (pl. 73, fig. 2), JG.H2889, JG.H2890 (text-fig. 6, pl. 73, figs. 3a-b), JG.H2891 (pl. 73, fig. 1), JG.H2892, JG.H2893 (pl. 69, figs. 1a-d)

Loc. Y32 (Holotype), a cliff the Penkehorokayuparo-zawa about 50 m upstream from the confluence with Yubari River, Oyubari area, Yubari City; KW2003 from a floated nodule of the Echinai-zawa, a tributary of the Shimokinenbets River, Obira area (Obira-cho), Rumoi-gun, Hokkaido, Japan; Loc. Ik2707-2708 (JG.H2876-JG.H2992) in the upper reaches of the Pombets Gono-sawa, a tributary of the Ikushumbets River; Locs. Ik9p (KW2001) and Ik10p (JG.H2893), floated nodules of the Misojino-sawa, a tributary of the Ikushumbets River, Mikasa area (Mikasa City), Hokkaido, Japan

Middle part of the Upper Yezo Group

Upper Coniacian, Cretaceous

***Inoceramus (subgen. nov.) kikumensis* Noda and Hayakawa, 1999 (MS.)**

Ann. Rep. Geol. Soc. Oita, no. 5, p. 14, text-figs. 10-11, pl. 5, figs. 2a-b; pl. 6, figs. 2a-c

Holotype: JG.H3541 (pl. 5, figs. 2a, b; designated by Noda (2002, p. 133)); Paratype: JG.H3538 (pl. 6, figs. 2a-c; designated by Noda (2002, p. 133))

Locs. Ik8101 (JG.H3541) and IK1280b (JG.H3538) on the Kikumen-zawa, a tributary of the River Ikushumbetsu, Mikasa City, Hokkaido, Japan

Upper Yezo Group

Lower Campanian, Cretaceous

***Inoceramus (Biformoceramus) kikumensis* Noda and Hayakawa MS.** by Noda, 2001, p. 47; ***Inoceramus (Biformoceramus) kikumensis* Noda and Hayakawa** by Noda, 2002, p. 132)

Inoceramus (Endocostea) kunimiensis* Nagao and Matsumoto see *Inoceramus balticus* Boehm var. *kunimiensis* Nagao and Matsumoto, 1940**Inoceramus kusiroensis* Nagao and Matsumoto, 1940**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 56, pl. 22, fig. 4

Holotype: GMH no.7271 (fig. 2)

Otamura, Akkesi district, Province of Kushiro (Ota, Akkeshi-cho, Akkeshi-gun), Hokkaido

Unknown horizon (Monshizu Formation, Nemuro Group) Maastrichtian (?) (middle Maastrichtian, Cretaceous by Matsumoto (1959))

***Inoceramus (?) kusiroensis* Nagao and Matsumoto** by Noda and Matsumoto (1976); ***Shahmaticeramus kusiroensis* (Nagao and Matsumoto)** by Zonova (1992))

***Inoceramus (?) kusiroensis* Nagao and Matsumoto see *Inoceramus kusiroensis* Nagao and Matsumoto, 1940**

***Inoceramus lamarcki hobetsensis* Nagao and Matsumoto see *Inoceramus hobetsensis* (Nagao and Otatume MS.) Nagao and Matsumoto, 1939**

***Inoceramus mihoensis* Matsumoto, 1957**

Mem. Fac. Sci. Kyushu Univ., Ser. D, vol. 6, no. 2, p. 65, pl. 21, figs. 1-4

Holotype: GK.H358 (pl. 21, figs. 1a, b) ; Paratypes: GK.H259, GK.H359 (pl. 6, figs. 2a, b), GK.H361 (pl. 6, figs. 3a-c), GK.H369, GK.H371, IGPS no.57824

Locs. N134 (Holotype and GK.H359, GK.H361), N135 (GK.H371) and N138 (GK.H369) near Hagoromo-bashi, Miho, Naibuchi, south Saghalin (Naiba, Sakhalin, Russia) Zone Mh5, Miho Group (Bykov Formation)

Upper Coniacian, Cetaceous

***Inoceramus mihoensis mihoensis* Matsumoto** by Pergament (1971); ***Inoceramus (Inoceramus) mihoensis* Matsumoto** by Hayami (1975); ***Inoceramus (Cremnoceramus) mihoensis* Matsumoto** by Noda (1994))

***Inoceramus mihoensis mihoensis* Matsumoto see *Inoceramus mihoensis* Matsumoto, 1957**

***Inoceramus (Inoceramus) mihoensis* Matsumoto see *Inoceramus mihoensis* Matsumoto, 1957**

***Inoceramus (Cremnoceramus) mihoensis* Matsumoto see *Inoceramus mihoensis* Matsumoto, 1957**

***Inoceramus (Platyceramus) miyahisai* Noda, 1983**

Memorial Volume of Professor Michitoshi Miyahisa, p. 111, pl. 1, fig. 1; pl. 5, fig. 1

Holotype: AK.099 (pl. 1, fig. 1); Paratype: JG.H0214 (pl. 5, fig. 1))

Ominega-dai, Matsuyama City, Ehime Prefecture, Japan

Upper part of the Kiji Member of the Izumi Group

Upper Middle Campanian, Cretaceous

***Inoceramus mukawaensis* Nagao and Matsumoto see *Inoceramus sp. nov.? (Inoceramus mukawensis* Otatume MS.), in Nagao and Matsumoto, 1939**

***Inoceramus (Cordiceramus) mukawaensis* Nagao and Matsumoto** see *Inoceramus* sp. nov.? (*Inoceramus mukawensis* Otatume MS.), in Nagao and Matsumoto, 1939

***Inoceramus naumanni* Yokoyama, 1890**

Palaeontographica, vol. 36, p. 174, pl. 18, figs. 3-5

Lectotype: one of the illustrated specimens (fig. 3; designated by Matsumoto (1963, p. 28)); Syntype: two of the illustrated specimens (figs. 4, 5)

Urakawa, Hidaka Province (Urakawa-cho, Urakawa-gun), Hokkaido, Japan

Horomui group (Upper Yezo Group)

Gault (Urakawan (especially abundant in Santonian), Cretaceous by Matsumoto (1963))

(Invalid Lectotype designated by Pergament (1974, p. 86) without priority and out of Syntypes designated by Yokoyama (1980); *Inoceramus naumanni* Yokoyama by Nagao and Matsumoto (1940); *Inoceramus (Sphenoceramus) naumanni naumanni* Yokoyama by Tanabe (1973); *Mytiloides? naumanni* (Yokoyama) by Kuffman (1977); *Sphenoceramus naumanni* (Yokoyama) by Matsumoto, Noda and Kozai (1982))

Inoceramus naumanni Yokoyama see *Inoceramus Naumanni* Yokoyama, 1890

Inoceramus (Sphenoceramus) naumanni naumanni Yokoyama see *Inoceramus naumanni* Yokoyama, 1890

***Inoceramus* (subgen. nov.) *nikkawai* Noda and Hayakawa, 1999 (MS.)**

Ann. Rep. Geol. Soc. Oita, no. 5, p. 17, text-figs. 12-13, pl. 4, fig. 3

Holotype: JG.H3043 (corrected from JG.H3045, designated by Noda (2002, p. 109)) (pl. 4, fig. 3: misnumbered in Noda and Hayakawa (1999))

Locs. T1211 on the River Obirasibe, Obira-cho, Rumoi-gun, Hokkaido, Japan

Upper Yezo Group

Upper Coniacian, Cretaceous

(Inoceramus (Biformoceramus) nikkawai Noda and Hayakawa MS by Noda, 2001, p. 48; *Inoceramus (Biformoceramus) nikkawai* Noda and Hayakawa by Noda, 2002, p. 80)

Inoceramus nipponicus Nagao and Matsumoto see *Inoceramus concentricus* Parkinson var. *nipponicus* Nagao and Matsumoto, 1939

Inoceramus (Actinoceramus) nipponicus Nagao and Matsumoto see *Inoceramus concentricus* Parkinson var. *nipponicus* Nagao and Matsumoto, 1939

***Inoceramus nodai* Matsumoto and Tanaka, 1988**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 151, p. 571, figs. 1-3, 5-13

Holotype: GSJ F8275A (fig. 1A-D); Paratypes: GSJ F8275B, IGPS no.86187B (fig. 2), IGPS no.86187C (fig. 3), IGPS no.86187D, GK.H8259A (figs. 5, 5x), GK.H8259B (figs. 5, 5x), GK.H8260A (fig. 6), GK.H8260B, GK.H8260C, GK.H8260D, GK.H8260E, GK.H8260F, GK.H8269A (fig. 7), GK.H8270A, GK.H8270B, GK.H8272A (figs. 8, 8p), GK.H8272B, GK.H8273A (fig. 13), GK.H8273B (figs. 10, 10a), GK.H8273C (fig. 11), GK.H8273D, GK.H8273F (figs. 12, 12a), GK.H8273G (figs. 9, 9a), GK.H8273H, GK.H8274A, GK.H8274B, GK.H8274C, GK.H8274D, GK.H8274E, GK.H8275A, GK.H8275B, GK.H8275C, GK.H8275D, GK.H8275E, GK.H8275F, GK.H8275G

Loc. Iw32 (= Ik1043) (Holotype and GSJ F8275B) on the main course of the River Ikushumbets, about 530 m downstream from the Katsurazawa dam, Mikasa district, Hokkaido, Japan; A locality in a calcareous nodule of sandy siltstone (IGPS no.86187B-D), Member IIC of the Mikasa Formation on the River Ikushumbets, (Mikasa City); Locs. Y5111-5113 (other paratypes) in the uppermost part of the probable extension of Member IIm (Matsumoto, 1942, p. 230), Taki-no-sawa route, Oyubari area (Yubari City), Hokkaido, Japan

Middle member of the Mikasa Formation, Middle Yezo Group

Upper Cenomanian, Cretaceous

Inoceramus (Inoceramus) nonsulcatus Nagao and Matsumoto see *Inoceramus hobetsensis* var. *nonsulcatus* Nagao and Matsumoto, 1939

***Inoceramus (Inoceramus) obiraensis* Noda and Muramoto, 1980**

Trans. Proc. Palaeont. Soc. Japan, N.S., no.119, p. 392, text-figs. 4, 5, 6; pl. 46, figs.1a-c; pl. 47, figs. 1a-c; pl. 48, fig. 3; pl. 49, fig. 1

Holotype: GK.H10107 (pl. 46, figs. 1a-c; pl. 47, figs. 1a-c; pl. 48, fig. 3; pl. 49, figs. 1a-b); Paratypes: MC540728 (pl. 48, figs. 1a-c), MC540827 (pl. 47, figs. 2a-c), MC540729 (pl. 48, figs. 2a-c)

Loc. Ob1010 (Holotype), along the 108 Rinpan-no-sawa, about 400 m upstream from the confluence with Saton-no-sawa, a branch of Kamikinenbetsu-zawa, a tributary of the River Obirashibe, administratively in Kamikinenbetsu, Obira-cho (44° 03' 49" N, 142° 00' 22" E); Loc. Ob2050 (MC540728), along the Nanbu-no-sawa, a tributary of the River Obirashibe, about 850 m upward from the confluence with the main stream of the Obira, along the course of stream, Obira-cho (44° 03' 49" N, 141° 56' 41" E); Loc. Ob2049 (MC540827), along the Nanbu-no-sawa, a tributary of the River Obirashibe, about 800 m upward from the confluence with the main stream of the Obira, along the

course of stream, Obira-cho (44° 03' 49''N, 141° 56' 39''E); Loc. Ob2060 (MC540729), along the Nanbu-no-sawa, a tributary of the River Obirashibe, about 650 m upward from the confluence with the main stream of the Obira, along the course of stream, Obira-cho, Rumoi-gun, Hokkaido, Japan (44° 03' 54''N, 141° 56' 32''E)

Unit Mk of the Middle Yezo Group
Middle Turonian, Cretaceous

***Inoceramus orientalis* Sokolow var. *ambiguus* Nagao and Matsumoto, 1940**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 37, pl. 15, figs. 3-4, pl. 17, figs. 1-2

Lectotype: GMH no.3808 (pl. 17, fig. 1; designated by Matsumoto and Ueda (1962, p.167)); Syntype: UMUT I-1073 (pl. 15, fig. 3), UMUT I-156 (pl. 15, fig. 4), IGPS no.50905a, IGPS no.50926b

GMH no.3808 from Osatinai, Province of Hidaka (Osachinai, Biratori-cho, Saru-gun, Hokkaido); IGPS no.50926b from east of Urakawa and UMUT I-156 from Urokobetu near Urakawa, Province of Hidaka (Urakawa-cho, Urakawa-un, Hokkaido); UMUT I-1073 collected from Sanusiusibetu, a tributary of the Mukawa, Province of Iburi (Hobetsu-cho, Yufutsu-gun, Hokkaido); IGPS no.50905a from Kawakami, South Saghalin (Sakhalin, Russia)

Parapachydiscus beds, Upper Ammonite beds (Upper Yezo Group in Hokkaido); Ryugase sandstone (Ryugase Group in Sakhalin)

Santonian to Campanian, Cretaceous

(Invalid Holotype without priority designated by Zonova (1965, p. 190, pl. 1, fig. 7) without priority; New name as *Inoceramus orientalis nagaoui* Matsumoto and Ueda, 1962 because of non Von Eichwald 1865; *Inoceramus (Sphenoceramus) orinetalis nagaoui* Matsumoto and Ueda by Hayami (1975); *Sphenoceramus nagaoui* (Matsumoto and Ueda) by Noda (1988))

Inoceramus orientalis nagaoui Matsumoto and Ueda see *Inoceramus orientalis* Sokolow var. *ambiguus* Nagao and Matsumoto, 1940

Inoceramus (Sphenoceramus) orinetalis nagaoui Matsumoto and Ueda see *Inoceramus orientalis* Sokolow var. *ambiguus* Nagao and Matsumoto, 1940

***Inoceramus pedalionoides* (Inai MS.) Nagao and Matsumoto, 1939**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 277, pl. 26, figs. 8, 9

Syntype: IGPS no.22720 (figs. 8a-c), GMH no.5969 (fig. 9) IGPS no.22720 collected from Pombetsu, Province of Isikari (Mikasa City, Hokkaido); GMH no.5969 from a tributary of the Penkemoyuparo, Province of Isikari (Yubari City, Hokkaido), Japan

Lower part of Upper Ammonite beds (Middle Yezo Group to lowest part of the Upper Yezo Group)

Turonian (upper Turonian by Noda (1985)), Cretaceous (*Inoceramus (Inoceramus) pedalionoides* Nagao and Matsumoto by Hayami (1975))

Inoceramus (Inoceramus) pedalionoides Nagao and Matsumoto see *Inoceramus pedalionoides* (Inai MS.) Nagao and Matsumoto, 1939

***Inoceramus pictus minus* Matsumoto, 1989**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 153, p. 16, figs. 1-10

Holotype: GK.H36A (fig. 1); Paratypes: GK.H29A (fig. 7), GK.H29A', GK.H29B (fig. 8), GK.H29C (fig. 9), GK.H36B (fig. 2), GK.H36C (fig. 3), GK.H36D (fig. 4), GK.H36E (fig. 5), GK.H36F (fig. 6), UMUT MM6478 (Nagao and Matsumoto, 1939, pl. 24, fig. 2), GK.H82

Loc. T33 (Holotype and GK.H36B-F) in the section along the stream called Saku-gakko-no-sawa, a tributary to the River Teshio facing the village of Saku, (Nakagawa-cho); T843 (GK.H29A-C) at Chirashinai of the Saku area, (Nakagawa-cho, Nakagawa-gun); UMUT MM6478 from the middle course of the Obirashibe, (Obira-cho, Rumoi-gun); R110 (GK.H8287) on Highway 239, 1300 m west from the Kiritachi Pass, Tomamae-cho, Tomamae-gun; Locs. Ik1039a (GK.H8288) and Ik1038 (IGPS no.86187D, E) on the main course of the River Ikushumbetsu, 550 m downstream from the Katsurazawa Dam, (Mikasa City), Hokkaido, Japan

Middle Yezo Group

Upper Middle Cenomanian - ? lower Upper Cenomanian, Cretaceous

***Inoceramus pseudosulcatus* (Otatume MS.) Nagao and Matsumoto, 1940**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 48, pl. 22, fig. 2

Lectotype: GMH no.5988a (designated by Takai and Matsumoto (1961, p.276)); Syntype: GMH no.5988b, UMUT I-1115, UMUT I-1116

GMH no.5988a, b collected from Hetonai district, Province of Iburi (Tomiuchi, Hobetsu-cho, Yufutsu-gun); UMUT I-1115, UMUT I-1116 from the Sanusibe-zawa, Hobetu district, Province of Iburi (Hobetsu-cho, Yufutsu-gun), Hokkaido, Japan

Lower Hetonai (Hakobuti) group (lower part of the Hakobuchi Group)

Campanian, Cretaceous

(*Inoceramus elegans pseudosulcatus* Nagao and Matsumoto by Takai and Matsumoto (1961); *Inoceramus (Sphenoceramus) elegans pseudosulcatus* Nagao and Matsumoto by Hayami (1975); *Sphenoceramus pseudosulcatus* (Nagao and Matsumoto) by Noda (1985); *Sphenoceramus elegans pseudosulcatus* (Nagao and

Matsumoto) by Noda, Otsuka, Kano and Toshimitsu (1985))

***Inoceramus* (subgen. nov.) *sanadai* Noda and Hayakawa, 1999 (MS.)**

Ann. Rep. Geol. Soc. Oita, no. 5, p. 6, text-figs. 4-5, pl. 1, figs. 1a-e; pl. 2, figs. 1a-c; pl. 3, figs. 1a-b; pl. 4, figs. 1-4

Holotype designated by Noda and Hayakawa (2001, p. 33): JG.H3012 (pl. 1, figs. 1a-e; pl. 4, fig. 1); Paratypes designated by Noda (2002, p. 109; p. 123; p. 133): JG.H3539 (pl. 2, figs. 1a-c; pl. 4, figs. 2a-c), JG.H3540 (pl. 4, fig. 4), JG.H3204 (pl. 4, figs. 3a-c), JG.H3043 (pl. 3, figs. 1a, b)

Locs. Kt1026 (JG.H3012) and Kt1025 (JG.H3539-3540) on the Onkono-sawa, a tributary of the River Kotanbetsu, Tomamae-cho, Tomamae-gun, Hokkaido; Loc. T1211 (JG.H3024, JG.H3043) on the Obira area, Obira-cho, Rumoi-gun, Hokkaido, Japan

Upper Yezo Group

Santonian to Lower Campanian, Cretaceous

***Inoceramus* (*Biformoceramus*) *sanadai* Noda and Hayakawa MS** by Noda and Hayakawa, 2001, p. 33; ***Inoceramus* (*Biformoceramus*) *sanadai* Noda and Hayakawa** by Noda, 2002, p. 36)

***Inoceramus* sp. nov.? (*Inoceramus mukawensis* Otatume MS.), in Nagao and Matsumoto, 1939**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 293, pl. 32, figs. 1, 3

Syntype: GMH no.7204 (pl. 32, figs. 3a-b), GMH no.5972 (pl. 32, figs. 1a-d)

GMH no.7204 collected from the Kikumenu-zawa, Ikushumbetsu district (Mikasa City), Hokkaido; GMH no.5972 from the Mukawa, the Hetonai district (along the River Mukawa in the Tomiuchi, Hobetsu-cho, Yuufutsu-gun, Hokkaido, Japan

Parapacydiscus beds, Upper Ammonite beds (Upper Yezo Group)

Upper Coniacian? to Santonian, Cretaceous

***Inoceramus mukawaensis* Nagao and Matsumoto** by Matsumoto (1959); ***Cordiceramus codriformis mukawaensis* (Nagao and Matsumoto)** by Kauffman (1977); ***Inoceramus* (*Cordiceramus*) *mukawaensis* Nagao and Matsumoto** by Noda (1985))

***Inoceramus shikotanensis* (Inai MS.) Nagao and Matsumoto, 1940**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p. 28, pl. 11, fig. 1; pl. 12, figs. 1, 3, 4

Lectotype: GMH no.7264 (pl. 12, figs. 3a-c; designated by Zonova (1987, p. 118)); Syntype: GMH no.7265 (pl. 12, fig. 1), GMH no.7257a, UMUT.I-664 (pl. 11, fig. 1)

Lectotype collected from Osatinai, Hidaka (Osachinai, Biratori-cho, Saru-gun), Hokkaido; Hetonai, Province of Iburu (Tomiuchi, Hobetsu-cho, Yufutsu-gun), Hokkaido; Awaji (Awaji Island), Hyogo Prefecture, Japan; Shikotan

(Shikotan) Island, Tisima (Chishima; Kurile islands)

Geological horizon unknown in Biratori; Lower sandy shale and Hukausi Sandstone(?) of the Upper Hetonai (Hakobuti) group (Hakobuchi Group in Hobetsu); Kita-ama Sandstone of the Izumi Sandstone (Izumi Group in Awaji Island); (Nemuro Group in Shikotan)

Maastrichtian (Lower Maastrichtian, Cretaceous)

***Inoceramus* (*Endocostea*) *shikotanensis* (Nagao and Matsumoto)** by Noda (1980); ***Shahmaticeramus shikotanensis* (Nagao and Matsumoto)** by Zonova (1992))

***Inoceramus* (*Endocostea*) *shikotanensis* (Nagao and Matsumoto)** see ***Inoceramus shikotanensis* (Inai MS.) Nagao and Matsumoto, 1940**

***Inoceramus sorachiensis* Noda and Matsumoto MS, in Noda, 2002 (nom. nov.)**

Special. Issue, Geol. Soc. Oita, no. 7, p. 6, fig. 2

(see ***Inoceramus concentricus* var. *costatus* Nagao and Matsumoto, 1939**)

***Inoceramus* (*Platyceramus*) *szaszi* Noda and Uchida, 1995**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 178, p. 144, figs. 2, 3, 5, 8

Holotype: JG.H2901 (figs. 3-1a, b, c, d, 8); Paratypes: JG.H2794 (figs. 2-2a, b, 5-2a, b, c), JG.H2898 (figs. 5-1a, b, c, d, 8), JG.H2903 (figs. 2-4, 3-2a, b, c), JG.H2909 (figs. 2-1a, b, c), JG.H3099a (fig. 2-3), JG.H3099b (fig. 2-3)

Loc. Ik2709 (Holotype and JG.H2794, JG.H2898, JG.H2903, JG.H2909), a cliff of the forestry road along the Ponbetsu-gono-sawa, Mikasa City, Hokkaido (43° 17' 50''N, 141° 51' 22''E); Loc. Ik1623 (JG.H3099a, b), a floated pebble in a branch of the Kumaoui-zawa, Mikasa City, Hokkaido; Japan (43° 15' 53''N, 142° 04' 22''E)

Upper Yezo Group

Upper Middle Coniacian, Cretaceous

***Inoceramus takahashii* Matsumoto and Noda, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 143, p. 414, pl. 84, figs. 1a-c

Holotype: monotypy (GK.H10145) (figs. 1a-c)

In the upper reaches of the Hachino-sawa of the Kami-ichi-no-sawa, a tributary of the River Ikushumbetsu, Mikasa area (Mikasa City), Hokkaido, Japan

Lower part of the Mikasa Formation, Middle Yezo Group

Upper Cenomanian, Cretaceous

***Inoceramus tamurai* (Matsumoto and Noda) see *Birostrina tamurai* Matsumoto and Noda, 1986**

***Inoceramus* (*Actinoceramus*) *tamurai* (Matsumoto and Noda) see *Birostrina tamurai* Matsumoto and Noda, 1986**

***Inoceramus (Platyceramus) tappuensis* Noda in Noda and Matsumoto, 1998** (nom. nov.)

Act. Geol. Polonica, vol. 48, p. 456, pl. 10, figs. 2a-c; pl. 11, figs. 1a-d, 2a-b

(see *Inoceramus (Platyceramus) troegeri* Noda, 1992)

***Inoceramus teraokai* Matsumoto and Noda, 1968**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 71, p. 319, text-fig. 2, pl. 32, figs. 1-5

Holotype: GK.H6833 (fig. 1, text-fig. 2); Paratypes: GK.H6834 (fig. 2), GK.H6835 (fig. 3), GK.H6836 (figs. 4a, b), GK.H6837 (fig. 5), GK.H6838

Loc. TA204 (Holotype, GK.H6834, GK.H6835, GK.H6838), on a mountain path from Yamaji to Otomi, Usuki City; Loc. TA209 (GK.H6836), on the western flank of a hill, northern area of Tarabaru;, Notsu-machi; Loc. TA213 (GK.H6837), on the eastern hillside near a bridge called Meijibashi, Ushirogawachi, Notsu-machi, Ono-gun, Oita Prefecture, Japan

Upper member of the Tano Formation

Middle Turonian, Cretaceous

(*Mytiloides teraokai* (Matsumoto and Noda) by Kaufman (1977))

***Inoceramus tenuistriatus* Nagao and Matsumoto, 1939**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 272, pl. 24, figs. 3, 8, pl. 26, figs. 1-4

Lectotype: GMH no.7192 (pl. 26, figs. 1a-c; designated by Pergament (1966, p. 47)); Syntype: UMUT I-700 (pl. 24, figs. 8a-c), UMUT I-701 (pl. 24, fig. 3), GNH no.7187 (pl. 26, figs. 2a-b), GMH no.7185 (pl. 26, fig.4), IGPS no.22751 (pl. 26, fig. 3a-b), IGPS no.22769

Pombetu, Isikari Province (Pombetsu, Mikasa City, Hokkaido)

Lower part of the Upper Ammonite beds (upper part of the Middle Yezo Group)

Gyliakian to Urakawan (Upper Turonian, Cretaceous by Noda (1988))

(*Inoceramus (Inoceramus) tenuistriatus* Nagao and Matsumoto by Hayami (1975))

Inoceramus (Inoceramus) tenuistriatus* Nagao and Matsumoto see *Inoceramus tenuistriatus* Nagao and Matsumoto, 1939**Inoceramus teshioensis* Nagao and Matsumoto, 1939**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p. 274, pl. 24, figs. 6, 7, 9, pl. 26, figs. 5-7

Lectotype: UMUT I-711 (pl. 24, fig. 7; designated by Noda (1975, p.252)); Syntype: GMH no.5961 (pl. 26, figs. 7a-b), IGPS no.22643 (pl. 26, figs. 5a-b), UMUT I-720a, UMUT I-720b

Type locality at Abeshinai district, Province of Tesio (Nakagawa-cho, Nakagawa-gun); GMH no.5961 collected

from Kamihobetu, Province of Iburi (Hobetsu-cho, Yufutsu-gun); IGPS no.22643 collected from Horomui, Province of Isikari (Kurisawa-cho, Sorachi-gun), Hokkaido; UMUT I-720a,b collected from Obirashibe, Province of Tesio (Obira-cho, Rumoi-gun), Hokkaido

Lowest part of the Upper Ammonite beds (Saku and Mikasa Formations, Middle Yezo Group)

Turonian (Upper Turonian, Cretaceous by Matsumoto (1959))

(*Inoceramus (Inoceramus) teshioensis* Nagao and Matsumoto by Hayami (1975))

Inoceramus (Inoceramus) teshioensis* Nagao and Matsumoto see *Inoceramus teshioensis* Nagao and Matsumoto, 1939**Inoceramus (subgen. nov.) tomamaensis* Noda and Hayakawa, 1999** (MS.)

Ann. Rep. Geol. Soc. Oita, no. 5, p. 9, text-figs. 6-7, text-photo 1, pl. 3, figs. 2a-b; pl. 5, fig. 1

Holotype designated by Noda (2002, p. 109): MCM. A-741 (= JG.H3042 (plaster cast of MCM. A-741: pl. 3, figs. 2a, b; pl. 5, fig. 1), Paratype: MCM not registered (text-photo 1)

Locs. Kt1005 (MCM. A-741 (=JG.H3042) on the River Kotanbetsu, Tomamae-cho, Tomamae-gun, Hokkaido; Loc. Ik8825 (MCM not registered) on the Horomoi-zawa in the Ikushumbetsiu area, Mikasa City, Hokkaido, Japan

Upper Yezo Group

Upper Santonian to Lower Campanian, Cretaceous

(*Inoceramus (Biformoceramus) tomamaensis* Noda and Hayakawa MS. by Noda, 2001, p. 46; *Inoceramus (Biformoceramus) tomamaensis* Noda and Hayakawa by Noda, 2002, p. 108)

***Inoceramus (Platyceramus) troegeri* Noda, 1992**

Trans. Proc. Palaeont. Soc. Japan, N.S., no.168, p. 1315, figs. 2-6, 9

Holotype: JG.H3023 (figs. 3- 1a-d, 9); Paratypes: JG.H3007 (fig. 6-4), JG.H3008, JG.H3009 (fig. 6-1), JG.H3010, JG.H3011a, JG.H3011b, JG.H3022 (fig. 9), JG.H3025b, JG.H3025c, JG.H3025d, JG.H3025e, JG.H3025f, JG.H3036, JG.H3037 (figs. 5- 3a-d), JG.H3038 (figs. 5- 1a-b), JG.H3039, JG.H3040a, JG.H3040b, JG.H3040c, JG.H3040d, JG.H3041a, JG.H3041b, JG.H3041c, JG.H3041d, JG.H3064a (fig. 6-2), JG.H3065 (fig. 6-3), UMUT MM6492 (figs. 4- 2a-b, 5- 2a-b), IGPS no.22709 (figs. 4- 1a-d)

Loc. Ob0003f (Holotype and JG.H3007-3011, JG.H3022, JG.H3025b-f, JG.H3037, JG.H3038, JG.H3040a-d, JG.H3041a-d, JG.H3064a, UMUT MM6492, IGPS no.22709) at a cliff on the left side of the main course of the River Obirashibe, about 500 m upstream from the Tengu-bridge; Locs. Ob0012 (JG.H3039), Ob0020 (JG.H3036, JG.H3065) along the River Obirashibe near the confluence with the Jugosen-zawa, Obira area (Obira-cho,

Rumoi-gun), Hokkaido, Japan

Lower part of Ua2, the lower part of the Upper Yezo Group
Lower Coniacian (Lower to lower Middle Coniacian),
Cretaceous

(New name as *Inoceramus (Platyceramus) tappuensis* Noda
(in Noda and Matsumoto, 1998), because of preoccupation of
the specific name as *Mytiloides striatoconcentricus troegeri*
Kauffman, 1979, p. 65-67, pl. 10, figs. D-E)

***Inoceramus uwajimensis* Yehara, 1924**

Japan. Jour. Geol. Geogr., vol. 3, no. 1, p. 36, pl. 3, figs. 1-2;
pl. 4, figs. 1-3

Lectotype: UK not registered (pl. 3, fig. 2; designated by
Matsumoto in Takai and Matsumoto (1961, p. 273));
Syntype: other four specimens (pl. 3, fig. 1, pl. 4, figs. 1-3;
not typical, mentioned by Matsumoto in Takai and
Matsumoto (1961, p. 273))

Lectotype collected from Furushiroyama, Uwajima City,
Province of Iyo (Ehime Prefecture), Japan

Furushiroyama Shale, Izumi-Sandstone Group
(Furushiroyama Formation, Uwajima Group)

(Coniacian, Cretaceous)

(*Inoceramus (Inoceramus) uwajimensis* Yehara by Hayami
(1975))

Inoceramus (Inoceramus) uwajimensis Yehara see
Inoceramus uwajimensis Yehara, 1924

***Inoceramus uwajimensis* Yehara var. *yeharai* Nagao and
Matsumoto, 1939**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4, p.
287, pl. 34, figs. 2, 5, pl. 35, fig. 4

Syntype: UMUT I-939a, UMUT I-939b, UMUT I-1207,
UMUT I-1209

UMUT I-939a, b collected from the Onogawa basin,
Province of Bungo (Oita Prefecture), Japan; UMUT I-1207,
UMUT I-1209 from Keton-Aton-Hoe district, south
Karahuto (south Sakhalin, Russia)

Zone O5 of the Onogawa Group; C beds of the Lower Cape
de la Jonquiere Group

Coniacian, Cretaceous

(*Inoceramus yeharai* Nagao and Matsumoto by Saito
(1962); *Inoceramus (Inoceramus) uwajimensis* Yehara by
Hayami (1975); *Inoceramus uwajimensis yeharai* Nagao
and Matsumoto by Kuffman (1977))

Inoceramus uwajimensis yeharai Nagao and Matsumoto
see *Inoceramus uwajimensis* Yehara var. *yeharai* Nagao
and Matsumoto, 1939

Inoceramus (Inoceramus) uwajimensis Yehara see
Inoceramus uwajimensis Yehara var. *yeharai* Nagao and
Matsumoto, 1939

Inoceramus walterdorfensis yubariensis Nagao and
Matsumoto see *Inoceramus incertus* Jimbo var.
yubariensis Nagao and Matsumoto, 1940

***Inoceramus yabei* Nagao and Matsumoto, 1939**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 4, nos. 3-4,
pl. 34, figs. 5-7 (illustration only; Nagao and Matsumoto,
1940, Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no.
1, p. 1, pl. 1, figs. 1-6)

Lectotype: IGPS no.22685 (pl. 34, figs. 6a, b; designated by
Matsumoto and Harada (1964, p. 96)); Syntype: HMG
no.7276 (pl. 34, figs. 5a-c), IGPS no.22812, UMUT I-734,
(pl. 1, fig. 6) UMUT I-738a (pl. 1, fig. 5), UMUT I-745,
UMUT I-749, UMUT I-750 (pl. 34, fig. 7), UMUT I-754,
UMUT I-759 (pl. 1, figs. 1a, b), UMUT I-769

Lectotype collected from Ikusyubetu district, Province of
Isikari (Ikushumbets, MikasaCity, Hokkaido), Japan

Trigonia Sandstone (Mikasa Formation, Middle Yezo Group)
Cenomanian to Turonian (Cenomanian, Cretaceous)

(most of original syntypes, except for IGPS no.22685 and
HMG no.7276, including misidentification of *I. teshioensis*
Nagao and Matsumoto and *I. mihoensis* Matsumoto,
according to Matsumoto and Harada (1964, p. 96))

(*Inoceramus (Inoceramus) yabei* Nagao and Matsumoto
by Hayami (1975))

Inoceramus (Inoceramus) yabei Nagao and Matsumoto
see *Inoceramus yabei* Nagao and Matsumoto, 1939

Inoceramus yeharai Nagao and Matsumoto see
Inoceramus uwajimensis Yehara var. *yeharai* Nagao and
Matsumoto, 1939

***Inoceramus yokoyamai* Nagao and Matsumoto, 1940**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, vol. 6, no. 1, p.
44, pl. 16, fig. 2; pl. 20, fig. 2; pl. 21, fig. 2

Lectotype: GMH no.376a (pl. 20, figs. 2a-c; designated by
Noda (1988, p. 145)); Syntype: IGPS no.7124 (pl. 21, fig. 2)

Lectotype collected from Abesinai district, Province of Tesio
(Abeshinai, Nakagawa-cho, Nakagawa-gun), Hokkaido;
IGPS no.7124 from Kawakami, south Saghalin (Sakhalin,
Russia)

Lower Abesinai group (Upper Yezo Group in Hokkaido);
Miho beds (Miho Group (= Bykov Formation) in Sakhalin)

Santonian to Campanian (Upper Coniacian to Santonian,
Cretaceous by Noda (1985))

(Invalid Lectotype designated by Pergament (1974, p. 89) out
of the original Syntypes designated by Nagao and
Matsumoto (1940); *Inoceramus (Sphenoceramus)*
yokoyamai Nagao and Matsumoto by Hayami (1975);
Sphenoceramus? yokoyamai (Nagao and Matsumoto) by
Kauffman (1977); *Sphenoceramus yokoyamai* (Nagao and
Matsumoto) by Noda (1988))

Inoceramus (Sphenoceramus) yokoyamai Nagao and Matsumoto see *Inoceramus yokoyamai* Nagao and Matsumoto, 1940

***Inoceramus yuasai* Noda, 1974**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 93, p. 242, pl. 34, figs. 1-10

Holotype: GK.H6823 (fig. 1); Paratypes: GK.H6824 (fig. 5), GK.H6826 (fig. 3), GK.H6831 (fig. 4), GK.H8002 (fig. 8), GK.H8003 (fig. 10), GK.H8004 (fig. 7), GK.H8005 (fig. 9), GK.H8006 (figs. 2a, b), JG.H2051 (fig. 6)

Loc. MS201 (Holotype and GK.H6824), Nakanokawa, Ipponmatsu-cho, Minamiuwa-gun, Ehime Prefecture, Japan (32° 57'04''N, 132° 37'52''E); Loc. MS202 (GK.H6826, GK.H6831, GK.H8002-8006, JG.H2051), Nishi, Johen-cho, Minamiuwa-gun, Ehime Prefecture, Japan (32° 56'57''N, 132° 36'37''E)

Upper member of the "Misho Formation", Shimantogawa Group

Campanian, Cretaceous

(*Inoceramus (Cordiceramus) yuasai* Noda by Noda (1985))

Inoceramus (Cordiceramus) yuasai Noda see *Inoceramus yuasai* Noda, 1974

Inoceramus yubarensis [sic] Nagao and Matsumoto see *Inoceramus incertus* Jimbo var. *yubariensis* Nagao and Matsumoto, 1940

Inoceramus (Platyceramus) yubarensis [sic] Nagao and Matsumoto see *Inoceramus incertus* Jimbo var. *yubariensis* Nagao and Matsumoto, 1940

Intergicardium? seikaianum (Amano, Ogata and Nire) see *Tendagurium seikaianum* Amano, Ogata and Nire, 1958

Isocyprina aliquantula (Amano) see *Cyprina aliquantula* Amano, 1957b

***Isocyprina hibiharensis* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 119, pl. 3, figs. 1-10, text-fig. 3

Holotype: KSG4279 (pl. 3, fig. 3), Paratypes: KSG4280, KSG4281 (pl. 3, fig. 4), KSG4282 (pl. 3, fig. 2), KSG4283 (pl. 3, fig. 5), KSG4284 (pl. 3, fig. 8), KSG4285 (pl. 3, fig. 1), KSG4286 (pl. 3, fig. 9), KSG4287 (pl. 3, fig. 7), KSG4288 (pl. 3, fig. 6)

All typical specimens, from Hibihara, Monobe-mura, Kami-gun, Kochi Prefecture

Hibihara Formation in Monobe area

Aptian, Cretaceous

***Isocyprina (?) igenokiensis* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 120, pl. 1, figs. 7-10, text-fig. 2C

Holotype: KSG4304 (pl. 1, fig. 7), Paratypes: KSG4305, KSG4306 (pl. 1, fig. 8), KSG4307 (pl. 1, fig. 10), KSG4308, KSG4309 (pl. 1, fig. 9)

All specimens, from Igenoki, Tosayamada-machi, Kami-gun, Kochi Prefecture

Igenoki Formation in Ryoseki area

Aptian, Cretaceous

***Isocyprina japonica* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 118, pl. 2, figs. 3-9, text-fig. 2A

Holotype: KSG4256 (pl. 2, fig. 9), Paratypes: KSG4255, KSG4257, KSG4258 (pl. 2, fig. 6), KSG4259 (pl. 2, fig. 8), KSG4260 (pl. 2, fig. 4), KSG4251, KSG4252 (pl. 2, fig. 7), KSG4253

Igenoki, Tosayamada-machi, Kami-gun, Kochi Prefecture

Igenoki Formation in Ryoseki area

Aptian, Cretaceous

***Isodomella higoensis* Ohta, 1982**

Bull. Fukuoka Univ. Educ., vol. 31, pt. 3, p. 130, pl. 5, figs. 1-17

Holotype: GF.Hz5730 (pl. 5, fig. 1), Paratypes: GF.Hz5731 (pl. 5, fig. 4), GF.Hz5732 (pl. 5, fig. 3), GF.Hz5733 (pl. 5, fig. 2), GF.Hz5734 (pl. 5, fig. 15), GF.Hz5735, GF.Hz5736 (pl. 5, fig. 14), GF.Hz5737, GF.Hz5738, GF.Hz5739 (pl. 5, fig. 13), GF.Hz5740 (pl. 5, fig. 12), GF.Hz5741, GF.Hz5742, GF.Hz5743 (pl. 5, fig. 7), GF.Hz5744 (pl. 5, fig. 9), GF.Hz5745 (pl. 5, fig. 8), GF.Hz5746, GF.Hz57347 (pl. 5, fig. 6), GF.Hz5748, GF.Hz5749, GF.Hz5750 (pl. 5, fig. 5), GF.Hz5751, GF.Hz5752 (pl. 5, fig. 11), GF.Hz5753, GF.Hz5754 (pl. 5, fig. 10), GF.Hz5755, GF.Hz5756, GF.Hz5757 (pl. 5, fig. 17), GF.Hz5758

A locality west of Takenouchi-toge, Hinagu-machi, Yatsushiro City, Kumamoto Prefecture

Hachiryuzan Formation in Yatsushiro area

Barremian, Cretaceous

***Isodomella matsumotoi* Ohta, 1975**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 98, p. 97, pl. 9, figs. 1-13, text-figs. 1, 3

Holotype: GF.Y147 (pl. 9, fig. 1), Paratypes: GF.Y106, GF.Y107, GF.Y108, GF.Y110 (pl. 9, fig. 4), GF.Y111 (pl. 9, fig. 5), GF.Y112 (pl. 9, fig. 7), GF.Y113 (pl. 9, fig. 13), GF.Y127, GF.Y128 (pl. 9, fig. 8), GF.Y129, GF.Y130 (pl. 9, fig. 9), GF.Y131, GF.Y132, GF.Y133, GF.Y134, GF.Y135 (pl. 9, fig. 10), GF.Y142 (pl. 9, fig. 2), GF.Y143, GF.Y144, GF.Y145, GF.Y146 (pl. 9, fig. 3), GF.Y148, GF.K2552, GF.K2553, GF.K2554 (pl. 9, fig. 12), GF.K2555, GF.K2556

Holotype and paratypes (GF.Y106-108, GF.Y110-113, GF.Y127-135, GF.Y142-146, GF.Y148), from loc. Y51,

Yoshimo, Shimonoseki City, Yamaguchi Prefecture; Another paratypes (GF.K2552-2556), from loc.K123, Fukami, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture
Yoshimo Formation in Shimonoseki area, and Kawaguchi Formation in Yatsushiro area
Hauterivian - Barremian, Cretaceous

***Isodomella shiroiensis* (Yabe and Nagao) see *Cyrena shiroiensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Isodomella shiroiensis* (Yabe and Nagao) see *Cyrena shiroiensis* var. *alata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Isognomon (Isognomon) chosiensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 279, pl. 39, fig. 1

Holotype: GK.H6255 (pl. 39, fig. 1a, b)

A quarry at Ashikajima, Choshi City, Chiba Prefecture

Choshi Formation in Choshi area

Miyakoan (Aptian or Albian), Cretaceous

***Isognomon (Melina) ichikawai* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 280, pl. 38, figs. 8, 9

Holotype: GK.H6257 (pl. 38, fig. 9), Paratypes: GK.H6258 (pl. 38, fig. 8), GK.H6259

Loc. 4011 (GK.H6257–GK.H6259) at Ishido, Ohinata-mura, Minamisaku-gun, Nagano Prefecture

Ishido Formation

Aritan (Upper Neocomian), Cretaceous

***Isognomon (Isognomon) sanchuensis* (Yabe and Nagao) see *Perna sanchuensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Izumia trapezoidalis* Ichikawa and Maeda, 1963**

Jour. Geosci. Osaka City Univ., vol. 7, art. 5, p. 124, pl. 10, figs. 1-10, text-figs. 3a, b

Holotype: OCU MM286 (pl. 10, figs. 1a, b)

Loc. 80 at Magatayama and loc. 49 at Mikumayama, Sumoto City, Hyogo Prefecture

Izumi Group in Awaji island and Izumi mountains

Lower Hetonaian (Campanian), Cretaceous

***Izumicardia parva* Ichikawa and Maeda, 1963**

Jour. Geosci. Osaka City Univ., vol. 7, art. 5, p. 120, pl. 9, figs. 1-7, text-fig. 2

Holotype: OCU MM262 (pl. 9, figs. 1a, b)

Loc. 49, eastern side of Mikumayama, and loc.80 at Magatayama, Sumoto City, Hyogo Prefecture

Izumi Group in Awaji island

Hetonaian (Campanian-Maastrichtian), Cretaceous

***Jupiteria (Ezonuculana) mactraeformis* (Nagao) see *Nuculana mactraeformis* Nagao, 1932**

***Koreanaia cheongi* Yang, 1976**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 102, p. 321, pl. 33, figs. 1-18, text-fig. 3

Holotype: KPE1031 (pl. 33, fig. 11), Paratypes: KPE1032 (pl. 33, fig. 16), KPE1035 (pl. 33, fig. 10), KPE1036 (pl. 33, fig. 7), KPE1281 (pl. 33, fig. 1), KPE1282 (pl. 33, fig. 2), KPE1283 (pl. 33, fig. 3), KPE1284 (pl. 33, fig. 4), KPE1285 (pl. 33, fig. 8), KPE1286 (pl. 33, fig. 9), KPE1287 (pl. 33, fig. 6), KPE1288 (pl. 33, fig. 5), KPE1289 (pl. 33, fig. 15), KPE1290 (pl. 33, fig. 18), KPE1291 (pl. 33, fig. 17), KPE1292 (pl. 33, fig. 14), KPE1293 (pl. 33, fig. 13), KPE1294

Myogog, Jaesan-myeon, Bonghwa-gun, Gyeongsang-buk-do, Korea

Myogog Formation

Upper Jurassic?

***Laevicardium* (?) *corpulentum* (Amano) see *Cardium corpulentum* Amano, 1957**

***Laevicardium* (?) *ishidoensis* (Yabe and Nagao) see *Cardium ishidoense* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Lecompteus* sp. cf. *L. guerangeri* (d'Orbigny): Hayami (1965)**

Mem. Fac. Sci., Kyushu Univ., vol. 15, no. 2, p. 259, pl. 30, figs. 11-12

Loc. Hn.4053, Oshima island, off the coast of Moshi, Iwaizumi-machi, Shimohei-gun, Iwate Prefecture

Miyako Group in Oshima island

Lower Miyakoan (Aptian), Cretaceous

***Leionucula azenotanensis* Ichikawa and Maeda 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, vol. 4, p. 77, pl. 3, figs. 5a-b, 6a-c, 7, 8a-b

Holotype: OCU MM170 (pl. 3, figs. 5a-b)

Loc. 153, Kamatani-2, west of Azenotani, Sennan City, Osaka Prefecture

Izumi Group in Izumi mountains and Awaji island

Lower Hetonaian (Campanian-Maastrichtian by Hayami (1975)), Cretaceous

(*Nucula (Leionucula) azenotanensis* (Ichikawa and Maeda) by Hayami (1975))

***Leionucula shichensis* Ichikawa and Maeda 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, vol. 4, p. 76, pl. 3, figs. 3a-c, 4

Holotype: OCU MM168 (pl. 3, figs. 3a-c)

Loc. 6 at the north of Hansanji, Seidan-cho, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island
 Hetonaolian (Campanian-Maastrichtian by Hayami (1975)),
 Cretaceous
 (*Nucula (Leionucula) shichensis* (Ichikawa and Maeda)
 by Hayami (1975))

***Lentipecten (Entoliopsis) sakoi* Tashiro, 1994**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., Vol. 15, p. 8, pl. 1,
 figs. 1-8
 Holotype: KSG4434 (pl. 1, figs. 3, 4), Paratypes: KSG4435
 (pl. 1, figs. 1, 2, 7), KSG4436 (pl. 1, fig. 8), KSG4437 (pl. 1,
 figs. 5, 6)
 Holotype and paratypes, from Ishiburo of Saijo City, Ehime
 Prefecture
 Izumi Group in Saijo area
 Lower Campanian, Cretaceous

***Leptosolen amabilis* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 51, pl. 2, figs. 18-24
 Holotype: KSG4094 (pl. 2, fig. 22), Paratypes: KSG4095 (pl.
 2, fig. 24), KSG4096 (pl. 2, fig. 21), KSG4097 (pl. 2, fig. 19),
 KSG4098 (pl. 2, fig. 20), KSG4099 (pl. 2, fig. 18), KSG4100
 (pl. 2, fig. 23)
 Holotype and paratypes, from Igenoki, Tosayamada-machi,
 Kami-gun, Kochi Prefecture
 Igenoki Formation in Ryoseki area, and Mamidani Formation
 in Nakaizu area
 ?Upper Barremian or Aptian, Cretaceous

***Leptosolen japonicus* Ichikawa and Maeda, 1958**

Jour. Inst. Polyt. Osaka City Univ., ser. G, vol. 3, p. 106, pl. 6,
 figs. 3-6
 Holotype: OCU F1113 (pl. 6, fig. 5)
 Loc. 102, Nakanotani, Sennan City, Osaka Prefecture
 Izumi Group in Izumi mountains and Awaji island
 Campanian – Maastrichtian (Maastrichtian by Tashiro and
 Otsuka (1982)), Cretaceous
 (*Leptosolen japonica* Ichikawa and Maeda by Hayami
 (1975))

***Leptosolen japonica* Ichikawa and Maeda see *Leptosolen
 japonicus* Ichikawa and Maeda, 1958**

***Leptosolen tamurai* Tashiro, 1995**

Mem. Fac. Sci. Kochi Univ., ser. E, Geology, vol. 16, p. 20, pl.
 2, figs. 14
 Holotype: KE2567 (pl. 2, fig. 14)
 Kawauchida (Loc. 12 by Tamura (1977))of Mashiki-machi,
 Shimomashiki-gun, Kumamoto Prefecture
 Mifune Group in Mashiki area
 Lower-Middle Cenomanian, Cretaceous

***Lima (Limatula) ishidoensis* Yabe and Nagao, in Yabe,
 Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 60, pl. 14,
 figs. 7, 16
 Lectotype designated by Hayami (1965, p. 332): IGPS no.
 22539 (pl. 14, fig. 7)
 Loc. Hy.4011 at Ishido, Ohinata-mura, Minamisaku-gun,
 Nagano Prefecture
 Ishido Formation in Sanchu area
 Aritan (upper Neocomian), Cretaceous
 (*Limatula ishidoensis* (Yabe and Nagao) by Hayami (1965))

***Lima (Ctenoides?) subrapa* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p.
 212, pl. 30, figs. 9, 10
 Lectotype designated by Hayami (1965, p. 331): GMH no.
 6774 or GMH no. 6989
 Loc. Hn. 6201, northeast of Raga, Tanohata-mura,
 Shimohei-gun, Iwate Prefecture
 Aketo Formation in Tanohata area
 Aptian – Lower Albian, Cretaceous
 (*Ctenoides subrapa* (Nagao) by Hayami (1965))

***Limaria kumamotoensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 112,
 pl. 1, figs. 3-7
 Holotype: KE2464 (pl. 1, fig. 5a, b)
 Loc. 12 at the east of Kawauchida, Mashiki-machi,
 Kamimashiki-gun, Kumamoto Prefecture
 Mifune Group in Mifune area
 Middle Cenomanian, Cretaceous

***Limatula akiyamae* Hayami, in Hayami, Sugita and
 Nagumo, 1960**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 93, pl. 8, fig. 15
 Holotype: UMUT MM3647 (pl. 8, fig. 15)
 Nagasaki, Kesenuma City, Miyagi Prefecture
 Isokusa Formation in Oshima area
 Berriasian, Cretaceous

***Limatula ishidoensis* (Yabe and Nagao) see *Lima
 (Limatula) ishidoensis* Yabe and Nagao, in Yabe, Nagao
 and Shimizu, 1926**

***Limatula nagaoui* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 333,
 pl. 49, figs. 1-4
 Holotype: GK.H6321 (pl. 49, fig. 3), Paratypes: GK.H6322
 (pl. 49, fig. 2), GK.H6323 (pl. 49, fig. 1), GK.H6324 (pl. 49,
 fig. 4)
 Loc. Hn.0018 (holotype and paratype), southern coast of
 Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
 Miyako Group (Hiraiga Formation) in Tanohata area
 Lower and upper Miyakoan (Aptian to Albian), (Upper

Albian by Tashiro and Kozai (1986)), Cretaceous

***Limatula saitoi* Tashiro, 1994**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 15, p. 9, pl. 1, figs. 14-16

Holotype: KSG4438 (pl. 1, fig. 14), Paratypes: KSG4439 (pl. 1, fig. 15), KSG4440 (pl. 1, fig. 16), KSG4441

Higire (holotype and KSG4439): of Imuta, Shimo-Koshikijima, Kashima-mura, Satsuma-gun, Kagoshima Prefecture; Kugushima (KSG4440) of Ryugatake-machi in Amakusa-Kamijima, Amakusa-gun, Kumamoto Prefecture; Sakuradani (KSG4441) of Hironno-cho, Futaba-gun, Fukushima Prefecture
Upper and Lower Himenoura Subgroups in Shimokoshiki and Amakusa islands, and Futaba Group in Futaba area
Coniacian to Lower Campanian, Cretaceous

***Limnoperna (?) sengokuensis* Hase, 1960**

Jour. Sci. Hiroshima Univ., ser. C, vol. 3, no. 2, p. 318, pl. 36, figs. 23-29

Holotype: IGS-HA161 (pl. 36, fig. 23)

Just west of Sengoku, Miyata-machi, Kurate-gun, Fukuoka Prefecture

Wakino Subgroup (Sengoku Formation) in Wakino area
Lower Cretaceous (precisely unknown)

***Limopsis kogata* (Ichikawa and Maeda) see *Glycymeris kogata* Ichikawa and Maeda, 1958**

***Limopsis kogata* (Ichikawa and Maeda) see *Glycymeris shimonadensis* Ichikawa and Maeda, 1958**

***Linearia (Linearia) cancellata* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 123, pl. 11, figs. 11-16

Holotype: KE2722 (pl. 11, fig. 16)

Loc. 7 at the north of Shimozuru, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area
Middle Cenomanian, Cretaceous

***Linearia (Iredalesta?) monobeana* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 61, pl. 4, figs. 17-21

Holotype: KSG4075 (pl. 4, fig. 18), Paratypes: KSG4076 (pl. 4, fig. 19), KSG4077, KSG4078 (pl. 4, fig. 17), KSG4079, KSG4080 (pl. 4, fig. 20), KSG4081 (pl. 4, fig. 21)

Sasa of Doiban, Monobe-mura, Kami-gun, Kochi Prefecture
Lower part of the Hibihara Formation in Monobe area
Aptian, Cretaceous

***Linearia (Palaeomoera) nankaiana* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 60, pl. 1, figs. 4-11

Holotype: KSG4087 (pl. 1, figs. 6, 7), Paratypes: KSG4088 (pl. 1, fig. 4, 8), KSG4089, KSG4090 (pl. 1, fig. 5), KSG4091 (pl. 1, fig. 11), KSG4092 (pl. 1, fig. 10), KSG4093 (pl. 1, fig. 9)

Igenoki, Tosayamada-machi, Kami-gun, Kochi Prefecture
Igenoki Formation in Ryoseki area
Upper Barremian or Aptian, Cretaceous

***Linearia (Liothyris) ovaloida* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 124, pl. 11, figs. 17-22

Holotype: KE2724 (pl. 11, fig. 18)

Loc. 9 at Asanoyabu, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area
Cenomanian, Cretaceous

***Linearia (Oene) postradiata* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p.124, pl. 11, figs. 1-10

Holotype: KE2709 (pl. 11, fig. 3)

Loc. 7 at the north of Shimozuru, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area
Middle Cenomanian, Cretaceous

***Linotrignia (Oistotrignia) kitamurai* Tashiro, 1988**

Saito-ho-on kai Sp. Pub. (Prof. T. Kotaka Commem. Vol.) p. 288, pl. 1, figs. 14-21, 23, 24; fig. 2

Holotype: MG12221 (pl. 1, fig. 14), Paratypes: MG12231 (pl. 1, fig. 20), MG12233 (pl. 1, fig. 23), KSG3947 (pl. 1, fig. 18)

All specimens, from Kokisawa of Misakubo, Misakubo-machi, Iwata-gun, Shizuoka Prefecture

Misakubo Formation in Misakubo area
Lower Cenomanian, Cretaceous

***Lopha (Arctostrea) carinatum* (Lamarck) see *Alectryonia cf. carinata* Lamarck: Yokoyama, 1890**

***Lopha (Actinostreon) nagaoui* Hayami see *Lopha (Lopha) nagaoui* Hayami, 1965**

***Lopha (Lopha) nagaoui* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol.15, no. 2, p. 338, pl. 49, figs. 8-11, pl. 50, fig. 1

Holotype: GK.H6330 (pl. 49, fig. 9), Paratypes: GK.H6331 (pl. 49, fig. 11), GK.H6332 (pl. 49, fig. 10), GK.H6333, GK.H6334 (pl. 49, fig. 8)

Loc. Hn.0803 (GK.H6330, GK.H6332 and GK.H6334) at Koikorobe and loc. Hn.0017 (GK.H6331) at the south of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Tanohata and Hiraiga Formations in Tanohata area
Lower Miyakoan (Aptian), Cretaceous

(*Lopha (Actinostreon) nagaoui* Hayami by Hayami (1975))

Loxo japonica (Amano) see *Callistina (Larma) japonica* Amano, 1957

Loxo japonica (Amano) see *Trigonocallista ornata* Ichikawa and Maeda, 1963

Lucina (Myrtea) ezoensis Nagao, 1938

Jour. Fac. Sci. Hokkaido Imp. Univ., ser.4, vol. 2, no. 1, p. 136, pl. 3, figs. 4-6

Holotype: GMH no. 8234

At the middle course of the Obirashibe, Obira-cho, Rumoi-gun, Teshio Prov., Hokkaido

Upper Yezo Group in Urakawa, Abeshinai and Obirashibe areas

Coniacian – Campanian, Cretaceous

(*Lucinoma ezoensis* (Nagao) by Saito (1962); *Myrtea ezoensis* (Nagao) by Hayami (1975))

Lucina kotoi Nagao, 1934

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 226, pl. 29, figs. 5, 6

Holotype: GMH no. 6773 (pl. 29, fig. 6)

Southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Aptian – Albian, Cretaceous

(*Lucinoma* (?) *kotoi* (Nagao) by Hayami (1965))

Lucinoma ezoensis (Nagao) see *Lucina (Myrtea) ezoensis* Nagao, 1938

Lucinoma (?) *kotoi* (Nagao) see *Lucina kotoi* Nagao, 1934

Ludbrookia sp. cf. *L. tenuicosta* (Sowerby) see *Pseudocardia* sp. cf. *P. tenuicosta* (Sowerby): Hayami (1965)

?*Lycettia kochiensis* Tashiro and Kozai, 1984

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 286, pl. 3, figs. 27, 28, text-fig. 13

Holotype: KSG3655 (pl. 3, fig. 27), Paratypes: KSG3656, KSG3657 (pl. 3, fig. 28), KSG3658

Sasa near Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Hibihara Formation in Monobe area

Lower Aptian, Cretaceous

Malletia (Malletia?) himenouraensis Tashiro, 1976

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 38, pl. 2, figs. 16-18, text-fig. 13

Holotype: KE2032 (pl. 2, fig. 16), Paratypes: KE2033 (pl. 2, fig. 17), KE2034 (pl. 2, fig. 18), KE2035

Loc. A4 (holotype and paratype KE2033) at northern beach of Kugujima islet, Loc. A6 (paratype: KE2034) at

Wadanohama, Takado, Ryugadake-machi and Loc.G2 (paratype: KE2035) at Nagahama beach of Goshonoura island, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Lower Formation of the Lower Himenoura Subgroup in Amakusa-Kamijima area and Goshonoura island

Upper Urakawan (Santonian), Cretaceous

Malletia (Neilo?) higoensis Hayami 1965

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 233, pl. 27, figs. 3-5

Holotype: GK.H6196 (pl. 27, fig. 5), Paratypes: GK.H6197 (pl. 27, fig. 3), GK.H6377 (pl. 27, fig. 4)

Loc. Km.3096 at the southwest of Kohara, Toyo-mura, Yatsushiro-gun, Kumamoto Prefecture

Yatsushiro Formation (Mitsumineyama Formation; Tanaka et al. (1998)) in Kohara area

Upper Miyakoan (Barremian), Cretaceous

Matsumotoa? inflata Tamura, 1976

Mem. Fac. Educ. Kumamoto Univ., no. 25, nat. sci., p.52, pl.1, figs.17-22

Holotype: KE2337 (pl. 1, figs. 19, 20)

Loc. 12 at the east of Kawauchida, Mashiki-machi, Kamimashiki-gun, Kumamoto Prefecture

Lower Formation of the Mifune Group in Mifune area

Middle Cenomanian, Cretaceous

Matsumotoa japonica Okada, 1958

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 8, no. 2, p. 42, text-figs. 2-5, pl. 10, figs. 1-5, pl. 11, figs. 6-12

Holotype: GK.H6027 (pl. 10, figs. 1a, b, c), Paratypes: GK.H6022 (pl. 10, fig. 2), GK.H6023 (pl. 11, fig. 8), GK.H6024 (pl. 11, fig. 11), GK.H6025 (pl. 11, fig. 7), GK.H6026 (pl. 11, fig. 6), GK.H6028 (pl. 10, fig. 4), GK.H6029, GK.H6030, GT.MM7734 (pl. 10, figs. 3a, b), GT.MM7735, GT.MM7736 (pl. 10, fig. 5), GT.MM7737 (pl. 11, fig. 10), GT.MM7738 (pl. 11, fig. 12), GT.MM7739 (pl. 11, figs. 9a, b)

Holotype and paratypes (GK.H6022, GK.H6023 and GK.H6029), from loc. MF(f)62, about 500 m north of Tsuzumugi, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian, Cretaceous

Matsumotoa unisulcata densestriata Tamura and Tashiro, 1968

Mem.Fac.Educ.Kumamoto Univ., no. 16, nat. sci., p. 36, pl. 1, figs. 6-9, text-figs. 1-3a, b

Holotype: KE1727 (pl. 1, fig. 7)

Itoisi, Toyono-mura, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian-Turonian, Cretaceous

***Matsumotoa unisulcata unisulcata* (Amano) see *Breviarca unisulcata* Amano, 1956**

***Meekia hokkaidoana* Tamura, 1973**

Mem. Fac. Educ. Kumamoto Univ., no. 22, nat. sci., p. 102, pl. 1, figs. 1-10

Holotype: GK.H5675 (pl. 1, fig. 1)

Loc. 2506 in the lower course of Yonno-sawa, Yubari City, Hokkaido

Mikasa Group (Mikasa Formation) in Yubari and Manji areas
Lower-Middle Turonian, Cretaceous

***Mesochione trigonalis* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 12, pl. 10, figs. 1-14, text-fig. 21

Holotype: KE2212 (pl. 10, fig. 1), Paratypes: KE2214 (pl. 10, fig. 2), KE2215 (pl. 10, fig. 5), KE2216 (pl. 10, fig. 11), KE2217 (pl. 10, fig. 13), KE2213 (pl. 10, fig. 14)

Loc. O13 (holotype and paratypes: 2214-7) about 100 m south of Ikusagaura and Loc. O17 (paratype: KE2213) about 600 m east of Ikusagaura, Amakusa-machi, Amakusa-gun, Kumamoto Prefecture

Upper Formation of the Upper Himenoura Subgroup in Amakusa-Shimozima area

Upper Hetonaian (Maastrichtian), Cretaceous

***Mesomiltha japonica* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 34, pl. 1, figs. 27-34, text-fig. 1

Holotype: KSG4030 (pl. 1, fig. 33), Paratypes: KSG4031 (pl. 1, fig. 34), KSG4032 (pl. 1, fig. 29), KSG4033 (pl. 1, fig. 30), KSG4034 (pl. 1, fig. 31), KSG4035, KSG4036 (pl. 1, fig. 27), KSG4037 (pl. 1, fig. 26), KSG4038 (pl. 1, fig. 28), KSG4039 (pl. 1, fig. 32)

Igenoki, Tosayamada-machi, Kami-gun, Kochi Prefecture

Igenoki Formation in Tosayamada area, Mamidani Formation in Nakaizu area

Aptian or Upper Barremian, Cretaceous

***Mesosaccella* (?) *choshiensis* Hayami, 1980**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 120, p. 426, pl. 51, figs. 11, 12

Holotype: UMUT MM9722 (pl. 51, fig. 11), Paratype: UMUT MM9723 (pl. 51, fig. 12)

Loc. 2 (holotype and paratype), northern coast of Kimigahama about 1 km north of the Cape Inubo-zaki, Choshi City, Chiba Prefecture (35°42'54"N, 140°52'24"E)
Choshi Group (Middle part of Kimigahama Formation) in Choshi area

Barremian, Cretaceous

***Mesosaccella insignis* (Nagao) see *Nuculana insignis* Nagao, 1934**

***Mesosaccella mifunensis* Tamura, 1976**

Mem. Fac. Educ. Kumamoto Univ., no. 25, nat. sci., p. 49, pl. 1, figs. 25-30

Holotype: KE2349 (pl. 1, fig. 30)

Loc. 5, about 2.5 km north of Shimozuru, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian, Cretaceous

***Mesosaccella* (?) *taiwanensis* Hayami, in Matsumoto, Hayami and Hashimoto, 1965**

Petrol. Geol. Taiwan, no. 4, p. 7, pl. 1, figs. 5-7

Holotype: CPC no.1 (pl. 1, fig. 5), Paratypes: CPC no.2 (pl. 1, fig. 6), CPC no.3 (pl. 1, fig. 7)

Holotype (CPC no.1) and two paratypes (CPC no.2 and CPC no.3), obtained from the level of 1698.96 m of PK2 well, Peikan, west Formosa, Taiwan

Unnamed buried Cretaceous formation in west Formosa
Aptian, Cretaceous

***Micronectes bellaturus* Ichikawa and Maeda, 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, p. 98, pl. 5, figs. 13a-b, 14, 15a-c, 16, 17

Holotype: OCU MM237 (pl. 5, figs. 15a-c)

Loc. 152, Kamatani-2, west of Azenotani, Sennan City, Osaka Prefecture

Izumi Group in Izumi mountains

Maastrichtian, Cretaceous

***Microtrigonia amanoi* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 117, pl. 9, figs. 21-22

Holotype: GKu.MA.00001 (pl. 9, figs. 21-22), Paratype: Gku.MA.00002, Topotype designated by Tashiro (1976, p. 57): KE1933, KE1934, KE2130 (pl. 7, fig. 14), KE2131 (pl. 7, fig. 12)

Loc. S7, roadside exposure of Ukimizuura, Kashima-mura, Satsuma-gun, Kagoshima Prefecture

Himenoura Group in Shimokoshiki island

Lower Hetonaian (Upper Campanian), Cretaceous

(*Apiotrigonia* (*Apiotrigonia*) *amanoi* (Nakano) by Tashiro (1979); *Apiotrigonia* (*Microtrigonia*) *amanoi* (Nakano) by Tashiro (1992))

***Microtrigonia imutensis* Tashiro, 1972**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 86, p. 335, pl. 40, figs. 24, 25, text-fig. 9

Holotype: KE1887 (pl. 26, figs. 24, 25), Paratype: KE1888
Ukimizu of Imuta, Kashima-mura, Satsuma-gun, Kagoshima Prefecture

Upper Formation of the Upper Himenoura Subgroup in

Shimokoshiki island
Upper Campanian – Maastrichtian, Cretaceous
(*Apiotrigonia (Microtrigonia) imutensis* (Tashiro) by Tashiro (1979))

***Microtrigonia minima* Nakano, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos.1-3, p. 117, pl. 9, figs. 17-20

Holotype: NM.AW.Yt.1 (pl. 9, fig. 19), Paratype: NM.Aw.Yt.2 (pl. 9, fig. 17)

Hanzanji, Shichi-mura (Seidan-cho), Mihara-gun, and Mitsukawa Sumoto City, Hyogo Prefecture

Izumi Group (Shichi shale and Kitaama sandstone) in Awaji island

Maastrichtian, Cretaceous

(*Apiotrigonia (Microtrigonia) minima* (Nakano) by Tashiro (1979))

***Microtrigonia tuberculata* (Nakano) see *Apiotrigonia tuberculata* Nakano, 1957**

***Mifunea mifunensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 128, pl. 12, figs. 1-9

Holotype: KE2655 (pl. 12, fig. 1)

Loc. 43 at the north of Chikaraishi, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Middle Cenomanian, Cretaceous

***Miltha* (s. l.) *amakusensis* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 59, pl. 8, figs. 2-5

Holotype: KE2142 (pl. 8, fig. 5), Paratypes: KE2143 (pl. 8, fig. 4), KE2144 (pl. 8, fig. 2)

Loc. U5 (holotype), Okoshiki of Oda-machi, Uto City, and Loc. A6 (paratypes: KE2143, KE2144), Wadanohama, Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture

Lower and Middle Formations of the Lower Himenoura Subgroup in Amakusa area

Upper Urakawan (Santonian), Cretaceous

***Miltha japonica* Tashiro, 1990**

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 11, p. 13, pl. 3, figs. 7-10, text-figs. 8

Holotype: KSG5060 (pl. 3, fig. 8), Paratypes: KSG5061 (pl. 3, fig. 9), KSG5062 (pl. 3, fig. 10), KSG5063 (pl. 3, fig. 7)

Loc. 1, about 2500 m south of Nekotani (Funoki) of Higashi-machi, Yatsushiro City, Kumamoto Prefecture

Kesado Formation in Sakamoto area

Upper Barremian or Lower Aptian, Cretaceous

Mimachlamys (Nippononectes) elegans (Tashiro) see *Nippononectes elegans* Tashiro, 1982

***Modiola* (?) *ishidoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 63, pl. 13, fig. 42

Holotype by monotypy (IGPS no.8750) (pl. 13, fig. 42)

Road-cut near Ishido of Ohinata, Saku-machi, Minamisaku-gun, Nagano Prefecture

Ishido Formation in Sanchu area

Upper Neocomian-Aptian (Upper Hauterivian or Lower Barremian by Tashiro and Kozai (1984)), Cretaceous

(*Amygdalum ishidoense* (Yabe and Nagao) by Hayami (1965))

***Modiolus ezoensis* Yabe and Nagao, 1928**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 89, pl. 17, fig. 11

Holotype by monotypy (IGPS no. 22627) (pl. 17, fig. 11)

Washinosawa, Horomui, (Kurisawa-cho, Sorachi-gun), Ishikari Prov., Hokkaido

Middle Yezo Group (Mikasa Group (Mikasa Formation)) in Horomui area

Cenomanian, Cretaceous

***Modiolus falcatus* Amano, 1957**

Kumamoto Jour. Sci., ser. B. sec. 1, vol. 2, no. 2, p. 91, pl. 2, figs. 3-8

Holotype: UMUT KML0058 (pl. 2, fig. 4), Paratype: UMUT MM6466b (pl. 2, fig. 6)

At the south of Hagino, Kahoku-machi, Kami-gun, Kochi Prefecture (133°43'E, 33°37'N)

Hagino Formation in Monobe area, and Bunjo Formation (by Tashiro and Matsuda (1986)) in Sakawa area

Upper Neocomian-Aptian (Lower Aptian by Tashiro and Kozai (1984)), Cretaceous

***Modiolus shimonadensis* Ichikawa and Maeda, 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, p. 93, pl. 6, figs. 2a-b

Holotype: OCU MM231 (pl. 6, figs. 2a-b)

Loc. 34 at Otani of Haraikawa, Nada, Nandan-machi, Mihara-gun, Kumamoto Prefecture

Izumi Group in Awaji island

Maastrichtian, Cretaceous

***Modiolus* sp. aff. *M. subsimplex* d'Orbigny: Hayami (1965)**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 256, pl. 30, fig. 3

Loc. Ys.103 at the west of Kumai, Yuasa-machi, Arita-gun, Wakayama Prefecture

Arita Formation in Yuasa area

Upper Neocomian –Aptian (Upper Hauterivian – Aptian by Tashiro (1992)), Cretaceous

***Modiolus sukuboensis* Tashiro and Matsuda, 1985**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 5-6, p. 6, pl. 1, figs. 19-21, text-fig. 3

Holotype: KSG3433 (pl. 1, fig. 20), Paratypes: KSG3431 (pl. 1, fig. 19), KSG3432 (pl. 1, fig. 21)

Loc. 2 at the northeast of Kamigoshigoe, Honjo-mura, Minamiamabe-gun, Oita Prefecture
Sukubo Formation in Haidateyama area
Upper Albian, Cretaceous

***Modiolus takitai* Tamura, 1976**

Mem. Fac. Educ. Kumamoto Univ., no. 25, nat. sci., p. 56, pl. 2, figs. 32-36

Holotype: KE2382 (pl. 2, fig. 34)

Loc. 11 at the east of Kawauchida, Mashiki-machi, Kamimashiki-gun, Kumamoto Prefecture
Mifune Group in Mifune area
Cenomanian, Cretaceous

***Modiolus tamurai* Tashiro and Tanaka, 1992**

Res. Rep. Kochi Univ., vol. 41, p. 143, pl. 3, figs. 1-3

Holotype: KSG4380 (pl. 3, figs. 1-3), Paratype: KE2385 of Tamura (1976, pl. 2, figs. 37a, b)

Loc. TK03, about 600 m northwest of Takahata, Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture
Takahata Formation in Gokase area
Albian, Cretaceous

***Monia aptiana* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 15, no. 2, p. 335, pl. 47, figs. 10, 11

Holotype: GK.H6326 (pl. 47, fig. 11), Paratype: GK.H6327 (pl. 47, fig. 10)

Loc. Hn.0017 (holotype and paratype), southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
Lower part of the Hiraiga Formation in Tanohata area
Lower Miyakoan (Aptian), Cretaceous
(*Placunopsis aptiana* (Hayami) by Hayami (1975))

***Monobearca cuculoides* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 285, pl. 3, figs. 4-7, text-fig. 12

Holotype: KSG3685 (pl. 3, fig. 4), Paratypes: KSG3686, KSG3687, KSG3688, KSG3689, KSG3690, KSG3691, KSG3692 (pl. 3, fig. 5), KSG3693 (pl. 3, fig. 7)

Sasanokawa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture
Lower part of the Hibihara Formation in Monobe area
Lower Aptian, Cretaceous

***Myoconcha modesta* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 76, pl. 13, fig. 1

Holotype: GK.H6391 (pl. 13, fig. 1)

Loc. Hn.0803, coast of Koikorobe, Tanohata-mura, Shimohei-gun, Iwate Prefecture
Miyako Group (Tanohata Formation) in Tanohata area
Lower Miyakoan (Aptian), Cretaceous

***Myopholals carinatas* Ohta, 1975**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 98, p. 101, pl. 9, figs. 17-21

Holotype: GF.Y450 (pl. 9, fig. 17), Paratypes: GF.Y451 (pl. 9, fig. 19), GF.Y452 (pl. 9, fig. 18), GF.Y453 (pl. 9, fig. 20), GF.Y454, GF.Y455, GF.Y456, GF.Y457 (pl. 9, fig. 21), GF.Y458

Loc. Y51, Yoshimo, Shimonoseki City, Yamaguchi Prefecture
Yoshimo Formation in Shimonoseki area
Neocomian, Cretaceous

***Myopholas* sp. cf. *M. semicostata* (Agassiz): Yabe, Nagao and Shimizu (1926)**

Sci. Rept. Tohoku Imp. Univ., ser.2, vol. 9, no. 2, p. 56, pl. 12, fig. 5, pl. 14, figs. 21, 27a-b

Kagikake, Saku-machi, Minamisaku-gun, Nagano Prefecture
Shiroi Formation in Sanchu area
Neocomian (Hauterivian by Tashiro (1992)), Cretaceous

***Myopholas takatsukai* Tashiro 1994**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 15, p. 12, pl. 2, fig. 6

Holotype: KSG4456 (pl. 2, fig. 6)

A point at about 200 m north of Motoura of Goshonoura island, Goshoura-machi, Amakusa-gun, Kumamoto Prefecture
Upper Formation of the Goshonoura Group in Goshonoura island
Middle? Cenomanian, Cretaceous

***Myopholas tanakai* Tashiro, 1994**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 15, p. 13, pl. 2, figs. 1-4

Holotype: KSG4457 (pl. 2, figs. 1-4)

A point about 300 m south of Kasabe, Kuraoka area, Gokase-cho, Nishiusuki-gun, Miyazaki Prefecture
Togawa Formation in Kuraoka area
Upper Hauterivian to Barremian, Cretaceous

***Myophorella (Haidaia) gracilenta* Kobayashi, 1956**

Japan. Jour. Geol. Geogr., vol. 27, no. 1, p. 4, pl. 1, fig. 8

Holotype: UMUT MM4373 (pl. 1, fig. 8)

Arinoki, Sakawa, Kochi Prefecture
Torinosu Group in Sakawa area

Upper Jurassic (Tithonian – ?Valanginian, Cretaceous by Tashiro (1992))

Myrene (Mesocorbicula) tetoriensis (Kobayashi and Suzuki) see Corbicula tetoriensis Kobayashi and Suzuki, 1937

Myrtea (Myrtea) amanoi Matsuda, 1985

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 137, p. 7, pl. 1, figs. 16-21, text-fig. 3

Holotype: KSG3389 (pl. 1, fig. 20), Paratype: KSG3390 (pl. 1, fig. 17)

Fikigoshi of Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Fukigoshi Formation in Monobe area, and Miyano-hara Formation in Sakawa area

Upper Albian - Turonian, Cretaceous

Myrtea (s. l.) angularis Tashiro, 1976

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 60, pl. 8, figs. 1a-1c

Holotype: KE2147 (pl. 8, fig. 1), Paratype: KE2148

Loc. N1 (Holotype and Paratype), Usui of Nagashima-machi, Izumi-gun, Kagoshima Prefecture

Middle Formation of the Lower Himenoura Subgroup in Nagashima area

Upper Urakawan (Santonian), Cretaceous

Myrtea ezoensis (Nagao) see Lucina (Myrtea) ezoensis Nagao, 1938

Myrtea? monobeana Tashiro and Kozai, 1988

Res. Rep. Kochi Univ., vol. 37, p. 36, pl. 2, figs. 29-32, text-fig. 2

Holotype: KSG4040 (pl. 2, fig. 29), Paratypes: KSG4041, KSG4042 (pl. 2, fig. 32), KSG4043 (pl. 2, fig. 31), KSG4044 (pl. 2, fig. 30), KSG4045

Sasa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Lower part of the Hibihara Formation in Monobe area

Aptian, Cretaceous

Mytiloides incertus (Jimbo) see Inoceramus incertus Jimbo, 1894

Mytiloides mikasaensis Matsumoto and Noda, 1986

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 143, p. 417, pl. 85, figs. 1a-c

Holotype: monotypy (GK.H10045) (figs. 1a-c)

Loc. Ik1038 on the right bank of the River Ikushumbets, Mikasa district (Mikasa City), Hokkaido, Japan

Middle part of the Mikasa Formation, Middle Yezo Group

Lower Cenomanian, Cretaceous

Mytiloides? naumanni (Yokoyama) see Inoceramus Naumanni Yokoyama, 1890

Mytiloides shimanukii Matsumoto and Noda, 1985

Proc. Japan Acad., vol. 61, ser. B, no. 1, p. 9, figs. 1-3

Holotype: GK.H10142 (figs. 1a, b); Paratypes: GK.H10143 (fig. 2), GK.H10144 (fig. 3)

Loc. E42 at Wembets-Rubeshbe (Enbetsu-Rubeshibe) in the Teshio Mountains, (Enbetsu-cho, Teshio-gun), Hokkaido, Japan

Metaplacenticerias subtilistriatum Zone (Hakobuchi Group)

Upper Campanian, Cretaceous

Mytiloides teraokai (Matsumoto and Noda) see Inoceramus teraokai Matsumoto and Noda, 1968

Mytiloides tombetsensis Toshimitsu, 1999

Proc. Int'l. Symp. Shallow Tethys 5, 313-320, figs. 3A-F

Holotype: GSJ F15219 (figs. 3A-B), Paratypes: GSJ F15220 (fig. 3C), GSJ F15221 (fig. 3D), GSJ F15222, GSJ F15223 (figs. 3E-F), GSJ F15224, GSJ F15225

Loc. K355p1 (Holotype), a transported nodule in a river beach in the Utsunai-gawa, a tributary of the River Tombetsu; Locs. K1014 (GSJ F15220-15223) and K1015 (GSJ F15224-15225), road cuts along the Shoyo forestry road along the River Tombetsu, Hamatombetsu-cho, (Esashi-gun), Hokkaido, Japan

Hakobuchi Group

Lower Maastrichtian, Cretaceous

Nagaoella corrugata (Nagao) see Dosiniopsis corrugata Nagao, 1934

Nagdongia soni Yang, 1975

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 100, p. 180, pl. 16, figs. 1-11, pl. 17, figs. 1-44, text-figs. 3, 4, 6

Holotype: KPE1111 (pl. 16, fig. 1), Paratypes: KPE1112 (pl. 16, fig. 2), KPE1113 (pl. 16, fig. 4), KPE1114 (pl. 16, fig. 8) - KPE1122, KPE1123 (pl. 16, fig. 6) - KPE1129, KPE1130 (pl. 16, fig. 3), KPE1131 (pl. 16, fig. 5) - KPE1137, KPE1138 (pl. 16, fig. 7) - KPE1145, KPE1146 (pl. 16, fig. 9) - KPE1150, KPE1151 (pl. 16, fig. 10), KPE1152 (pl. 16, fig. 11) - KPE1242

Loc.A (holotype and paratypes (KPE1112-KPE1114, KPE1123, KPE1130-KPE1131, KPE1138)), a point south of Geummu-san, Waegwanub, Chilgok-gun, Gyeongsang-buk-do, Korea

Gyeongsang Group in Korea

Lower Cretaceous (precisely unknown)

Nakamuraia chingshanensis (Grabau) see Corbicula (Leptesthes?) coreanica Kobayashi and Suzuki, 1936

Nanonavis amakusensis Tashiro and Otsuka see
Nanonavis elongatus amakusensis Tashiro and Otsuka,
1980

Nanonavis awajianus (Ichikawa and Maeda) see
Indogrammatodon awajianus Ichikawa and Maeda, 1958

Nanonavis brevis Ichikawa and Maeda see *Nanonavis*
sachalinensis brevis Ichikawa and Maeda, 1958

Nanonavis elongatus (Nagao and Otatume) see
Paralleodon (Nanonavis) elongatus Nagao and Otatume,
1938

Nanonavis elongatus amakusensis Tashiro and Otsuka,
1980

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 1, p. 49, pl. 2,
figs. 1-9, text-fig. 4

Holotype: KSG2166, Paratypes: KSG2167, KSG2168 (pl. 2,
fig. 3), KSG2169 (pl. 2, fig. 1), KSG2170 (pl. 2, fig. 7),
KSG2171 (pl. 2, fig. 8), KSG2172 (pl. 2, fig. 5), KSG2173
(pl. 2, fig. 2), KSG2174 (pl. 2, fig. 6), KSG2175 (pl. 2, fig. 4)
Matsugahama beach (holotype and KSG2167-KSG2171)
near Kameura and roadside exposure (KSG2172-KSG2175),
about 150 m east of Shiba, Kameura, Futaura-machi,
Ushibuka City, Kumamoto Prefecture

Uppermost Formation of the Upper Himenoura Subgroup in
Amakusa-Shimajima area

Maastrichtian, Cretaceous

(*Nanonavis amakusensis* Tashiro and Otsuka by Tashiro
(1992))

Nanonavis pseudocarinata Tashiro and Matsuda, 1982

Trans. Proc. Paleont. Soc. Japan, N.S., no. 127, p. 400, pl. 62,
figs. 16-18, pl. 63, fig. 10, pl. 64, figs. 15-17, 23, text-fig. 6

Holotype: KSG3217 (pl. 63, fig. 10), Paratypes: KSG3216,
KSG3142, KSG3143 (pl. 64, fig. 16), KSG3144, KSG3145
(pl. 64, fig. 17), KSG3146, KSG3147

Sannosawa (holotype), Ikushunbetsu, Mikasa City,
Hokkaido; Hegushi (KSG3216) of Shishijima, Azuma-cho,
Izumi-gun, Kagoshima Prefecture; Loc. 2
(KSG3142-KSG3147), near the Nagase Dam, about 1500 m
northwest of Odochi, Monobe-mura, Kami-gun, Kochi
Prefecture

Mikasa Formation in Ikushunbetsu area, Goshonoura Group
in Shishijima area, and Fukigoshi Formation in Monobe area
Lower Cenomanian, Cretaceous

Nanonavis sachalinensis (Schmidt) see *Cucullaea*
sachalinensis Schmidt, 1873

Nanonavis sachalinensis brevis Ichikawa and Maeda, 1958

Jour. Inst. Polyt. Osaka City Univ., ser. G, vol. 3, p. 66, pl. 2,
figs. 1a-d, 2a-c

Holotype: OCU MM150 (pl. 2, figs. 2a-c)

Hansanji in Awaji island, Seidan-machi, Mihara-gun, Hyogo
Prefecture

Izumi Group (Minato shale, Shichi shale and Azenotani
shale) in Awaji island and Izumi mountains

Campanian, Cretaceous

(*Grammatodon (Nanonavis) sachalinensis brevis* (Ichikawa
and Maeda) by Hayami (1975); *Nanonavis brevis* Ichikawa
and Maeda by Tashiro (1976))

Nanonavis splendens (Ichikawa and Maeda) see
Pleurogrammatodon splendens Ichikawa and Maeda, 1958

Nanonavis takahatensis Tashiro and Tanaka, 1992

Res. Rep. Kochi Univ., vol. 41, p. 139, pl. 1, figs. 6-9

Holotype: KSG4375 (pl. 1, fig. 6), Paratypes: KSG4376 (pl. 1,
fig. 8), KSG4377 (pl. 1, fig. 9), KSG4378 (pl. 1, fig. 7)

Loc. TK01 about 700 m northwest of Takahata,
Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture

Takahata Formation in Gokase area

Albian, Cretaceous

Nanonavis turgida Tashiro, 1976

Palaent. Soc. Japan, Sp. Pap., no. 19, p. 46, pl. 3, figs. 14-18,
text-fig. 16

Holotype: KE2080 (pl. 3, fig. 15), Paratypes: KE2081 (pl. 3,
fig. 14), KE2082, KE2083, KE2084 (pl. 3, fig. 16)

Loc. O20 (Holotype and Paratype), about 200 m east of
Shirakigawachi, Amakusa-machi, Amakusa-gun, Kumamoto
Prefecture

Uppermost Formation of the Upper Himenoura Subgroup in
Amakusa-Shimajima area

Upper Hetonaian (Maastrichtian), Cretaceous

Nanonavis yokoyamai (Yabe and Nagao) see
Grammatodon yokoyamai Yabe and Nagao, 1926

Neilonella obliquistriata Amano, 1957

Kumamoto Jour. Sci., Ser. B, Sec. 1, Vol. 2, No. 2, p. 55, pl. 1,
figs. 30-33

Holotype: UMUT KML0073 (pl. 1, fig. 33), Paratype:
UMUT KML-0072 (pl. 1, figs. 31, 32); Topotype designated
by Tashiro (1976): KE2039 (pl. 2, fig. 24)

Loc. S7 at Ukimizuura, Shimokoshiki-mura, Satsuma-gun,
Kagoshima Prefecture

Middle Formation of the Upper Himenoura Subgroup in
Shimokoshiki island

Urakawan? to Lower Hetonaian (Santonian? – Campanian),
Cretaceous

(*Portlandia obliquistriata* (Amano) by Hayami (1975);
Portlandia (Cnestriella) oliquisyriata (Amano) by Tashiro
(1992))

***Neithea* (s. l.) *aketoensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 309, pl. 43, fig. 6

Holotype: GKH6284 (pl. 43, fig. 6)

Loc. Hn.6201 at the northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Aketo Formation) in Tanohata area

Upper Miyakoan (Albian), Cretaceous

(*Neithea? aketoensis* Hayami by Hayami (1975); *Neithea* (*Neithea*) *aketoensis* Hayami by Tashiro (1992))

Neithea? aketoensis Hayami see *Neithea* (s. l.) *aketoensis* Hayami, 1965

Neithea (*Neithea*) *aketoensis* Hayami see *Neithea* (s. l.) *aketoensis* Hayami, 1965

***Neithea* (*Neithea*) *alta* Hayami, 1977**

Trans. Proc. Paleont. Soc. Japan, N.S., no. 105, p. 39, pl. 5, fig. 1-3

Holotype: UMUT MM5698 (pl. 5, fig. 1); Paratypes: UMUT MM5699 (pl. 5, fig. 2), UMUT MM5700 (pl. 5, fig. 3), UMUT MM5701, UMUT MM5702

Yokone, south coast of Ajishima island, Ojika-cho, Ojika-gun, Miyagi Prefecture

Kobitawatashi Member of the Ayukawa Formation in Ojika area

Berriasian, Cretaceous

***Neithea* (*Neithea*) *amanoi* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 299, text-fig. 4, pl. 41, figs. 8-10; pl. 42, fig. 1-4

Holotype: GK.H6267 (pl. 41, fig. 8); Paratypes: GK.H6268 (pl. 42, fig. 1), GK.H 6269 (pl. 42, fig. 2), GK.H6270 (pl. 41, fig. 9), GK.H6271 (pl. 41, fig. 10), GK.H6272 (pl. 42, fig. 4), GK.H6273, GK.H6274 (pl. 42, fig. 3)

Loc. Hy.6011 (holotype and paratypes) at Hagino, Birafu-mura, Kami-gun, Kochi prefecture

Hagino Formation in Monobe area, and Bunjo Formation in Sakawa area

Lower Miyakoan (Aptian), Cretaceous

(Synonymous with *Neithea* (*Neithea*) *syriaca* (Conrad) by Dhondt (1973); *Neithea* (*Neithea*) *syriaca amanoi* Hayami by Tashiro and Matsuda (1986))

Neithea (*Neithea*) *atava* (Römer) see *Neithea* (*Neithea*) *kanmerai* Hayami, 1965

***Neithea* (*Neithea*) *ficalhoi* (Choffat): Hayami (1965)**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 302, text-fig. 4, pl. 42, figs. 5-16

Material: A dozen specimens (GKH6275-GKH6280, GKH6366-GKH6370, GKH6617)

Locs. Hn.0017, 0018, southern coast of Hiraiga, loc. Hn.0914,

north of Hiraiga and loc. Hn.0299, northern coast of Hiraiga, and Loc. Hn.0220, northern coast of Hiraiga, all in Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga and Tanohata Formations) in Tanohata and Miyako areas

Lower and upper Miyakoan (Aptian and Albian), (Aptian by Hayami (1975)), Cretaceous

***Neithea* (*Neithea*) *hanourensensis* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, nat. sci., p. 36, pl. 4, figs. 11-13

Holotype: KSG3752 (pl. 4, fig. 11)

Tatsukawa of Katsuura-cho, Katsuura-gun, Tokushima Prefecture

Hanoura Formation in Katsuura area

Upper Hauterivian, Cretaceous

***Neithea* (*Neithea*) *kanmerai* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 305, pl. 43, figs. 1-5; pl. 52, fig. 3

Holotype: GK.H6132 (pl. 43, fig. 3); Paratypes: GK.H6133 (pl. 43, fig. 1), GK.H6134 (pl. 43, fig. 4, pl. 52, fig. 3), GK.H6135 (pl. 43, fig. 2), GK.H6608 (pl. 43, fig. 5)

Loc. Km.3085c at the south of Kohara, Toyo-mura, Yatsushiro-gun, Kumamoto Prefecture; Loc. Ys.103 at the west of Kumai, Arida City, Wakayama Prefecture

Hinagu Formation in Yatsushiro area, Arida Formation in Yuasa area, Hanoura Formation in Katsuura area, and Ishido Formation in Sanchu area

Aritan and lower Miyakoan (upper Neocomian – Aptian), Cretaceous

(Synonymous with *Neithea* (*Neithea*) *atava* (Römer) by Dhondt (1973))

***Neithea* (*Neithea*?) *kochiensis* Hayami, in Hayami and Kawasawa, 1967**

Trans. Proc. Paleont. Soc. Japan, N.S., no. 59, p. 76, pl. 9, fig. 1

Holotype: GK. H6808 (pl. 9, fig. 1)

Kakureyashiki at the north of Doganaro, Susaki City, Kochi Prefecture (133°15'40"E, 33°25'40"N)

Shinshougawa Group (Doganara Formation) in Susaki area

Albian (or thereabout), (Aptian by Tashiro (1992)), Cretaceous

***Neithea* (*Neithea*) *matsumotoi* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 297, text-fig. 4, pl. 41, figs. 1-7

Holotype: GK.H6126 (pl. 41, figs. 1a, b); Paratypes: GK.H6125, GK.H6127 (pl. 41, fig. 4), GK.H6128 (pl. 41, fig. 7), GK.H6129 (pl. 41, fig. 6), GK.H6130, GKH6131 (pl. 41, fig. 5)

Loc. Km.3037 (holotype and paratypes) at the west of Mt. Jogusan, Miyaji, Yatsushiro City, Kumamoto Prefecture

Yatsushiro Formation in Yatsushiro area
Upper Miyakoan (Albian), Cretaceous

Neithea (Neithella) notabilis (Munster in Goldfuss): Hayami (1975)

Univ. Mus., Univ. Tokyo, Bull., no. 10, p. 77

Material: GK.H6281 (pl. 44, fig. 1), GK.H6628 (pl. 52, fig. 4), GK.H6282 (pl. 44, fig. 3), GK.H6283 (pl. 44, fig. 4), GK.H6371 (pl. 44, fig. 2) by Hayami (1965)

Loc. Hn.0013, southern coast of Hiraiga and at loc. Hn.0299, northern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture; Loc. Hy.7002 at Ishido, Ohinata-mura, Minamisaku-gun, Nagano Prefecture

Miyako Group (Hiraiga Formation) in Tanohata area, and Ishido Formation in Sanchu area

Upper Neocomian to Aptian, Cretaceous

Neithea (Neithea) nipponica Hayami, 1965

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 296, text-fig. 4, pl. 40, figs. 1-6, pl. 52, figs. 1, 2

Holotype: GK.H6263 (pl. 40, fig. 1); Paratypes: GK.H6264 (pl. 40, fig. 3), GK.H6265 (pl. 40, fig. 2), GK.H6266 (pl. 40, fig. 5), GK.H6364 (pl. 40, fig. 6), GK.H6365 (pl. 40, fig. 4), GK.H6632 (pl. 52, fig. 2), GK.H6633 (pl. 52, fig. 1)

Locs. Hn.6201 (GK.H6263, GK.H6264, GK.H6632, GK.H6633), Hn.6203 (GK.H6265, GK.H6365, GK.H6266) and Hn.0671 (GK.H6364) At the northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Aketo Formation) in Tanohata area

Lower (?) and upper Miyakoan (Aptian and Albian), Cretaceous

Neithea (Neithea) syriaca (Conrad) see Neithea (Neithea) amanoi Hayami, 1965

Neithea (Neithea) syriaca amanoi Hayami see Neithea (Neithea) amanoi Hayami, 1965

Nemocardium (Nemocardium) koshikijimense (Amano) see Protocardium koshikijimense Amano, 1957

Nemocardium (Nemocardium) kyushuensis Tamura, 1977

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 118, pl. 13, figs. 8-12

Holotype: KE2541 (pl. 13, fig. 8a, b)

Hongo, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group in Goshonoura island

Cenomanian, Cretaceous

Nemocardium yatsushiroense Hayami, 1965

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 17, no. 2, p. 120, pl. 17, figs. 1-7

Holotype: GK.H6486 (pl. 17, fig. 1), Paratypes: GK.H6487

(pl. 17, fig. 3; pl. 17, fig. 7), GK.H6488 (pl. 17, fig. 4), GK.H6489, GK.H6690 (pl. 17, fig. 6), GK.H6691 (pl. 17, fig. 5), GK.H6692, GK.H6693 (pl. 17, fig. 2), GK.H6694 (pl. 17, fig. 2), GK.H6695

Loc. Hy.0012 (holotype and paratypes (GK.H6487-GK.H6478, GK.H6691, GK.H6695)) at the north of Nekodani, and loc. Km.3037 (paratypes (GK.H6692-GK.H6694)) at the west of Mt. Jogusan, Miyaji, Yatsushiro City, Kumamoto Prefecture

Yatsushiro Formation in Yatsushiro area

Upper Miyakoan (Albian), (Barremian(?)) – Albian by Tashiro (1992)), Cretaceous

Neomiodon? amagashiraensis (Kobayashi and Suzuki) see Corbula amagashiraensis Kobayashi and Suzuki, 1937

Nemodon kesadoensis Tashiro, 1990

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 11, p. 3, pl. 1, figs. 11-14, text-figs. 2

Holotype: KSG5008 (pl. 1, fig. 13), Paratypes: KSG5009 (pl. 1, fig. 12), KSG5010 (pl. 1, fig. 14), KSG5011, KSG5012, KSG5013, KSG5014 (pl. 1, fig. 11)

Loc. 2, about 1200 m north of Shimofukami of Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture

Kesado Formation in Sakamoto area

Upper Barremian or Lower Aptian, Cretaceous

Nemodon tosaensis Tashiro and Kozai, 1984

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 274, pl. 1, figs. 19, 21-26, Text-fig. 7

Holotype: KSG3679; Paratypes: KSG3680 - KSG3684

Sasa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Lower member of Hibihara Formation in Monobe area

Lower Aptian, Cretaceous

Neoburmesia iwakiensis Yabe and Sato, 1942

Proc. Imp. Acad. Tokyo, vol. 18, no. 5, p. 251, text-figs. 1-3

Holotype: IGPS no. 65274

Koike, Kashima-machi, Soma-gun, Fukushima Prefecture Soma (Nakanosawa Formation) in Soma area

Kimmeridgian (Upper Jurassic-Lower Cretaceous by Tashiro (1992))

Neumayria bungoensis Ohta see Cyrena naumanni Neumayr, in Naumann and Neumayr, 1890

Neumayria bungoensis Ohta, 1982

Bull. Fukuoka Univ. Educ., vol. 31, pt. 3, p. 118, pl. 3, figs. 1-15, pl. 4, figs. 1-6, text-figs. 7, 8

Holotype: GF.ko8101 (pl. 3, fig. 13), Paratypes: GF.ko8100 (pl. 3, fig. 6), GF.ko8102 (pl. 3, fig. 12), GF.ko8110 (pl. 4, fig. 4), GF.ko8150 (pl. 4, fig. 6), GF.ko8154 (pl. 4, fig. 5), GF.ko8157 (pl. 4, fig. 2), GF.ko8160, GF.ko8161, GF.ko8164,

GF.ko8170

Koshigoe, Honjo-mura, Minamiyamabe-gun, Oita Prefecture
Koshigoe Formation in Haidateyama area
Hauterivian, Cretaceous

(*Hayamina naumanni* (Neumayr) by Tashiro and Kozai (1989))

***Nipponicorbula mashikensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 141, pl. 10, figs. 13-18

Holotype: KE2694 (pl. 10, fig. 18)

Loc. 30 at the east of Tashiro, Kosa-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Kosa area

Middle Cenomanian, Cretaceous

***Nipponicorbula mifunensis* Ohta, 1964**

Mem. Fac. Sci. Kyushu Univ., ser. D, Geol., vol. 15, no. 1, p. 158, pl. 21, figs. 18-27, text-fig. 5

Holotype: GT.M63001 (pl. 21, fig. 18), Paratypes: GT.M63002 (pl. 21, fig. 19), GT.M63019 (pl. 21, fig. 22) and GT.M63020 (pl. 21, fig. 20)

A locality 500 m south of Asonoyabu, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture (32°46'N, 130°54'E)

Mifune Group in Mifune area

Upper Albian and Cenomanian (Cenomanian-Turonian by Hayami (1975)), Cretaceous

***Nipponitrigonia choshiensis* Maeda, 1962**

Jour. Coll. Arts and Sci. Chiba Univ., nat. sci., vol. 3, no. 4, p. 507, pl. 4, figs. 1-13

Holotype: CU R627201 (pl. 4, figs. 1, 2, 3, 4, 5), Paratypes: CU R627202 (pl. 4, fig. 8), CU R627203 (pl. 4, fig. 12), CU R627204 (pl. 4, figs. 6, 7), CU R627205 (pl. 4, figs. 9, 10, 11, 13)

Ashikajima, Choshi City, Chiba Prefecture

Choshi Group in Choshi area

Aptian, Cretaceous

***Nipponitrigonia choshiensis* Maeda see *Nipponitrigonia quadrata* Kobayashi and Nakano, 1958**

***Nipponitrigonia convexa* Kobayashi, 1957**

Trans. Proc. Paleont. Soc. Japan, N.S., no. 26, p. 55, pl. 10, fig. 14, pl. 11, figs. 4-7

Syntype: UMUT MM4443 (pl. 11, fig. 4a-c), UMUT MM4444 (pl. 11, fig. 5), UMUT MM4445 (pl. 11, fig. 6), UMUT MM4446 (pl. 11, fig. 7)

Yamanokami of Nagano near Sakawa-machi, and Sendatsuno near Ochi-machi, Takaoka-gun, Kochi Prefecture

Monobegawa Group in Sakawa area

Aptian, Cretaceous

(*Nipponitrigonia kikuchiana* (Yokoyama) by Tashiro and

Kozai (1986))

***Nipponitrigonia kikuchiana* (Yokoyama) see *Trigonia kikuchiana* Yokoyama, 1891**

***Nipponitrigonia kikuchiana* (Yokoyama) see *Nipponitrigonia convexa* Kobayashi, 1957**

***Nipponitrigonia kikuchiana* var. *plicata* Kobayashi and Nakano, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 143, pl. 11, figs. 1, 2

Holotype: GK not registered (pl. 11, figs. 1)

North branch of the Fukami river, at Shimofukami, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture
Hachiryuzan Formation (Kesado Formation) in Yatsushiro area

Aptian, Cretaceous

(*Nipponitrigonia plicata* Kobayashi and Nakano by Hayami (1975))

***Nipponitrigonia plicata* Kobayashi and Nakano see *Nipponitrigonia kikuchiana* var. *plicata* Kobayashi and Nakano, 1958**

***Nipponitrigonia plicata* Kabayashi and Nakano see *Nipponitrigonia sanchuensis* Maeda, 1962**

***Nipponitrigonia quadrata* Kobayashi and Nakano, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 144, pl. 11, fig. 3

Holotype: GK not registered (pl. 11, fig. 3)

Loc. Km.1843 at Shimofukami, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture

Yatsushiro Formation in Yatsushiro area

Albian, Cretaceous

(Synonymous (?) with *Nipponitrigonia choshiensis* Maeda by Tashiro (1992))

***Nipponitrigonia sakamotoensis* (Yehara) see *Trigonia sakamotoensis* Yehara, 1921**

***Nipponitrigonia sanchuensis* Maeda, 1962**

Jour. Coll. Arts & Sci. Chiba Univ., nat. sci., vol. 3, no. 4, p. 509, pl. 5, figs. 1-18

Holotype: CU R627401 (pl. 5, figs. 1, 2, 3, 4, 5, 6), Paratype: CU R627403 (pl. 5, figs. 15, 16, 17, 18)

Ishido of Ohinata, Saku-machi, Minamisaku-gun, Nagano Prefecture

Ishido Formation in Sanchu area

Aptian, Cretaceous

(Synonymous with *Nipponitrigonia plicata* Kabayashi and Nakano by Tashiro (1992))

***Nippononaia carinata* Kobayashi, 1968**

Geol. Palaeont. SE Asia, vol. 4, p. 130, pl. 21, figs. 1a-b
 Holotype: Department of Mineral Resource, Bangkok, not registered (figs. 1a, b)
 Nam Phung dam site, Northern Khorat Plateau, Thailand
 Phu Phan formation, Khorat series (Khorat Group)
 Middle Cretaceous

***Nippononaia mekongensis* Kobayashi, 1964**

Geol. Palaeont. SE Asia, vol. 1, p. 35, pl. 3, figs. 1-6
 Holotype: Royal Department of Mines, Thailand(?) not registered (figs. 3a, b); Paratypes: five specimens not registered (figs. 1a-b, 2a-b, 4a-b, 5, 6)
 At Ban Na Yo, Amphoe Mukdahan, Changwat Nakhon Phanom on the Khorat Plateau Thailand, near the Mekong River
 Khorat Series (Khorat Group)
 Lower Cretaceous

***“Nippononaia”(?) obsoleta* Hase, 1960**

Jour. Sci. Hiroshima Univ., ser. C, vol. 3, no. 2, p. 317, pl. 37, figs. 10, 11, pl. 38, fig. 1, text-fig. 4c
 Holotype: ISGH-HA166 (pl. 37, fig. 10), Paratypes: IGSH-HA167 (pl. 38, fig. 1), GK.H6082 (pl. 37, fig. 11)
 Nearly halfway between Okochi and Jiyoshi, Toyota-machi, Toyoura-gun, Yamaguchi Prefecture
 Shimonoseki Subgroup (Shiohama Formation) in Takibe area
 Lower Cretaceous (precisely unknown)
 (*Trigonioides* (*Wakinoa*?) *obsoleta* (Hase) by Hayami (1975); Synonymous (?) with *Trigonioides* (*Wakinoa*) *wakinoensis* (Ota) by Tashiro (1992))

***Nippononaia* (*Mekongiconcha*) *robusta* Kobayashi, 1968**

Geol. Palaeont. SE Asia, vol. 4, p. 132, pl. 21, figs. 3a-b
 Holotype: Department of Mineral Resource, Bangkok, not registered (figs. 3a, b)
 Nam Phung dam site, Northern Khorat Plateau, Thailand
 Phu Phan formation, Khorat series (Khorat Group)
 Middle Cretaceous

Nippononaia ryosekiana* (Suzuki) see *Unio* (*Nippononaia*) *ryosekiana* Suzuki, 1941**“Nippononaia” sengokuensis* Ota, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 34, p. 108, pl. 11, figs. 8-10
 Holotype: GF register number not confirmed (pl. 11, fig. 8)
 Rikimaru, Miyata-machi, Kurate-gun, Fukuoka Prefecture
 Lower Wakino Formation in Kurate area.
 Lower Cretaceous
 (*Trigonioides* (*Wakinoa*) *sengokuensis* (Ota) by Ota (1963); Synonymous (?) with *Trigonioides* (*Wakinoa*) *wakinoensis* (Ota) by Tashiro (1992))

***Nippononaia* (*Mekongiconcha*) *subquadrata* Kobayashi, 1968**

Geol. Palaeont. SE Asia, vol. 4, p. 132, pl. 20, fig. 5
 Holotype: Department of Mineral Resource, Bangkok, not registered (figs. 3a, b)
 Nam Phung dam site, Northern Khorat Plateau, Thailand
 Phu Phan formation, Khorat series (Khorat Group)
 Middle Cretaceous

***Nippononaia tetoriensis* Maeda, 1962**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 46, p. 245, pl. 38, figs. 1-14
 Holotype: CU.R.61801 (pl. 38, figs. 2, 13), Paratypes: CU.R.61802 (pl. 38, figs. 7, 4), CU.R.61803 (pl. 38, fig. 1), CU.R.61804 (pl. 38, fig. 12), CU.R.61805 (pl. 38, fig. 3), CU.R.61806 (pl. 38, fig. 10), CU.R.61807 (pl. 38, fig. 14), CU.R.61808 (pl. 38, fig. 6), CU.R.61809 (pl. 38, figs. 8, 9), CU.R.61810 (pl. 38, fig. 5), CU.R.61811 (pl. 38, fig. 11), CU.R.61812
 The Yanagidani river (holotype and paratypes (CU.R.61803, CU.R.61804, CU.R.61806, CU.R.61808, CU.R.61809, CU.R.61810, CU.R.61811)), a tributary of the Tetori river, in Shiramine-mara, Ishikawa-gun, Ishikawa Prefecture; The Okurodani river (paratypes (CU.R.61802, CU.R.61805, CU.R.61807)), a tributary of the Ogamigo river, in Shokawa-mura, Ono-gun, Gifu Prefecture
 Kuwajima Formation in Shiramine area and Okurodani Formation in Shokawa area
 Lower Cretaceous (precisely unknown)

***“Nippononaia” wakinoensis* Ota, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 34, p. 107, pl. 11, figs. 1-7, 11
 Holotype: GF register number not confirmed (pl. 11, fig. 1)
 Rikimaru, Miyata-machi, Kurate-gun, Fukuoka Prefecture
 Lower Wakino Formation in Kurate area
 Lower Cretaceous (precisely unknown)
 (*Trigonioides* (*Wakinoa*) *wakinoensis* *wakinoensis* (Ota) by Ota (1963); *Wakinoa wakinoensis* (Ota) by Yang (1974); *Trigonioides* (*Wakinoa*) *wakinoensis* (Ohta) by Tashiro (1992))

***“Nippononaia” wakinoensis intermedius* Hase, 1960**

Jour. Sci. Hiroshima Univ., ser. C, vol. 3, no. 2, p. 316, pl. 37, figs. 5-9; pl. 38, figs. 2, 3, text-fig. 4b
 Holotype: IGSH-HA136 (pl. 37, fig. 5), Paratypes: IGSH-HA137 (pl. 37, fig. 6), HA138 (pl. 37, fig. 7)
 On the coast of Kanda, Houhoku-machi, Toyoura-gun, Yamaguchi Prefecture
 Kwanmon Group (Wakamiya Formation) in Takibe area
 Lower Cretaceous (precisely unknown)
 (*Trigonioides* (*Wakinoa*) *wakinoensis intermedius* (Hase) by Hayami (1975); Synonymous(?) with *Trigonioides* (*Wakinoa*) *wakinoensis* (Ota) by Tashiro (1992))

***Nippononectes eleganus* Tashiro, 1982**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol.3, p. 4, pl. 1, figs. 1-9, pl. 2, figs. 12-14

Holotype: KSG2986 (pl. 1, fig. 2; pl. 2, fig. 13), Paratypes: KSG2987 (pl. 1, fig. 5), KSG2988 (pl. 1, fig. 6; pl. 2, fig. 12), KSG2989 (pl. 2, fig. 14), KSG2990 (pl. 1, fig. 4), KSG2991 (pl. 1, fig. 3), KSG2992, KSG2993 (pl. 1, fig. 8), KSG2994 (pl. 1, fig. 9), KSG2995 (pl. 1, fig. 1)

Doiban of Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Lower part of the Hibihara Formation in Monobe area
Aptian, Cretaceous

(*Mimachlamys* (*Nippononectes*) *eleganus* (Tashiro) by Tashiro and Kozai (1986))

***Nippononectes kozaii* Tashiro, 1982**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 3, p. 5, pl. 2, figs. 10, 11

Holotype: KSG2992 (pl. 2, fig. 10), Paratypes: KSG2993 (pl. 2, fig. 11), KSG2994

Western roadside exposure near the Nagase Dam-site, Nagase, Kahoku-machi, Kami-gun, Kochi Prefecture
Fukigoshi Formation in Monobe area
Lower Cenomanian, Cretaceous

***Nippononectes monobensis* Tashiro, 1982**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 3, p. 3, pl. 2, figs. 6-9

Holotype: KSG2996 (pl. 2, figs. 6, 9), Paratypes: KSG2997 (pl. 2, figs. 7, 8), KSG2998

Mizutani of Kajisako, Monobe-mura, Kami-gun, Kochi Prefecture

Kajisako Formation in Monobe area
Upper Turonian, Cretaceous

Nippononectes tamurai immodesta* (Tashiro) see *Chlamys tamurai immodesta* Tashiro, 1978**Nippononectes tamurai tamurai* (Tashiro) see *Chlamys* (s. l.) *tamurai* Tashiro, 1976*****Nucula* (*Nucula*) *amanoi* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 31, pl. 1, figs. 1-5, text-fig. 10

Holotype: KE2001 (pl. 1, fig. 1), Paratypes: KE2002 (pl. 1, fig. 4), KE2003 (pl. 1, fig. 5), KE2004, KE2005 (pl. 1, fig. 3), KE2006 (pl. 1, fig. 2), KE2007

Loc. A13 (Holotype and Paratypes: KE2002-2004) at Nishigawachi, Futamado and Loc. A16 (Paratype: KE2005) about 100 m west of Kojima, Himeura, Himedo-machi, Amakusa-gun, Kumamoto Prefecture; Loc. U6 (Paratypes: KE2006-KE2007) about 400 m west of Hiraiwa, Oda-machi, Uto City, Kumamoto Prefecture

Lower Himenoura Subgroup in Amakusa-Kamijima, Uto,

Goshonoura, Nagashima and Shishijima areas

Upper Urakawan (Santonian) to Lower Hetonaian (Upper Campanian), Cretaceous

Nucula* (*Leionucula*) *azenotanensis* (Ichikawa and Maeda) see *Leionucula azenotanensis* Ichikawa and Maeda, 1958**Nucula formosa* Nagao, 1930**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 1, no. 1, p. 14, pl. 2, fig. 2

Topotype designated Tashiro (1976, p. 33): KE2008

Loc. A16 about 100 m west of Kojima, Himeura, Himedo-machi, Amakusa-gun, Kumamoto Prefecture

Lower and Middle Formations of the Lower Himenoura Subgroup in Amakusa area

Upper Urakawan (Santonian), Cretaceous

(*Nucula* (*Leionucula*) *formosa* Nagao by Hayami (1975))

Nucula* (*Leionucula*) *formosa* Nagao see *Nucula formosa* Nagao, 1930**Nucula* (*Leionucula*) *haidatensis* Tashiro and Matsuda, 1985**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 5-6, p. 3, pl. 1, figs. 1-5, text-fig. 2

Holotype: KSG3414 (pl. 1, fig. 4), Paratypes: KSG3415 (pl. 1, fig. 3), KSG3416 (pl. 1, fig. 5), KSG3417 (pl. 1, fig. 1), KSG3418 (pl. 1, fig. 2)

Loc. 2, northeast of Kamikoshigoe, Honjo-mura, Minami-amabe-gun, Oita Prefecture

Sukubo Formation in Haidateyama area

Upper Albian, Cretaceous

***Nucula* (*Acila*) *hokkaidoensis* Nagao, 1932**

Jour. Fac. Sci., Hokkaido Imp. Univ., ser. 4, vol. 2, no. 1, p. 28, pl. 5, figs. 17-18

Holotype: IGPS no. 6421, Topotype designated by Tashiro (1976): KE2017 (pl. 1, fig. 11)

A point about 100 m south of the junction of the Abeshinai with its tributary Sakai river, (Nakagawa-cho, Nakagawa-gun), Teshio province, Hokkaido

Middle Yezo Group and Upper Yezo Group in Teshio area

Turonian – Campanian (Santonian), Cretaceous

(*Acila* (*Truncacila*) *hokkaidoensis* (Nagao) by Nagao and Huzioka (1941))

***Nucula ishidoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 41, pl. 13, figs. 46, 47

Syntype: IGPS no. 7125

Ishido, Ohinata-mura, Minamisaku-gun, Nagano Prefecture

Ishido Formation in Sanchu area

Upper Neocomian or Aptian (Aptian by Tashiro and Matsuda)

(1986)), Cretaceous

(Nuculopsis (Paraonucula) ishidoensis (Yabe and Nagao) by Hayami (1965))

***Nucula izumensis* Ichikawa and Maeda, 1958**

Jour. Inst. Polyt. Osaka City Univ., ser. G, vol. 4, p. 75, pl. 3, figs. 1, 2

Holotype: OCU MM165 (pl. 3, fig. 1)

Loc. 149 at Azenotani, Sennan City, Osaka Prefecture

Izumi Group in Izumi mountains and Awaji island

Hetonaian (Campanian – Maastrichtian), Cretaceous

***Nucula (Pectinucula) kochiensis* Tashiro and Matsuda, 1982**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 127, p. 396, pl. 62, figs. 7, 11-15, text-fig. 3

Holotype: KSG3111 (pl. 62, fig. 11), Paratypes: KSG3112 (pl. 62, figs. 14, 15), KSG3113 (pl. 62, fig. 7), KSG3114 (pl. 62, fig. 13)

Locs. 2 and 3, near the Nagase Dam, about 1500 m northwest of Odochi, Kahoku-machi, Kami-gun, Kochi Prefecture

Fukigoshi Formation in Monobe area

Lower Cenomanian, Cretaceous

***Nucula (Leionucula) nagaoui* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 34, pl. 1, figs. 6, 7

Holotype: KE2014 (pl. 1, fig. 6), Paratypes: KE2015 (pl. 1, fig. 7), KE2016

Loc. A3 (Holotype and Paratype (KE2016)) at south-western beach of Kugujima islet, Takado, Ryugadake-machi, Amakusa-gun, Kumamoto Prefecture; Sakainosawa (Paratype: KE2015) at Kyowa, Nakagawa-machi, Nakagawa-gun, Hokkaido

Lower Formation of Lower Himenoura Subgroup in Amakusa-Kamijima area

Upper Urakawan (Santonian), Cretaceous

***Nucula (Lamellinucula) nakaminatoensis* Saito, 1962**

Bull. Fac. Arts. & Sci. Ibaraki Univ., nat. sci., no. 13, p. 59, pl. 1, figs. 4, 5

Syntype: GIUM no.4061 (pl. 1, fig. 5), GIUM no.4062 (pl. 1, fig. 4)

Nakaminato nos. 9 and 11, on the Pacific coast of Isoai, Nakaminato City, Ibaraki Prefecture

Nakaminato Formation in Nakaminato area

Campanian (Coniacian by Tashiro (1992)), Cretaceous

***Nucula radiatocastata* Nagao, 1932**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 1, p. 27, pl. 5, fig. 12

Holotype by monotype (GMH? not registered)

Oku-Kawakami, Suzuya river area, south Saghalin, Russia

Upper Cretaceous in Suzuya river area

Nucula (Leionucula) shichensis (Ichikawa and Maeda) see *Leionucula shichensis* Ichikawa and Maeda, 1958

***Nucula (Pectinucula) tosaensis* Tashiro and Kozai, 1984**

Res. Rep. Kochi Univ., vol. 32, nat. sci., p. 265, pl. 1, figs. 3-5, text-fig. 3

Holotype: KSG3664 (pl. 1, fig. 5), Paratypes: KSG3665 (pl. 1, fig. 4), KSG3666, KSG3667, KSG3668 (pl. 1, fig. 3)

Sasa of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Lower member of the Hibihara Formation in Monobe area

Lower Aptian, Cretaceous

***Nuculana insignis* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 189, pl. 29, figs. 10-12

Holotype: GMH no.6773

Aketo at the northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga and Aketo Formations) in Tanohata area

Upper Neocomian-Albian (Upper Albian by Tashiro and Kozai (1984)), Cretaceous

(*Mesosaccella insignis* (Nagao) by Hayami (1965))

***Nuculana mactraeformis* Nagao, 1932**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 1, p. 30, pl. 5, figs. 4-6, 8, 9, 16

Syntype: GMH no. 4552, GMH no. 4574, GMH no. 4576, Topotype designated by Tashiro (1976): KE2048 (pl. 2, fig. 2)

Abeshinai, Nakagawa-cho, Nakagawa-gun, Teshio Prov., Hokkaido

Upper Yezo Group in Abeshinai, Urakawa, Kawakami and Keton areas

Coniasian – Campanian (Coniasian – Santonian by Tashiro (1992)), Cretaceous

(*Jupiteria (Ezonuculana) mactraeformis* (Nagao) by Ichikawa and Maeda (1958); *Ezonuculana mactraeformis* (Nagao) by Puri (1969))

***Nuculana sambonsugii* Nagao, 1938**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 120, pl. 14, figs. 10a-c

Holotype: GMH no.8232 (pl. 14, figs. 10a-c)

Urakawa-machi, Urakawa-gun, Hokkaido

Upper Yezo Group in Urakawa area

Coniacian-Campanian, Cretaceous

***Nuculana sanchuensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 42, pl. 12, figs. 21-23

Syntype: IGPS no. 7115

Ishido, Ohinata of Saku-machi, Minamisaku-gun, Nagano Prefecture

Ishido Formation in Sanchu area

Upper Neocomian-Albian (Aptian by Tashiro and Matsuda (1986)), Cretaceous

(*Portlandia sanchuensis* (Yabe and Nagao) by Hayami, in Hayami and Oji (1980))

Nuculopsis (Paraeonucula) ishidoensis (Yabe and Nagao) see *Nucula ishidoensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

***Offadesma altissimum* Hayami, 1966**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 3, p. 169, pl. 26, fig. 1

Holotype: GK.H6581 (pl. 26, fig. 1)

Loc. Hn.6203 at the northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

“Orbitilina sandstone” of the Miyako Group in Tanohata area Upper Miyakoan (Albian), (Aptian – Albian by Tashiro (1992)), Cretaceous

(*Periploma (Offadesma) altissimum* (Hayami) by Hayami (1975))

***Opis (Opis) amakusensis* Ueda, 1963**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 50, p. 73, pl. 11, figs. 1-4, 15

Holotype: GK.H6098 (pl. 11, figs. 1-4, 15)

Loc. K20 at Furukojiro in Amakusa-Kamijima, Kumamoto Prefecture

Lower Formation of the Lower Himenoura Subgroup in Amakusa area

Santonian, Cretaceous

***Opis (Trigonopsis) haginoensis* Amano, 1957**

Kumamoto Jour. Sci., ser. B, sec. 1, vol. 2, p. 97, pl. 2, figs. 25, 26

Holotype: UMUT KMI0045 (pl. 2, fig. 26)

At the south of Hagino, Kahoku-machi, Kami-gun, Kochi Prefecture (133°43'E, 33°37'N)

Nankai Group (Hagino Formation) in Kahoku area Aptian, Cretaceous

(*Opis (Opis) haginoensis* Amao by Hayami (1965))

Opis (Opis) haginoensis Amao see *Opis (Trigonopsis) haginoensis* Amano, 1957

***Opis (Opis) hokkaidoensis* Ueda, 1963**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 50, p. 74, pl. 11, figs. 5-14, 16

Holotype: GK.H6101 (pl. 11, fig. 8), Paratypes: GK.H6099 (pl. 11, fig. 12), GK.H6100 (pl. 11, fig. 16), GK.H6105 (pl. 11, fig. 14), GK.H6106

All from locs. ku1055 and ku1060, Ponporoto,

Hamanaka-mura (Hamanaka-cho), Akkeshi-gun, Kushiro Province, Hokkaido

Nemuro Group (Hamanaka Formation) in Akkeshi area Upper Campanian or Lower Maastrichtian, Cretaceous

***Opis (Opis) nakanoi* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 105, pl. 11, figs. 11-12

Holotype: GK.H6451 (pl. 11, fig. 12), Paratype: GK.H6452 (pl. 11, fig. 11)

At the coast of Hideshima of Sakiyama, Miyako City, Iwate Prefecture

Tanohata Formation in Miyako area

Lower Miyakoan (Aptian), Cretaceous

***Opis (Trigonopsis) trigonalis* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 35, p. 114, pl. 12, figs. 14-16

Holotype: UMUT MM3099 (pl. 12, fig. 15), Paratypes: UMUT MM3098 (pl. 12, fig. 14), UMUT MM3100 (pl. 12, fig. 16)

Loc. 4 (UMUT MM3099, UMUT MM3100) at Sakamoto and loc. 6 (UMUT MM3098) at Tsurubami, Skamoto-mura, Yatsushiro-gun, Kumamoto Prefecture

Torinosu Group in Sakamoto area

Upper Jurassic (Uppermost Jurassic - Valanginian, Cretaceous by Tashiro (1992))

***Ostrea ryosekiensis* Kobayashi and Suzuki, 1939**

Japan. Jour. Geol. Geogr., vol. 16, nos. 3-4, p. 218, pl. 13, figs. 14, 15, 16

Syntype: UMUT MM7913 (pl. 13, fig. 14a, c), UMUT MM7914 (pl. 13, figs. 14b, 15), UMUT MM7915 (pl. 13, fig. 16)

Yoshimo, Shimonoseki City, Yamaguchi Prefecture

Toyonishi Group (Yoshimo Formation) in Shimonoseki area Neocomian, Lower Cretaceous

(*Crassostrea ryosekiensis* (Kobayashi and Suzuki) by Hayami (1975))

***Ostrea (Crassostrea) yoshimoensis* Kobayashi and Suzuki, 1939**

Japan. Jour. Geol. Geogr., vol. 16, nos. 3-4, p. 218, pl. 13, figs. 17, 18

Syntype: UMUT MM7916 (pl. 13, fig. 17a, b), UMUT MM7917 (pl. 13, fig. 18)

Yoshimo, Shimonoseki City, Yamaguchi Prefecture

Toyonishi Group (Yoshimo Formation) in Shimonoseki area Neocomian, Lower Cretaceous

(*Crassostrea yoshimoensis* (Kobayashi and Suzuki) by Hayami (1975))

Pachythaerus kagaharensis (Yokoyama) see *Crassatella kagaharensis* Yokoyama, 1890

- Pachythaerus nagaoui* (Matsumoto) see *Crassatella* (Pachythaerus) nagaoui Matsumoto, 1938**
Koshikijima area
Upper Heterian (Maastrichtian), Cretaceous
- Pachythaerus yanagisawai* (Tashiro) see *Crassatella* (Pachythaerus) yanagisawai Tashiro, 1988**
- Pachytraga japonica* Okubo and Matsushima, 1959**
Chikyu-kagaku, no. 42, p. 2, text-figs. 1-7
Holotype: Dept. of geology, Shinshu Univ., not registered
Toyama-mura, Shimoina-gun, Nagano Prefecture
"Shimantogawa Group" of Shirane belt in Shirane area
Lower Cretaceous (precisely unknown)
- Panopea concentrica* Kozai and Tashiro, 1993**
Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 14, p. 33, pl. 6, figs. 22, 24, 25, 27
Holotype: KSG-K231 (pl. 6, fig. 24), Paratypes: KSG-K233 (pl. 6, fig. 25), KSG-K257 (pl. 6, fig. 27), KSG-K234
Loc. 3, in the valley of the Susaki-gawa, about 2000 m southwest of Ofunato City, and Loc. 4, about 4000 m northwest of Ofunato city, Iwate Prefecture
Funagawa Formation in Ofunato area
Upper Hauterivian – Lower Barremian, Cretaceous
- Panopea (Myopsis) elongata* Tashiro and Kozai, 1991**
Res. Rep. Kochi Univ., vol. 40, p. 195, pl. 2, figs. 14–15, text-fig. 7
Holotype: KSG4361a (pl. 2, fig. 15), Paratype: KSG4361b (pl. 2, fig. 14)
Sasa of Doiban, Monobe-mura, Kami-gun, Kochi Prefecture
Lower part of the Hibihara Formation in Monobe area
Aptian, Cretaceous
- Panopea aff. gurgitis* (Sowerby): Yabe, Nagao and Shimizu (1926)**
Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 2, vol. 9, pt. 3, p. 55, pl. 12, figs. 10, 15, 19, 20
Locs. Hn.0017, 0018, southern coast of Hiraiga, and loc. Hn.0155, northern coast of Hiraiga, and Loc. Hn.6203 at the northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture; Loc. Hy.4002, Ichinose-bashi, south of Kagahara, Nakato-mura, Tano-gun, Gumma Prefecture
Hiraiga Formation in Miyako area, and Ishido Formation in Sanchu area
Aritan to upper Miyakoan (upper Neocomian to Albian), (Aptian by Tashiro and Kozai (1991)), Cretaceous
(*Panopea (Myopsis) plicata* (Sowerby) by Hayami (1966))
- Panopea (Panopea) matsumotoae* Tashiro, 1976**
Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 74, pl. 12, figs. 8a-d
Holotype: KE2240 (pl. 12, fig. 8)
Loc. S11, roadside exposure of Teraya, Kashima-mura, Satsuma-gun, Kagoshima Prefecture
Upper Formation of the Upper Himenoura Subgroup in
- Panopea (Myopsis) nagaoui* Hayami, 1966**
Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 3, p. 155, pl. 22, fig. 8
Holotype: GK.H6545 (pl. 22, fig. 8), Paratypes: GK.H6544, GK.H6546, GK.H6715
Loc. Km.3097 (GK.H6544, GK.H6545, GK.H6546) at the southwest of Kohara, Toyo-mura, Yatsushiro-gun, Kumamoto Prefecture; Loc. Ys.103 (GK.H6715) at the west of Kumai, Yuasa-machi, Arida-gun, Wakayama Prefecture
Yatsushiro Formation (Hachimineyama Formation by Tanaka et al. (1998)) in Sakamoto area, and Arita Formation in Yuasa area
Aritan and upper Miyakoan (Upper Neocomian to Albian), (Barremian by Tashiro and Kozai (1991)), Cretaceous
- Panopea (Myopsis) plicata* (Sowerby) see *Panopea aff. gurgitis* (Sowerby): Yabe, Nagao and Shimizu (1926)**
- Paralleodon (Nanonavis) elongatus* Nagao and Otatume, 1938**
Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 39, pl. 2, figs. 1, 1a, b
Holotype: GMH? not registered (pl. 2, fig. 1)
Kiusu, Shimohobetsu, Hobetsu-cho, Yufutsu-gun, Iburi Prov., Hokkaido
Hakobuchi Group in Hobetsu area
Campanian or Maastrichtian, Cretaceous
(*Pleurogrammatodon elongatus* (Nagao and Otatsune) by Hayami (1975); *Nanonavis elongatus* (Nagao and Otatume) by Tashiro (1992))
- Paralleodon nipponicus* (Nagao) see *Grammatodon nipponica* Nagao, 1934**
- Paranodonta (?) khoratensis* Kobayashi, 1964**
Geol. Palaeont. SE Asia, vol. 1, p. 37, pl. 3, figs. 9-10
Holotype: Royal Department of Mines, Thailand(?) not registered (fig. 10); Paratypes: not registered (fig. 9)
At Ban Na Yo, Amphoe Mukdahan, Changwat Nakon Phamon on the Khorat Plateau Thailand, near the Mekong River, Thailand
Khorat Series (Khorat Group)
Lower Cretaceous
- Paranodonta otai* Kobayashi and Suzuki, 1936**
Japan. Jour. Geol. Geogr., vol. 13, nos. 3-4, p. 253, pl. 27, figs. 7-10
Holotype: UMUT MM7921 (pl. 27, fig. 7), Paratypes: UMUT MM7922 (pl. 27, fig. 8a), UMUT MM7923 (pl. 27, fig. 8b), UMUT MM7924 (pl. 27, fig. 9), UMUT MM7923 (pl. 27, fig. 10)

Rikimaru, Wakamiya-machi, Kurate-gun, Fukuoka Prefecture
Wakino Formation (Kwanmon Group) in Kurate area
Lower Cretaceous (precisely unknown)

***Parvamussium awajiense* (Ichikawa and Maeda) see *Propeamussium awajiense* Ichikawa and Maeda, 1958**

***Parvamussium hinagense* Tamura, 1973**

Geol. Pal. Southeast Asia, vol. 11, p. 122, pl. 17, figs. 1-4
Holotype: KE not registered (pl. 17, figs. 1, 2)
About 800m south-southeast of Imaizumi, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture
Hinagu Formation (= Imaizumigawa Formation by Tanaka et al. (2002)) in Sakamoto area
Aptian and thereabout., Cretaceous

***Parvamussium kattoi* Tashiro and Matsuda, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 142, p. 378, pl. 76, figs. 1, 2, 10
Holotype: KSG3531 (pl. 76, fig. 2), Paratypes: KSG3532 (pl. 76, fig. 10), KSG3533 (pl. 76, fig. 1)
Kurohara of Ochi, Sakawa-machi, Takaoka-gun, Kochi Prefecture
Yotsushiro Formation in Sakawa
Albian, Cretaceous

***Parvamussium kimurai* (Hayami) see *Variamussium kimurai* Hayami, 1965**

***Parvamussium tosaense* Tashiro and Matsuda, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 142, p. 377, pl. 76, figs. 3, 5-6, 11-12
Holotype: KSG3526 (pl. 76, fig. 6), Paratypes: KSG3527 (pl. 76, fig. 12), KSG3528 (pl. 76, fig. 5), KSG3529 (pl. 76, fig. 11), KSG3530 (pl. 76, fig. 3)
Kuroishi, about 700 m north of Kamo, Sakawa-machi, Takaoka-gun, Kochi Prefecture
Tosakamo and Yotsushiro Formations in Sakawa area
Albian, Cretaceous

***Parvamussium yubarense* (Yabe and Nagao) see *Pecten (Propeamussium) cowperi* var. *yubarensis* Yabe and Nagao, 1928**

***Pecten (Propeamussium) cowperi* var. *yubarensis* Yabe and Nagao, 1928**

Sci. Rep. Tohoku Imp. Univ., vol. 9, no. 3, p. 88, pl. 16, figs. 17-19
Syntype: IGPS no. 22599
Pankemo-yubari, Oyubari, Yubari-gun (Yubari City), Hokkaido
Middle Yezo Group and Upper Yezo Group in various areas of Hokkaido

Cenomanian – Campanian, Cretaceous
***(Propeamussium) cowperi yubarensis* (Yabe and Nagao)** by Hayami (1975); ***Parvamussium yubarense* (Yabe and Nagao)** by Tashiro (1992))

***Pecten (Camptonectes) miyakoensis* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 209, pl. 31, figs. 11, 12
Lectotype designated Hayami (1965, p. 318): GMH no.6784 (pl. 31, fig. 12)
Locs. Hn.0016, 0017, 0018, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
Hiraiga and Aketo Formations in Tanohata area
Aptian-Lower Albian, Cretaceous
***(Pectinella) miyakoensis* (Nagao)** by Hayami (1965a); ***Eburneopecten? miyakoensis* (Nagao)** by Hayami (1975))

***Pecten (Syncyclonema) cf. obovatus* Stoliczka: Yabe and Nagao (1928)**

Sci. Rep. Tohoku Imp. Univ., vol. 9, no.3, p. 87, pl. 17, figs. 3-6
Middle Yezo Group in Ikushunbetsu area
Cenomanian-Turonian (Cenomanian by Tashiro (1992)), Cretaceous
***(Entolium sp. cf. E. obovatus)* (Stoliczka)** by Hayami (1975); ***Entolium obovatus* (Stoliczka)** by Tashiro (1992))

***Pectinella miyakoensis* (Nagao) see *Pecten (Camptonectes) miyakoensis* Nagao, 1934**

***Pectunculus hokkaidoensis* Yabe and Nagao, 1928**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 82, pl. 17, fig. 22
Holotype: IGPS no. 22613 (pl. 17, fig. 22)
Ponhorokabetsu, Yubari City, Hokkaido
Mikasa Group in Yubari area, and Saku Formation in Abesinai area
Cenomanian–Turonian, Cretaceous
***(Glycymeris (Hanaia) hokkaidoensis)* (Yabe and Nagao)** by Tashiro (1971); ***Glycymeris (Glycymerita) hokkaidoensis* (Yabe and Nagao)** by Hayami (1975))

***Pectunculus sachalinensis* Yabe and Nagao, 1925**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 7, no. 4, p. 112, pl. 29, figs. 7, 8
Syntype: IGPS no.8554
South of Cape Khoi, near Alexandrovsk, north Saghalin, Russia
“Cape Khoi beds” in Alexandrovsk area
Cenomanian-Turonian, Cretaceous
***(Glycymeris (Glycymerita) sachalinensis)* (Yabe and Nagao)** by Hayami (1975))

Pennatoceramus higoensis (Noda) see *Inoceramus*
(*Platyceramus*) *higoensis* Noda, 1983

Periploma (*Offadesma*) *altissimum* (Hayami) see
Offadesma altissimum Hayami, 1966

Periploma ambigua Tashiro, 1976

Palaeont. Soc. Japan, Sp. Pap., no. 19, p. 75, pl. 11, figs. 18, 19.

Holotype: KE2230 (pl. 11, fig. 18), Paratypes: KE2231 (pl. 11, fig. 19), KE2232

Loc. O22 (Holotype and Paratypes), about 220 m northwest of Hongo, Miyanakawachi, Kawaura-machi, Amakusa-gun, Kumamoto Prefecture

Upper Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area

Upper Hetonaian (Maastrichtian), Cretaceous

Periploma mifunensis Tamura, 1977

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 142, pl. 11, figs. 23-26

Holotype: KE2729 (pl. 11, fig. 23)

Loc. 39, near Yaseto, Toyono-mura, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Toyono area

Middle Cenomanian, Cretaceous

Periploma (s. l.) *monobensis* Tashiro and Kozai, 1991

Res. Rep. Kochi Univ., vol. 40, p. 202, pl. 1, figs. 22-29, text-fig. 14

Holotype: KSG4366 (pl. 1, fig. 27), Paratypes: KSG4362 (pl. 1, fig. 24), KSG4363, KSG4364, KSG4365 (pl. 1, fig. 26), KSG4367, KSG4368 (pl. 1, fig. 25), KSG4369 (pl. 1, fig. 23), KSG4370 (pl. 1, fig. 28), KSG4371 (pl. 1, fig. 22), KSG4372 (pl. 1, fig. 29)

At Okuminotani, Nankoku City, at Shingai, Tosayamada-machi, Kami-gun, at Yunoki, Kahoku-machi, Kami-gun, and at Ohnishi, Monobe-mura, Kami-gun, Kochi Prefecture

Monobe Formation in Monobe area

Barremian, Cretaceous

Periploma (*Periploma?*) *nagaiyana* Tashiro, 1994

Mem. Fac. Sci. Kochi Univ., Ser.E, Geol., vol. 15, p. 13, pl. 2, figs. 13, 14

Holotype: KSG4458 (pl. 2, fig. 13), Paratypes: KSG4459, KE2228

Shimohira (holotype and KSG4459) in Amakusa-Shimajima, Ushibuka City, Kumamoto Prefecture; Ukimizu (KE2228) in Shimo-Koshikijima, Kashima-mura, Satsuma-gun, Kagoshima Prefecture

Middle Member of the Upper Himenoura Subgroup in Amakusa area

Campanian, Cretaceous

Periplomya elliptica Nagao and Otatume, 1938

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 43, pl. 3, figs. 4, 5

Holotype: GMH no.5943 (pl. 3, figs. 4, 4a)

Kiusu, Hobetsu-machi, Yuufutsu-gun, Hokkaido

Hakobuchi Group in Hobetsu area, and Izumi Group in Izumi mountains

Campanian – Maastrichtian, Cretaceous

(New name as *Periplomya nagaoi* Ichikawa and Maeda, 1958, because of a junior homonym of *Anatina elliptica* Gabb, 1862, p. 324, which had been transferred to *Periplomya* by Gabb (1877, p. 305); *Periplomya nagaoi* Nagaoi Ichikawa and Maeda by Hayami (1975))

Periplomya grandis Ichikawa and Maeda, 1958

Jour. Inst. Polyt. Osaka City Univ., Ser.G, vol. 4, p. 104, pl. 7, figs. 1-3

Holotype: OCU MM255 (pl. 7, fig. 3)

Loc.39 at Kuroiwa in Awaji island, Nandan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Izumi mountains and Awaji island

Hetonaian (Campanian-Maastrichtian), Cretaceous

Periplomya japonica Matsuda, 1985

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 137, p. 13, pl. 3, figs. 14-17, text-fig. 4

Holotype: KSG3410 (pl. 3, fig. 17), Paratypes: KSG3411 (pl. 3, fig. 16), KSG3412 (pl. 3, fig. 15), KSG3413 (pl. 3, fig. 14)

Hegusi (KSG3410, KSG3411) of Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture; Miyanojima (KSG3412, KSG3413) of Sakawa, Takaoka-gun, Kochi Prefecture

Goshonoura Group in Shishijima area, and Miyanojima Formation in Sakawa area.

Cenomanian, Cretaceous

Periplomya nagaoi Ichikawa and Maeda, 1958 (nom. nov.)

Jour. Inst. Polyt. Osaka City Univ., Ser.G, vol. 4, p. 103

(see *Periplomya elliptica* Nagao and Otatume, 1938)

Periplomya nagaoi nagaoi Ichikawa and Maeda see
Periplomya elliptica Nagao and Otatume, 1938

Periplomya nagaoi brevis Ichikawa and Maeda, 1958

Jour. Inst. Polytech. Osaka City Univ., ser. G, p. 103, pl. 6, figs. 7, 8a-c

Holotype: OMN F1111 (pl. 6, fig. 7), Topotype: OMN F1112 (pl. 6, figs. 8a-c)

Loc. 102 at Sobura, Izumi mountains

Izumi Group in Izumi mountains and Awaji island

Lower Hetonaian (Campanian), Cretaceous

Perna sanchuensis Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 57, pl.

12, figs. 1-4

Lectotype designated by Hayami (1965, p. 278): IGPS no. 22457 (pl. 12, figs. 3,3a, b)

Hachimanzawa, Nakazato-mura, Tano-gun, Gumma Prefecture

Sebayashi Formation in Sanchu area

Aptian, Cretaceous

(Isognomon (Isognomon) sanchuensis (Yabe and Nagao) by Hayami (1965))

***Phelopteria erecta* Tamura, 1976**

Mem. Fac. Educ. Kumamoto Univ., no. 25, nat. sci. p. 57, pl. 3, fig. 1-5

Holotype: KE2386 (pl. 3, fig.1)

Loc. 24 at Tsubumugi, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian, Cretaceous

***Pholadomya brevitesta* Nagao, 1943**

Jour. Geol. Soc. Japan, vol. 50, no. 596, p. 157, pl. 13, fig. 3

Holotype by monotypy (GMH? not registered)

Nagao's holotype came from Koikorobe, and Loc. Hn.0006, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture; Loc. Hy.4001, Ichinose-bashi, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture Tanohata Formation in Tanohata area, and Ishido Formation in Sanchu area

Lower Miyakoan (Aptian), Cretaceous

(Pholadomya (Bucardimya) brevitesta Nagao by Hayami (1975))

Pholadomya (Bucardimya) brevitesta Nagao see Pholadomya brevitesta Nagao, 1943

***Pholadomya (Bucardimya) hiratai* Matsuda, 1985**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 137, p. 11, pl. 3, figs. 8-13, text-fig. 4

Holotype: KSG3383 (pl. 3, fig. 11), Paratypes: KSG3384 (pl. 3, fig. 8), KSG3385 (pl. 3, fig. 9), HPC8517 (pl. 3, fig. 10)

Miyanojima (holotype and paratypes: KSG3384, KSG3385) of Sakawa-machi, Takaoka-gun, Kochi Prefecture; Nagase (HPC8517), Kahoku-machi, Kami-gun, Kochi Prefecture Miyanojima Formation in Sakawa area; Nagase Formation in Monobe area

Cenomanian, Cretaceous

***Pholadomya japonica* Amano, 1956**

Kumamoto Jour. Sci. ser. B, sec.1, vol. 2, no. 1, p. 80, pl. 2, figs. 1-5

Holotype: KU not registered (pl. 2, figs. 1, 2, 3)

Miyanojima, Ochi-machi, Takaoka-gun, Kochi Prefecture

Miyanojima Formation in Ochi area

Cenomanian, Cretaceous

(Pholadomya (Pholadomya) japonica Amano by Hayami (1975))

Pholadomya (Pholadomya) japonica Amano see Pholadomya japonica Amano, 1956

***Pholadomya (?) miyamotoi* Nagao, 1943**

Jour. Geol. Soc. Japan, vol. 50, no. 596, p. 158, pl. 12, figs. 8, 9

Lectotype designated by Hayami (1966, p. 157): GMH? not registered

Locs. Hn.0017, 0018, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Lower Miyakoan (Aptian), (Aptian – Lower Albian by Tashiro (1992)), Cretaceous

(Pholadomya (Bucardimya) miyamotoi Nagao by Hayami (1975))

Pholadomya (Bucardimya) miyamotoi Nagao see Pholadomya (?) miyamotoi Nagao, 1943

***Pholadomya subpedelnalis* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 214, pl. 26, fig. 8

Holotype by monotypy (GMH no.6796 (pl. 26, fig. 8))

Loc. Hn.6203 at the northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture; At Hideshima (Nagao's holotype) of Sakiyama, Miyako City, Iwate Prefecture

“Orbitolina sandstone” of the Miyako Group

Lower and upper Miyakoan (Aptian to Albian), Cretaceous

(Pholadomya (Bucardimya) subpedelnalis Nagao by Hayami (1975))

Pholadomya (Bucardimya) subpedelnalis Nagao see Pholadomya subpedelnalis Nagao, 1934

***Pholadomya tuberculata* Hayami, 1966**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 17, no. 3, p. 160, pl. 24, figs. 1-3

Holotype: GK.H6555 (pl. 24, fig. 3), Paratypes: GK.H6556 (pl. 24, fig. 1), GK.H6557 (pl.24, fig. 2)

Locs. Hn.0017 (GK.H6557), Hn.0018 (GK.H6555, GK.H6556), southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata area

Lower Miyakoan (Aptian), Cretaceous

(Pholadomya (Pholadomya) tuberculata Hayami by Hayami (1975))

Pholadomya (Pholadomya) tuberculata Hayami see Pholadomya tuberculata Hayami, 1966

***Pinctada (Eopinctada) matsumotoi* Tamura, 1961**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 44, p. 150, pl. 22, figs. 1-4

Holotype: UMUT MM 3704 (pl. 22, fig. 3), Paratypes: UMUT MM 3705 (pl. 22, fig. 4), UMUT MM3706, UMUT MM3707 (pl. 22, fig. 1), UMUT MM3708 (pl. 22, fig. 2)

Roadside of Kamiumeki, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian – Turonian, Cretaceous

(*Eopinctada matsumotoi* (Tamura) by Tashiro (1992))

Pinna (Plesiopinna) atriniformis* (Amano) see *Plesiopinna atriniformis* Amano, 1956**Pinna (Pinna) saitoi* Nagao, 1938**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, no. 1-2, p. 125, pl. 15, figs. 9, 10

Lectotype designated by Hayami (1975, p. 40): GMH no.8230 (pl. 15, fig. 9)

Ponhorokabetsu, Yubari City, Hokkaido

Mikasa Formation in Yubari area

Cenomanian, Cretaceous

***Pinna (Pinna) sp. cf. P. (P.) robinaldina* d'Orbigny: Hayami (1965)**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 281, pl. 39, figs. 2, 3

Loc. Hy.4011, Ishido, Ohinata-mura, Minamisaku-gun, Nagano Prefecture

Ishido Formation in Sanchu area

Upper Neocomian-Aptian (Lower Barremian by Tashiro and Kozai (1984)), Cretaceous

***Pisidium? okhoensis* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 135, pl. 3, figs. 25-30

Holotype: KSG4289 (pl. 3, fig. 28), Paratypes: KSG4290, KSG4291 (pl. 3, fig. 30), KSG4292 (pl. 3, fig. 27), KSG4293 (pl. 3, fig. 25), KSG4294 (pl. 3, fig. 29), KSG4295, KSG4296, KSG4297, KSG4298 (pl. 3, fig. 26)

Okho, Nankoku City, Kochi Prefecture

Monobe Formation in Monobe area

Barremian, Cretaceous

Placunopsis aptiana* (Hayami) see *Monia aptiana* Hayami, 1965**Placunopsis (?) hibiharensis* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, p. 44, pl. 4, figs. 9-10

Holotype: KSG3772 (pl. 4, fig. 9), Paratypes: KSG3773 (pl. 4, fig. 10), KSG3774 (pl. 4, fig. 10), KSG3775 (pl. 4, fig. 10)

Yunoki of Kajisako, Monobe-mura, Kami-gun, Kochi Prefecture

Basal part of the Hibihara Formation in Monobe area

Aptian, Cretaceous

Placunopsis sp. aff. P. linensis* (Whiteaves) see *Anomia linensis* Whiteaves: Matsumoto (1938)**Placunopsis pseudotruncata* (Yabe and Nagao) see *Anomia pseudotruncata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926*****Plagiostoma (Acesta) goliathiforme* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 327, pl. 48, figs. 3, 4

Holotype: GK.H6316 (pl. 48, fig. 3), Paratype: GK.H6317 (pl. 48, fig. 4)

Loc. Hn.0017 (holotype and paratype), southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture (141°57'E, 39°56'N)

Hiraiga Formation in Tanohata area

Lower Miyakoan (Aptian), Cretaceous

(*Acesta goliathiforme* (Hayami) by Hayami (1975))

***Plagiostoma (Plagiostoma) sanrikuense* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 15, no. 2, p. 326, pl. 48, fig. 2

Holotype: GK.H6315 (pl. 48, fig. 2)

Loc. Hn.0017, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture (141°57'E, 39°56'N)

Hiraiga Formation in Tanohata area

Lower Miyakoan (Aptian), Cretaceous

Platyceramus ezoensis* (Yokoyama) see *Inoceramus ezoensis* Yokoyama, in Yabe, 1915**Platyceramus japonicus* (Nagao and Matsumoto) see *Inoceramus japonicus* (Sasa MS.) Nagao and Matsumoto, 1940*****Platyceramus yubariensis* (Nagao and Matsumoto) see *Inoceramus incertus* Jimbo var. *yubariensis* Nagao and Matsumoto, 1940*****Platymyoidea nipponica* Tashiro and Matsuda, 1985**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 15, p. 17, pl. 3, figs. 24, 25, text-fig. 8

Holotype: KSG3476 (pl. 3, fig. 25), Paratypes: KSG3477, KSG3478 (pl. 3, fig. 24)

Locs. 1 and 2 at the northeast of Kamikoshigoe, Honjo-mura, Minamiyamabe-gun, Oita Prefecture

Sukubo Formation in Haidateyama area

Upper Albian, Cretaceous

***Plectomya amabeana* Tashiro and Matsuda, 1985**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 15, p. 16, pl. 3, figs. 17-23, text-fig. 7

Holotype: KSG3472 (pl. 2, figs. 17-20), Paratypes: KSG3473 (pl. 2, fig. 21), KSG3474 (pl. 2, fig. 23), KSG3475 (pl. 2, fig. 22)

Locs. 1 and 2, northeast of Kamikoshigoe, Honjo-mura, Minamiamabe-gun, Oita Prefecture
Sukubo Formation in Haidateyama area
Upper Albian, Cretaceous

***Plectomya aritagawana* Hayami, 1966**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 17, no. 3, p. 168, pl. 25, figs. 14-15, pl. 26, fig. 2

Holotype: GK.H6577 (pl. 25, fig. 14), Paratypes: GK.H6578 (pl. 25, fig. 15), GK.H6579 (pl. 26, fig. 2), GK.H6580

Loc. Ys.53 (GK.H6577) at the north of the pass between Yuasa and Yoshikawa, and at loc. Ys.103 (GK.H6578), a rail-road cutting, west of Kumai, Yuasa-machi, Arida-gun, Wakayama Prefecture; Loc. Km.3113 (Km.3096) (GK.H6579) at the southwest of Kohara, Toyo-mura, Yatsushiro-gun, Kumamoto Prefecture

Arida Formation in Yuasa, and Yatsushiro Formation (Mitsumineyama Formation by Tanaka et al. (1998)) in Kawamata area

Aritan to upper Miyakoan (upper Neocomian to Albian), (Upper Hauterivian – Barremian by Tashiro and Kozai (1991)), Cretaceous

***Plectomya concentrica* Tashiro and Kozai, 1991**

Res. Rep. Kochi Univ., vol. 40, p. 201, pl. 2, figs. 8–10, text-fig. 13

Holotype: KSG4378, Paratypes: KSG4379 (pl. 2, fig. 8), KSG4380 (pl. 2, fig. 9), KSG4381 (pl. 2, fig. 10)

Sano (holotype and paratypes: KSG4379, KSG4380), Tosayamada-machi, and at Hagino (KSG4381), Kahoku-machi, Kami-gun, Kochi Prefecture
Igenoki and Hagino Formations in Ryoseki area
Aptian, Cretaceous

***Plectomya punctostriæ* (Tamura) see *Pleuromya? punctostriæ* Tamura, 1959**

***Plesiopinna atriniformis* Amano, 1956**

Kumamoto Jour. Sci. ser. B, sec. 1, vol. 2, no. 2, p. 71, pl. 1, figs. 1-5

Holotype: KU not registered (pl. 1, figs. 1, 3)

Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture
Goshonoura Group in Shishijima island

Albian (?)–Cenomanian, Cretaceous

(*Pinna* (*Plesiopinna*) *atriniformis* (Amano) by Hayami (1975))

***Pleurogrammatodon elongatus* (Nagao and Otatsune) see *Paralleodon* (*Nanonavis*) *elongatus* Nagao and Otatsune, 1938**

***Pleurogrammatodon splendens* Ichikawa and Maeda, 1958**
Jour. Inst. Polyt. Osaka City Univ., ser. G, vol. 3, p. 64, pl. 1, figs. 1a-c, 2

Holotype: OCU MM145 (pl. 1, figs. 1a-c, 2)

Loc. 36 at Yamamoto of Nandan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island and Izumi mountains

Campanian – Maastrichtian, Cretaceous

(*Nanonavis splendens* (Ichikawa and Maeda) by Tashiro (1992))

***Pleuromya? punctostriæ* Tamura, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 35, p. 117, pl. 12, figs. 29-32

Holotype: UMUT MM3113 (pl. 12, figs. 30, 31), Paratypes: UMUT MM3112 (pl. 12, fig. 29) UMUT MM3113 (pl. 12, fig. 32)

Loc. 4 (holotype and paratypes) at Sakamoto, Skamoto-mura, Yatsushiro-gun, Kumamoto Prefecture

Torinosu Group in Sakamoto area

Upper Jurassic (Uppermost Jurassic - Valanginian, Cretaceous by Tashiro (1992))

(*Plectomya punctostriæ* (Tamura) by Hayami (1975))

***Plicatotrionioides* (?) *hoffeti* Kobayashi, 1968**

Geol. Palaeont. SE Asia, vol. 4, p. 129

Syntype: not designated and no illustration

Ban Na Gnom, North of Muong Phalane, Lower Laos
Khorat Group

Middle Cretaceous

***Plicatotrionioides* (?) *subovalis* Kobayashi, 1968**

Geol. Palaeont. SE Asia, vol. 4, p. 128, pl. 20, figs. 1-2

Holotype: Department of Mineral Resource, Bangkok, not registered (figs. 1a, b); Paratypes: not registered (fig. 2)

Nam Phung dam site, Northern Khorat Plateau, Thailand
Phu Phan formation, Khorat series (Khorat Group)

Middle Cretaceous

***Plicatounio kobayashii* Maeda, 1962**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 48, p. 347, pl. 53, figs. 1-4

Holotype: CU R61102702 (pl. 53, fig. 1), Paratypes: CU R61102701 (pl. 53, figs. 3, 4), CU R61102704 (pl. 53, fig. 2)

The right bank of the Nakanomata river, north of Sugiyama and the left bank of the same river, north of Sugiyama,

Kitadani-mura (Katsuyama City), Fukui Prefecture

Tetori Group in Kitadani area

Lower Cretaceous (precisely unknown)

(*Plicatounio* (*Plicatounio*) *kobayashii* Maeda by Hayami (1975))

Plicatounio (*Plicatounio*) *kobayashii* Maeda see *Plicatounio kobayashii* Maeda, 1962

Plicatounio (*Plicatounio*) *kobayashii* Maeda see
Plicatounio tetoriensis Maeda, 1962

“*Plicatounio*” *kwanmonensis* Ota, 1959

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 33, p. 17, pl. 3, figs. 1-3

Holotype: GF.WI.S.5100 (pl. 3, fig. 1), Paratype: GF.WI.S.5005 (pl. 3, fig. 2)

At the northern 150 m part from the basal conglomerate along the Yakiyama river, east of Rikimaru, Miyata-machi, Kurate-gun, Fukuoka Prefecture

Wakino Subgroup (Sengoku Formation) in Kurate area

Lower Cretaceous (precisely unknown)

(*Plicatounio* (*Kwanmonia*) *kwanmonensis* Ota by Ota (1963))

Plicatounio (*Kwanmonia*) *kwanmonensis* Ota see
“*Plicatounio*” *kwanmonensis* Ota, 1959

***Plicatounio naktongensis* Kobayashi and Suzuki, 1936**

Japan. Jour. Geol. Geogr., vol. 13, nos. 3-4, p. 252, pl. 28, figs. 1-4, 6-8

Holotype: UMUT MM7926 (pl. 28, figs. 1a, b), Paratypes: UMUT MM7927 (pl. 28, fig. 3), UMUT MM7928 (pl. 28, fig. 4), UMUT MM7929 (pl. 28, fig. 2), UMUT MM7930a (pl. 28, fig. 6), UMUT MM7930b (pl. 28, fig. 7), UMUT MM7930c (pl. 28, fig. 8)

Ryohori, Kinyomen, Keisho-nan-do, south Korea

Naktong Group in Kinyomen and Sinsyu areas, and Wakino Formation in Miyata area

Lower Cretaceous (precisely unknown)

(*Plicatounio* (*Plicatounio*) *naktongensis* *naktongensis* Kobayashi and Suzuki by Hayami (1975))

Plicatounio (*Plicatounio*) *naktongensis* *naktongensis* Kobayashi and Suzuki see *Plicatounio naktongensis* Kobayashi and Suzuki, 1936

***Plicatounio nomphungensis* Kobayashi, 1968**

Geol. Palaeont. SE Asia, vol. 4, p. 133, pl. 21, figs. 2a-c

Holotype: Department of Mineral Resource, Bangkok, not registered (figs. 2a, b, c)

Nam Phung dam site, Northern Khorat Plateau, Thailand

Phu Phan formation, Khorat series (Khorat Group)

Middle Cretaceous

***Plicatounio* (*Plicatounia*) *okjuni* Yang, 1989**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 154, p. 87, figs. 5- 1A-2B

Holotype: KPE2261 (figs. 5- 1A-1B), Paratypes: KPE2252, KPE2254, KPE2260, KPE2264 (figs. 5- 2A-2B), KPE2266, KPE2270, KPE2274, KPE2304, KPE2305, KPE2361

Loc. 8 on a mountain side about 700 m south of Bulnodong, Hyoryeong-myeon, Kunwi-gun, Gyeongsangbuk-do, Korea

Middle Hasandong Formation
Cretaceous (precisely unknown)

***Plicatounio* (*Tamurai*) *tamurai* Gou, 1986**

Yunnan Sci.& Tech. Pub. House, Kunming, China, p. 18 (in Chinese); p. 120, text-fig. 11

Holotype designated by Guo (1986, p. 19 and 120): KE2514 of Tamura (1977, pl. 3, figs. 3a-b)

About 1000 m east of Tashiro, Kosa-machi, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Kosa area

Cenomanian, Cretaceous

***Plicatounio tetoriensis* Maeda, 1962**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 48, p. 348, pl. 53, figs. 5-7

Holotype: CU R61102501 (pl. 53, fig. 5), Paratypes: CU R61102502 (pl. 53, fig. 6), CU R61102502 (pl. 53, fig. 7)

The right bank of the Nakanomata river, north of Sugiyama, and a point on the left bank of the same river, north of Sugiyama, Kitadani-mura (Katsuyama City), Fukui Prefecture

Tetori Group in Kitadani area

Lower Cretaceous (precisely unknown)

(Synonymous with *Plicatounio* (*Plicatounio*) *kobayashii* Maeda by Hayami (1975))

***Plicatounio triangularis* Kobayashi and Suzuki, 1936**

Japan. Jour. Geol. Geogr., vol. 13, nos. 3-4, p. 252, pl. 28, fig. 5

Holotype: UMUT MM7926 (pl. 28, figs. 5a, b)

Rikimaru, Wakamiya-machi, Kurate-gun, Fukuoka Prefecture

Wakino Formation in Kurate area

Lower Cretaceous (precisely unknown)

***Plicatounio* (*Plicatounio*) *yooni* Yang, 1989**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 154, p. 88, figs. 6- 1-7

Holotype: KPE2601 (fig. 6-5), Paratypes: KPE1053-KPE1059, KPE1090-KPE1092, KPE2540, KPE2561-KPE2565, KPE2602 (fig. 6-6), KPE2603 (fig. 6-4), KPE2604 (fig. 6-2), KPE2605 (fig. 6-1), KPE2606, KPE2607, KPE2608, KPE2609, KPE2610, KPE2611, KPE2612, KPE2613, KPE2614, KPE2615, KPE2616, KPE2617, KPE2618, KPE2619, KPE2620, KPE2621 (fig. 6-7), KPE2622, KPE2623, KPE2624, KPE2625, KPE2626, KPE2627, KPE2628, KPE2629, KPE2630, KPE2631, KPE2632, KPE2633 (fig. 6-3), KPE2634, KPE2635, KPE2636, KPE2637

Loc.3 (KPE2601-KPE2620, KPE2622-KPE2637) and Loc.4 (KPE2621), at a beach near Impo, Hwanggeumri, Golyak-myeon, Jeolanam-do, and Loc.5 (KPE1053-KPE1059, KPE1090-KPE1092, KPE2540,

KPE2561-KPE2565), at a beach near Sumoondong, Keumnam-myeon, Hadong-gun, Gyeongsangnam-do, Korea Middle Hasandong Formation Cretaceous (precisely unknown)

***Plicatula hanaii* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 322, pl. 47, figs. 1-3
Holotype: GK.H6311 (pl. 47, fig. 2), Paratypes: GK.H6312 (pl. 47, fig. 1), GK.H6313, (pl. 47, fig. 3), GK.H6314
Loc. Hn.0803 at Koikorobe, Tanohata-mura, Shimohei-gun, Iwate Prefecture
Tanohata Formation in Tanohata area
Lower Miyakoan (Aptian), Cretaceous

***Plicatula kiiensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 323, pl. 46, figs. 6-8
Holotype: GK.H6590 (pl. 46, fig. 7a, b), Paratypes: GK.H6591 (pl. 46, fig. 6), GK.H6592 (pl. 46, fig. 8)
Loc. Ys.103 (GK.H6590 and GK.H6591) at the west of Kumai, Kibi-machi, Arida-gun, Wakayama Prefecture; Loc. Km.3085c (GK.H6592) at the south of Kohara, Toyo-son, Yatsushiro-gun, Kumamoto Prefecture
Arita Formation in Yuasa area, and Hachiryuzan Formation in Yatsushiro area
Aritan and lower Miyakoan (upper Neocomian to Aptian), (Upper Hauterivian and Lower Barremian by Tashiro and Kozai (1986)), Cretaceous

***Plicatula kochiensis* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, nat. sci., p. 40, pl. 3, figs. 13-20, pl. 8, fig. 10, text-fig. 1
Holotype: KSG3670 (pl. 3, fig. 18), Paratypes: KSG3671 (pl. 3, fig. 13), KSG3672 (pl. 3, fig. 17), KSG3673 (pl. 3, fig. 15), KSG3674 (pl. 3, fig. 16), KSG3675 (pl. 3, fig. 20), KSG3676 (pl. 3, fig. 19)
Sasano of Doiban, Odochi, Monobe-mura, Kami-gun, Kochi Prefecture
Lower part of the Hibihara Formation in Monobe area
Aptian, Cretaceous

***Plicatula monobensis* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, p. 43, pl. 2, fig. 21, pl. 3, figs. 8, 9, 11, pl. 4, figs. 14-16, text-fig. 3
Holotype: KSG3683 (pl. 3, fig. 11), Paratypes: KSG3680 (pl. 2, fig. 21), KSG3681 (pl. 3, fig. 9), KSG3682 (pl. 4, fig. 14), KSG3684 (pl. 4, fig. 15), KSG3685 (pl. 3, fig. 8)
At about 300 m north of Todoronotaki, Hibihara, Kahoku-machi, Kami-gun, Kochi Prefecture
Monobe Formation in Monobe area
Upper Hauterivian, Cretaceous

***Plicatula takahashii* Tashiro and Kozai, 1986**

Res. Rep. Kochi Univ., vol. 35, p. 41, pl. 4, figs. 17-23, text-fig. 2
Holotype: KSG3777 (pl. 4, fig. 17), Paratypes: KSG3778 (pl. 4, fig. 22), KSG3779 (pl. 4, fig. 23), KSG3780 (pl. 4, fig. 19), KSG3781 (pl. 4, fig. 18), KSG3782 (pl. 4, fig. 20), KSG3783 (pl. 4, fig. 21)
Mochie of Susaki City, Kochi Prefecture
Doganaro Formation in Susaki area
Aptian, Cretaceous

***Polymesoda (Isodomella) kobayashii* Maeda, 1959**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 36, p. 158, pl. 17, figs. 1-11
Holotype: CU not registered (pl. 17, figs. 1, 2)
Kashiwate river (a tributary of the Takahara) Kamitakara-mura, Yoshiki-gun, Gifu Prefecture
Tetori Group (Tochio Formation) in Kamitakara area
Lower Cretaceous (precisely unknown)
(*Crenotrapezium? kobayashii* (Maeda) by Hayami (1975))

***Polymesoda (Isodomella) naumanni* (Neumayr) see *Cyrena shiroiensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Polymesoda (Isodomella) naumanni* (Neumayr) see *Cyrena shiroiensis* var. *alata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Polymesoda shiroiensis* (Yabe and Nagao) see *Cyrena shiroiensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Polymesoda shiroiensis* (Yabe and Nagao) see *Cyrena shiroiensis* var. *alata* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926**

***Portlandia cuneistriata* Ichikawa and Maeda, 1958**

Jour. Inst. Polyt. Osaka City Univ., ser. G., vol. 4, p. 82, pl. 4, figs. 1-3, 12, 13
Holotype: OCU MM174 (pl. 4, fig. 2), Topotype: OCU MM175 (pl. 4, fig. 3), OCU MM176 (pl. 4, fig. 1), OCU MM177 (pl. 4, fig. 13), OCU MM179 (pl. 4, fig. 12)
Loc.30 at the east of Motago, Haraikawa in Awaji island, Nandan-machi, Mihara-gun, Hyogo Prefecture
Izumi Group in Awaji island
Upper Hetonaian (Maastrichtian), Cretaceous
(*Portlandia (Cnestriella) cuneistriata* Ichikawa and Maeda by Tashiro and Otsuka (1980))

***Portlandia (Cnestriella) cuneistriata* Ichikawa and Maeda see *Portlandia cuneistriata* Ichikawa and Maeda, 1958**

***Portlandia furcata* Ichikawa and Maeda, 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, vol. 4, p. 83, pl. 4, figs. 7, 8, 9a-b

Holotype: OCU MM182 (pl. 4, fig. 8)

Loc. 110 at the south of Jizoson, Azenotani, Sennan City, Osaka Prefecture

Izumi Group in Izumi mountains

Lower Hetonaian (Campanian), Cretaceous

(*Portlandia* (*Cnestriella*) *furcata* Ichikawa and Maeda by Tashiro (1992))

Portlandia* (*Cnestriella*) *furcata* Ichikawa and Maeda see *Portlandia furcata* Ichikawa and Maeda, 1958**Portlandia* (s. l.) *izumensis* Ichikawa and Maeda, 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, vol. 4, p. 84, pl. 4, figs. 4a-d, 5, 6

Holotype: OCU MM185 (pl. 4, fig. 4)

Loc. 8 of Anaga, Seidan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Izumi mountains and Awaji island

Lower Hetonaian (Campanian), Cretaceous

(*Portlandia* (*Portlandia*?) *izumensis* Ichikawa and Maeda by Tashiro (1992))

Portlandia* (*Portlandia*?) *izumensis* Ichikawa and Maeda see *Portlandia* (s. l.) *izumensis* Ichikawa and Maeda, 1958**Portlandia* (s. l.) *nagaseana* Tashiro and Matsuda, 1982**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 127, p. 399, pl. 62, fig. 23-25, text-fig. 5

Holotype: KSG3132 (pl. 62, figs. 23, 25), Paratypes: KSG3133 (pl. 62, fig. 24), KSG3134, KSG3135

Loc. 2, near the Nagase Dam, about 1500 m northwest of Odochi, Monobe-mura, Kami-gun, Kochi Prefecture

Fukigoshi Formation in Monobe area

Cenomanian, Cretaceous

Portlandia obliquistriata* (Amano) see *Neilonella obliquistriata* Amano, 1957**Portlandia* (*Cnestriella*) *obliquistriata* (Amano) see *Neilonella obliquistriata* Amano, 1957*****Portlandia sanchuensis* (Yabe and Nagao) see *Nuculana sanchuensis* Yabe and Nagao, in Yabe, Nagao and Shimizu, 1926*****Praecaprotina yaegashii* (Yehara) see *Horiopleura yaegashii* Yehara, 1920*****Prohinnites* sp. cf. *P. favrinus* (Pictet and Roux): Hayami (1965)**

Southern coast of Hiraiga, Tanohata-mura, Shimohei-gun,

Iwate Prefecture

Miyako Group (Tanohata Formation) in Tanohata area
Lower Miyakoan (Aptian), Cretaceous

***Propeamussium awajiense* Ichikawa and Maeda, 1958**

Jour. Inst. Polytech. Osaka City Univ., ser. G, p. 101, pl. 5, figs. 11, 12a-b

Holotype: OCU MM234 (pl. 5, fig. 11)

Loc. 6 at the north of Hansanji, Seidan-machi, Mihara-gun, Hyogo Prefecture

Izumi Group in Awaji island

Lower Hetonaian (Campanian), Cretaceous

(*Parvamussium awajiense* (Ichikawa and Maeda) by Tashiro (1992))

Propeamussium cowperi yubarensis* (Yabe and Nagao) see *Pecten* (*Propeamussium*) *cowperi* var. *yubarensis* Yabe and Nagao, 1928**Protocardia* (*Protocardia*) *amanoi* Tashiro and Matsuda, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 142, p. 382, pl. 77, figs. 10-14, text-fig. 5

Holotype: KSG3448 (pl. 77, figs. 10, 11), Paratypes: KSG3449 (pl. 77, fig. 14), KSG3450 (pl. 77, fig. 13), KSG3451 (pl. 77, fig. 12)

Locs. 8, 9 at Bunjo and Yotsushiro of Ochi, Sakawa-machi, Takaoka-gun, Kochi Prefecture

Bunjo Formation in Sakawa area

Aptian, Cretaceous

***Protocardia hiraigensis* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 17, no. 2, p. 119, pl. 15, figs. 8-10

Holotype: GK.H6483 (pl. 15, fig. 9), Paratypes: GK.H6484 (pl. 15, fig. 8), GK.H6485 (pl. 15, fig. 10)

Loc. Hn.0017 (holotyp and paratypes), southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Hiraiga Formation in Tanohata and Miyako areas

Lower Miyakoan (Aptian), Cretaceous

***Protocardia ibukii* Nakazawa and Murata, 1966**

Mem. Coll. Sci. Univ. Kyoto, ser. B, vol. 32, no. 4, p. 314, pl. 4, figs. 7a, b, pl. 5, figs. 1-4

Holotype: IGPS Coll.no.85765 (pl. 4, figs. 7a, b), Paratypes: IGPS Coll. no.85766 (pl. 5, fig. 1), UK JM11153 (pl. 5, fig. 4), UK JM11154 (pl. 5, fig. 3), UK JM11157 (pl. 5, fig. 2)

Kanayama-zawa and Obiraki-zawa, near the Omine mine, (Tono City), Iwate Prefecture

Kamihei Group in Kamihei area

Neocomian, Cretaceous

***Protocardia* (*Protocardia*) *koshikijimensis* (Amao) see *Protocardium koshikijimense* Amano, 1957**

***Protocardia morii* Hayami, 1980**

Japan. Jour. Geol. Geogr., vol. 31, no. 1, p. 18, pl. 3, figs. 11-15

Holotype: UMUT MM3574 (pl. 3, fig. 13), Paratypes: UMUT MM3575 (pl. 3, fig. 14), UMUT MM3576 (pl. 3, fig. 12), UMUT MM3577 (pl. 3, fig. 11), UMUT MM3577 (pl. 3, fig. 15)

At the west of Nagashioya (Loc. 27 by Mori (1949)), and at Furumine shrine of Oppa (Loc. 25 by Mori (1949)) in Kitakami-machi, Monou-gun, Miyagi Prefecture Jusanhama Group in Hashiura area Tithonian, Jurassic to lower Neocomian, Cretaceous, (Berriasian-Valanginian by Tashiro (1992))

***Protocardia (Globocardium) minor* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 54, pl. 1, figs. 12-18, text-fig. 7

Holotype: KSG4025 (pl. 1, fig. 16), Paratypes: KSG4026 (pl. 1, fig. 15), KSG4027 (pl. 1, fig. 18), KSG4028, KSG4029 (pl. 1, fig. 17), KSG4058, KSG4059 (pl. 1, fig. 13), KSG4060 (pl. 1, figs. 12, 14)

Igenoki, Tosayamada-machi, Kami-gun, Kochi Prefecture Igenoki Formation in Ryoseki area, Mamidani Formation in Katsuura area and Doganaro Formation in Susaki area Upper Barremian or Aptian, Cretaceous (*Globocardium minor* (Tashiro and Kozai) by Tashiro (1992))

***Protocardia (Globocardium) spaeroidea* (Forbes): Hayami (1965)**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 117, pl. 16, figs. 1-6

Locs. Hn.0001, 0017, southern coast of Hiraiga, and loc. Hn.0220, northern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga and Tanohata Formations) in Tanohata area

Lower Miyakoan (Aptian), Cretaceous

(*Globocardium spaeroidea* (Forbes) by Hayami (1975))

***Protocardium koshikijimense* Amano, 1957**

Kumamoto Jour. Sci. ser. B, sec. 1, vol. 2, no. 2, p. 58, pl. 1, figs. 1-4

Holotype: UMUT KML0061 (pl. 1, fig. 1)

Ukimizu, Kashima-mura, Satsuma-gun, Kagoshima Prefecture

Lower and Middle Formations of the Upper Himenoura Subgroup

Upper Campanian, Cretaceous

(*Nemocardium (Nemocardium) koshikijimense* (Amano) by Hayami (1975); *Protocardia (Protocardia) koshikijimensis* (Amano) by Tashiro (1992))

Protocyprina naumanni* (Neumayr) see *Cyrena naumanni* Neumayr, in Naumann and Neumayr, 1890**Pseudamiantis crenulatus* (Matsumoto) see "Callista" (*Pseudamiantis*) *crenulatus* Matsumoto, 1938*****Pseudamiantis crenulata* (Matsumoto) see "Callista" (*Pseudamiantis*) *crenulatus* Matsumoto, 1938*****Pseudaphrodina elongata* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 140, pl. 5, figs. 11-12, text-figs. 10A, 10B

Holotype: KSG4330 (pl. 5, fig. 11), Paratype: KSG4331 (pl. 5, fig. 12)

Sasa of Doiban, Monobe-mura, Kami-gun, Kochi Prefecture Lower part of the Hibihara Formation

Aptian, Cretaceous

***Pseudasaphis japonica* Matsumoto, 1938**

Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 18, pl. 2, figs. 4, 5, text-fig. 14, 15

Syntype: UMUT MM7749 (pl. 2, fig. 4), UMUT MM7750 (pl. 2, fig. 5), UMUT MM7809 (text-fig. 15), UMUT MM7810, UMUT MM7811 (text-fig. 14), UMUT MM7812, UMUT MM7813

Narukogawa, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group in Goshonoura island, and Mifune Group in Mifune area

Cenomanian, Cretaceous

***Pseudocardia amanoi* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 79, pl. 7, figs. 4-7; pl. 15, figs. 1, 2

Holotype: GK.H6777 (pl. 15, fig. 1), Paratypes: GK.H6396 (pl. 7, fig. 5), GK.H6397 (pl. 7, fig. 6), GK.H6398 (pl. 7, fig. 4), GK.H6399 (pl. 7, fig. 7), GK.H6778, GK.H6779, GK.H6780 (pl. 15, fig. 2)

Loc. Hy.6011, south of Hagino, Birafu, Kahoku-machi, Kami-gun, Kochi Prefecture (133°43'E, 33°37'N)

Hagino Formation in Monobe area, and Bunjo Formation in Sakawa area

Lower Miyakoan (Aptian), Cretaceous

(*Xenocardita amanoi* (Hayami) by Hayami (1975))

***Pseudocardia* sp. cf. *P. tenuicosta* (Sowerby): Hayami (1965)**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 77, pl. 7, figs. 1-3

Loc. 2058, Hideshima of Sakiyama, Miyako City, Iwate Prefecture

Miyako Group (Tanohata Formation) in Miyako area, and Choshi Formation in Choshi area

Aptian, Cretaceous

(Ludbrookia sp. cf. L. tenuicosta (Sowerby) by Hayami (1975))

***Pseudohyria matsumotoi* Yang, 1979**

Trans. Proc. Palaeont. Soc. Japan. N.S., no. 116, p. 230, pl. 28, figs. 1-8, text-fig. 4

Holotype: KPE2163 (pl. 28, fig. 1), Paratypes; KPE2151 (pl. 28, fig. 7), KPE2152 (pl. 28, fig. 4), KPE2153 (pl. 28, fig. 8), KPE2154, KPE2155, KPE2156, KPE2157 (pl. 28, fig. 6), KPE2158, KPE2159, KPE2160, KPE2161, KPE2162, KPE2164, KPE2165, KPE2166 (pl. 28, fig. 3), KPE2167, KPE2168, KPE2169 (pl. 28, fig. 2), KPE2170, KPE2171, KPE2172, KPE2173 (pl. 28, fig. 5), KPE2174, KPE2175, KPE2176, KPE2177, KPE2178, KPE2179

Weolmagdong, Ssangrim-myeon, Goryeong-gun, Gyeongsangbug-do, Korea
Gyeongsang Group (Yeonhwadong Formation)
Lower Cretaceous (precisely unknown)

***Pseudopisidium hibiharensis* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 143, pl. 1, figs. 13-18, text-fig. 12

Holotype: KSG4220, Paratypes: KSG4221 (pl. 1, fig. 15), KSG4222 (pl. 1, fig. 17), KSG4223 (pl. 1, fig. 13), KSG4224 (pl. 1, fig. 18), KSG4225, KSG4226 (pl. 1, fig. 14), KSG4227 (pl. 1, fig. 16), KSG4228, KSG4229

North of Doiban, Monobe-mura, Kami-gun, Kochi Prefecture
Basal part of the Hibihara Formation in Monobe area
Aptian, Cretaceous

***Pseudopisidium inflata* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 142, pl. 5, figs. 17-20, text-fig. 11

Holotype: KSG4236 (pl. 5, figs. 16, 18), Paratypes: KSG4237 (pl. 5, fig. 17), KSG4238 (pl. 5, fig. 19), KSG4271 (pl. 5, fig. 20)

Shingai of Tosayamada-machi, Kami-gun, Kochi Prefecture
Monobe Formation in Monobe area
Upper Barremian, Cretaceous

***Pseudoptera acuticarinata* (Nagao) see *Gervillia (Pseudoptera) acuticarinata* Nagao, 1932**

***Pseudoptera? elongata* (Nakazawa and Murata) see *Waagenoperna elongata* Nakazawa and Murata, 1966**

***Pseudoptera sp. aff. P. viana* Stephenson: Nakazawa and Murata (1966)**

Mem. Coll. Sci. Univ. Kyoto, ser. B, vol. 32, no. 4, p. 313, pl. 4, figs. 2a-c

Kanayama-zawa, a small valley west of Omine Copper Mine in Tono City, Iwate Prefecture
Kamihei Group in Kamaishi area
Neocomian, Cretaceous

***Psilotrignia sanchuensis* Nakano, 1957**

Jour. Sci. Hiroshima Univ., ser. C, vol. 2, no. 1, p. 70, text-figs. 1-3

Holotype: Yokohama Nat. Univ. not registered (text-fig. 1)
Ohinata, Saku-machi, Minamisaku-gun, Nagano Prefecture
Ishido Formation in Sanchu area

Aptian-Albian (Upper Neocomian- Albian by Hayami (1975)), Cretaceous

***Rutitrigonia sanchuensis* (Nakano) by Kobayashi and Nakano (1958); Synonymous with *Rutitrigonia yeharai* Kobayashi by Tashiro (1992))**

***Pterinella shinoharai* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ. ser. D, vol. 15, no. 2, p. 265, text-fig. 2, pl. 31, figs. 1-3; pl. 32, figs. 1-6; pl. 33, figs. 1, 2, pl. 34, figs. 1, 2, pl. 35, figs. 1, 2

Holotype: GK.H6235 (pl. 31, fig. 1), Paratypes: GK.H6148 (pl. 35, fig. 1), GK.H6149 (pl. 31, fig. 2), GK.H6150 (pl. 35, fig. 2), GK.H6151 (pl. 32, fig. 6), GK.H6362 (pl. 32, fig. 5), GK.H6609 (pl. 33, fig. 1), GK.H6610, GK.H6611 (pl. 33, fig. 2), GK.H6612 (pl. 34, fig. 2), GK.H6613 (pl. 32, fig. 4), GK.H6614 (pl. 32, fig. 2), GK.H6615 (pl. 32, fig. 3), GK.H6616 (pl. 31, fig. 3), GK.H6382, GK.H6383

Loc. Hy.1012 (Holotype: GK.H6235) at the north of Nekodani, Miyaji, Yatsushiro City, Kumamoto Prefecture;
Three paratypes (GK.H6148 – GK.H6151) from Yatsushiro area, Kumamoto Prefecture; Eleven paratypes (GK.H6362, GK.H6609 - GK.H6616, GK.H6382, GK.H6383) from the Katsuuragawa area, Katsuura-machi, Katsuura-gun, Tokushima Prefecture

Yatsushiro Formation in Yatsushiro area and Hanoura Formation in Katsuuragawa area

Upper Neocomian – Albian (Upper Hauterivian by Tashiro and Kozai (1986)), Cretaceous

***Pterotrigonia (Ptilotrigonia) amakusensis* Tashiro and Matsuda, 1983**

Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 4, p. 41, pl. 5, figs. 4-8, text-fig. 19

Holotype: KSG3261 (pl. 5, figs. 6, 7), Paratypes: KSG3259 (pl. 5, fig. 4), KSG3260 (pl. 5, fig. 8)

At the western seashore of Karakizaki, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group (IIb Member by Matsumoto (1938)) in Goshonoura area

Uppermost Albian – Lower Cenomanian, Cretaceous

***Pterotrigonia brevicula* (Yehara) see *Trigonia brevicula* Yehara, 1915**

***Pterotrigonia (Pterotrigonia) brevicula* (Yehara) see *Trigonia brevicula* Yehara, 1915**

- Pterotrigonia* (*Ptilotrigonia*) *brevicula* (Yehara) see *Trigonia brevicula* Yehara, 1915
- Pterotrigonia bungoensis* Tashiro and Tanaka, 1996**
 Mem. Fac. Educ. Kumamoto Univ., nat. sci., no. 45, p. 26, pl. 3, figs. 1-6
 Holotype: KSGT0063, Paratypes: KSGT0064 (pl. 3, fig. 6), KSGT0065, KSGT0066 (pl. 3, figs. 4, 5), KSGT0067
 Loc. OS04 (Holotype and Paratype: KSGT0064), about 2 km east-southeast of Osaka, Mie-machi, and Loc. OS02 (Paratype: KSGT0066), about 2.2 km southeast of Osaka, Mie-machi, Ono-gun, Oita Prefecture
 Osaka Formation in Osaka area.
 Upper Barremian – Lower Aptian, Cretaceous
- Pterotrigonia* (*Pterotrigonia*) *datemasamunei* (Yehara) see *Trigonia datemasamunei* Yehara, 1915
- Pterotrigonia dilapsa* (Yehara) see *Trigonia dilapsa* Yehara, 1923
- Pterotrigonia* (*Acanthotrigonia*) *dilapsa* (Yehara) see *Trigonia dilapsa* Yehara, 1923
- Pterotrigonia* (*Ptilotrigonia*) *dilapsa* (Yehara) see *Trigonia dilapsa* Yehara, 1923
- Pterotrigonia* (s. l.) *doi* Tashiro and Katto, 1995**
 Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 16, p. 2, pl. 1, figs. 1-5
 Holotype: SGM0003 (pl. 1, fig. 4), Paratypes: SGM0004 (pl. 1, fig. 5), SGM0005, SGM0006 (pl. 1, fig. 1), SGM0007 (pl. 1, fig. 3), SGM0008 (pl. 1, fig. 2)
 Shouda of Miyanohara, Sakawa-machi, Takaoka-gun, Kochi Prefecture
 Miyanohara Formation in Sakawa area
 Middle Cenomanian, Cretaceous
- Pterotrigonia* (*Acanthotrigonia*) *higoensis* (Tamura and Tashiro) see *Acanthotrigonia higoensis* Tamura and Tashiro, 1967**
- Pterotrigonia* (*Ptilotrigonia*) *higoensis* (Tamura and Tashiro) see *Acanthotrigonia higoensis* Tamura and Tashiro, 1967**
- Pterotrigonia* (*Pterotrigonia*) *hokkaidoana* (Yehara) see *Trigonia hokkaidoana* Yehara, 1915
- Pterotrigonia* (*Scabrotrigonia*) *imanishii* (Nakano) see *Scabrotrigonia imanishii* Nakano, 1958
- Pterotrigonia* (*Pterotrigonia*) *imanishii* (Nakano) see *Scabrotrigonia imanishii* Nakano, 1958
- Pterotrigonia* (*Scabrotrigonia*) *kawaguchiensis* Tamura and Nishida, 1989**
 Mem. Fac. Educ. Kumamoto Univ., no. 38, nat. sci., p. 22, pl. 1, figs. 16-23, text-fig. 2
 Holotype: KE3257 (pl. 1, fig. 22), Paratypes: KE3249 (pl. 1, fig. 16a), KE3250 (pl. 1, fig. 16b), KE3254 (pl. 1, fig. 19), KE3255 (pl. 1, fig. 20)
 Kawaguhi, Sakamoto-mura, Yatsushiro-gun, Kumamoto Prefecture
 Kawaguchi Formation in Sakamoto area
 Hauterivian, Cretaceous
 (*Pterotrigonia* (*Pterotrigonia*) *kawaguchiensis* Tamura and Nishida by Tashiro (1992))
- Pterotrigonia* (*Pterotrigonia*) *kawaguchiensis* Tamura and Nishida see *Pterotrigonia* (*Scabrotrigonia*) *kawaguchiensis* Tamura and Nishida, 1989**
- Pterotrigonia* (*Pterotrigonia*) *kesadoensis* Tashiro, 1994**
 Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 15, p. 9-10, pl. 1, figs. 22-23
 Holotype: KSG5057, Paratypes: KSG5058, KSG5059, KSG4442 (pl. 1, fig. 22)
 Kesado (holotype, KSG5058 and KSG5059) at the north of Kawaguchi, Yatsushiro area (Sakamoto-mura, Yatsushiro-gun), Kumamoto Prefecture; Jougusan (KSG4442) of Miyaji, Yatsushiro area (Yatsushiro City), Kumamoto Prefecture
 Kesado Formation in Sakamoto area
 Aptian to Lower Albian, Cretaceous
- Pterotrigonia* (*Scabrotrigonia*) *kobayashii* (Nakano) see *Scabrotrigonia kobayashii* Nakano, 1958
- Pterotrigonia* (*Pterotrigonia*) *kobayashii* (Nakano) see *Scabrotrigonia kobayashii* Nakano, 1958
- Pterotrigonia* (*Pterotrigonia*) *kofujiensis* Tamura, 1978**
 Mem. Fac. Educ. Kumamoto Univ., no. 27, nat. sci., p. 82, pl. 1, figs. 1-15
 Holotype: T3183 (pl. 1, fig. 3)
 Loc. OR235 at Kofuji, Ogata-machi, Ono-gun, Oita Prefecture
 Onogawa Group (Ryozen Formation) in Ono area
 Turonian, Cretaceous
- Pterotrigonia* (*Acanthotrigonia*) *longiloba* (Jimbo) see *Trigonia longiloba* Jimbo, 1894
- Pterotrigonia* (?*Scabrotrigonia*) *longiloba* (Jimbo) see *Trigonia longiloba* Jimbo, 1894
- Pterotrigonia* (*Pterotrigonia*) *longiloba* (Jimbo) see *Trigonia longiloba* Jimbo, 1894

- Pterotrigonia* (*Acanthotrigonia*) *mashikensis* (Tamura and Tashiro) see *Acantotrigonia mashikensis* Tamura and Tashiro, 1967
- Pterotrigonia* (*Ptilotrigonia*) *mashikensis* (Tamura and Tashiro) see *Acantotrigonia mashikensis* Tamura and Tashiro, 1967
- Pterotrigonia* (*Acanthotrigonia*) *mifunesis* (Tamura and Tashiro) see *Acanthotrigonia mifunesis* Tamura and Tashiro, 1967
- Pterotrigonia* (*Ptilotrigonia*) *mifunesis* (Tamura and Tashiro) see *Acanthotrigonia mifunesis* Tamura and Tashiro, 1967
- Pterotrigonia* (*Ptilotrigonia*) *miyanoharensis* Tashiro and Matsuda, 1983
Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 4, p. 45, pl. 4, figs. 6-13, text-fig. 21
Holotype: KSG3289 (pl. 4, figs. 7-8), Paratypes: KSG3291 (pl. 4, fig. 11), KSG3294 (pl. 4, fig. 12), KSG3290 (pl. 4, fig. 6)
Miyano-hara, Sakawa-machi, Takaoka-gun, Kochi Prefecture
Miyano-hara Formation in Sakawa area
Cenomanian, Cretaceous
- Pterotrigonia* (*Scabrotrigonia*) *monobeana* Tashiro and Kozai, 1982
Palaeont. Soc. Japan, Sp. Pap., no. 25, p. 82, pl. 13, figs. 7-13, text-fig. 1
Holotype: KSG3041 (pl. 13, figs. 7-9), Paratypes: KSG3042, KSG3043 (pl. 13, fig. 11)
Loc. M-39, the left bank of the River Kajisako, a tributary to the River Monobe from southward to Odochi, Monobe-mura, Kami-gun, Kumamoto Prefecture
Nagase Formation in Monobe area
Lower Cenomanian, Cretaceous
(*Pterotrigonia* (*Pterotrigonia*) *monobeana* Tashiro and Kozai by Tashiro (1992))
- Pterotrigonia* (*Pterotrigonia*) *monobeana* Tashiro and Kozai see *Pterotrigonia* (*Scabrotrigonia*) *monobeana* Tashiro and Kozai, 1982
- Pterotrigonia moriana* (Yehara) see *Trigonia moriana* Yehara, 1927
- Pterotrigonia* (*Acanthotrigonia*) *moriana* (Yehara) see *Trigonia moriana* Yehara, 1927
- Pterotrigonia* (?*Scabrotrigonia*) *moriana* (Yehara) see *Trigonia moriana* Yehara, 1927
- Pterotrigonia* (*Pterotrigonia*) *moriana* (Yehara) see *Trigonia moriana* Yehara, 1927
- Pterotrigonia* (*Scabrotrigonia*) *obsoleta* (Nakano) see *Scabrotrigonia obsoleta* Nakano, 1958
- Pterotrigonia* (*Pterotrigonia*) *obsoleta* (Nakano) see *Scabrotrigonia obsoleta* Nakano, 1958
- Pterotrigonia* (*Acanthotrigonia*) *ogawai* (Yehara) see *Trigonia ogawai* Yehara, 1923
- Pterotrigonia* (*Ptilotrigonia*) *ogawai* (Yehara) see *Trigonia ogawai* Yehara, 1923
- Pterotrigonia pocilliformis* (Yokoyama) see *Trigonia pocilliformis* Yokoyama, 1891
- Pterotrigonia* (*Pterotrigonia*) *pocilliformis* (Yokoyama) see *Trigonia pocilliformis* Yokoyama, 1891
- Pterotrigonia pocilliformis* var. *yamanokamiensis* Kobayashi and Nakano, 1957
Japan. Jour. Geol. Geogr., vol. 28, no. 4, p. 229, pl. 16, figs. 8-10
Holotype: UMUT MM4453 (pl. 16, fig. 8), Paratypes: UMUT MM4454 (pl. 16, fig. 9), UMUT MM4455 (pl. 16, fig. 10)
Yamanokai of Nagano near Sakawa-machi, Takaoka-gun, Kochi Prefecture
Ryoseki Group (Yamanokami Formation) in Sakawa area
Barremian, Cretaceous
(Synonymous with *Pterotrigonia* (*Pterotrigonia*) *pocilliformis* (Yokoyama) by Hayami (1975))
- Pterotrigonia* (*Pterotrigonia*) *pocilliformis* (Yokoyama) see *Pterotrigonia pocilliformis* var. *yamanokamiensis* Kobayashi and Nakano, 1957
- Pterotrigonia* (?*Scabrotrigonia*) *pseudomoriana* Tashiro and Matsuda, 1986
Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 7, p. 16, pl. 1, figs. 12-13, text-fig. 16
Holotype: KSG3474 (pl. 1, figs. 12-13)
Okho about 1500 m south of Ryoseki, Tosayamada-machi, Kami-gun, Kochi Prefecture
Monobe Formation in Ryoseki area
Barremian, Cretaceous
- Pterotrigonia* (*Acanthotrigonia*) *pustulosa* (Nagao) see *Trigonia pustulosa* Nagao, 1930
- Pterotrigonia* (?*Scabrotrigonia*) *pustulosa* (Nagao) see *Trigonia pustulosa* Nagao, 1930

- Pterotrigonia* (*Pterotrigonia*) *pustulosa* (Nagao) see *Trigonia pustulosa* Nagao, 1930 (Azuma-mchi, Izumi-gun), Kagoshima Prefecture Goshonoura Group in Nagashima area Middle Cenomanian, Cretaceous
- Pterotrigonia sakakurai* (Yehara) see *Trigonia sakakurai* Yehara, 1923
- Pterotrigonia* (*Pterotrigonia*) *sakakurai* (Yehara) see *Trigonia sakakurai* Yehara, 1923
- Pterotrigonia* (*Pterotrigonia*) *takahatensis* Tashiro and Tanaka, 1992
Res. Rep. Kochi Univ., vol. 41, p. 148, pl. 2, figs. 13-20
Holotype: KSG4392 (pl. 2, fig. 14), Paratypes: KSG4393 (pl. 2, fig. 17), KSG4394 (pl. 2, fig. 19), KSG4395 (pl. 2, fig. 20), KSG4396 (pl. 2, fig. 13), KSG4397 (pl. 2, fig. 15)
Loc. TK01 (Holotype and Paratypes: KSG4392, KSG4394), about 700 m northwest of Takahata, Loc. TK02 (Paratype: KSG4397), about 800 m northwest of Takahata, and Loc. TK03 (Paratypes: KSG4393, KSG4395), about 600 m southwest of Kubo, Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture
Takahata Formation in Gokase area
Albian, Cretaceous
- Pterotrigonia* (*Ptilotrigonia*) *tamurai* Tashiro and Matsuda, 1983
Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 4, p. 47, pl. 4, figs. 14-17, pl. 5, figs. 1-3, pl. 13, figs. 1-3, text-fig. 23
Holotype: KSG3315 (pl. 4, figs. 14, 15), Paratypes: KSG3353 (pl. 13, figs. 1, 2), KSG3354 (pl. 13, fig. 3), KSG3317 (pl. 4, fig. 16), KSG3298 (pl. 5, fig. 1)
Yunokuchi and 300 m east of Hegushi, Shishijima Island, Azuma-machi, Izumi-gun, Kagoshima Prefecture
Goshonoura Group in Shishijima area
Cenomanian, Cretaceous
- Pterotrigonia* (*Ptilotrigonia*) *tanakai* Tashiro and Matsuda, 1985
Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 5-6, p. 9, pl. 2, fig. 10
Holotype: KSG3444 (pl. 2, fig. 10)
Loc.2 at the northeast of Kamikoshigoe, Honjo-mura, Minamiyamabe-gun, Oita Prefecture
Sukubo Formation in Haidateyama area
Upper Albian, Cretaceous
- Pterotrigonia* (*Ptilotrigonia*) *usuiensis* Tashiro and Matsuda, 1983
Mem. Fac. Sci. Kochi Univ., ser. E, Geol., vol. 4, p. 46, pl. 4, figs. 1-5, pl. 13, figs. 4-7, text-fig. 22
Holotype: KSG3295 (pl. 4, figs. 12), Paratypes: KSG3296 (pl. 4, fig. 4), KSG3297 (pl. 4, fig. 3), KSG3355 (pl. 13, fig. 5), KSG3356 (pl. 13, fig. 7)
At the southern seashore of Usui, Nagashima Island, (Azuma-mchi, Izumi-gun), Kagoshima Prefecture Goshonoura Group in Nagashima area Middle Cenomanian, Cretaceous
- Pterotrigonia* (*Rinetrigonia*) *yeharai* Nakano and Numano, 1961
Trans. Proc. Palaeont. Soc. Japan, N.S., no. 43, p. 95, pl. 13, figs. 1, 2
Holotype: IGSH NM3028a (pl. 13, fig. 2), Paratype (Yehara's specimen): UK JM10163
Enokuchi of Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture
Goshonoura Group in Goshonoura area
Albian (?)–Cenomanian (Lower Cenomanian or ?Middle Cenomanian by Tashiro (1983)), Cretaceous
- Acanthotrigonia yeharai* (Nakano and Numano) by Tamura (1968); *Pterotrigonia* (*Acanthotrigonia*) *yeharai* Nakano and Numano by Hayami (1975); *Pterotrigonia* (*Pterotrigonia*) *yeharai* Nakano and Numano by Tashiro (1992))
- Pterotrigonia* (*Acanthotrigonia*) *yeharai* Nakano and Numano see *Pterotrigonia* (*Rinetrigonia*) *yeharai* Nakano and Numano, 1961
- Pterotrigonia* (*Pterotrigonia*) *yeharai* Nakano and Numano see *Pterotrigonia* (*Rinetrigonia*) *yeharai* Nakano and Numano, 1961
- Pterotrigonia yokoyamai* (Yehara) see *Trigonia yokoyamai* Yehara, 1915
- Pterotrigonia* (*Pterotrigonia*) *yokoyamai* (Yehara) see *Trigonia yokoyamai* Yehara, 1915
- Ptychomya densicostata* Nagao, 1934
Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 224, pl. 28, fig. 4
Lectotype designated by Hayami (1965, p. 141): GMH no. 6611 (pl. 28, fig. 4)
Northern coast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
Hiraiga Formation in Tanohata area
Aptian, Cretaceous
- Ptychomya hasei* Tanaka and Tashiro, 1996
Mem. Fac. Educ. Kumamoto Univ., nat. sci., no. 45, p. 31, pl. 4, figs. 5-9
Holotype: KSGT0093 (pl. 4, fig. 5), Paratypes: KSGT0094 (pl. 4, fig. 7), KSGT0095 (pl. 4, fig. 6)
Loc. OS03 about 1.9 km southeast of Osaka, Mie-machi, Ono-gun, Oita Prefecture
Osaka Formation in Osaka area
Upper Barremian – Lower Aptian, Cretaceous

***Ptychomya hayamii* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 114, pl. 5, figs. 13-15, text-fig. 1A, 1B

Holotype: GK.H6512, Paratypes: KSG4299 (pl. 5, fig. 15), KSG4300, KSG4301 (pl. 5, fig. 13), KSG4302 (pl. 5, fig. 14) Ichinose-bashi of Sebayashi, south of Kagahara, Nakazato-mura, Tano-gun, Gumma Prefecture
Ishido Formation in Sanchu area
Upper Hauterivian or Barremian, Cretaceous

***Pulsidis angularis* Kozai, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 144, p. 483, pl. 95, figs. 17-21

Holotype: KSG-K022 (pl. 95, fig. 19), Paratypes: KSG-K014 (pl. 95, fig. 21), KSG-K017 (pl. 95, fig. 20), KSG-K018, KSG-K019, KSG-K020, KSG-K021 (pl. 95, fig. 18), KSG-K023, KSG-K024, KSG-K025

Loc. 2, roadside exposure, near Yamabagoe, about 2 km west from the center of Ofunato City, Iwate Prefecture
Funagawa Formation in Ofunato area.
Hauterivian, Cretaceous

Pulsidis higoensis* (Matsumoto) see *Aloidis* (*Caryocorbula*) *higoensis* Matsumoto, 1938**Pulsidis nagatoensis* Ohta, 1964**

Mem. Fac. Sci. Kyushu Univ., ser. D, Geol., vol. 15, no. 1, p. 150, pl. 20, figs. 1-14, 25, text-fig. 1

Holotype: GT.Y6301 (pl. 20, fig. 1), Paratypes: GT.Y6322 (pl. 20, fig. 9), GT.Y6323 (pl. 20, figs. 5a, b), GT.Y6303 (pl. 20, fig. 7), GT.Y6305, GT.Y6314 (pl. 20, fig. 4), GT.Y6316 (pl. 20, fig. 14)

The coastal region of Yoshimo, Shimonoseki City, Yamaguchi Prefecture (34 °05'N, 130 °52'E)
Yoshimo Formation in Shimonoseki area
Lower Cretaceous (probably Lower Neocomian)

***Pulsidis okadai* Ohta, 1964**

Mem. Fac. Sci. Kyushu Univ., ser. D, Geol., vol. 15, no. 1, p. 152, pl. 20, figs. 15-24, text-fig. 2

Holotype: GT.M6365 (pl. 20, fig. 15), Paratypes: GT.M6377 (pl. 20, fig. 22), GT.M6380 (pl. 20, fig. 16), GT.M6382 (pl. 20, fig. 19)

About 300 m east of Kawachida, Masiki-machi, Kamimashiki-gun, Kumamoto Prefecture (32 °47'N, 130 °52'E)

Mifune Group in Mifune Group
Cenomanian, Cretaceous

***Pulsidis rostrata* Kozai, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 144, p. 486, pl. 95, figs. 10-16

Holotype: KSG-K026 (pl. 95, fig. 12), Paratypes: KSG-K028, KSG-K029 (pl. 95, fig. 10), KSG-K030, KSG-K031 (pl. 95,

fig. 11), KSG-K032, KSG-K033, KSG-K034, KSG-K035, KSG-K036 (pl. 95, fig. 14), KSG-K037, KSG-K098 (pl. 95, fig. 13), KSG-K099 (pl. 95, fig. 15)

Loc.6 (holotype and KSG-K028, KSG-K029, KSG-K032, KSG-K033, KSG-K034, KSG-K035, KSG-K036), dam site of Hibihara, Kahoku-machi, Kami-gun, Kochi Prefecture; Loc.8 (KSG-K030, KSG-K031, KSG-K037), about 500 m south of Kawanouhi, Monobe-mura, Kami-gun, Kochi Prefecture

Hibihara Formation in Monobe area
Lower Aptian, Cretaceous

***Pulsidis sanchuensis* Kozai, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 144, p. 484, pl. 95, figs. 22-30

Holotype: KSG-K086 (pl. 95, fig. 30), Paratypes: KSG-K087 (pl. 95, fig. 27), KSG-K088 (pl. 95, fig. 24), KSG-K089 (pl. 95, fig. 25)

East side of the River Mamozawa, near Sebayashi, south of Kagahara, Nakazato-mura, Tano-gun, Gunma Prefecture
Sebayashi Formation in Sanchu area
Upper Barremian or Lower Aptian, Cretaceous

***Pulsidis tashiroi* Kozai, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 144, p. 485, pl. 95, figs. 5-9

Holotype: KSG-K042 (pl. 95, fig. 7), Paratypes: KSG-K038 (pl. 95, fig. 8), KSG-K039A (pl. 95, fig. 5), KSG-K039B (pl. 95, fig. 9), KSG-K044, KSG-K045, KSG-K046 (pl. 95, fig. 6), KSG-K047, KSG-K048, KSG-K049

Loc.7, river side outcrop of Todoronotaki, near Yunoki, Kahoku-machi, Kami-gun, Kochi Prefecture
Yunoki Formation in Monobe area
Barremian, Cretaceous

Rastellum* (*Arctostrea*) *carinatum* (Lamarck) see *Alectryonia* cf. *carinata* Lamarck: Yokoyama (1890)**Resatrix bungoensis* Tashiro and Tanaka, 1996**

Mem. Fac. Educ. Kumamoto Univ., nat. sci., no. 45, p. 35, pl. 5, figs. 1-4, pl. 6, fig. 7

Holotype: KSGT0101 (pl. 5, fig. 3), Paratypes: KSGT0102 (pl. 5, fig. 2), KSGT0103, KSGT0104 (pl. 6, fig. 7)

Loc. OS06, about 2.2 km east-southeast of Osaka, Mie-machi, Ono-gun, Oita Prefecture
Osaka Formation in Mie area
Upper Barremian – Lower Aptian, Cretaceous

***Resatrix* (*Vectorbis*) *japonica* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 138, pl. 4, figs. 1-10, text-figs. 9, 13 (5-8)

Holotype: KSG4103 (pl. 4, fig. 4), Paratypes: KSG4104 (pl. 4, fig. 10), KSG4105 (pl. 4, fig. 7), KSG4106 (pl. 4, fig. 1), KSG4107 (pl. 4, fig. 5), KSG4108, KSG4109 (pl. 4, fig. 2),

KSG4110 (pl. 4, fig. 6), KSG4111 (pl. 4, fig. 3), KSG4112 (pl. 4, fig. 8), KSG4113 (pl. 4, fig. 9)
Hibihara, Kahoku-cho, Kami-gun, Kochi Prefecture
Basal part of the Hibihara Formation in Monobe area
Aptian, Cretaceous

***Resatrix (Vectorbis) miyazakiensis* Tashiro and Tanaka, 1992**

Res. Rep. Kochi Univ., vol. 41, p. 152, pl. 3, figs. 6-11
Holotype: KSG4358 (pl. 3, fig. 11), Paratypes: KSG4359 (pl. 3, figs. 9, 10), KSG4360 (pl. 3, fig. 8), KSG4361 (pl. 3, fig. 6), KSG4362 (pl. 3, fig. 7)
Loc. TK01 (Paratype: KSG4359), about 700 m northwest of Takahata, and Loc. TK03 (Holotype and other Paratypes), about 600 m southwest Kubo, Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture
Takahata Formation in Gokase area
Albian, Cretaceous

***Resatrix (Resatrix) suzukii* Hayami, 1983**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 120, p. 434, pl. 51, figs. 19-22
Holotype: UMUT MM9771 (pl. 51, fig. 20), Paratypes: UMUT MM9772 (pl. 51, fig. 22), UMUT MM9773 (pl. 51, fig. 21), UMUT MM9774 (pl. 51, fig. 19), UMUT MM9775, UMUT MM9776, UMUT MM9777, UMUT MM9778
Northern coast of Kimigahama, about 1 km north of the Cape Inubo-zaki, Choshi City, Chiba Prefecture (35°42'54"N, 140°52'24"E)
Choshi Group (Middle part of Kimigahama Formation) in Choshi area
Barremian, Cretaceous

***Rutitrigonia sanchuensis* (Nakano) see *Psilotrigonia sanchuensis* Nakano, 1957**

***Rutitrigonia yeharai* Kobayashi, 1954 (nom. nov.)**

Japan. Jour. Geol. Geogr., vol. 25, nos. 1-2, p. 77
(see *Trigonia neumayri* Yehara, 1923)

***Scabrotrigonia imanishii* Nakano, 1958**

Jour. Sci. Hiroshima Univ., ser. C, vol. 2, no. 3, p. 230, pl. 29, figs. 1-4
Holotype: NM.Sc-i.01 (pl. 29, fig. 1), Paratypes: NM.Sc-i.02 – 04
Horombetsu, Utanobori-mura, Esashi-gun, Hokkaido
Horombetsu Formation in Esashi area
Aptian – Albian (Lower Cenomanian by Tashiro (1983)), Cretaceous
(*Pterotrigonia (Scabrotrigonia) imanishii* (Nakano) by Hayami (1975); *Pterotrigonia (Pterotrigonia) imanishii* (Nakano) by Tashiro (1992))

***Scabrotrigonia kobayashii* Nakano, 1958**

Jour. Sci. Hiroshima Univ., ser. C, vol. 2, no. 3, p. 231, pl. 29, figs. 6-7
Holotype: NM.Sc-k.01 (pl. 29, fig. 6), Paratype: NM.Sc-k.02
Katsuurazawa, Ikushunbets, Mikasa City, Hokkaido
Middle Yezo Group (Mikasa sandstone) in Mikasa area
Cenomanian-Turonian (Middle Cenomanian by Tashiro (1983)), Cretaceous
(*Pterotrigonia (Scabrotrigonia) kobayashii* (Nakano) by Hayami (1975); *Pterotrigonia (Pterotrigonia) kobayashii* (Nakano) by Tashiro (1992))

***Scabrotrigonia obsoleta* Nakano, 1958**

Jour. Sci. Hiroshima Univ., ser. C, vol. 2, no. 3, p. 230, pl. 29, fig. 5
Holotype: NM.Sc-o.01 (pl. 29, fig. 5)
Kurosaki, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture
Goshonoura Group (IIB member by Matsumoto (1938) in Goshonoura area
Albian (?)–Cenomanian (Uppermost Albian by Tashiro (1983)), Cretaceous
(*Pterotrigonia (Scabrotrigonia) obsoleta* (Nakano) by Hayami (1975); *Pterotrigonia (Pterotrigonia) obsoleta* (Nakano) by Tashiro (1992))

***Scittila dericatosriata* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, p. 63, pl. 3, figs. 17-18
Holotype: KSG4121 (pl. 3, fig. 17)
Igenoki, Tosayamada-machi, Kami-gun, Kochi Prefecture
Igenoki Formation in Ryoseki area
Upper Barremian or Lower Aptian, Cretaceous

***Scittila japonica* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 17, no. 2, p. 126, pl. 18, fig. 1
Holotype: GK.H6533 (pl. 18, fig. 1), Paratype: GK.H6534
Loc. Hy.5003 at Hiroyasu, Katsuura-machi, Katsuura-gun, Tikushima Prefecture
Hanoura Formation in Katsuura area, and Monobe Formation in Monobe area
Upper Neocomian-Aptian (Upper Hauterivian or Lower Barremian by Tashiro and Kozai (1988)), Cretaceous

***Senis japonica* Tashiro, 1978**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 112, p. 430, pl. 54, figs. 6-10, text-fig. 6
Holotype: KE2786 (pl. 54, fig. 6), Paratypes: KE2787 (pl. 54, fig. 8), KE2788 (pl. 54, fig. 10), KE2789 (pl. 54, fig. 9), KE2790 (pl. 54, fig. 7)
Panketosanosawa of Tomiuchi, (Hobetsu-machi, Yufutsu-gun), Iburi District, Hokkaido
Hakobuchi Group in Hetonai area
Upper Hetonaiian (Maastrichtian), Cretaceous

***Septifer cressentiformis* Tamura, 1976**

Mem. Fac. Educ. Kumamoto Univ., no. 25, nat. sci., p. 55, pl. 3, figs. 11-16

Holotype: KE2396 (pl.3, fig. 12)

Loc. 24, at Tsubumugi, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Middle Cenomanian, Cretaceous

***Septifer mifunensis* Tamura, 1976**

Mem. Fac. Educ. Kumamoto Univ., no. 25, nat. sci., p. 54, pl. 2, figs. 1-18

Holotype: KE2350 (pl. 2, fig. 1)

Loc. 37, north of Subayashi, Toyono-mura, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Middle Cenomanian, Cretaceous

***Septifer ushibukensis* Tashiro and Otsuka, 1980**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 1, p.51, pl. 3, figs. 3-9, text-fig. 5

Holotype: KSG2183 (pl. 3, fig. 6), Paratypes: KSG2184 (pl. 3, fig. 4), KSG2185, KSG2186 (pl. 3, fig. 5), KSG2187 (pl. 3, fig. 3), KSG2188, KSG2189 (pl. 3, fig. 7), KSG2190 (pl. 3, fig. 8), KSG2191

Katsuzaki beach of Kutama-machi, Ushibuka City, Kumamoto Prefecture

Uppermost Formation of the Upper Himenoura Subgroup in Amakusa-Shimajima area

Paleocene, Tertiary or Maastrichtian, Cretaceous

Sergipia akamatsui* (Yehara) see *Inoceramus Akamatsui* Yehara, 1924**Shahmaticeramus kusiroensis* (Nagao and Matsumoto) see *Inoceramus kusiroensis* Nagao and Matsumoto, 1940*****Shahmaticeramus shikotanensis* (Nagao and Matsumoto) see *Inoceramus shikotanensis* (Inai MS.) Nagao and Matsumoto, 1940*****Solemya angusticaudata* Nagao, 1932**

Jour. Fac. Sci., Hokkaido Imp.Univ., Ser. 4, Vol. 2, no. 1, p. 25, pl. 5, fig. 7

Holotype: GMH no.4568 (pl. 5, fig. 7)

The outcrop exposed along the upper course of the Ikushumbetsu, Mikasa City, Ishikari Province, Hokkaido

Upper Yezo Group in Ikushunbetsu area

Coniacian-Maastrichtian, Cretaceous

***Somapecten kamanensis* Kimura, 1951**

Jour. Fac. Sci. Univ. Tokyo., sec. 2, vol. 7, nos. 6-10, p. 62, pl. 6, figs. 50-55

Holotype: UMUT MM7119 (pl. 1, fig. 19a, b), Paratype:

UMUT MM7120 (pl. 1, fig. 20)

Yasukurazawa, Kashima-machi, Soma-gun, Fukushima Prefecture

Soma Group (Nakanosawa Formation) in Soma area

Upper Jurassic (Uppermost Jurassic - Valanginian, Cretaceous)

***Sphenoceramus cristatus* Toshimitsu, 1988**

Mem. Fac. Sci., Kyushu Univ., Ser. D, vol. 26, no. 2, p. 145, pl. 27, figs. 6-7

Holotype: GK.H8166 (figs. 7a-c); Paratypes: GK.H8141, GK.H8142, GK.H8143, GK.H8144, GK.H8145, GK.H8146, GK.H8147, GK.H8148, GK.H8149, GK.H8150, GK.H8151, GK.H8152, GK.H8153, GK.H8154, GK.H8155, GK.H8156, GK.H8157, GK.H8158, GK.H8159, GK.H8160, GK.H8161, GK.H8162, GK.H8163, GK.H8164, GK.H8165, GK.H8167, GK.H8168, GK.H8171, GK.H8172, GK.H8173, GK.H8174, GK.H8175, GK.H8176, GK.H8177, GK.H8178, GK.H8179, GK.H8180, GK.H8181, GK.H8182, GK.H8183, GK.H8184, GK.H8185, GK.H8186, GK.H8187, GK.H8188, GK.H8189

Locs. RK3020 (Holotype and GK.H8165, GK.H8184, GK.H8185), RK0011 (GK.H8152-GK.H8153, GK.H8173-GK.H8175), RK0017 (GK.H8176), RK3002p2 (GK.H8177), RK3009p1 (GK.H8178), RK3011 (GK.H8179-GK.H8181, GK.H8189), RK3014p1 (GK.H8154-GK.H8156), RK3015 (GK.H8157-GK.H8160, GK.H8182), RK3015p2 (GK.H8161-GK.H8162), RK3018 (GK.H8163-GK.H8164), RK3019 (GK.H8183), RK3206 (GK.H8186-GK.H8187), RK3218 (GK.H8167-GK.H8168, GK.H8188) in the Kotanbetsu area, Tomamae-cho, Tomamae-gun, Hokkaido; Locs. RH346p6 (GK.H8141-GK.H8143), RH2532 (GK.H8144), RH7176 (GK.H8145-GK.H8150, GK.H8172), RH7311 (GK.H8151) in the Haboro area, Haboro-cho, Tomamae-gun, Hokkaido; KTA008 (GK.H8171, GK.H8176) in the Saku area, Nakagawa-cho, Nakagawa-gun Hokkaido, Japan

Upper part of Upper Haborogawa Formation, Upper Yezo Group

Lower Campanian, Cretaceous

Sphenoceramus elegans pseudosulcatus* (Nagao and Matsumoto) by see *Inoceramus pseudosulcatus* (Otatume MS.) Nagao and Matsumoto, 1940**Sphenoceramus haboroensis* Toshimitsu, 1988**

Mem. Fac. Sci., Kyushu Univ., Ser. D, vol. 26, no. 2, p. 148, pl. 27, figs. 12a-b

Holotype: GK.H8198 (figs. 12a, b)

Loc. RH7176 on the Detofutamata-gawa, a tributary of the River Haboro, Haboro-cho, Tomamae-gun, Hokkaido, Japan

Upper part of the Haborogawa Formation, Upper Yezo Group

Lower Campanian, Cretaceous

***Sphenoceramus hetonaianus* (Matsumoto) see *Inoceramus hetonaianus* Matsumoto, in Tanaka, Matsumoto and Mayeda, 1952**

***Sphenoceramus kiritachiensis* Toshimitsu, 1988**

Mem. Fac. Sci., Kyushu Univ., Ser. D, vol. 26, no. 2, p. 148, pl. 27, figs. 13a-c

Holotype: GK.H8201a (figs. 13a-c); Paratypes: GK.H8201b, GK.H8202, GK.H8203

Loc. RK0011 (Holotype and GK.H8201b) on the River Kotanbetsu, Tomamae-cho, Tomamae-gun, Hokkaido; Loc. RH5007 on the Chimei-zawa, Loc. RH7176 (GK.H8203) on the Detofutamata-gawa, tributaries of the River Haboro, Haboro-cho, Tomamae-gun, Hokkaido, Japan

Upper part of the Upper Haborogawa Formation, Upper Yezo Group

Lower Campanian, Cretaceous

Sphenoceramus nagaoi* (Matsumoto and Ueda) see *Inoceramus orientalis* Sokolow var. *ambiguus* Nagao and Matsumoto, 1940**Sphenoceramus naumanni* (Yokoyama) see *Inoceramus Naumanni* Yokoyama, 1890*****Sphenoceramus pseudosulcatus* (Nagao and Matsumoto) see *Inoceramus pseudosulcatus* (Otatume MS.) Nagao and Matsumoto, 1940*****Sphenoceramus sanrikuensis* Matsumoto and Sugiyama, 1985**

Proc. Japan Acad., vol. 61, ser. B, no. 3, p. 107, fig. 2

Holotype: IPMM 40688 (figs. 2A-D); Paratypes: IPMM 40689, IPMM 40690, IPMM 40693, IPMM 40699, IPMM 40696, IPMM 40697, IPMM 40695

An outcrop near Taneichi, (Taneichi-cho, Kunohe-gun), Iwate Prefecture, Japan

Upper part of the Okonai Member, the Taneichi Formation

Upper Santonian (lower Campanian, Cretaceous)

(Probably synonymous with *Sphenoceramus naumanni* (Yokoyama))

Sphenoceramus? yokoyamai* (Nagao and Matsumoto) see *Inoceramus yokoyamai* Nagao and Matsumoto, 1940**Sphenoceramus yokoyamai* (Nagao and Matsumoto) see *Inoceramus yokoyamai* Nagao and Matsumoto, 1940*****Spisula (Cymbophora) ezoensis* Yabe and Nagao, 1928**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 91, pl. 16, figs. 5-10

Syntype: IGPS no.22614

The upper course of the Ponnebetsu, Manji, (Kurisawa-cho, Sorachi-gun), Ishikari Prov., Hokkaido

Middle Yezo Group in Manji area

Cenomanian - Campanian, Cretaceous

(*Cymbophora ezoensis* (Yabe and Nagao) by Hayami (1975))

***Spisula (Cymbophora) ezoensis* Yabe and Nagao var. *hetonaiensis* Nagao and Otatume, 1938**

Jour. Fac. Sci., Hokkaido Imp. Univ., Ser. 4, vol. 4, no. 1-2, p. 47, pl. 2, figs. 3, 3a

Lectotype: GMH no.5975 (pl. 2, fig. 3)

Osatinai, (Biratori-cho), Saru-gun, Hokkaido

Hakobuchi Group in Osatinai area

Cenomanian-Campanian, Cretaceous

(*Cymbophora hetonaiensis* (Nagao and Otatume) by Tashiro (1976))

***Spisula (Cymbophora?) tellinoides* Nagao and Otatume, 1938**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p. 49, pl. 2, fig. 8

Lectotype designated by Hayami (1975, p. 134): GMH no.5945 (pl. 2, fig. 8)

Sanusubezawa, Nakahobetsu, (Hobetsu-cho, Yufutsu-gun), Hidaka Prov., Hokkaido

Hakobuchi Formation in Hobetsu area

Campanian, Cretaceous

(*Cymbophora? tellinoides* (Nagao and Otatume) by Hayami (1975))

***Spondylus (Spondylus) amanoi* Hayami, 1975 (nom. nov.)**

Univ. Mus. Univ. Tokyo, Bull., no. 10, p. 84

(see *Spondylus japonicus* Amano and Marui, 1958)

***Spondylus decoratus* Nagao, 1934**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 2, no. 3, p. 210, pl. 27, figs. 2, 5-7

Lectotype designated by Hayami (1965, p. 324): GMH no.6818 (pl. 27, fig. 6)

Loc. Hn.2065 at Hideshima (Sakiyama), Miyako City, Iwate Prefecture

Tanohata and Hiraiga Formations in Miyako, Omoto and Tanohata areas

Aptian, Cretaceous

(*Spondylus (Spondylus) decoratus* Nagao by Hayami (1975))

Spondylus (Spondylus) decoratus* see *Spondylus decoratus* Nagao, 1934**Spondylus japonicus* Amano and Marui, 1958**

Kumamoto Jour. Sci., ser. B, sec.1, vol. 3, no. 1, p. 27, pl. 2, figs. 1, 2

Holotype: UMUT MM6468 (pl. 2, fig. 1), Paratype: UMUT MM6469 (pl. 2, fig. 2)

Hatsutanizawa, Nakagomi (Uchiyama), (Saku City), Nagano Prefecture

Unnamed formation in Nakagomi area

Upper Cretaceous (precisely unknown)

(New name as *Spondylus (Spondylus) amanoi* Hayami by

Hayami (1975) because of a junior homonym of *Spondylus japonicus* Kuroda, 1932)

***Spondylus pseudocalcaratus* Tashiro, 1976**

Palaeont. Soc. Japan, Sp. Pap., no.19, p. 54, pl. 5, figs. 1-9, text-fig. 19

Holotype: KE2115 (pl. 5, fig. 2), Paratypes: KE2116 (pl. 5, fig. 5), KE2117 (pl. 5, fig. 4), KE2118 (pl. 5, fig. 3), KE2119 (pl. 5, fig. 1), KE2120 (pl. 5, fig. 7)

Loc.A7 (Holotype and Paratypes: KE2117-KE21120) at Matsugahama of Takagushi, and Loc. A1 (Paratype: KE2116), south-eastern seashore of Kugujima islet, Takado, Ryugadake-machi, Amakusa-gun, Kagoshima Prefecture

Lower Formation of the Lower Himenoura Subgroup in Amakusa-Kamijima, Kumamoto and Uto areas

Upper Urakawan (Santonian), Cretaceous

***Steinmanella ainuana* (Yabe and Nagao) see *Trigonia ainuana* Yabe and Nagao, 1928**

***Steinmanella (Yeharella) deckeina* (Kubota) see *Trigonia deckeina* Kubota, 1952**

***Steinmanella (Yeharella) japonica* (Yehara) see *Trigonia japonica* Yehara, 1923**

***Steinmanella (Yeharella) japonica* var. *obsoleta* Kobayashi and Amano, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 3-4, p. 202, pl. 14, figs. 4-5

Syntype: UMUT MM4417 (pl. 14, fig. 14), UMUT MM4418 (pl. 14, fig. 5a, b)

Imuta (UMUT MM4417) in Kashima-mura and Tairajima (UMUT MM4418) in Kamikoshiki-mura, Satsuma-gun, Kagoshima Prefecture

Middle Formation of the Upper Himenoura Subgroup in Koshikijima area.

Lower Hetonian (Upper Campanian), Cretaceous

***(Steinmanella (Yeharella) japonica obsoleta* Kobayashi and Amano by Tashiro (1976); *Yaadia obsoleta* (Kobayashi and Amano) by Tashiro and Morozumi (1982))**

***Steinmanella (Yeharella) japonica obsoleta* Kobayashi and Amano see *Steinmanella (Yeharella) japonica* var. *obsoleta* Kobayashi and Amano, 1955**

***Steinmanella (Yeharella) jimboi* Kobayashi and Amano, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 3-4, p. 204, pl. 13, fig. 4

Holotype: UMUT MM4420 (pl. 13, fig. 4)

The Ponbetsu river (in the Ikushumbetsu area, Mikasa City), Hokkaido (not Yubari area as originally described)

Middle Yezo Group in Ikushumbetsu area

Cenomanian – Turonian, Cretaceous

***(Yaadia jimboi* (Kobayashi and Amano) by Tashiro (1992))**

***Steinmanella kimurai* (Tokunaga and Shimizu) see *Trigonia kimurai* Tokunaga and Shimizu, 1926**

***Steinmanella (Yeharella) kimurai* (Tokunaga and Shimizu) see *Trigonia kimurai* Tokunaga and Shimizu, 1926**

***Steinmanella (Yeharella) kimurai kimurai* (Tokunaga and Shimizu) see *Trigonia kimurai* Tokunaga and Shimizu, 1926**

***Steinmanella (Yeharella) kimurai* (Tokunaga and Shimizu) subspecies *sanukiensis* Nakano, 1958**

Jour. Sci. Hiroshima Univ., ser. C, vol. 2, no. 2, p. 86, pl. 13, figs. 1a-c

Holotype: IGSH NM.S.Y.00001 (figs. 1a, b, c)

Kamikashiwara, Sogisho-mura (Ayakami-cho), Ayauta-gun, Kagawa Prefecture

Izumi Group (Korobishi formation) in Ayauta area

Campanian, Cretaceous

***(Steinmanella (Yeharella) kimurai sanukiensis* Nakano by Hayami (1975))**

***Steinmanella (Yeharella) lymani* Kobayashi and Amano, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 3-4, p. 203, pl. 13, figs. 3a-b

Holotype: UMUT MM4419 (pl. 13, figs. 3a-b)

A boulder on a branch of Hoe river, south Saghalin, (Russia)

Middle Yezo Group in Ikushumbetsu, Yubari and Hoe river areas

Cenomanian – Turonian., Cretaceous

***(Yaadia lymani* (Kobayashi and Amano) by Tashiro and Morozumi (1982))**

***Steinmanella (Setotrigonia) shinoharai* Kobayashi and Amano, 1955**

Japan. Jour. Geol. Geogr., vol. 26, nos. 3-4, p. 207, pl. 15, figs. 1-3

Holotype: UMUT MM4424 (pl. 15, fig. 1), Paratypes: UMUT MM4425 (pl. 15, fig. 2), UMUT MM4426 (pl. 15, fig. 3)

A point southwest of Tsubasayama, Hiketa-machi, Ookawa-gun, Kagawa Prefecture

Izumi Group.in Hiketa area

Campanian, Cretaceous

***(Yaadia shinoharai* (Kobayashi and Suzuki) by Tashiro and Morozumi (1982))**

***Tendagurium seikaianum* Amano, Ogata and Nire, 1958**

Kumamoto Jour. Sci., ser. B, sec.1, vol. 3, no. 1, p. 19, pl. 1, figs. 1-5

Holotype: KU not registered (pl. 1, fig. 1)

At the sea coast of Tateishi, Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture
Goshonoura Group in Shishijima area
Cenomanian, Cretaceous
(*Intergricardium? seikaianum* (Amano, Ogata and Nire) by Hayami (1975))

***Tenea japonica* Ichikawa and Maeda, 1963**

Jour. Geosci. Osaka City Univ., vol. 7, art. 5, p. 131, pl. 11, figs. 1, 2a-b, 3, 4
Holotype: OCU MM331 (pl. 11, fig. 2)
Loc. 51a at the west of Hansanji, Seidan-machi, Mihara-gun, Hyogo Prefecture
Izumi Group in Awaji island and Izumi mountains
Lower Cretaceous (Campanian) (Upper Campanian-Maastrichtian by Tashiro (1992)), Cretaceous

***Tenuipteria* (?) *awajiensis* Matsumoto see *Inoceramus awajiensis* Matsumoto, in Tanaka, Matsumoto and Mayeda, 1952**

***Teredo? matsushimaensis* Hatai, 1951**

Inst. Geol. Palaeont. Sendai, Short Paper, no. 3, p. 30, pl. 5, figs. 1-5
Lectotype designated by Hayami (1966, p. 173): IGPS no. 73697
Loc. Hn.4154 at Matsushima, off the coast of Moshi, Iwazumi-machi, Shimohei-gun, Iwate Prefecture; Loc. Hn.0017, southern coast of Hiraiga, Tanohata-mura, Shimohei-gun, Iwate Prefecture
Tanohata and Hiraiga Formations in Omoto and Tanohata areas
Lower Miyakoan (Aptian), Cretaceous

***Tetoria antiqua* (Kobayashi and Suzuki) see *Batissa antiqua* Kobayashi and Suzuki, 1937**

***Tetoria asanoyabensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 135, pl. 7, figs. 21-27.
Holotype: KE?
Loc. 8, near Asanoyabu, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture
Mifune Group in Mifune area
Middle Cenomanian, Cretaceous

***Tetoria inflata* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 136, pl. 8, figs. 1-7, pl. 13, fig. 7
Holotype: KE2629 (pl. 8, fig. 3)
Loc. 20, near Matsuo, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture
Mifune Group in Mifune area
Middle Cenomanian, Cretaceous

***Tetoria (Haidatina) koshigoensis* Ohta, 1982**

Bull. Fukuoka Univ. Educ., vol. 31, pt. 3, p. 112, pl. 1, figs. 11-19, text-fig. 5
Holotype: GF.ko227 (pl. 1, fig. 11), Paratypes: GF.ko260 (pl. 1, fig. 13), GF.ko261, GF.ko262 (pl. 1, fig. 16), GF.ko263 (pl. 1, fig. 18), GF.ko264 (pl. 1, fig. 17), GF.ko265 (pl. 1, fig. 15), GF.ko266 (pl. 1, fig. 19), GF.ko267 (pl. 1, fig. 12), GF.ko268, GF.ko269, GF.ko270 (pl. 1, fig. 14)
Koshigoe, Honjo-mura, Minamiyamabe-gun, Oita Prefecture
Koshigoe Formation in Haidateyama area
Hauterivian, Cretaceous

***Tetoria matsumotoi* Amano, 1967**

Mem. Fac. G. Ed. Kumamoto Univ., Ser. Natur. Sci., no. 2, p. 34, pl. 1, figs. 1, 3, 4, 7-11, 13
Holotype: KKY.2-5 (pl. 1, fig. 1), Paratypes: KKY.2-6 (pl. 1, fig. 9), KKY.2-7 (pl. 1, fig. 13), KKY.2-8 (pl. 1, fig. 8)
The outcrop from Hegushi to Hiratake, Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture
Goshonoura Group in Shishijima area
Cenomanian, Cretaceous

***Tetoria mifunensis* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 135, pl. 7, figs. 7-15
Holotype: KE2606 (pl. 7, fig. 10)
Loc. 24, Tsubumugi, Mifune-machi, Kamimashiki-gun, Kumamoto Prefecture
Mifune Group in Mifune area
Middle Cenomanian, Cretaceous

***Tetoria murakamii* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 137, pl. 13, figs. 1-6
Holotype: KE2639 (pl. 13, fig. 3)
Loc. 1, near Omine, Seiwa-mura, Kamimashiki-gun, Kumamoto Prefecture
Mifune Group in Seiwa area
Middle Cenomanian, Cretaceous

***Teotria sanchuensis* (Yabe and Nagao) see *Corbicula (Veloritina?) sanchuensis* Yabe and Nagao, 1926**

***Tetoria (Paracorbicula) shishijimensis* Amano, 1967**

Mem. Fac. G. Ed. Kumamoto Univ., Ser. Natur. Sci., no. 2, p. 32, pl. 1, figs. 2, 5, 6, 12
Holotype: KKY.2-1 (pl. 1, fig. 2), Paratype: KKY.2-2 (pl. 1, fig. 12), KKY.2-3 (pl. 1, fig. 6), KKY.2-4 (pl. 1, fig. 5)
The outcrop from Hegushi to Hiratake, Shishijima, Azuma-machi, Izumi-gun, Kagoshima Prefecture
Goshonoura Group in Shishi-jima area
Cenomanian, Cretaceous

***Tetoria (Haidatina) tatsukawaensis* Ohta, 1982**

Bull. Fukuoka Univ. Educ., vol. 31, pt. 3, p. 114, pl. 1, figs. 20-27, text-fig. 6

Holotype: GF.T439 (pl. 1, fig. 20), Paratypes: GF.T435 (pl. 1, fig. 21), GF.T436 (pl. 1, figs. 25, 27), GF.T437 (pl. 1, fig. 26), GF.T438 (pl. 1, fig. 24), GF.T440 (pl. 1, fig. 23)

Yanagidani, Katsuura-machi, Katsuura-gun, Tokushima Prefecture

Tatsukawa Formation Katsuura area

Hauterivian, Cretaceous

***Tetoria (Haidatina) yatsushiroensis* Ohta, 1982**

Bull. Fukuoka Univ. Educ., vol. 31, pt. 3, p. 115, pl. 2, figs. 1-6

Holotype: GF.Yt388 (pl. 2, fig. 1), Paratypes: GF.Yt389 (pl. 2, fig. 6), GF.Yt 390 (pl. 2, fig. 5), GF.Yt 391 (pl. 2, fig. 2), GF.Yt 392 (pl. 2, fig. 4), GF.Yt 393 (pl. 2, fig. 3)

At the altitude of about 320 m on an ascending path from Miyaji to Mt. Joguzan, Yatsushiro City, Kumamoto Prefecture

Yatsushiro Formation in Yatsushiro area

Albian, Cretaceous

Tetoria yokoyamai* (Kobayashi and Suzuki) see *Batissa yokoyamai* Kobayashi and Suzuki, 1937**Tetoria (Paracorbicula) yoshimoensis* Ota, 1965**

Geol. Rept. Hiroshima Univ., no. 14, p. 168, pl. 12, figs. 1-22, pl. 13, figs. 1-13

Holotype: GF Y64325 (pl. 12, fig. 1), Paratypes: GT.Y64323, GT.Y64371

Beach 500 m northwest of Yoshimo, Shimonoseki City, Yamaguchi Prefecture

Yoshimo Formation in Shimonoseki area, Tetori Group in Izuki and Furukawa areas, and Kawaguchi Formation in Tanoura area

Upper Jurassic? - Neocomian, Cretaceous

(*Tetoria* (Yoshimoa) *yoshimoensis* Ohta by Ohta (1982))

Tetoria (Yoshimoa) yoshimoensis* see *Tetoria (Paracorbicula) yoshimoensis* Ota, 1965**Thetis japonica* (Yabe and Nagao) see *Thetironia affinis* var. *japonica* Yabe and Nagao, 1928*****Thetironia affinis* var. *japonica* Yabe and Nagao, in Yabe, 1927 (nom. nud.)**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 11, no. 1, pl. 5, figs. 7

***Thetironia affinis* var. *japonica* Yabe and Nagao, 1928**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 89, pl. 17, figs. 14, 15

Syntype: IGPS no. 22605

Ponbets of the Ikushumbetsu, Mikasa City, Hokkaido Mikasa Group (Mikasa Formation) in Ikushumbetsu area Cenomanian-Turonian, Cretaceous (Thetis japonica (Yabe and Nagao) by Hayami (1975))

***Thyasia (Thyasia) himedoensis* Tashiro (1987)**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 110, p. 325, pl. 43, figs. 6-8, text-fig. 5

Holotype: KE2165 (pl. 43, figs. 6a, 6b), Paratypes: KE2773 (pl. 43, fig. 8), KE2774 (pl. 43, fig. 7)

At northern seashore of Kugushima islet of Ryugatake-machi, Amakusa-gun, Kumamoto Prefecture

Lower Formation of the Lower Himenoura Subgroup in Amakusa area

Middle Urakawan (Santonian), Cretaceous

Thyasia* (s. l.) *hataii* (Katto and Hattori) see *Aphrodina hataii* Katto and Hattori, 1964**Tosacyprina crenulata* Tashiro and Kozai, 1989**

Res. Rep. Kochi Univ., vol. 38, p. 121, pl. 1, figs. 1-4, text-figs. 2D, 4

Holotype: KSG4272, Paratypes: KSG4273 (pl. 1, fig. 3), KSG4274 (pl. 1, fig. 2), KSG4275 (pl. 1, fig. 1), KSG4276, KSG4277 (pl. 1, fig. 4), KSG4278

Shingai, Tosayamada-machi, Kami-gun, Kochi Prefecture

Monobe Formation in Monobe area

Barremian, Cretaceous

***Toucasia carinata* (Matheron) var. *orientalis* Nagao, 1932**

Proc. Imp. Acad. Tokyo, vol. 8, no. 10, p. 511

Syntype: GMH no.5707, GMH no.5776, GMH no.5779, GMH no.5781, GMH no.5782, GMH no.5784

The lower course of the Sorachi, between Ponmashiri and Shimanoshita, (Ashibetsu City), Ishikari Prov., Hokkaido

Lower Yezo Group in Sorachi area

Aptian, Cretaceous

(*Toucasia carinata orientalis* Nagao by Saito (1964))

Toucasia carinata orientalis* Nagao see *Toucasia carinata* (Matheron) var. *orientalis* Nagao, 1932**Trigonarca* (?) *obliquata* Amano, 1957**

Kumamoto Jour. Sci., ser. B, sec.1, vol. 2, no. 2, p. 82, pl. 1, figs. 6-8

Holotype: UMUT MM6460 (pl. 1, fig. 6), Paratype: UMUT MM6461 (pl. 1, fig.7)

At the south of Hagino, Kahoku-machi, Kami -gun, Kochi Prefecture (133 °43'E, 33 °37'N)

Hagino Formation in Monobe area; Bunjo Formation in Sakawa area (by Tashiro and Matsuda (1986))

Aptian, Cretaceous

(*Cucullaea (Cucullaea) obliquata* (Amano) by Tashiro and Kozai (1984))

***Trigonarca (?) obsoleta* Yabe and Nagao, 1926**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 2, p. 43, pl. 12, Fig. 24

Holotype: IGPS no. 22538 (pl. 12, fig. 24)

Ishido, Ohinata, Saku-machi, Minamisaku-gun, Nagano Prefecture

Ishido Formation in Sanchu area

Upper Neocomian or Aptian, Cretaceous

***Trigonia ainuana* Yabe and Nagao, 1928**

Sci. Rep. Tohoku Imp. Univ., ser. 2, vol. 9, no. 3, p. 84, pl. 16, fig. 20

Holotype: IGPS no. 22591 (pl. 16, fig. 20)

Ponbets (near the Ikushunbets coal-mines), Sorachi-gun (Mikasa City), Hokkaido

Mikasa Group (Mikasa Formation) in Ikushumbetsu area

Cenomanian - Turonian, Cretaceous

(*Steinmannella ainuana* (Yabe and Nagao) by Kobayashi (1954); *Yaadia ainuana* (Yabe and Nagao) by Tashiro and Morozumi (1982))

***Trigonia brevicula* Yehara, 1915**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 2, no. 2, p. 42, pl. 2, figs. 18, 19

Lectotype designated by Nakano and Numano (1961, p. 91): IGPS no. 4329

Ikushumbetsu, Mikasa City, Hokkaido

Middle Yezo Group (Mikasa sandstone) in Ikushumbetsu area

Cenomanian-Turonian (Lower Cenomanian by Tashiro (1983)), Cretaceous

(*Pterotrigonia brevicula* (Yehara) by Nakano and Numano (1961); *Pterotrigonia (Pterotrigonia) brevicula* (Yehara) by Hayami (1975); *Pterotrigonia (Ptilotrigonia) brevicula* (Yehara) by Tashiro (1983))

***Trigonia datemasamunei* Yehara, 1915**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 2, no. 2, p. 38, pl. 2, figs. 13, 14

Syntype: IGPS nos. 4331

Southern coast of Hiraname, northeast of Raga, Tanohata-mura, Shimohei-gun, Iwate Prefecture

“Orbitolina sandstone” of the Miyako Group

Aptian – Lower Albian, Cretaceous

(*Pterotrigonia (Pterotrigonia) datemasamunei* (Yehara) by Hayami (1975))

***Trigonia deckeina* Kubota, 1952**

Syumino-Tigaku, vol. 5, no. 3, p. 14, pl. 1, figs. 1, 2

Holotype: GMH? not registered

Upper course of Rupeshupe river, Nakagawa, Nakagawa-machi, Nakagawa-gun, Hokkaido

Hakobuchi Group in Abeshinai area

Campanian or Maastrichtian, Cretaceous

(*Steinmannella (Yeharella) deckeina* (Kubota) by Nakano (1958); *Yaadia deckeina* (Kubota) by Tashiro (1988))

***Trigonia dilapsa* Yehara, 1923**

Jour. Geol. Soc. Tokyo, vol. 30, no. 352, p. 2, pl. 4, figs. 1, 2, pl. 5, fig. a

Syntype: UK JM10156

Enokuchi, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group (IIb member by Matsumoto (1938)) in Goshonoura area

Albian (?)–Cenomanian (Uppermost Albian–lower Lower Cenomanian by Tashiro (1983), Cretaceous

(*Pterotrigonia dilapsa* (Yehara) by Kobayashi (1954); *Pterotrigonia (Acanthotrigonia) dilapsa* (Yehara) by Hayami (1975); *Pterotrigonia (Ptilotrigonia) dilapsa* (Yehara) by Tashiro (1983))

***Trigonia hokkaidoana* Yehara, 1915**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 2, no. 2, p. 39, pl. 1, figs. 1-8

Lectotype designated by Kobayashi and Nakano (1957, p. 230): IGPS no. 4224

Tokuzo, southern coast of Hiraiga inlet, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga Formation)

Aptian – Lower Albian, Cretaceous

(*Pterotrigonia (Pterotrigonia) hokkaidoana* (Yehara) by Hayami (1975))

***Trigonia japonica* Yehara, 1923**

Jour. Geol. Soc. Tokyo, vol. 3, p. 10, pl. 6, fig. 6

Lectotype designated by Kobayashi and Amano (1955, p. 201): UK JM10161

Oe, Amakusa-machi, Amakusa-gun, Kumamoto Prefecture

Middle Formation of the Upper Himenoura Subgroup in Koshikijima and Amakusa-Shimajima areas

Lower Hetaonian (Upper Campanian), Cretaceous

(*Steinmannella (Yeharella) japonica* (Yehara) by Kobayashi and Amano (1955); *Yaadia japonica* (Yehara) by Tashiro and Morozumi (1982))

***Trigonia kikuchiana* Yokoyama, 1891**

Jour. Coll. Sci. Imp. Univ. Tokyo, vol. 4, no. 2, p. 363, pl. 40, figs. 4-6

Syntype; repository unknown

Tanno, Katsuura-machi, Katsuura-gun, Tokushima Prefecture

Hoji Formation in Katsuuragawa area

Neocomian-Cenomanian (Aptian by Tashiro and Kozai (1986)), Cretaceous

(*Nipponitrigonia kikuchiana* (Yokoyama) by Cox (1952))

***Trigonia kimurai* Tokunaga and Shimizu, 1926**

Jour. Fac. Sci. Imp. Univ. Tokyo, ser. 2, vol. 1, no. 6, p. 189,

pl. 27, figs. 3,4

Syntype: lost by fire during the 2nd World War
Sakurazawa, Hirono-machi, Futaba-gun, Fukushima
Prefecture

Futaba Group in Futaba area.

Coniacian, Cretaceous

(*Steinmanella kimurai* (Tokunaga and Shimizu) [sic] by Kobayashi (1954); *Steinmanella (Yeharella) kimurai* (Tokunaga and Shimizu) [sic] by Kobayashi and Amano (1955); *Steinmanella (Yeharella) kimurai kimurai* (Tokunaga and Shimizu) by Hayami (1975); *Yaadia kimurai* (Tokunaga and Shimizu) by Tashiro and Morozumi (1982))

***Trigonia longiloba* Jimbo, 1894**

Palaont. Abhandl., N.F., vol. 2, no. 3, p. 38, pl. 8, figs. 2-4
(?non fig. 3 by Tashiro and Matsuda (1983))

Lectotype designated by Kobayashi and Nakano (1957, p. 235), (see also Matsumoto (1963, p. 45)): UMUT MM7489
(pl. 67, fig. 2)

Ponhorokabetsu, Yubari City, Hokkaido

Middle Yezo Group (Mikasa Formation) in Yubari and
Ikushumbetsu areas

Cenomanian-Turonian (Lower Cenomanian by Tashiro
(1983)), Cretaceous

(*Pterotrigonia (Acanthotrigonia) longiloba* (Jimbo) by Hayami (1975); *Pterotrigonia (?Scabrotrigonia) longiloba* (Jimbo) by Tashiro and Matsuda (1983); *Pterotrigonia (Pterotrigonia) longiloba* (Jimbo) by Tashiro (1992))

***Trigonia moriana* Yehara, 1927**

Japan. Jour. Geol. Geogr., vol. 5, nos. 1-2, p. 33, pl. 3, figs.
7-8

Lectotype designated by Kobayashi and Nakano (1957, p.
233): UK JM10172

Hagino, Birafu-machi, Kami-gun, Kochi Prefecture

Lower Monobegawa Group (Hagino Formation) in Monobe
area

Aptian, Cretaceous

(*Pterotrigonia moriana* (Yehara) by Kobayashi (1954); *Acanthotrigonia moriana* (Yehara) by Kobayashi and Nakano (1957); *Pterotrigonia (Acanthotrigonia) moriana* (Yehara) by Hayami (1975); *Pterotrigonia (?Scabrotrigonia) moriana* (Yehara) by Tashiro and Matsuda (1983); *Pterotrigonia (Pterotrigonia) moriana* (Yehara) by Tashiro (1992))

***Trigonia neumayri* Yehara, 1923**

Japan. Jour. Geol. Geogr., vol. 2, no. 3, p. 82, pl. 9, figs. 1-3

Syntype; UK not registered

Yamanokami, Sakawa-machi, Takaoka-gun, Kochi Prefecture
Yamanokami sandstone in Sakawa area

Neocomian (Valanginian? - Aptian by Tashiro (1992)),
Cretaceous

(New name as *Rutitrigonia yeharai* Kobayashi, 1954
because of a junior homonym of *Trigonia neumayri* Choffat,
1885)

***Trigonia ogawai* Yehara, 1923**

Jour. Geol. Soc. Tokyo, vol. 30, no. 352, p. 4, pl. 4, figs. 3-5

Lectotype designated by Kobayashi and Nakano (1958, p.
150): UK JM10195

Enokuchi, Goshonoura-machi, Amakusa-gun, Kumamoto
Prefecture

Goshonoura Group (IIb member by Matsumoto(1938)) in
Goshonoura area

Albian (?) – Cenomanian (Upper Albian - lower Lower
Cenomanian by Tashiro and Matsuda (1983)), Cretaceous

(*Pterotrigonia (Acanthotrigonia) ogawai* (Yehara) by Hayami (1975); *Pterotrigonia (Ptilotrigonia) ogawai* (Yehara) by Tashiro and Matsuda (1983))

***Trigonia pocilliformis* Yokoyama, 1891**

Jour. Coll. Sci. Imp. Univ. Tokyo., vol.4, no. 2, p. 361, pl. 40,
figs. 1-3

Syntype (repository unknown; one of the syntype specimens),
UMUT MM4450 (Kobayashi and Nakano (1957, pl. 16, fig.
1))

Saoyama and Okuminodani, Nankoku City, Kochi Prefecture
Lower Monobegawa Group in Nankoku, Sakawa, Ochi and
Monobegawa areas

Neocomian-Albian (Lower Barremian – Aptian by Tashiro
and Matsuda (1983)), Cretaceous

(*Pterotrigonia pocilliformis* (Yokoyama) by Kobayashi
(1954); *Pterotrigonia (Pterotrigonia) pocilliformis*
(Yokoyama) by Hayami (1975))

***Trigonia pustulosa* Nagao, 1930**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 1, no. 1, p.
17, pl. 3, figs. 9-12

Syntype: GMH? not registered

At the seashore of Enokuchi, Goshonoura-machi,
Amakusa-gun, Kumamoto Prefecture

Goshonoura Group (IIb member by Matsumoto (1938); b
member of the Middle Formation by Tashiro (1976))

Albian (?)–Cenomanian (Uppermost Albian - Middle
Cenomanian by Tashiro and Matsuda (1983)), Cretaceous

(*Pterotrigonia (Acanthotrigonia) pustulosa* (Nagao) by Hayami (1975); *Pterotrigonia (?Scabrotrigonia) pustulosa* (Nagao) by Tashiro and Matsuda (1983); *Pterotrigonia (Pterotrigonia) pustulosa* (Nagao) by Tashiro (1992))

***Trigonia sakakurai* Yehara, 1923**

Jour. Geol. Sci. Tokyo, vol. 30, no. 352, p. 6, pl. 4, fig. 6

Lectotype designated by Nakano and Numano (1961, p. 93):
UK JM10171

At the seashore of Karakizaki, Goshonoura-machi,
Amakusa-gun, Kumamoto Prefecture

Goshonoura Group (III Formation by Matsumoto (1938); Upper Formation by Tashiro (1976))
Albian (?) - Cenomanian (Lower Cenomanian by Tashiro and Matsuda (1983)), Cretaceous
(*Pterotrigonia sakakurai* (Yehara) by Kobayashi (1954); *Pterotrigonia* (*Pterotrigonia*) *sakakurai* (Yehara) by Hayami (1975))

***Trigonia sakamotoensis* Yehara, 1921**

Jour. Geol. Soc. Tokyo, vol. 28, no. 329, p. 10, pl. 5, fig. 4

Holotype: UK JM10152

Sakamoto, Katsuura-machi, Katsuura-gun, Tokushima Prefecture

Hoji Formation in Katsuuragawa area

Neocomian-Albian (Upper Hauterivian–Aptian by Tashiro and Kozai (1986)), Cretaceous

(*Nipponitrigonia sakamotoensis* (Yehara) by Kobayashi (1954))

***Trigonia sawatai* Yehara, 1923**

Japan. Jour. Geol. Geogr., vol. 2, no. 3, p. 80, pl. 10, fig. 9

Holotype: by monotypy (Uk? not registered); Topotype designated by Tashiro (1986, p. 20): KSG3470 (pl. 2, text-figs. 2, 4)

Northern bank of the river of Ikushunbetsu, about 200 m west of Katurazawa-dam site, Ikushunbetsu, (Mikasa City), Hokkaido

Mikasa Formation (Middle Yezo Group) in Ikushumbetsu area

Middle Cenomanian, Cretaceous

(*Heterotrigonia sawatai* (Yehara) by Kobayashi (1954); Synonymous with *Apiotrigonia* (*Heterotrigonia*) *subovalis* (Jimbo) by Hayami (1975); *Heterotrigonia* (*Heterotrigonia*) *sawatai* (Yehara) by Tashiro and Matsuda (1986))

***Trigonia subovalis* Jimbo, 1894**

Paläont. Abhandl., N.F., vol. 2, no. 3, p. 42, pl. 8, fig. 5

Lectotype designated by Matsumoto (1963, p. 45): UMUT MM7488

Pombetsu, Mikasa City, Hokkaido

Mikasa Group (Mikasa Formation) in Ikushunbetsu area

Cenomanian - Turonian, Cretaceous

(*Apiotrigonia subovalis* (Jimbo) by Kobayashi (1954); *Heterotrigonia subovalis* (Jimbo) by Nakano (1961); *Apiotrigonia* (*Heterotrigonia*) *subovalis* (Jimbo) by Hayami (1975); *Heterotrigonia* (*Heterotrigonia*) *subovalis* (Jimbo) by Tashiro (1979))

***Trigonia yokoyamai* Yehara, 1915**

Sci. Rept. Tohoku Imp. Univ., ser. 2, vol. 2, no. 2, p. 41, pl. 2, figs. 15-17

Syntype: IGPS nos. 4366, 4367

Tokuzo, southern coast of Hiraiga inlet, Tanohata-mura, Shimohei-gun, Iwate Prefecture

Miyako Group (Hiraiga Formation) in Tanohata area
Upper Neocomian (?) - Aptian (Upper Aptian or Lower Albian by Tashiro and Kozai (1986)), Cretaceous
(*Pterotrigonia yokoyamai* (Yehara) by Kobayashi (1954); *Pterotrigonia* (*Pterotrigonia*) *yokoyamai* (Yehara) by Hayami (1975))

***Trigonioides kobayashii* Matumoto, 1938**

Jour. Geol. Soc. Japan, vol. 45, no. 532, p. 14, pl. 2, fig. 2, text-fig. 19

Lectotype designated by Hayami (1975): UMUT MM 7846 (Matsumoto, 1938, pl. 2, fig. 2)

Kyodomari, Goshonoura-machi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group in Goshonoura area

Cenomanian, Cretaceous

(New name as *Trigonioides matsumotoi* Kobayashi and Suzuki, 1941 because of a homophone of *Trigonioides kobayashi* Hoffer, 1937; *Torigonioides* (*Torigonioides*) *matsumotoi* Kobayashi and Suzuki by Ota (1963); *Trigonioides* (*Kumamotoa*) *matsumotoi* Kobayashi and Suzuki by Yang (1974))

***Trigonioides kodairai* Kobayashi and Suzuki, 1936**

Japan. Jour. Geol. Geogr., vol. 13, p. 249, pl. 27, figs. 1-4, 13

Holotype: UMUT MM4226 (missing) (pl. 27, fig. 1), Paratypes; UMUT MM4227 (missing) (pl. 27, fig. 2), UMUT MM4228 (missing) (pl. 27, fig. 3), UMUT MM4229 (missing)(pl. 27, fig. 4), UMUT MM4230 (missing) (pl. 27,fig. 13)

Ryohori, Kinyomen, Keisyo-nan-do, south Korea

Naktong Group (Kinbu and Shinshu Formations) in Keisyo-nan-do and Keisyo-hoku-do, and Talatzu Series (upper sandstone Formation) in Kanto-syo, Manchiria
Lower Cretaceous (precisely unknown)

(*Trigonioides* (*Trigonioides*) *kodairai* Kobayashi and Suzuki (1974))

***Trigonioides* (*Trigonioides*) *kodairai* Kobayashi and Suzuki see *Trigonioides kodairai* Kobayashi and Suzuki, 1936**

***Trigonioides kodairai paucisulcatus* Suzuki, 1940**

Japan. Jour. Geol. Geogr., vol. 17, p. 229, pl. 24, figs. 1a-c, 2a, b, 3a-d, 4a-c, 5, 18a-c, 19, 20

Holotype: UMUT MM6388 (pl. 24, figs. 3a-d), Paratypes UMUT MM6386 (pl. 24, figs. 1a-c), UMUT MM6387 (pl.24, figs. 2a, b), UMUT MM6389 (pl. 24, figs. 4a-c), UMUT MM6390 (pl. 24, fig. 5), UMUT MM6391 (text-fig. 18a-c), UMUT MM6392 (text-fig. 19), UMUT MM6393 (text-fig. 20)

Hyakuando, Kokuanmen, Keishyo-hoku-do, south Korea

Shiragi Group (Taikyuu Formation) in Eisen area

Lower Cretaceous (precisely unknown)

(*Trigonioides paucisulcatus* Suzuki by Tamura (1970))

Trigonioides (Kumamotoa) matsumotoi Kobayashi and Suzuki, 1941 (nom. nov.)

Bull. Geol. Inst. Manchoukuo, no. 101, p. 78

(see *Trigonioides kobayashii* Matsumoto, 1938; *Trigonioides (Trigonioides) matsumotoi* Kobayashi and Suzuki by Ota (1963); *Trigonioides (Kumamotoa) matsumotoi* Kobayashi and Suzuki by Yang (1974))

Trigonioides mifunensis Tamura, 1970

Mem. Fac. Educ., Kumamoto Univ., no. 18, sec. 1, p. 47, pl. 1, figs. 1-8, pl. 2, figs. 5-10

Holotype: KE1941 (pl. 1, figs. 1, 2)

Tashiro, Kosa-machi, Kamimashiki-gun, Kumamoto Prefecture

Mifune Group in Mifune area

Cenomanian (Uppermost Albian – Cenomanian by Tashiro (1992)), Cretaceous

(*Trigonioides (Kumamotoa) mifunensis* Tamura by Yang (1974))

Trigonioides (Kumamotoa) mifunensis Tamura see *Trigonioides mifunensis* Tamura, 1970

Trigonioides (Wakinoa?) obsoleta (Hase) see “*Nippononaia?*” *obsoleta* Hase, 1960

Trigonioides paucisulcatus Suzuki see *Trigonioides kodairai paucisulcatus* Suzuki, 1940

Trigonioides paucisulcatus suzukii Ota, 1959

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 34, p. 102, pl. 11, figs. 12-20

Holotype: GF register number not confirmed

Hata, Yahatanishi-ku, Kitakyushu City, Fukuoka Prefecture

Kwanmon Group in Yahata area

Lower Cretaceous (precisely unknown)

(*Trigonioides (Kumamotoa) suzukii* Ota by Yang (1974))

Trigonioides (Wakinoa) sengokuensis (Ota) see “*Nippononaia?*” *sengokuensis* Ota, 1959

Trigonioides (Kumamotoa) suzukii Ota see *Trigonioides paucisulcatus suzukii* Ota, 1959

Trigonioides tetoriensis Maeda, 1963

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 51, p. 81, text-fig. 1, pl. 12, figs. 1-9

Holotype: CU R61121701 (pl. 12, figs. 6, 7), Paratypes: CU R61121702 (pl. 12, fig. 8), CU R61121704 (pl. 12, fig. 9), CU R61121705 (pl. 12, fig. 4), CU R61121706 (pl. 12, fig. 1)

North of Sugiyama, Kitadani, (Katsuyam City), Fukui Prefecture

Tetori Group (Kitadani formation) in Kitadani area

Upper Hauterivian or Lower Barremian, Cretaceous

(*Trigonioides (Wakinoa) tetoriensis* Maeda by Hayami

(1975))

Trigonioides (Wakinoa) tetoriensis Maeda see *Trigonioides tetoriensis* Maeda, 1963

Trigonioides (Wakinoa) wakinoensis intermedius (Hase) see “*Nippononaia?*” *wakinoensis intermedius* Hase, 1960

Trigonioides (Wakinoa) wakinoensis wakinoensis (Ota) see “*Nippononaia?*” *wakinoensis* Ota, 1959

Trigonioides (Wakinoa) wakinoensis (Ota) see “*Nippononaia?*” *wakinoensis* Ota, 1959

Trigonocallista ornata Ichikawa and Maeda, 1963

Jour. Geosci. Osaka City Univ., vol. 7, art. 5, p. 126, pl. 11, figs. 5-6

Holotype: OCU MM328 (pl. 11, fig. 5)

Tsubasayama, Hiketa-machi, Ookawa-gun, Kagawa Prefecture

Izumi Group in Hiketa area

Upper Campanian–Maastrichtian, Cretaceous

(Synonymous with *Callistina (Larma) japonica* Amano, 1957 (= *Loxo japonica* (Amano)) by Tashiro (1976))

Trigonocallista ornata Ichikawa and Maeda see *Callistina (Larma) japonica* Amano, 1957

Unio ogamigoensis Kobayashi and Suzuki, 1937

Japan. Jour. Geol. Geogr., vol. 14, nos. 1-2, p. 41, pl. 4, fig. 16

Holotype: UMUT MM7001 (pl. 4, fig. 16)

Ogamigo, Shokawa-mura, Oono-gun, Gifu Prefecture

Tetori Group (horizon uncertain) in Shokawa area

Upper Jurassic (or Lower Cretaceous)

“*Unio?*” *sampanoides* Kobayashi, 1968

Geol. Palaeont. SE Asia, vol. 4, p. 134, pl. 22, figs. 2a-b

Holotype: Department of Mineral Resource, Bangkok, not registered (figs. 2a, b, c)

Nam Phung dam site, Northern Khorat Plateau, Thailand

Phu Phan formation, Khorat series (Khorat Group)

Middle Cretaceous

Unio (Nippononaia) ryosekiana Suzuki, 1941

Jour. Geol. Soc. Japan, vol. 48, no. 575, p. 412, text-figs. 1-3

Holotype: UMUT MM7000 (text-figs. 1-3)

Unknown locality (“Katsuuragawa area or Sanchu area”, as originally described)

Aptian or Albian (Barremian by Tashiro (1992)), Cretaceous

(*Nippononaia ryosekiana* (Suzuki) by Hayami and Ichikawa

(1965))

***Variamussium kimurai* Hayami, 1965**

Mem. Fac. Sci. Kyushu Univ., ser. D, vol. 15, no. 2, p. 320, pl. 46, figs. 1-4

Holotype: GK.H6301 (pl. 46, fig. 1), Paratypes: GK.H6302 (pl. 46, fig. 4), GK.H6303 (pl. 46, fig. 3), GK.H6304 (pl. 46, fig. 2b), GK.H6305 (pl. 46, fig. 2a)

Loc. Hy.6002, mouth of Okuminotani, southwest of Ryoseki, Nangoku City, Kochi Prefecture (133 °37'E, 33 °37'N)

Lower part of the Monobegawa Group in Ryoseki area

Upper Neocomian (Barremian by Tashiro and Kozai (1986)), Cretaceous

(*Parvamussium kimurai* (Hayami) by Hayami (1975))

***Veloritina matsumotoi* Tamura, 1977**

Mem. Fac. Educ. Kumamoto Univ., no. 26, nat. sci., p. 133, pl. 6, figs. 20-26

Holotype: KE2589 (pl. 6, fig. 20)

Loc. 39, Yaseto, Toyono-mura, Shimomashiki-gun, Kumamoto Prefecture

Mifune Group in Toyono area

Cenomanian, Cretaceous

***Veloritina tamurai* Ohta, 1982**

Bull. Fukuoka Univ. Educ., vol. 31, pt. 3, p. 116, pl. 2, figs. 7-22

Holotype: GF.15250 (pl. 2, figs. 7, 8), Paratypes: GF.15251 (pl. 2, fig. 9), GF.15252, GF.15253 (pl. 2, fig. 17), GF.15254 (pl. 2, figs. 15, 23), GF.15255 (pl. 2, fig. 21), GF.15256, GF.15257 (pl. 2, fig. 11), GF.15258 (pl. 2, fig. 22), GF.15259 (pl. 2, fig. 16)

Quarry north of Imaizumi, Yatsushiro City, Kumamoto Prefecture

Miyaji Formation (Yatsushiro Formation?) in Yatsushiro area Albian, Cretaceous

(*Hayamina? tamurai* (Ohta) by Tashiro (1992))

***Veniella* (?) *japonica* Nagao, 1930**

Jour. Fac. Sci. Hokkaido Imp. Univ., ser. 4, vol. 1, no. 1, p. 21, pl. 2, figs. 1, 3

Syntype: GMH? not registered

Goshonoura-jima, Goshonoura-nachi, Amakusa-gun, Kumamoto Prefecture

Goshonoura Group in Goshonoura area

Albian (?) – Cenomanian, Cretaceous

***Venilicardia japonica* Tashiro and Tanaka, 1993**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 14, p. 11, pl. 3, figs. 19-23

Holotype: KSG4423 (pl. 3, figs. 21, 23), Paratypes: KSG4424 (pl. 3, figs. 19, 20), KSG4425 (pl. 3, fig. 22)

Loc. 1 at Kasabe, Gokase-machi, Nishiusuki-gun, Miyazaki Prefecture

Kasabe Formation in Gokase area

Aptian, Cretaceous

***Waagenoperna elongata* Nakazawa and Murata, 1966**

Mem. Coll. Sci. Univ. Kyoto, ser. B, vol. 32, no. 4, p. 312, pl. 4, figs. 1a, b

Holotype: IGPS Coll.no.85763 (pl. 4, figs. 1a, b)

Kanayama-zawa, near the Omine mine, (Tono City), Iwate Prefecture

Kamihei Group in Kamihei area

Neocomian, Cretaceous

(*Pseudoptera? elongata* (Nakazawa and Murata) by Hayami (1975))

Wakinoa wakinoensis (Ota) see “*Nippononaia? wakinoensis* Ota, 1959

Xenocardita amanoi (Hayami) see *Pseudocardia amanoi* Hayami, 1965

Yaadia ainuana (Yabe and Nagao) see *Trigonia ainuana* Yabe and Nagao, 1928

Yaadia deckeina (Kubota) see *Trigonia deckeina* Kubota, 1952

Yaadia japonica (Yehara) see *Trigonia Japonica* Yehara, 1923

Yaadia jimboi (Kobayashi and Amano) see *Steinmanella* (*Yeharella*) *jimboi* Kobayashi and Amano, 1955

Yaadia kimurai (Tokunaga and Shimizu) see *Trigonia Kimurai* Tokunaga and Shimizu, 1926

***Yaadia koshikiana* Tashiro and Kano, 1989**

Mem. Fac. Sci. Kochi Univ., Ser. E, Geol., vol. 10, p. 7, pl. 1, figs. 1-3; pl. 2, figs. 1-4; pl. 3, fig.1, text-fig. 2

Holotype: KSG5001 (pl. 1, figs. 1-3), Paratypes: KSG5002 (pl. 2, figs. 1, 2; pl. 3, figs. 1), KSG5003, KSG5004 (pl. 2, fig. 4)

Fukkire-ura (Locs. 1 and 2 (KSG5001and KSG5002)) and about 500 m south of Fukkire-ura (Loc. 3 (KSG5003)), Kashima-mura, Satsuma-gun, Kagoshima Prefecture

Upper Himenoura Subgroup of the Himenoura Group in Shimokoshiki islet

Lower Campanian, Cretaceous

Yaadia lymani (Kobayashi and Amano) see *Steinmanella* (*Yeharella*) *lymani* Kobayashi and Amano, 1955

Yaadia obsoleta (Kobayashi and Amao) see *Steinmanella* (*Yeharella*) *japonica* var. *obsoleta* Kobayashi and Amano, 1955

Yaadia shinoharai (Kobayashi and Suzuki) see
Steinmanella (Setotrigonia) shinoharai Kobayashi and
Amano, 1955

***Yaadia tanii* Tashiro and Morozumi, 1982**

Bull. Osaka Mus., Nat. Hist., no. 36, p. 5, pl. 3, fig. 1

Holotype: OMNH.M2187 (pl. 3, fig. 1)

Takino-ike, Izumi-sano City, Osaka Prefecture

Azenotani Formation in the Izumi Mountains

Upper Hetonaian (Maastrichtian), Cretaceous

Yabea akatsui (Hayami) see *Astarte (Yabea) akatsui*
Hayami, 1965

***Yabea densecrenulata* Tashiro and Kozai, 1988**

Res. Rep. Kochi Univ., vol. 37, nat. sci., p. 43, pl. 2, figs.
12-16, text-fig. 3

Holotype: KSG4009 (pl. 2, fig. 16), Paratypes: KSG4010 (pl.
2, figs. 12, 13), KSG4011 (pl. 2, fig. 14), KSG4012 (pl. 2, fig.
15)

Sasa and Kamiike, both of Doiban, Monobe-mura, Kami-gun,
Kochi Prefecture

Hibihara Formation in Monobe area

Aptian, Cretaceous

Yabea shinanoensis (Yabe and Nagao) see *Astarte*
shinanoensis Yabe and Nagao, in Yabe, Nagao and Shimizu,
1926

***Yoldia? hakobutensis* Nagao and Otatume, 1938**

Jour.Fac.Sci. Hokkaido Imp. Univ., ser. 4, vol. 4, nos. 1-2, p.
37, pl. 1, figs. 2-6

Holotype: GMH no.5940 (pl. 1, fig. 3)

Osachinai, Hiratori (Biratori-cho, Saru-gun), Hidaka Prov.,
Hokkaido

Hakobuchi Group in Hidaka and Iburi areas

Campanian-Maastrichtian, Cretaceous

Mollusca: Polyplacophora and allied taxa

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Acanthochitona aff. *achates* (Gould) reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 196, pl. 50, figs. 9, 10a-b, 11, 12, pl. 53, figs. 5a-b) from the Pleistocene Sakahata Formation, Chiba Prefecture (*Chiton* (*Acanthochaetes*) *achates* Gould, 1859)

Acanthochitona dissimilis Taki and Taki, 1931 reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 197, pl. 52, figs. 4a-b) from the Pleistocene Sakurai Formation, Chiba Prefecture (re-identified with *Afossochiton* sp. by Itoigawa et al. (1978))

Acanthochitona cf. *forythensis* (Ashby and Cotton, 1939) reported by Itoigawa and Nishimoto, 1975 (Bull. Mizunami Fossil Mus., no. 2) from the Miocene Shukunohora Formation, Mizunami Group, Gifu Prefecture (*Acanthochiton forsythensis* Ashby and Cotton, 1939)

Cryptoplax aff. *japonica* Pilsbry, 1901 reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 200, pl. 52, figs. 5a-c, 6, 7a-b, 8a-b, 9a-c) from the Pleistocene Sakahata Formation, Chiba Prefecture

Gryptoplax aff. *japonica* Pilsbry, 1901 reported by Itoigawa et al. (Bull., Mizunami Fossil Mus., no. 3, p. 200) (miss spell of genus; see *Cryptoplax japonica* Pilsbry)

Ischnochiton (*Ischnochiton*) *comptus* (Gould, 1859) reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 184, pl. 45, figs. 3a-c, 4a-b, 5-6) from the Pleistocene Sakahata Formation, Chiba Prefecture (*Chiton* (*Leptochiton*) *comptus* Gould, 1859)

Ischnochiton (*Ischnochiton*) *hakodatensis* Pilsbry, 1893 reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 185) from the Pleistocene Miyata Formation, Kanagawa Prefecture

Lepidopleurus (*Deshaysiella*) *diomedae* (Berry, 1917) reported by Itoigawa et al. (1976: Bull. Mizunami Fossil Mus., no. 3, p. 182, pl. 44, figs. 7a-c, pl. 45, figs. 1a-b) (*Leptochiton diomedae* Berry, 1917)

Lepidopleurus hakodatensis Thiele, 1909 reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 181, pl. 44, figs. 1, 2a-c, 3a-c, 4) from the Pleistocene

Semata Formation, Chiba Prefecture

Lepidopleurus aff. *hakodatensis* Thiele, 1909 reported by Itoigawa and Nishimoto, 1975 (Bull. Mizunami Fossil Mus., no. 2) from the Miocene Shukunohora Formation, Mizunami Group, Gifu Prefecture

Lepidopleurus (*Dashaysiella*) *morozakiensis* Itoigawa, Nishimoto and Tomida, 1977

Bull., Mizunami Fossil Mus., no. 4, p. 56, pl. 14, figs. 1a-3, pl. 15, fig. 1, text-fig. 2)

Holotype: MFM no. 20101

Hayashi-zaki, Minamichita-cho, Chita-gun, Aichi Prefecture

Toyohama Formation, Morozaki Group

Miocene (early Miocene)

Lepidozonia albrechti (Schrenck, 1863) reported by Itoigawa (1976: Bull., Mizunami Fossil Mus., no. 3, p. 186, pl. 45, figs. 8a-b, pl. 46, figs. 7a-b, 8a-b, 9a-b, 10a-c, 11a-b, pl. 47, figs. 1-4, 5a-b, 6a-b, 7a-c, 8a-c) from the Pleistocene Miyata Formation, Kanagawa Prefecture (*Chiton albrechti* Schrenck, 1863)

Lepidozonia coreanica (Reeve) reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 185, pl. 46, figs. 1-2, 3a-c, 4-5) from the Pleistocene Sakahata Formation, Chiba Prefecture (*Chiton coreanicus* Reeve, 1847)

Lepidozonia interfossa (Berry, 1917) reported by Oinomikado (1938: Jour. Geol. Soc. Japan, vol. 45, p/ 321, 2 text-figs.) from the Miocene (Pliocene) Chuetsu Series (Shiyya Formation), Niigata Prefecture, and also reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 187, pl. 46, fig. 6) from the Pleistocene Semata Formation, Chiba Prefecture (*Ischnochiton* (*Lepidozonia*) *interfossa* Berry, 1917)

Mopalia aff. *hirsta* Taki, 1938 reported by Itoigawa et al. (1978: Bull., Mizunami Fossil Mus., no. 5, p. 149, pl. 15, figs. 5a-b) from the Pleistocene Kiyokawa Formation, Chiba Prefecture

Mopalia retifera Thiele, 1909 reported by Itoigawa et al. (1976: Bull. Mizunami Fossil Mus., no. 3, p. 191, pl. 49, figs. 1a-b, 2a-c) from the Pleistocene Sakahata Formation, Chiba Prefecture

Mopalia schrenckii Thiele, 1910 reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 192, pl. 49, figs. 3a-b, 4-7) from the Pleistocene Miyata Formation, Kanagawa Prefecture

Onithochiton hirasei Pilsbry, 1901 reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 196, pl. 50,

figs. 6a-b, 7, 8) from the Pleistocene Sakahata Formation, Chiba Prefecture

Placiphorella japonica* (Dall)** reported by Itoigawa et al. (1976: Bull. Mizunami Fossil Mus., no. 3, p. 192, pl. 49, figs. 12a-b, 13a-c) from the Pleistocene Sakahata Formation, Chiba Prefecture (Langfordiella japonica* Dall, 1925**)

Placiphorella stimpsoni* (Gould)** reported by Itoigawa (1982) from the Miocene Mizunami Group, Gifu Prefecture, and also reported by Itoigawa et al. (1976: Bull., Mizunami Fossil Mus., no. 3, p. 193, pl. 49, figs. 8a-b, 9a-b, 10a-b, 11a-b) from the Pleistocene Mandano Formation, Chiba Prefecture (Chiton (Mopalia) stimpsoni* Gould, 1859**)

Placiphorella aff. stimpsoni* (Gould)** reported by Itoigawa and Nishimoto (1975) (Bull. Mizunami Fossil Mus., no. 2) from the Miocene Nataki Formation, Mizunami Group, Gifu Prefecture (Chiton (Mopalia) stimpsoni* Gould, 1859**)

***Rhysoplax tectiformis* Taki, 1938** reported by Itoigawa et al. (1976: Bull. Mizunami Fossil Mus., no. 3, p. 194, pl. 50, figs. 1, 2a-c, 3a-c, 4a-b, 5a-b) from the Pleistocene Sakahata Formation, Chiba Prefecture

***Tonicella lineata* (Wood, 1815)** reported by Itoigawa et al. (1978, no. 5, p. 149, pl. 16, figs. 2a-b, 3a-b, 4a-c, 5a-c, 6a-b, 7a-b) from the Pleistocene Kioroshi Formation, Chiba Prefecture

Problematica

***Pirikia setanaensis* Hatai and Noda, 1975 (n. gen & n. sp)**

Proc. Japan. Soc. Zool., no. 11, p. 19, fig. 1

Holotype: IGPS no. 92603

Cliff of the Toshibetsu-River, north of the Pirika Primary and Middle High School, Pirika, Imagane-cho, Setana-gun, Hokkaido

Pirika (Chinkope) Formation

Pliocene

(Described Family uncertain however allied to Amphineura)

Mesozoic Brachiopoda

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“Burmihynchia” capillata Tokuyama, 1957

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 28, p. 134, pl. 21, fig. 9.

Holotype: UMUT MB4652*

Iwasa-yama, near Sakawa, Kochi Prefecture

Torinosu limestone

Upper Jurassic

Burmihynchia japonica Tokuyama, 1957

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 28, p. 131, pl. 21, figs. 5-6.

Holotype: UMUT MB4648*, Paratype: UMUT MB4649*

At the mouth of Naradani valley, Togano near Sakawa, Kochi Prefecture

Naradani formation

Upper Jurassic

Burmihynchia torinosuensis Tokuyama, 1957

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 28, p. 133, pl. 21, figs. 7-8.

Holotype: UMUT RB4650*, Paratype: UMUT MB4651*

Hanabata, near Sakawa, Kochi Prefecture

Lower part of Torinosu series

Upper Jurassic

Holcothyris takiensis Tokuyama, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 192, pl. 15, figs. 1-4.

Holotype: UMUT MB4531*, Paratypes: UMUT MB4532*-4534*

W. of Nioigataki, Ogawa in Sakawa basin, Kochi Prefecture

Torinosu series

Upper Jurassic

Lingula nariwensis Kobayashi and Ichikawa, 1952

Japan. Jour. Geol. Geogr., vol. 22, p. 264, pl. 10, figs. 11-12.

Holotype: UMUT MB5404*, Paratype: UMUT MB5405*

North-east of Jito, Nariwa, Okayama Prefecture

Nariwa formation

Upper Triassic

Naradanithyris kuratai Tokuyama, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 3, pl. 1, figs. 1-6.

Holotype: UMUT MB4655*, Paratypes: UMUT MB4656*-4660*

Jinden-no-shiba, on the east bank of Nishiyama valley, Ogawa in the Sakawa basin, Kochi Prefecture

Naradani limestone

Upper Jurassic

Naradanithyris kuratai radiatostriata Tokuyama, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 7, pl. 1, fig. 7-8.

Holotype: UMUT MB4661*, Paratype: UMUT MB4662*

At the mouth of Naradani valley, Ogawa in the Sakawa basin,

Kochi Prefecture

Naradani limestone

Upper Jurassic

Neumayrithyris torinosuensis Tokuyama, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 122, pl. 9, figs. 1-6.

Holotype: UMUT MB4667*, Paratypes: UMUT MB4668*-4672*

Anaiwa in SW. of the Sakawa basin, Kochi Prefecture

Torinosu series

Upper Jurassic

Parvirhynchia bella Tokuyama, 1957

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 28, p. 134, pl. 21, fig. 10.

Holotype: UMUT MB4653*

Anaiwa at the mouth of Anaiwa valley, near Ogawa, Kochi Prefecture

Lower part of Torinosu series

Upper Jurassic

Punctospirifer triadicus Tokuyama, 1957

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 27, p. 100, pl. 17, figs. 8-12.

Holotype: UMUT MB4635*, Paratypes: UMUT MB4636-4639*

Okunomine-tani near Sakawa, Kochi Prefecture

Kochigatani series

Upper Triassic

Punctospirifer triadicus kashiwaiensis Tokuyama, 1957

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 27, p. 101, pl. 17, figs. 13-16.

Holotype: UMUT MB4643, Paratypes: UMUT MB4640, MB4641, MB4642*

Okunomine-tani near Sakawa, Kochi Prefecture

Kochigatani series

Upper Triassic

“Rhynchonella” asoensis Tokuyama, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 132, pl. 11, figs. 7-10.

Holotype: UMUT MB4622*, Paratypes: UMUT MB4620*, MB4621*, MB4623*

At the road side, north of Mt. Aso in the Mine district,

Nagato, Yamaguchi Prefecture
Near the top of *Tosapecten* bed, Aso stage of Mine series
Upper Triassic

“*Rhynchonella*” *hirabarensis* Tokuyama, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 131, pl. 11, figs. 5-6.

Holotype: UMUT MB4619*, Paratype: UMUT MB4618*

At a point west of Hirabara, Mine area, Nagato, Yamaguchi Prefecture

Shale bed at the top of Hirabara stage, Mine series
Upper Triassic

“*Rhynchonella*” *kochigataniensis* Tokuyama, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 134, pl. 11, figs. 1-3.

Holotype: UMUT MB4614*, Paratypes: UMUT MB4615*, MB4616*

At the road side near Nakajima in the Sakawa basin, Kochi Prefecture

Kochigatani series
Upper Triassic

“*Rhynchonella*” *nakajimensis* Tokuyama, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 135, pl. 11, fig. 4.

Holotype: UMUT MB4617*

At Nakajima in Kochigatani, Kochi Prefecture

Halobia-Tosapecten bed, Kochigatani series
Upper Triassic

“*Rhynchonella*” *noichiensis* Tokuyama, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 130, pl. 10, figs. 10-11.

Holotype: UMUT MB4610*, Paratype: UMUT MB4611*

Sambosan, Kochi Prefecture

Sambosan limestone
Upper Triassic

***Rhynchonella sambosanensis* Kobayashi, 1931**

Japan. Jour. Geol. Geogr., vol. 8, p. 255, pl. 25, figs. 5-6, 9-11.

Syntypes: UMUT MB4211-4213, MB4214*, MB4215*

Sambosan, Kochi Prefecture

Sambosan limestone
Upper Triassic

“*Rhynchonella*” *sublabellata* Tokuyama, 1957

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 131, pl. 11, figs. 12-14.

Holotype: UMUT MB4626*, Paratypes: UMUT MB4625*, MB4627*

At a point north of Mt. Aso in Mine, Yamaguchi Prefecture
Sandy shale near the top of *Tosapecten* bed, Aso stage of

Mine series
Upper Triassic

“*Rhynchonella*” *tamurai* Tokuyama, 1959

Japan. Jour. Geol. Geogr., vol. 30, p. 189, pl. 15, figs. 5-15.

Holotype: UMUT MB4535*, Paratypes: UMUT MB4536*-4545*

Nioigataki, Ogawa in Sakawa basin, Kochi Prefecture

Torinosu series
Upper Jurassic

***Sakawairhynchia katayamai* Tokuyama, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 129, pl. 10, figs. 6-9.

Holotype: UMUT MB4606*, Paratypes: UMUT MB4607*-4609*

At a point west of Hirabara, Mine area, Nagato, Yamaguchi Prefecture

Shale bed at the top of Hirabara stage, Mine series
Upper Triassic

***Sakawairhynchia tokomboensis* Kobayashi and Tokuyama, 1957**

Japan. Jour. Geol. Geogr., vol. 28, nos. 1-3, p. 127, pl. 10, figs. 1-4.

Syntypes: UMUT MB4601*-4604*

At most localities in Sakawa basin, Kochi Prefecture

Kochigatani series
Upper Triassic

***Spiriferinoides nasai* Tokuyama, 1957**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 27, p. 105, pl. 17, figs. 6-7.

Holotype: UMUT MB4633*, Paratype: UMUT MB4634*

Kuromagai, Shimoyama in the Sakawa basin, Kochi Prefecture

Kochigatani series
Upper Triassic

***Spiriferinoides sakawanus* Kobayashi and Tokuyama, 1957**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 27, p. 102, pl. 17, figs. 1-2.

Holotype: UMUT MB4628*, Paratype: UMUT MB4629*

Tokombo in Kochigatani, Kochi Prefecture

Kochigatani series
Upper Triassic

***Spiriferinoides yeharai* Kobayashi and Tokuyama, 1957**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 27, p. 104, pl. 17, figs. 3-5.

Holotype: UMUT MB4631*, Paratypes: : UMUT MB4630*, MB4632*

Shimoyama, in the Sakawa basin, Kochi Prefecture

Kochigatani series
Upper Triassic

“*Terebratula*” *anaiwensis* Tokuyama, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 126, pl. 9, figs. 7-8.

Holotype: UMUT MB4673*, Paratype: : UMUT MB4674*
Nishiyama in the Sakawa basin, Kochi Prefecture
Torinosu series
Upper Jurassic

“*Terebratula*” *hataii* Mori, 1963

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 50, p. 42, pl. 7, figs. 1-5.

Holotype: IGPS coll. cat. no. 79324
Koike, Kashima-machi, Soma-gun, Fukushima Prefecture
Nakanosawa formation
Upper Jurassic

“*Terebratula*” *iwaii* Mori, 1963

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 50, p. 43, pl. 7, figs. 6-9.

Holotype: IGPS coll. cat. no. 79325
Hayama, Kashima-machi, Soma-gun, Fukushima Prefecture
Nakanosawa formation
Upper Jurassic

“*Terebratula*” *imamurai* Tokuyama, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 128, pl. 9, fig. 9.

Holotype: UMUT MB4675*
Shiraishi river, west of Sakawa, Kochi Prefecture
Torinosu series
Upper Jurassic

“*Terebratula*” *nishiyamensis* Tokuyama, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 7, pl. 1, fig. 9.
Holotype: UMUT MB4663*

At the entrance of Naradani valley, Ogawa in the Sakawa basin, Kochi Prefecture
Naradani limestone
Upper Jurassic

“*Terebratulina*” *nishiyamensis* Tokuyama, 1958

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 128, pl. 9, figs. 12-13.

Holotype: UMUT MB4678*, Paratype: UMUT MB4679*
Anaiwa, Nishiyama in Sakawa basin, Kochi Prefecture
Torinosu series
Upper Jurassic

***Zeilleria kotoi* Tokuyama, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 130, pl. 9, figs. 10-11.

Holotype: UMUT MB4676*, Paratype: UMUT MB4677*
Nishiyama in the Sakawa basin, Kochi Prefecture
Torinosu series
Upper Jurassic

***Zeilleria naradaniensis* Tokuyama, 1958**

Japan. Jour. Geol. Geogr., vol. 29, nos. 1-3, p. 9, pl. 1, figs. 11-12.

Holotype: UMUT MB4665*, Paratype: UMUT MB4666*
At the mouth of Naradani valley, Ogawa in the Sakawa basin, Kochi Prefecture
Naradani limestone
Upper Jurassic

Trilobita

Yutaro Suzuki

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Shizuoka University
836 Oya, Shizuoka 422-8529, Japan

Acanthopyge (Acanthopyge) duplicispinata Kaneko, 1984

Subgeneric status was classified into a new subgenus, *A. (Jasperia)*, which was erected by Thomas and Holloway (1988: Phil. Trans. Roy. Soc. London, vol. 321, p. 223). See *Acanthopyge (Jasperia) duplicispinata* Kaneko, 1984

Acanthopyge (Acanthopyge) mediusulcatus (Kaneko, 1984)

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 136, p. 479, pl. 87, figs. 1-3, pl. 88, figs. 1-4, text-fig. 2

Holotype: badly preserved broken cranidium-PA17144

A small tributary of the Higuchi shrine, Hikoroichi town, Ofunato City, Iwate Prefecture, Japan

Nakazato Formation

Middle Devonian (Middle to Late Eifelian?)

Described exoskeletal parts: cranidium, part of pygidium

Acanthopyge (Jasperia) duplicispinata Kaneko, 1984

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 136, p. 481, pl. 88, figs. 5-7, pl. 89, figs. 1-3, text-fig. 3

Holotype: extremely small cranidium-PA17149

A small tributary of the Higuchi shrine, Hikoroichi town, Ofunato City, Iwate Prefecture, Japan

Nakazato Formation

Middle Devonian (Middle to Late Eifelian?)

Described exoskeletal parts: cranidium, pygidium, hypostome

Acropyge lanceolata Kobayashi and Hamada, 1978

Proc. Japan Acad., vol. 54-B, no. 4, p. 160, figs. 5a-b

Holotype: inner mold of a pygidium-PA 16764

Paratypes:

Julfa, Iran

Upper Guadalupian Unit?

Permian

Described exoskeletal parts: pygidium

Acrocephalina trisulcata Kobayashi 1944

Proc. Imp. Acad. Tokyo, vol. 20, no. 2, p. 230, fig. 5

Holotype: broken cranidium-PA1993

A boulder in Itahashi, Japan

?

Upper Cambrian

Described exoskeletal parts: cranidium

Agnostus chiushuensis Kobayashi, 1931

Japan. Jour. Geol. Geogr., vol. 8, no. 3, p. 173, pl. 22, figs.

1-5

Holotype: inner mold of a cephalon-PA0135, Paratypes: PA0136, PA0137, PA0138, PA0139

Chiu-shu-kou, South Mongolia

Chiushukou Shale

Lower Ordovician?

Described exoskeletal parts: cephalon, pygidium

Agnostus hoiformis Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 97, pl. 10, figs. 1-3

Syntypes: PA0340, PA0341 (missing), PA0342 (missing)

Wuhutsui basin, Liaotung, North Korea

Chuanguia Zone

Upper Cambrian

Described exoskeletal parts: cephalon, pygidium

Agnostus inexpectans Kobayashi, 1938

Japan. Jour. Geol. Geogr., vol. 15, nos. 3-4, p. 172, pl. 15, figs. 30-33

Syntypes: PA1726 to PA1729, (all types missing)

Taenicephalis-bearing black limestone, west of Harrogate

?

Lower Middle Cambrian

Described exoskeletal parts: cephalon, pygidium

Agnostus radiarius Kobayashi, 1934

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 536, pl. 3, fig. 1

Holotype: inner mold of a cranidium-PA0820

Asaphellus Zone

Makkol, South Korea

Lower Ordovician

Described exoskeletal parts: cephalon

Agnostus rakuroensis Kobayashi, 1935

Generic status has been transferred into *Peronopsis* by Kobayashi 1962: Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 66, pl. 2, figs. 2, 3. See *Peronopsis rakuroensis* (Kobayashi, 1935)

Agnostus (Lejopyge?) obsoletus Kobayashi, 1935

Generic status has been transferred into *Phoidagnostus* by Kobayashi 1962: Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 30, pl. 3, figs. 12-14. See *Phoidagnostus obsoletus* (Kobayashi, 1935)

Amecephalus saitoi Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 51, pl. 11, fig. 11, text-fig. 2e.

Holotype: inner mold of a cranidium-PA4071

North of Chunghwa area, North Korea (Saito collection at loc. D1)

Rinson shale

Middle Cambrian

Described exoskeletal parts: cranidium

Amecephalus Walcott, 1924 is a synonymy of *Alokistocare Lorenz, 1906*, see Treatise Part O, O238.

Amphoton directo spinula Kobayashi, 1942

Jour. Geol. Soc. Japan, vol. 49, no. 591, p. 474, pl. 18, figs. 12, 13

Syntypes: PA1899, PA1900

from a loose boulder at Teibansan, southeast of Kanairi. The boulder is probably from the 2i division of the Eiko Formation

?

Middle Cambrian

Described exoskeletal parts: cranidium

Amphoton microlops Kobayashi, 1942

Jour. Geol. Soc. Japan, vol. 49, no. 591, p. 474, pl. 18, fig. 11

Holotype: badly preserved broken cranidium-PA1901

north side of Arakol adjacently southeast of Kanairi, in the Bunkei area, Keisho-hoku-do, South Korea

Kanai Formation

Middle Cambrian

Described exoskeletal parts: cranidium

Ampulliglabella kojimai Kobayashi and Hamada, 1984

Pal. Soc. Japan, Sp. Pap., no. 26, p. 70, pl. 12, figs. 1-11, text-fig. 5l-f

Holotype: inner mold of a cephalon-PA16740

Paratypes: PA16742, PA16747, PA16750

Omote-Matsukawa, Kesenuma City, Miyagi Prefecture, Japan

Ochiai Formation?

Middle Permian

Described exoskeletal parts: cephalon, pygidium, thoracic segment

Ampulliglabella rotunda Kobayashi and Hamada, 1984

Pal. Soc. Japan, Sp. Pap., no. 26, p. 71, pl. 13, figs. 1-6, text-fig. 5g

Holotype: outer mold of a pygidium-PA16751

Paratypes: PA16752 to PA16754

A quarry in Kesenuma City, Miyagi Prefecture, Japan

Described exoskeletal parts:

Ochiai Formation?

Middle Permian

Described exoskeletal parts: pygidium

Anomocarella brevifrons Kobayashi, 1935

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 297, pl. 17, figs. 10-13

Syntypes: PA1166 to PA1169

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

Anomocarella coreanica Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 91, pl. 1, figs. 6, 8-11, 16, 26

Holotype: inner mold of a cranidium-PA4092

Paratypes: PA4093 to PA4098

Tonkinella zone. for localities, see p. 91

not mentioned in the original

Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

Anomocarella coreanica longa Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 91, pl. 1, fig. 7, pl. 2, fig. 17

Syntypes: PA4099, PA4010

Tonkinella zone. 1.9 km NNE of Mach'a-ri, Puk-myon, SW

Top of Yo-bong, South Korea

not mentioned in the original

-

Described exoskeletal parts: cranidium

Anomocarella (Entorachis) gracilis Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 93, pl. 4, fig. 19

Holotype: inner mold of a cranidium-PA4106

Black shale of the Machari Formation, at west of Nol-tari, 1.3 km northwest of Mach'a-ri, Puk-myon

South Korea

Machari Formation

Middle Cambrian

Described exoskeletal parts: cranidium

Anomocarella resseri Kobayashi, 1935

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 296, pl. 19, figs. 16-17

Holotype: inner mold of a cranidium-PA1165

Doten, South Korea

Solenoparia Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, free cheek

Anomocarella stenorachis Kobayashi, 1961

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 13, part 2, p. 231, pl. 13, fig. 11

Holotype: inner mold of a cranidium-PA3960b

Loc. 316, see p. 187

Sampson or Sambangsan Formation, *Metagraulos sampoensis* Zone

Middle Cambrian

Described exoskeletal parts: cranidium

***Aotiaspis oblonga* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 247, pl. 14, figs. 7-13, text-fig. 6b

Holotype: inner mold of a cranidium-PA2392

Paratypes: PA2388 to PA2391, PA2393, PA2394

Tomokolian, NNE of Chamiwon, Nam-myon, Chongson-gun, Kangwon-do, South Korea

not mentioned in the original

Described exoskeletal parts: cranidium, free cheek, pygidium, hypostome

***Aotiaspis ovalis* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 247, pl. 14, fig. 14

Holotype: inner mold of a broken cranidium-PA2395

not mentioned in the original

Described exoskeletal parts: cranidium

***Apatokephalus hyotan* Kobayashi, 1953**

Japan. Jour. Geol. Geogr., vol. 23, p. 52, pl. 3, figs. 17-23

Holotype: inner mold of a cranidium-PA2090a

Paratypes: PA2087 to PA2089, PA2090b to PA2092

West of Soosan, Hokumen, Neietsugun, Kogendo, South Korea

Bbunkoku Formation

Lower Ordovician

Described exoskeletal parts: cranidium, cephalon, thoracic segment, hypostome, pygidium

***Apatokephalus octopoides* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 545, pl. 6, fig. 6

Holotype: broken cranidium-PA0830

Protoplomerops Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium

***Apolichas perconvexus* Kobayashi and Hamada, 1984**

Generic status was assigned as a subjective synonymy of *Lichas* in Thomas and Holloway (1988: Philo. Trans. Roy. Soc. London Ser. B, vol. 321, p. 190). See *Lichas? truncatus* (Kobayashi and Hamada, 1984)

(Kobayashi and Hamada, 1984)

***Apolichas truncatus* Kobayashi and Hamada, 1974**

Generic status was assigned as subjective synonymy of *Lichas* in Thomas and Holloway (1988: Philo. Trans. Roy. Soc. London Ser. B, vol. 321, p. 190). See *Lichas? truncatus* (Kobayashi and Hamada, 1984)

(Kobayashi and Hamada, 1984)

***Archaeogonus (Angustibole) impolitus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 66, pl. 5, figs. 1, 4

Holotype: inner mold of a cranidium-PA5756

Paratypes: PA5757

Maruyama quarry, Mine City, Yamaguchi Prefecture, Japan Akiyoshi Limestone (allochthonous buildup limestone block):

correspond to the *Pseudostaffella antiqua* zone

Middle to Upper Carboniferous

Described exoskeletal parts: cranidium

(Probably conspecific to *A. (A.) reliquius*. The mentioned differences between the two in the original is the absence of occipital tubercle and coarser granules. However, occipital ring is not preserved and the weathering degree is stronger in the holotype specimen of the latter. Thus the differences mentioned should be a preservational bias.)

***Archaeogonus (Angustibole) reliquius* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 65, pl. 4, figs. 6-11, text-fig. 4L

Holotype: inner mold? of a cranidium-PA5751, Paratypes: PA5750, PA5752 to PA5755

Maruyama quarry, Mine City, Yamaguchi Prefecture, Japan Akiyoshi Limestone (allochthonous buildup limestone block):

correspond to the *Pseudostaffella antiqua* zone

Middle to Upper Carboniferous

Described exoskeletal parts: cranidium, pygidium, free cheek, hypostome

***Asaphellus (?) coreanicus* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 552, pl. 4, fig. 12

Holotype: inner mold of a cranidium-PA0847

Asaphellus Zone

Tomkol, Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium

***Asaphellus tomkolensis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 549, pl. 4, figs. 1-7

Holotype: inner mold? of a cranidium-PA0835, Paratypes: PA0836, PA0837, PA0839 to PA0842

Asaphellus Zone

Makkol, Shoku-do, Tomkol, Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, free cheek, pygidium

***Asaphiscus monkei* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 292, pl. 8, figs. 1-4

Syntypes: PA1158 to PA1161

Saisho-ri, South Korea

Prochuangia Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Asaphopsis nakamurai* Kobayashi, 1956**

Japan. Jour. Geol. Geogr., vol. 13, nos. 1-2, p. 175, pl. 20, figs. 19, 20, pl. 21, fig. 13

Syntypes: in Kyoto University Museum

Dotenri, Jocho-meu, Hokwa-gun, Keisho-hokudo, Korea
Tomkol shale

Lower Ordovician

Described exoskeletal parts: cranidium, pygidium
(type species of the genus)

***Asioptychaspis sphaira* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 119, pl. 12, figs. 11-13

Syntypes: PA0382, PA0383

Paichiashan, Wuhutsui basin, Liatong, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Arthricocephalus? primigenium* Saito, 1934**

Generic status has been transferred into *Cheiruroides* by Kobayashi and Kato 1951: Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 8, part 3, p. 138. See *Cheiruroides primigenium* (Saito, 1934)

***Bailiella angusta* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 373, pl. 19, fig. 1

Holotype: inner mold of a cranidium?-PA2468

Dark green micaceous slate in south and east of Tanggok, a valley south of Tanggok, South Korea

Beiho slate, Lowest Taiki Formation

Middle Cambrian

Described exoskeletal parts: cranidium

***Basilicus deltacaudus* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 466, pl. 34, figs. 2-6, 8

Holotype: articulated dead specimen -PA0714, Paratypes: -PA0715 to PA0719

Makkol, Kochi-ri, and Saishori, South Korea

Chikunsan Beds

Middle Ordovician

Described exoskeletal parts: all the parts

***Basilicus deltacaudus* var. *tyrannoides* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 466, pl. 33, fig. 8

Holotype: pygidium-PA0720

Doten, South Korea

Chikunsan Beds

Middle Ordovician

Described exoskeletal parts: pygidium

***Basilicus yokuensis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 465, pl. 33, figs. 1-7, pl. 34, figs. 1-3, pl. 35, figs. 9, 10

Holotype: articulated dead specimen-PA0705, Paratypes: PA0703, PA0704, PA0707 to PA0713

Makkol, Saishori, and Kochiri, South Korea

Chikunsan Beds

Middle Ordovician

Described exoskeletal parts: all the parts

***Basilicus (?) endoi* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 469, pl. 40, fig. 7, pl. 42, fig. 4

Syntypes: pygidia-PA0722, PA0723

Kochiri, South Korea

Chikunsan Beds

Middle Ordovician

Described exoskeletal parts: pygidium

***Basiliella kawasaki* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 470, pl. 35, figs. 4-7, pl. 37, fig. 10

Holotype: complete dead specimen-PA0724, Paratypes: cranidia, broken thoracopygidium-PA0725 to PA 0728

Makkol, Doten, and Grinkitsu, South Korea

Chikunsan Beds

Middle Ordovician

Described exoskeletal parts: all the parts except ventral morphology

***Basiliella lorenzi* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 473, pl. 36, figs. 4-8

Syntypes: cranidia, pygidia-PA0735 to PA0738

Kochiri, South Korea

Tsuibon Beds

Middle Ordovician

Described exoskeletal parts: cranidium, pygidium

***Basiliella minima* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 474, pl. 37, figs. 5-8

Holotype: cranidium-PA0741

Paratypes: PA0739, PA0740, PA0742

Mokkol, South Korea

Chikusan Beds

Middle Ordovician

Described exoskeletal parts: cephalon, thoracic segments, pygidium

***Basiliella pyriformis* Kobayashi, 1934b**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 471, pl. 35, figs. 1-3, 8, pl. 37, fig. 1

Holotype: articulated specimen without free cheeks-PA0732,

Paratypes: PA0730 to PA0731, PA073, PA0734
 Kochiri, South Korea
 Chikunsan Beds
 Middle Ordovician
 Described exoskeletal parts:

***Basiliella satunensis* Kobayashi and Hamada, 1964**

Japan. Jour. Geol. Geogr., vol. 35, nos. 2-4, p. 208, pl. 9, figs. 1-12
 Holotype: cranidium with test preserved?-PA4951, Paratypes: PA4952 to PA4961
 Ban Tung Din Lum, King-Amphoe Tungwa, Changwat Satun, west coat of Thailand
 Satun Shale
 Llandeilo, Ordovician
 Described exoskeletal parts: cranidium, pygidium, free cheek, hypostome, thoracic segment

***Basilielloides inexpectans* Kobayashi and Hamada, 1972**

Geol. Palaeont. Southeast Asia, vol. 10, p. 25, pl. 3, figs. 9, 10
 Holotype: cephalon with three thoracic segments attached-PA17882, Paratype: PA17881
 Kampong Pahit, south of Kroh, Upper Perak, near the Thai-Malayan border
 not mentioned in the original
 Devonian
 Described exoskeletal parts: cephalon, thoracic segment

***Blanodalmanites kokesiformis* Kobayashi and Hamada, 1972**

Geol. Palaeont. Southeast Asia, vol. 10, p. 20, pl. 2, figs. 1, 2
 Holotype: inner mold of a cephalon?-PA17861, Paratype: free cheek?-PA17862
 Kampong Pahit, south of Kroh, Upper Perak, near the Thai-Malayan border
 not mentioned in the original
 Devonian
 Described exoskeletal parts: cephalon?, free cheek?

***Blanodalmanites nubelania* Kobayashi and Hamada, 1972**

Geol. Palaeont. Southeast Asia, vol. 10, p. 20, pl. 1, figs. 12-16, pl. 2, figs. 3-6, text-figs. 1B, C, 4
 Holotype: slightly disarticulated dead? specimen-PA17854, Paratypes: PA17852, PA17853, PA17855 to PA17860
 Kampong Pahit, south of Kroh, Upper Perak, near the Thai-Malayan border
 not mentioned in the original
 Devonian
 Described exoskeletal parts: cephalon, pygidium, thoracic segment

***Blountia? kini* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 104, pl. 11, fig.

16

Holotype: broken pygidium of an inner mold-PA0363
 Himokrei, Sosan area, North Korea
Tsinania Zone
 Upper Cambrian
 Described exoskeletal parts:

***Bollandia pacifica* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 98, pl. 18, figs. 6-9, pl. 19, figs. 1-4, text-fig. 4G
 Holotype: outer mold of an almost complete dead specimen-UHR 30425
 Near 808m point, Odaira mountain, Hikoroichi-Setamai district, Iwate Prefecture, Japan
 Odaira Formation (Onimaru Formation?)
 Lower Viséan? Middle Carboniferous
 Described exoskeletal parts: all the parts except hypostome and rostral plate

***Bonnia orientalis* Saito, 1934**

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 226, pl. 27, figs. 10, 11, 15
 Holotype: cranidium-PA0484, Paratype: PA0485 (missing), PA0486
 Lower *Redlichia* shales, north of Heukkyo, Hwanghai-do, Loc. K47: see Saito, 1933
 Lower Cambrian
 Described exoskeletal parts: cranidium, pygidium, thoracic pleura

***Bonnia tokunagai* Saito, 1934**

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 228, pl. 27, figs. 1-7, text-fig. 6
 Holotype: articulated molt ensemble-PA0490, Paratypes: PA0487-PA0489, PA0491, PA0492
 Not mentioned in the original
 Upper *Redlichia* shales
 Lower Cambrian
 Described exoskeletal parts: cephalon, thoracic segment, pygidium, hypostome

***Brachymetopus* (*Brachymetopella*) *akiyoshiensis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 56, pl. 2, figs. 1-2, 4, 6, text-fig. 3C
 Holotype: cephalon with test preserved-PA5736, Paratypes: PA5738, PA5824, PA5825
 Medium to coarse and partly oolitic calcarenite at loc. No. Ya-2, Nakao Shoho temple, Kawahara, Isa town, Mine City, Yamaguchi Prefecture, Japan
 Akiyoshi Limestone (allochthonous buildup limestone block): the *Millerella yowarensis* and *Profusulinella beppensis* zones
 Middle to Upper Carboniferous
 Described exoskeletal parts: cephalon, pygidium

***Brachymetopus (Brachymetopella) akiyoshiensis* forma *disjuncta* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 58, pl. 2, fig. 5
PA5739

loc. No. Ya-2, Nakao Shoho temple, Kawahara, Isa town,
Mine City, Yamaguchi Prefecture, Japan
Akiyoshi Limestone (allochthonous buildup limestone block)
Middle to Upper Carboniferous
Described exoskeletal parts: pygidium

***Brachymetopus (Brachymetopella?) japonica* Endo and Matsumoto, emended by Kobayashi and Hamada, 1980**

Sci. Rep. Saitama Univ. Ser. B, vol. 4, no. 2, p. 168, pl. 2,
figs. 7a-c, non fig. 8

Types lost

Nishiyama quarry of the Denkikagaku-Kogyo Co., Omi town,
Nishikuniki County, Niigata Prefecture, Japan

Omi Limestone (allochthonous buildup limestone block): the
Fusulinelia zone

Lower Moscovian, Carboniferous

Described exoskeletal parts: all the parts except ventral
characters

Brachymetopus (Brachymetopina) japonica* Endo and Matsumoto, 1962 see *Brachymetopus (Brachymetopella?) japonica* Endo and Matsumoto**Brachymetopus (Brachymetopella?) kitagawai* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 59, pl. 2, fig. 3

Holotype: inner mold of a pygidium-PA5741

Choanji, Ofunato City, Iwate Prefecture, Japan

Hikoroichi Formation

Lower Tournaisian, Carboniferous

Described exoskeletal parts: cephalon, pygidium

***Brachymetopus (Brachymetopus) gracilentus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 55, pl. 1, figs. 8-10,
text-fig. 3B

Holotype: broken cephalon with test preserved?-PA5734

Matuyama quarry, Omi, Niigata Prefecture, Japan

Omi limestone (allochthonous buildup limestone block): the
Pseudostafella antiqua zone in Akiyoshi Limestone

Middle to Upper Carboniferous

Described exoskeletal parts: cephalon, pygidium

***Brachymetopus (Brachymetopus) omiensis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 54, pl. 1, figs. 1-7,
text-fig. 3A

Holotype: pygidium with test preserved-PA5729

Matuyama quarry, Omi, Niigata Prefecture, Japan

Omi limestone (allochthonous buildup limestone block):

Pseudostafella antiqua zone in Akiyoshi Limestone

Middle to Upper Carboniferous

Described exoskeletal parts: cephalon, pygidium

***Briscoia? mitsuishii* Kobayashi, 1931**

Japan. Jour. Geol. Geogr., vol. 8, no. 3, p. 184, pl. 20, figs.
7-9

Syntypes: PA0164 to PA0166

Limestone quarry situated north of hua-lien-chai railway
station, South Mongolia

Tsinania Zone

Upper Cambrian

Described exoskeletal parts: pygidium

***Bumastella spicula* (Kobayashi and Hamada, 1974)**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 51, pl. 2, fig. 3, text-fig.
2D

Holotype: imperfect cephalon-PA7345

exact locality not mentioned, Yokokura mountain, Ochi town,
Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cephalon, pygidium, thoracic
segment, rostral plate

see also Palaeontology, vol. 41, p. 868, pl. 1, figs. 1-21, pl. 2,
figs. 1-15, 17, 18

***Bumastus glomerosus* Kobayashi and Hamada, 1974**

Partly assigned as synonymy of *Bumastella spicula*
(Kobayashi and Hamada, 1974): (Pal. Soc. Japan, Sp. Pap.,
no. 18, pl. 1, figs. 3-6, 8, text-fig. 2A) and the rest as
Rhaxeros subquadratus (Kobayashi and Hamada, 1974):
(Pal. Soc. Japan, Sp. Pap., no. 18, pl. 1, fig. 7) in Holloway
and Lane, 1998

***Bumastus subquadratus* Kobayashi and Hamada, 1974**

Assigned as synonymy of *Rhaxeros subquadratus*
(Kobayashi and Hamada, 1974) in Holloway and Lane,
1998

***Bumastus (Bumastella) aspera* Kobayashi and Hamada, 1974**

Assigned as synonymy of *Bumastella spicula* (Kobayashi
and Hamada, 1974): (Pal. Soc. Japan, Sp. Pap., no. 18, figs.
3-5, text-fig. 2F (cephalon only)) and of *Rhaxeros* cf.
synaimon Holloway and Lane, 1998 in Holloway and Lane,
1998

***Bumastus (Bumastella) bipunctatus* Kobayashi and Hamada, 1974**

Assigned as synonymy of *Bumastella spicula* (Kobayashi
and Hamada, 1974) in Holloway and Lane, 1998

Bumastus (Bumastella) spiculus Kobayashi and Hamada, 1974

Assigned as synonymy of *Bumastella spicula (Kobayashi and Hamada, 1974)* in Holloway and Lane, 1998

Calymene scrivenori Kobayashi and Hamada, 1971

Geol. Palaeont. Southeast Asia, vol. 9, p. 117, pl. 22, figs. 11-19

Holotype: cranidium-PA17820; Paratypes: PA17816 to PA17819, PA17821 to PA 17824

Langkawi Islands, West Malaysia

From loose boulders

Silurian

Described exoskeletal parts: cranidium, pygidium

Carbonocoryphe (Winterbergia?) orientalis Kobayashi and Hamada, 1978*

Proc. Japan Acad. vol. 54-B, p. 6, fig. 4

Holotype: pygidium-PA5764

Hina, Okayama Prefecture, Japan

Hina Limestone (allochthonous buildup limestone block?)

Upper Tournaisian, Carboniferous

Described exoskeletal parts: pygidium

Ceratocephala nipponica Kobayashi and Hamada, 1977

Pal. Soc. Japan, Sp. Pap., no. 20, p. 86, pl. 3, figs. 5, 6, textfig. 3D

Holotype: cephalon of internal and outer mold (described so)-PA7408

Ravicalymene bed (bed 1) in Sorayama, Fukuji, Gifu Prefecture, Japan

Lower Devonian

Described exoskeletal parts: cephalon, hypostome

Cerauroides elongatus Kobayashi and Hamada, 1974

Pal. Soc. Japan, Sp. Pap., no. 18, p. 85, pl. 6, fig. 5, text-fig. 6D

Holotype: broken cranidium-KPFM16103

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: broken cranidium

(Cheirurinae genera are difficult to make generic definitions without their pygidial characters, requires modern revision?)

Cerauroides orientalis Kobayashi and Hamada, 1973

Proc. Japan Acad., vol. 49, no. 6, p. 543, text-figs. 1-5

Holotype: inner mold? of a cranidium-PA7358

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium, hypostome

(Cheirurinae genera are difficult to make generic definitions without their pygidial characters, requires modern revision?)

Changshania (?) liaotungensis Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 101, pl. 10, figs. 8-10, 16

Syntypes: PA0352 to PA0354

Paichia-shan, Wuhutsui basin, Liaotung, North Korea

Chuanguia Zone

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

Changia chosensis Kobayashi, 1935

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 319, pl. 5, figs. 1, 2

Holotype: cranidium-PA1216, Paratypes: PA1217

Doten, South Korea

Dictya Zone, Kaetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium

Cheiropyge (Suturikephalion) koizumii Kobayashi and Hamada, 1982

Proc. Japan Acad., vol. 58-B, no. 3, p. 51, figs. 1-5

Holotype: complete specimen but weathered-PA16657

a quarry in Omote-Matsukawa, Kesenuma City, Miyagi Prefecture, Japan

Kanokura Formation?

Middle Permian

Described exoskeletal parts: all the parts except hypostome, rostral plate

Cheiruroides primigenius (Saito, 1934)

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 232, pl. 25, figs. 27-29

Holotype: inner mold of a cranidium-PA0506, Paratypes: PA0505, PA0507

north of Heukkyo, near Taktong, hwangju-kun or Hwanghai-do, etc., loc. K60 and T30 see Saito 1934

?

Lower Cambrian

Described exoskeletal parts: cranidium

Chosenia laticephala Kobayashi, 1934

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 567, pl. 8, figs. 8-11

Holotype: cranidium with test partly preserved-PA0884

Paratypes: free cheek, pygidia-PA0884 to PA0887

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: Cranidium, free cheek, pygidium

***Chuangia kawadai* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 106, pl. 11, figs. 1-3

Holotype: inner mold of a cranidium-PA0364, Paratypes: PA0365, PA0366

West of Chingchia-Chengtzu, Wuhutsui basin, Liaotung, North Korea

Chuangia Zone

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Chuangia taihakuensis* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 189, pl. 10, figs. 12-16

Holotype: cranidium with test partly preserved-PA1067, Paratypes: PA1069 to PA1072

Kasetsu-ji and Saisho-ri, South Korea

Chuangia Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Chuangia transversalis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 108, pl. 10, fig. 7

Syntype: PA0345b (missing)

Wuhutsui basin, Paichiashan hill, North Korea

Chuangia Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Chuangiella elongata* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 191, pl. 10, fig. 18

Holotype: cranidium with test partly preserved-PA1067, Paratypes: PA1069 to PA1072

Doten, South Korea

Eoorthis Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium

***Conophillipsia decisegmenta* Kobayashi and Tachibana, 1978**

Proc. Japan Acad., vol. 54-B, p. 264, figs. 1-4, (5)

Holotype: articulated molt ensemble-Tsukuba Univ with no number

Clay slate at Minami-Iwairi, Higashiyama town, Higashi-iwairi and Nendoyama, Nagasaka district, Iwate Prefecture, Japan

Karaumedate Formation

Lower Tournaisian, Carboniferous

Described exoskeletal parts: cranidium, pygidium, thoracic segments

***Conophillipsia koizumii* Kaneko, 1983**

Tikyū-kagaku, vol. 37, p. 61-68

Types: all the holotype and paratypes are personally stored, now missing?

Southwestern part of Higuchi shirne, Hikoroichi town, Ofunato City, Iwate Prefecture, Japan

Lower part of the Hikoroichi Formation

Lower Tournaisian, Carboniferous

Described exoskeletal parts: cephalon, pygidium

***Coosia coreanica* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 231, pl. 19, figs. 11, 12

Holotype: inner mold of a cranidium-PA1104

Doten, South Korea

Solenoparia Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Coosia tokunagai* Kobayashi, 1931**

Japan. Jour. Geol. Geogr., vol. 8, no. 3, p. 180, pl. 20, figs. 4-6

Holotype: inner mold of a cranidium-PA0151b, Paratypes: PA0150 to PA0150a

Chiu-shu-kou in the Niuhsintai basin, South Mongolia

Shale just below the Blackweldia Zone

Middle Cambrian

Described exoskeletal parts: cranidium

***Coreanocephalus cylindricus* Kobayashi, 1935**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 313, pl. 5, figs. 21, 22

Syntypes: PA1197, PA1198

Makkol, South Korea

Dictya Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Coreanocephalus kogenensis* Kobayashi, 1935**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 313, pl. 4, figs. 15, 16

Holotype: inner mold of a cranidium-PA1196, Paratype: PA1195

Doten, South Korea

Dictya Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek

***Coreanocephalus planulatus* Kobayashi, 1957**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 10, part 3, p. 379, pl. 4, figs. 13-17, text-fig. 4

Holotype: inner mold of a cranidium-PA2291, Paratypes: PA2295b, PA2299j to PA2299l

Kunming, Kueiyang, and Changpoung, Thailand

Not mentioned
Upper Cambrian
Described exoskeletal parts: cranidium, free cheek, pygidium

***Coreanocephalus (?) planulatus* Kobayashi, 1935**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 314, pl. 4, figs. 6-8

Holotype: inner mold of a cranidium-PA1199, Paratypes: PA1200, PA1201

Doten, South Korea

Eoorthis Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek,

***Coronocephalus? kitakamiensis* (Sugiyama, 1959)**

Proc. Imp. Acad. Tokyo, vol. 17, no. 4, p. 108, figs. 1, 2

Holotype: inner mold of a pygidium-IGPS 61513-1

Kusayami rivulet, Sakari town, Ofunato City, Iwate Prefecture, Japan

Calcareous slate bed of the Kawauchi Formation

Middle Ludlow, Silurian

Described exoskeletal parts: pygidium

(Generic status questionably assigned as of *Coronocephalus*, see Strusz (1980: Palaeontographica Abt. A., vol. 168: p. 13))

***Coronocephalus kobayashii* Hamada, 1959**

Japan Jour. Geol. Geogr., vol. 30, p. 80, pl. 6, figs. 1-18, text-fig. 7A

Holotype: almost complete cranidium-PA7280

Gion mountain, Kuraoka, Nishi-Usuki-gun, Miyazaki Prefecture, Kyushu, Japan

Gion-yama Group

Upper Wenlock, Silurian

Described exoskeletal parts: cranidium, free cheek, thoracic segment, pygidium, hypostome

***Craspedarges superbus* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 92, pl. 4, figs. 3-15, text-fig. 5A

Holotype: cephalon of the rubber replica from an outer mold-PA7414

Paratypes:

Taffaceous sandstone bed (bed 2) in Sorayama, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium, incomplete free cheek, pygidium, incomplete hypostome

***Crepicephalina airaghii* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 280, pl. 16, figs. 1, 2

Syntypes: PA1152, PA1153

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

***Crepicephalina subquadratus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 281, pl. 16, fig. 6

Holotype: inner mold of a cranidium-PA1154

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Crepicephalina sinuosa* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 280, pl. 23, fig. 6

Holotype: inner mold of a pygidium-PA1151

East of Sosan, Heian-hoku-do, North Korea

not mentioned in the original

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Crotalocephalina (Geracephalina) convexa* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 109, pl. 6, figs. 5-10, pl. 7, figs. 10-12, text-fig. 3C

Holotype: inner mold of a cranidium-PA7431

Kanajiro-zako, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium, free cheek, incomplete thoracic segment, incomplete pygidium, hypostome (?)

***Crotalocephalina (Geracephalina) euryraxis* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 110, pl. 7, figs. 1-6, text-fig. 4H

Holotype: inner mold of a broken cephalon-Kyoto Univ. no. 4

Paratypes: PA7433, PA7434

Black shale (bed 8) in Ichinotani, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cephalon

***Crotalocephalina (Geracephalina) secta* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 108, pl. 6, fig. 1, text-fig. 3A

Holotype: rubber replica of the outer mold of a cranidium-Shizenkan, no. 075

Crotalocephalid bed in Sorayama, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium, pygidium (not figured in Kobayashi and Hamada, 1977)

***Crotalocephalina (Geracephalina) secta projecta* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 109, pl. 6, figs. 2-4, pl. 7, fig. 13, text-fig. 3B

Holotype: inner mold of a cephalon-Kyoto Univ. no. 17, Paratype: PA7426

Black shale of bed 8 in Ichinotani, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cephalon, hypostome

***Crotalocephalina (Pilletpeltis) japonica* (Kobayashi and Igo, 1956)**

Proc. Japan Acad., vol. 50, no. 9, p. 761

Holotype: inner mold of a cephalon with detached thoracic segments-Shizenkan, no. 125

Kinma-michi, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cephalon, pygidium, thoracic segment

***Crotalocephalina (Pilletpeltis) japonica granulata* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 105, pl. 5, figs. 9a-d

Holotype: inner mold of a cranidium-Kyoto Univ. no. 1

A boulder in Kanajiro-zako, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium

***Crotalocephalina (Pilletpeltis) kameii* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 106, pl. 5, figs. 10a-d, 11, text-fig. 3G

Holotype: inner mold of a cranidium-Kyoto Univ. no. 2

Bed 10 in Ichinotani, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium

***Cumingella (?) eurypyge* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 96, pl. 17, fig. 6

Holotype: innermold of a pygidium-PA5877

Nakao Shohoji, Akiyoshidai, Yamaguchi Prefecture, Japan

Akiyoshi Limestone (allochthonous buildup limestone block): the *Profusulinella beppensis* zone

Middle Carboniferous

Described exoskeletal parts: pygidium

***Cumingella granulifera* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 93, pl. 19, figs. 12-14, 17a, b, text-fig. 4B

Holotype: inner mold? of a cranidium-PA5894

Northeast of Nakao Shohoji and Iwanagadai, Yamaguchi Prefecture, Japan

Akiyoshi Limestone (allochthonous buildup limestone block): the *Fusulinella biconica* zone

Middle Moscovian, Carboniferous

Described exoskeletal parts: cranidium, pygidium, thoracic segment

***Cumingella imamurai* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 93, pl. 17, fig. 7

Holotype: inner mold? of a pygidium-PA5878

Exact locality not mentioned in the original, Omi?, Niigata Prefecture, Japan

Omi Limestone (allochthonous buildup limestone block)

Middle Carboniferous

Described exoskeletal parts: pygidium

***Cumingella mesops* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 92, pl. 15, figs. 6, 7, pl. 16, figs. 1-4, 5?, pl. 17, figs. 1-3, text-fig. 4A

Holotype: cephalon with test partly preserved-PA5867

Maruyama quarry, Omi, Niigata Prefecture, Japan

Omi Limestone (allochthonous buildup limestone block)

Middle Carboniferous

Described exoskeletal parts: cephalon, pygidium

***Cumingella otai* Kobayashi and Hamada, 1978**

Proc. Japan Acad., vol. 54-B, no. 2, p. 53, figs. 3-c

Holotype: cephalon with test partly preserved-ASM 8002

Akiyoshi-dai, Yamaguchi Prefecture, Japan

Akiyoshi Limestone (allochthonous buildup limestone block): the *Millerella* zone

Lower Moscovian, Upper Carboniferous

Described exoskeletal parts: cephalon, pygidium

***Cumingella subovalis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 95, pl. 18, fig. 5

Holotype: badly preserved pygidium-ASM 8048

Iwanaga-dai, 130 m south of the stream, Akiyoshi Museum, Yamaguchi Prefecture, Japan

Akiyoshi Limestone (allochthonous buildup limestone block): the *Millerella* zone

Middle Carboniferous

Described exoskeletal parts: pygidium

***Cumingella subtrigonalis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 91, pl. 15, figs. 1-5, pl. 17, fig. 4(?), text-fig. 4C

Holotype: cephalothorax with test partly preserved-PA5862
Higashiyama quarry, Omi, Niigata Prefecture, Japan
Omi Limestone (allochthonous buildup limestone block)
Middle Carboniferous
Described exoskeletal parts: cephalon, thoracic segment, pygidium?

***Cyphoproetus latiaxis* Kobayashi and Hamada, 1986**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 143, p. 453, pl. 91, figs. 1a-g, 2a-c
Holotype: almost complete cephalon with test preserved-PA18078
Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Lower Ludlow, Silurian
Described exoskeletal parts: cephalon, pygidium

***Cyrtosymbole (Waribole) perlisensis* Kobayashi and Hamada, 1966** see *Waribole perlisensis* Kobayashi and Hamada, 1966

***Cyrtometops (?) pacificus* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 574, pl. 8, fig. 1
Holotype: broken cranidium-PA0895
Asaphellus Zone
Tomkol, South Korea
Lower Ordovician
Described exoskeletal parts: cranidium

***Dalmanitina malayensis* Kobayashi and Hamada, 1964**

Japan. Jour. Geol. Geogr., vol. 35, nos. 2-4, p. 107, pl. 4, figs. 1-26
Holotype: broken cephalon-PA4969a
Paratypes: PA4962b to PA4968b, PA4970f to PA4979b
Langkawi Island, Federation of Malaya (Malaysia)
not mentioned in the original
Uppermost Ordovician (Hirnantian, Ashigill)
Described exoskeletal parts: cranidium, pygidium, free cheek, hypostome
(see also Japan. Jour. Geol. Geogr., vol. 35, no. 1, and Lesperance 1988: p. 362 (Bull. British Mus. (Nat. Hist.) Geology Series, vol. 43.))

***Damesella octaspina* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 170, pl. 11, figs. 1-3, pl. 12, figs. 17
Holotype: inner mold of a cranidium-PA1020, Paratypes: PA1018, PA1019, PA1021
Shokudo and Kasetsu-ji, South Korea
Dorepanura Zone
upper most Middle Cambrian
Described exoskeletal parts: pygidium

***Dawsonia bunkeiensis* Kobayashi, 1961b**

Proc. Imp. Acad. Tokyo, vol. 19, p. 41, text-figs. 1, 3, 5
Syntypes: cranidium, pygidia-PA1969
South of Kaniri, Bunkei area, South Korea
Ptychoparia Zone in the Majo Formation
Middle Cambrian
Described exoskeletal parts: cranidium, pygidium

***Dechenella (Dechenella) minima* Okubo, 1950**

Chikyu Kagaku (in Japanese) no. 4, p. 28, pl. 1, figs. 6a-c
Holotype: inner mold of a cranidium-PA7441
Higuchi rivulet, Hikoroichi village, Ofunato to Sakari district, Iwate Prefecture, Japan
Nakazato Formation
Givetian? Middle Devonian
Described exoskeletal parts: cranidium

***Dechenelloides asiaticus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 84, pl. 7, figs. 1, 2, pl. 19, fig. 11, text-fig. 4E
Holotype: inner mold of a cephalon-PA5773
Higuchi rivulet, Ofunato City?, Iwate Prefecture, Japan
Hikoroichi Formation
Lower Tournaisian, Carboniferous
Described exoskeletal parts: cephalon, pygidium

***Decoroproetus granulatus* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 119, pl. 12, figs. 10-13, text-fig. 8G
Holotype: innermold? of a cranidium-PA7377
Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Lower Ludlow, Silurian
Described exoskeletal parts: cranidium, free cheek, (pygidium?), (thoracic segment?)
(Subfamilial state problematic, the pygidium probably not conspecific)

***Dicranopeltis tricornis* Kobayashi and Hamada, 1986**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 143, p. 458, pl. 92, figs. 1a-g, text-fig. C1-3
Holotype: broken cranidium-PA18082
Exact locality not mentioned, Yokokura mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Lower Ludlow, Silurian
Described exoskeletal parts: broken cephalon, broken pygidium

***Dictya depressa* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 307, pl. 6, figs. 16-19
Syntypes: PA1191 to PA1193

Doten, South Korea
Dictya Zone, Kasetsu Group
 Upper Cambrian
 Described exoskeletal parts: cranidium, free cheek, pygidium

***Dictya dolichocephala* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 139, pl. 14, fig. 12

Holotype: inner mold of a cranidium-PA0407
 Pai-chia-shan, Wuhutsui basin, Liaotung, North Korea
Dictyella Zone
 Upper Cambrian
 Described exoskeletal parts: cranidium

***Dictya longicauda* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 307, pl. 6, fig. 15

Holotype: PA1194
 Doten, South Korea
Dictya Zone, Kasetsu Group
 Upper Cambrian
 Described exoskeletal parts: pygidium

***Dictya trigonalis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 139, pl. 14, figs. 10, 11, 13-15

Holotype: inner mold of a cranidium-PA0409, Paratypes: PA0408, PA0410
 Paichia-shan hill, North Korea
Dictyella Zone
 Upper Cambrian
 Described exoskeletal parts: cranidium

***Dictyella ozawai* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 142, pl. 14, figs. 16, 17

Holotype: inner mold of a cranidium-PA0412
 Paichaishan hill, North Korea
Tsinania canens Zone
 Upper Cambrian
 Described exoskeletal parts: cranidium

***Dictyella ozawai* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 141, pl. 15, fig. 18

Holotype: inner mold of a pygidium-PA0412
 Paichaishan hill, North Korea
Dictyella Zone
 Upper Cambrian
 Described exoskeletal parts: pygidium

***Dictyella wuhuensis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 140, pl. 15, figs. 17

Holotype: inner mold of a pygidium-PA0411
 Paichia-shan, North Korea
Dictyella Zone
 Upper Cambrian
 Described exoskeletal parts: pygidium

***Dikelocephalina asiatica* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 563, pl. 6, figs. 1-3

Holotype: cranidium (missing)-PA0876, Paratypes: cranidium, pygidium-PA0875, PA0877
Clarkella and *Protoptiomerops* Zone
 Saisho-ri and Makkol respectively, South Korea
 Lower Ordovician
 Described exoskeletal parts: pygidium

***Dikelocephalina kanaegata* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 564, pl. 6, figs. 4, 5

Holotype: pygidium with test preserved?-PA0879, Paratype: pygidium-PA0878
Protoptiomerops Zone
 Makkol, South Korea
 Lower Ordovician
 Described exoskeletal parts: pygidium

***Dikelocephalina parva* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 252, pl. 13, figs. 27-30

Holotype: inner mold of a cranidium-PA2365b, Paratypes: PA2396 to PA2398 (PA2396 missing)
 Locs. 248, 249, west of Chung-sun, Puk-myon, Chikari Decke, South Korea
 Bunkoku Formation
 Lower Ordovician
 Described exoskeletal parts: cranidium (immature and matured), pygidium

***Dindymene* (?) *megacranidia* Kobayashi and Hamada, 1985** see *Ichiyamaella megacranidia* (Kobayashi and Hamada, 1985)

***Ditomopyge densigranulata* Kobayashi and Hamada, 1982**

Generic status questionably assigned as *Neoproetus* in Owens & Hahn (1993: *Geologica et Palaeontologica*, vol. 27, p. 174). See *N.? densigranulatus* (Kobayashi and Hamada, 1980)

***Ditomopyge amorni* Kobayashi and Hamada, 1979**

Geol. and Palaeont. of Southeast Asia, vol. 20, p. 8, pl. 1, fig. 2a-d

Holotype: pygidium with test preserved-PA17953
 Khao Thum Maholan, Thambon Nong Hin, Amphoe Wang-Saphung, Changwat Loei

Rat Bari Limestone

Lower Permian

Described exoskeletal parts: pygidium

***Doublatia? levigata* Kobayashi and Hamada, 1980**

Proc. Japan Acad., vol. 56-B, no. 3, p. 121, figs. 1-3

Holotype: cranidium with test preserved?-PA16683

Shimoyama, Kochi Prefecture, Japan

Shimoyama Limestone (buildup limestone? allochthonous?)

Middle to Upper Permian

Described exoskeletal parts: cranidium, pygidium, free cheek, thoracic segment

***Elrathia chuwaensis* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 227,

pl. 23, fig. 1

Holotype: articulated molt ensemble-PA1100 (missing)

west of Chuwa, North Korea

Elrathia chuwaensis Zone

Lower to Middle Cambrian?

Described exoskeletal parts: all except free cheek and ventral parts

***Elrathia kikkawai* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 227,

pl. 23, fig. 2

Holotype: cranidium with a few thoracic segments attached-PA1099

Sho-ryu-san, Heian-nan-do, North Korea

Not mentioned in the original

Lower to Middle Cambrian?

Described exoskeletal parts: cranidium, thoracic segments

***Elrathia taikiensis* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 226,

pl. 18, figs. 2-4

Syntypes: PA2096 to PA1098

Taiki, South Korea

Elrathia Zone, Beiho Slate

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, free cheek

***Elrathia spinifera* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 49, pl. 2, figs. 9-13

Holotype: inner mold of a cranidium-PA4066, Paratypes: PA4065, PA4067, PA4068

Tonkinella Zone at locs. 306 and 311

not mentioned in the original

Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

***Elrathiella taira* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 50, pl. 4,

figs. 3, 4

Holotype: inner mold of a cranidium-PA4069, Paratype: PA4070

Eochuangia Zone at locs. 292 and 301

not mentioned in the original

Middle Cambrian

Described exoskeletal parts: cranidium

***Encrinurus (Australurus) fimbriatus* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 107, pl. 11, figs. 10, 11, text-fig. 7H

Holotype: the inner mold of a pygidium-PA7381

Hitoegane, Kamitaka village, Yoshiki-gun, Gifu Prefecture, Japan

Formation name not mentioned in the original

Uppermost? Silurian

Described exoskeletal parts: pygidium

(For discussion on subgeneric status, see Ramsköld (1986: Palaeontology, vol. 29, p. 559))

***Encrinurus (Australurus) ishii* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 107, pl. 11, figs. 3, 4, text-fig. 7E

Holotype: inner mold of a pygidium-OCU PA0003

Okanaru, Higashi-uwa-gun, Ehime Prefecture, Japan

Formation name not mentioned in the original

Late Ludlow?, Upper? Silurian

Described exoskeletal parts: pygidium

(For discussion on subgeneric status, see Ramsköld (1986: Palaeontology, vol. 29, p. 559))

***Encrinurus kitakamiensis* Sugiyama, 1941 see *Coronocephalus? kitakamiensis* (Sugiyama, 1959)**

***Encrinurus (Australurus) mamelon* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 104, pl. 10, fig. 3, text-fig. 7C

Holotype: incomplete cranidium (almost only the glabella is preserved)-KPFM 16107

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

(For discussion on subgeneric status, see Ramsköld (1986: Palaeontology, vol. 29, p. 559))

***Encrinurus nodai* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 106, pl. 11, fig. 9, text-fig. 7D

Holotype: pygidium-PA7380

West of summit, Yokokura-mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Upper Wenlock, Silurian
Described exoskeletal parts: pygidium

***Encrinurus similis* Kobayashi and Hamada, 1985**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 212, pl. 29, figs. 4a-d
Holotype: pygidium-KGS 3629
Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Lower Ludlow, Silurian
Described exoskeletal parts: pygidium

***Encrinurus stenorhachis* Kobayashi and Hamada, 1985**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 212, pl. 29, figs. 3a-d
Holotype: inner mold of a pygidium-KGS3629
Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Lower Ludlow, Silurian
Described exoskeletal parts: pygidium

***Encrinurus subtrigonalis* Kobayashi and Hamada, 1985**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 210, pl. 28, figs. 4a-e, pl. 29, figs. 2a-d
Holotype: partly broken cephalon-KGS 3624
Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Lower Ludlow, Silurian
Described exoskeletal parts: cephalon, pygidium

***Encrinurus tosensis* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 106, pl. 10, figs. 10, 11, pl. 11, fig. 2, text-fig. 7G
Holotype: pygidium-KPFM 13396
calcareous sandstone of the *E. tosensis* horizon, Yokokura-mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)
Lower Ludlow, Silurian
Described exoskeletal parts: pygidium

***Encrinurus yokokuraensis* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 102, pl. 10, figs. 1, 2, 4, (pygidia suspected to this species: pl. 11, figs. 5, 6, 7, 8), text-fig. 7B
Holotype: cranidium-KPFM 618
Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan
Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian
Described exoskeletal parts: cranidium, pygidium (with suspecion), hypostome

***Encrinurus (Coronocephalus) kitakamiensis* Sugiyama, 1941** revised as ***Encrinurus kitakamiensis* Sugiyama, 1941** in Kobayashi and Hamada

***Endops yanagisawai* (Endo and Matsumoto, 1962)**

Sci. Rep. Saitama Univ. Ser. B, vol. 4, no. 2, p. 158-9, pl. 9, figs. 1-6
Holotype missing: specimen is an almost complete dead specimen of internal mold and should be PA16688
Takakura mountain, Iwaki City, Fukushima Prefecture, Japan
Takakura Formation
Middle Permian
Described exoskeletal parts: all the parts except rostral plate and hypostome

***Eochuangia hana* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 183, pl. 16, figs. 10-17
Syntypes: PA1048 to PA1053
Neietsu, South Korea
Olenoides Zone
Middle Cambrian
Described exoskeletal parts: cranidium, free cheek, pygidium

***Eochuangia hana* var. *conica* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 184, pl. 16, figs. 7-9
Syntypes: PA1054 to PA1056
Neietsu, South Korea
Olenoides Zone
Middle Cambrian
Described exoskeletal parts: cranidium, pygidium

***Eodiscus fusifrons* Saito, 1934**

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 218, pl. 25, figs. 12-16
Holotype: cephalon-PA0448, Paratypes: PA0499 to PA0451
A8 and F17, near Chungwha, P'yoengan-namdo
Ptychoparia beds
Middle Cambrian
Described exoskeletal parts: cephalon, pygidium

***Eodiscus spiniger* Saito, 1934**

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 218, pl. 25, figs. 2-8
Holotype: cephalon-PA0454, Paratypes: PA0452, PA0453, PA0455 to PA0457
S4, near Ssukkol, Heukkyo-myoen, Hwanghao-do
Ptychoparia beds (Ssukkol Shale)
Middle Cambrian

Described exoskeletal parts: cephalon, pygidium

“Eosaukia” buravasi Kobayashi, 1957d

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 10, part 3, p. 376, pl. 5, figs. 1-10, 13-18

Holotype: inner mold of a cranidium-PA2298c; Paratypes: PA2294c, d, e, PA2295a, PA2298d, e, f, PA2299d, e, f, g, h exact locality unknown

not mentioned in the original

Upper Cambrian

Described exoskeletal parts: all the parts except hypostome and rostral plate

Eymekops carinata Kobayashi, 1960

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 396, pl. 21, fig. 11

Holotype: cranidium with test preserved?-PA2480

Loc. Sho 10, 450 m west of Tanggok, Sangjang-myon, Samch'ok-kun, Kangwon-do, South Korea

Taiki Group, *Solenopreura* Zone

-

Described exoskeletal parts: cranidium

Eymekops mesops Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 115, pl. 5, fig. 13

Holotype: cranidium with a free cheek attached-PA4124

Loc. 313, middle part of south slope of Mt. Sambang-san, 1.1 km east of Set'o, Puk-myoun, South Korea

Iwayaspis Zone, further information not mentioned in the original

Middle Cambrian

Described exoskeletal parts: cranidium, free cheek

Eymekops perlongatus Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 114, pl. 5, figs. 5-6

Syntypes: PA4122, PA4123

Loc. 109, 1.9 km NNE of Mach'a-ri, Puk-myoun, SW top of Yo-bong, South Korea

Tonkinella Zone, further information not mentioned in the original

Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

Geratella cambria Kobayashi, 1960

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 342, pl. 19, fig. 8

Holotype: inner mold? of a cephalon-PA2438

Loc. Sho 19, 400m west of Sho 18 (350m southwest of Sodo-ri), South Korea

Dictyites Zone, Upper Kasetsu Formation

Described exoskeletal parts: cephalon

Geratrinodus levigatus Kobayashi and Hamada, 1978

Geology and Palaeontology of Southeast Asia, vol. 19, p. 9, pl. 1, fig. 5a-d, text-fig. 3

Holotype: pygidium with test preserved-PA18049

Loc. 186, red limestone, Pulau Langgon, Langkawi Islands, Malaysia

Lower Setul Limestone

Upper Ordovician

Described exoskeletal parts: pygidium

Geratrinodus perconvexus Kobayashi and Hamada, 1978

Geology and Palaeontology of Southeast Asia, vol. 19, p. 9, pl. 1, fig. 4a-e, text-figs. 4a-d

Holotype: enrolled dead specimen-PA18048

Loc. 185, grey limestone, Pulau Langgon, Langkawi Islands, Malaysia

Lower Setul Limestone

Upper Ordovician

Described exoskeletal parts: all the parts except hypostome

Goldillaenus shinoharai Kobayashi and Hamada, 1974

Assigned as synonymy of *Rhaxeros? shinoharai* (Kobayashi and Hamada, 1974) in Holloway and Lane, 1998

Gravicalymene yamakoshii Kobayashi and Hamada, 1977

Pal. Soc. Japan, Sp. Pap., no. 20, p. 127, pl. 10, figs. 1-14, pl. 11, figs. 1-15, text-fig. 5C

Holotype: inner mold of a cranidium-Shizenkan, no. 121

Gravicalymene bed (bed 1) in Sorayama, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium, free cheek, hypostome, thoracic segment, pygidium

Griffithidella nishikawai (Kobayashi and Hamada, 1978)

Proc. Japan Acad. vol. 54-B, p. 6, figs. 3a-b

Holotype: cranidium with test preserved-PA5913

Hina, Okayama Prefecture, Japan

Hina Limestone (allochthonous buildup limestone block?)

Upper Tournaisian, Carboniferous

Described exoskeletal parts: cranidium

Hamashania pulchra Kobayashi, 1942

Jour. Geol. Soc. Japan, vol. 49, no. 576, p. 38, text-figs. 1-3

Holotype: broken pygidium-PA1859

A red sandstone bed of the Fengshang stage at a point adjacently WSW of Ha-ma-shan, Chin-hsien, Province of Jehol

not mentioned in the original

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Hancrania brevilimbata* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 55, pl. 9, figs. 2-6

Holotype: inner mold of a cranidium-PA3996b, Paratypes: PA3996c to PA3996f

Loc. 242, Pundok-ch'I, 550m NW of Mach'a-ri, Puk-myon, South Korea

Hancrania Zone in black shale

Cambrian

Described exoskeletal parts: cranidium

***Haniwa conica* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 245, pl. 7, fig. 4

Holotype: inner mold of a cranidium-PA1121a

Doten, South Chosen

Dictya Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium

***Haniwa convexa* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 245, pl. 7, fig. 3

Holotype: inner mold of a cranidium-PA1120 (missing)

Doten, South Chosen

Dictya Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium

***Haniwa oblongata* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 246, pl. 7, fig. 14, pl. 8, fig. 14

Syntypes: PA1122, PA1123

West of Kasetsu-ji, South Korea

equivalent to the *Dictya* Zone

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Haniwa quadrata* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 149, pl. 15, figs. 7, 8

Holotype: inner mold of a cranidium-PA0424

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Haniwa sosanensis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 148, pl. 15, figs. 2-5

Holotype: inner mold of a cranidium-PA0421

Paratypes: PA0422, PA0423

Sanki-rei in the Sosan area

Tsinania Zone

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Haniwoides concavus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 243, pl. 17, figs. 1, 16, 17

Syntypes: PA1111 to PA1113

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

***Haniwoides longissimus* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 116, pl. 2, fig. 7

Holotype: inner mold of a cranidium-PA4041b

Loc. 274, 1.25km west of Kok-kol, Puk-myon, NNE of Chung-san, South Korea

Eochuangia Zone

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Haniwoides longus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 243, pl. 17, figs. 2, 3

Holotype: inner mold of a cranidium-PA1110, Paratype: PA1109

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, free cheek

***Haniwoides (?) puteolatus* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 116, pl. 2, figs. 18, 19, pl. 3, fig. 18-22

Holotype: cranidium-PA4129, Paratypes: PA4126 to PA4128a, PA4129-4132

Locs. 225, 260, 262, 400 m east of Moha-ri, Puk-myon, etc., South Korea

Eochuangia Zone

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

(The locality of the paratype specimens shown in pl. 2, figs. 17, 18, is said to be Loc. 206, which is not mentioned in the locality list. Here interpreted Loc. 206 as Loc. 260)

***Haniwoides tenuis* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 116, pl. 2, figs. 8, 9

Syntypes: cranidia with partly test preserved?-PA4125a, b

Loc. 274, 1.25km west of Kok-kol, Puk-myon, NNE of Chung-san, South Korea

Eochuangia Zone

Lower to Middle Cambrian
Described exoskeletal parts: cranidium

***Harpes* (s. l.) *kylindrorhachis* Kobayashi and Hamada, 1972**

Geol. Palaeont. Southeast Asia, vol. 10, p. 29, pl. 3, figs. 11, 12

Holotype: enrolled dead specimen-PA17884, Paratype: PA17883

Kampong Pahit, south of Kroh, Upper Perak, near the Thai-Malayan border

not mentioned in the original

Devonian

(Described exoskeletal parts: all the parts except hypostome probably lioharpid?)

“*Hedinaspis*” *granulatum* Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 58, pl. 9, fig. 7

Holotype: inner mold of a cranidium-PA3996g

Boulder at Loc. 242, Pundok-ch’I, 550m NW of Mach’a-ri, Puk-myon, South Korea

Huncrania Zone

Upper Cambrian?

Described exoskeletal parts: cranidium

***Hidascutellum multispiniferum* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 76, pl. 1, figs. 1-14, pl. 2, figs. 5-15, text-fig. 3A

Holotype: outer mold of a cranidium-Kyoto Univ., no. 16

Bed 10 in Kanjiro-zako, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium, hypostome, free cheek, pygidium

***Hintzeia glabella* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 262, pl. 13, fig. 32

Holotype: inner mold of a broken cranidium-PA2413

Loc. 100906, west of Myongna-gok, Sanae-ri, So-myon, South Korea

Yoshimuraspis Zone, Bunkoku Formation

Lower Ordovician

Described exoskeletal parts: cranidium

***Homagnostus hisakoshii* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 30, pl. 8, figs. 1-14

Holotype: almost complete specimen-PA4005, Paratypes: PA4000a to PA4002a, PA4003, PA4004a, PA4005 to PA4010

Locs. Ita 11, 196, 197, 313, 400m south or southwest of Suang-dong, Yongwol-myon, South Korea

Black shale, further information not mentioned in the original
Upper Cambrian

Described exoskeletal parts: all the parts except hypostome

***Hukasawaia cylindrica* Kobayashi, 1953**

Japan. Jour. Geol. Geogr., vol. 23, p. 50, pl. 3, fig. 15

Holotype: cranidium-PA2083

Chikari, Hokumen, Neietsugun, Kogendo, South Korea

Bunkoku Formation

Lower Ordovician

Described exoskeletal parts: cranidium only

***Humilogriffithides taniguchii* Endo and Matsumoto, 1962**

Sci. Rep. Saitama Univ. Ser. B, vol. 4, no. 2, p. 160, pl. 3, figs. 1a-3b

Types not designated so far, probably lost

Nishi-yama quarry, Omi town, Niigata Prefecture, Japan

Omi Limestone (allochthonous buildup limestone block)

Middle Carboniferous

Described exoskeletal parts: cephalon, thoracic segment, pygidium

***Hundwarella* (*Honanaspis*?) *matsushitai* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 95, pl. 12, fig. 1, text-fig. 10

Holotype: almost complete specimen-PA4108

Tangshihan green shale at a point about 3km north of Peimen (North gate) of Chinchou, South Korea

not mentioned in the original

Middle Cambrian

Described exoskeletal parts: all the parts except hypostome and rostral plate

***Hysterolenus* (?) *manchuricus* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 150, pl. 15, fig. 6

Holotype: inner mold of a pygidium-PA0426

Paichiashan, Wuhutsui basin, Liaotung

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts:

***Hystricurus calvus* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 236, pl. 14, figs. 5, 6

Syntypes: inner molds of a cranidium and a free cheek-PA2374, PA2375

West of Chung-sun, Puk-myon, Chikari Decke, South Korea

Yoshimuraspis Zone, Bunkoku Formation

Lower Ordovician

Described exoskeletal parts: cranidium, free cheek

***Hystricurus eurycephalus* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 542,

pl. 6, fig. 10

Holotype: partly broken cranidium-PA0827

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium

***Hystricurus megalops* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 541,

pl. 6, figs. 8, 9

Syntypes: cranidium, free cheek-PA0825, PA0826

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, free cheek

***Hystricurus platypleurus* Kobayashi, 1955**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 9, part 3, p. 454, pl. 6,

fig. 6

Holotype: pygidium with partly test preserved-PA2204

Loc. 2, north of forest stream from east, north of Brisco trail, elevation 5250', Columbia River Valley, British Columbia, Canada

Kaniella Zone, McKay Group

Described exoskeletal parts: pygidium

***Ichiyamaella megacranidia* (Kobayashi and Hamada, 1985)**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 212, pl. 28, figs. 3a-d

Holotype: broken cranidium (inner mold?)-KGS 3624

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: broken cranidium

(Encrinurid *Dindymene* is an Ordovician genus. The present species should be of Acanthoparyphinae Whittington and Evitt 1954.)

***Ichiyamaella subglobula* Kobayashi and Hamada, 1986**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 143, p. 456, pl. 91, figs. 3a-f, text-figs. A1-4

Holotype: weathered cephalon? (cranidium?)-PA18080

Ichiyama, near Ochi-town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cephalon?, cranidium?

(The specimen is strongly weathered especially the cheek area. Probably, spines in the border of the fixed cheek has lost because of the weathering. Then the generic status should be *Youngia*, *Hyrokybe* or *Parayoungia* of Acanthoparyphinae.)

***Iddingsia orientalis* Kobayashi, 1958**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 30, p. 214, text-fig. 1

Holotype: cranidium-PA2311

Tanyo 7, see p. 212, South Korea

Kasetsu Group, *Dictyites* Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Illaeonoides (?) abnormis* Kobayashi and Hamada, 1986**

assigned as synonymy of *Bumastella spicula* (Kobayashi and Hamada, 1974) in Holloway and Lane, 1998

***Illaeonoides (?) magnisulcatus* Kobayashi and Hamada, 1986**

questionably assigned as synonymy of *Bumastella spicula* (Kobayashi and Hamada, 1974) in Holloway and Lane, 1998

***Illaeonoscuteillum platiceps* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 70, pl. 1, fig. 1, text-fig. 4C

Holotype: cranidium with test partly preserved-KPFM 16090 exact locality not mentioned in the original, Yokokura Mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Illaeus hinomotoensis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 560, pl. 3, figs. 25-29

Holotype: cranidium with test partly preserved-PA0869, Paratypes: cranidium, pygidia-PA0871 to PA0873

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, pygidium

***Illaeus semioviformis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 561, pl. 3, figs. 30, 31

Holotype: pygidium with test preserved?-PA0874

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, pygidium

***Iranaspidion sagittalis* Kobayashi and Hamada, 1978**

Proc. Japan Acad., vol. 54-B, no. 4, p. 158, figs. 1-4

Holotype: enrolled holotype specimen-PA16764

Unit I bed at the south-western extremity of the Kuh-e-hambast range, Central Iran

name of the type formation is not mentioned

Late Guadalupian, Permian

Described exoskeletal parts: all the parts except hypostome, rostral plate

***Irvingella (?) orientalis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 566, pl. 8, figs. 5, 6

Syntypes: cranidium, free cheek-PA0881, PA0882

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, free cheek

***Iwayaspis asaphoides* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 122, pl. 6, figs. 1-10, ?pl. 8, fig. 24, pl. 9, fig. 24

Holotype: articulated mold ensemble-PA4154a, Paratypes: PA4002b, PA4004b, PA4044b, PA4154b, PA4155 to PA4161

Loc. 313, middle part of south slope of Mt. Sambang-san, 1.1km east of Set'o, Puk-myoun, South Korea

Iwayaspis Zone, further information not mentioned in the original

Upper Cambrian

Described exoskeletal parts: all the parts except rostral plate

***Japonoscutellum japonicum* (Kobayashi and Hamada, 1965)**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 58, p. 77, pl. 7, figs. 1-3

Holotype: cranidium with test partly preserved-PA7353

Sugihara shrine, shelly beds

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow?, Silurian

Described exoskeletal parts: cranidium, pygidium, thoracic segment

***Japonoscutellum japonicum laticepalum* Kobayashi and Hamada, 1986**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 143, p. 449, pl. 90, figs. 2a-b

Holotype: cranidium with test preserved-PA18072

exact locality not mentioned in the original, Yokokura Mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Japonoscutellum japonicum puteatum* Kobayashi and Hamada, 1986**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 143, p. 448, pl. 90, figs. 1a-b

Holotype: broken cranidium-PA18071

Exact locality not mentioned in the original, Yokokura Mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Jimbokranion subovalis* Kobayashi and Hamada, 1984**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 74, pl. 2, fig. 6, text-fig. 6f

Holotype: inner mold of a badly preserved cranidium-PA16677

Hosoo-zawa, Kamiyatsuse, Kesenuma City, Miyagi Prefecture, Japan

Kanokura Formation?, Kanokura Series

Middle Permian

Described exoskeletal parts: cranidium

***Jujuyaspis keideli* Kobayashi, 1936**

Japan. Jour. Geol. Geogr., vol. 13, nos. 1-2, p. 90, pl. 16, figs. 5-9

Syntypes: articulated dead specimens or mold ensembles-PA1250 to PA1254

Quebradade Humahuaca, Province Jujuy, Argentina

not mentioned in the original

Upper Cambrian

Described exoskeletal parts: all the parts except hypostome, rostral plate

***Kabutocrania fossula* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 359, pl. 20, fig. 19, text-fig. 2I

Holotype: inner mold of a cranidium-PA2457

Loc. Sho 1, west side of a trail, 750m south of Sodo-ri

Seison slate of the Kushan Stage

Upper Cambrian

Described exoskeletal parts: cranidium

***Kainella euryraxis* Kobayashi, 1953**

Japan. Jour. Geol. Geogr., vol. 23, p. 45, pl. 3, fig. 9

Holotype: inner mold of a pygidium-PA2072

Kogendo, Korea (for detail, see p. 45)

Argillaceous limestone

Lowest Ordovician

Described exoskeletal parts:

***Kaolishania (?) granulosa* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 104, pl. 11, figs. 19-20

Holotype: broken cranidium-PA0360

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Upper Cambrian

Described exoskeletal parts: cranidium

***Kaolishania (?) latiura* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 356, pl. 21, fig. 19

Holotype: inner mold of a pygidium-PA2452

Sho 4 and Saishori, South Korea

Kaolishania zone

Upper Cambrian

Described exoskeletal parts: pygidium

***Kaolishania* (?) *obsolata* Kobayashi, 1933c**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 104, pl. 11, figs. 15, 16

Syntypes: PA0361, PA0362

Sanki-rei in the Sosan area, North Korea

Red micaceous shale

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Kingstonia convexa* Kobayashi, 1933a**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 7, p. 278, pl. 6, figs. 9, 10

Holotype: inner mold of a cranidium-PA0281, Paratype: cranidium: PA0280

Wan-wan-kou, Niuhsintai Basin, South Mongolia

Wanwankou dolomite

Lower Ordovician?

Described exoskeletal parts: cranidium

***Kingstonia humilis* Kobayashi, 1933a**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 7, p. 279, pl. 6, fig. 1

Holotype: inner mold of a cranidium-PA0282

Wan-wan-kou, Niuhsintai Basin, South Mongolia

Wanwankou dolomite

Upper Cambrian

Described exoskeletal parts: cranidium

***Kingstonia paichiaensis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 143, pl. 15, figs. 14, 15

Holotype: inner mold of a cranidium-PA0414, Paratype: PA0415

Pai-chia-sshan, Wuhutsui basin, Liaotung, North Korea

Chuangia Zone

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Kingstonia parallella* Kobayashi, 1958**

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 30, p. 213, text-fig. 2a, b (text figures should be 3, the caption of the figure should be *Kingstonia* instead of *Plethometops*)

Holotype: cranidium-PA2309

Tanyo 9, see p. 213, South Korea

Kasetsu Group, Dictyites Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Kingstonia semicircularis* Kobayashi, 1933**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 7, p. 278, pl. 6, figs. 7, 8

Holotype: cranidium with test preserved-PA0278, Paratype: pygidium: PA0279

Wan-wan-kou, Niuhsintai Basin, South Mongolia

Wanwankou dolomite

Lower Ordovician?

Described exoskeletal parts: cranidium, pygidium

***Kokuria typa* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 249, pl. 5, fig. 17

Holotype: cranidium with test preserved-PA1133

Doten, South Korea

Kaolishania Zone Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium

***Kogenium rotundum* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 274, pl. 17, figs. 6-9

Syntypes: PA1145 to PA1148

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

***Kogenium triangulare* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 275, pl. 17, figs. 4-5

Syntypes: PA1149, PA1150

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: pygidium

***Koldinioidia aspinosa* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 100, pl. 10, figs. 5, 6

Syntypes: PA0348, PA0349

Paichiashan hill, Wuhutsui basin, Liaotung, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts: cephalon, pygidium

***Koldinioidia typicalis* Kobayashi, 1931a**

Japan. Jour. Geol. Geogr., vol. 8, no. 3, p. 187, pl. 22, figs. 8b, 9

Syntypes: PA0154b, PA0173

Chiu-shu-kou and Hua-lien-chai, South Mongolia

Chiushukou Shale

Middle Cambrian

Described exoskeletal parts: cephalon, pygidium

Konaspis* (?) *convexa* Kobayashi, 1935** see ***Konaspis
(***Parairvingella***) ***megalops* Kobayashi, 1962**

***Konaspis* (*Parairvingella*) *megalops* Kobayashi, 1962**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 142, pl. 16, fig. 3

Holotype: inner mold of a cranidium-PA0985

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Kootenia amanoi* Kobayashi, 1961**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 13, part 2, p. 223, pl. 12, figs. 25-31

Syntypes: PA3956, PA3875 to PA4879, PA4881

Ma23, N2 and Ama 273, see p. 223

?

Lower Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Kootenia asiatica* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 158, pl. 22, figs. 5, 6

Holotype: cranidium-PA1008, Paratypes: PA1009a, PA1009b (all the types are missing)

A boulder from a valley east of Chuwa, Heian-nan-do, Korea
Redlichia Shales?

Lower Cambrian?

Described exoskeletal parts: cranidium, pygidium

***Kootenia damesi* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 158, pl. 18, figs. 11-13

Syntypes: PA1006, PA1007

Doten

Megagraulos Zone

Cambrian

Described exoskeletal parts: cranidium, pygidium

***Kootenia punctata* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 157, pl. 15, figs. 14-21

Syntypes: PA0999 to PA1005 (PA1002 missing)

Ma 23, N2 and Ama 273, see p. 223, South Korea

?

Lower Cambrian

Described exoskeletal parts: cranidium, hypostome, pygidium

***Koptura biloba* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 281, pl. 19, fig. 10

Holotype: pygidium-PA1155

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: pygidium

***Koptura bispinata* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 101, pl. 7, figs. 1-7

Holotype: inner mold? of a cranidium-PA4114, Paratypes: PA4113, PA4115 to PA4119

Locs. 197, 199, 313, 400m south or SW of Suang-dong, Yongwol-myon, etc., South Korea

Koptura Shale

Middle Cambrian

Described exoskeletal parts: cranidium, pygidium, free cheek

***Koraipsis spinus* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 574, pl. 8, fig. 1

Holotype: cranidium-PA0896

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium

***Kosovopeltis angusticostata* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 70, pl. 5, figs. 3-6, text-fig. 4G

Holotype: inner mold? of a pygidium-KPFM 15334

north of Gomi, Yokokura-mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lowest Ludlow, Silurian

Described exoskeletal parts: pygidium

***Lalax kattoi* (Kobayashi and Hamada, 1984)**

Sci. Rep. Kochi Univ., vol. 32, Not. Sci. p. 22, pl. 5, figs. 2a, b, 3a-d

Holotype: broken cephalon with test preserved-KGS3590, Paratype: KGS3591

Gomi quarry

Yokokura Limestone (allochthonous buildup limestone block)

Early Upper Silurian?

Described exoskeletal parts: cephalon

(See Holloway and Lane, 1998: *Palaeontology* 41, 877)

***Lalax? sakoi* (Kobayashi and Hamada, 1984)**

Sci. Rep. Kochi Univ., vol. 32, Not. Sci. p. 22, pl. 5, figs. 4a-b

Holotype: cephalon with test preserved-KGS3590

Gomi quarry

Yokokura Limestone (allochthonous buildup limestone block)

Described exoskeletal parts: cephalon

(See Holloway and Lane, 1998: *Palaeontology* 41, 877)

***Langgonbole vulgaris* Kobayashi and Hamada, 1973**

Geol. Palaeont. Southeast Asia, vol. 12, p. 15, pl. 1, figs. 1-23, pl. 2, figs. 1-24, text-figs. 2, 3

Holotype: cranium with partly test preserved-PA17900

Paratypes: PA17886 to PA17899, PA17901 to PA17926

Red mudstone on the northwest coast of Pulau Langgon, Langkawi Islands, Northwest alaysia

not mentioned in the original

Devonian

Described exoskeletal parts: all the parts except ventral characters

***Langgonia araiorachis* Kobayashi and Hamada, 1971**

Geol. Palaeont. Southeast Asia, vol. 9, p. 115, pl. 22, figs. 2-4

Syntypes: PA17806 to PA17808 (PA17806, PA17807 missing)

Langkawi Islands, West Malaysia

Lose boulders

Silurian

Described exoskeletal parts: cranium, free cheek

***Langgonia biplicata* Kobayashi and Hamada, 1971**

Geol. Palaeont. Southeast Asia, vol. 9, p. 114, pl. 22, figs. 1, 2

Holotype: cephalon-PA17804, Paratype: PA17805 (all the types missing)

Langkawi Islands, West Malaysia

Lose boulders

Silurian

Described exoskeletal parts: cephalon

***Langgonia (?) plimeroides* Kobayashi and Hamada, 1971**

Geol. Palaeont. Southeast Asia, vol. 9, p. 115, pl. 22, figs. 6-10

Holotype: pygidium-PA17809

Paratypes: PA17810 to PA17813

Langkawi Islands, West Malaysia

Lose boulders

Silurian

Described exoskeletal parts: pygidium

***Leiostegium raymondi* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 540, pl. 6, fig. 16

Holotype: broken cranium-PA0824

Clarkella Zone

Saisho-ri

Lower Ordovician

Described exoskeletal parts: cranium

***Lichas? perconvexus* (Kobayashi and Hamada, 1984)**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 215, pl. 30, figs. 3a-d

Holotype: partly broken cranium-KGS 3632

Boulder found near Gomi quarry, Yokokura Mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranium

***Lichas? truncatus* (Kobayashi and Hamada, 1984)**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 80, pl. 8, figs. 9-12, text-fig. 6A

Holotype: a cranium with partly test preserved-KPFM 628

Exact locality not mentioned in the original, Yokokura Mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranium, pygidium

***Linguaphillipsia choanjiensis* Kobayashi and Hamada, 1980**

Generic status was assigned as *Palaeophillipsia* in Owens & Hahn (1993: *Geologica et Palaeontologica*, vol. 27, p. 170).

See *P. choanjiensis* (Kobayashi and Hamada, 1980)

***Linguaphillipsia higuchizawaensis* Kobayashi and Hamada, 1980**

Generic status was assigned as *Palaeophillipsia* in Owens & Hahn (1993: *Geologica et Palaeontologica*, vol. 27, p. 170).

See *P. higuchizawaensis* (Kobayashi and Hamada, 1980)

***Linguaphillipsia subconica* Kobayashi and Hamada, 1980**

Generic status was assigned as *Palaeophillipsia* in Owens & Hahn (1993: *Geologica et Palaeontologica*, vol. 27, p. 170).

See *P. subconica* (Kobayashi and Hamada, 1980)

***Lioparella longifolia* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 100, pl. 1, fig. 20

Holotype: inner mold? of a cranium-PA4112

Loc. 105, 1.9km NNE of Mach'a-ri, Pul-myon, SW top of Yo-bong, South Korea

Tonkinella Zone

Middle Cambrian

Described exoskeletal parts: cranium

***Lioparia conicula* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 394, pl. 21, fig. 15

Holotype: cranium with partly test preserved-PA2478

Loc. Sho 3, about 50m SW of Sho 2 which is on westerly slope, 750 m south of Sodo-ri, South Korea

Chuangia Zone

Upper Cambrian

Described exoskeletal parts: cranium

***Lioparia expansus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 240, pl. 19, fig. 13

Holotype: inner mold of a cranidium-PA1105

Doten, South Korea

Solenoparia Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Lioparia? longifrons* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 241, pl. 17, fig. 15

Holotype: cranidium with test partly preserved-PA1106

Neietsu, South Korea

Solenoparia Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Lisania conica* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 36, pl. 5, fig. 3

Holotype: external mold? of a cranidium-PA4037, Paratype: pygidium-PA4038a

Loc. 274, 1.25 km west of Kok-kol, Puk.myon, NNE of Chung-san, South Korea

Eochuangia Zone

Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

***Loeipyge spinifera* Kobayashi and Hamada, 1979**

Geol. and Palaeont. of Southeast Asia, vol. 20, p. 7, pl. 1, fig. 1a-d

Holotype: pygidium-PA17952

South flank of Than Nan Maholan, south of Wang Saphung, Changwat Loei, Thailand

Rat Buri Limestone

Lower Permian

Described exoskeletal parts: pygidium

***Lonchodomas rhodomas* Kobayashi and Hamada, 1978a**

Geol. Palaeont. Southeast Asia, vol. 19, p. 22, pl. 2, fig. 12, text-fig. 5

Holotype: cephalon with test preserved-PA18060 (missing)

Loc. 185, gray limestone in Telok Memplam, Pulau Langgon, Langkawi Islands, Malaysia

not mentioned in the original

Upper Ordovician

Described exoskeletal parts: cephalon

***Lonchodomas (Metalonchodomas) masjidiformis* Kobayashi and Hamada, 1971**

Geol. Palaeont. Southeast Asia, vol. 9, p. 128, pl. 21, figs. 18, 19

Syntypes: PA17839, PA17840

Langkawi Island, west Malaysia

?

Silurian

Described exoskeletal parts: cephalon

***Lorenzella quadrata* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 210, pl. 12, figs. 2-4

Holotype: inner mold of a cranidium-PA1087, Paratype: PA1088

Shoku-do and Kasetsu-ji, South Korea

Drepanura Zone, Seison Group

Upper Middle Cambrian

Described exoskeletal parts: cranidium, free cheek

***Macrobole kedahensis* Kobayashi and Hamada, 1973**

Geol. Palaeont. Southeast Asia, vol. 12, p. 20, pl. 3, figs. 1-24, text-figs. 5, 6

Holotype: inner mold of a cranidium-PA17937, Paratypes: PA17928 to PA17936, PA17038 to PA17950

Near Kampong Jeluton, North Kedah (Loc. R-94), Malaysia not mentioned in the original

Devonian

Described exoskeletal parts: all the parts except ventral characters

***Maladioides asiaticus* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 146, pl. 15, figs. 9-12

Holotype: inner mold of a cranidium-PA0417, Paratypes: PA0418, PA0419 (PA0418 missing)

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Chuangia Zone

Upper Cambrian

Described exoskeletal parts: ?

***Maladioides coreanicus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 283, pl. 8, figs. 5, 6

Syntypes: PA1156, PA1157

Saishori, South Korea

Chuangia Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium

***Malayaproetus bulbosus* Kobayashi and Hamada, 1971b**

Geol. Palaeont. Southeast Asia, vol. 9, p. 118, pl. 23, figs. 4-11

Holotype: cranidium-PA17825 (missing), Paratypes: PA17826 to PA17830a

Langkawi Islands, West Malaysia

Lose boulders

Silurian

Described exoskeletal parts: cranidium, free cheek

***Manchuria convexa* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 298,
pl. 14, fig. 13, pl. 20, fig. 1-4

Syntypes: PA1173 to PA1177

Doten, South Korea

Solenoparia Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, free cheek,
hypostome, pygidium

***Manchuriella (Blainia?) miniformis* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 300,
pl. 14, fig. 16, pl. 20, fig. 5

Syntypes: PA1180, PA1181

Doten, South Korea

Solenoparia Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium

***Mansuyia maladiformis* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 302,
pl. 4, figs. 1, 2

Holotype: inner mold of a broken cranidium-PA1182,
Paratypes: PA1183

Dooten, South Korea

Eoorthis Zone, Kasetu Group

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Mansuyia trigonalis* Kobayashi, 1960**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 364, pl.
20, fig. 11, pl. 21, fig. 18

Syntypes: cranidium, pygidium-PA2458, PA2459

Loc. Sho 6, north side between Sodo-ri and Hyol-ki

Dictyites Zone, Upper Kasetu Formation

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Mapania beihoensis* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 229,
pl. 20, figs. 8-10

Syntypes: PA1101 to PA1103

Doten, South Korea

Mapania Zone, Beiho Slate

Upper Lower Cambrian

Described exoskeletal parts: cranidium, free cheek

***Megagraulos breviscapus* Kobayashi, 1962**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 66, pl. 2,
fig. 1

Holotype: inner mold? of a cranidium-PA4079

Loc. 274, 1.25 km west of Kok-kol, Puk.myon, NNE of
Chung-san, South Korea

Eochuangia Zone

Middle Cambrian

Described exoskeletal parts: cranidium

***Megagraulos coreanicus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 207,
pl. 18, figs. 5-10, pl. 23, fig. 15

Syntypes: PA1079 to PA1085

Doten, South Korea

Megagraulos Zone, Taiki Group

Middle Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Megagraulos medius* Kobayashi, 1962**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 66, pl. 2,
figs. 2, 3

Syntypes: cranidia-PA4077, PA4078

Locs. 274, 292, 1.25km west of Kok-kol, Puk.myon, NNE of
Chung-san, etc., South Korea

Eochuangia Zone

Middle Cambrian

Described exoskeletal parts: cranidium

***Megalaspis (?) akyrorachis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 555,
pl. 4, fig. 16

Holotype: pygidium-PA0855

Asaphellus Zone

Makkol, South Korea

Lower Ordovician

Described exoskeletal parts: pygidium

***Megalaspis (?) biangulata* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 555,
pl. 5, figs. 12, 13

Syntypes: free cheek, pygidium-PA0853, PA0854

Asaphellus Zone

Doten, South Korea

Lower Ordovician

Described exoskeletal parts: free cheek, pygidium

***Megalaspis (?) euryrachis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 556,
pl. 4, fig. 15

Holotype: pygidium-PA0856

Asaphellus Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts:

***Megalaspis orientalis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 554,
pl. 6, figs. 11, 12

Holotype: broken pygidium-PA0852, Paratype: broken
hypostome-PA0851

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: hypostome, pygidium

***Megalaspis* (?) *substenorahis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 556, pl. 6, figs. 14, 15

Syntypes: pygidia-PA0857, PA0858

Asaphellus Zone

Tomkol, South Korea

Lower Ordovician

Described exoskeletal parts: pygidium

Metadiscus bunkeiensis* Kobayashi, 1943 see *Dawsonia bunkeiensis* (Kobayashi, 1943)**Metadiscus bunkeiensis* var. *sulcata* Kobayashi, 1943**

Proc. Imp. Acad. Tokyo, vol. 19, p. 41, text-figs. 2, 4

Syntypes: PA1972, PA1973

South of Kaniri, Bunkei area, South Korea

Ptychoparia Zone in the Majo Formation

Middle Cambrian

***Metagraulos sampoensis* Kobayashi, 1961**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 13, part 2, p. 230, pl. 13, figs. 5-8

Holotype: inner mold of a cranidium-PA3965, Paratypes: PA3961b, PA3966, PA3967

Loc. 314, 316 and 317, see p. 187

Sampson Formation, *Metagraulos* Zone

Middle Cambrian

Described exoskeletal parts: cranidium

Metaleioliclas tuberculatus* Kobayashi and Hamada, 1987**Generic status was assigned as senior synonymy of *Platylichas* (*Rontripia*) in Thomas and Holloway (1988: Philo. Tran. Roy. Soc. London, vol. 321, p. 222). See *P. (R) tuberculatus* (Kobayashi and Hamada, 1987)Metopolichas* (?) *martellii* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 565, pl. 7, fig. 1

Holotype: broken pygidium-PA0880

Protopliomerops Zone, South Korea

Saisho-ri

Lower Ordovician

Described exoskeletal parts: pygidium

***Micragnostus coreanicus* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 234, pl. 13, figs. 7, 8

Holotype: internal mold of a cephalon-PA2365a, Paratype: PA2364

West of Chung-san, Puk-myon and highway at Mohari, Chikari Decke, South Korea

Bunkoku Formation

Lower Ordovician

Described exoskeletal parts: cephalon

***Microscutellus primigenium* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 74, pl. 5, figs. 7-10, text-fig. 4D

Holotype: broken cranidium? (the original states the holotype specimen as a broken cephalon but in doubt)-PA7383

Exact locality not mentioned in the original, Yokokura Mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cephalon (cranidium?), pygidium

(Reason of the identifications of illustrated pygidia to the present species is not discussed)

***Mimana eurycephala* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 179, pl. 8, fig. 7

Holotype: inner mold of a cranidium-PA1046

Doten, South Korea

Dictya Zone

upper Upper Cambrian

Described exoskeletal parts: cranidium

***Mungyongia subovalis* Kobayashi, 1961**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 13, part 2, p. 229, pl. 12, fig. 10

Holotype: cranidium-PA3964

Ma 32, see p. 185 and 229, South Korea

Nisusia Limestone

Lower Cambrian

Described exoskeletal parts: cranidium

***Mungyongia tulipiformis* Kobayashi, 1961b**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 13, part 2, p. 229, pl. 12, fig. 11

Holotype: cranidium-PA3963

Am 272, see p. 185 and 229, South Korea

Nisusia Limestone

Lower Cambrian

Described exoskeletal parts: cranidium

***Neogriffithides imbricatus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 48, pl. 1, figs. 12a-c, 13, text-fig. 5j

Holotype: inner mold of a pygidium-PA16668

Mt. Ryozen, Shiga Prefecture, Japan

Formation name not mentioned in the original

Middle Permian

Described exoskeletal parts: pygidium

***Neoproetus? densigranulata* (Kobayashi and Hamada, 1982)**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 50, pl. 4, figs. 9-11, text-fig. 5e

Holotype: part of a cranidium-PA16696

A quarry in Omote-Matsukawa, Kesenuma City, Miyagi Prefecture, Japan

Ochiai Formation?

Middle Permian

Described exoskeletal parts: cranidium, free cheek

“*Neoproetus*” *akagii* Kobayashi and Hamada, 1982

Generic status was questionably assigned to *Tripoetus* in Owers & Hahn (1993: *Geologica et Palaeontologica*, vol. 27, p. 174). See *T.? akagii* (Kobayashi and Hamada, 1980)

***Neoproetus (Tripoetus) subovalis* Kobayashi and Hamada, 1979**

Geol. and Palaeont. of Southeast Asia, vol. 20, p. 10, pl. 1, figs. 4-7

Holotype: cranidium-PA17955, Paratypes: PA17956 to PA17959

Tham Nan Maholan, south of Wag-Saphung, Changwat Loei, North Thailand

Rat Buri Limestone

Lower Permian

Described exoskeletal parts: cranidium, pygidium

***Nileus malayensis* Kobayashi and Hamada, 1978**

Geol. and Palaeont. of Southeast Asia, vol. 19, p. 13, pl. 2, figs. 2-4

Syntypes: testiferous cranidium, free cheek, thoracic segment-PA18052 to PA18054

Loc. 185, gray limestone in Telok Memplam, Pulau Langgon, Langkawi Islands, Malaysia

not mentioned in the original

Upper Ordovician

Described exoskeletal parts: cranidium, free cheek, thoracic segment?

***Nipponarges mediosculcatus* Kaneko, 1984**

Generic status was assigned as junior synonymy of *Acanthopyge* (A.) in Thomas and Holloway (1988: *Philo. Trans. Roy. Soc. London*, vol. 321, p. 222). See *A. (A.) mediosculcatus* (Kaneko, 1984)

***Nipponaspis takaizumii* Koizumi, 1972**

Chikyū-Kagaku, vol. 26, no. 1, p. 22, pl. 2, figs. 1-6, text-fig. 2

Holotype: almost complete internal mold-PA16672 (UTIEA F 9004)

G2 valley, Takakura mountain, Yotsukura town, Iwaki City, Fukushima Prefecture, Japan

Takakurayama Formation

Middle Permian

Described exoskeletal parts: all the parts except hypostome, rostral plate

***Nipponocalymene hamadai* Kaneko, 1985**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 138, p. 99, pl. 14, figs. 1a-4b, pl. 15, figs. 1a-2c, pl. 16, figs. 1a-12, text figs. 1a-b

Holotype: broken specimen with cranidium and thoracic segments articulated-PA17144

exact locality not mentioned. A small tributary of the Higuchi shrine, Hikoroichi town, Ofunato City, Iwate Prefecture, Japan

Nakazato Formation

Middle Devonian (Middle to Late Eifelian?)

Described exoskeletal parts: cephalon, thoracic segment, pygidium, hypostome

***Ogygitoides raymondi* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 484, pl. 40, fig. 5, pl. 43, figs. 1-5

Holotype: cranidium-PA0775 (missing), Paratypes: PA0772 to PA0774, PA0776, PA0777

Makkol and Seihekiri, South Korea

Cikunsan Beds

Middle Ordovician

Described exoskeletal parts: all the parts except hypostome

***Olenoides asiaticus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 154, pl. 15, figs. 7-12, 23

Syntypes: PA0994 to PA 0997 (PA0994 missing)

Neietsu

Olenoides Zone

Lower Cambrian

Described exoskeletal parts: cranidium, pygidium

***Olenus asiaticus* Kobayashi, 1944**

Proc. Imp. Acad. Tokyo, vol. 20, no. 4, p. 230, text-fig. 1a, b

Holotype: cranidium with test preserved?-PA1991

Loc. 241 in Buntokuji and Itahashi, North Korea

Glyptagnostus Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Onchometopus (?) makkolensis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 487, pl. 40, fig. 6, pl. 43, fig. 7

Syntypes: cranidium, broken thoracopygidium-PA0779, PA0780

A boulder at Makkol, South Korea

Most probably the lower part of Chikunsan Beds
Middle Ordovician
Described exoskeletal parts: cranidium thoracic segments, pygidium

Opoa (?) trinodosa Kobayashi and Hamada, 1986

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 143, p. 450, pl. 90, figs. 4a-b

Holotype: cranidium with fixed cheeks broken-PA18074

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium, pygidium

(Pygidium of the present species is illustrated under the name of *Microscutellum primigenium* Kobayashi and Hamada, 1974: pl. 5, figs. 9a-c)

Oryctocephalus kobayashii Saito, 1934

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 231, pl. 25, figs. 23-25

Holotype: inner mold of a cranidium-PA0501, Paratype: cranidium-PA0500

Loc. S4, near Ssukkol, Heukkyo-myoen, Hwanghai-do, North Korea

Ptychoparia Beds, Ssukkol Shale

Middle Cambrian

Described exoskeletal parts: cranidium

Oryctocephalus orientalis Saito, 1934

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 230, pl. 25, figs. 17-22

Holotype: inner mold of a cranidium-PA0495, Paratypes: cranidium, pygidium, free cheek, thoracic segments-PA0496 to PA0499

Loc. S4, near Ssukkol, Heukkyo-myoen, Hwanghai-do, North Korea

Ptychoparia Beds, Ssukkol Shale

Middle Cambrian

Described exoskeletal parts: cranidium, pygidium, thoracic segment, fused type of free cheeks, rostral plate and hypostome

Otarion megalops Kobayashi and Hamada, 1977

Pal. Soc. Japan, Sp. Pap., no. 20, p. 150, pl. 3, figs. 2-4, text-fig. 3K

Holotype: inner mold of a cephalon with one thoracic segment attached-Kyoto Univ., no. 12

Bed 1 (Otarion bed), beneath the Gravalymene bed in Sorayama, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cephalon, thoracic segment, pygidium

Pagodia chaoi Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 111, pl. 11, figs. 9, 10

Holotype: broken pygidium-PA0371

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Dictyella Zone

Upper Cambrian

Described exoskeletal parts: pygidium

Pagodia coreanica Kobayashi, 1960

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 367, pl. 19, figs. 27-29

Holotype: inner mold of a cranidium-PA2465, Paratypes: free cheek, pygidium-PA2466, PA2467

Loc. Sho 2, western slope, 750m south of Sodo-ri

Red sandstone, *Kaolishania* Zone, Middle Kasetsu Formation

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

Pagodia damesi Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 111, pl. 11, fig. 4

Holotype: inner mold of a cranidium-PA0372

Paichia-shan, Wuhutsui basin, Liaotung, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts: cranidium

Pagodia lorenzi Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 112, pl. 11, fig. 5

Holotype: inner mold of a cranidium-PA0374

Wuhutsui basin, Liaotung, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts:

Pagodia richthofeni Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 111, pl. 11, figs. 6-8

Syntypes: PA0369, PA0370

Paichia-shan, Wuhutsui basin, Liaotung, North Korea

Dictyella Zone

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

Pagodia shumardoides Kobayashi, 1935

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 162, pl. 5, fig. 10

Holotype: inner mold of a cranidium-PA1012

Kasetsu-ji and Doten

Dictya Zone

Upper Cambrian

Described exoskeletal parts:

***Pagodia thaiensis* Kobayashi, 1957**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 10, part 3, p. 372, pl. 4, figs. 5-7

Holotype: inner mold of a cranidium-PA2296a, Paratype: PA2294b

Locality not mentioned in the original

Formation name not mentioned in the original

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium

***Paladin carinatus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 104, pl. 22, fig. 1, text-fig. 4N

Holotype: inner mold of a cranidium-UHR 30424A

Exact locality unknown, Hikoroichi-Setamai district

O दौर Formation

Lower Visean, Carboniferous

Described exoskeletal parts: cephalon

***Paladin yanagisawai* Endo and Matsumoto, 1962**

Generic status emended by Koizumi (1972: Chikyu-Kagaku (in Japanese), vol. 26, p. 19), see *Endops yanagisawai* (Endo and Matsumoto, 1962)

***Paladin veeraburusi* Kobayashi and Hamada, 1979**

Geol. and Palaeont. of Southeast Asia, vol. 20, p. 15, pl. 3, fig. 3

Holotype: pygidium-PA17967

Huai Luang, Amphoe Wang Suphung, Changwat Loei, Thailand

Huai Luang Shales

Upper Carboniferous

Described exoskeletal parts: pygidium

***Paladin* (?) *iwaizakiensis* Kobayashi and Hamada, 1984**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 46, pl. 4, figs. 5-8, text-fig. 5I

Holotype: partly broken cephalon-PA16692

Iwaizaki, Kesenuma City, Miyagi Prefecture, Japan

Iwaizaki Limestone: corresponds to *Yabeina shiroiweisensis* zone

late Middle Permian

Described exoskeletal parts: cephalon, pygidium

***Paladin* (?) *mizunoi* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 105, pl. 21, figs. 12-18, pl. 22, fig. 14?

Holotype: inner mold of a cranidium-PA5926

Otsubo rivulet, Rikuzentakada City, Iwate Prefecture, Japan

Hikoroichi Formation

Early Carboniferous

Described exoskeletal parts: cephalon, pygidium, thoracic

segment

***Paladin* (*Weberides*) *longispiniferus* Kobayashi and Hamada, 1980**

Proc. Japan Acad., vol. 54-B, no. 2, p. 53, figs. 4a-b, non 4c

Holotype: inner mold of a pygidium-PA5944

Yuki-sawa (name of a rivulet), Rikuzentakada City, Iwate Prefecture, Japan

Onimaru Formation

Upper Visean, Carboniferous

Described exoskeletal parts: cranidium, pygidium

***Palaeolenus aotii* Kobayashi, 1961**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 13, part 2, p. 216, pl. 12, figs. 1-3

Holotype: cranidium with test preserved-PA2527, Paratype: PA2528, PA2529

Ma26, see p. 216, South Korea

?

Lower Cambrian

Described exoskeletal parts: cranidium

***Palaeophillipsia choanjiensis* (Kobayashi and Hamada, 1980)**

Original illustration in Sci. Rep. Saitama Univ. Ser. B, vol. 4, no. 2, pl. 8, fig. 7a. original description in Pal. Soc. Japan, Sp. Pap., no. 23, p. 77, pl. 8, figs. 1-3, text-fig. 3K

Holotype: outermold of an almost complete dead specimen-PA5788

choanji (near choan temple), Ofunato City, Iwate Prefecture, Japan

Hikoroichi Formation

Lower Tournaisian, Carboniferous

Described exoskeletal parts: all the parts except hypostome, rostral plate

***Palaeophillipsia higuchizawaensis* (Kobayashi and Hamada, 1980)**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 78, pl. 8, figs. 5-9, text-fig. 3I

Holotype: inner mold of a cephalon-PA5791

Higuchi rivulet, Ofunato City, Iwate Prefecture, Japan

Hikoroichi Formation

Lower Tournaisian, Carboniferous

Described exoskeletal parts: cephalon, pygidium

***Palaeophillipsia japonica* Sugiyama and Okano, 1944**

Study Rep. Geol. Min. Inst. Tokyo Bunrika Univ., vol. 1, p. 26, fig. 1 (in Japanese). Description is emended in Kobayashi and Hamada (1980: Pal. Soc. Japan, Sp. Pap., no. 23, p. 73) in English

Holotype: Reg. No. 8202, Institute of Geology and Mineralogy, Tokyo Bunrika University

Choanji, Hikoroichi village, Kesen County, Iwate Prefecture,

Japan
Hikoroichi Formation
Lower Tournaisian, Carboniferous
Described exoskeletal parts: all the parts except hypostome, rostral plate

***Palaeophillipsia longiconica* (Kobayashi and Hamada, 1980)**

Pal. Soc. Japan, Sp. Pap., no. 23, p.73, pl. 7, figs. 12-14
Holotype: inner molds of cranidium and pygidium in a same slab-PA5785a, b
Sakamoto rivulet, Ofunato City, Iwate Prefecture, Japan
Arisu Formation
Upper Tournaisian, Lower Carboniferous
Described exoskeletal parts: cranidium, pygidium, thoracic segment

***Palaeophillipsia ohmoriensis* (Okubo, 1951)**

Chikyuuukagaku, vol. 4, p. 25 (descriptive section in English), pl. 1, figs. 1-4
Holotype: ?
Higuchi rivulet, Ofunato City, Iwate Prefecture, Japan
Hikoroichi Formation
Early Carboniferous
Described exoskeletal parts: all the parts except hypostome, rostral plate
(The generic revision in Owens and Hahn (1993: *Geologica et Palaeontologica*, vol 27, p. 170) of the present species is not fully discussed yet. Requires modern examination.)

***Palaeophillipsia ohmoriensis* (Okubo, 1951) forma *multisegmenta* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p.73, pl. 7, figs. 3-7
Syntypes: five pygidia-PA5776, 5777, 5778, 5828
Higuchi rivulet, Ofunato City, Iwate Prefecture, Japan
Hikoroichi Formation
Early Carboniferous
Described exoskeletal parts: pygidium

***Palaeophillipsia subconica* (Kobayashi and Hamada, 1980)**

Pal. Soc. Japan, Sp. Pap., no. 23, p.78, pl. 9, figs. 1-7, pl. 10, figs. 1-10, pl. 11, figs. 1-3, text-fig. 3E
Holotype: cephalothorax of a dead specimen-PA5797
Choanji (near choan temple), Ofunato City, Iwate Prefecture, Japan
Hikoroichi Formation
Lower Tournaisian, Carboniferous
Described exoskeletal parts: cephalon, pygidium, thoracic segment, hypostome

***Palaeophillipsia tenuis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p.84, pl. 8, fig. 4, pl. 13, fig. 16, pl. 14, figs. 2-4, 6, text-fig. 3J

Holotype: inner mold of a cranidium-PA5852
Higuchi rivulet (H1), Ofunato City, Iwate Prefecture, Japan
Hikoroichi Formation
Lower Tournaisian, Carboniferous
Described exoskeletal parts: cranidium, free cheek, thoracic segment?

***Palaeophillipsia? kitakamiensis* Sugiyama and Okano, 1944**

Study Rep. Geol. Min. Inst. Tokyo Bunrika Univ., vol. 1, p. 29, figs. 2a-c (in Japanese)
Holotype: broken articulated dead specimen-PA5790
Higuchi rivulet, Ofunato City, Iwate Prefecture, Japan
Hikoroichi Formation
Lower Tournaisian, Carboniferous
Described exoskeletal parts: all the parts except hypostome, rostral plate

***Parabasilicus shirakii* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 479, pl. 37, fig. 4, pl. 38, fig. 1, pl. 41, figs. 1-4, pl. 42, fig. 5
Holotype: articulated dead specimen-PA0751, Paratypes: PA0749, PA0750, PA0752 to PA0755
Makkol, Seihekiri, South Korea
Chikunsan Beds
Middle Ordovician
Described exoskeletal parts: all the parts

***Parabasilicus typicalis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 477, pl. 37, figs. 2, 3, pl. 38, fig. 2, pl. 39, figs. 1-2, pl. 40, fig. 4
Holotype: articulated dead specimen-PA0746, Paratypes: PA0743 to PA0745, PA0746 to PA0748
Girinkitsu, Komei, Seihekiri, and Makkol, South Korea
Chikusan Beds
Middle Ordovician
Described exoskeletal parts: all the parts except hypostome and ventral characters

***Parabasilicus yamanarii* Kobayashi and Hamada, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 8, p. 480, pl. 36, fig. 1, pl. 38, figs. 3-5, pl. 39, figs. 3-5, pl. 40, figs. 1-3.
Holotype: articulated dead specimen-PA0762, Paratypes: PA0745 to PA0761, PA0763 to PA0766
Makkol, Girinkitsu, and Kochiri, South Korea
Chikunsan Beds
Middle Ordovician
Described exoskeletal parts: all the parts

***Paragraulos parvicaulis* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 62, pl. 1, fig. 2
Holotype: cranidium with test preserved?-PA4074

Loc. Nei 2, north of Yongwol, South Korea
Tonkinella Zone

Lower and Middle Cambrian

Described exoskeletal parts: cranidium

***Paraleioliclas globulus* Kobayashi and Hamada, 1987**

Generic status was assigned as senior synonymy of *Uripes* in Thomas and Holloway (1988: Philo. Trans. of Royal Soc. London, vol. 321, p. 222). See *U. globulus* (Kobayashi and Hamada, 1987)

***Paragriffithides japonicus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 103, pl. 22, figs. 15, 16, text-fig. 4H

Holotype: inner mold of a pygidium-PA5946a

Hina, Okayama Prefecture, Japan

Hina Limestone (allochthonous buildup limestone block?)

Upper Tournaisian, Carboniferous

Described exoskeletal parts: pygidium, hypostome

***Paraphillipsia inflata* Kobayashi and Hamada, 1979**

Geol. Palaeont. Southeast Asia, vol. 20, p. 7, pl. 1, fig. 1a-d

Holotype: cranidium-PA17960

Tham Nan Maholan, south of Wang Saphung, Changwat Loei, North Thailand

Rat Buri Limestone

Lower Permian

Described exoskeletal parts: cranidium

***Paraphillipsia levigata* Kobayashi and Hamada, 1980**

Generic status was questionably assigned to *Doublatia* in Owers & Hahn (1993: Geologica et Palaeontologica, vol. 27, p. 174). See *D. akagii* (Kobayashi and Hamada, 1980)

***Parvidumus densigranulatus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 100, pl. 20, figs. 1-15, text-fig. 4F

Holotype: silicone cast of an outer mold of a pygidium-PA5912

Yukisawa, Rikuzentakada City, Iwate Prefecture, Japan

Odaira Formation, Onimaru Formation?

Lower Viséan? Middle Carboniferous

Described exoskeletal parts: all the parts except hypostome

***Perakaspis (Krohbole?) burtoni* Kobayashi and Hamada, 1972**

Geol. Palaeont. Southeast Asia, vol. 10, p. 23, pl. 2, fig. 13

Holotype: inner mold of a deformed cranidium-PA17875a

Kampong Pahit, south of Kroh, Upper Perak, near the Thai-Malayan border

formation name not mentioned in the original

Devonian

Described exoskeletal parts: cranidium

***Perakaspis (Krohbole) elongata* Kobayashi and Hamada, 1980a**

Geol. Palaeont. Southeast Asia, vol. 10, p. 22, pl. 2, figs. 14-18, pl. 3, fig. 1, fig. 8, text-fig. 1G

Holotype: inner mold of a cranidium-PA17870, Paratypes: PA17869a, PA17869b, PA17870 to PA17874

Kampong Pahit, south of Kroh, Upper Perak, near the Thai-Malayan border

Formation name not mentioned in the original
Devonian

***Perakaspis trapezoidalis* Kobayashi and Hamada, 1972**

Geol. Palaeont. Southeast Asia, vol. 10, p. 21, pl. 2, figs. 7-12

Holotype: inner mold of a cranidium-PA17864, Paratypes: PA17863, PA17865 to PA17868

Malay-Peninsular Thailand

Plagiolaria Horizon

Devonian

Described exoskeletal parts: cephalon, pygidium

***Peronopsis rakuroensis* (Kobayashi, 1935)**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 103, pl. 14, figs. 17, 18, pl. 21, figs. 1, 2

Holotype: complete specimen-PA0954, Paratypes: PA0952a, b, PA0953 (PA0952a missing)

Ritsu-ri, Daido-gun, Heian-nando, North Korea

Black shale

Middle Cambrian

Described exoskeletal parts: all the parts except ventral characters

***Phacops nonakai* Okubo, 1956**

Japan Jour. Geol. Geogr., vol. 7, no. 1, p. 43, pl. 3, 11b, (non 11a)

Holotype lost?, Paratype: PA8910

The upper part of the Nakazato Series in the middle part of Higuchi shirne, Ofunato district, Iwate Prefecture, Japan

Upper part of the Nakazato Series

Eifelian to Givetian, Middle Devonian

Described exoskeletal parts: cephalon

(For p. 43, pl. 3, fig. 11a, see *Reedops nonakai* (Okubo, 1956))

***Phacops okanoi* Sugiyama, 1944**

Studies from Geol. Miner. Inst. Tokyo Bunrika Daigaku, no.1, p. 24

Holotype: broken cephalon-IGPS 64549

Higuchi rivulet, Sakari district, Iwate Prefecture, Japan

Nakazato Formation

Devonian

Described exoskeletal parts: broken cephalon

***Phacops (Phacops?) manchuricus* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 117, pl. 8, fig. 1a-d, pl. 9, figs. 2-4, text-fig. 5E

Holotype: broken inner mold of a cephalon-PA7740

east of Chinshuei (Kinsui) station of the Kakkolu lines, Nuenkiang-hisen of the Lesser Khingan district

Houkungmen Formation

Lower Emsian, Devonian

Described exoskeletal parts: part of glabella, pygidium, thoracic segment

***Phacops (Phacops?) metacernaspis* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 81, pl. 3, fig. 10, text-fig. 6B

Holotype: an almost complete cephalon-KPFM 16088-1

Brachiopod coquina? in Yokokura Mountain, Ochi town, Kochi prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cephalon

(This species is most likely a pterygotopid)

***Phalacromina minor* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 29, pl. 9, fig. 9

Holotype: inner mold of a cranidium-PA3996a

Loc. 242, Pundok-ch'I, 550m NW of Suang-dong, Yongwol-myon, South Korea

Hancrania Zone

Middle and Upper Cambrian

Described exoskeletal parts: cranidium

***Phillibole arakii* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 68, pl. 5, fig. 8

Holotype: inner mold of a cranidium-PA5763

Choanji (near choan temple), Ofunato City, Iwate Prefecture, Japan

Hikoroichi Formation

Lower Tournaisian, Carboniferous

Described exoskeletal parts: cranidium

***Phillipsia longiconica* Kobayashi and Hamada, 1980**

Generic status was assigned as *Palaeophillipsia* in Owers & Hahn (1993: *Geologica et Palaeontologica*, vol. 27, p. 170).

See *P. ohmoriensis* (Okubo, 1951)

***Phillipsia ohmoriensis* Okubo, 1951**

Generic status was assigned as *Palaeophillipsia* in Owers & Hahn (1993: *Geologica et Palaeontologica*, vol. 27, p. 170).

See *P. ohmoriensis* (Okubo, 1951)

***Phoidagnostus obsoletus* (Kobayashi, 1935)**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 106, pl. 14, fig. 19

Holotype: slab with cephalon and pygidia-PA0958

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cephalon, pygidium

***Plagiolaria poothaii* Kobayashi and Hamada, 1968**

Geol. Palaeont. Southeast Asia, vol. 4, p. 25, pl. 4, figs. 1-3, pl. 5, fig. 3

Syntypes: cephalon, articulated thoracopygidia-PA4991 to PA4993

Between Ban Luthan and Ban Yang Nagarm (about 7 degrees 42' N Lat. and 99 degrees 52' E Long), peninsular part of Thailand

Tentakulites shale

Emsian to Couvinian, Lower Devonian

***Platycolpus? granulatus* Kobayashi, 1933**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 7, p. 281, pl. 6, figs. 2a, b, 3

Holotype: cranidium with teest preserved-PA0286

Wan-wan-kou, Niuhsintai Basin, South Mongolia

Wanwankou dolomite

Lower Ordovician?

Described exoskeletal parts: cranidium, free cheek

***Platylichas (Rontrippia) tuberculatus* Kobayashi and Hamada, 1987**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 147, p. 113, figs. 1b, 3, 4a-c

Holotype: broken cranidium-PA18093

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Platysaukia euryrachis* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 407, pl. 19, fig. 12, text-fig. 13b

Holotype: inner mold of a cranidium-PA2492

Loc. Sho 1, west side of a trail, 750m south of Sodo-ri, Sangjang-myon, Samch'ok-kun, Kangwon-do, South Korea

Upper Kasetsu Formation

Upper Cambrian

Described exoskeletal parts: cranidium

***Plethometopus longispinus* Kobayashi, 1958**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 30, p. 214, text-fig. 3 (text figure of the present species should be

text-fig. 2, and the caption of the figure should be

Plethometops instead of *Kingstonia*)

Holotype: cranidium-PA2310

Tanyo 7E, see p. 212, South Korea

Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium

***Plethopeltis? microlops* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 547, pl. 8, fig. 4

Holotype: cranidium-PA0835

Clarkella Zone

Tomkol

Lower Ordovician

Described exoskeletal parts: cranidium

***Plethopeltis orientalis* Kobayashi, 1933a**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 7, p. 280, pl. 6, fig. 5a, b

Holotype: cranidium with test partly preserved-PA0284

Wan-wan-kou, Niuhsintai Basin, South Mongolia

Wanwankou dolomite

Lower Ordovician?

Described exoskeletal parts: cranidium

***Plethopeltis resseri* Kobayashi, 1933**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 7, p. 280, pl. 6, fig. 6a, b

Holotype: inner mold of a cranidium-PA0285

Wan-wan-kou, Niuhsintai Basin, South Mongolia

Wanwankou dolomite

Lower Ordovician?

Described exoskeletal parts: cranidium

***Plethopeltis ulrich* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 547, pl. 6, fig. 7

Holotype: cranidium-PA0834

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium

***Prantlia biloba* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 118, pl. 12, figs. 8, 9, text-fig. 8F

Holotype: inner mold of a partly broken cranidium-OCU PA0006

Okanaru, Higashi-uwa-gun, Ehime Prefecture, Japan

Formation name not mentioned in the original

Upper Ludlow, Silurian

Described exoskeletal parts: cranidium, pygidium

Proetus subovalis Kobayashi and Hamada, 1974

Pal. Soc. Japan, Sp. Pap., no. 18, p. 113, pl. 12, fig. 1, text-fig.

8A

Holotype: inner mold of a cranidium-KPFM 15188

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium, free cheek?

(Generic status requires modern revision?)

***Prochuangia angusta* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 188, pl. 9, fig. 12

Holotype: inner mold of a cranidium-PA1065

Kasetsu-ji, Doten, South Korea

Chuangia Zone

Lower Upper Cambrian

Described exoskeletal parts: pygidium

***Prochuangia mansyui* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 186, pl. 7, fig. 8, pl. 10, figs. 1-7, fig. 5a, b

Syntypes: PA1058 to 1063

Tonkin, South Korea

Prochuangia Zone

Lower Upper Cambrian

Described exoskeletal parts: cranidium, pygidium, free cheek

***Prochuangia postrerospina* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 187, pl. 10, fig. 8

Holotype: inner mold of a pygidium-PA1064

Saisho-ri, South Korea

Prochuangia Zone

Lower Upper Cambrian

Described exoskeletal parts: pygidium

***Proetus (Bohemiproetus) magnicerviculus* Kobayashi and Hmada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 117, pl. 12, fig. 7, text-fig. 8E

Holotype: a cranidium-PA7376

Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow? Silurian

Described exoskeletal parts: cranidium

***Proetus (Coniproetus) fukujiensis* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 20, p. 133, pl. 13, figs. 2-14, text-fig. 3I

Holotype: inner mold of a cranidium-PA8961

Gravicalymene bed (bed 1) in Sorayama, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium, pygidium

Proetus (Gerastos) subcarinatus Kobayashi and Hamada, 1974

Pal. Soc. Japan, Sp. Pap., no. 18, p. 115, pl. 12, fig. 3, text-fig. 8D

Holotype: inner mold of a cranidium-PA7373

Exact locality not mentioned in the original, Yokokura Mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

(*Eremiproetus?*)

Proetus (Gerastos) sugiharensis Kobayashi and Hamada, 1977

Pal. Soc. Japan, Sp. Pap., no. 18, p. 116, pl. 12, figs. 5, 6, text-fig. 8C

Holotype: almost complete pygidium-PA7375

Shelly beds in Sugihara shrine, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Wenlock to Lower Ludlow, Silurian

Described exoskeletal parts: pygidium

Proetus (Pudoproetus) obsoletus Kobayashi and Hamada, 1978* see *Pudoproetus obsoletus Kobayashi and Hamada, 1978

Prolloydia orientalis Kobayashi, 1960

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 365, pl. 20, figs. 21-25

Holotype: almost inner mold of a cranidium-PA2460, Paratypes: PA2461 to PA 2464

Loc. Sho 1, west side of a trail, 750m south of Sodo-ri, Sangjang-myon, Samch'ok-kun, Kangwon-do, South Korea

Upper Kasetsu Formation

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium, free cheek

Prosaukia (?) orientalis Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 126, pl. 13, fig. 10

Holotype: inner mold of a cranidium-PA0395

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Tsinania canens and *Dictyella* Zone

Upper Cambrian

Described exoskeletal parts: cranidium

Prosaukia ulrichi Kobayashi, 1933

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 125, pl. 13, fig. 11

Holotype: cranidium with teest partly preserved-PA0394

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts: cranidium

Protopliomerops granulatus Kobayashi, 1934

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 573, pl. 7, figs. 2, 3

Syntypes: broken cranidium, pygidium-PA0893, PA0894

Protopliomerops Zone

Makkol, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, pygidium

Protopliomerops punctatus Kobayashi, 1934

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 572, pl. 7, figs. 4, 5

Syntypes: part of a cranidium, pygidium-PA0891, PA0892

Protopliomerops Zone

Doten, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, pygidium

Protopliomerops seisonensis Kobayashi, 1934

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 571, pl. 7, figs. 11b, 12, pl. 8, fig. 16

Syntypes: PA0888 to PA0890a

Protopliomerops Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidia, pygidia, thorax

Pseudagnostus jeholensis Kobayashi, 1951

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 3, p. 76, pl. 7, figs. 13-14

Holotype: inner mold of a pygidium-PA2009, Paratype: PA2008

WSW of Hamashan colliery, Huangluohsien district, eastern Jehol

Not mentioned in the original

Upper Cambrian

Described exoskeletal parts: pygidium

Pseudagnostus longicollis Kobayashi, 1966

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 16, part 2, p. 283, fig. 7

Syntypes: -PA6898 to PA6900

Pseudagnostus marginisulcatus Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 32, pl. 3, figs. 10, 11

Holotype: cephalon-PA4019, Paratype: pygidium-PA4020

Loc. Ita 2 (or Ito 2), Song-ch'I, 1.45km NE of Mach'a-ri, north of Nol-tari, Puk-myong, South Korea

Eochuangia Zone

Upper Cambrian

Described exoskeletal parts: cephalon, pygidium

***Pseudagnostus orientalis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 98, pl. 9, figs. 20-22

Holotype: inner mold of a pygidium-PA0347

Paratype: PA0346

Wuhutsui basin, North Korea

Chuangia Beds

Upper Cambrian

Described exoskeletal parts: pygidium only

***Pseudagnostus primus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 283, pl. 8, figs. 5, 6

Holotype: inner mold of a cephalon-PA0962, Paratypes: PA0963 to PA0966 (PA0964 missing)

Neietsu, South Korea

Olenoides Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cephalon, pygidium

***Pseudocheirurus gomiensis* Kobayashi and Hamada, 1985**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 208, pl. 28, figs. 1a-c

Holotype: broken inner mold of a cranidium-KGS3625

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Pseudokainella iwayai* Kobayashi, 1953**

Japan. Jour. Geol. Geogr., vol. 23, p. 46, pl. 3, figs. 12-13

Holotype: inner mold of a cranidium-PA2076, Paratypes: PA2077, PA2088

Enpyori, near Girinkitsu, Jotomen, Neietsugun, Kogendo, South Korea

Limestone lense in the Doten quartzite

Lower Tremadocian, Lower Ordovician

Described exoskeletal parts: cranidium, free cheek

***Pseudophillipsia (Carniphillipsia?) intermedia* Kobayashi and Hamada, 1980**

Proc. Japan Acad., vol. 56-B, no. 3, p. 123, fig. 5, no. 6a-c

Holotype: inner mold of a cranidium-PA16736

Neo, Gifu Prefecture, Japan

?

Middle Permian

Described exoskeletal parts: cranidium, pygidium

***Pseudophillipsia (Nodiphillipsia) hanaokensis* Kobayashi and Hamada, 1984**

Proc. Japan Acad., vol. 60-B, no. 1, p. 2, figs. 5a, b

Holotype: inner mold? of a cranidium-PA16725

Akasaka, Gifu Prefecture, Japan

Akasaka Limestone (allochthonous buildup limestone block?): corresponds to *Codonofusiella-Reichelina* zone

Permian

Described exoskeletal parts: cranidium, pygidium

***Pseudophillipsia (Nodiphillipsia) ozawai* Kobayashi and Hamada, 1984**

Proc. Japan Acad., vol. 60-B, no. 1, p. 2, figs. 4a-b

Holotype: inner mold of a cranidium-PA16723

Akasaka, Gifu Prefecture, Japan

Akasaka Limestone (allochthonous buildup limestone block?): corresponds to *Yabeina globosa* zone

Permian

Described exoskeletal parts: cranidium, pygidium

***Pseudophillipsia (Nodiphillipsia) sasakii* Kobayashi and Hamada, 1984**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 61, pl. 6, figs. 4-6

Holotype: outer mold of a cephalon-PA16704

Anabuchi, Kesenuma City, Miyagi Prefecture, Japan

Ochiai Formation

Middle Permian

Described exoskeletal parts: cranidium, pygidium

***Pseudophillipsia (Nodiphillipsia) spatulifera* Kobayashi and Hamada, 1980**

Proc. Japan Aca., vol. 56-B, no. 4, p. 195, figs. 1a-b, 2a-d, 3a-b

Holotype: almost complete dead individual-PA16699, Paratypes: PA16700, 16719a, b

Kamiyatsuse, Kesenuma City, Miyagi Prefecture, Japan

Ochiai Formation

Middle Permian

Described exoskeletal parts: all the parts except hypostome and rostral plate

***Pseudophillipsia (Nodiphillipsia?) binodosa* Kobayashi and Hamada, 1984**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 63, pl. 6, figs. 9, 10, pl. 13, figs. 7, 8, text-fig. 6g

Holotype: outer mold of a pygidium-PA16709

Anabuchi, Kesenuma City, Miyagi Prefecture, Japan

Hikoroichi Formation

Middle Permian

Described exoskeletal parts: pygidium

***Pseudophillipsia (Nodiphillipsia?) simplex* Kobayashi and Hamada, 1984**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 62, pl. 13, fig. 9, text-fig.

6-h

Holotype: inner mold of a pygidium-PA16758
 A quarry in Kesennuma City, Miyagi Prefecture, Japan
 Ochiai Formation?
 Middle Permian
 Described exoskeletal parts: pygidium

Pseudophillipsia (Pseudophillipsia) akasakensis Kobayashi and Hamada, 1984

Proc. Japan Acad., vol. 60-B, no. 1, p. 2, figs. 2a-b
 Holotype: partly broken enrolled specimen-PA16721
 Akasaka, Gifu Prefecture, Japan
 Akasaka Limestone: corresponds to *Neoschwagerina* (?) - *Yabeina* zone
 Middle Permian
 Described exoskeletal parts: all the parts except hypostome
 (Several cephalic characters considerably differ from the other *Pseudophillipsia* species, probably different genus)

Pseudophillipsia (Pseudophillipsia) catena Kobayashi and Hamada, 1984

Proc. Japan Acad., vol. 60-B, no. 1, p. 2, figs. 3a, b
 Holotype: inner mold of a cranidium-PA16731
 Kinshozan, Akasaka, Gifu Prefecture, Japan
 Akasaka Limestone: corresponds to *Neoschwagerina* zone
 Middle Permian
 Described exoskeletal parts: cranidium, pygidium, free cheek

Pseudophillipsia (Pseudophillipsia) kiriuensis Kobayashi and Hamada, 1984

Proc. Japan Acad., vol. 60-B, no. 1, p. 2, figs. 1a-c
 Holotype: inner mold of a cranidium-PA16711
 Kiriū?, Tohigi Prefecture, Japan
 Nabeyama Series: corresponds to *Parafusuluna* zone in Akasaka Limestone
 ?Middle Permian
 Described exoskeletal parts: cranidium, pygidium

Pseudophillipsia (Pseudophillipsia) kiriuensis forma subtrigonalis Kobayashi and Hamada, 1984

Pal. Soc. Japan, Sp. Pap., no. 26, p. 54, pl. 7, figs. 4-6
 Syntypes: three pygidia-PA16713, 16714, 16715
 Kiriū?, Tohigi Prefecture, Japan
 Nabeyama Series: corresponds to *Parafusuluna* zone in Akasaka Limestone
 Middle Permian
 Described exoskeletal parts: pygidium

Pseudosaukia suni Kobayashi, 1951

Trans. Proc. Palaeont. Soc. Japan, N.S., no. 3, p. 78, pl. 7, figs. 8-11
 Holotype: cranidium-PA2013, Paratypes: PA2014 to PA2017
 Yangchiachengtzu, 5km SW of Huangluohsien, Eastern Jehol
 Red micaceous sandstone

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

Pseudotrinosus aenigma Kobayashi and Hamada, 1971

Proc. Japan Academy, vol. 47, no. 4, p. 399, figs. 2-5
 Holotype: inner mold of a cephalon-PA17842, Paratype: PA17843
 Between Ban Luthan and Ban Yang Nagarm (about 7 degrees 42' N Lat. and 99 degrees 52' E Long), peninsular part of Thailand
 Tentakulites shale
 Emsian to Couvinian, Lower Devonian
 Described exoskeletal parts: cephalon, thoracic segment, pygidium

Pseudotrinosus constrictus Kobayashi and Hamada, 1977

Pal. Soc. Japan, Sp. Pap., no. 18, p. 74, pl. 3, fig. 8
 Holotype: number of the type is not given in the original
 tuffaceous shale of the Kanchanaburi area, Western Thailand
 exact formation name is not given in the original
 Devonian
 Described exoskeletal parts: inner mold of a cranidium with its posterior part broken off
 (High rank position of the present genus is not agnostids, but most probably an aulacopleurid. see Palaeontology, vol 21, Thomas and Owens 1978: p. 74. also election of the present genus is rejected in the Treatise on Invertebrate Palaeontology, part O, Arthropoda, trilobite revised volume: p. 383.)

Ptychaspis suni Kobayashi, 1931

Japan. Jour. Geol. Geogr., vol. 8, no. 3, p. 181, pl. 22, figs. 7, 8a
 Syntypes: PA0153, PA0154a
 Chiu-shu-kou, South Mongolia
 Chiushukou Shale
 Middle Cambrian
 Described exoskeletal parts: cranidium, pygidium

Ptychoparia bipuncta Kobayashi, 1962

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 44, pl. 1, figs. 14-17, pl. 10, fig. 8
 Holotype: cranidium with test preserved-PA4050, Paratypes: PA4051 to PA4053
 Locs. 109, Nei 2, NNE of Mach'a-ri, Puk-myon, SW top of Yo-bong, South Korea
 Tonkinella Zone
 Upper Cambrian
 Described exoskeletal parts: cranidium, pygidium

Ptychoparia (?) coreanica Kobayashi, 1935

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 226, pl. 23, figs. 3, 4
 Holotype: articulated molt ensemble-PA1095, Paratype: PA1094

Sendo, Heian-nan-do, North Korea
not mentioned in the original
Upper Cambrian?
Described exoskeletal parts: all the parts except free cheeks
and ventral parts

***Pudoproetus obsoletus* Kobayashi and Hamada, 1978**

Proc. Japan Acad., vol. 54-B, p. 5, figs. 1, 5
Holotype: cranidium with test partly preserved-PA5742
Hina, Okayama Prefecture, Japan
Hina Limestone
Tournaisian to Lower Visean, Lower Carboniferous
Described exoskeletal parts: cranidium, pygidium,
hypostome

***Pudoproetus obsoletus granulatus* Kobayashi and Hamada, 1984**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 61, pl. 3, fig. 4
Syntype: inner mold of a pygidium-PA5745
Hina, Okayama Prefecture, Japan
Hina Limestone
Tournaisian to Lower Visean, Lower Carboniferous
Described exoskeletal parts: pygidium

***Quadricephalus coreanicus* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 402, pl. 20, figs. 2-7, pl. 21, fig. 13
Holotype: cranidium of almost inner mold-PA2483, Paratypes: PA2484 to PA2488
Locs. Sho 1, Sho 19, west side of a trail, 750m south of Sodo-ri, Sangjang-myon, Samch'ok-kun, Kangwon-do, etc., South Korea
Dictyites Zone, Upper Kasetsu Formation
Upper Cambrian

***Quadricephalus elongatus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 320, pl. 5, figs. 8, 9
Holotype: inner mold of a cranidium-PA1230, Paratype: PA1231
Kasetsu-ji and Doten, South Korea
Dictya Zone, Kasetsu Group
Upper Cambrian
Described exoskeletal parts: cranidium, pygidium

***Quadricephalus pyrus* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 123, pl. 13, fig. 8
Holotype: inner mold of a cranidium-PA0392
Chinchia-nanshan, Wuhutsui basin, Liaotung, North Korea
Dictyella Zone
Upper Cambrian
Described exoskeletal parts:

***Quadricephalus quadratus* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 320, pl. 6, fig. 8
Holotype: cranidium-PA1229
Kasetsu-ji, South Korea
Dictyella Zone, Kasetsu Group
Upper Cambrian
Described exoskeletal parts: cranidium

***Redlichia coreanica* Saito, 1934**

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 223, pl. 26, figs. 11-14
Holotype: inner mold of a cranidium-PA0470, Paratypes: PA0469, PA0471, PA0472
Loc. 14, near Chunghwa, P'yoengan-namdo, Northwestern Korea
Upper *Redlichia* shales
Lower Cambrian
Described exoskeletal parts: cranidium, free cheek, thoracic segment

***Redlichia longispinosa* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 121, pl. 21, figs. 3-5
Holotype: broken articulated specimen-PA0979, Paratypes: PA0980, PA0981
Kojo, Genkoku-ri, North Korea
?
Lower Cambrian
Described exoskeletal parts: all the parts except ventral characters

***Redlichia nakamurai* Saito, 1934**

Japan. Jour. Geol. Geogr., vol. 11, nos. 3-4, p. 224, pl. 26, figs. 15-17, text-fig. 4
Holotype: inner mold of a cranidium-PA0473, Paratypes: cranidium, free cheek-PA0474, PA0475
I30, near Chunghwa, P'yoengan-namdo, Northwestern Korea
Redlichia Shale
Lower Cambrian
Described exoskeletal parts: cranidium, free cheek

***Reedops nonakai* (Okubo, 1956)**

Japan Jour. Geol. Geogr., vol. 27, p. 43, pl. 3, fig. 11a, (non 11b)
Holotype: a cephalon with several thoracic segments attached-PA7443
half way of Higuchi shrine, Sakari district, Iwate Prefecture, Japan
Upper part of the Nakazato Series
Eifelian to Givetian, Middle Devonian
Described exoskeletal parts: cephalon, thoracic segment
(First described as *Phacops nonakai*)

***Rhaxeros? shinoharai* (Kobayashi and Hamada, 1974)**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 53, pl. 3, fig. 9, text-fig. 2G

Holotype: inner mold of a fairly small cranidium-PA7352

Miyagi valley, Tatsukawa town, Tokushima Prefecture, Japan
name of the formation not mentioned in the original

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Rhaxeros subquadratus* (Kobayashi and Hamada, 1974)**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 50, pl. 2, figs. 1, 2, text-fig. 2B

Holotype: inner mold? of a cranidium-PA7344

Gomi quarry, Yokokura mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Rhodonaspis* (?) *similis* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 59, pl. 9, fig. 1

Holotype: inner mold? of a cranidium-PA4073

Boulder at Loc. 242, Pundok-ch'I, 550m NW of Suang-dong, Yongwol-myon, South Korea

Hancrania Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Saukia aojii* Kobayashi, 1933c**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 127, pl. 13, fig. 1

Holotype: cranidium with partly test preserved-PA0396

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts:

***Schizophillipsia otsuboensis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 88, pl. 13, fig. 17, pl. 21, figs. 8-11, text-fig. 3G

Holotype: inner mold of a broken cephalon-PA5924

Otsubo rivulet, Rikuzentakada City, Iwate Prefecture, Japan

Arisu Formation

Middle Tournaisian, Carboniferous

Described exoskeletal parts: cephalon, pygidium, thoracic segment

***Schizophillipsia yukizawaensis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 86, pl. 11, fig. 4, pl. 12, figs. 1-14, pl. 13, figs. 3-13, text-fig. 3F

Holotype: broken articulated dead specimen-PA5822

Yukisawa (name of a rivulet), Rikuzentakada City, Iwate

Prefecture, Japan

Onimaru Formation

Upper Visean, Middle Carboniferous

Described exoskeletal parts: all the parts except hypostome and rostral plate

***Schizophillipsia* (?) *platyachis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 89, pl. 13, figs. 1, 2

Holotype: silicone cast of the outer mold of an almost complete specimen-PA5835

Yukisawa (name of a rivulet), Rikuzentakada City, Iwate Prefecture, Japan

Onimaru Formation

Upper Visean, Middle Carboniferous

Described exoskeletal parts: all the parts except hypostome and rostral plate

***Scutellum densigranulatus* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 79, pl. 2, figs. 1-3, text-fig. 3C

Holotype: outermold of a pygidium-Kyoto Univ. no. 17

Bed 11? In Sorayama, Fukuji, Gifu Prefecture, Japan

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: pygidium

Scutellum* (*Scutellum*) *japonicum* Kobayashi and Hamada, 1965 see *Japonoscutellum japonicum* (Kobayashi and Hamada, 1965)**Seisonia sphericauda* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 575, pl. 7, figs. 7-9

Syntypes: cranidium, pygidia-PA0897 to PA0899

Protopliomerops Zone

Saisho-ri and Shokui-do, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, pygidium

***Shirakiella elongata* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 322, pl. 7, fig. 8-13

Holotype: inner mold of a cranidium-PA1235 (missing),

Paratypes: PA1232 to PA1234, PA1236 to PA1238

Doten, South Korea

Kaolishania Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek

***Shirakiella laticonvexa* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 323, pl. 7, figs. 15-18

Holotype: inner mold of a free cheek-PA1240, Paratypes:

PA1239, PA1241, PA1242

Doten, South Korea

Kaolishania Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek

***Shumardia pellizzarii* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 540, pl. 7, fig. 11a

Holotype: left half of a cephalon-PA0823a

Protopliopterops Zone

Saisho-ri

Lower Ordovician

Described exoskeletal parts: cephalon

***Solenoparia* (?) *bisulcata* Kobayashi, 1961**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 13, part 2, p. 229, pl. 13, fig. 13

Holotype: cranidium-PA3962

Loc. 317, see p. 229, South Korea

Sampson or sambangsan Formation, *Metagraulos sampoensis* Zone

Middle Cambrian

Described exoskeletal parts:

***Solenoparia* (?) *deprati* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 266, pl. 19, figs. 3-6

Syntypes: PA1140 to PA1143

Doten, South Korea

Solenoparia Zone, Taiki Group

Lower to Middle Cambrian

Described exoskeletal parts: cranidium, pygidium

***Solenoparia laevis* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 380, pl. 19, figs. 14-16

Syntypes: PA2472, PA2474, PA2475

Loc. Sho 10, 450m west of Tanggok, South Korea

Solenoparia Zone

Upper Cambrian

Described exoskeletal parts: cranidium, pygidium, hypostome

***Solenoparia subtoxea* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 70, pl. 5, fig. 5

Holotype: cranidium-PA4083

Loc. 274, 1.25 km west of Kok-kol, Puk-myon, NNE of Chung-san, South Korea

Eochuangia Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Solenopleura endoi* Kobayashi, 1931**

Japan. Jour. Geol. Geogr., vol. 8, no. 3, p. 176, pl. 22, fig. 10

Holotype: broken inner mold of a cranidium-PA0145

Hua-lien-chai and Hou-tai, South Mongolia

Blackwelderia Zone

Middle Cambrian

Described exoskeletal parts: cranidium

***Solenopleura kotoi* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 102, pl. 10, figs. 11-13

Holotype: inner mold of a cranidium-PA0355, Paratype: PA0356

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Chuangia Zone

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek

***Sphaerexochus hiratai* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 88, pl. 6, figs. 6-10, pl. 7, figs. 1-7, text-fig. 6F

Holotype: almost complete cranidium-KPFM 1167-1

Gomi quarry, Yokokura-mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium, pygidium

(Specific identification requires pygidial morphology. See Lane (1971: Palaeontographical Society Monographs no. 530, p. 53))

***Sphaerexochus orientalis* Kobayashi and Hamada, 1971**

Geol. Palaeont. Southeast Asia, vol. 9, p. 100, pl. 18, figs. 8-15

Syntypes: PA17749 to PA17754a, PA17755, PA17756

Langkawi Island, west Malaysia

?

Early Silurian?

Described exoskeletal parts: cranidium, pygidium

***Sphaerexochus planirachis* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 90, pl. 8, fig. 8, text-fig. 6H

Holotype: a badly preserved pygidium, probably weathered-PA7368

Gomi quarry, Yokokura-mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: pygidium

***Sphaerexochus* (*Onukia*) *sugiyamai* Kobayashi and Hamada, 1976**

Proc. Japan Acad., vol. 52, no. 7, p. 367, text-figs. 1-6

Holotype: pygidium-PA16199, Paratypes: PA16196 to PA16198, PA16200

not mentioned

not mentioned

not mentioned

Described exoskeletal parts: cranidium, pygidium

(Subgenus *Onukia* is a junior subjective synonymy of *Sphaerexochus*. See Jell and Adrain (2003: Memoirs of the Queensland Museum 48, p. 414))

***Staurocephalus trichochin* Kobayashi and Hamada, 1985**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 214, pl. 30, figs. 2a-e

Holotype: cranidium with partly test preserved-KGS 3631

A boulder found between Gomi and Ichiyama villages, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Stenopilus convexus* Kobayashi, 1933**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 7, p. 279, pl. 6, fig. 4

Holotype: cranidium with test preserved-PA0283

Wan-wan-kou, Niuhsintai Basin, South Mongolia

Wanwankou dolomite

Lower Ordovician?

Described exoskeletal parts: cranidium

***Stephanocare bergeroni* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 167, pl. 11, fig. 9

Holotype: inner mold of a pygidium-PA1017

Saisho-ri

Drepanura Zone

Upper Cambrian

Described exoskeletal parts: pygidium

***Stephanocare (?) quinquespina* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 167, pl. 12, fig. 14

Holotype: inner mold of a pygidium-PA1016

Shokudo

Drepanura Zone

Upper Cambrian

Described exoskeletal parts: pygidium

***Tellerina coreanica* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 316, pl. 4, figs. 5, 12-14

Holotype: broken cranidium-PA1210, Paratypes: PA1209, PA1211, PA1212

Doten, South Korea

Eoorthis Zone, Kaetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek

***Tellerina (?) obsoleta* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 317, pl. 4, figs. 9-10

Holotype: inner mold of a cranidium-PA1213, Paratype: PA1214

Doten, South Korea

Eoorthis Zone, Kaetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek

***Tellerina paichiaensis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 130, pl. 13, fig. 9

Holotype: inner mold of a broken cranidium-PA0398

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Tsinania canens Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Thaiaspis euryrachis* Kobayashi and Hamada, 1979**

Geol. Palaeont. Southeast Asia, vol. 20, p. 16, pl. 3, fig. 7

Holotype: articulated dead individual-PA17968

Huai Luang, Amphoe Wang Saphung, Changwat Loei, North Thailand

Sandstone in Huai Luang Shales

Upper Cambrian

Described exoskeletal parts: all the parts except ventral characters

***Thaiaspis (Thaiaspella) aliger* Kobayashi and Hamada, 1979**

Geol. Palaeont. Southeast Asia, vol. 20, p. 17, pl. 3, fig. 6a-d

Holotype: almost complete specimen with test preserved-PA17969

Huai Luang, Amphoe Wang Saphung, Changwat Loei, North Thailand

Huai Luang Shales

Upper Cambrian

Described exoskeletal parts: all the parts except hypostome, rostral plate

***Thailandium solum* Kobayashi, 1957**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 10, part 3, p. 374, pl. 4, figs. 9, 10

Holotype: inner mold of a cranidium-PA2299b, Paratype: PA2299c

Exact locality not mentioned in the original formation name not mentioned in the original

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek

***Thigriffides hinensis* Kobayashi and Hamada, 1978**

Proc. Japan Acad., vol. 54-B, p. 7, figs. 1, 5

Holotype: cranidium with test partly preserved-PA5914

Hina, Okayama Prefecture, Japan

Hina Limestone (allochthonous buildup limestone block?)

Upper Tournaisian, Carboniferous

Described exoskeletal parts: cranidium, pygidium

***Thigriffides (?) kibiensis* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p.103, pl. 21, figs. 5-7, text-fig. 4J

Holotype: cranidium with test partly preserved-PA5919

Hina, Okayama Prefecture, Japan

Hina Limestone (allochthonous buildup limestone block?)

Upper Tournaisian, Carboniferous

Described exoskeletal parts: cranidium, pygidium

***Thysanopeltella (Septimopeltis) paucispinosa* (Okubo, 1951)**

Chikyu Kagaku (in Japanese) no. 4, p. 137, pl. 1, figs. 5a-c

Holotype: outer and inner molds of a pygidium-PA7442

the area in the middle between Omori and Sakari shrine, Sakari district, Iwate Prefecture, Japan

Nakazato Formation

Eifelian to Givetian, Middle Devonian

Described exoskeletal parts: pygidium

***Tingocephalus magnus* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 358, pl. 20, fig. 17

Holotype: inner mold of a cranidium-PA2456

Loc. Sho 16, east slope, 300m south of Tanggok, South Korea

Kaolishania Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Tonkinella orientalis* Kobayashi, 1935**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 151, pl. 15, fig. 7

Holotype: cranidium-PA0993

Neietsu, North Korea

?

Lower Cambrian

Described exoskeletal parts: cranidium

***Tosacephalus fungiformis* Kobayashi and Hamada, 1974**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 69, pl. 5, fig. 2, text-fig. 4B

Holotype: imperfect cranidium-KPFM 481

Gomi quarry, Yokokura-mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Triproetus? akagii* (Kobayashi and Hamada, 1984)**

Pal. Soc. Japan, Sp. Pap., no. 26, p. 46, pl. 3, figs. 1-4, text-fig. 5d

Holotype: inner mold of a cranidium-PA16679

Miharano, Tojo town, Hiroshima Prefecture, Japan

Taishaku Limestone? (allochthonous buildup limestone block): corresponds to *Pseudoschwagerina* zone (the original states the type formation as Miharano Formation)

Asselian? Lower Permian

Described exoskeletal parts: cranidium, pygidium, thoracic segment

***Tsinania canens* var. *pagoda* Kobayashi, 1931**

Japan. Jour. Geol. Geogr., vol. 8, no. 3, p. 186, pl. 20, fig. 10

Holotype: pygidium with test preserved-PA0171

limestone quarry situated in the north of Hua-lien-chai Railway Station

Tsinania Zone

Upper Cambrian

Described exoskeletal parts: pygidium

***Tsinania humilis* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 137, pl. 14, figs. 18-19

Holotype: inner mold of a cranidium-PA0404 (missing)

Paichiashan, Wuhutsui basin, Liaotung, North Korea

Dictyella Zone, *Tsinania canens* Zone

Upper Cambrian

Described exoskeletal parts:

Tsinania (?) humilis* Kobayashi, 1933 see *Tsinania humilis* Kobayashi, 1933**Tsinania longa* Kobayashi, 1933**

Japan. Jour. Geol. Geogr., vol. 11, nos. 1-2, p. 137, pl. 14, figs. 20, 21

Holotype: inner mold of a pygidium-PA0403

Southeastern part of the Chingchia-nanshan, North Korea

Dictyella Zone

Upper Cambrian

Described exoskeletal parts: pygidium

***Unguliproetus oisensis* Kobayashi and Hamada, 1977**

Pal. Soc. Japan, Sp. Pap., no. 18, p. 134, pl. 12, figs. 1-25, pl. 13, fig. 1, text-fig. 3H

Holotype: inner mold? of a cranidium-PA8933

Oise, Fukui Prefecture

Fukuji Formation or Fukuji Series?

Lower Devonian

Described exoskeletal parts: cranidium, free cheek, hypostome, pygidium

***Uripes globulus* (Kobayashi and Hamada, 1987)**

Trans. Proc. Palaeont. Soc. Japan, N. S., no. 139, p. 113, figs. 1-e, 2-4, 3-1a-b

Holotype: broken cranidium-PA18093

Gomi quarry, Yokokura-mountain, Ochi town, Kochi Prefecture, Japan

Yokokura Limestone (allochthonous buildup limestone block)

Lower Ludlow, Silurian

Described exoskeletal parts: cranidium

***Waribole lobatus* Kobayashi and Hamada, 1980**

Pal. Soc. Japan, Sp. Pap., no. 23, p. 67, pl. 5, figs. 3, 5, 6, text-fig. 4K

Holotype: weathered cranidium-PA5758

Matuyama quarry, Omi, Niigata Prefecture, Japan

Akiyoshi Limestone (allochthonous buildup limestone block)

Middle to Upper Carboniferous

Described exoskeletal parts: cranidium, free cheek, pygidium

***Waribole perlisensis* Kobayashi and Hamada, 1966**

Japan Jour. Geol. Geogr., vol. 37, nos. 2-4, p. 90, pl. 2, text-fig. 1, 2

Holotype: complete specimen-PA17258, Paratype: cranidium-PA3117

Kampong Binjai, (Loc. PE-8) Hutan Haji, 3 and half miles south of Kangar, Malaysia

Kubang Pasu Formation

Famennian to Visean, Carboniferous

Described exoskeletal parts: all the parts except hypostome, rostral plate

***“Westergaardella” coreanica* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 78, pl. 9, fig. 8

Holotype: inner mold of a cranidium-PA4091

Boulder at Loc. 242 which is in Pundok-ch’I, 550m NW of Suang-dong, Yongwol-myon, South Korea

Hancrania Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Xenostegium* (?) *laticaudum* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 559, pl. 5, fig. 14

Holotype: pygidium with partly test preserved-PA0865a, Paratypes: cranidium, pygidia-PA0863, PA0864, PA0865b

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: cranidium, pygidium

***Xenostegium* (?) *paradouglassensis* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 559, pl. 5, figs. 10, 11

Holotype: pygidium with test partly exfoliated-PA0868

Clarkella Zone

Saisho-ri, South Korea

Lower Ordovician

Described exoskeletal parts: pygidium

***Xenostegium* (?) *subeuclides* Kobayashi, 1934**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 3, part 9, p. 559, pl. 5, figs. 3, 5

Holotype: broken pygidium-PA0867, Paratype: -PA0868

Saisho-ri, South Korea

Clarkella Zone

Lower Ordovician

Described exoskeletal parts: pygidium

***Yokusenian obsoleta* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, p. 247, pl. 5, figs. 18, 19

Holotype: inner mold of a cranidium-PA1132

Saisho-ri, South Korea

Kaolishania Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Yokusenian vulgaris* Kobayashi, 1935**

Jour. Fac. Sci. Imp. Univ. Tokyo, sec. 2, vol. 4, part 2, p. 247, pl. 9, figs. 1-7

Syntypes: PA1127 to PA1131 (PA1130, PA1131 missing)

Kasetsu-ji, South Korea

Chuangia Zone, Kasetsu Group

Upper Cambrian

Described exoskeletal parts: cranidium, free cheek, pygidium

***Yongwolia kagasi* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 63, pl. 10, fig. 10

Holotype: cranidium with test preserved?-PA4076

Loc. Ita 10, 450 m north of Nol-tari, Puk-myon, South Korea

Tonkinella Zone

Upper Cambrian

Described exoskeletal parts: cranidium

***Yongwolia ovata* Kobayashi, 1962**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 14, part 1, p. 64, pl. 1, fig. 1

Holotype: cranidium with test preserved?-PA4075

Loc. Ita 10, 450 m north of Nol-tari, Puk-myon, South Korea

Tonkinella Zone

Upper Cambrian

***Yosimuraspis vulgaris* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 238, pl. 12, figs. 9-20

Holotype: cranidium with test preserved-PA2376a,

Paratypes: PA2376b to PA2386

Loc. 272, 500 m west of Changsong-gok, Moha-ri,
Puk-myon, Nangairi Decke, South Korea

Yosimurasupis Zone, Bunkoku Formation

Lowest Ordovician

Described exoskeletal parts: cranidium, pygidium, free
cheek, hypostome, thoracic segments

***Yosimurasupis vulgaris longulum* Kobayashi, 1960**

Jour. Fac. Sci. Univ. Tokyo, sec. 2, vol. 12, part 2, p. 239, pl.
12, figs. 7, 8

Holotype: cranidium-PA2385, Paratype: cranidium-PA2386

Loc. 92902?, 2 km south of Kal-kol, Puk-myon, South Korea

Yosimurasupis Zone, Bunkoku Formation

Lowest Ordovician

Described exoskeletal parts: cranidium

Insecta

Masakazu Hayashi

**Hoshizaki Green Foundation, (Shinjiko Nature Museum),
1659-5, Sono-cho, Okinoshima, Hirata 691-0076, Japan**

***Ademosynoides japonicus* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 377, Pl. 5 (fig. 5)

Holotype: NSM-PA11260b

Omime Coal Mine, Omime, Mine City, Yamaguchi Prefecture, Japan (34 °11'48''N, 131 °9'54''E)

Momonoki Formation, Mine Group

Carnian

***Aphaenogaster (Deromyrma) avita* Fujiyama, 1970**

Mem. Nat. Sci. Mus. Tokyo, No. 3, 66, Pl. 15 (figs. 2a, 2b), Fig. 3

Holotype: NSM-P1-7417

Chojabaru, Ashibe-cho, Iki-gun, Iki Island, Nagasaki Prefecture, Japan (33 °46'50''N, 129 °47'40-50''E)

Chojabaru Formation, Iki Group

Miocene (middle Miocene)

***Bibio sadoensis* Fujiyama, 1985**

Mem. Nat. Sci. Mus. Tokyo, No. 18, 51, Figs. 21, 22, Pl. 4

Holotype: NSM-PA12383, Paratype: SDM (SM)-GF1 (counterpart NSM-PA12413), SDM (SM)-GF2, SDM (SM)-GF3 (counterpart NSM-PA12414), SDM (SM)-GF4, NUGR (NU)5-297a, NUGR (NU)-296a, NSM-PA12384

Seki, Aikawa-machi, Sado-gun, Sado Island, Niigata Prefecture, Japan (38 °14'N, 138 °24'E: detail locality unknown)

Masaragawa Formation

Miocene (early Miocene)

***Cantao? yamanai* Fujiyama, 1967**

Bull. Natn. Sci. Mus. Tokyo, Vol. 10, No. 3, 394, Pl. 1 (fig. 1), Fig. 1A, 3a

Holotype: Tottori Science Museum 649-021

The foot of Sagiya bridge over the Ottani valley, Mitani, Kokufu-cho, Iwami-gun, Tottori Prefecture, Japan (35 °28'N, 134 °17'E: detail locality unknown)

Fuganji Formation, Tottori Group

Miocene (middle Miocene)

***Cheirotonus otai* Ueda, 1989**

Bull. Kitakyushu Mus. Nat. Hist, No. 9, 107, Pl. 1, Fig. 1

Holotype: KMNH IP 000, 001

Okamasu, Kokufu-cho, Tottori Prefecture, Japan (35 °27'12''N, 134 °17'31''E)

Fuganji Mudstone Formation

Miocene (middle Miocene)

***Clathropenna rugosa* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 376, Pl. 5 (fig. 4), Fig. 20

Holotype: NSM-PA11266

Omime Coal Mine, Omime, Mine City, Yamaguchi Prefecture, Japan (34 °11'48''N, 131 °9'54''E)

Momonoki Formation, Mine Group

Carnian

***Donacia uedana* Hayashi, 2000**

Bull. Osaka Mus. Nat. Hist., No. 54, 37, Figs. 7B-D, 8-10, 11A-B, 11E-F, 12A, 12E

Holotype: OMNH TI-122

Hanegawa River, Tokamaci City, Niigata Prefecture, Japan (37 °4'56''N, 138 °46'12''E)

Unuma Formation

Pleistocene (early Pleistocene)

***Donaciella nagaokana* Hayashi, 1998**

Bull. Osaka Mus. Nat. Hist., No. 52, 40, Figs. 5A-5C, 6A-6D, 7H

Holotype: OMNH TI-73

Aobadai, Nagaoka City, Niigata Prefecture, Japan (37 °21'00''N, 138 °45'50''E)

Unuma Formation

Pleistocene (early Pleistocene)

***Fulgoridium? matsuo* Fujiyama, 1978**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, Vol. 4, No. 4, 186, Pl. 2 (figs. 6a, b), Fig. 3

Holotype: NSM-PA12005

Kuwajima, Shiramine-mura, Ishikawa-gun, Ishikawa Prefecture, Japan (36 °11'53''N, 136 °37'45''E)

Kuwajima Alternation, Itoshiro Subgroup, Tedori Group

Cretaceous (early Cretaceous)

***Graptopsaltria inaba* Fujiyama, 1982**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, Vol. 8, No. 4, 181, Figs. 2A

Holotype: Tottori Prefectural Museum 649-072

Tatsumi-toge, Saji-mura, Yazu-gun, Tottori Prefecture, Japan (35 °18'55''N, 134 °0'9''E)

Tochiwara Formation

Miocene (late Miocene)

***Heliocopr*is antiquus Fujiyama, 1968**

Bull. Nat. Sci. Mus. Tokyo, Vol. 11, No. 2, 203, Pl. 1 (figs. 1a, 1b, 2), Figs. 2, 3b, 3c

Holotype: JC 500528a

Takaya, Suzu City, Ishikawa Prefecture, Japan (37 °31'N, 137 °14'E: detail locality unknown)

Yanagida Formation

Miocene (middle Miocene)

(In the original description, the genus name is misspelled)

“*Heliocoporis*”.)

***Hodotermopsis iwatensis* Fujiyama, 1983**

Bull. Natn. Sci. Mus., Tokyo, No. 16, 88, Pl. 1 (fig. 5), Fig. 5
Holotype: IPMM 20599
Masuzawa, Shizukuishi-cho, Iwate-gun, Iwate Prefecture,
Japan (39 °38'N, 140 °56'E: detail locality unknown)
Masuzawa Formation
Miocene (late Miocene)

***Ipsvicioides minimus* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 372, Pl. 5 (figs.
1, 2), Fig. 19
Holotype: NSM-PA11259
Omine Coal Mine, Omine, Mine City, Yamaguchi Prefecture,
Japan (34 °11'48''N, 131 °9'54''E)
Momonoki Formation, Mine Group
Carnian

***Kagapsychoops aranea* Fujiyama, 1978**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, Vol. 4, No. 4, 189, Pl. 2
(figs. 3a, b), Fig. 6
Holotype: NSM-PA12004
Ku wajima, Shiramine-mura, Ishikawa-gun, Ishikawa
Prefecture, Japan (36 °11'53''N, 136 °37'45''E)
Ku wajima Alternation, Itoshiro Subgroup, Tedor Group
Cretaceous (early Cretaceous)

***Meimuna protopalifera* Fujiyama, 1969**

Bull. Nat. Sci. Mus. Tokyo, Vol. 12, No. 4, 864, Pl. 1 (figs,
1a, 1b), Fig. 1b
Holotype: IGPS 36741
Near the Kinomata Bridge, south of Itamuro Hot Spring,
southern foot of the Nasu Volcano, Nasu-gun, (Kuroiso City),
Tochigi Prefecture, Japan (37 °3'N, 139 °59'E: detail locality
unknown)
Lower Miocene
Early Miocene

***Menephiloides minensis* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 378, Pl. 5 (fig.
3), Fig. 21
Holotype: NSM-PA11262
Hazegatani Coal Mine, Omine, Mine City, Yamaguchi
Prefecture, Japan (34 °11'36''N, 131 °9'49''E)
Momonoki Formation, Mine Group
Carnian

***Minesedes elegans* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 368, Pl. 4 (fig.
3), Fig. 16
Holotype: NSM-PA11258
Hazegatani Coal Mine, Omine, Mine City, Yamaguchi
Prefecture, Japan (34 °11'36''N, 131 °9'49''E)

Momonoki Formation, Mine Group
Carnian

***Nipponoblatta suzuginae* Fujiyama, 1974**

Bull. Natn. Sci. Mus. Tokyo, Vol. 17, No. 4, 313, Figs. 1, 2
Holotype: NSM-PA11407
Ishimachi, Toyora (Toyota-machi), Toyoura-gun, Yamaguchi
Prefecture, Japan (34 °10'33''N, 131 °3'46''E)
Nishinakayama Formation
Liassic (late Liassic)

***Nipponohagla kaga* Fujiyama, 1978**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, Vol. 4, No. 4, 184, Pl. 1
(figs. 1a, b, c, 2a, b, c), Figs. 1, 2
Holotype: NSM-PA12002, 12003
Ku wajima, Shiramine-mura, Ishikawa-gun, Ishikawa
Prefecture, Japan (36 °11'53''N, 136 °37'45''E)
Ku wajima Alternation, Itoshiro Subgroup, Tedor Group
Early Cretaceous

***Ominea reticulata* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 370, Pl. 4 (fig.
4), Fig. 17
Holotype: NSM-PA11270
Hazegatani Coal Mine, Omine, Mine City, Yamaguchi
Prefecture, Japan (34 °11'36''N, 131 °9'49''E)
Momonoki Formation, Mine Group
Carnian

***Orthophlebia haradai* Ueda, 1991**

Bull. Kitakyushu Mus. Nat. Hist., No. 10, 100, Pl. 1, Fig. 2
Holotype: KMNH IP 000,002
Okuhata, Mine City, Yamaguchi Prefecture, Japan (34 °
10'56''N, 131 °8'59''E)
Momonoki Formation
Carnian, Upper Triassic

***Parawonnacottella araripensis* Ueda, 1997**

Bull. Kitakyushu Mus. Nat. Hist., No. 16, 100, Pl. 1, Figs. 1,
2
Holotype: KMNH IP 000,003
Nova Olinda, Araripe Basin, N. E. Brazil (detail locality
unknown)
Crato Formation
Upper Aptian to Lower Albian

***Pedinoblatta ishidae* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 363, Pl. 3 (fig.
4), Fig. 14
Holotype: NSM-PA11255
Omine Coal Mine, Omine, Mine City, Yamaguchi Prefecture,
Japan (34 °11'48''N, 131 °9'54''E)
Momonoki Formation, Mine Group
Carnian

***Penthetria togoensis* Fujiyama & Iwao, 1974**

Bull. Natn. Sci. Mus. Tokyo, Vol. 17, No. 1, Pl. 1 (fig. 4a, b), Fig. 4

Holotype: CESES (Faculty of Science and Engineering, Saga University) 20002

Torimaru, Togo-cho, Satsuma-gun, Kagoshima Prefecture, Japan (31°53'6"N, 130°20'54"E)

Torimaru Sandstone Member

Pliocene to Pleistocene

***Plateumaris dorsata* Hayashi, 1997**

Earth Science (Chikyu Kagaku), Vol. 51, No. 5, 362, Figs. 3, 4, 5, 6A-6D

Holotype: OMNH TI-65

Riverbed of Iruma River, Noda, Iruma City, Saitama Prefecture, Japan (35°50'9"N, 139°21'10"E)

Bushi Formation

Early Pleistocene

***Plateumaris kinugasana* Hayashi, 2001**

Bull. Osaka Mus. Nat. Hist., No. 55, 9, Fig. 4

Holotype: OMNH TI-130

Koyasawa, Kawanishi-machi, Okitama-gun, Yamagata Prefecture, Japan (37°55'24"N, 139°57'27"E)

Takamine Formation

Late Miocene

***Plateumaris virens* Hayashi, 1999**

Bull. Osaka Mus. Nat. Hist., No. 53, 11, Figs. 9-1--8, 10, 11-1, 12-1

Holotype: OMNH TI-97

Shibanomata River, Saruhashi, Oguni-machi, Kariwa-gun, Niigata Prefecture, Japan (37°17'6"N, 138°41'13"E)

Uonuma Formation

Early Pleistocene

***Plecia intima* Fujiyama & Iwao, 1974**

Bull. Natn. Sci. Mus. Tokyo, Vol. 17, No. 1, 94, Pl. 1 (fig. 1a, b), Fig. 5

Holotype: CESES 20001 (Faculty of Science and Engineering, Saga University)

Torimaru, Togo-cho, Satsuma-gun, Kagoshima Prefecture, Japan (31°53'6"N, 130°20'54"E)

Torimaru Sandstone Member

Pliocene to Pleistocene

***Plecia kanetakii* Fujiyama, 1970**

Mem. Nat. Sci. Mus. Tokyo, No. 3, 69, Pl. 15 (figs. 4a, 4b), Fig. 4

Holotype: JC 1200027

Chojabaru, Ashibe-cho, Iki-gun, Iki Island, Nagasaki Prefecture, Japan (33°46'50"N, 129°47'40-50"E)

Chojabaru Formation, Iki Group

Miocene (middle Miocene)

***Samaroblatta fronda* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 365, Pl. 3 (fig. 5), Fig. 15

Holotype: NSM-PA11263.

Hazegatani Coal Mine, Omine, Mine City, Yamaguchi Prefecture, Japan (34°11'36"N, 131°9'49"E)

Momonoki Formation, Mine Group

Carnian

***Sardyoblattina kimurai* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 352, Pl. 1 (fig. 1), Fig. 4

Holotype: NSM-PA11268

Hazegatani Coal Mine, Omine, Mine City, Yamaguchi Prefecture, Japan (34°11'36"N, 131°9'49"E)

Momonoki Formation, Mine Group

Carnian

***Stolotermes? amanoi* Fujiyama, 1983**

Bull. Natn. Sci. Mus., Tokyo, No. 16, 90, Pl. 7 (fig. 4), Fig. 7

Holotype: NSM-PA12213

Anadozawa, Akiu-machi, Natori-gun, Miyagi Prefecture, Japan (38°17'N, 140°33'E: deatil locality unknown)

Anadozawa Formation

Miocene (late Miocene)

***Terpandrus? ikiensis* Fujiyama, 1970**

Mem. Nat. Sci. Mus. Tokyo, No. 3, 66, Pl. 15 (figs. 1a, 1b), Fig. 2

Holotype: Stored in the Iki Kyodokan

Chojabaru, Ashibe-cho, Iki-gun, Iki Island, Nagasaki Prefecture, Japan (33°46'50"N, 129°47'40-50"E)

Chojabaru Formation, Iki Group

Miocene (middle Miocene)

***Triassoblatta okafujii* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 354, Pl. 1 (figs. 2, 3), Fig. 5

Holotype: NSM-PA11260a

Omime Coal Mine, Omime, Mine City, Yamaguchi Prefecture, Japan (34°11'48"N, 131°9'54"E)

Momonoki Formation, Mine Group

Carnian

***Triassoblatta bella* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 357, Pl. 2 (figs. 1, 2), Fig. 7

Holotype: NSM-PA11257

Hazegatani Coal Mine, Omime, Mine City, Yamaguchi Prefecture, Japan (34°11'36"N, 131°9'49"E)

Momonoki Formation, Mine Group

Carnian

***Triassoblatta? tenuicubiti* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 358, Pl. 2 (fig. 3), Fig. 8

Holotype: NSM-PA11271

Hazegatani Coal Mine, Omine, Mine City, Yamaguchi Prefecture, Japan (34 °11'36''N, 131 °9'49''E)

Momonoki Formation, Mine Group

Carnian

Miocene (late Miocene)

***Ulmeriella uemurai* Fujiyama, 1983**

Bull. Natn. Sci. Mus., Tokyo, No. 16, 86, Pl. 1 (figs. 1, 2), Figs. 2, 3

Holotype: NSM-PA12210, Paratype: NSM-PA12211

Miyata, (Kamihinokinai), Nishiki-mura, Senboku-gun, Akita Prefecture, Japan (39 °48'40''N, 140 °35'08''E)

Miyata Formation

Miocene (late Miocene)

***Triassoblatta? rotundipenna* Fujiyama, 1973**

Bull. Natn. Sci. Mus. Tokyo, Vol. 16, No. 2, 359, Pl. 2 (fig. 4), Fig. 9

Holotype: NSM-PA11265

Hazegatani Coal Mine, Omine, Mine City, Yamaguchi Prefecture, Japan (34 °11'36''N, 131 °9'49''E)

Momonoki Formation, Mine Group

Carnian

***Triassothemis minensis* Fujiyama, 1991**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, Vol. 17, No. 2, 54, Figs. 5, 8

Holotype: MMHF (Mine City Museum of History and Folklore) 3-00008

Okubata, Mine City, Yamaguchi Prefecture, Japan (34 °10'56''N, 131 °8'59''E)

Momonoki Formation

Carnian, Late Triassic

***Triassothemis nipponensis* Fujiyama, 1991**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, Vol. 17, No. 2, 52, Figs. 3, 6

Holotype: MMHF (Mine City Museum of History and Folklore) 3-00007

Okubata, Mine City, Yamaguchi Prefecture, Japan (34 °10'56''N, 131 °8'59''E)

Momonoki Formation

Carnian, Late Triassic

***Triassoneura okafujii* Fujiyama, 1991**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, Vol. 17, No. 2, 50, Figs. 1, 8

Holotype: MMHF (Mine City Museum of History and Folklore) 3-00006

Okubata, Mine City, Yamaguchi Prefecture, Japan (34 °10'56''N, 131 °8'59''E)

Momonoki Formation

Carnian, Late Triassic

***Ulmeriella shizukuishiensis* Fujiyama, 1983**

Bull. Natn. Sci. Mus., Tokyo, No. 16, 87, Pl. 7 (fig. 3), Fig. 4

Holotype: NSM-PA12212

Shizukuishi-cho, Iwate-gun, Iwate Prefecture, Japan (39 °38'N, 140 °56'E: detail locality unknown)

Masuzawa Formation

Vertebrata

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Pisces

Aokiichthys changae Yabumoto, 1994

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59

Holotype: KMNH VP 100,166

Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref.,
Japan

Wakino Subgroup

Early Cretaceous

Aokiichthys otai Yabumoto, 1994

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59

Holotype: KMNH VP 100,173

Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref.,
Japan

Wakino Subgroup

Early Cretaceous

Aokiichthys praedorsalis Yabumoto, 1994

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59

Holotype: KMNH VP 100,155

Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref.,
Japan

Wakino Subgroup

Early Cretaceous

Aokiichthys toriyamai Yabumoto, 1994

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59

Holotype: KMNH VP 100,160

Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref.,
Japan

Wakino Subgroup

Early Cretaceous

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Aokiichthys uyenoii Yabumoto, 1994

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59

Holotype: KMNH VP 100,176

Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref.,
Japan

Wakino Subgroup

Early Cretaceous

Arctoscopus shimokitaensis Hatai, 1965

Senck. Leth., 46a (Weiler-Festschr.), 133-143, taf. 6

Holotype: IGPS 85991

Hamada sea-cliff, Tanabe-machi, Shimokita-gun, Aomori
Pref., Japan

Sunagomata Formation

Pliocene

Asiatolepis eichwaldia Takai, 1943

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 6 (11), 207-270, pls.
1-9

Chita Prov., Siberia, USSR (Russia)

Witim and Turga Formations

Late Jurassic

Asiatolepis muroii Takai, 1943

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 6 (11), 207-270, pls.
1-9

Fuhsin basin, Manchuria (Liaonin, China)

Fuhsin Formation

Late Jurassic

Asiatolepis woodwardi Takai, 1943

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 6 (11), 207-270, pls.
1-9

Shensi-Kansu borderland, China

Liupanshan Formation

Late Jurassic

Avitolabrax denticulatus Takai, 1942

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 6, 135-139, pls. 1-3

Holotype: UMUT

Iriyama, Shiramizu, Utigo-mura, Iwaki-gun, Fukushima Pref.,
Japan

Shiramizu Coal-bearing Formation

Early Miocene

Bathylagus obesa Sato, 1962

Earth Science (Chikyu-Kagaku), 59, 1-29, pls. 1-6

Holotype: Kurosawajiri Tech. High School, Mining Dept. No.
1090

Shizukuishi basin, Iwate Pref., Japan

Kunimitoge Formation

Middle Miocene

***Bathylagus sencta* Sato, 1962**

Earth Science (Chikyu-Kagaku), 59, 1-29, pls. 1-6
Holotype: Kurosawajiri Tech. High School, Mining Dept. No. 1083

Shizukuishi basin, Iwate Pref., Japan
Kunitomoto Formation
Middle Miocene

***Bathylagus toyohamaensis* Ohe, 1968**

Nagoya Jour. Space & Earth Sci., 24, 2-15, pl. 16
Holotype: Nakamura High School, Aichi. No. 66-01
Oza, Toyohama, Minamichita, Aichi Pref., Japan
Toyohama Formation
Miocene

***Beryx weileri* Hatai, 1965**

Senck. Leth., 46a (Weiler-Festschr.), 133-143, taf. 6
Holotype: IGPS 85997
Atsuta-saka, Kurotsu-mura, Kita-Kanbara-gun, Niigata Pref., Japan
Haizume Formation
Pliocene

***Carcharodon akitaensis* Uyeno and Hasegawa, 1974**

Bull. Natn. Sci. Mus. Tokyo, 17 (3), 257-260, pl. 1
Holotype: Sugawara Collection
Tazawa, Ugo-mati, Ogachi-gun, Akita Pref., Japan
Sugota Formation
Middle Miocene

***Carcharodon nodai* Yabumoto, 1989**

Bull. Kitakyushu Mus. Nat. Hist., 9, 111-116, pl. 1
Holotype: KMNH VP 100,145
Kattachi, Omuta-shi, Fukuoka Pref., Japan
Kattachi Formation
Late Eocene

***Chelidoperca? sawadai* Hatai, 1965**

Senck. Leth., 46a (Weiler-Festschr.), 133-143, taf. 6
Holotype: IGPS 85988
Nakanokawa, Yubetsu-mura, Suttu-gun, Hokkaido, Japan
Chionkope Formation
Pliocene

***Chibapsetta dolichurostyli* Sakamoto and Uyeno**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, 14 (3), 135-142.
Holotype: NSM-PV 4583
Togane High School, Togane City, Chiba Pref., Japan
Togane Formation
Late Pleistocene

***Chorinemus inensis* Ohe and Furuhashi, 1977**

Bull. Mizunami Fossil Mus., 4, 73-85
Holotype: MSHS 760521

Ashidani, Ine, Yosa-gun, Kyoto Pref., Japan
Toyooka Formation
Middle Miocene

***Chuhsiungichthys japonicus* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
Holotype: KMNH VP 100,150
Kumagai, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan
Wakino Subgroup
Early Cretaceous

***Chuhsiungichthys yanagidai* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
Holotype: KMNH VP 100,148
Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref., Japan
Wakino Subgroup
Early Cretaceous

***Clidoderma chitaensis* Ohe and Kawase, 1995**

Bull. Mizunami Fossil Mus., 22, 1-7, pls. 1-3
Holotype: MFM 27001
Chita, Aichi Pref., Japan
Yamami Formation
Miocene

***Clupea tanegashimaensis* Saheki, 1929**

Jour. Geol. Soc. Tokyo, 36, 21-24
Holotype: UMUT CV 13829
Sumiyoshi, Nishinoomote, Tanegashima Island, Kagoshima Pref., Japan
Kukinaga Formation (Katanoyama Formation)
Early Miocene (Early Pleistocene)

***Coelorhynchus yakuojiensis* Ohe and Araki, 1973**

Sci. Rep. Tohoku Univ., 2nd Ser., Hatai Memorial Volume, 407-413
Holotype: Dept. Geol., Mie Univ. No. 698-6-1
Cliff at about 100 m north of Kubo-cho, Tsu, Mie Pref., Japan
Yakuoji Formation
Miocene

***Conger durus* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307.
Jizodo, Makuta, Chiba Pref., Japan
Jizodo Formation
Middle Pleistocene

***Conger ellipticus* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34.
Shisui, Sakura, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Cookeolus spinolacrymatus* Kon and Yoshino, 1997**

Ichthyol. Res., 44 (4), 347-356

Holotype: URM-F2

Miyagi-shima, Okinawa Pref., Japan

Shinzato Formation

Late Pliocene

***Coreoperca fushimiensis* Ohe and Ono, 1975**

Uo, 24, 7-18, pls. 2-3

Holotype: Zool. Inst., Univ. Tokyo. No. 53056

Fushimiguchi, Kani-cho, Gifu Pref., Japan

Nakamura Formation

Miocene

***Coreoperca kaniensis* Ohe and Hayata, 1984**

Bull. Mizunami Fossil Mus., 11, 1-19, pls. 1-5

Holotype: MFM 17005

Hazaki, Kani-shi, Gifu Pref., Japan

Hiramaki Formation

Middle Miocene

***Dasybatus iwaii* Hatai, 1966**

Saito Ho-on Kai Mus. Res. Bull., 34, 15-18

Holotype: IGPS 86619

Core drill, 268-285 m, Aburakawa-cho, Aomori City,

Aomori Pref., Japan

Amadanaigawa Formation

Pliocene

***Dasybatus nipponensis* Hatai and Kotaka, 1962**

Trans. Proc. Palaeont. Soc. Japan, N. S., 45, 201-205, pl. 30

Togari, Mizunami City, Gifu Pref., Japan

Mizunami Group

Early Miocene

***Dasybatus (?) masudae* Hatai and Kotaka, 1962**

Trans. Proc. Palaeont. Soc. Japan, N. S., 45, 201-205, pl. 30

Nisatai, Fukuoka-machi, Ninohe-gun, Iwate Pref., Japan

Kadonosawa Formation

Early Miocene

***Diaphus angulatus* Ohe and Araki, 1973**

Sci. Rep. Tohoku Univ., 2nd Ser., Hatai Memorial Volume, 407-413

Holotype: Dept. Geol., Mie Univ. No. 698-1

Cliff at about 100 m north of Kubo-cho, Tsu, Mie Pref., Japan

Yakuoji Formation

Miocene

***Diaphus hataii* Ohe and Araki, 1973**

Sci. Rep. Tohoku Univ., 2nd Ser., Hatai Memorial Volume, 407-413

Holotype: Dept. Geol., Mie Univ. No. 698-4-1

Cliff at about 100m north of Kubo-cho, Tsu, Mie Pref., Japan

Yakuoji Formation

Miocene

***Diaphus muraii* Sato, 1962**

Earth Science (Chikyu-Kagaku), 59, 1-29, pls. 1-6

Holotype: Kurosawajiri Tech. High School, Mining Dept. No. 2055

Shizukuishi basin, Iwate Pref., Japan

Kunitomoto Formation

Middle Miocene

***Diaphus shizukuishiensis* Sato, 1962**

Earth Science (Chikyu-Kagaku), 59, 1-29, pls. 1-6

Holotype: Kurosawajiri Tech. High School, Mining Dept. No. 2051

Shizukuishi basin, Iwate Pref., Japan

Kunitomoto Formation

Middle Miocene

***Diplomystus altisomus* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59

Holotype: KMNH VP 100,217

Kumagai, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan

Wakino Subgroup

Early Cretaceous

***Diplomystus kokuraensis* Uyeno, 1979**

Bull. Kitakyushu Mus. Nat. Hist., 1, 11-24, pls. 3-4

Holotype: KMNH VP 100,031

Kumagaya, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan

Wakino Subgroup

Early Cretaceous

***Diplomystus primitinus* Uyeno, 1979**

Bull. Kitakyushu Mus. Nat. Hist., 1, 11-24, pls. 3-4

Holotype: KMNH VP 100,001

Kumagaya, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan

Wakino Subgroup

Early Cretaceous

***Eosardinella hishinaiensis* Sato, 1966**

Japan. Jour. Ichthyol., 13, 112-125, 3 pls.

Holotype: Kurosawajiri Tech. High School, Mining Dept. No. 913

Waga Town, Iwate Pref., Japan

Hishinai Formation

Miocene

***Eurypholis japonicus* Uyeno and Minakawa, 1983**

Bull. Natn. Sci. Mus., Ser. C, 9 (2), 79-83

Holotype: NSM-PV 17127

Dogo-Himezuka, Matsuyama-shi, Ehime Pref., Japan
Izumi Group
Late Cretaceous

***Gadus chikagawaensis* Hatai and Kotaka, 1963**

Trans. Proc. Palaeont. Soc. Japan, N. S., 49, 25-28, pl. 1
Holotype: IGPS 79164
Clif of the Chikagawa stream, Tanabu-machi, Shimokita-gun,
Aomori Pref., Japan
Sunagomata Formation
Pliocene

***Gadus macrocephalus oshimai* Hatai, 1965**

Senck. Leth., 46a (Weiler-Festschr.), 133-143, taf. 6
Holotype: IGPS 85725
Hanayama, Chujo-machi, Kita-Kanbara-gun, Niigata Pref.,
Japan
Haizume Formation
Pliocene

***Gadus masudai* Hatai and Kotaka, 1963**

Trans. Proc. Palaeont. Soc. Japan, N. S., 49, 25-28, pl. 1
Holotype: IGPS 79165
Off Kamo, Yamagata Pref., Japan
Pliocene?

***Glyptophium litheus* Sato, 1962**

Earth Science (Chikyu-Kagaku), 59, 1-29, pls. 1-6
Holotype: UMUT
Shizukuishi basin, Iwate Pref., Japan
Kunimitoge Formation
Middle Miocene

***Gobius aenosus* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
Hikita, Ichihara, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Gobius copiosus* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
Sakurai, Kisarazu, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Gobius ingens* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
Nagayato, Naganuma, Yokohama, Kanagawa Pref., Japan
Naganuma Formation
Middle Pleistocene

***Gobius notoensis* Aoki, 1967**

Trans. Proc. Palaeont. Soc. Japan, N. S., 67, 125-128
Hiratoko, Suzu City, Ishikawa Pref., Japan

Hiratoko Formation
Middle Pleistocene

***Gobius puellaris* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
Naganuma, Yokohama, Kanagawa Pref., Japan
Naganuma Formation
Middle Pleistocene

***Gobius rarus* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
Kikuna, Yokohama, Kanagawa Pref., Japan
Shimosueyoshi Formation
Middle Pleistocene

***Gobius rusticus* Aoki, 1967**

Trans. Proc. Palaeont. Soc. Japan, N. S., 67, 125-128
Wasumi, Yanagida, Yanagida-mura, Suzu Co., Ishikawa Pref.,
Japan
Higashi-innai Formation
Middle Miocene

***Gobius urbanus* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
Toyoda, Naganuma, Yokohama, Kanagawa Pref., Japan
Naganuma Formation
Middle Pleistocene

***Hetranchias ezoensis* Applegate and Uyeno, 1968**

Bull. Natn. Sci. Mus., Tokyo, 11 (2), 195-200
Holotype: NSM-PV 7421
Kashima, Yubari City, Hokkaido, Japan
Poronai Formation
Late Oligocene

***Heteroptychodus steinmanni* Yabe and Obata, 1930**

Japan. Jour. Geol. Geogr., 8, 1-7
Yanagidani, Takahoku-mura, Katsura-gun, Tokushima Pref.,
Japan
Tatsukawa Formation
Cretaceous

***Hippoglossoides kumaishi* Sakamoto and Uyeno, 1991**

Bull. Natn. Sci. Mus., Ser. C, 17 (4), 165-172
Holotype: NSM-PV 19654
Kumaishi, Oshima Peninsula, Hokkaido, Japan
Esashi Formation
Miocene

***Hippoglossoides naritai* Sakamoto and Uyeno, 1989**

Bull. Natn. Sci. Mus., Ser. C, 15 (2), 71-79
Holotype: NSM-PV 19592
Tokoro, Hokkaido, Japan
Tokoro Formation

Middle Miocene

***Holcolepis delicatostriatus* Yabe and Obata, 1930**

Japan. Jour. Geol. Geogr., 8, 1-7
Ikushunbetsu, Ishikari Prov., Hokkaido, Japan
Ponbetsu Shale
Cretaceous

***Hygophum rotundum* Ohe and Araki, 1973**

Sci. Rep. Tohoku Univ., 2nd Ser., Hatai Memorial Volume, 407-413
Holotype: Dept. Geol., Mie Univ. No. 698-3-1
Cliff at about 100 m north of Kubo-cho, Tsu, Mie Pref., Japan
Yakuoji Formation
Miocene

***Hypophthalmichthys okuyamai* Nakajima, 1984**

Bull. Mizunami Fossil Mus., 11, 69-72, pl. 22
Holotype: MFM 117001
Ohyamada-mura, Mie Pref., Japan
Iga Formation
Early Pliocene

***Inabaperca taniurai* Yabumoto and Uyeno, 2000**

Bull. Natn. Sci. Mus., Tokyo, Ser. C, 26 (3, 4) 93-106
Holotype; TRPM664-0185
Miyanoshiba, Kokufu-cho, Tottori Pref., Japan
Iwami Formation
Middle Miocene

***Iquius nipponicus* Jordan, 1919**

Proc. California Acad. Sci., Ser. 4, 9 (9), 271-272, pl. 2
Holotype: Mus. California Acad. Sci. No. 441
Chojabaru, Iki Island, Nagasaki Pref., Japan
Chojabaru Diatomite Formation
Late Early Miocene

***Ischyrhiza iwakiensis* Uyeno and Hasegawa, 1986**

Bull. Natn. Sci. Mus., Ser. C, 12 (2), 67-72
Holotype: NSM-PV 116
Iwaki-shi, Fukushima Pref., Japan
Tamayama Formation
Cretaceous

***Izuus nakamurai* Tokunaga and Saito, 1938**

Japan. Jour. Geol. Geogr., 15, 83-86
Holotype: UMUT-CV 13804
Yugashima, Izu Province, (Shizuoka Pref.), Japan
Yugashima Group
Early Miocene

***Kubikichthys raris* Hatai and Noda, 1972**

Trans. Proc. Palaeontol. Soc. Japan, N. S., 86, 319-324, pl.

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Noo-River at Kurosawa, Noo-machi, Nishikubiki-gun, Niigata Pref., Japan
Hiuchiyama Formation
Miocene

***Lampadena nanae* Sato, 1962**

Earth Science (Chikyu-Kagaku), 59, 1-29, pls. 1-6
Holotype: Kurosawajiri Tech. High School, Mining Dept. No. 2081
Shizukuishi basin, Iwate Pref., Japan.
Kunimitoge Formation
Middle Miocene

***Lampadena ozaensis* Ohe, 1968:**

Nagoya Jour. Space & Earth Sci., 24, 2-15, pl.16
Holotype: Utsumi High School, Aichi. No. 66-06
Oza, Toyohama, Minamichita, Aichi Pref., Japan
Toyohama Formation
Miocene

***Lampanyctus kuboensis* Ohe and Araki, 1973**

Sci. Rep. Tohoku Univ., 2nd Ser., Hatai Memorial Volume, 407-413
Holotype: Dept. Geol., Mie Univ. No. 698-2-1
Cliff at about 100 m north of Kubo-cho, Tsu, Mie Pref., Japan
Yakuoji Formation
Miocene

***Leiognathus tottori* Yabumoto and Uyeno, 1994**

Bull. Natn. Sci. Mus., Ser. C, 20 (2), 67-77
Holotype: Mus. Nature & Human Activities, Hyogo. No. D1-002684
Miyanoshiba, Kokufu-cho, Tottori Pref., Japan
Iwami Formation
Middle Miocene

***Lepidion miocenica* Sato, 1962**

Earth Science (Chikyu-Kagaku), 59, 1-29, pls. 1-6
Holotype: Kurosawajiri Tech. High School, Mining Dept. No. 2081
Shizukuishi basin, Iwate Pref., Japan
Kunimitoge Formation
Middle Miocene

***Lepidotes macropterus* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
Holotype: KMNH VP 100,146
Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref., Japan
Wakino Subgroup
Early Cretaceous

***Leptolepis longicephalus* Takai, 1942**

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 6 (8), 129-133
 Pai-miao-tzu, Fulung-chuan, Nung-an-hsien, Chilin prov,
 Manchuria (Jiling, China)
 Nengkiang Formation
 Late? Cretaceous

***Limanda aomoriensis* Hatai, 1965**

Senck. Leth., 46a (Weiler-Festschr.), 133-143, taf. 6
 Holotype: IGPS 85987
 Hamada sea cliff, Tanabu-machi, Shimo-Kita-gun, Aomori
 Pref., Japan
 Sunagomata Formation
 Pliocene

***Lycoptera chosenensis* Makiyama, 1927**

Chikyū (The Globe), 7 (6), 448-452
 Holotype: KUGM-KUAM 91001
 Koji-men, Gishu-gun, Singishu, Chosen (North Korea)
 Jurassic

***Lycoptera tokunagai* Saito, 1936**

Rep. 1st Sci. Exped. Manchoukuo, II-3, 1-23, pls. 1-5
 Jehol, Manchuria (Northeast China)
 Upper Jurassic or Lower Cretaceous.

***Manchurichthys uwatokoii* Saito, 1936**

Rep. 1st Sci. Exped. Manchoukuo, II-3, 1-23, pls. 1-5
 Talatzu, Hokung-hsien, Manchuria (Northeast China)
 Talatzu Series
 Early Cretaceous

***Microstomus tochiensis* Sakamoto and Uyeno, 1993**

Bull. Natn. Sci. Mus., Ser. C, 19 (3), 105-113
 Holotype: TPM 786
 Shiobara-cho, Tochi Pref., Japan
 Kanomatazawa Formation
 Middle Miocene

***Myctophum polygonium* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
 Jizodo, Makuta, Chiba Pref., Japan
 Jizodo Formation
 Middle Pleistocene

***Myctophum spinatum* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
 Jizodo, Makuta, Chiba Pref., Japan
 Jizodo Formation
 Middle Pleistocene

***Myctophum vastus* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
 Jizodo, Makuta, Chiba Pref., Japan

Jizodo Formation
 Middle Pleistocene

***Myliobatis sendaicus* Hatai, Murata and Masuda, 1965**

Trans. Proc. Palaeont. Soc. Japan, N. S., 57, 24-37
 Holotype: IGPS 85998
 Tatsunokuchi gorge, Sendai City, Miyagi Pref., Japan
 Tatsunokuchi Formation
 Pliocene

***Nibeia gemma* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
 Gion, Kisarazu, Chiba Pref., Japan
 Narita Formation
 Middle Pleistocene

***Nippon macrocephalus* Kon and Yoshino, 1997**

Ichthyol. Res., 44 (1), 35-42
 Holotype: URM-F1
 Miyagi-shima, Okinawa Pref., Japan
 Shinzato Formation
 Late Pliocene

***Nipponamia satoi* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
 Holotype: KMNH VP 100,147
 Tokuriki, Kokura-minami-ku, Kitakyushu, Fukuoka Pref.,
 Japan
 Wakino Subgroup
 Early Cretaceous

***Notacanthus circulus* Ohe and Araki, 1973**

Sci. Rep. Tohoku Univ., 2nd Ser., Hatai Memorial Volume,
 407-413
 Holotype: Dept. Geol., Mie Univ. No. 698-5b
 Cliff at about 100m north of Kubo-cho, Tsu, Mie Pref., Japan
 Yakuoji Formation
 Miocene

***Odontobutis obscura yuriagensis* Hatai, 1965**

Senck. Leth., 46a (Weiler-Festschr.), 133-143, taf. 6
 Holotype: IGPS 85994
 Yuriage, Sendai City, Miyagi Pref., Japan
 Holocene

***Ohuus kitamurai* Sato, 1962**

Earth Science (Chikyū-Kagaku), 59, 1-29, pls. 1-6
 Holotype: UMUT
 Shizukuishi basin, Iwate Pref., Japan
 Kunimitoge Formation
 Middle Miocene

***Otolithus (Serranidarum) anesakiensis* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34

Iriyamazu, Anegasaki, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Otolithus (Sparidarum) babai* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
Sakurai, Kisarazu, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Otolithus (Congridarum) bellus* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
Iriyamazu, Anegasaki, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Otolithus (Crangidarum) calidus* Aoki, 1968**

Trans. Proc. Palaeont. Soc. Japan, N. S., 71, 296-307
Sakurai, Kisarazu, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Otolithus (Sciaenidarum) clarus* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
Takinogawa, Tokyo, Japan
Tokyo Formation
Middle Pleistocene

***Otolithus (Cottidarum) jizodoensis* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
Jizodo, Makuta, Chiba Pref., Japan
Jizodo Formation
Middle Pleistocene

***Otolithus (inc. sed.) kaskioensis* Aoki and Baba, 1980**

Ann. Rep. Inst. Geosci. Univ. Tsukuba, 6, 55-61
Yamaguchi, Kakio, Kawasaki City, Kanagawa Pref., Japan
Kakio Formation
Middle Pleistocene

***Otolithus (Scorpaenidarum) kasamoriensis* Aoki and Baba, 1980**

Ann. Rep. Inst. Geosci. Univ. Tsukuba, 6, 55-61
Kuramochi, Chonan-machi, Chosei-gun, Chiba Pref., Japan
Kasamori Formation
Middle Pleistocene

***Otolithus (Scombrops) kataokai* Hatai, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., 23, 213-217
Holotype: IGPS P-300
Otadai, Oikawa-mura, Isumi-gun, Chiba Pref., Japan
Sakahata Formation
Pliocene

***Otolithus (Sebastodes) kokumotoensis* Hatai, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., 23, 213-217
Holotype: IGPS P-303
Okubo, Shiratori-mura, Ichihara-gun, Chiba Pref., Japan
Yamagawa Formation
Pliocene

***Otolithus (Myctophidarum) makutaensis* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
Jizodo, Makuta, Chiba Pref., Japan
Jizodo Formation
Middle Pleistocene

***Otolithus (Limanda) otomoi* Hatai, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., 23, 213-217
Holotype: IGPS P-301
Nishibuta, Otaki-machi, Isumi-gun, Chiba Pref., Japan
Sakahata Formation
Pliocene

***Otolithus (Diaphus) quadratus* Aoki and Baba, 1980**

Ann. Rep. Inst. Geosci. Univ. Tsukuba, 6, 55-61
Kanazawa-ku, Yokohama, Kanagawa Pref., Japan
Nojima Formation
Middle Pleistocene

***Otolithus (Congridarum) rhombicus* Aoki, 1971**

Sci. Rep. Tokyo Kyoiku Daigaku, Sect. C, 11, 11-34
Gion, Kisarazu, Chiba Pref., Japan
Narita Formation
Middle Pleistocene

***Otolithus (Oestonia?) tsukizakiensis* Hatai, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., 23, 213-217
Holotype: IGPS P-302
Tsukizaki, Shiratori-mura, Ichihara-gun, Chiba Pref., Japan
Kawayatsu Formation
Pliocene

***Paleosciaena mizunamiensis* Ohe, 1976**

Bull. Mizunami Fossil Mus., 3, 73-97
Holotype: MFM 17003
Shukunohora, Mizunami City, Gifu Pref., Japan
Akeyo Formation
Miocene

***Paraleptolepis elegans* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
Holotype: KMNH VP 100,227
Minamigaoka, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan
Wakino Subgroup
Early Cretaceous

***Paraleptolepis kikuchii* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59

Holotype: KMNH VP 100,222

Minamigaoka, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan

Wakino Subgroup

Early Cretaceous

***Paralichthys yamanai* Sakamoto and Uyeno, 1993**

Bull. Natn. Sci. Mus., Ser. C, 19 (1), 1-9

Holotype: TRPM 664-075B

Miyanoshiba, Kokufu-cho, Tottori Pref., Japan

Iwami Formation

Middle Miocene

***Percichtys chibei* Saheki, 1929**

Jour. Geol. Soc. Tokyo, 36, 21-24

Sumiyoshi, Nishinoomote, Tanegashima Is., Kagoshima Pref., Japan

Early Miocene

***Platichthys miostellatus* Sakamoto and Uyeno, 1989**

Bull. Natn. Sci. Mus., Ser. C, 15 (4), 161-166

Holotype: TPM 3258

Yaita-shi, Tochigi Pref., Japan

Tamada Formation

Middle Miocene

***Polymerichthys nagurai* Uyeno, 1967**

Bull. Natn. Sci. Mus. Tokyo, 10 (3), 383-391, pls. 1-2

Holotype: NSM-PV 6599

Minamishidara-gun, Aichi Pref., Japan

Tubosaza Formation

Middle Miocene

***Pristiophorus lineatus* Applegate and Uyeno, 1968**

Bull. Natn. Sci. Mus., Tokyo, 11 (2), 195-200

Holotype: NSM-PV 7422

Kashima, Yubari, Hokkaido, Japan

Poronai Formation

Late Oligocene

***Protopsetta kubotai* Niino, 1951**

Jour. Tokyo Univ. Fishery, 38, 47-58

Holotype: Tokyo Univ. Fishery, No. 120

Sawada-mura, Gunma Pref., Japan

Upper fossil bed

Tertiary

***Pseudobagrus ikiensis* Watanabe and Uyeno, 1999**

Ichthyol. Res., 46 (4), 397-412

Holotype: GSJ-F7735

Hachimam, Ashibe, Iki Island, Nagasaki Pref., Japan

Chojabaru Formation

Middle Miocene

***Pseudorhombus sonei* Shikama, 1964**

"Index Fossils of Japan" 287pp. Asakura Shoten, Tokyo

Holotype: IGPS 22255

Oguni-mura, Yamagata Pref., Japan

Miocene

***Ranzania ogaii* Uyeno and Sakamoto, 1994**

Bull. Natn. Sci. Mus., Ser. C, 20 (3), 109-117

Holotype: NSM-PV 17186

Ochiai, Chichibu-shi, Saitama Pref., Japan

Hiranita Formation

Middle Miocene

***Saitamapsetta nomurai* Sakamoto and Uyeno, 1992**

Bull. Natn. Sci. Mus., Ser. C, 18 (3), 101-112

Holotype: NSM-PV 19724

Suganuma Kawamoto-cho, Osato-gun, Saitama Pref., Japan

Tsuchishio Formation

Middle Miocene

***Sardinella miyanoshitaensis* Sato and Uyeno, 1999**

Bull. Natn. Sci. Mus., Ser. C, 25 (3,4), 129-141

Holotype: FPMN 98047284

Miyanoshiba, Kokufu-cho, Tottori Pref., Japan

Iwami Formation

Middle Miocene

***Sciaenidaruma kiyoharai* Ohe, 1974**

Kaseki-no-tomo, 12, 4-11

Holotype: ASHS 9741

Kubo, Katada, Tsu City, Mie Pref., Japan

Yakuoji Formation

Miocene

***Scomber nomurai* Niino, 1951**

Jour. Tokyo Univ. Fishery, 38, 47-58

Syntype: Tokyo Univ. Fishery, No. 111, 113, 115, 116

Sawada-mura, Gunma Pref., Japan

Upper fossil bed

Tertiary

***Scomberomorus chichibu* Uyeno, Sakamoto and Sakamoto, 1994**

Bull. Natn. Sci. Mus., Ser. C, 20 (4), 149-155

Holotype: SMNH Ve-30

Hannya, Ogano-machi, Chichibu-gun, Saitama Pref., Japan

Nagura Formation

Middle Miocene

***Scomberomorus maruoi* Uyeno and Suda, 1991**

Bull. Natn. Sci. Mus., Ser. C, 17 (2), 41-48

Holotype: NSM-PV 19631

Miyanoshita, Kokufu-cho, Tottori Pref., Japan
Iwami Formation
Middle Miocene

***Scyliorhinus kasenoi* Karasawa, 1989**

Sci. Rep. Kanazawa Univ., 34, 1-57 (inc. 8 pls.)
Holotype: KUE 0002
Hannoura, Notojima-machi, Kashima-gun, Ishikawa Pref.,
Japan
Suso Formation
Middle Miocene

***Sebastodes kanezawai* Niino, 1951**

Jour. Tokyo Univ. Fishery, 38, 47-58
Syntype: Tokyo Univ. Fishery, No. 117, (118, 119)
Sawada-mura, Gunma Pref., Japan
Lower fossil bed
Tertiary

***Spirinchus akagii* Uyeno and Sakamoto, 1999**

Bull. Natn. Sci. Mus., Ser. C, 25 (3,4), 143-150
Holotype: TRPM 664-062
Miyanoshita, Kokufu-cho, Tottori Pref., Japan
Iwami Formation
Middle Miocene

***Stichaeus matsubarae* Niino, 1951**

Jour. Tokyo Univ. Fishery, 38, 47-58
Syntype: Tokyo Univ. Fishery, No. 121, (122)
Sawada-mura, Gunma Pref., Japan
Lower fossil bed
Tertiary

***Wakinoichthys aokii* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
Holotype: KMNH VP 100,140
Kumagai, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan
Wakino Subgroup
Early Cretaceous

***Wakinoichthys robustus* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
Holotype: KMNH VP 100,188
Minamigaoka, Kokura-kita-ku, Kitakyushu, Fukuoka Pref.,
Japan
Wakino Subgroup
Early Cretaceous

***Yungkangichthys macrodon* Yabumoto, 1994**

Bull. Kitakyushu Mus. Nat. Hist., 13, 107-254, pls. 36-59
Holotype: KMNH VP 100,183
Kumagai, Kokura-kita-ku, Kitakyushu, Fukuoka Pref., Japan
Wakino Subgroup
Early Cretaceous

Amphibia

***Rana architemporaria* Okada, 1937**

Jour. Geol. Soc. Japan, 44, 243-245
Holotype: KUGM-KUJC 92001
Kabutoiwa, Turunosawa, Minamisaku-gun, Nagano Pref.,
Japan
Kabutoiwa Formation
Pliocene

***Rana siobarensis* Shikama, 1955**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 4, 35-40
Nakasiobara, Siobara-cho, Tochigi Pref., Japan
Siobara Formation
Early Pleistocene

Reptilia

***Anhanguera piscator* Kellner and Tomida, 2000**

Natn. Sci. Mus. Monographs, 17, i-x, 1-135
Holotype: NSM-PV 19892
Near Santana do Cariri, Ceara State, Brazil
Santana Formation
Albian

***Brazilosaurus sanpauloensis* Shikama and Ozaki, 1966**

Trans. Proc. Palaeont. Soc. Japan, N. S., 64, 351-353, pls.
38-39
Holotype: NSM
Hanayama's farm, Tatui, San Paulo, Brazil
Irati Formation ?
Early Permian

***Clemmys yabei* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls.1-32
Holotype: IGPS 65678
Tuidi, Kuzuu-cho, Tochigi Pref., Japan
Kuzuu Formation
Pleistocene

***Cyclemys akiyoshiensis* Shikama and Okafuji, 1964**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 11, 59-67, pls. 4-5
Hinotsu Quarry, Isa, Mine City, Yamaguchi Pref., Japan
Lower Isa Bed
Early Pleistocene

***Cyclemys miyatai* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd ser., 23, 1-201, pls.1-32
Holotype: IGPS 65677
Miyata Quarry, Okubo, Kuzuu-cho, Tochigi Pref., Japan
Kuzuu Formation
Pleistocene

***Fukuiraptor kitadaniensis* Azuma and Currie, 2000**

Canad. Jour. Sci., 37, 1735-1753
 Holotype: FPMN 97122 plus 96082443
 Kitadani, Katsuyama, Fukui Pref., Japan
 Kitadani Formation
 Early Cretaceous

***Geoclemmys matuuraensis* Shikama, 1956**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 5, 35-62, pls. 3-8
 Matuura coal mine, Setibaru-mati, Kitamatuura-gun,
 Nagasaki Pref., Japan
 Setibaru Formation
 Miocene?

***Geoclemmys yudaensis* Shikama, 1956**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 5, 35-62, pls. 3-8
 Yuda, Kindaiti-mura, Ninohe-gun, Iwate Pref., Japan
 Kadonosawa Formation
 Miocene

***Geoemyda (Geolimyds) takasago* Matsumoto, 1929**

Sci. Rep. Tohoku Imp. Univ., 2nd ser., 13 (2), 17-22, pl. 9
 Chikuho Coal-field, Kyushu, Japan
 Ashiya Formation
 Older part of Bartonian (latest Eocene)

***Graptemys? yamashitai* Urata, 1968**

Rep. Earth Sci., Dept. Gen. Educ., Kyushu Univ., 15, 19-44,
 pls. 4-6
 Holotype: Dainichi Mining Co., Imari
 Tachikawa Coal-Minem, Saga Pref., Japan
 Yoshinotani Formation
 Earliest Oligocene

***Kurobechelys tricarinata* Shikama, 1956**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 5, 35-62, pls. 3-8
 Holotype: Iida City Museum, Nagano
 Aimotosin, Aimoto-mura, Simosinkawa-gun, Toyama Pref.,
 Japan
 Tozyo Formation
 Miocene

***Manchurochelys manchoukuoensis* Endo and Shikama, 1942**

Bull. Cent. Natn. Mus. Manchoukuo, 3, 1-20, pls. 1-9
 Tsaotzushan, Chinchou prov., Manchuria (Northeast China)
 Tsaotzushan Formation
 Jurassic

***Mesodermochelys undulatus* Hirayama and Chitoku, 1996**

Trans. Proc. Palaeont. Soc. Japan, N. S., 184, 597-622
 Holotype: HMG 5
 Shirafunenosawa River, Inasato, Hobetsu, Hokkaido, Japan
 Hakobuchi Group

Early Maastrichtian

***Metanothosaurus nipponicus* Yabe and Shikama, 1948**

Proc. Imp. Acad. Tokyo. 24 (10), 1-7
 Isihu, Mono-gun, Miyagi Pref., Japan
 Early Triassic

***Moniopterus japonicus* Hatai, Masuda and Noda, 1974**

Trans. Proc. Palaeont. Soc. Japan, N. S., 95, 364-370, pl. 50
 Holotype: IGPS 92956
 Cliff of Natori River, Moniwa, Sendai City, Miyagi Pref.,
 Japan
 Moniwa Formation
 Miocene

***Monjurosuchus splendens* Endo, 1940**

Bull. Cent. Natn. Mus. Manchoukuo, 2, 1-14
 Tanankou, Jehol, Manchuria (Northeast China)
 Chiufotang Formation
 Late Jurassic

***Myopterygius (?) ezoensis* Shikama, 1963**

Sci. Rep. Yokohama Natl. Univ., Sec. 2, 9, 49-50, pl. 1
 Holotype: Iida City Museum, Nagano
 Yubari, Hokkaido, Japan
 Cretaceous

***Nipponosaurus sahalinensis* Nagao, 1936**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, 3 (2), 185-220,
 pls. 11-22
 Holotype: Inst. Geol. Mineral., Hokkaido Univ., No. 6590
 Kawasaki Quarry, Toyohama-gun, South Saghalin (Russia)
 Upper Ammonites Bed
 Senonian

***Olindalacerta brasiliensis* Evans and Yabumoto, 1998**

N. Jb. Geol. Palaeont. Mh., 6, 349-364
 Holotype: KMNH VP 400,001
 Araripe Plateau, Brazil
 Nova Olinda Member, Crato Formation
 Aptian/Albian

***Procolpochelys (?) susensis* Shikama and Suyama, 1976**

Bull. Yamaguchi Pref. Yamaguchi Mus., 4, 1-13, pls. 1-5
 Holotype: YM-G-10001
 Quarry of the Nakamura-gumi Company in Maeji, Susa-cho,
 Abu-gun, Yamaguchi Pref., Japan
 Maeji Sandstone Formation
 Lower-Middle Miocene

***Rhynchosaurus orientalis* Endo and Shikama, 1942**

Bull. Cent. Natn. Mus. Manchoukuo, 3, 1-20, pls. 1-9
 Tanankou, Jehol, Manchuria (Northeast China)
 Chiufotang Formation

Latest Triassic - earlymost Jurassic

***Sakurasaurus shokawaensis* Evans and Manabe, 1999**

Geobios, 32 (6), 889-899

Holotype: IBEF VP 17

Kobudani, Ogamigo, Shokawa Vill., Gifu Pref., Japan

Okurodani Formation

Early Cretaceous

***Santanachelys gaffneyi* Hirayama, 1998**

Nature, 392 (6677), 705-708

Holotype: THUg1386

Near Santana do Cariri, Ceara State, Brazil

Santana Formation

Early Cretaceous

***Senryuemys kiharai* Shikama, 1953**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 2, 1-9, pl 1

Senryu Coal Mine, Emukae-mati, Kitamatuura-gun,

Nagasaki Pref., Japan

Yunoki Formation

Oligocene or Miocene

***Shokawa ikoi* Evans and Manabe, 1999**

Special Papers in Palaeontology, 60, 101-119

Holotype: IBEF VP 3

Kobudani, Ogamigo, Shokawa Vill., Gifu Pref., Japan

Okurodani Formation

Early Cretaceous

***Sinohadrianus ezoensis* Shikama, 1953**

Trans. Proc. Palaeont. Soc. Japan, N. S., 9, 19-26, pl. 2

Holotype: Inst. Geol. Mineral., Hokkaido Univ.

Utasinai Coal-Mine, Hokkaido Pref., Japan

Bibai coal-bearing Formation

Late Eocene

***Sinohadrianus iwayaensis* Urata, 1968**

Rep. Earth Sci., Dept. Gen. Educ., Kyushu Univ., 15, 19-44,

pls. 4-6

Holotype: GK-L 5165

Iwaya Coal-Mine, Saga Pref., Japan

Yoshinotani Formation

Earliest Oligocene

***Tedorosaurus asuwaensis* Shikama, 1967**

Nat. Sci. and Mus., 34 (1/2), 13-16

Holotype: Private collection

Miyama, Asuwa-gun, Hukui Pref., Japan

Tetori Group

Jurassic

***Teilhadosaurus carbonarius* Shikama, 1947**

Proc. Japan Acad., 23 (7), 76-84

Husin Coal-field, South Manchuria (Liaonin Prov., China)

Husin Formation

Late Jurassic (Cretaceous)

***Tomistoma machikanense* Kamei and Matsumoto, 1965**

In, Kobatake, Chiji, Ikebe, Ishida, Kamei, Nakaseko and Matsuomo (1965): Quat. Res., Tokyo, 4 (2), 49-58, 2 pls.

Holotype: Collection of the Machikane-Crocodylian Research and Preservation Committee, Osaka University

Campas of the Osaka University, Machikane Hill, Toyonaka, Osaka Pref., Japan

Osaka Group

Pleistocene

(Current usage, *Toyotamaphimeia machikanensis*: Aoki (1983: Copeia 1983, 89-95) erected a new genus, *Toyotamaphimeia*, for this species as the type species.)

***Tomistoma taiwanicus* Shikama, 1972**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 19, 125-131, pls. 2-3

Holotype: NSMT P-9121~9126

Tsochin, east of Tainan, southwestern Taiwan

Middle to upper Villafranchian

***Trionyx desmostyli* Matsumoto, 1918**

Sci. Rep. Tohoku Univ., 2nd Ser. 3 (2), 57-60, pl. 21

Teshiro, Hokkaido, Japan

Middle Miocene

***Trionyx ishiharaensis* Miura and Uyama, 1987**

Miscel. Rep. Hiwa Mus. Nat. Hist., 25, 11-14, pl. 5

Holotype: Hiwa Sci. Mus.

Kimita River, Ishihara, Kimita-mura, Futami-gun, Hiroshima Pref., Japan

Bihoku Group

Miocene

***Trionyx kazusensis* Otsuka, 1969**

Rep. Fac. Sci. Kagoshima Univ., Earth Sci. Biol., 2, 53-84, pls. 4-8

Holotype: GK-M 1180-1183

Tsubami of Kazusa-machi, Minamitakaki-gun, Nagasaki Pref., Japan

Kazusa Formation, Kuchinotsu Group

Early Pleistocene

***Trionyx miensis* Okazaki and Yoshida, 1977**

Bull. Mizunami Fossil Mus., 4, 87-95, pls. 21-22

Holotype: Aichi Univ. Edu.

Ano River, Tsu, Mie Pref., Japan

Age Group

Pliocene

***Trionyx ubeensis* Chitani, 1925**

Jour. Geol. Soc. Tokyo, 32 (380), 28-33

Higashi-Misome Coal Mine, Ube, Yamaguchi Pref., Japan
Oha Coal Seam
Tertiary

***Utatusaurus hataii* Shikama, Kamei and Murata, 1978**
Sci. Rep. Tohoku Univ., 2nd Ser., 48 (2), 77-97, pls. 1-9
Holotype: IGPS 95941
Tatezaki, Utatsu-cho, Motoyoshi-gun, Miyagi Pref., Japan
Osawa Formation
Early Triassic

***Wakinosaurus satoi* Okazaki, 1992**
Bull. Kitakyushu Mus. Nat. Hist., 11, 87-90, pl. 1
Holotype: KMNH VP 000,016
Sengokukyo, Miyata-machi, Kurate-gun, Fukuoka Pref., Japan
Sengoku Formation
Early Cretaceous

***Yabeinosaurus tenuis* Endo and Shikama, 1942**
Bull. Cent. Natn. Mus. Manchoukuo, 3, 1-20, pls. 1-9
Tsaotzushan, Chinchou prov., Manchuria (Northeast China)
Tsaotzushan Formation
Jurassic

Aves

***Copepteryx hexeris* Olson and Hasegawa, 1996**
Jour. Vert. Paleont., 16 (4), 726-751
Holotype: KMNH VP 200,006
Ainoshima Island, Kitakyushu City, Fukuoka Pref., Japan
Ainoshima Formation
Late Oligocene

***Copepteryx titan* Olson and Hasegawa, 1996**
Jour. Vert. Paleont., 16 (4), 726-751.
Holotype: KMNH VP 200,004
Ainoshima Island, Kitakyushu City, Fukuoka Pref., Japan
Ainoshima Formation
Late Oligocene

Mammalia

***Aceratherium? watanabei* Tokunaga, 1926**
Pcoc. Imp. Acad. Tokyo, 2 (6), 289-291
Okinoyama, Ube coal-field, Yamaguchi Pref., Japan
Itsudan Coal Seam
Early Miocene
(Current usage, *Amynodon watanabei*: Takai (1950: Rept. Geol. Survey, Japan, 131, 1-15, pl. 1) adopted the genus *Amynodon* for the species)

***Aetiocetus polydentatus* Sawamura, 1995**
Island Arch, 3 (4), 392-431 (for 1994)
Holotype: AMP No.12
Morawan River, Morawan, Rawan, Ashoro-cho, Hokkaido, Japan
Morawan Formation
Late Oligocene

***Aetiocetus tomitai* Kimura and Barnes, 1995**
Island Arch, 3 (4), 392-431 (for 1994)
Holotype: AMP No.2
Morawan River, Morawan, Rawan, Ashoro-cho, Hokkaido, Japan
Morawan Formation
Late Oligocene

***Allodesmus megalos* Hirota, 1995**
In, Barnes and Hirota, 1995: Island Arc. 3 (4): 329-360 (for 1994)
Holotype: Shigamura Fossil Hall
Kashiwazawa, Toyoshina-cho, Minamiazumi-gun, Nagano Pref., Japan
Aoki Formation
Middle Miocene

***Allodesmus naorai* Kohno, 1996**
Trans. Proc. Palaeont. Soc. Japan, N. S., 181, 338-404
Holotype: NMJH-N 001
Mito City, Ibaraki Pref., Japan
Mito Formation?
Middle Miocene

***Allodesmus sadoensis* Hirota, 1995**
Island Arc, 3 (4), 329-360 (for 1994)
Holotype: SICC 0001
Do-no-kama, Ogi-machi, Sado-gun, Sado Island, Niigata Pref., Japan
Tsurushi Formation
Middle Miocene

***Amphitragulus minoensis* Matsumoto, 1916**
The Scientific Gazette, (Gendai-no-Kagaku), 4 (4), 228-242.
Described by Matsumoto, 1918: Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3 (3), 75-81, pl. 23
Holotype: Tono Middle School
Banzyobora, Kaminogo-mura, Kani-gun, Gifu Pref., Japan
Hiramaki Formation
Miocene

***Anchitherium hypohippoides* Matsumoto, 1921**
Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 5 (3), 85-92, pls. 13-14
Holotype: Tono Middle School
Yamazaki, Omori, Hiramaki-mura, Kani District, Gifu Pref.,

Japan
Hiramaki Formation
Miocene

***Anourosorex japonicus* Shikama and Hasegawa, 1958**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 7, 105-112, pl. 16

Holotype: NSM-PV 06776

Shiraiwa quarry, Iwaki Cement, Inasa-cho, Inasa-gun,

Yamaguchi Pref., Japan

Ryugashi Formation

Pleistocene

'*Anthracothema*' tsuchiyaï Takai, 1931

Proc. Japan Acad., 37 (5), 255-260

Iwasaki Colliery, Fukushima Pref., Japan

Iwaki Coal-bearing Formation

Oligocene

(Tomida (1986: Bull. Natn. Sci. Mus., Tokyo, Ser. C, 12 (4), 165-170) re-described and used the name *Entelodon* sp. cf. *E. orientalis* Dashzeverg, 1965 for the specimen)

***Archidiskodon paramammonteus* Matsumoto, 1939**

Zool. Mag., 51 (10), 701-717

Aza Nagahama, Minato, Futtu-shi, Chiba Pref., Japan

Kazusa Group

Early Pleistocene

***Archidiskodon paramammonteus shigensis* Matsumoto and Ozaki, 1959**

Bull. Nat. Sci. Mus. Tokyo, 4 (4), 355-357, pls. 55-57

Holotype: NSM-PV 09799

Ono-Nishino, Shiga-cho, Shiga Pref., Japan

Katata Formation

Early Pleistocene

(Current usage: *Mammuthus paramammonteus shigensis* (Matsumoto and Ozaki))

***Ashoroa laticosta* Inuzuka, 2000**

Bull. Ashoro Mus. Paleont., 1, 91-123

Holotype: AMP 21

Morawan, Ashoro Town, eastern Hokkaido, Japan

Morawan Formation

Early Late Oligocene

***Ashorocetus eguchii* Barnes and Kimura, 1995**

Island Arch, 3 (4), 392-431 (for 1994)

Holotype: AMP 3

Morawan River, Morawan, Rawan, Ashoro-cho, Hokkaido, Japan

Morawan Formation

Late Oligocene

***Behemotops katsuieï* Inuzuka, 2000**

Bull. Ashoro Mus. Paleont., 1, 91-123

Holotype: AMP 22

Morawan, Ashoro Town, eastern Hokkaido, Japan

Morawan Formation

Early Late Oligocene

***Bibos geron* Matsumoto, 1915**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3 (1), 1-25, pls. 1-10

Holotype: IGPS

Szechuan, China

Pleistocene

***Bibos kuhsiangtungensis* Tokunaga and Naora, 1939**

Rep. 1st Sci. Exped. Manchoukuo, II-4, 1-197, pls. 1-22

Kuhsiang-tung, near Harbin, Manchuria (Northeast China)

Kuhsiangtung Formation

Middle Pleistocene

***Bison exguus* Matsumoto, 1915**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3 (1), 29-36, pls. 11-15

Holotype: IGPS

Honan, China

Loess

Pleistocene

***Bison occidentalis curvicornis* Matsumoto, 1927**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 51-56, pls. 25-26

Holotype: IGPS

Manchurian Border of Eastern Mongolia

Loess

Post-Pleistocene

***Brachyodus japonicus* Matsumoto, 1925**

Jour. Geogr., 37, 557-567, pl. 9

Holotype: NMJH

Ikeno Coal-mine, Onomura, Kita-Matuura-gun, Nagasaki Pref., Japan

Sasebo Group

Oligocene

***Bunolophodon yokotii* Makiyama, 1938**

Mem. Coll. Sci., Kyoto Imp. Univ., Ser. B, 14 (1), 1-59

Holotype: KUGM

Senkaibo, Meisen district, North Kankyo-do, Korea

Banko Sandstone

Miocene

***Caenolophus makii* Takai, 1939**

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 5 (6), 199-217, pls. 1-5

Holotype: Geol. Inst., Fac. Sci., Imp. Univ. Tokyo

Hosan Coal-field in the central part of Kokai-do, Northwest Tyosen (Korea)

Hosan Formatin
Latest Eocene

***Capreolus (?) formosanus* Shikama, 1937**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 19 (1), 75-85, pls. 16-18

Holotype IGPS 59952

Syatin, Syatin-syo, Tainan-syu, Taiwan

Late Pliocene

***Capreolus (Capreolina) mayai* Tokunaga and Takai, 1936**

Jour. Geol. Soc. Japan, 43, 642-646, pl. 35

Holotype: Waseda Univ.

Northeast off Kotuti-Zima, Kagawa Pref., Japan

Pleistocene

(Current usage: *Elaphurus mayai* (Tokunaga and Takai))

***Capreolus miyakoensis* Otsuka, 1973**

In, Hasegawa, Otsuka and Nohara (1973): Mem. Natn. Sci. Mus. Tokyo, 6, 39-52, pls. 6-7

Holotype: NSM-PV 15093

Amagawa-do, Tomori, Gusukube-cho, Miyako-gun, Okinawa Pref., Japan

Pleistocene

***Capreolus tokunagai* Otsuka, 1941**

Proc. Imp. Acad. Tokyo, 17 (2), 43-47

Miyako Island, Ryukyu Is., Japan

Pleistocene

***Castor orientalis* Tokunaga and Naora, 1939**

Rep. 1st Sci. Exped. Manchoukuo, II-4, 1-197, pls. 1-22

Kuhsiang-tung, near Harbin, Manchuria (Northeast China)

Kuhsiangtung Formation

Middle Pleistocene

***Cervavus oweni hirabayashii* Tokunaga, 1926**

Jour. Geol. Soc. Tokyo, 33 (397), 397-402

Holotype: NMJH

Hihara-mura, Sarashina-gun, Nagano Pref., Japan

Hihara shale

Mio-Pliocene

***Cervus akashiensis* Shikama, 1941**

Jub. Publ. Commen. Prof. H. Yabe, M. I. A., 60th Birth., 2, 1125-1170, pl. 52

Holotype: IGPS 158809

Coast of Akasi, Hyogo Pref., Japan

Late Pliocene

***Cervus (Nipponicervus) akiyoshiensis* Otsuka, 1977**

Trans. Proc. Palaeont. Soc. Japan, N.S., 104, 448-458, pl. 49

Holotype: ESK 5062

Kadoyano-ana Cave, Akago, Mito-cho, Mine-gun,

Yamaguchi Pref., Japan

Upper Isa Formation

Late Pleistocene

***Cervus (Cervus) fujiensis* Kishida, 1925**

Bunwa Gaho, 1 (1), 59-61

Between Sano (Koizumi-mura) and Gotenba-mati, Sunto-gun, Shizuoka Pref., Japan

Pleistocene?

***Cervus harbinensis* Tokunaga and Naora, 1939**

Rep. 1st Sci. Exped. Manchoukuo, II-4, 1-197, pls. 1-22

Kuhsiang-tung, near Harbin, Manchuria (Northeast China)

Pleistocene

***Cervus (Axis) japonicus* Otsuka, 1967**

Mem. Fac. Sci., Kyushu Univ., Ser. D, 18 (2), 277-312, pls. 3-14

Holotype: Kyushu Univ.

Tsubami, Kazusa-machi, Minamitakaki-gun, Nagasaki Pref., Japan

Kazusa Formation

Early Pleistocene

***Cervus (Rucervus?) katokiyomasai* Shikama and Hasegawa, 1965**

Sci. Rep. Yokohama Natn. Univ. Sec. 2, 12, 45-47. pl.4

Holotype: Kumamoto Univ.

Locality and horizon, precisely unknown. ?Ariake Bay of Kyushu, Japan

***Cervus (cfr. Sika) kazusensis* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 17-25, pls. 11

Matsuoka-mura, Kimitsu-shi, Chiba Pref., Japan

Sanuki Formtion, Narita Series

Pleistocene and upwards

(Current usage: *Cervus (Nipponicervus) kazusensis*)

***Cervus (Depéretia?) kokubuni* Shikama, 1937**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 19 (1), 75-85, pls. 16-18

Holotype: IGPS 59950

Syatin, Syatin-syo, Tainan-syu, Taiwan

Kityo beds

Late Pliocene

***Cervus (Rusa) kyushuensis* Otsuka, 1966**

Mem. Fac. Sci., Kyushu Univ., Ser. D, 17 (3), 251-269

Holotype: GK. M1080

Tsubami, Kazusa-machi, Minamitakaki-gun, Nagasaki Pref., Japan

Kazusa Formation

Early Pleistocene

- Cervus (Sika) matsumotoi* Kishida, 1997 (nomen nudum)**
In, Harunari (1997): Naora's "Fossil Deer from Japan and its Vicinity"
- Cervus (Depéretia) naorai* Shikama, 1936**
Proc. Imp. Acad. Tokyo, 12 (8), 251-254
Huzie, near Akasi-si, Hyogo Pref., Japan
Pleistocene
(Synonym of *Cervus praenipponicus* Shikama: by Otsuka and Shikama, 1977 (Bull. Natn. Sci. Mus. Tokyo, 3 (1): 9-40, pls. 1-6))
- Cervus (cfr. Sika) natsumei* Matsumoto, 1938**
Zool. Mag. (Japan), 50 (3), 111-115
Nagahama, Minato-mati, Kimitsu, Chiba Pref., Japan
Pleistocene
(Synonym of *Cervus (Sika) grayi katokiyomasai* Shikama and Hasegawa: by Otsuka, 1988 (Trans. Proc. Palaeont. Soc. Japan, N.S., 152, 625-643))
- Cervus (Sika) paleoezoensis* Otsuka and Shikama, 1977**
Bull. Natn. Sci. Mus., Ser. C, 3 (1), 9-40, pl. 1-6
Holotype: NSM-PV 14476
Setonaikai, off Shakagahana, Ikeda-cho, Shozu-gun, Kagawa Pref., Japan
Pleistocene
(Synonym of *Cervus (Sika) grayi katokiyomasai* Shikama and Hasegawa, by Otsuka (1988))
- Cervus (cfr. Anoglochis) praenipponicus* Shikama, 1936**
Jour. Geol. Soc. Japan, 43 (510), 168-176, pl. 9
Holotype: IGPS 58805
Miyata Quarry, Ookubo, Kuzuu, Tochigi Pref., Japan
Upper Kuzuu Formation
Pleistocene
(Current usage: *Cervus (Nipponicervus) praenipponicus*)
- Cervus (cfr. Rucervus) riukiensis* Matsumoto, 1926**
Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 17-25, pls. 11
Shimajiri, Okinawa Pref., Japan
Pleistocene
- Cervus (Sika) setoensis* Naora, 1997 (nomen nudum)**
In, Harunari (1997): Naora's "Fossil Deer from Japan and its Vicinity"
- Cervus (Depéretia) shimabarensis* Otsuka, 1967**
Mem. Fac. Sci., Kyushu Univ., Ser. D, 18 (2), 277-312, pls. 3-14
Holotype: GK M1118
Tsubami, Kazusa-machi, Minamitakaki-gun, Nagasaki Pref., Japan
Kazusa Formation
Early Pleistocene
- (Synonym of *Cervus (Nipponicervus) kazusensis* Matsumoto)
- Cervus (Sika) sintikuensis* Shikama, 1937**
Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 19 (1), 75-85, pls. 16-18
Holotype: IGPS 59947
Tikuto, Tikuto-gun, Sintiku-syu and Syatin-syo, Tainan-syu, Taiwan
Kityo beds
Late Pliocene
- Cervus (Depéretia?) syatinensis* Shikama, 1937**
Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 19 (1), 75-85, pls. 16-18
Holotype: IGPS 59951
Syatin, Syatin-syo, Tainan-syu, Taiwan
Kityo beds
Late Pliocene
- Cervus (Nipponicervus?) takaoui* Otsuka and Shikama, 1977**
Bull. Natn. Sci. Mus., Ser. C, 3 (1), 9-40, pls. 1-6
Holotype: NSM-PV 14436
Setonaikai, off Shakagahana, Ikeda-cho, Shozu-gun, Kagawa Pref., Japan
Pleistocene
(Current usage: *Cervus (Nipponicervus) praenipponicus* var. *takaoui*)
- Cervus (Depéretia?) trassaerti* Shikama, 1941**
Jub. Publ. Commen. Prof. H. Yabe, M. I. A., 60th Birth., 2, 1125-1170, pl. 52
Holotype: Geological survey of China
Yushe Basin in South-eastern Shansi, China
- Cervus (Depéretia?) urbanus* Shikama, 1941**
Jub. Publ. Commen. Prof. H. Yabe, M. I. A., 60th Birth., 2, 1125-1170, pl. 52
Holotype: IGPS 61674
Izuruhara, Akami-mura, near Kuzuu, Tochigi Pref., Japan
Carnivora bed of Upper Kuzuu Formation
Late Pleistocene
(Synonym of *Cervus (Nipponicervus) kazusensis* Matsumoto)
- Cervus (Sinomegaceros) yabei* Shikama, 1939**
Japan. Jour. Geol. Geogr., 16 (1-2), 115-122, pl. 8
Holotype: IGPS 61670
Tuidi, Kuzuu, Tochigi Pref., Japan
Upper Kuzuu Formation
Late Pleistocene
(Current usage: *Sinomegaceros (Sinomegaceroidea) yabei* (Shikama))

***Chimarrogale crassidentata* Kishida, 1949 (nomen nudum)**
In, Shikama (1949). Sci. Rep. Tohoku Imp. Univ., 2nd Ser.,
23, 1-201, pls.1-32

***Citellus tomanensis* Tokunaga and Mori, 1939**
Rep. 1st Sci. Exped. Manchoukuo, II-4, 1-43, pls. 1-6
Dokatin, Toman River, in the northern part of Korea
Latest Middle or Late Pleistocene

***Clethrionomys japonicus* Kawamura, 1988**
Mem. Fac. Sci. Kyoto Univ. Ser. Geol. Min., 53, 31-348
Holotype: KUGM-KUJC96390
Locality 3 of Ube Kosan Quarry, Isa-cho, Mine-shi,
Yamaguchi Pref., Japan
Late Middle Pleistocene

***Colodon hodoshimai* Takai, 1939**
Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 5 (6), 199-217, pls.
1-5
Holotype: Museum of the Geological Survey of the
Government-General of Tyosen
Hosan Coal-field in the central part of Kokai-do, Northwest
Tyosen (Korea)
Hosan Formation
Latest Eocene

***Colodon kushiroensis* Tomida, 1983**
Bull. Natn. Sci. Mus., Ser. C, 15 (3), 109-119
Holotype: KCM-A89
Kushiro-cho, Kushiro-shi, Hokkaido Pref., Japan.
Chiribetsu Formation
Eocene

***Cornwallius tabatai* Tokunaga, 1939**
Jub. Publ. Commen. Prof. H. Yabe, M. I. A., 60th Birth., 2,
1125-1170, pl. 52
Nakayama Tunnel, Aikawa-cho, Sado, Niigata Pref., Japan
Turu Bed
Middle Miocene
(Current usage, *Paleoparadoxia tabatai* (Tokunaga):
Reinhart (Univ. California Publ. Geol. Sci., 36, 1-146, 1959)
erected a new genus, *Paleoparadoxia* of which *tabatai* as the
type species. Holotype lost, and the Neotype is selected by
Shikama, for the specimen from Toki City, Gifu Pref., Japan
(NSM-PV5601).

“*Delphinus*” *rikuzenensis* Hatai, Hayasaka and Masuda, 1963
Saito Ho-on Kai Mus. Nat. Hist, Res. Bull., 32, 5-17 (inc. 2
pls.)
Holotype: IGPS 85538
Tatsunokuchi gorge, Sendai, Miyagi Pref., Japan
Tatsunokuchi Formation
Early Pliocene

***Desmatotherium grangeri* Tokunaga, 1933**
Amer. Mus. Novitatus, 627, 1-7
Holotype: Waseda Univ.
Kokaido, Northwestern Korea
Hozan coal deposit
Upper Eocene

***Desmostyllela typica* Nagao, 1937**
Proc. Imp. Acad., Tokyo, 13 (3), 82-85
Holotype: IGPS 56701
Kintaiti-mura, Ninohe-gun, Iwate Pref., Japan
Yuda Group
Miocene
(Synonym of *Desmostylus japonicus* Tokunaga and Iwasaki)

***Desmostylus japonicus* Tokunaga and Iwasaki, 1914**
Jour. Geol. Soc. Tokyo, 21, 33
Holotype: NSM-PV 05600
Bogahora, Togari, Mizunami-shi, Gifu Pref., Japan
Togari Formation
Miocene

***Desmostylus minor* Nagao, 1937**
Proc. Imp. Acad., Tokyo, 13 (2), 46-49
Holotype: Inst. Geol. Mineral., Hokkaido Univ. No. 7428
Asanai-zawa, Honto-mati, Saghalin (Russia)
Hattayorei beds of Honto Series
Miocene
(Synonym of *Desmostylus japonicus* Tokunaga and Iwasaki)

***Desmostylus mirabilis* Nagao, 1935**
Jour. Geol. Soc. Japan, 42, 822-824
Holotype: Inst. Geol. Mineral., Hokkaido Univ. No. 5000
Keton-gawa, Shisuka-machi, Shisuka-gun, South Saghalin
(Russia)
Keton marine formation
Miocene

***Desmostylus watasei* Hay, 1915**
Proc. U. S. Nat. Mus., 49, 381-397
Holotype: NSM-PV 05600
Bogahora, Togari, Mizunami-shi, Gifu Pref., Japan
Togari Formation
Miocene
(Synonym of *Desmostylus japonicus* Tokunaga and Iwasaki)

***Dicerorhinus nipponicus* Shikama, 1967**
In, Shikama, Hasegawa and Okafuji (1967). Bull. Natn. Sci.
Mus. Tokyo, 10 (4), 455-461, pl. 1-2
Holotype: NSM-PV 09600
Isa quarry, Isa-cho, Mine-shi, Yamaguchi Pref., Japan
Pleistocene

***Dicrocerus tokunagai* Matsumoto, 1927**

In, Tokunaga (1927). Mem. Fac. Sci. Eng. Waseda Univ., 5, 1-316, pls. 1-10

Holotype: NMJH

Kusano-mura, Iwaki-gun, Fukushima Pref., Japan

Yanokura bed

Miocene

***Dusisiren dewana* Takahashi, Domning and Saito, 1986**

Trans. Proc. Palaeont. Soc. Japan, N.S., 141, 296-321

Holotype: Yamagata Pref. Mus.

Yoh, Ohe Town, Nishimurayama County, Yamagata Pref., Japan

Hongo Formation

Late Miocene

***Dusisiren takasatensis* Kobayashi, Horikawa and Miyazaki, 1995**

Jour. Vert. Paleont., 15 (4), 815-829

Holotype: TA 1 through 5

Agano River, Shiotsubo, Takasato, Yama City, Fukushima Pref., Japan

Shiotsubo Formation

Late Miocene

***Elaphurus (Elaphurus) tamaensis* Otsuka and Hasegawa, 1976**

Bull. Natn. Sci. Mus., Ser. C, 2 (3), 141-144, pl. 1

Holotype: NSM-PV 15308

Tama River, Akishima City, Tokyo, Japan

Hirayama sand bed, Minamitama Group

Late Pliocene

***Elaphurus shikamai* Otsuka, 1968**

Rept. Fac. Sci. Kagoshima Univ., 1, 121-128, pl. 1.

Hayashizaki, Akashi City, Hyogo Pref., Japan.

Akashi Formation

Villafrancian

***Elaphurus tamaensis* Otsuka and Hasegawa, 1976**

Bull. Natn. Sci. Mus., Ser. C, 2 (3), 139-144, pl. 1.

Holotype: NSM-PV 15308

Tama-river, Akishima-shi, Tokyo, Japan.

Pleistocene

***Elephas aurorae* Matsumoto, 1918**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3 (2), 51-56, pls. 20

Mt. Tomuro, Ishikawa Pref., Japan.

Pliocene

(Current usage: *Stegodon aurorae* (Matsumoto))

***Elephas indicus buski* Matsumoto, 1927**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (3), 57-58, pls. 27-28

Holotype: IGPS 7266

Ninohe, Aomori Pref., Japan

***Elephas namadicus naumanni* Makiyama, 1924**

Mem. Coll. Sci., Kyoto Imp. Univ., Ser. B, 1 (2), 255-264, pl. 12-16

Holotype: KUGM-KUJC95024 (PC 2)

Sahamma, Hamamatsu-shi, Shizuoka Pref., Japan

Hamamatsu Formation

Middle Pleistocene

(Current usage: *Palaeoloxodon naumanni* (Makiyama))

***Endotherium niinomii* Shikama, 1947**

Proc. Japan Acad., 23 (7), 76-84

Holotype: matrix coal Dalian Museum

Husin Coal-field, South Manchuria (Liaonin, China)

Husin Formation

Late Jurassic (Cretaceous)

***Eostegodon miyokoeae* Hatai, 1959**

Saito Ho-on Kai Mus. Nat. Hist. Res. Bull., 28, 1-4. Pl. 1

Holotype: Saito Ho-on Kai

Funaoka, Shibata-cho, Shibata-gun, Miyagi Pref., Japan

Tsukinoki Formation

Early Miocene

(Current usage: *Gomphotherium miyokoeae* (Hatai))

***Eostegodon pseudolatidens* Yabe, 1950**

Proc. Jap. Acad., 26 (9), 61-65

Holotype: IGPS

Shiogama-shi, Miyagi Pref., Japan

Early Miocene

***Equus leptostylus* Matsumoto, 1915**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3 (1), 29-36, pls. 11-15

Holotype: IGPS

Honan, China

Pleistocene

***Equus nipponicus* Shikama and Onuki, 1962**

Sci. Rep. Tohoku Univ., 2nd Ser., 34 (2), 187-197, pls. 13-15

Omine, Tajiri-mati, Toga-gun, Miyagi Pref., Japan

Late Pleistocene

***Euelephas protomammonteus* Matsumoto, 1924**

Jour. Geol. Soc. Tokyo, 31 (375), 323-340

Nagahama, Minato-mati, Fuchu-shi, Chiba Pref., Japan

Early Pleistocene

***Eumetopias ojiyaensis* Horikawa, 1981**

Earth Science (Chikyu-Kagaku), 35, 159-178

Holotype: NSGR 1001

Ojiya, Niigata Pref., Japan

Uonuma Group
Pliocene-Pleistocene

***Eumetopias sinanoensis* Nagao, 1941**

Jour. Fac. Sci. Hokkaido Imp. Univ., Ser. 4, 6 (2), 75-84
Holotype: Higashichikuma Shiojiri Education Hall
Aso, Shittako, Shiga-mura, Higashichikuma-gun, Nagano Pref., Japan
Aoki Formation
Middle Miocene

***Eumetopias watasei* Matsumoto, 1925**

Jour. Geol. Soc. Tokyo, 32 (377), 45-49, pl. 1
Holotype: NMJH-N 00
Megakura, Umegase-mura, Chiba Pref., Japan
Umegase Formation
Middle Pleistocene

***Eumetopias* (?) *kishidai* Shikama, 1953**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 2, 10-14, pl. 2
Holotype: Iida City Museum, Nagano
Chiba Pref.?, Japan
Pleistocene?

***Eurhinodelphis minoensis* Okazaki, 1976**

Bull. Mizunami Fossil Mus., 3, 25-39, pl. 9-11
Holotype: MFM 18002
Minobashi, Mizunami-shi, Gifu Pref., Japan
Yamanouchi Formation
Miocene

***Eurhinodelphis pacificus* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (1), 17-27, pls. 8-10
Holotype: IGPS 22058
Okotsu, Niigata Pref., Japan
Shiia Formation
Middle Miocene

***Giraffa* (*Orasius*?) *nipponica* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 17-25, pl. 11
Nagahama, Minato-cho, Kimitsu-shi, Chiba Pref., Japan
Sanuki Formation
Pleistocene

***Harpagolestes koreanicus* Shikama, 1943**

Bull. Biogeogr. Soc. Japan, 13 (2), 7-11
Hosan Coal-mine, Korea
Hosan Coal-bearing Group
Late Eocene

***Hemimastodon annectens* Matsumoto, 1924**

Jour. Geol. Soc. Tokyo, 31 (375), 395-414
Holotype: MFM 18001, KUGM

Banjobora, Nakagiri, Mitake-cho, Kani-gun, Gifu Pref., Japan
Hiramaki Formation
Early Miocene
(Current usage: *Gomphotherium annectens* (Matsumoto))

***Higotherium hypsodon* Miyata and Tomida, 1998**

Paleontol. Res., 2 (1), 53-66
Holotype: NSM-PV 20118
Akasemachi, Uto City, Kumamoto Pref., Japan
Akasaki Formation
Middle Eocene

***Hipparion richthofeni dominans* Matsumoto, 1927**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (4), 59-75, pls. 29-32
Holotype: IGPS
Purchased in Chinchou, Shantung, China

***Hipparion richthofeni gigas* Matsumoto, 1927**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (4), 59-75, pls. 29-32
Holotype: IGPS
Cheefoo

***Hipparion richthofeni pan* Matsumoto, 1927**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (4), 59-75, pls. 29-32
Holotype: IGPS
Purchased in Chinchou, Shantung, China

***Hipparion richthofeni pater* Matsumoto, 1927**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (4), 59-75, pls. 29-32
Holotype: IGPS
China

***Homo sapiens ainu* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114
Kitchen-midden at Miyato Island, Mono Dist., Prov. Rikuzen (Miyagi Pref.), Japan
Holocene
(Synonym of *Homo sapiens sapiens*)

***Homo sapiens aoshimensis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114
Kitchen-midden at Aoshima, Minamikata-mura, Tome Dist., Prov. Rikuzen (Miyagi Pref.), Japan
Holocene
(Synonym of *Homo sapiens sapiens*)

***Homo sapiens japonicus* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114
Kitchen-midden at Atsumari, Hirota-mura, Kesen Dist., Prov.

Rikuzen (Miyagi Pref.), Japan

Holocene

(Synonym of *Homo sapiens sapiens*)

***Homo sapiens kitakamiensis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114

Kitchen-midden at Aoshima, Minamikata-mura, Tome Dist.,

Prov. Rikuzen (Miyagi Pref.), Japan

Holocene

(Synonym of *Homo sapiens sapiens*)

***Homo sapiens tomensis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114

Kitchen-midden at Aoshima, Minamikata-mura, Tome Dist.,

Prov. Rikuzen (Miyagi Pref.), Japan

Holocene

(Synonym of *Homo sapiens sapiens*)

***Homo sapiens tsukumonis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114

Kitchen-midden at Tsukumo, Nishioshima, Oshima-mura,

Asaguchi Dist., Prov. Bitchu (Okayama Pref.), Japan

Holocene

(Synonym of *Homo sapiens sapiens*)

***Homo sapiens tsukumonis miyatoensis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114

Kitchen-midden at Miyato Island, Mono Dist., Prov. Rikuzen

(Miyagi Pref.), Japan

Holocene

(Synonym of *Homo sapiens sapiens*)

***Homo sapiens tsukumonis typicus* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 111-114

Kitchen-midden at Tsukumo, Nishioshima, Oshima-mura,

Asaguchi Dist., Prov. Bitchu (Okayama Pref.), Japan

Holocene

(Synonym of *Homo sapiens sapiens*)

***Homo? tokunagai* Naora, 1952**

Jour. Anthropol. Soc. Nippon, 62 (3), 115-120

Holotype: Kuzuu-machi-Kyodo-Shiryokan

Kuzuu, Aso, Miyagi Pref., Japan

Cave deposit

Pleistocene

(Synonym of *Homo sapiens*)

***Hyaena ultima* Matsumoto, 1915**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3 (1), 1-25, pls. 1-10

Holotype: Zool. Inst., Imp. Univ. Tokyo

Szechuan, China

Pleistocene

***Hyaena ultima dokantinensis* Tokunaga and Mori, 1939**

Rep. 1st Sci. Exped. Manchoukuo, II-4, 1-43, pls. 1-6

Dokantin, Toman River, in the northern part of Korea

Pleistocene

***Hydrodamalis spissus* Furusawa, 1988**

Takikawa Mus. Art Nat. Hist. 1988, 1-73

Holotype: Takikawa Mus. Art and Nat. Hist

Sorachi River, Takikawa City, Hokkaido, Japan

Takikawa Formation

Early Pliocene

***Idiocetus tsugarensis* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (1), 17-27, pls. 8-10

Holotype: NSM-PV 04203

Akashi, Akaishi-mura, Nishitsugaru-gun, Aomori Pref., Japan

Miocene

***Kentriodon hobetsu* Ichishima, 1995**

Island Arch, 3 (4), 473-485 (for 1994)

Holotype: HMG 387

Pankeopiraruka Creek, Hobetsu Town, Hokkaido, Japan

Takinoue Formation

Early Middle Miocene

***Kogia prisca* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (1), 17-27, pls. 8-10

Holotype: IGPS 59400

Mito-shi, Ibaraki Pref., Japan

Pleistocene

***Leptobison hanaizumiensis* Matsumoto and Mori, 1955**

Zool. Mag. (Japan), 65 (6), 239-249

Kanamori, Hanaizumi, Province of Rikuchu (Iwate Pref.), Japan

Late Pliocene

***Lophialetes tokunagai* Takai, 1939**

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 5 (6), 214-215

Holotype: Geol. Inst., Fac. Sci., Imp. Univ. Tokyo

Hosan Coal-field in the central part of Kokai-do, Northwest Tyosen (Korea)

Hosan Formation

Latest Eocene

***Loxodonta (Palaeoloxodon) namadica yabei* Matsumoto, 1929**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (1), 1-6, pls. 1-6

Seto Inland Sea, Japan

Pleistocene

(Synonym of *Palaeoloxodon naumanni* (Makiyama))

***Loxodonta (Palaeoloxodon) tokunagai* Matsumoto, 1924**

Jour. Geol. Soc. Tokyo, 31 (375), 255-272
 Described by Matsumoto, 1929: Sci. Rep. Tohoku Imp. Univ.,
 2nd Ser., 13 (1) 7-10, pl. 7

Holotype: KUGM-KUJC95002, NSM-PV 02208
 Soyama, Gokayama, Taira-mura, Higashi-Tonami-gun,
 Toyama Pref., Japan
 Pliocene to Pleistocene
 (Synonym of *Palaeoloxodon naumanni* (Makiyama))

***Loxodonta (Palaeoloxodon) tokunagai junior* Matsumoto, 1929**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (1) 7-10, pl. 7
 (Synonym of *Palaeoloxodon naumanni* (Makiyama))

***Lutra nipponica* Naora, 1968**

Mem. Sch. Sci. Eng., Waseda Univ., 32, 1-11
 Holotype: NMJH
 Tsunemi limestone Cave, Matsugae-cho, Moji, Kitakyushu.
 Fukuoka Pref., Japan
 Fissure filling deposit
 Early Pleistocene

***Manchurodon simplicidens* Yabe and Shikama, 1938**

Proc. Imp. Acad., Tokyo, 14, 353-357
 Holotype: "temporary stored in the Inst. Geol. Pal., Tohoku
 Imp. Univ., later to be transferred to the Geological
 Department of the Central Museum of Manchoukuo, Sinkyo"
 (Yabe and Shikawa, 1938)
 Sakusiyō coal-mines near Gaboten, South Manchuria
 (Northeast China)
 Husin Series
 Middle Jurassic

***Marmota mantchurica* Tokunaga and Naora, 1939**

Rep. 1st Sci. Exped. Manchoukuo, II-4, 1-197, pls. 1-22
 Ku-Hsiang-Tung near Harbin, China
 Middle Pleistocene

***Martes kikunensis* Naora, 1980**

In, Kuwayama ed., "Kikuna-kaizuka (kitchen midden)"
 Kikuna, Yokoyama, Kanagawa Pref., Japan
 Holocene

***Martes ten* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls. 1-32
 Holotype: IGPS 65656
 Okada Quarry, Izuruhara, Kuzuu-cho, Tochigi Pref., Japan
 Kuzuu Formation
 Pleistocene

***Megaceros (Megaceraxis) serpentius* Matsumoto, 1963**

Bull. Natn. Sci. Mus. Tokyo, 6 (3), 346-351
 Kami-kuroiwa, Tomioka City, Province of Kozuke (Gunma

Pref.), Japan
 (Synonym of *Sinomegaceros (Sinomegaceroides) yabei*
 (Shikama))

***Megaceros (Sinomegaceros) ordosianus minor* Kamei, 1958**

Jour. Fac. Lib. Arts. Sci. Shinshu Univ., 2 (8), 69-74, pl. 1
 (Synonym of *Sinomegaceros (Sinomegaceroides) yabei*
 (Shikama))

***Megaceros kinryuensis* Matsumoto and Mori, 1956**

Zool. Mag. (Japan), 65 (6), 239-249
 Kanamori, Hanaizumi, Province of Rikuchu (Iwate Pref.),
 Japan
 Late Pliocene
 (Synonym of *Sinomegaceros (Sinomegaceroides) yabei*
 (Shikama))

***Megaceros kinryuensis var. sasakii* Matsumoto and Mori, 1968**

Geol. U. Pal. Berlin, 13 (3), 345-347, pl. 2
 Kanamori, Hanaizumi, Nishi-iwai district, Iwate Pref., Japan
 Late Pleistocene
 (Synonym of *Sinomegaceros (Sinomegaceroides) yabei*
 (Shikama))

***Megaceros nipponicus* Naora, 1997 (nomen nudum)**

In, Harunari (1997): Naora's "Fossil Deer from Japan and its
 Vicinity"

***Meles anakuma aoshimensis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 59-93, pls.
 30-38
 Kitchen-midden at Aoshima, Minamikata-mura, Tome Dist.,
 Prov. Rikuzen (Miyagi Pref.), Japan
 Holocene

***Meles anakuma miyagiensis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 59-93, pls.
 30-38
 Kitchen-midden at Hibiku, Kawakudari, Ono-mura, Mono
 Dist., Prov. Rikuzen (Miyagi Pref.), Japan
 Holocene

***Meles anakuma ponticus* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 59-93, pls.
 30-38
 Kitchen-midden at Hibiku, Kawakudari, Ono-mura, Mono
 Dist., Prov. Rikuzen (Miyagi Pref.), Japan
 Holocene

***Meles leucurus kuzuensis* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls. 1-32
 Holotype: IGPS 65606

Miyata Quarry, Okubo, Kuzuu-cho, Tochigi Pref., Japan
Kuzuu Formation
Pleistocene

***Meles mukasianakuma* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls.1-32
Holotype: IGPS 65653
Miyata Quarry, Okubo, Kuzuu-cho, Tochigi Pref., Japan
Kuzuu Formation
Pleistocene

***Mesoplodon tumidirostris* Miyazaki and Hasegawa, 1992**

Bull. Nat. Sci. Mus., Ser. A, 18 (4), 167-174
Holotype: NSM-PV 19732
Sea floor 32 °36'N, 172 °26'E

***Metaplatyceros sequoiae* Shikama, 1941**

Jub. Publ. Commen. Prof. H. Yabe, M. I. A., 60th Birth., 2,
1125-1170, pl. 52
Holotype: IGPS 61671
Hayasi, Hayasizaki-mura, Akasi-gun, Hyogo Pref., Japan
Akasi Group
Villafranchian

***Metasqualodon symmetricus* Okazaki, 1982**

Bull. Kitakyushu Mus. Nat. Hist., 4, 107-112, pls. 6-7
Holotype: KMNH VP 000,004
Umashima, Kokurakita-ku, Kitakyushu, Fukuoka Pref.,
Japan
Waita Formation
Miocene (Oligocene)

***Microtus epiratticepoides* Kawamura, 1988**

Mem. Fac. Sci. Kyoto Univ., Ser. Geol. Min., 53, 31-348
Holotype: KUGM-KUJC 96094
Locality 3 of Ube Kosan Quarry, Isa-cho, Mine-shi,
Yamaguchi Pref., Japan
Late Middle Pleistocene

***Microtus maekawai* Tokunaga and Mori, 1939**

Rep. 1st Sci. Exped. Manchoukuo, II-4, 1-43, pls. 1-6
Dokatin, Toman River, in the northern part of Korea

***Mizuhoptera fujinensis* Hatai, Hayasaka and Masuda, 1963**

Saito Ho-on Kai Mus. Nat. Hist. Res. Bull., 32, 5-17 (inc. 2
pls.)
Holotype: IGPS 60709
Lake coast at Fujina, Tamayu-mura, Yatsuka-gun, Shimane
Pref., Japan
Fujina Formation
Miocene

***Mizuhoptera kanayaensis* Hatai, Hayasaka and Masuda, 1963**

Saito Ho-on Kai Mus. Nat. Hist. Res. Bull., 32, 5-17 (inc. 2
pls.)
Holotype: IGPS 22095
Coast of Kanaya-machi, Kazusa Prov., Chiba Pref., Japan
Inagozawa Formation
Miocene

***Mizuhoptera sendaicus* Hatai, Hayasaka and Masuda, 1963**

Saito Ho-on Kai Mus. Nat. Hist. Res. Bull., 32, 5-17 (inc. 2
pls.)
Holotype: IGPS 78423
Constructing Sendai Hotel, Sendai, Miyagi Pref., Japan
Tatsunokuchi Formation
Early Pliocene

***Mizuhoptera sendaicus tatsunokuchiensis* Hatai, Hayasaka and Masuda, 1963**

Saito Ho-on Kai Mus. Nat. Hist. Res. Bull., 32, 5-17 (inc. 2
pls.)
Holotype: IGPS 59537
Tatsunokuchi gorge, Sendai, Miyagi Pref., Japan
Tatsunokuchi Formation
Early Pliocene

***Morawanocetus yabukii* Kimura and Barnes, 1995**

Island Arch, 3 (4), 392-431 (for 1994)
Holotype: AMP 1
Morawan River, Morawan, Rawan, Ashoro-cho, Hokkaido,
Japan
Morawan Formation
Late Oligocene

***Muntiacus astylodon* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 17-25, pl. 11
Shimajiri, Okinawa Pref., Japan
Pleistocene

***Myotis akiyoshiensis* Yoon, Kuramoto and Uchida, 1984**

Bull. Akiyoshi-dai Mus. Nat. Hist., 19, 1-14
Holotype: AMNH-B 1
Akiyoshi-do Cave, Syuho-cho, Yamaguchi Pref., Japan
Late Pleistocene

***Myotis beppuensis* Yoon, Kuramoto and Uchida, 1984**

Bull. Akiyoshi-dai Mus. Nat. Hist., 19, 15-26
Holotype: AMNH-B 6
Sumitomo Quarry, Syuho-cho, Yamaguchi Pref., Japan
Middle Pleistocene

***Myotis koganensis* Yoon, Kuramoto and Uchida, 1984**

Bull. Akiyoshi-dai Mus. Nat. Hist., 19, 1-14

Holotype: AMNH-B 2
Akiyoshi-do Cave, Syuho-cho, Yamaguchi Pref., Japan
Late Pleistocene

***Myotis okafujii* Yoon, Kuramoto and Uchida, 1984**

Bull. Akiyoshi-dai Mus. Nat. Hist., 19, 15-26
Holotype: AMNH-B 4
Sumitomo Quarry, Syuho-cho, Yamaguchi Pref., Japan
Middle Pleistocene

***Nemorhaedus nikitini* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls.1-32
Holotype: IGPS 65548
Miyata Quarry, Okubo, Kuzuu-cho, Tochigi Pref., Japan
Kuzuu Formation
Pleistocene

***Nipponanthoropus akashiensis* Hasebe, 1948**

Jour. Anthropol. Soc. Nippon, 60 (1), 32-36
Plastoholotype: UMUT
Nishiyagi, Ookubo, Akashi City, Hyogo Pref., Japan
Nishiyagi Formation
Late Pleistocene

***Numataphocoena yamashitai* Ichishima and Kimura, 2000**

Jour. Vert. Paleont., 20 (3), 561-576
Holotype: NFL 7
Horonitachibetsu River, Numata Town, Hokkaido, Japan
Horokaoshirarika Formation
Early Pliocene

***Nyctereutes viverrinus genitor* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 59-93, pls. 30-38
Kitchen-midden at Aoshima, Minamikata-mura, Tome Dist., Prov. Rikuzen (Miyagi Pref.), Japan
Holocene

***Nyctereutes viverrinus okuensis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 59-93, pls. 30-38
Kitchen-midden at Hibiku, Kawakudari, Ono-mura, Mono Dist., Prov. Rikuzen (Miyagi Pref.), Japan
Holocene

***Nyctereutes viverrinus nipponicus* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls.1-32
Holotype: IGPS 65602
Okada Quarry, Izuruhara, Kuzuu-cho, Tochigi Pref., Japan
Kuzuu Formation
Pleistocene

***Odobemus mandanoensis* Tomida, 1989**

Bull. Natn. Sci. Mus., Ser. C, 15 (3), 109-119

Holotype: NSM-PV 18911
Kisarazu-shi, Chiba Pref., Japan
Mandano Formation
Middle Pleistocene

***Orca paleorca* Matsumoto, 1937**

Zool. Mag. (Japan), 49 (5), 191-193
Naganuma, Minato Town, Province of Kazusa (Chiba Pref.), Japan
Sanuki Formation
Pliocene

***Ovis ammon shantungensis* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 39-41, pls. 16-17
Wanchiagna, near Chinchou, Shantung, China
Loess
Pleistocene

***Palaeochoerus japonicus* Takai, 1954**

Jour. Fac. Sci. Univ. Tokyo, Sec. 2, 9 (2), 331-335
Holotype: IGPS 72697
Kisagata lignite colliery, Yunogo-mura, Katsuta-gun, Okayama Pref., Japan
Mimasaka coal-bearing beds
Miocene

***Palaeoloxodon aomoriensis* Tokunaga and Takai, 1936**

Jour. Geol. Soc. Japan, 43, 254-258, pls. 13-14
Holotype: Tokyo Col. Agric.
Tenjinmori, Shichinohe-cho, Kamikita-gun, Aomori Pref., Japan
Late Pleistocene
(Synonym of *Palaeoloxodon naumanni* (Makiyama))

***Palaeoloxodon yokohamanus* Tokunaga, 1934**

Jour. Geogr., 46 (546), 365-367, pl. 2
River mouth of Turumi-gawa, Yokohama-si, Kanagawa Pref., Japan
Pleistocene
(Synonym of *Palaeoloxodon naumanni* (Makiyama))

***Palaeomeryx minoensis* Nagasawa, 1933**

Jour. Geol. Soc. Japan, 39 (464), 219-224
Holotype: Fujimoto Collection
Hiramaki Formation
Miocene

***Palaeotapirus yagii* Matsumoto, 1921**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 5, 75-91, pls. 13-14
Holotype: Tono Middle School
Tanohira, Obora, Kaminogo-mura, Kani-gun, Gifu Pref., Japan
Hiramaki Formation

Miocene

***Parastegodon akashiensis* Takai, 1936**

Proc. Imp. Acad. Tokyo, 12 (1), 19-21
Nishiyagi, Okubi-mura, Akashi-gun, Hyogo Pref., Japan
Nishiyagi Clay
Pleistocene
(Synonym of *Stegodon aurorae* (Matsumoto))

***Parastegodon infrequens* Shikama, 1937**

Japan. Jour. Geol. Geogr., 14 (3/4), 127-131, pl. 9
Holotype: Takikawa Middle School, Kobe
Near Akasi, Hyogo Pref., Japan
Akasi Group,
Pleistocene
(Synonym of *Stegodon aurorae* (Matsumoto))

***Parastegodon sugiyamai* Tokunaga, 1935**

Proc. Imp. Acad. Japan, 11 (10), 432-434
Irihi, Saita-cho, Mitoyo-gun, Kagawa Pref., Japan
Mitoyo Formation
Plio-Pleistocene
(Synonym of *Stegodon aurorae* (Matsumoto))

***Parastegodon? kwantoensis* Tokunaga, 1934**

Jour. Geogr., 46 (546), 365-367
Manpukuji Oiwake, Kakiu-mura, Tsuzuki-gun, Kanagawa Pref., Japan
Late Pliocene
(Synonym of *Stegodon aurorae* (Matsumoto))

***Parelephas protomammonteus matsumotoi* Saheki, 1931**

Japan. Jour. Geol. Geogr., 8 (3), 125-129, pl. 13
River cliff of Koito, Mishima Vill., Kimitsu, Chiba Pref., Japan
Lower Calabrian

***Parelephas protomammonteus proximus* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 43-50, pls. 18-24
Isona, Kokubo, Onuki-mura, Kimitsu District, Province of Kazusa (Chiba), Japan
Narita Series
Pleistocene
(Current usage: *Mammuthus paramammonteus proximus* (Matsumoto))

***Parelephas protomammonteus typicus* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (2), 43-50, pls. 18-24
Nagahama, Minato, Chiba Pref., Japan
Narita Series
Pleistocene

***Parelephas proximus uehataensis* Shikama, 1937**

Japan. Jour. Geol. Geogr., 14 (3/4), 163-166
Uehata, Akimoto-mura, Chiba Pref., Japan
Early Pleistocene

***Pleistomyotis longihumeralis* Yoon, Kuramoto and Uchida, 1984**

Bull. Akiyoshi-dai Mus. Nat. Hist., 19, 15-26
Holotype: AMNH-B 3
Sumitomo Quarry, Syuho-cho, Yamaguchi Pref., Japan
Middle Pleistocene

***Proboselaphus liodon* Matsumoto, 1915**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3, 1-28, pls. 1-10
Holotype: Zool. Inst., Imp. Univ. Tokyo
Sze-chuan, China
Pleistocene

***Proboselaphus watasei* Matsumoto, 1915**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3, 1-28, pls. 1-10
Holotype: Zool. Inst., Imp. Univ. Tokyo
Sze-chuan, China
Pleistocene

***Prostegodon latidens* Matsumoto, 1924**

Jour. Geol. Soc. Tokyo, 31 (375), 395-414
Holotype: SSG 1001
Kakukura Uranosawa, Nakajo-mura, Kamiminochi-gun, Nagano Pref., Japan
Shigarami Formation
Miocene to Pliocene

***Protitanotherium koreanicum* Takai, 1939**

Jour. Fac. Sci. Imp. Univ. Tokyo, Sec. 2, 5 (6), 214-215
Holotype: Waseda Univ.
Hosan Coal-field in the central part of Kokai-do, Northwest Tyosen (Korea)
Hosan Formation
Latest Eocene

***Protodobenus japonicus* Horikawa, 1995**

Island Arc, 3 (4), 309-328 (for 1994)
Holotype: Education-bord of Ooshima-mura
Ooshima-mura, Higashi kugiki-gun, Niigata Pref., Japan
Tamugigawa Formation
Early Pliocene

***Prototaria planicephala* Kohno, 1994**

Jour. Vert. Paleont., 14 (3), 414-426
Holotype: SSME 13317
Goishi, Kawasaki-cho, Shibata-gun, Miyagi Pref., Japan
Moniwa Formation
Late Early - early Middle Miocene

***Prototaria primigena* Takeyama and Ozawa, 1984**

Proc. Japan Acad., Ser. B, 60, 36-39

Holotype: HUTE 1001

Kamakura, Takahama Town, Fukui Pref., Japan

Shimo Formation

Early Middle Miocene

***Pseudorca yokoyamai* Matsumoto, 1926**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 10 (1), 17-27, pls. 8-10

Hommoku, Yokohama-shi, Kanagawa Pref., Japan

Pleistocene

***Putorius kuzuuensis* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls. 1-32

Holotype: IGPS 65657

Miyata Quarry, Okubo, Kuzuu-cho, Tochigi Pref., Japan

Kuzuu Formation

Pleistocene

***Rhinoceros koreanicus* Tokunaga, 1931 (nomen nudum)**

Nihon-Gakujutu-Kyokai-Hokoku (Japan Assoc. Advance. Sci. Rep.), 6, 175-178

***Rhinoceros manchuricus* Ishijima, 1939**

Jub. Publ. Commen. Prof. H. Yabe, M. I. A., 60th Birth., 321-331, pls. 21-22

Ho-chia-kou, Ku-hsiang-tung, near Harbin, Manchuria (Northeast China)

Wen-chuan-ho bed

***Rhinoceros shindoi* Tokunaga, 1931 (nomen nudum)**

Nihon-Gakujutu-Kyokai-Hokoku (Japan Assoc. Advance. Sci. Rep.), 6, 175-178

***Scaldicetus shigensis* Hirota and Barnes, 1995**

Island Arch, 3 (4), 453-472 (for 1994)

Holotype: SFM 00001

Hofuku-ji River, Shiga-mura, Higashichikuma-gun, Nagano Pref., Japan

Bessho Formation

Early Middle Miocene

***Shikamainosorex densicingulata* Hasegawa, 1957**

Sci. Rep. Yokohama Nat. Univ., Sec. 2, 6, 65-69, pl. 12

Holotype: Iida City Museum, Nagano

Okada Quarry, Izuruhara, Kuzuu, Tochigi Pref., Japan

Kuzuu Formation

Middle Pleistocene

***Sinanodelphis izumidaensis* Makiyama, 1936**

Mem. Coll. Sci., Kyoto Imp. Univ., Ser. B, 11 (2), 115-134, pl. 1-3

Dainichido, Hebigawara, Izumita-mura, Chiisagata-gun,

Nagano Pref., Japan

Bessyo Shale

Miocene

***Sorlestes mifunensis* Setoguchi, Tsubamoto, Hanamura and Hachiya, 1999**

Paleontol. Res., 3 (1), pp 18-28

Holotype: KUGM-KUJM 95002

Near the Amagi Dam, Mifune Town, Kumamoto Pref., Japan

"Upper Formation", Mifune Group

Late Cenomanian - early Turonian

***Stegodon clifti miensis* Matsumoto, 1941**

Zool. Mag. (Japan), 53 (8), 385-396

Holotype: NSM-PV 2193

Kusuhara, Geino-cho, Age-gun, Mie Pref., Japan

Kameyama Formation

Pliocene

(Current usage: *Stegodon miensis* Matsumoto)***Stegodon orientalis shodoensis* Matsumoto, 1924**

Jour. Geol. Soc. Tokyo, 31 (375), 323-340

Seto Inland Sea, Japan

Pleistocene

(Synonym of *Stegodon aurorae* (Matsumoto))***Stegodon shodoensis akashiensis* Takai, 1936**

Proc. Imp. Acad. Tokyo, 12, 19-21

Okubo-mura, Akashi-gun, Hyogo Pref., Japan

Pleistocene

(Synonym of *Stegodon aurorae* (Matsumoto))***Stegolophodon shinshuensis* Sawamura, Sugiyama, Tanaka, Yoshida and Suzuki, 1979**

Earth Science (Chikyu-Kagaku), 31 (1), 11-25

Holotype: SSG 1001

Uranosawa, Kakukura, Nakajo-mura, Kamiminokuchi-gun, Nagano Pref., Japan

Shigarami Formation

Late Miocene - Early Pliocene

(Current usage: *Stegodon shinshuensis*, or synonym of *Stegodon miensis* Matsumoto)***Stegolophodon tsudai* Shikama and Kirii, 1956**

Trans. Proc. Palaeont. Soc. Japan, N. S., 24, 285-289, pl. 41

Holotype: Iida City Museum, Nagano

Suwara, Kurosedani-mura, Nei-gun, Toyama Pref., Japan

Kurosedani Formation

Middle Miocene

(Synonym of *Eostegodon pseudolatidens* Yabe)***Stenella kabatensis* Horikawa, 1977**

Earth Science (Chikyu-Kagaku), 31 (3), 97-114

Holotype: HMH 68037

Kokuryo, Uryu-mura, Uryu-gun, Hokkaido Pref., Japan
Mashike Formation
Late Miocene

***Sus japonicus* Tokunaga, 1915 (nomen nudum)**

In, Matsumoto (1915). Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3, 39-49, pls. 16-19

***Sus inoi* Naora, 1937**

Jour. Anthropol. Soc. Tokyo, 52, 286-296
Kitchen midden at Karafuto (Sakhalin)
Holocene

***Sus nipponicus* Matsumoto, 1915**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 3, 39-49, pls. 16-19
Holotype: IGPS
Asphalt field at Randoshita, Tsukinoki, Ugo (Akita Pref.), Japan

***Sus nipponicus mikotonis* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 59-93, pls. 30-38
Kitchen-midden at Aoshima, Minamikata-mura, Tome Dist., Prov. Rikuzen (Miyagi Pref.), Japan
Holocene

***Sus nipponicus miyae* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 35-43, pls. 11-15
Holotype: Atsuta Middle School
Kitchen-midden at Atsuta, Nagoya, Prov. Owari (Aichi Pref.), Japan
Holocene

***Sus nipponicus sendai* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 35-43, pls. 11-15
Kitchen-midden at Hibiku, Kawakudari, Ono-mura, Mono Dist., Prov. Rikuzen (Miyagi Pref.), Japan
Holocene

***Sus nipponicus teizan* Matsumoto, 1930**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 13 (3), 59-93, pls. 30-38
Kitchen-midden at Hibiku, Kawakudari, Ono-mura, Mono Dist., Prov. Rikuzen (Miyagi Pref.), Japan
Holocene

***Teleoceras? kaniensis* Tokunaga, 1926**

Proc. Imp. Acad. Tokyo, 2 (6), 289-291
Kaminogo-mura, Kani-gun, Gifu Pref., Japan
Hiramaki Formation
Miocene
(Synonym of *Chilotherium pugnator* (Matsumoto))

***Teleoceras (Brachypotherium) pugnator* Matsumoto, 1921**
Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 5 (3), 75-91, pls. 13-14

Holotype: Tono Middle School
Nino, Hiramaki-mura, Kani-gun, Gifu Pref., Japan
Hiramaki Formation
Miocene
(Current usage: *Chilotherium pugnator* (Matsumoto))

***Teleoceras? tokiensis* Tokunaga, 1926**

Proc. Imp. Acad. Tokyo, 2 (6), 289-291
Togari, Akiyo-mura, Toki-gun, Gifu Pref., Japan
Mizunami Group
Miocene
(Synonym of *Chilotherium pugnator* (matsumoto))

***Thalassoleon inouei* Kohno, 1992**

Nat. Hist. Res., 2, 15-28
Holotype: CBM-PV 087
Nokogiriyama, Chiba Pref., Japan
Senhata Formation
Late Miocene - Early Pliocene

***Trilophodon sendaicus* Matsumoto, 1925**

Jour. Geol. Soc. Tokyo, 31 (375), 395-414
Holotype: IGPS
Kitayama, Aoba-ku, Sendai-shi, Miyagi Pref., Japan
Tatsunokuchi Formation
Latest Miocene – early Pliocene
(Current usage: *Zygodon sendaicus* (Matsumoto))

***Ursus tanakai* Shikama, 1949**

Sci. Rep. Tohoku Imp. Univ., 2nd Ser., 23, 1-201, pls. 1-32
Holotype: IGPS 65605
Miyata Quarry, Okubo, Kuzuu-cho, Tochigi Pref., Japan
Kuzuu Formation
Pleistocene

***Zalophus kimitsensis* Matsumoto, 1939**

Zool. Mag. (Japan), 51 (5), 257-266
Nagahama, kazusaminato, Futtu-shi, Chiba Pref., Japan
Nagahama Formation
Middle Pleistocene

Ichnotaxa

***Byakudansauropus shiraminensis* Azuma and Takeyama, 1991**

Bull. Fukui Pref. Mus., 4, 33-51, pls. 1-2
Holotype: ISBEV 003 (footprint)
Ku wajima, Shiramine Vill., Ishikawa Pref., Japan
Akaiwa Formation
Early Cretaceous

***Gigantoshiraminesauropus matsuoii* Azuma and Takeyama, 1991**

Bull. Fukui Pref. Mus., 4, 33-51, pls. 1-2

Holotype: ISBEV 002 (footprint)

Kuwanjima Kaseki-kabe, Shiramine Vill., Ishikawa Pref., Japan

Kuwanjima Formation

Early Cretaceous

Japan

Nagatogawa Formation

Early Cretaceous

***Itsukisauropus izumiensis* Azuma and Takeyama, 1991**

Bull. Fukui Pref. Mus., 4, 33-51, pls. 1-2

Holotype: FPMN 900891 (footprint)

Itsuki, Izumi Vill., Fukui Pref., Japan

Itsuki Formation

Early Cretaceous

 Note: Authors dismissed C. Okamura's "mini animals", described in the Orig. Rep. Okamura Fossil Labo. volumes, as the products of occult observation, though his publications pretended taxonomy. "Mini animals" are artificially contoured micro-designs in the thin-sections of bioclastic sediments.

***Jeholosauripus s-satoi* Yabe, Inai and Shikama, 1940**

Proc. Imp. Acad. Tokyo, 16 (10), 560-563

Holotype: IGPS 61677 (footprints)

Ssuchiaztzu, near Yangshan, South Manchuria (Northeast China)

Heichengtzu Formation

Early Cretaceous

***Kuwajimasauropus shiraminensis* Azuma and Takeyama, 1991**

Bull. Fukui Pref. Mus., 4, 33-51, pls. 1-2

Holotype: ISBEV 001 (footprint)

Kuwanjima Kaseki-kabe, Shiramine Vill., Ishikawa Pref., Japan

Kuwanjima Formation

Early Cretaceous

***Shiraminesauropus hayashidaniensis* Azuma and Takeyama, 1991**

Bull. Fukui Pref. Mus., 4, 33-51, pls. 1-2

Holotype: FPMN 900881 (footprint)

Hayashidani, Izumi Vill., Fukui Pref., Japan

Itsuki Formation

Early Cretaceous

***Shiraminesauropus reini* Azuma and Takeyama, 1991**

Bull. Fukui Pre. Mus., 4, 33-51, pls. 1-2

Holotype: FPMN 850321 (footprint)

Kuwanjima Kaseki-kabe, Shiramine Vill., Ishikawa Pref., Japan

Kuwanjima Formation

Early Cretaceous

***Toyamasauripus masuiae* Matsukawa, 1997**

In, Matsukawa, Hamuro, Mizukami and Fujii (1997): Cret. Res., 18, 603-619

Holotype: TGUSE-DT 1001 (footprints, rubber molds)

Oshimizu, Ooyama-machi, Kaminiikawa-gun, Toyama Pref.,

Palaeontological Society of Japan, Special Papers No.41

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