

ISSN 0083-7903, 76 (Print)

ISSN 2538-1016; 76 (Online)

**Catalogue of  
Type and Figured Specimens  
in the  
New Zealand Oceanographic Institute**

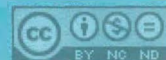
by

ELLIOT W. DAWSON



**New Zealand Oceanographic Institute Memoir 76**

1979



NEW ZEALAND

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

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New Zealand Oceanographic Institute, Wellington

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Citation according to “World List of Scientific Periodicals” (4th edn):

*Mem. N.Z. oceanogr. Inst. 76*

ISSN 0083—7903

Received for publication : October 1974

(Revised December 1978)

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E.C. KEATING, GOVERNMENT PRINTER, WELLINGTON, NEW ZEALAND — 1979



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# Catalogue of Type and Figured Specimens in the New Zealand Oceanographic Institute

by

Elliot W. Dawson

New Zealand Oceanographic Institute, Wellington

## ABSTRACT

This catalogue records 290 taxa represented by primary types (holotypes or paratypes) and 273 figured specimens held in the New Zealand Oceanographic Institute, Wellington. It is complete to December 1978.

The species are arranged in alphabetical order under their appropriate systematic groupings. Each entry includes information about the original description, registration numbers, type locality, and disposition of type material. Information additional to the original description is included wherever appropriate.

Conditions of loan of type (and other) material in the custody of the N.Z. Oceanographic Institute are outlined.

Instructions for authors wishing to designate types from loan material are also given.



## INTRODUCTION

Since the establishment of the New Zealand Oceanographic Institute in 1954, a significant quantity of marine biological material, mainly benthic, has been collected. The Institute has extensive collections of benthic animals from the Antarctic (especially from the Ross Sea and off the Balleny Islands), the New Zealand sector of the Subantarctic (the Campbell Plateau, the Macquarie Ridge and associated southern islands), from comprehensive benthic surveys of the New Zealand shelf and slope, and from the Southwest Pacific (including Tahiti, the Cook Islands, Tonga and Fiji). There is also some planktonic and intertidal material. To date some 5,000 biological stations have been carried out by the Institute. As a consequence of the publications based on this material, the Institute is becoming an increasingly important repository for types and figured specimens.

A questionnaire sent to 21 New Zealand institutions by the Art Galleries and Museums Association of New Zealand in 1968 showed that about 21,000 type specimens (37% being fossils) were held in 6 public museums, 10 university departments and 5 branches of the D.S.I.R. Public museums held 49% of the total. Oceanographic Institute was listed (as at August 1969) as holding 61 type specimens (AGMANZ 1969). The number of taxa represented by primary type specimens (holotypes or paratypes) listed in this catalogue (as at December 1978) is 290: Protozoa 19, Porifera 7, Coelenterata 18, Polychaeta 4, Crustacea 110 (including Cirripedia 1, Copepoda 37, Cumacea 7, Isopoda 24, Amphipoda 33, Mysidacea 1, Paguridea 2, Brachyura 4, Thalassinidea 1), Mollusca 22, Bryozoa 17, Brachiopoda 2, Pycnogonida 7, Echinodermata 72 (including Crinoidea 17, Echinoidea 11, Asteroidea 32, Ophiuroidea 10, Holothuroidea 2), Pisces 2. Figured specimens (or species lots) total 273.

The Institute encourages the use of its collections by suitably qualified and responsible workers, and subsequent sections of this introduction detail the conditions of loan and the appropriate methods of designation and dispersal of material by authors of new taxa.

Examples of studies on the material housed at the Institute are to be found in "The Marine Fauna of New Zealand", a series within the *Memoirs* of the N.Z. Oceanographic Institute (originally within the N.Z. D.S.I.R. *Bulletin* series), which was designed especially to document the rich and valuable collections obtained around New Zealand in working by discrete monographs or reviews towards an overall "handbook" of the marine fauna of New Zealand. Contributors to the "Marine Fauna" series are encouraged to include keys for identifications, and commentaries on ecological and zoogeographical aspects as well as systematic descriptions of the groups treated.

The collection of such material is an expensive and sometimes difficult procedure, often involving a great deal of ship time (the cost of which is usually very much underestimated by non-oceanographers) and subsequent laboratory sorting and curation.

Identified and figured specimens may be equally as valuable as classical "types" (cf. Simpson 1940), and deserve the greatest attention and curation. As Anderson (1973 : 39) has so aptly remarked : "A specimen is unique in a way that a publication is not. A book or article is called "published" when it is generally available, which usually means distributed as a number of duplicate copies. Specimens are not identical and should not be regarded as duplicates, even though certain kinds of information can be obtained from more than one specimen. Other kinds of information can be obtained only from a particular specimen, and each specimen has a unique combination of properties." Material once described is not necessarily "finished with" and care must be taken to see that "duplicates" or "published" specimens are not disposed of without proper consideration of future needs. For example, the specimens of shelf echinoids forming the basis of part of McKnight's (1969) survey of the New Zealand shelf fauna have been and will continue to be used for further studies and subsequent reference. In particular, quantitative benthic biomass estimates are now being made based on bulk collections of some years earlier. It is essential, therefore, that splitting or subdivision of ecologically-collected samples be controlled.

We are anxious to see the maximum use made of Institute material but we are equally concerned to ensure that those receiving it on loan add to its value rather than detract from it by careless handling, destruction of labels and inadequate curation. Every institution holding collections has had unfortunate experiences with loans and the problem continues to be a very real one. Accordingly, the following conditions for the loan of biological material and of type specimens particularly, modelled on those formulated by the N.Z. Geological Survey, D.S.I.R. (cf. Fleming 1964), will apply. Attention is also drawn to the Recommendations 72A-D given in the *International Code of Zoological Nomenclature* (ICZN 1974).

### CONDITIONS FOR THE LOAN OF TYPES AND FIGURED SPECIMENS FROM THE N.Z. OCEANOGRAPHIC INSTITUTE, DSIR

In general, workers should consult type material on the Institute's premises. However, reasonable requests for loans will be considered favourably provided the undermentioned conditions are met.

- (1) Requests for loans must be made in writing on official letterhead paper to establish credentials by senior research workers, or in the case of student or junior workers, by the Head of their department or institute who accepts the responsibility on their behalf. The special need for types to be examined should be stated. Loans will not be made to individuals at private addresses.

- (2) Wherever possible, paratypes, metatypes, or topotypes should be requested. Holotypes may be lent in special circumstances.
- (3) Holotypes and lectotypes of microforms (i.e., Foraminifera, coccoliths, etc.) are not available for loan but topotypes etc. usually can be supplied.
- (4) Types or figured specimens not personally taken will be sent by registered or insured mail. They must be returned in the same manner. Special attention must be given to careful packing. Breakages in transit from the Institute must be noted on the receipt form, and any subsequent damage by the borrower must be notified.
- (5) Loans will be recorded on official numbered "shipping invoices" as issued by the Curator, N.Z. Oceanographic Institute, for all material sent out of the Institute. The original copy (white) is to be returned as soon as the specimens have been received. This serves as a receipt. The second copy (yellow) may be retained for the borrower's own records.
- (6) The period of loan will be specified at the time of approval and must be strictly adhered to.
- (7) Type specimens must not be dissected, sectioned or otherwise dismembered without explicit permission.
- (8) The provisions of the Antiquities Act 1975 will be strictly adhered to, whereby "any type specimen of any animal ... existing in New Zealand" may not be removed from New Zealand "otherwise than ... in conformity with the terms and conditions of a written certificate of permission given by the Secretary [for Internal Affairs] under this Act." (N.Z. Govt 1975 : 5).
- (9) Loans may be subject to special conditions.
- (10) The Director of the N.Z. Oceanographic Institute retains the right to refuse to lend type or other material if the circumstances are not considered to justify a loan.

### DESIGNATION AND DISPERSAL OF TYPE SPECIMENS

Where new taxa are described by workers using loan material from the N.Z. Oceanographic Institute, the following rules will apply. Editors of journals publishing manuscripts including NZOI material are especially requested to note them.

- (1) All types, figured and unique specimens must be returned to the Institute as soon as possible after description (*and prior to publication*) clearly

labelled as to their status. Retention of any duplicate specimens (including paratypes) is permitted only by definite arrangement.

- (2) All holotypes and at least one paratype for each new taxon will be kept by the Institute. The institution to which the worker belongs may retain paratype material *by prior arrangement* and other paratypes should be deposited in national collections such as the National Museum of New Zealand, Wellington, the British Museum (Natural History), London, or the National Museum of Natural History, Smithsonian Institution, Washington, or in other approved institutions. Prior approval for the dispersal of paratypes must be obtained from the Director of the Institute before any manuscript is sent for publication.
- (3) Holotypes at the Institute bear an "H" prefix and paratypes a "P" prefix before each registered number. Authors must request type numbers before publication and quote them in the manuscript. Generally, separate "P" numbers are given to different station lots of a species unless it is thought desirable to distinguish individual specimens. In the text of a manuscript this letter prefix should be separated from the following number by a hyphen to obviate any confusion with a station number. These numbers will not be allocated until the types have been received at the Institute.
- (4) Authors figuring paratypes and specimens other than holotypes are asked to indicate clearly in the captions the station number or similar means of individual recognition.
- (5) The Institute would appreciate the opportunity of including in its "List of Publications" any papers with new or figured specimens based on material lent from its collections. Authors are asked, therefore, to provide details of time, place and publisher in adequate time so that extra reprints may be ordered by the Institute.
- (6) It is important that station details (especially position and depth) be verified before publication and not taken from field labels. Depths, particularly, generally need subsequent correction. A copy of the manuscript should be forwarded to the Institute for checking of station details. The letter prefix is an essential part of the "station number". The use of letter prefixes allows restriction of the numerical part to three figures to reduce errors from numerical transposition to a minimum. The only exceptions to this are "stations" of letter prefix "Z". These represent miscellaneous collections of the Institute (being material collected or presented by other institutions, organisations or individuals) and may have four numerals or more. In addition, G, J and K station registers conclude at G1027, J1053 and K1023. Failure to quote the letter prefix may invalidate the particular specimens, and users are asked to be particularly careful in this respect.

- (7) Original labels must not be removed or defaced. Specific identification labels should be placed in each container. NZOI labels of various sizes are available on request as are plots of station positions and similar aids.
- (8) Further information is available from the Institute about most stations including sediment analyses, underwater photographs and associated fauna.

### USE OF THE CATALOGUE

The catalogue is set out with the major taxonomic groups in systematic order, but with the species listed alphabetically within these groups. Each entry gives this information :

NAME, Author, Date of Taxon

Nature of specimens : HOLOTYPE, PARATYPE, FIGURED SPECIMEN etc.

If the type material is not figured the designation stands alone. If type specimen is figured the literature citation follows the designation. Non-type material which is figured is indicated by FIGURED SPECIMEN followed by the literature citation. The precise date of description of the holotype is given whenever known.

TYPE LOCALITY

Only given where N.Z. Oceanographic Institute holds the type material; includes both geographic coordinates and other station details such as date of collecting, number of specimens, name of collector or additional

information not always given in the original account.

### NZOI MATERIAL

This is the material held in the collection at the time of description, being either the "type series" (Melville 1970) or, in the case of figured specimens, the material available to and used by the author in the publication cited.

Material held in the collection is listed thus :

Stn No., Type Registration No., Sex, Size, etc.

Station numbers only are given but further details may be found in the Station List following the References.

### REMARKS

Includes location of type material not lodged in the Institute and other comments which may be helpful to later workers such as points of taxonomic or distributional interest, the derivation of new names proposed, and information additional to the original publication. Uncited quotations in this section are from the original description of the taxon.

### FUTURE ADDITIONS

Since a number of memoirs and individual papers describing new taxa are scheduled for publication within the next year, and an increasing amount of taxonomic research is being done on the Institute's collections, supplementary lists of types and figured specimens will be issued from time to time. The first of these will include reference to new taxa of spirorbid Polychaeta, Cirripedia and macrourid fishes.

### ACKNOWLEDGMENTS

This catalogue was set on a Compugraphic Editwriter 7500 direct-entry phototypesetter by Mrs R.M.C. Thompson, N.Z. Oceanographic Institute. I am greatly indebted to her for her patience and high level of skill.

Elaine Bardsley pasted up the copy for printing, verified the inclusion of references, and helped greatly in eliminating errors. I am most grateful to her for her care in these matters.



# SYSTEMATIC LISTING OF TYPE AND FIGURED SPECIMENS

(\* denotes primary type material)

## Phylum PROTOZOA

### Order COCCOLITHOPHORIDA

- Emiliana huxleyi* (Lohmann, 1902)
- Holodiscolithus macroporus* (Deflandre, 1954)
- Pontosphaera alboranensis* Bartolini, 1970
- Pontosphaera discopora* Schiller, 1925
- Pontosphaera distincta* (Bramlette & Sullivan, 1961)
- Pontosphaera japonica* (Takayama, 1967)
- Pontosphaera messinae* Bartolini, 1970
- Pontosphaera multipora* Kamptner, 1948
- \**Pontosphaera pacifica* Burns, 1973
- Pontosphaera* sp. Burns, 1973

### NANNOFOSSILS

- \**Dictyococcites perplexa* Burns, 1975

### Order XENOPHYOPHORIDA

- \**Reticulammina labyrinthica* Tendal, 1972
- \**Reticulammina lamellata* Tendal, 1972
- \**Reticulammina novaezealandica* Tendal, 1972
- Syringammina fragilissima* Brady, 1883
- \**Syringammina tasmanensis* Lewis, 1966

### Order FORAMINIFERA

- Ammodiscus tenuis* Brady, 1881
- \**Astrononion echolsi* Kennett, 1967
- Brachysiphon corbuliformis* Chapman, 1906
- Cassidulina carinata* Silvestri, 1896
- Cassidulinoides parkerianus* (Brady, 1881)
- Ehrenbergina aspinosa* Parr, 1950
- \**Ehrenbergina carinata* Eade, 1967
- Ehrenbergina mestayeri* Cushman, 1922
- Ehrenbergina pacifica* Cushman, 1927
- Ehrenbergina trigona* Goës, 1896
- Evolvocassidulina* aff. *E. inflata* (LeRoy, 1944)
- Evolvocassidulina orientalis* (Cushman, 1922)
- Evolvocassidulina tenuis* (Phleger & Parker, 1951)
- \**Favocassidulina australis* Eade, 1967
- Favocassidulina fava* (Brady, 1877)
- \**Globocassidulina canalisuturata* Eade, 1967
- Globocassidulina crassa* (d'Orbigny, 1839)
- \**Globocassidulina crassa rossensis* Kennett, 1967
- Globocassidulina decorata* (Sidebottom, 1910)
- Globocassidulina elegans* (Sidebottom, 1910)
- Globocassidulina gemma* (Todd, 1954)
- Globocassidulina minuta* (Cushman, 1933)
- Globocassidulina producta* (Chapman & Parr, 1937)
- \**Globocassidulina spherica* Eade, 1967
- Globocassidulina tumida* (Heron-Allen & Earland, 1922)
- Heterolepa subhaidingerii* (Parr, 1950)
- Hormosina globulifera* Brady, 1879

- Laticarinina pauperata* (Parker & Jones, 1865)
- \**Massilina brodiei* Hedley, Hurdle & Burdett, 1967
- \**Miliolinella antarctica* Kennett, 1967
- Nonionellina flemingi* (Vella, 1957)
- \**Planulinoides norcotti* Hedley, Hurdle & Burdett, 1967
- Quinqueloculina* sp. Lewis, 1970
- \**Saccamina alba* Hedley, 1962
- Tritaxis fusca* (Williamson, 1858)
- \**Trochammina bartrami* Hedley, Hurdle & Burdett, 1967
- Vaginulopsis spinigera* Brady, 1884
- \**Virgulinella fragilis* Grindell & Collen, 1976

### PROTOZOA INCERTAE SEDIS

#### ELLOBIOPSIDA

- \**Thalassomyces marsupii* Kane, 1964

## Phylum PORIFERA

- Asteropus simplex* (Carter, 1879)
- \**Biemna flabellata* Bergquist, 1970
- \**Ceratopsion cuneiformis* Bergquist, 1970
- Epipolasis novaezealandiae* (Dendy, 1924)
- \**Lamellomorpha strongylata* Bergquist, 1968
- \**Monosyringia calcifera* Bergquist, 1968
- \**Pachastrella incrustata* Bergquist, 1968
- Polymastia conigera* Bowerbank, 1874
- Polymastia granulosa* Brøndsted, 1923
- \**Tetilla australe* Bergquist, 1968
- \**Timea alba* Bergquist, 1968

## Phylum COELENTERATA

### Order STYLASTERINA

- \**Calyptropora reticulata* Boschma, 1968
- \**Errina carnea* Boschma, 1965
- \**Errina (Errina) cruenta* Boschma, 1968
- \**Errina (Lepidopora) sarmentosa* Boschma, 1968
- \**Stenohelia conferta* Boschma, 1968

### Order ALCYONACEA

- Alcyonium clavatum* (Pfeffer, 1889)

### Order GORGONACEA

- Acanella eburnea* (Pourtalès, 1868)
- Acanella japonica* Kükenthal, 1915
- Acanella sibogae* Nutting, 1910

- \**Chathamisis bayeri* Grant, 1976
- \**Circinisis circinata* Grant, 1976
- Echinisis spicata* (Hickson, 1907)
- Keratoisis flexibilis* (Pourtales, 1868)
- \**Keratoisis glaesa* Grant, 1976
- \**Keratoisis hikurangiensis* Grant, 1976
- \**Keratoisis projecta* Grant, 1976
- \**Keratoisis tangensis* Grant, 1976
- \**Keratoisis zelandica* Grant, 1976
- \**Lepidisis solitaria* Grant, 1976
- \**Minuisis pseudoplanum* Grant, 1976
- Mopsea elongata* Roule, 1908
- \**Peltastisis nuttingi* Grant, 1976
- Primnoisis ambigua* Wright & Studer, 1889
- Primnoisis antarctica* (Studer, 1878)
- Primnoisis formosa* Gravier, 1913

#### Order SCLERACTINIA

- Caryophyllia profunda* Moseley, 1881
- Culicia rubeola* (Quoy & Gaimard, 1833)
- Dendrophyllia japonica* Rehberg, 1892
- \**Dendrophyllia palita* Squires & Keyes, 1967
- \**Desmophyllum cristagalli* Milne Edwards & Haime, 1848
- \**Flabellum aotearoa* Squires, 1964
- Flabellum apertum* Moseley, 1881
- \**Flabellum impensum* Squires, 1962
- Flabellum rubrum* (Quoy & Gaimard, 1833)
- Gardineria antarctica* Gardiner, 1929
- Goniocorella dumosa* (Alcock, 1902)
- Kionotrochus (Kionotrochus) suteri* Dennant, 1906
- \**Madreporia vitiae* Squires & Keyes, 1967
- Notocyathus (Paradeltoocyathus) orientalis* Duncan, 1876
- \**Paracyathus conceptus* Gardiner & Waugh, 1938
- Sphenotrochus ralphae* Squires, 1964
- Stenocyathus decamera* Ralph & Squires, 1962

#### Phylum ANNELIDA

##### Class POLYCHAETA

- \**Aonides trifidus* Estcourt, 1967
- \**Lepidasthenia accolus* Estcourt, 1967
- \**Phylo novazealandiae* Day, 1977
- \**Rhamphobranchium maculatum* Estcourt, 1966

#### Phylum SIPUNCULIDA

- Paraspidosiphon klunzingeri* (Selenka, de Man & Bülow, 1883)

#### Phylum ARTHROPODA

##### Subphylum CRUSTACEA

##### Class CIRRIPEDIA

- Cryptophialus tomlinsoni* Newman & Ross, 1971
- \**Hexelasma* n.sp. Foster, 1979

- Hexelasma antarcticum* Borradaile, 1916  
[= *Bathylasma coralliforme* (Hoek, 1883)]
- Stomatolepas elegans* (Costa, 1838)

#### Class COPEPODA

- Acartia ensifera* Brady, 1899
- \**Acartia jilletti* Bradford, 1976
- \**Acartia lefevreae* Bradford, 1976
- \**Acartia omorii* Bradford, 1976
- Acartia simplex* Sars, 1905
- \**Acartia teclae* Bradford, 1976
- \**Acartia tranteri* Bradford, 1976
- \**Aetideopsis carinata* Bradford, 1969
- Aetideopsis minor* (Wolfenden, 1911)
- \**Aetideopsis tumorosa* Bradford, 1969
- Aetideus acutus* Farran, 1929
- Aetideus australis* (Vervoort, 1957)
- \**Aetideus divergens* Bradford, 1971
- Aetideus giesbrechti* Cleve, 1904
- \**Aetideus pseudarmatus* Bradford, 1971
- \**Alloiopodus pinguis* Bradford, 1969
- Amphiascopsis cinctus* (Claus, 1866)
- Amphiascopsis southgeorgiensis* (Lang, 1936)
- \**Amphiascus lobatus* Hicks, 1971
- Arietellus aculeatus* (T. Scott, 1894)
- \**Bradyidius brevispinus* Bradford, 1969
- \**Bradyidius dentatus* Bradford, 1969
- \**Bradyidius hirsutus* Bradford, 1976
- \**Bradyidius robustus* Bradford, 1969
- \**Bradyidius spinibasis* Bradford, 1969
- \**Bradyidius spinifer* Bradford, 1969
- Candacia maxima* Vervoort, 1957
- \**Chiridiella megadactyla* Bradford, 1971
- Chondracanthus radiatus* (Müller, 1776)
- \**Comantenna crassa* Bradford, 1969
- \**Crassantenna comosa* Bradford, 1969
- \**Crassantenna mimorostrata* Bradford, 1969
- \**Disseta magna* Bradford, 1971
- \**Euchaeta marinella* Bradford, 1974
- \**Eupelte regalis* Hicks, 1971
- Farrania frigida* (Wolfenden, 1911)
- Haloptilus ocellatus* Wolfenden, 1905
- Haloptilus oxycephalus* (Giesbrecht, 1889)
- Heterorhabdus abyssalis* (Giesbrecht, 1889)
- Heterorhabdus caribbeanensis* Park, 1970
- Heterorhabdus farrani* Brady, 1918
- \**Heterorhabdus lobatus* Bradford, 1971
- Heterorhabdus proximus* Davis, 1949
- Heterorhabdus pustulifer* Farran, 1929
- \**Heterorhabdus spinosus* Bradford, 1971
- Heterostylites major* (F. Dahl, 1894)
- Lucicutia macrocera* Sars, 1920
- \**Lutamator hurleyi* Bradford, 1969
- Nannocalanus minor* (Claus, 1863)
- Neoscolecithrix* sp. Bradford, 1973
- Onchocalanus wolfendeni* Vervoort, 1950
- Paracalanus indicus* Wolfenden, 1905
- Paraugaptilus buchani*(?) Wolfenden, 1904
- \**Paraugaptilus magnus* Bradford, 1974
- Pleuromamma gracilis* (Claus, 1893)
- \**Porcellidium dilatatum* Hicks, 1971
- \**Porcellidium erythrum* Hicks, 1971
- \**Pseudeuchaeta flexuosa* Bradford, 1969
- \**Pseudeuchaeta magna* Bradford, 1969

- Scaphocalanus brevicornis* (Sars, 1900)
- Scolecithricella glacialis* (Giesbrecht, 1902)
- \**Scutellidium spinatum* Hicks, 1971
- \**Scutogerulus pelophilus* Bradford, 1969
- Spinocalanus magnus* Wolfenden, 1904
- \**Spinocalanus terranova* Damkaer, 1975
- \**Sursamucro spinatus* Bradford, 1969
- Temora turbinata* (Dana, 1849)
- Tigriopus angulatus* Lang, 1933
- \**Tigriopus raki* Bradford, 1967

## Class MALACOSTRACA

### Subclass PERACARIDA

#### Order CUMACEA

- \**Colurostylis longicauda* Jones, 1963
- \**Eudorella hurleyi* Jones, 1963
- \**Gynodiastylis milleri* Jones, 1963
- \**Leucon* (?) *latispina* Jones, 1963
- \**Makrokylindrus inscriptus* Jones, 1971
- \**Paralamprops rossi* Jones, 1971
- \**Procampylaspis meridiana* Jones, 1971

#### Order ISOPODA

- \**Amphoroidea longipes* Hurley & Jansen, 1977
- \**Cassinidopsis admirabilis* Hurley & Jansen, 1977
- \**Cilicæa angustispinata* Hurley & Jansen, 1977
- \**Cilicæa tasmanensis* Hurley & Jansen, 1977
- \**Cymodoce allegra* Hurley & Jansen, 1977
- \**Cymodoce iocosa* Hurley & Jansen, 1977
- \**Cymodoce penserosa* Hurley & Jansen, 1977
- \**Cymodocella capra* Hurley & Jansen, 1977
- \**Cymodopsis impudica* Hurley & Jansen, 1977
- \**Cymodopsis montis* Hurley & Jansen, 1977
- \**Cymodopsis sphyracephalata* Hurley & Jansen, 1977
- \**Cymodopsis torminosa* Hurley & Jansen, 1977
- \**Dynamenella mortenseni* Hurley & Jansen, 1977
- \**Dynamenoides decima* Hurley & Jansen, 1977
- \**Isocladus reconditus* Hurley & Jansen, 1977
- \**Isocladus spiculatus* Hurley & Jansen, 1977
- \**Macrochiridothea uncinata* Hurley & Murray, 1968
- \**Paravireia pistus* Jansen, 1973
- \**Pseudaega melanica* Jansen, 1978
- Pseudaega punctata* Thomson, 1884
- \**Pseudaega quarta* Jansen, 1978
- \**Pseudaega secunda* Jansen, 1978
- \**Pseudaega tertia* Jansen, 1978
- \**Pseudosphaeroma callidum* Hurley & Jansen, 1977
- \**Sphaeroma laurensi* Hurley & Jansen, 1977

#### Order AMPHIPODA

- \**Amphilochus filidactylus* Hurley, 1955
- \**Amphilochus opunake* Barnard, 1972

- \**Ampithoe aorangi* Barnard, 1972
- \**Ampithoe hinatore* Barnard, 1972
- Ampithoe lessoniae* Hurley, 1954
- Ampithoe* sp. Barnard, 1972
- Aora maculata* (Thomson, 1879)
- Aora* sp. Barnard, 1972
- \**Atyloella moke* Barnard, 1972
- Bircenna fulva* Chilton, 1884
- Ceina egregia* (Chilton, 1883)
- \**Ceradocopsis peke* Barnard, 1972
- \**Ceradocus rubromaculatus haumuri* Barnard, 1972
- Elasmopus neglectus* Chilton, 1915
- \**Elasmopus wahine* Barnard, 1972
- Eusiroides monoculoides* (Haswell, 1880)
- \**Gammaropsis tawahi* Barnard, 1972
- Gammaropsis typica* (Chilton, 1884)
- Gitanopsis desmondi* Barnard, 1972
- Gondogeneia danai* (Thomson, 1879)
- \**Gondogeneia rotorua* Barnard, 1972
- \**Guernea* (?) *timaru* Barnard, 1972
- Iphinotus typicus* (Thomson, 1882)
- Ischyrocerus longimanus* (Haswell, 1880)
- Maera incerta* Chilton, 1883
- \**Maera tepuni* Barnard, 1972
- \**Melita awa* Barnard, 1972
- Melita inaequistylis* Dana, 1852
- \**Mesoproboloides excavata* Fenwick, 1978
- \**Metaceradocus whakatane* Barnard, 1972
- \**Microdeutopus apopo* Barnard, 1972
- \**Nihotunga noa* Barnard, 1972
- Oradarea novaezealandiae* (Thomson, 1879)
- \**Orchomenella plebs* Hurley, 1965
- \**Paracalliope karitane* Barnard, 1972
- Paracalliope* ? *novizealandiae* (Dana, 1853)
- \**Paradexamine houtete* Barnard, 1972
- \**Paradexamine muriwai* Barnard, 1972
- Paramoera chevreuxi* (Stephensen, 1927)
- \**Paramoera rangatira* Barnard, 1972
- Parapherusa crassipes* (Haswell, 1880)
- \**Paraphoxus waipiro* Barnard, 1972
- Parathaumatelson nasicum* (Stephensen, 1927)
- Photis* sp. Barnard, 1972
- \**Podocerus karu* Barnard, 1972
- \**Podocerus manawatu* Barnard, 1972
- \**Podocerus wanganui* Barnard, 1972
- Pontogeneiella levis* (Thomson, 1879)
- Probolisca ovata* (Stebbing, 1888)
- \**Pseudoprotomina hurleyi* McCain, 1969
- \**Raumahara rongo* Barnard, 1972
- \**Runanga wairoa* McCain, 1969
- Seba typica* (Chilton, 1884)
- \**Stenothoe moe* Barnard, 1972
- \**Taihape karori* Barnard, 1972
- Tetradeion crassum* (Chilton, 1883)
- Ventrojassa frequens* (Chilton, 1883)
- \**Waitomo manene* Barnard, 1972
- \**Wandelia* (?) *wairarapa* Barnard, 1972

#### Order MYSIDACEA

- \**Mysidetes antarctica* Tattersall, 1965

Subclass EUCARIDA

Order DECAPODA

Suborder REPTANTIA

Section PAGURIDEA

- \**Neolithodes brodiei* Dawson & Yaldwyn, 1970
- \**Paralomis zealandica* Dawson & Yaldwyn, 1971

Section BRACHYURA

- \**Cyonomus bathamae* Dell, 1971
- \**Eurynome bituberculata* Griffin, 1964
- Leptomithrax richardsoni* Dell, 1960
- Nectocarcinus antarcticus* (Jacquinot, 1853)
- Nectocarcinus bennetti* Takeda & Miyake, 1969
- \**Pteropeltarion novaezealandiae* Dell, 1972
- Rochinia riversandersoni* (Alcock, 1895)
- \**Trichopeltarion fantasticum* Richardson & Dell, 1964

Section THALASSINIDEA

- \**Jaxea novaezealandiae* Wear & Yaldwyn, 1966

Subphylum PYCNOGONIDA

- Achelia dohrni* (Thomson, 1884)
- Ammothea antipodensis* Clark, 1972
- \**Ammothea makara* Clark, 1977
- \**Austrodecus enzoii* Clark, 1972
- \**Austrodecus minutum* Clark, 1972
- Austroraptus juvenilis* Calman, 1915
- Dodecolopoda mawsoni* Calman & Gordon, 1933
- \**Pallenopsis (Pallenopsodon) antipoda* Clark, 1972
- \**Pallenopsis kupei* Clark, 1972
- \**Pallenopsis triregia* Clark, 1962
- Rhynchothorax articulatus* Stock, 1968
- \**Rhynchothorax percivali* Clark, 1976
- Tanystylum excuratum* Stock, 1954
- Tanystylum neorhetum* Marcus, 1940
- Tanystylum oedinotum* Loman, 1923
- Tanystylum stylicherum* (Miers, 1875)
- Tanystylum* sp. Clark, 1977

Phylum MOLLUSCA

Class GASTROPODA

- \**Alcithoe flemingi* Dell, 1978
- Antarctoneptunea aurora* (Hedley, 1916)
- \**Capulus novaezealandiae* Dell, 1978
- \**Distorsio (Distorsionella) lewisi* Beu, 1978
- \**Eatoniella (Albitoniella) thola* Ponder, 1965
- \**Eatoniella (Caveatoniella) puniceomacer* Ponder, 1965
- Estea manawatawhia* Powell, 1937
- \**Estea praecidecosta* Ponder, 1965
- \**Estea subfusca aupouria* Ponder, 1968

*Fulgurofusus* sp. cf. *F. benthocallis* (Melvill & Standen, 1907)

*Fusitriton magellanicus laudandus* Finlay, 1927

\**Liratonella bicarinata* Ponder, 1965

*Microdryas striatus* (Powell, 1927)

*Notoscrobs erosus* (Odhner, 1924)

*Pteropurpura laetifica flemingi* (Beu, 1967)

\**Pupatonia atoma* Ponder, 1965

*Sassia (Proxicharonia) palmeri* (Powell, 1967)

\**Sassia (Sassia) marshalli* Beu, 1978

*Sassia (Sassia) nassariformis remensa* (Iredale, 1936)

\**Seila (Hebeseila) regia* Marshall, 1978

*Thalassocyron tui* Dell, 1967

\**Tridentifera roseoculma* Ponder, 1966

*Trophon* sp. cf. *T. coulmanensis* Smith, 1907

Class BIVALVIA

\**Aequipecten (Corymbichlamys) iredalei* Powell, 1958

*Benthoquetia integra* (Hedley, 1907)

\**Chlamys (Mimachlamys) asperrimoides* Powell, 1958

*Chlamys (Zygochlamys) delicatula* (Hutton, 1873)

*Divaricella (Divalucina) huttoniana* (Vannata, 1901)

\**Halicardia maoria* Dell, 1978

\**Limatula (Limatula) powelli powelli* Fleming, 1978

\**Limatula (Limatula) vigilis* Fleming, 1978

\**Limatula (Limatulettia) japonica delli* Fleming, 1978

\**Mesodesma arechavalettoi* Pilsbry, 1897

\**Neilo (Neilo) blacki* Marshall, 1978

\**Neilo (Neilo) wairoana delli* Marshall, 1978

*Nemocardium (Pratulium) pulchellum* (Gray, 1843)

\**Tawera marionae* Finlay, 1928

*Tawera rosa* Powell, 1955

Phylum BRACHIOPODA

\**Neothyris dawsoni* Neall, 1972

\**Terebratulina whiterockensis* Hills, 1971

Phylum BRYOZOA

\**Arachnopusia quadralabia* Uttley & Bullivant, 1971

\**Beania plurispinosa* Uttley & Bullivant, 1971

\**Clipeochaperia funda* Uttley & Bullivant, 1971

\**Figularia mernae* Uttley & Bullivant, 1971

\**Haswellina tubulata* Uttley & Bullivant, 1971

\**Hippomenella curvata* Uttley & Bullivant, 1971

\**Lacerna improvisa* Uttley & Bullivant, 1971

\**Lacerna incurvata* Uttley & Bullivant, 1971

\**Lacerna minuta* Uttley & Bullivant, 1971

\**Melicerita chathamensis* Uttley & Bullivant, 1971

\**Melicerita knoxi* Uttley & Bullivant, 1971

\**Microporella discors* Uttley & Bullivant, 1971

\**Parasmittina hexaspinosa* Uttley & Bullivant, 1971

\**Parmachaperia chathamensis* Uttley & Bullivant, 1971

\**Rhynchozoon paa* Uttley & Bullivant, 1971

\**Scutochaperia serrata* Uttley & Bullivant, 1971

\**Scutochaperia serrata biporosa* Uttley & Bullivant, 1971

## Phylum ECHINODERMATA

## Class ASTEROIDEA

## Class CRINOIDEA

- \* *Antedon detonna* McKnight, 1977
- Antedon incommoda incommoda* (Bell, 1888)
- Argyrometra mortenseni* A.H. Clark, 1917
- \* *Bathycrinus australocruis* McKnight, 1973
- Charitometra basicurva* (P.H. Carpenter, 1888)
- Charitometra incisa* (P.H. Carpenter, 1888)
- \* *Comanthoides gillstromi* McKnight, 1977
- Comanthus benhami* A.H. Clark, 1916
- Comanthus novaezealandiae* A.H. Clark, 1931
- Comanthus samoana* A.H. Clark, 1909
- Comanthus trichoptera* (J. Müller, 1846)
- \* *Comatulides dawsoni* McKnight, 1977
- \* *Comatulides decumtilos* McKnight, 1977
- \* *Comissia imossica* McKnight, 1975
- \* *Comissia mathesoni* McKnight, 1977
- \* *Comissia norfolkensis* McKnight, 1977
- Cosmiometra dasybrachia* H.L. Clark, 1916
- \* *Democrinus aoteanus* McKnight, 1973
- \* *Eurythrometra rostrata* A.M. Clark, 1966
- \* *Florometra novaezealandiae* McKnight, 1977
- Glyptometra crassa* (A.H. Clark, 1912)
- \* *Helenametra perplexa* A.M. Clark, 1966
- \* *Monachocrinus aotearoa* McKnight, 1973
- \* *Monachometra kermadecensis* McKnight, 1977
- \* *Palaecomatella hiwia* McKnight, 1977
- \* *Pentametacrinus australis* McKnight, 1977
- Promachocrinus kerguelensis* P.H. Carpenter, 1880
- Stiremetra breviradia* (P.H. Carpenter, 1888)
- Thalassometra gracilis* (P.H. Carpenter, 1888)
- \* *Thalassometra tara* McKnight, 1977
- Thaumatocrinus* sp. McKnight, 1977
- Tonrometra multicirra* A.H. Clark, 1929

## Class ECHINOIDEA

- Aphanophora echinobrissoides* de Meijere, 1904
- \* *Austrocidaris pawsoni* McKnight, 1974
- \* *Brisaster tasmanicus* McKnight, 1974
- \* *Brisaster* n.sp. Pawson, 1968
- \* *Caenopedina otagoensis* McKnight, 1968
- \* *Ctenocidaris aotearoa* McKnight, 1974
- Ctenocidaris perrieri* Koehler, 1912
- Echinocardium* sp. McKnight, 1968
- \* *Goniocidaris magi* Pawson, 1964
- Gracilechinus multidentatus* (H.L. Clark, 1925)
- Gymnopatagus magnus* A. Agassiz & H.L. Clark, 1907
- Hemiaspergillus gibbosus* A. Agassiz, 1879
- \* *Kupeia toi* McKnight, 1974
- \* *Notocidaris bakeri* McKnight, 1974
- Peripatagus cinctus* Koehler, 1895
- Pourtalesia laguncula* A. Agassiz, 1879
- Pseudechinus* sp. McKnight, 1969
- \* *Spatangus mathesoni* McKnight, 1968
- Spatangus* sp. McKnight, 1968
- Sterechinus neumayeri* (Meissner, 1900)
- Sterechinus* sp. Fell, 1961
- Trigonocidaris radiata* Mortensen, 1943
- \* *Urechinus antipodeanus* McKnight, 1974
- \* *Urechinus aoteanus* McKnight, 1974

- Acodontaster capitatus* (Koehler, 1912)
- Acodontaster conspicuus* (Koehler, 1920)
- \* *Anseropoda aotearoa* McKnight, 1973
- Bathybiaster loripes obesus* Sladen, 1889
- \* *Brisingella aotearoa* McKnight, 1973
- \* *Ceramaster lennoxkingi* McKnight, 1973
- \* *Cheiraster monopedicellaris* McKnight, 1973
- \* *Cheiraster otagoensis* McKnight, 1973
- \* *Craterobrisinga chathamica* McKnight, 1973
- \* *Crossaster campbellicus* McKnight, 1973
- \* *Crossaster canopus* H.E. Shearburn Clark, 1963
- [ = *Solaster regularis subarcuatus* Sladen, 1889]

- Cuenotaster involutus* (Koehler, 1912)
- Diplasterias brucei* (Koehler, 1908)
- \* *Diplopteraster hurleyi* McKnight, 1973
- \* *Gilbertaster brodiei* McKnight, 1973
- \* *Henricia tahia* McKnight, 1975
- \* *Hoplaster kupe* McKnight, 1973
- \* *Hymenaster escourti* McKnight, 1973
- Kampylaster incurvatus* Koehler, 1920
- Leptychaster flexuosus* Koehler, 1920
- \* *Lithosoma novaezealandiae* McKnight, 1973
- Lophaster gaini* Koehler, 1912
- Luidiaster gerlachei* (Ludwig, 1903)
- Lyasterias adelie* (Koehler, 1920)
- Lyasterias joffrei* (Koehler, 1920)
- Macroptychaster accrescens* (Koehler, 1920)
- Marginaster* sp. (cf. *M. paucispinus* Fisher, 1919)
- McKnight, 1968

- \* *Mediaster dawsoni* McKnight, 1973
- Myoraster antarcticus* (Koehler, 1912)
- Notasterias armata* Koehler, 1911
- Notasterias stolophora* Fisher, 1940
- \* *Odinia novaezealandiae* H.E. Shearburn Clark, 1962
- \* *Odontaster aucklandensis* McKnight, 1973
- Odontaster meridionalis* (Smith, 1876)
- \* *Ophidiaster mcknighti* H.E. Shearburn Clark, 1962
- \* *Paragonaster ridgwayi* McKnight, 1973
- Paralophaster lorioli* (Koehler, 1908)
- Patriella oliveri* (Benham, 1911)
- Pedicellaster hypernotius* Sladen, 1889
- \* *Pergamaster triseriatus* H.E. Shearburn Clark, 1962
- \* *Peribolaster powelli* H.E. Shearburn Clark, 1963
- [ = *P. macleani* Koehler, 1920]

- \* *Perissasterias monacantha* McKnight, 1973
- Perknaster densus* Sladen, 1889
- Perknaster fuscus antarcticus* (Koehler, 1906)
- Perknaster sladeni* (Perrier, 1891)
- \* *Pillsburiaster aoteanus* McKnight, 1973
- \* *Pillsburiaster maini* McKnight, 1973
- \* *Plinthaster singletoni* McKnight, 1973
- Porania antarctica* Smith, 1876 [*glabra* Sladen, 1889]
- Porcellanaster caeruleus* Wyville Thomson, 1877
- Psalidaster mordax* Fisher, 1940
- \* *Pseudarchaster macdougalli* McKnight, 1973
- \* *Pseudechinaster rubens* H.E. Shearburn Clark, 1962
- Psilaster charcoti* (Koehler, 1906)
- Pteraster (Apterodon) stellifer* Sladen, 1882
- \* *Pteraster (Pteraster) robertsoni* McKnight, 1973
- \* *Rosaster endilius* McKnight, 1975
- Saliasterias brachiata* Koehler, 1920
- \* *Sphaeriodiscus mauui* McKnight, 1973

\**Tarachaster australis* McKnight, 1973  
\**Taranuiaster novaezealandiae* McKnight, 1973  
Small specimens of Echinasteridae

#### Class OPHIUROIDEA

*Amphiodia joubini* (Koehler, 1912)  
*Amphiophiura kermadecensis* (Benham, 1911)  
\**Amphiophiura taranuia* McKnight, 1968  
*Amphiura belgicae* Koehler, 1900  
\**Asteroceras maui* McKnight, 1968  
*Astrochlamys bruneus* Koehler, 1912  
*Astrohamma tuberculatum* (Koehler, 1923)  
\**Astrophium kohurangi* McKnight, 1975  
*Astrotoma agassizii* Lyman, 1875  
\**Euvondrea floretta* Fell, 1961  
\**Glaciacantha jason* Fell, 1961  
*Ophiacantha antarctica* Koehler, 1900  
*Ophiacantha pentactis* Mortensen, 1936  
*Ophiacantha vivi para* Ljungman, 1870  
*Ophioceres incipiens* Koehler, 1922  
*Ophiocten megaloplax* Koehler, 1910  
*Ophiodaces inanis* Koehler, 1922  
\**Ophiogymna saltatrix* McKnight, 1968  
*Ophiomastus bispinosus* Mortensen, 1925  
\**Ophionotus taylori* McKnight, 1967  
*Ophionotus victoriae* Bell, 1902  
*Ophiopyren regularis* Koehler, 1900  
*Ophiosteira antarctica* Bell, 1902  
\**Ophiosteira bullivanti* Fell, 1961  
*Ophiosteira echinulata* Koehler, 1912  
*Ophiolithia multispina* Koehler, 1904  
*Ophiura ambigua* (Lyman, 1878)  
*Ophiura crassa* Mortensen, 1936  
*Ophiura flexibilis* (Koehler, 1911)  
*Ophiuroglypha carinifera* (Koehler, 1901)  
*Ophiurolepis brevirima* Mortensen, 1936  
*Ophiurolepis gelida* (Koehler, 1900)  
*Ophiurolepis martensi* (Studer, 1885)  
*Ophiurolepis tuberosa* (Mortensen, 1936)  
\**Ophiozonoida parva* McKnight, 1975  
\**Stegophiura singletoni* McKnight, 1975  
*Theodorina relegata* (Koehler, 1912)  
*Toporkovia antarctica* (Lyman, 1882)

#### Class HOLOTHUROIDEA

\**Placothuria squamata* Pawson, 1968  
\**Protankyra rigida* Pawson, 1965

#### Phylum CHORDATA

#### Subphylum VERTEBRATA

#### Class PISCES

*Apsilus fuscus* Valenciennes, 1830  
*Bathygadus cottoides* Günther, 1878  
*Bathygadus longifilis* Goode & Bean, 1885  
*Bathylagus antarcticus* Günther, 1878  
*Bathypterois longifilis* Günther, 1878  
*Callionymus phasis* Günther, 1880  
*Caranx speciosus* (Forskål, 1775)  
*Cataetyx messieri* (Günther, 1878)  
*Chaetodon auriga* Forskål, 1775  
*Chaetodon ephippium* Cuvier, 1831  
\**[Chionodraco markhami* Miller & Reseck, 1961]  
*Cirrhitis alternatus* Gill, 1862  
*Euchlichthys polynemus* McCullough, 1926  
*Fistularia petimba* Lacépède, 1803  
\**Halaelurus dawsoni* Springer, 1971  
*Hoplostethus gilchristi* Smith, 1935  
*Lampanyctus australis* Täning, 1932  
[as *L. guentheri* Goode & Bean, 1895]  
*Melanonus gracilis* Günther, 1878  
\**Moringua sempervirens* McCann, 1967  
*Parexocoetus* sp.  
*Rhinecanthus aculeatus* (Linnaeus, 1758)  
*Rhinecanthus rectangulus* (Schneider, 1801)  
*Ruvettus prometheus* Cuvier & Valenciennes, 1831  
*Scarus harid* Forskål, 1775  
*Scarus lunula* (Snyder, 1908)  
*Snyderidia canina* Gilbert, 1905  
*Tripteryphycis gilchristi* Boulenger, 1902

#### Class REPTILIA

#### Order SQUAMATA

*Ablepharus boutonii* (Desjardins, 1831)  
[= *Cryptoblepharus boutonii poecilopleurus*  
(Wiegmann, 1835)]

## CATALOGUE

### Phylum PROTOZOA

#### Order COCCOLITHOPHORIDA

##### *Emiliana huxleyi* (Lohmann, 1902)

###### FIGURED SPECIMENS

Burns, 1977 : 146, figs 1–8.

###### NZOI MATERIAL

Stn N113 : fig. 1; Stn N433 : fig. 3; Stn N452 : fig. 2; Stn N473 : figs 4 and 7; Stn N474 : figs 5–6, 8.

###### REMARKS

These specimens illustrate a range of phenotypes of coccospheres of *E. huxleyi* becoming progressively more calcified from tropical to subantarctic waters.

##### *Holodiscolithus macroporus* (Deflandre, 1954)

###### FIGURED SPECIMEN

Burns, 1973 : 158, pl. 2, fig. 15.

###### NZOI MATERIAL

Stn B74 : "... probably present as a reworked sample."

###### REMARKS

This species was originally described by Deflandre (1954 : 138, pl. 11, fig. 5) in the genus *Discolithus*.

##### *Pontosphaera alboranensis* Bartolini, 1970

###### FIGURED SPECIMEN

Burns, 1973 : 149–50, pl. 1, figs 1–3.

###### NZOI MATERIAL

Stn Z1696.

###### REMARKS

This species was first described by Bartolini (1970 : 148, 150, text-fig. 9, pl. 6, figs 6–7) from the westernmost part of the Mediterranean.

##### *Pontosphaera discopora* Schiller, 1925

###### FIGURED SPECIMEN

Burns, 1973 : 151, pl. 1, fig. 6.

###### NZOI MATERIAL

Stn B88.

###### REMARKS

Described by Schiller (1925 : 11, pl. 1, fig. 4) from the Adriatic, this species has been diagnosed, redescribed, and discussed by Burns (1973) who gave synonymy and references.

##### *Pontosphaera distincta* (Bramlette & Sullivan, 1961)

###### FIGURED SPECIMEN

Burns, 1973 : 153, pl. 2, figs 2–3.

###### NZOI MATERIAL

Stn Z1814.

###### REMARKS

Originally described from the Tertiary of California by Bramlette & Sullivan (1961 : 141, pl. 2, figs 8a–b, 9a–c), in the genus *Discolithus*, this species was among those from the Oamaru Eocene diatomite included by Stradner & Edwards (1968 : 35) in synonymy with *Discolithina multipora*.

##### *Pontosphaera japonica* (Takayama, 1967)

###### FIGURED SPECIMEN

Burns, 1973 : 154, 157, pl. 2, figs 9–13.

###### NZOI MATERIAL

Stn H142; Stn B74; Stn Z1696.

###### REMARKS

Originally described from the Pliocene/Pleistocene of Japan and placed in the genus *Discolithina* by Takayama (1967 : 189–90, text-fig. 7, pl. 9, pl. 10, figs 1, 2a–d), this species was redescribed and discussed by Burns (1973) who placed it in *Pontosphaera*.

##### *Pontosphaera messinae* Bartolini, 1970

###### FIGURED SPECIMEN

Burns, 1973 : 153–4, pl. 2, figs 4–7.

###### NZOI MATERIAL

Stn B74; Stn B88; Stn Z1696; Stn Z1814.

###### REMARKS

Burns (1973) discussed the synonymy of this species originally described by Bartolini (1970 : 150, 152, pl. 7, figs 1–2) from the Alboran Sea, the westernmost part of the Mediterranean. The specific name commemorates Angelina R. Messina.

##### *Pontosphaera multipora* Kamptner, 1948

###### FIGURED SPECIMEN

Burns, 1973 : 151–3, pl. 1, figs 7–12, pl. 2, fig. 1.

###### NZOI MATERIAL

Stn B88; Stn Z1814.

###### REMARKS

Described originally by Kamptner (1948 : 5, pl. 1, fig. 9) this species was recorded from the Upper Eocene diatomite of Oamaru by Stradner & Edwards (1968 : 35–7) under the name *Discolithina multipora* (Kamptner) Martini with related forms as synonyms (see discussion by Burns (1973 : 152–3)).

**Pontosphaera pacifica** Burns, 1973

HOLOTYPE

PARATYPES

Burns, 1973 : 150-1, pl. 1, figs 4-5; January 1973.

TYPE LOCALITY

NZOI Stn B88 (19°02.5'S, 177°13'E, 2399 m, 17 September 1958).

NZOI MATERIAL

Stn B88 : H132 (holotype). (PEL Photo No. 2445/36); unregistered paratypes are also held (see Burns, 1973 : 150).

**Pontosphaera** sp. Burns, 1973

FIGURED SPECIMEN

Burns, 1973 : 158, pl. 2, fig. 14.

NZOI MATERIAL

Stn Z1767.

REMARKS

"This coccolith ... appears very similar ... to *Pontosphaera japonica*. It is however, clearly separated from that species ... These structural differences are clearly sufficient to delimit this coccolith as a new species but as only two such specimens have been identified at present, this number is not considered to erect a new species."

NANNOFOSSILS

**Dictyococcites perplexa** Burns, 1975

HOLOTYPE

Burns, 1975 : 594, figs 13, 19 (PEL No. 1162/7), 20 (PEL No. 1162/5); 22 September 1975.

PARATYPES (2)

TYPE LOCALITY

DSDP (Deep Sea Drilling Project) site 265, core 16, section 6, core depth 25-26 cm, 53°32.45'S, 109°56.75'E (= NZOI Stn Z2421).

NZOI MATERIAL

Stn Z2421 (DSDP site 265) : H-199 (holotype, "recorded on PEL Film No. 1102/5 (distal surface) and PEL Film No. 1162/7 (proximal surface)"); P-283-284 (paratypes, "recorded on PEL Film No. 1162/6").

REMARKS

"In the Antarctic sediments from which this species is now described, it is stratigraphically restricted to the lower Upper Miocene ... and upper Middle Miocene ... in sediments of the Southeast Indian Ocean. It is particularly abundant in the Middle Miocene sediments of DSDP site 265."

Order XENOPHYOPHORIDA

**Reticulammina labyrinthica** Tendal, 1972

HOLOTYPE

Tendal, 1972 : 30-1, pl. 3, fig. H, pl. 4, fig. A; 25 Oc-

tober 1972.

Tendal, 1975 : 94, fig. 1 (upper right).

PARATYPE

TYPE LOCALITY

NZOI Stn F913 (34°34.5'S, 174°31.15'E, continental slope off Bay of Islands, 743 m, 11 October 1968): 2 specimens.

NZOI MATERIAL

Stn F913 : H-209 (holotype), P-292 (paratype).

**Reticulammina lamellata** Tendal, 1972

HOLOTYPE

Tendal, 1972 : 31, pl. 4, figs B-C; 25 October 1972. Tendal, 1975 : 96, fig. 1 (upper left).

TYPE LOCALITY

NZOI Stn F881 (37°07.8'S, 177°14'E, continental slope off Bay of Plenty, 1253 m, 4 October 1968): 1 specimen.

NZOI MATERIAL

Stn F881 : H-210 (holotype).

**Reticulammina novaezealandica** Tendal, 1972

HOLOTYPE

Tendal, 1972 : 29-30, pl. 3, figs E-G; 25 October 1972. Tendal, 1975 : 94, fig. 1 (middle left and middle right).

PARATYPES (2)

TYPE LOCALITY

NZOI Stn E903a (haul 1), b (haul 2), (37°33'S, 172°05'E, top of Aotea Seamount, (a) "960 m" (corrected, 964-962 m), (b) "984 m" (corrected 988-966 m), 27 March 1968) : 2 specimens.

NZOI MATERIAL

Stn E903a : H-211 (holotype); Stn E903b : P-293 (paratype); Stn F913 : P-294 (paratype (fragment)).

REMARKS

This is the type species of the genus.

**Syringammina fragilissima** Brady, 1883

FIGURED SPECIMEN

Tendal, 1972 : 36-7, pl. 6, figs D-E. Tendal, 1975 : 96, fig. 1 (lower left).

NZOI MATERIAL

Stn E417; 1 fragment.

REMARKS

Originally described by Brady (1883 : 158-60, pl. 2, figs 1-5, pl. 3, figs 6-8) from W of the Wyville Thomson Ridge in the North Atlantic, 59°39.30'N, 7°13'W, in 555 fm, *Triton* Stn 11, 28 August 1882, this species showed problematical affinities with other Foraminifera, leading eventually to recognition of a separate Order (see Tendal 1972).



**Syringamina tasmanensis** Lewis, 1966

HOLOTYPE

Lewis, 1966 : 114-23, text-figs 1 and 5; March 1966. Hedley *in* Lewis, 1966 : fig. 1. Tendal, 1972 : 38, pl. 5, figs 5 D-E, pl. 16, fig. F. Tendal, 1975 : 96-7, fig. 1 (lower right).

PARATYPES (3)

Lewis, 1966 : 114-23, text-figs 2-4, 6-8.

TYPE LOCALITY

NZOI Stn D227 : 6 specimens.

NZOI MATERIAL

Stn D227 : H-19 (holotype), P-21-22 (paratypes). Also listed in Foraminifera Type Register as - Stn D227 : TM 1/1, holotype, complete specimen, figs 1 and 5; TM 1/2, paratype, radial section, sketched in fig. 3; TM 1/3, paratype, small broken specimen, fig. 2; TM 1/4, paratype, preserved in alcohol, small fragment, fig. 6; Stn D228 : TM 1/5, paratype, sent to British Museum (Natural History); TM 1/6, paratype, sent to British Museum (Natural History), and used for cytological preparations - see appendix to Lewis, 1966, fig. 1.

REMARKS

Of the six known specimens, the holotype and three paratypes (although only two were numbered by Lewis) are in the NZOI (all from Stn D227) and two are in the BMNH (Lewis stated one, Reg. No. 1965.9.10.1), both of which are from Stn D228.

Following Lewis' description of *S. tasmanensis*, Tendal (1975) has drawn attention to the occurrence of xenophyophorids in New Zealand waters including the new species which he had described in 1972 from *Galathea* expedition collections.

Order FORAMINIFERA \*

**Ammodiscus tenuis** Brady, 1881

FIGURED SPECIMEN

Lewis, 1970 : frontispiece.

NZOI MATERIAL

Stn C488.

REMARKS

This specimen was used to illustrate a "unilocular enrolled tubular" arenaceous test made up of silt grains.

References to New Zealand occurrences have been listed by Eade (1967a : 16).

**Astrononion echolsi** Kennett, 1967

HOLOTYPE

Kennett, 1967 : 133-5, pl. 11, figs 7a-b; July 1967.

\*

The earlier used Foraminifera Type Register has now been amalgamated with the general NZOI register of types and, accordingly, cross-references to numbers are given herein.

PARATYPES (4)

TYPE LOCALITY

NZOI Stn A450 (76°42'S, 179°44'E to 76°36'S, 179°53'E, 395 m, central Ross Sea, Antarctica, 11 January 1959).

NZOI MATERIAL

Stn A450 : H-243 (holotype, Foraminifera Type Register as TM 1/8), P-363 (4 paratypes, TM 8/2).

REMARKS

"Named after Mr Ronald J. Echols."

Holotype originally recorded as in Smithsonian Institution, National Museum of Natural History, Washington (USNM 686793) with figured paratype (pl. 11, fig. 8) in Allan Hancock Foundation, University of Southern California, Los Angeles (USC - MFS 311) and 7 paratypes from Stn A450 (USC - MFS 313) and 2 other paratypes from Stn A449 in the N.Z. Geological Survey, Lower Hutt (TF 1558). The holotype and 4 paratypes have since been returned to the N.Z. Oceanographic Institute, Wellington.

"Paratypes now replace the holotypes previously stored at the U.S. National Museum." For details see Kennett, 1970 : 167.

**Brachysiphon corbuliformis** Chapman, 1906

FIGURED SPECIMEN

Lewis, 1970 : frontispiece.

NZOI MATERIAL

Stn C488.

REMARKS

This specimen was used to illustrate a "unilocular globose" arenaceous test made up of agglutinated glauconite grains and pelagic Foraminifera.

**Cassidulina carinata** Silvestri, 1896

FIGURED SPECIMEN

Eade, 1967b : 429, 430, figs 2 (5-9).

NZOI MATERIAL

Stn F39 : PM 5 (figs 2 (5, 6)); Stn F58 : PM 6 (fig. 2 (7)).

REMARKS

Originally described by Silvestri (1896 : 104, pl. 2, fig. 10). Further details and synonymy have been given by Eade (1967b : 429).

**Cassidulinoides parkerianus** (Brady, 1881)

FIGURED SPECIMEN

Eade, 1967b : 425, fig. 2 (4).

NZOI MATERIAL

Stn A564 : PM 4.

REMARKS

Originally described by Brady (1881 : 59) in the genus *Cassidulina*; subsequently the type species of the genus *Cassidulinoides* Cushman, 1927.

**Ehrenbergina aspinosa** Parr, 1950

TOPOTYPE

FIGURED SPECIMENS

Eade, 1967b : 444-5, figs 7 (4-6), 8 (1-2).

NZOI MATERIAL

"One topotype, 136 other specimens" including - *Challenger* Stn 192 : PM 17 (fig. 7 (4-6)); PM 18 (fig. 8 (1)); PM 19 (fig. 8 (2)).

REMARKS

Originally described by Parr (1950 : 345, pl. 12, figs 1-2) from *Challenger* Stn 192 off the Kai Islands, east Banda Sea. Eade (1967b : 422-3) reviewed this species, giving distribution, references and synonymy with New Zealand records.

**Ehrenbergina carinata** Eade, 1967

HOLOTYPE

Eade, 1967b : 448-50, fig. 9 (1-3); December 1967.

PARATYPES (48)

Eade, 1967b : 448-50, figs 8 (9), 9 (4).

TYPE LOCALITY

NZOI Stn Z1769 (30°17'S, 180°00', 1300 m, west of Curtis Island, Kermadec Islands) = *Tui* Stn AUZ98, 1962.

NZOI MATERIAL

Stn Z1769 : H-244 (holotype, TM 5/1), P-364 (paratype, fig. 8 (9), TM 5/2), P-365 (25 paratypes, TM 5/3), P-366 (paratype, fig. 9 (4), TM 5/5); Stn F46 : P-367 (2 paratypes); Stn F58 : P-368 (4 paratypes); Stn F60 : P-369 (7 paratypes); Stn F63 : P-370 (1 paratype); Stn F64 : P-371 (7 paratypes).

REMARKS

Other paratypes deposited as follows - N.Z. Geological Survey, Lower Hutt, NZGS Reg. No. TF 1561, 2 unfigured paratypes; Smithsonian Institution, National Museum of Natural History, USNM No. 687199, 2 unfigured paratypes; British Museum (Nat. Hist.), London, BM(NH) Reg. No. 167.7.1.2, 2 unfigured paratypes.

**Ehrenbergina mestayeri** Cushman, 1922

FIGURED SPECIMEN

TOPOTYPES

Eade, 1967b : 446, fig. 8 (6-7).

NZOI MATERIAL

"71 topotypes, approximately 100 other specimens" including Stn F75 : PM 22 (topotype).

REMARKS

Originally described by Cushman (1922 : 135) from off Poor Knights Islands, 35°30'S, 174°43'E, 110 m. New Zealand records have been listed by Eade (1967b : 422-3).

**Ehrenbergina pacifica** Cushman, 1927

FIGURED SPECIMENS

Eade, 1967b : 445, fig. 8 (3-5).

NZOI MATERIAL

*Challenger* Stn 192 (off Kai Islands, east Banda Sea) : PM 20 (fig. 8 (3)); PM 21 (fig. 8 (4-5)).

REMARKS

Originally described by Cushman (1927 : 5) and review-ed by Eade (1967b : 444-5) in comparison with *E. aspinosa* Parr, 1950.

**Ehrenbergina trigona** Goës, 1896

FIGURED SPECIMEN

Eade, 1967b : 446-8, fig. 8 (8).

NZOI MATERIAL

86 specimens including Stn F60.

REMARKS

Originally described by Goes (1896 : 49) New Zealand records have been listed by Eade (1967b : 422-3).

**Evolvocassidulina** aff. *E. inflata* (LeRoy, 1944)

FIGURED SPECIMENS

Eade, 1967b : 432-3, fig. 4 (3).

NZOI MATERIAL

Stn F56; Stn F57; Stn D220 : figured specimen.

REMARKS

"The New Zealand specimens agree with LeRoy's description, figures, and measurements, but have a slightly higher apertural face and a slightly less lobate periphery. They are closer to specimens figured by Belford (1966) from the Miocene of Papua New Guinea as *Cassidulinoides inflatus* but are only half the size." Eade (1967b : 433).

**Evolvocassidulina orientalis** (Cushman, 1922)

TOPOTYPES

FIGURED SPECIMENS

Eade, 1967b : 431-2, fig. 4 (1-2).

NZOI MATERIAL

23 topotypes and 200 other specimens. Stn F31 : PM 8-9 (figured specimens).

REMARKS

Originally described by Cushman (1922 : 129) in the genus *Cassidulina*. Eade (1967b : 431-2) reviewed the species and made it the type of a new genus *Evolvocassidulina*, remarking : "I have specimens from many New Zealand Recent localities ranging from as far south as Auckland Islands (50°30'S) to Kermadec Islands (32°30'S)."

**Evolvocassidulina tenuis** (Phleger & Parker, 1951)

FIGURED SPECIMENS

Eade, 1967b : 322, fig. 3 (3-4).

NZOI MATERIAL

24 specimens from three localities off Great Barrier Island including : PM 7, Stn F58.

REMARKS

Originally described by Phleger & Parker (1951 : 27, pl. 14, figs 14-17) from the Gulf of Mexico. Eade (1967b : 427-8) has detailed the New Zealand records.

**Favocassidulina australis** Eade, 1967

HOLOTYPE

Eade, 1967b : 426-8, figs 2 (2), 3 (1-2); December 1967.

PARATYPES (54)

Eade, 1967b : 426-8, fig. 2 (3).

TYPE LOCALITY

NZOI Stn F47 (34°59'S, 176°00'E, off Great Barrier Island, 2041 m, 12 November 1964).

NZOI MATERIAL

Stn B88 : P-372 (paratype, TM 2/11); Stn F47 : H-245 (holotype, TM 2/1), P-373 (26 paratypes, TM 2/3), P-374 (8 paratypes, TM 2/5); Stn F61 : P-375 (6 paratypes, TM 2/8); Stn F62 : P-376 (paratype, TM 2/6); Stn F63 : P-377 (paratype, TM 2/4); Stn F64 : P-378 (4 paratypes, TM 2/7); Stn F65 : P-379 (paratype, TM 2/10); Stn Z1769 : P-380 (paratype, TM 2/9).

REMARKS

Other paratypes (all from Stn F47) deposited as follows -

N.Z. Geological Survey, Lower Hutt, NZGS Reg. No. TF1562, 2 unfigured paratypes;  
Smithsonian Institution, National Museum of Natural History, Washington, D.C., USNM No. 687200, 2 unfigured paratypes;  
British Museum (Nat. Hist.), London, BM(NH) Reg. No. 1967.1.1, 2 unfigured paratypes.

**Favocassidulina fava** (Brady, 1877)

FIGURED SPECIMEN

Eade, 1967b : 427, fig. 2 (1).

NZOI MATERIAL

Stn Z2006 : PM 3 (figured specimen).

REMARKS

Originally described by Brady (1877 : 535) in that genus *Pulvinula*. Further details, references, and comparison with *F. australis* Eade 1967 were given by Eade (1967b : 425-6, 428).

**Globocassidulina canalisuturata** Eade, 1967

HOLOTYPE

Eade, 1967b : 440-1, fig. 3 (5-7); December 1967.

PARATYPES (84)

Eade, 1967b : 440-1, fig. 5 (7-8).

TYPE LOCALITY

NZOI Stn F31 (36°7.5'S, 175°55'E, E of Great Barrier Island, 179 m, 8 November 1964).

NZOI MATERIAL

Stn F31 : TM 3/1 (holotype), TM 3/3 (paratype, figured), TM 3/4 (21 paratypes); Stn F35 : TM 3/5 (3 paratypes); Stn F36 : TM 3/6 (11 paratypes); Stn F32 : TM 3/9 (12 paratypes); Stn F38 : TM 3/7 (5 paratypes); Stn F39 : TM 3/2 (paratype, figured fig. 5 (8)), TM 3/8 (8 paratypes); Stn F40 : TM 3/10 (3 paratypes); Stn F55 : TM 3/11 (11 paratypes); Stn F56 : TM 3/12 (2 paratypes); Stn F41 : TM 3/13 (6 paratypes).

REMARKS

Paratypes deposited as follows -

N.Z. Geological Survey, Lower Hutt, NZGS Reg. No. TF1559, 3 unfigured paratypes;  
Smithsonian Institution, U.S. National Museum, Washington, USNM No. 687201, 3 unfigured paratypes;  
British Museum (Nat. Hist.), London, BM(NH) Reg. No. 1967.1.3, 3 unfigured paratypes.

**Globocassidulina crassa** (d'Orbigny, 1839)

FIGURED SPECIMEN

Eade, 1967b : 435, fig. 4 (4).

NZOI MATERIAL

115 specimens, including that figured, from the following stations : B32; B192; D73; D169; D210; E400; F138.

REMARKS

Originally described by d'Orbigny (1839 : 56, pl. 7, figs 18-20) from off South America. Eade (1967b : 422-3) has listed the New Zealand records.

**Globocassidulina crassa rossensis** Kennett, 1967

HOLOTYPE

Kennett, 1967 : 134, pl. 11, figs 4a-c; July 1967.

PARATYPES (4)

Kennett, 1967 : 134, pl. 11, fig. 5.

TYPE LOCALITY

NZOI Stn A533 (77°35', 166°10'E, off Cape Barnes, McMurdo Sound, Ross Sea, Antarctica, 90 m).

NZOI MATERIAL

Stn A533 : H-247 (holotype, TM 7/1), P-391 (4 paratypes, TM 7/2).

REMARKS

Holotype originally recorded as in Smithsonian Institution, U.S. National Museum (USNM No. 686795) with 2 figured paratypes in the Allan Hancock Foundation, University of Southern California (USC-MFS 309) and 10 additional paratypes from Stn A533 (USC-MFS 310) and 2 others from Stn A533 in the N.Z. Geological Survey, Lower Hutt (TF 1557). The holotype and 4 paratypes have since been returned to the N.Z. Oceanographic Institute, Wellington (see Kennett, 1970).

**Globocassidulina decorata** (Sidebottom, 1910)

FIGURED SPECIMEN

Eade, 1967b : 435, fig. 5 (1).

NZOI MATERIAL

14 specimens from the following stations : B74; B88; F45; F46; F47; F59; F62; F63; F64 : PM 13 (figured specimen); F65.

REMARKS

Originally described by Sidebottom (1910 : 107, pl. 4, fig. 2) from off Fiji. Eade (1967b : 422-3) has listed the New Zealand records.

**Globocassidulina elegans** (Sidebottom, 1910)

FIGURED SPECIMEN

Eade, 1967b : 435-7, fig. 4 (6-7).

NZOI MATERIAL

8 specimens from the following stations : F45; F46; F47; F63; F65 : PM 12 (figured specimen).

REMARKS

Originally described by Sidebottom (1910 : 106, pl. 4, fig. 1) from off Fiji. Eade (1967b : 423) has recorded it from five localities off Great Barrier Island.

**Globocassidulina gemma** (Todd, 1954)

FIGURED SPECIMEN

Eade, 1967b : 437, fig. 5 (4).

NZOI MATERIAL

82 specimens from the following stations : A181; F45; F46; F47; F61; F62 : PM 15 (figured specimen); F63; F64; F65; Z1766; Z1769.

REMARKS

Originally described by Todd *in* Cushman, Todd & Post (1954 : 36C, pl. 90, figs 26-27) from the Marshall Islands.

**Globocassidulina minuta** (Cushman, 1933)

FIGURED SPECIMEN

Eade, 1967b : 437-9, fig. 5 (2-3).

NZOI MATERIAL

98 specimens from the following stations : A155; A181; A466; B868; C432; C527; C648; D230; E372; F37; F38; F39; F40; F41; F42 : PM 14 (figured specimen); F45; F55; F57; F58; F59; F60; F64; F65; F68; G1.

REMARKS

Originally described by Cushman (1933 : 92, pl.10, fig. 3).

**Globocassidulina producta** (Chapman & Parr, 1937)

TOPOTYPES (2)

FIGURED SPECIMEN

Eade, 1967b : 439-40, fig. 4 (5).

NZOI MATERIAL

2 topotypes and 9 other specimens from the following stations : A181; F46; F47; F61 : PM 11 (figured specimen); F62.

REMARKS

Originally described by Chapman & Parr (1937 : 82, pl. 8, fig. 12) as *Cassidulina subglobosa* Brady var. *producta* from east of Tasmania. Eade (1967b : 422-3) has listed New Zealand records from off North Cape and off Great Barrier Island.

**Globocassidulina spherica** Eade, 1967

HOLOTYPE

Eade, 1967b : 441-4, fig. 7 (1-2); December 1967.

PARATYPES (63)

Eade, 1967b : 441-4, fig. 7 (3).

TYPE LOCALITY

NZOI Stn F42 (35°29.3'S, 175°29'E, 695 m, N of Great Barrier Island, 10 November 1964).

NZOI MATERIAL

Stn F42 : H-248 (holotype, TM 11), P-392 (figured paratype TM 4/2), P-393 (36 paratypes, TM 4/3); Stn F46 : P-394 (4 paratypes, TM 4/7); Stn F47 : P-395 (3 paratypes, TM 4/9); Stn F58 : P-396 (paratype, TM 4/5); Stn F60 : P-397 (paratype, TM 4/6); Stn F64 : P-398 (6 paratypes, TM 4/8).

REMARKS

Other paratypes deposited as follows -

N.Z. Geological Survey, Lower Hutt, NZGS Reg. No. TF 1560, 2 unfigured paratypes; Smithsonian Institution, U.S. National Museum, USNM No. 687202, 2 unfigured paratypes; British Museum (Nat. Hist.), London, BM(NH) Reg. No. 1967.7.1.4, 2 unfigured paratypes.

**Globocassidulina tumida** (Heron-Allen & Earland, 1922)

FIGURED SPECIMEN

Eade, 1967b : 440, fig. 5 (5-6).

NZOI MATERIAL

Stn E293 : PM 16 (figured specimen); Stn E295; Stn E296.

REMARKS

Originally described by Heron-Allen & Earland (1922 : 137, pl. 5, figs 8-10). Eade (1967b : 422) gave details of the New Zealand records.

**Heterolepa subhaidingerii** (Parr, 1950)

FIGURED SPECIMEN

Lewis, 1970 : frontispiece.

NZOI MATERIAL

Stn C488.

REMARKS

This species was used to illustrate a "low trochospiral"

calcareous species “with a translucent (hyaline) final chamber and distinctly perforate wall.”

Lewis has followed Parr in identifying the common New Zealand species as *H. subhaidingeri* (given as *subhaidingerii* by Lewis) but (*vide* Eade, pers. comm.), this is probably the same as *C. haidingerii* (d'Orbigny, 1826), the published New Zealand records of which have been listed by Eade (1967a : 50).

### **Hormosina globulifera** Brady, 1879

#### FIGURED SPECIMEN

Lewis, 1970 : frontispiece.

#### NZOI MATERIAL

Stn C488.

#### REMARKS

This specimen was used to illustrate a “uniserial” arenaceous test made up of fine sand, mainly quartz.

References to New Zealand occurrences have been listed by Eade (1967a : 17).

### **Laticarinina pauperata** (Parker & Jones, 1865)

#### FIGURED SPECIMEN

Eade, 1967a : 43, frontispiece.

#### NZOI MATERIAL

Stn F46 : PM 1.

#### REMARKS

Originally described by Parker & Jones (1865 : 395, pl. 16, figs 50-51) in the genus *Pulvinula*. Further references have been given by Eade (1967a : 43).

### **Massilina brodiei** Hedley, Hurdle & Burdett, 1967

#### PARATYPE

Hedley, Hurdle & Burdett, 1967 : 27-28, text-figs 17-19, pl. 8, figs 1A-C; August 1967.

#### TYPE LOCALITY

NZOI Stn B374 (41°20.9'S, 174°48.5'E, intertidal, in *Corallina* tufts and washings, 27 September 1960).

#### NZOI MATERIAL

Stn B374 : P-399 (paratype); Stn B391 : 2 specimens.

#### REMARKS

All other type material originally deposited in British Museum (Nat. Hist.), London, as follows -

“(a) Holotype (pl. 8, fig. (A-C), BM(NH) Reg. No. 1964.10.13.42; (b) Hypotype (text-fig. 17-19), BM(NH) Reg. No. 1964.10.13.43-45; (c) Thirty paratypes and topotypic material.”

Also listed by the authors from the following localities :

NZOI Stns B368; B391; B405; B434; B439.

“This new form is named after Mr J.W. Brodie, Director of the New Zealand Oceanographic Institute, Wellington.”

**Note** : Text-figs 17A-B, hypotype NZOI Stn B434, BM(NH) Reg. No. 1964.10.14.43; text-fig. 18, hypotype, NZOI Stn B391, BM(NH) Reg. No. 1964.10.13.45; text-figs 19A-C, holotype, NZOI Stn B434, BM(NH) Reg. No. 1964.10.13.44.

### **Miliolinella antarctica** Kennett, 1967

#### HOLOTYPE

Kennett, 1967 : 133-4, pl. 11, figs 1a-c; July 1967.

#### PARATYPES (3)

Kennett, 1967 : 133-4, pl. 11, fig. 2.

#### TYPE LOCALITY

NZOI Stn A468 (76°59'S, 167°36'E, E of Beaufort Island, Ross Sea, Antarctica, 110 m, 26 January 1959).

#### NZOI MATERIAL

Stn A468 : H-249 (holotype, TM 6/1), P-400 (figured paratype, TM 6/2); Stn A463 : P-401 (2 paratypes).

#### REMARKS

Holotype originally recorded as in Smithsonian Institution, U.S. National Museum (USNM No. 686794) with 2 figured paratypes (Kennett, 1967 : pl. 11, figs 1, 3) in Allan Hancock Foundation, University of Southern California (USC-MFS 307) and 2 additional paratypes from Stn A468 (USC-MFS 308) and another from Stn A468 in the N.Z. Geological Survey (Cat. TF 1556). The holotype and 1 figured paratype (Kennett, 1967 : pl. 11, fig. 2) have since been returned to the N.Z. Oceanographic Institute (see Kennett, 1970).

The captions to pl. 11 read figs 1a-c, holotype, A463 and figs 2-3, paratypes A463, but text cites holotype and 3 paratypes from A468 and 2 paratypes from A463.

### **Nonionellina flemingi** (Vella, 1957)

#### FIGURED SPECIMENS

Lewis & Jenkins, 1969 : 1-12, pl. 1.

#### NZOI MATERIAL

Stn D182 : PM 2/1-9 (figured specimen).

#### REMARKS

Originally described by Vella (1957 : 11, 13, 37, pl. 9, figs 183-4) in the genus *Nonion*. Further references have been given by Eade (1967a : 53) under the genus *Florilus*.

### **Planulinoides norcotti** Hedley, Hurdle & Burdett, 1967

#### PARATYPE

Hedley, Hurdle & Burdett, 1967 : 40-2, pl. 11, figs 1A-C; August 1967.

#### TYPE LOCALITY

NZOI Stn B400 (43°37.3'S, 172°45.4'E, off Ripa Island, Lyttelton Harbour, intertidal, among *Corallina* tufts and residual sand, 22 September 1960).

#### NZOI MATERIAL

Stn B400 : P-401 (paratype).

#### REMARKS

All other type material originally deposited in British

Museum (Nat. Hist.), London, as follows -

“(a) Holotype (pl. 11, fig. 1A-C) BM(NH) Reg. No. 1964.10.13.99; (b) Twenty paratypes and topotypic material.”

One paratype is deposited in the N.Z. Geological Survey. “This form has not been seen by the authors at any other New Zealand locality.” “This new form is named after Mr Norcott DeB. Hornibrook of the N.Z. Geological Survey.”

### **Quinqueloculina** sp. Lewis, 1970

#### FIGURED SPECIMEN

Lewis, 1970 : frontispiece.

#### NZOI MATERIAL

Stn C488.

#### REMARKS

This specimen was used to illustrate a “quinqueloculine” calcareous species “with an opaque white (porcellaneous) test.”

### **Saccamina alba** Hedley, 1962

#### PARATYPE

Hedley, 1962 : 387-8, text-figs 1A-B; September 1962.

#### TYPE LOCALITY

NZOI Stn B388 (41°6.6'S, 174°51.7'E, Porirua Harbour, North Island, 1 September 1960).

#### REMARKS

Holotype (fig. 1A) and one paratype (fig. 1B) recorded by Hedley as deposited in N.Z. Geological Survey (TF 1438/1 and TF 1438/2). In the British Museum (Nat. Hist.), London, are -

(a) ten dry paratypes, Reg. No. 1961.10.5.41-50; (b) four mounted paratypes (see text-fig. 4), Reg. No. 1961.10.5.101-104; (c) topotypic material.

Approximately 200 individuals were examined during this study. Other localities listed by Hedley (1962 : 388) include NZOI Stns B359, B379, B399, B416.

### **Tritaxis fusca** (Williamson, 1858)

#### FIGURED SPECIMEN

Lewis, 1970 : frontispiece.

#### NZOI MATERIAL

Stn C488.

#### REMARKS

This specimen was used to illustrate an “attached low trochospiral” arenaceous test made up of silt-sized grains.

References to New Zealand occurrences have been listed by Eade (1967a : 21).

### **Trochammina bartrami** Hedley, Hurdle & Burdett, 1967

#### PARATYPES

Hedley, Hurdle & Burdett, 1967 : 22, text-figs 9-10, pl. 6, figs 2A-C; August 1967.

#### TYPE LOCALITY

NZOI Stn B434 (37°37.9'S, 176°10.06'E, Mount Maunganui, intertidal, in *Corallina* tufts and residual sand, 1 April 1961).

#### NZOI MATERIAL

Stn B439 : P-402 (paratype).

#### REMARKS

Type material deposited in the British Museum (Nat. Hist.), as follows -

(a) Holotype (pl. 6, figs 2A-C), Reg. No. 1964.10.13.14; (b) Hypotypes (text-figs 9-10). Reg. No. 1964.10.13.15-16; (c) Paratypes and topotypic material.

Six paratypes (five dry and one balsam mount) are deposited in the N.Z. Geological Survey, Lower Hutt. Approximately 60 specimens have been examined. The species has also been recorded from NZOI Stn B439, Kawaroa Park, New Plymouth, and from *Terra Nova* Stn 96, 7 miles east of North Cape in 128 m. “This new form is named after Mr F. Bartram of Mount Maunganui who was host to one of us (RHH) when the collections were made.”

### **Vaginulopsis spinigera** Brady, 1884

#### FIGURED SPECIMEN

Lewis, 1970 : frontispiece

#### NZOI MATERIAL

Stn C488.

#### REMARKS

This specimen was used to illustrate an “uncoiling uniserial” calcareous species “with a translucent (hyaline) test and radiate aperture.”

References have been given by Eade (1967a : 3).

### **Vagulinella fragilis** Grindell & Collen, 1976

#### PARATYPES

Grindell & Collen, 1976 : 274, 277-8, text-fig. 2 (holotype), pl. 1, figs 1-8 (paratypes and figured specimens).

#### TYPE LOCALITY

“Sample N164/1676, approximately midway between Somes Island and Ngauranga, Wellington Harbour, New Zealand : depth 20 m, silty mud. Grid reference N164/407263 (N.Z.M.S. 1, 1962). Lat. 41°15.08'S, Long. 174°50.53'E (Chart NZ 4633).”

#### NZOI MATERIAL

Stn Z2686 : P-362 (6 paratypes).

#### REMARKS

“The holotype (catalogue number VF 1115) and 20 paratypes (VF 1116, VF 1117), together with other figured specimens are deposited in the Department of

Geology, Victoria University of Wellington." Unregistered paratypes are also in the N.Z. Geological Survey, the Cushman Foundation, the U.S. National Museum, and the Institute of Geology and Paleontology, Tohoku University, Japan.

*Virgulinema* is known from Miocene sediments of North America, Miocene and possibly Pliocene sediments of Europe, and from the Pliocene of West Java. To the authors' knowledge, *Virgulinema* has not previously been recorded from Pleistocene or Recent sediments, nor from New Zealand either living or fossil.

## PROTOZOA INCERTAE SEDIS

### ELLOBIOPSIDA

#### ***Thalassomyces marsupii* Kane, 1964**

##### PARATYPE

Kane, 1964 : 292–301, text-figs 2–7; June 1964.

##### TYPE LOCALITY

NZOI Stn B33 (52°00'S, 167°30'E, 700 m, 1–2 January 1957, on amphipod *Parathemisto gaudichaudii* (Guerin)).

##### NZOI MATERIAL

Stn B33 : P-10 (paratype).

##### REMARKS

Holotype (Reg. No. 1962.6.7.1.) and 4 paratypes (Reg. No. 1962.6.7.3–6) are in the British Museum (Nat. Hist.), London. Other specimens examined have been listed by Kane (1964 : 295–6).

## Phylum PORIFERA

#### ***Asteropus simplex* (Carter, 1879)**

##### FIGURED SPECIMEN

Bergquist, 1968 : 32–3, pl. 4, fig. B, pl. 11, fig. D.

##### NZOI MATERIAL

Stn B93.

##### REMARKS

Originally described by Carter (1879 : 349, pl. XXVIII, figs 16–18) from Victoria, Australia. Bergquist (1968 : 32–3) has given further details and synonymy.

#### ***Biemna flabellata* Bergquist, 1970**

##### PARATYPE

Bergquist, 1970 : 23–4, 50–1, pls 5c, 17a; January 1970.

##### TYPE LOCALITY

"AUZ 056, 140 fm", Three Kings Islands.

##### NZOI MATERIAL

Stn B93 : P-260 (paratype).

##### REMARKS

The holotype is in the National Museum (Reg. No. Por 28). The NZOI specimen is designated as a paratype in the caption to Pl. 5 (p. 50) of Bergquist (1970) but is not referred to as such in the text.

#### ***Ceratopsion cuneiformis* Bergquist, 1970**

##### HOLOTYPE

Bergquist, 1970 : 18–19, text-fig. 1, pls 4b, 15b; January 1970.

##### TYPE LOCALITY

NZOI Stn B93 (34°00'S, 172°30'E, off Three Kings Islands, 50–110 m, 22 September 1958).

##### NZOI MATERIAL

Stn B93 : H-38 (holotype).

#### ***Epipolasis novaezealandiae* (Dendy, 1924)**

##### FIGURED SPECIMEN

Bergquist, 1968 : 33–5, text-fig. 11, pl. 5, fig. C.

##### NZOI MATERIAL

Stn B93 : "one almost whole specimen of this sponge ... several fragments obviously belong to another specimen."

##### REMARKS

Originally described by Dendy (1924 : 307) in the genus *Spongosorites*. Bergquist compared the two specimens from Stn B93 with "Dendy's slides ... and a small portion of the holotype ..."

#### ***Lamellomorpha strongylata* Bergquist, 1968**

##### HOLOTYPE

Bergquist, 1968 : 31–2, text-fig. 10 (spicules), pl. 4, fig. A, pl. 11, fig. E (spicules).

##### TYPE LOCALITY

NZOI Stn B93 (34°00'S, 172°30'E, off Three Kings Islands, 50–110 m, 22 September 1958).

##### NZOI MATERIAL

Stn B93 : H-33 (holotype).

##### REMARKS

Also listed by Bergquist from NZOI Stns B176, B184, Campbell Plateau.

#### ***Monosyringia calcifera* Bergquist, 1968**

##### HOLOTYPE

Bergquist, 1968 : 42–3, text-figs 14–15 (spicules), pl. 14, fig. A (spicules).

##### TYPE LOCALITY

NZOI Stn B172 (48°18.5'S, 168°30'E to 48°22.9'S, 168°30'E, Campbell Plateau, 731 m, 8 October 1959).

##### NZOI MATERIAL

Stn B172 : H-35 (microscope slide) (holotype).

**Pachastrella incrustata** Bergquist, 1968

PARATYPE

Bergquist, 1968 : 60-1, text-fig. 28 (spicules), pl. 15, fig. B (spicules).

TYPE LOCALITY

Off North Cape, 182 m.

NZOI MATERIAL

Stn B93 : P-32 (paratype).

REMARKS

Holotype (Por. 25) in National Museum, Wellington.

**Polymastia conigera** Bowerbank, 1874

FIGURED SPECIMEN

Bergquist, 1968 : 21-2, text-fig. 5, pl. 2, fig. C (not in pl. 2d as given in Bergquist's text).

NZOI MATERIAL

Stn B93.

REMARKS

Originally described by Bowerbank (1874 : 192, pl. LXXII). Further details have been given by Bergquist (1968 : 21).

**Polymastia granulosa** Brøndsted, 1923

FIGURED SPECIMEN

Bergquist, 1968 : 23, frontis., pl. 2, figs B, D, E.

NZOI MATERIAL

Stn B176.

REMARKS

Originally described by Brøndsted (1923 : 162, figs 36a-c). Further records and description etc. have been given by Bergquist (1968 : 23).

**Tetilla australe** Bergquist, 1968

HOLOTYPE

Bergquist, 1968 : 59-60, text-fig. 27 (spicules), pl. 9, fig. B, pl. 15, fig. D (1-4) (spicules).

TYPE LOCALITY

NZOI Stn B93 (34°00'S, 172°30'E, S of Three Kings Islands, 55-110 m, 22 September 1958).

NZOI MATERIAL

Stn B93 : H-34 (holotype).

REMARKS

A single specimen.

**Timea alba** Bergquist, 1968

HOLOTYPE

Bergquist, 1968 : 20, text-fig. 4 (spicules), pl. 11, fig. B (spicules).

TYPE LOCALITY

NZOI Stn B93 (34°00'S, 172°30'E, S of Three Kings Islands, 55-110 m, 22 September 1958).

NZOI MATERIAL

Stn B93 : H-32 (holotype).

REMARKS

This name was first published in a key to intertidal sponges of the Auckland area by Hogg (1966 : 58, 61) but this procedure can best be regarded as not meeting the requirements of the International Rules of Zoological Nomenclature.

“A single large specimen was collected.”

**Phylum COELENTERATA**

Order STYLASTERINA

**Calyptrapora reticulata** Boschma, 1968

HOLOTYPE

PARATYPES

Boschma, 1968a : 102-6, text-figs 1-2, pls I-III.

TYPE LOCALITY

NZOI Stn F132 (49°59'S, 177°32'E, 1,335 m, off Antipodes Islands, 29 January 1965).

NZOI MATERIAL

Stn F132 : H-48 (holotype), 1 large colony; P-100 (paratypes, figured), several fragments; Stn F123 : “one small colony and some fragments of larger colonies.”

REMARKS

Designated type of new genus *Calyptrapora* Boschma.

**Errina carnea** Boschma, 1965

HOLOTYPE

Boschma, 1965 : 21-3, pl. 1, fig. 1, text-fig. 1.

PARATYPES

Boschma, 1965 : 21-3, pl. 1, fig. 2.

TYPE LOCALITY

“Ross Sea, Antarctic,” = NZOI Stn A463 (72°20'S, 174°50'E, 468-465 m, 21 January 1959).

NZOI MATERIAL

Stn A455 : P-291 (paratype, not figured); Stn A463, (pl. 1, fig. 2) : P-290 (paratype); Stn A464, (text-fig. 1, pl. 1, fig. 1) : H-77 (holotype).

**Errina (Errina) cruenta** Boschma, 1968b

HOLOTYPE

Boschma, 1968b : 109-113, pl. 1, fig. 1.

PARATYPES (2)

Boschma, 1968b : 109-113, pl. 1, figs 2-3.

TYPE LOCALITY

NZOI Stn D156 (48°01.5'S, 166°35'E, 81 m, 16 January 1964).

NZOI MATERIAL

Stn D156 : H-149 (holotype), P-101 (2 paratypes).



**REMARKS**

Parts of branches shown in pls II, III, and sections of gastropores in text-fig. 2 (a-g).

**Errina (Lepidopora) sarmentosa** Boschma, 1968**HOLOTYPE**

Boschma, 1968 : 203-5, text-figs 1-2, pl. 1, figs 1-5.

**TYPE LOCALITY**

NZOI Stn F132 (49°59'S, 177°32'E, off Antipodes Islands, 1,335 m, 29 January 1965).

**NZOI MATERIAL**

Stn F132 : H-50 (holotype).

**REMARKS**

One small colony.

**Stenohelia conferta** Boschma, 1968**HOLOTYPE**

Boschma, 1968d : 435-7, pl. 1, figs 4 and 6.

**PARATYPES (6)**

Boschma, 1968d : 435-7, pl. 1, figs 1-3, 7-9.

**TYPE LOCALITY**

NZOI Stn F132 (49°59'S, 177°32'E, 1,335 m, off Antipodes Islands, 29 January 1965).

**NZOI MATERIAL**

Stn F132 : H-53 (holotype), P-102 (paratype, pl. 1, fig. 1), P-103 (paratype, pl. 1, figs 2 and 9), P-104 (paratype, pl. 1, figs 3 and 7), P-105 (paratype, pl. 1, fig. 5), P-106 (paratype, pl. 1, fig. 8), P-107 (paratype).

**Order ALCYONACEA****Alcyonium clavatum** (Pfeffer, 1889)**FIGURED SPECIMEN**

Utinomi, 1964 : 3-7, text-figs 1-3, pl. 1, fig. 1.

**NZOI MATERIAL**

Stn A540 : figured specimen; Stn A527; Stn A528.

**REMARKS**

Originally described by Pfeffer (1889 : 49) from off South Georgia, this species was previously known only from South Georgia and the Falkland Islands. Utinomi (1964) has given a full description, discussion and synonymy based on a single specimen taken by *Umitaka-Maru* of the Tokyo University of Fisheries in 1957 off Cape Cook on the Prince Harald coast near the Japanese Antarctic base of Syowa, as well as on three specimens taken on the Pennell Bank amongst "the large collection of octocorals from the Ross Sea which was made by the members of the New Zealand Oceanographic Institute ...".

**Order GORGONACEA****Acanella eburnea** (Pourtales, 1868)**FIGURED SPECIMEN**

Grant, 1976: 6, 25, 29-30, 49, 51, figs 25-26.

**NZOI MATERIAL**

Stn D224 : 1 specimen; Stn F873 : fragments (figs 25-26).

**REMARKS**

The type collected and described by Pourtales (1868 : 132), "a fine specimen 4 inches high, was obtained in 517 fathoms off Sombrero Light, Florida" from the USS *Bibb* during investigations of the deep water animals of the Gulf Stream by the U.S. Coast Survey in 1868. Grant has given further description and discussion, amplifying those noted in his references and synonymy, based on material from the Challenger Plateau and the Bay of Plenty.

**Acanella japonica** Kükenthal, 1915**FIGURED SPECIMEN**

Grant, 1976 : 11, 13-14, 25-6, 49, 51, figs 20-21.

**NZOI MATERIAL**

Stn F897 : 1 specimen.

**REMARKS**

Kükenthal (1915 : 120) described this species from five specimens taken by Doflein in 700 m in Sagami Bay, Japan. Kükenthal (1919 : 582, text-figs 254-257, pl. XLIV, fig. 76) repeated the original diagnosis, gave a further description and added illustrations of the species. Grant referred a single specimen, taken with *A. sibogae* Nutting in 1306-1231 m in the Bay of Plenty, to this species and added a description.

**Acanella sibogae** Nutting, 1910**FIGURED SPECIMEN**

Grant, 1976 : 6, 25, 16-18, 49, 51, figs 22-24.

**NZOI MATERIAL**

Stn D224 : 1 fragment; Stn E880 : 1 fragment (fig. 22); Stn F873 : 2 specimens; Stn F878 : 1 (fig. 23); Stn F897 : 1 (fig. 24).

**REMARKS**

Nutting (1910 : 14-15, pl. III, figs 2-2a, pl. V, fig. 4) described the species from a fragmentary specimen taken at one of five *Siboga* stations at which it was recorded. Based on material from the Bay of Plenty and from west of the North Island, Grant (1976) extended the original description particularly in regard to the distinctions from *A. rigida* Wright & Studer.

**Chathamisis bayeri** Grant, 1976**HOLOTYPE**

Grant, 1976 : 6, 43, 44-5, 49, 51, figs 42-44; February 1976.

**TYPE LOCALITY**

NZOI Stn D90 (43°50.0'S, 179°00.0'W, Chatham Rise, 399 m).

**NZOI MATERIAL**

Stn D90 : H-130 (holotype, figs 43-44); Stn G259a : 2, Stn G279 : 1; Stn G284a : 1.

#### REMARKS

“The species is named after Frederick Bayer, a foremost contributor to the modern studies of Octocorallia.” It is the type species of the new genus *Chathamisis*, the name of which “is taken from the Chatham Rise, the locality of all known specimens of the genus”.

#### *Circinisis circinata* Grant, 1976

##### HOLOTYPE

Grant, 1976 : 6, 15, 41–2, 49, 51, figs 37–39; February 1976.

##### TYPE LOCALITY

NZOI Stn E323 (34°00.0'S, 172°15.0'E, E of Three Kings Islands, 165 m).

##### NZOI MATERIAL

Stn E323 : H-128 (holotype), and three other incomplete specimens.

##### REMARKS

This is the type species of the new genus *Circinisis* in the new subfamily Circinisisidinae. “The generic and specific names are taken from the Latin *circinare*, to make round, reference being to the rounded scales”.

#### *Echinisis spicata* (Hickson, 1907)

##### FIGURED SPECIMEN

Grant, 1976 : 6, 47–9, figs 48–49.

##### NZOI MATERIAL

Stn E193c : 1 specimen; Stn E200 : many fragments and almost complete colonies; Stn E209b : 2 colonies, many fragments; Stn E212 : fragment; Stn E220b : 1 specimen; Stn E246 : 2 specimens (figs 48–49).

##### REMARKS

Hickson (1907 : 7, pl. II, figs 16–18) described the species from a single specimen, 77 mm high, taken in McMurdo Sound, Antarctica, in 96–120 fm on 8 February 1902 during the National Antarctic Expedition 1901–1904. All the NZOI material examined by Grant was collected during the joint NZ-US Ross Sea / Balleny Islands / Macquarie Ridge Expedition from the USS *Glacier* in 1965.

#### *Keratoisis flexibilis* (Pourtales, 1868)

##### FIGURED SPECIMEN

Grant, 1976 : 6, 11, 13, 23–5, 49, 51, figs 17–19.

##### NZOI MATERIAL

Stn E736 : 1 specimen.

##### REMARKS

Kükenthal (1919 : 587) discussed the history of this species and gave a full description (p. 590), amplified by Grant (1976 : 25) based on a New Zealand specimen taken in 1033–1116 m in the Bay of Plenty. The original specimen, described by Pourtales (1868 : 132), was collected by him in 324 fathoms off the Florida reef from the USS *Bibb* during pioneer investigations of the deep water animals of the Gulf Stream by the U.S. Coast Survey in 1868.

#### *Keratoisis glaesa* Grant, 1976

##### HOLOTYPE

##### PARATYPES

Grant, 1976 : 6, 18, 19, 49, 51, figs 9–10; February 1976.

##### TYPE LOCALITY

NZOI Stn C632 (39°14.0'S, 172°01.0'E, southern end of Challenger Plateau, 406 m).

##### NZOI MATERIAL

Stn C632 : a “large number of fragments, mixed with those of *K. tangensis*, from which it is quite distinct ...” including holotype, H-123 (fig. 9, right hand specimen), and paratypes P-189 (fig. 9, left hand specimen).

##### REMARKS

“The specific name is taken from the Old English word *glaes*, from which is derived “glass”, reference being to the appearance of the spicules”.

#### *Keratoisis hikurangiensis* Grant, 1976

##### HOLOTYPE

Grant, 1976 : 6, 19–21, 49, 51, figs 11–12; February 1976.

##### TYPE LOCALITY

NZOI Stn E707 (40°10.3'S, 177°18.3'E, SE of Cape Kidnappers on edge of the Hikurangi Trench, 834–951 m).

##### NZOI MATERIAL

Stn E707 : 1 complete specimen (holotype H-124, fig. 12), 3 decorticated internodes; Stn E784 : 1 specimen; Stn E890 : fragments of at least 3 specimens; Stn E892 : fragments; Stn E901 : 1 specimen; Stn F892 : broken internodes.

##### REMARKS

“The name is taken from Hikurangi Trench, the location of the type-species” [= type-specimen].

#### *Keratoisis projecta* Grant, 1976

##### HOLOTYPE

Grant, 1976 : 6, 11, 13, 21–2, 49, 51, figs 13–14; February 1976.

##### TYPE LOCALITY

NZOI Stn F913 (34°43.5'S, 174°31.5'E, NE of Bay of Islands, 743 m).

##### NZOI MATERIAL

Stn E724 : 1 decorticated stem, 280 mm long, 1 basal portion of stem with root system; Stn E879 : 1 incomplete specimen; Stn E884 : 1 incomplete specimen; Stn F913 : 1 specimen (holotype H-125, fig. 13), 2 smaller specimens.

##### REMARKS

The specific name proposed presumably refers to the abaxially projecting polyp monaxial spicules known as needles.

**Keratoisis tangensis** Grant, 1976

HOLOTYPE

PARATYPES (4)

Grant, 1976 : 6, 11, 12, 16–18, 19, 49, 51, figs 6–8; February 1976.

TYPE LOCALITY

NZOI Stn C632 (39°14.0'S, 172°01.0'E, southern end of Challenger Plateau, 406 m).

NZOI MATERIAL

Stn C632 : a large number of fragments, including type specimens (holotype, H-122; paratypes, P-188; see fig. 8 caption – “Large centre specimen is holotype, others are paratypes”). Accordingly, figs 6 and 7 are also of paratypes; Stn C645 : 3 decorticated internodes.

REMARKS

This species has also been recognised from the lower Miocene of New Zealand (Grant, 1970); see also Hayward, 1977 : 101 (table 1), 103. “The specific name is taken from the Latin *tangens*, *tangensis*, from which is derived the English “tangent”, reference being to the disposition of the horny elements of the axis.”

**Keratoisis zelandica** Grant, 1976

HOLOTYPE

Grant, 1976 : 6, 11, 12–13, 22–3, 49, 51, figs 15–16; February 1976.

TYPE LOCALITY

NZOI Stn E800 (45°20.5'S, 166°41.5'E, off Fiordland, 913–1003 m).

NZOI MATERIAL

Stn E800 : “a large number of fragments, including the basal portion of a young specimen with an attachment disc”. In fig. 16, the “largest” [? larger] specimen is the holotype, H-126.

**Lepidisis solitaria** Grant, 1976

HOLOTYPE

Grant, 1976 : 6, 31–2, 49, 51, figs 27–28; February 1976.

TYPE LOCALITY

NZOI Stn E856 (32°11.0'S, 168°18.0'E, Norfolk Ridge, 1171–1149 m).

NZOI MATERIAL

Stn E856 : 1 specimen (holotype, H-127).

**Minuisis pseudoplanum** Grant, 1976

HOLOTYPE

Grant, 1976 : 6, 45–6, 49, 51, figs 45–47; February 1976.

TYPE LOCALITY

NZOI Stn E859 (32°01.1'S, 168°03.0'E, Norfolk Ridge, 672–751 m).

NZOI MATERIAL

Stn E859 : 2 specimens, figs 45–47 (including holotype H-131); Stn E841 : 1; Stn E868 : 1 decorticated internode.

REMARKS

“This specific name alludes to the mode of branching”. This is the type species of the new genus *Minuisis*, the name being “derived from the Latin *minuere*, to lessen, reference being made to the small size of the colony.”

**Mopsea elongata** Roule, 1908

FIGURED SPECIMEN

Grant, 1976 : 6, 14, 25, 33–5, 49, figs 29–30.

NZOI MATERIAL

Stn E171 : fragments; Stn E172 : 1 specimen; Stn E177 : fragments; Stn E197a : 1 specimen; Stn E209b fragments; Stn E223 : 2 specimens; Stn E225 : 3 specimens.

REMARKS

The species was described by Roule (1908 : 5–6, pl. 1, figs 1–4) from a fragmentary specimen questionably taken at Stn 641, Booth-Wandel Island, Antarctica. Grant's (1976) redescription and examination of further material, based on specimens taken in the Ross Sea and off the Balleny Islands by the joint NZ-US expedition in 1965, adds considerably to the knowledge of this apparently variable species. However, he emphasised that the distinction from the genotype, *M. dichotoma* (Linnaeus), is still not clear and that “synonymy of these species would be a decision to be made only after comparative study of the relevant material”.

**Peltastisis nuttingi** Grant, 1976

HOLOTYPE

Grant, 1976 : 6, 42–3, 49, 51, figs 40–41; February 1976.

TYPE LOCALITY

NZOI Stn E776 (42°43.0'S, 169°15.5'E, off the west coast of the South Island, 978–1067 m).

NZOI MATERIAL

Stn E776 : 1 specimen (holotype, H-129).

REMARKS

“This new species constitutes the first record of the genus since Nutting's original description (1910) and is named after him.” The genus is now placed in a new subfamily, Peltastisidinae Grant.

**Primnoisis ambigua** Wright & Studer, 1889

FIGURED SPECIMEN

Grant, 1976 : 6, 14, 25, 35, 39, 40, fig. 36.

NZOI MATERIAL

Stn E148 : 1 fragmented and decorticated specimen.

REMARKS

Identification of this specimen is not certain since, although some features agree well with the original

description given by Wright & Studer (1889 : 39–40, pl. IX, fig. 9) for their original material taken off Kerguelen in 10–18 fathoms, “their type is sparingly illustrated”. Grant has also referred internodes of lower Miocene isidid corals from a number of North Otago sites to this species.

**Primnois antarctica** (Studer, 1878)

FIGURED SPECIMEN

Grant, 1976 : 6, 10, 35, 36–7, 49, figs 31–32.

NZOI MATERIAL

Stn E175 : 1 specimen; Stn E186 : 1 specimen (?) see “Remarks”; Stn E188 : 1 whole specimen (fig. 31) and fragments; Stn E189 : 1 specimen; Stn E209b : a number of specimens; Stn E220b : 2.

REMARKS

Studer (1878 : 661, pl. V, fig. 32) based his original description of this species on an axis dredged at a *Gazelle* station in 60 fathoms north of Kerguelen Island. The NZOI stations are all in the Ross Sea and around the Balleny Islands. One specimen (Stn E186, fig. 32) may belong to this species but Grant noted that its size (c. 230 mm) and the correspondingly large and thickly clustered polyps “make it distinct to some degree”. This is the “often recorded” type species of the genus and various other species of *Primnois* may be synonymous with it.

**Primnois formosa** Gravier, 1913

FIGURED SPECIMEN

Grant, 1976 : 6, 10, 38–9, 49, figs 33–35.

NZOI MATERIAL

Stn E209b : 5 specimens (included in figs 33–35); Stn E215a : 1; Stn E215b : 1; Stn E224 : 1.

REMARKS

A preliminary description of this species was given by Gravier (1913 : 452) from a dredging by the *Pourquoi Pas* on 20 January 1909 in Marguerite Bay, Antarctic Peninsula. He later (1914 : 31–4, text-figs 21–25, pl. 1, figs 3–5) gave more details. All the NZOI specimens were collected in the vicinity of the Balleny Islands, off the Antarctic coast.

Order SCLERACTINIA

**Caryophyllia profunda** Moseley, 1881

FIGURED SPECIMENS

Squires & Keyes, 1967 : 23, pl. 2, figs 1–4.

NZOI MATERIAL

Stn B473 : figured specimen (pl. 2, figs 1–2); Stn C703 : figured specimen (pl. 2, figs 3–4).

REMARKS

Originally described by Moseley (1881 : 138, pl. 1, figs 6, 6a–b). Further references, etc. in Squires & Keyes (1967 : 23).

**Culicia rubeola** (Quoy & Gaimard, 1833)

FIGURED SPECIMEN

Squires & Keyes, 1967 : 21, pl. 1, fig. 1.

NZOI MATERIAL

Stn C787 : figured specimen; Stn C789.

REMARKS

Originally described by Quoy & Gaimard (1833 : 197, pl. 15, figs 12–15). Further references and synonymy in Squires & Keyes (1967 : 21).

**Dendrophyllia japonica** Rehberg, 1892

FIGURED SPECIMENS

Squires & Keyes, 1967 : 28, pl. 5, figs 6–8.

NZOI MATERIAL

Stn A910; Stn B490 : figured specimen (figs 7–8); Stn C627 : figured specimen (fig. 6); Stn C629; Stn C632; Stn C634; Stn C640; Stn C645; Stn C814.

REMARKS

Originally described by Rehberg (1892 : 28, pl. 4, fig. 4). Further references and synonymy in Squires & Keyes (1967 : 28).

**Desmophyllum cristagalli** Milne Edwards & Haime, 1848

FIGURED SPECIMENS

Squires & Keyes, 1967 : 25, pl. 3, figs 12–14.

NZOI MATERIAL

Stn A910; Stn B319; Stn C618 : figured specimen (figs 13–14); Stn C623; Stn C678; Stn C686; Stn C690 : figured specimen (fig. 12); Stn C896.

REMARKS

Originally described by Milne Edwards & Haime (1848 : 253, pl. 7, figs 10–10a). Further references in Squires & Keyes (1967 : 25).

**Dendrophyllia palita** Squires & Keyes, 1967

HOLOTYPE

Squires & Keyes, 1967 : 28–9, pl. 6, figs 9–10; November 1967.

TYPE LOCALITY

NZOI Stn B490 (45°44.3'S, 166°44.8'E, Dusky Sound, 114–118 m, 8 June 1961).

NZOI MATERIAL

Stn B490 : H-18 (holotype); Stn C627; Stn C629; Stn C632; Stn C633; Stn C642; Stn C645.

**Flabellum aotearoa** Squires, 1964

FIGURED SPECIMEN

Squires & Keyes, 1967 : 26, pl. 4, figs 2–3.

NZOI MATERIAL

Stn C801 : figured specimen; Stn C770.

**REMARKS**

Originally described by Squires (1964 : 7, pl. 2, figs 15-18).

**Flabellum apertum** Moseley, 1881**FIGURED SPECIMEN**

Squires & Keyes, 1967 : 26, pl. 4, figs 4-5.

**NZOI MATERIAL**

Stn A831 : two dead specimens - figured.

**REMARKS**

Originally described by Moseley (1881 : 167-8, *Madreporia* pl. VI, figs 7, 7a-c) from *Challenger* Stn 145, off Prince Edward Island, South Indian Ocean, 515 m.

**Flabellum impensum** Squires, 1962**HOLOTYPE**

Squires, 1962 : 17-19, text-figs 6-7, table 8, pl. 2, figs 4-7.

**TYPE LOCALITY**

NZOI Stn A464 (73°20'S, 174°00'E, Ross Sea, 369-384 m, 22 January 1959).

**NZOI MATERIAL**

Stn A464 : H-3 (holotype), 18 other specimens; Stn A463.

**REMARKS**

"Forty-three additional specimens from other stations." Synonyms and references have been listed by Squires (1962 : 17).

**Flabellum rubrum** (Quoy & Gaimard, 1833)**FIGURED SPECIMEN**

Squires, 1963 : 1-45, pl. 2, figs 1-14.  
Squires & Keyes, 1967 : 27-8, pl. 5, figs 3-8.

**NZOI MATERIAL**

Stn A489 : figured specimen (Squires, 1963 : pl. 2, figs 1-14); Stn C197 : figured specimen (Squires & Keyes, 1967 : pl. 5, figs 5-6); Stn C770 : figured specimen (Squires & Keyes, 1967 : pl. 5, figs 7-8); Stn C844 : figured specimen (Squires & Keyes, 1967 : pl. 5, figs 3-4).

**REMARKS**

Originally described by Quoy & Gaimard (1833-4 : 188, pl. 14, figs 5-9) and since reviewed by Squires (1963 : 1-45, text-figs 1-8, pls 1-2). Specimens from many NZOI stations were examined and listed by Squires & Keyes (1967 : 28) - A4, A431, A432, A439, A489, A491, A821, A843, B200, B205, B323, B524, B556, B560, B605, B616, B621, B642, B646, B648, B653, B686, B783, B784, B797, B808, B874, C89, C190, C194, C197, C202, C248, C272, C291, C357, C438, C439, C504, C506, C520, C524, C706, C758, C770, C783, C789, C790, C796, C797, C800, C801, C812, C844, C850, C851, C852, C957. All these specimens may be regarded, therefore, as homeotypes, i.e.,

specimens compared by a competent observer with the holotype lectotype or other primary type material of a species and found to be conspecific with it.

*Flabellum rubrum* has been taken subsequently very commonly during NZOI cruises and station details can be given on request.

**Gardineria antarctica** Gardiner, 1929**FIGURED SPECIMENS**

Squires, 1962 : 20-1, pl. 1, figs 1-10.

**NZOI MATERIAL**

Stn A521, 13 specimens; Stn A525, 5; Stn A526, 8; Stn A538, 2.

**REMARKS**

Originally described by Gardiner (1929 : 124, pl. 1, figs 11-18). Further references and synonyms have been given by Squires (1962 : 20).

**Goniocorella dumosa** (Alcock, 1902)**FIGURED SPECIMEN**

Squires & Keyes, 1967 : 25, pl. 3, figs 15-16.

**NZOI MATERIAL**

Stn A429; Stn A908; Stn A910; Stn B314; Stn B319; Stn B675; Stn C410; Stn C510; Stn C618; Stn C627; Stn C632; Stn C633 : figured specimen; Stn C634; Stn C642; Stn C683; Stn C690; Stn D90.

**REMARKS**

Originally described by Alcock (1902 : 36-7, pl. V, figs 33-33a) from *Siboga* Stn 156 in 469 m. Further references in Squires & Keyes (1967 : 25).

**Kionotrochus (Kionotrochus) suteri** Dennant, 1906**FIGURED SPECIMEN**

Squires & Keyes, 1967 : 25, pl. 3, figs 10-11.

**NZOI MATERIAL**

Stn C770; Stn C781; Stn C783; Stn C789; Stn C792; Stn C797; Stn C798; Stn C800 : figured specimen; Stn C814.

**REMARKS**

Originally described by Dennant (1906 : 155-6, pl. V, figs 5a-b) from "a large number of specimens" collected "at a depth of 110 fathoms by Mr Henry Suter and Mr Charles Hedley about 15 miles outside Great Barrier Island", this species is very common off NE New Zealand. It has been discussed by Squires (1964 : 6-7) and other references have been listed by Squires & Keyes (1967).

**Madreporia vitiae** Squires & Keyes, 1967**HOLOTYPE**

Squires & Keyes, 1967 : 22, pl. 1, figs 4, 6; November 1967.

PARATYPES (3)

Squires & Keyes, 1967 : 22, pl. 1, figs 5, 7-8.

TYPE LOCALITY

NZOI Stn B314 (39°22'S, 171°50'E, NW of Cape Farewell, 230-251 m, 25 October 1960).

NZOI MATERIAL

Stn B314 : H-16 (holotype), P-18-20 (3 paratypes); Stn C629; Stn C632; Stn C633; Stn C640; Stn C645.

REMARKS

"The name of the new species is derived from the Fijian word "viti", which is also the name of the vessel used by the N.Z. Oceanographic Institute during the early stages of the shelf survey."

**Notocyathus (Paradeltoocyathus) orientalis** Duncan, 1876

FIGURED SPECIMEN

Squires & Keyes, 1967 : 24, pl. 3, figs 1-7.

NZOI MATERIAL

Stn C510 : figured specimen.

REMARKS

Originally described by Duncan (1876 : 431, pl. XXX-VIII, figs 4-7) from "Japanese seas, N. lat. 34°2'S, E. long. 136°20' in 52 fathoms."

Specimen from Stn A910 (see Squires & Keyes, pl. 3, figs 1-5) now in Smithsonian Institution Coral Collection, National Museum of Natural History, Washington, D.C.

**Paracyathus conceptus** Gardiner & Waugh, 1938

FIGURED SPECIMEN

Squires & Keyes, 1967 : 23, pl. 2, figs 7-8.

NZOI MATERIAL

Stn A804; Stn C627; Stn C648 : figured specimen; Stn C814.

REMARKS

Originally described by Gardiner & Waugh (1938 : 184-5, pl. IV, figs 8-9) from *John Murray* Stn 157 in 229 m. Further references in Squires & Keyes (1967 : 23).

**Sphenotrochus ralphae** Squires, 1964

FIGURED SPECIMEN

Squires & Keyes, 1967 : 24-5, pl. 3, figs 8-9.

NZOI MATERIAL

Stn C325 : figured specimen

REMARKS

Originally described by Squires (1964 : 5, pl. 1, figs 1-4) from *Ikatere* Stn A4, in 44 m off Great Barrier Island, collected by A.W.B. Powell, 1961. This species is represented by 14 paratypes in the Auckland Institute and Museum and in the National Museum of Natural History, Washington, D.C. At the same time, Squires listed 4 additional specimens (presumably not paratypes) from NZOI Stn C325, off Manukau Harbour.

"This species is name[d] for Dr Patricia M. Ralph, Department of Zoology, Victoria University, Wellington."

**Stenocyathus decamera** Ralph & Squires, 1962

FIGURED SPECIMEN

Squires & Keyes, 1967 : 28, pl. 6, figs 3-5.

NZOI MATERIAL

Stn B319 : figured specimen.

REMARKS

This species was described by Ralph & Squires (1962 : 11-12, pl. 4, figs 2-6), based on 5 specimens, of which 3 (including the holotype, now in the N.Z. Geological Survey), were collected in 73 fm off Shelter Island, Doubtful Sound, on the *New Golden Hind* Expedition.

**Phylum ANNELIDA**

**Class POLYCHAETA**

**Aonides trifidus** Estcourt, 1967

HOLOTYPE

Estcourt, 1967a : 66, 68, 74-5, text-figs 7-10; 14 July 1967.

PARATYPES (several)

TYPE LOCALITY

"The most abundant polychaete (estimated maximum density 5,000 per m<sup>2</sup>) in the seaward part of the estuary". Heathcote Estuary, Christchurch, collected by I.N. Estcourt, 1960/1 (see also Estcourt, 1967b : 387) = NZOI Stn Z2422.

NZOI MATERIAL

Stn Z2422 : H-30 (holotype), P-25 (paratypes).

REMARKS

Other paratypes in - Canterbury Museum, Christchurch (Cat. No. AQ100), and in Smithsonian Institution, National Museum of Natural History, sent 16 April 1968, part of the P-25 series, and used in a revision of *Aonides* by Foster (1969 395). NZOI paratype number was erroneously given by Estcourt (p. 75) as "P-28".

**Lepidasthenia accolus** Estcourt, 1967

HOLOTYPE

Estcourt, 1967a : 65, 67, 68-9, text-figs 1-4; 14 July 1967.

TYPE LOCALITY

In a burrow of the polychaete *Abarenicola affinis affinis* Wells, 1963. Heathcote Estuary, Christchurch, 29 May 1961, collected by I.N. Estcourt (= NZOI Stn Z2423).

NZOI MATERIAL

Stn Z2423 : H-31 (holotype).

REMARKS

One specimen (female) only. "The name 'accolus' (one who dwells nearby) refers to its commensal habitat."

**Phylo novazealandiae** Day, 1977

HOLOTYPE

Day, 1977 : 235-7, figs 3f-j; 27 May 1977.

TYPE LOCALITY

NZOI Stn C464 (40°45 'S, 172°52 'E, 26 m, 9 May 1950).

NZOI MATERIAL

Stn C915 : 1; Stn C929 : 1; Stn C464 : H-208 (holotype); Stn C467 : 1; Stn C474 : 1; Stn M3 : 15; Stn M5 : 2.

REMARKS

Three paratypes from NZOI Stn M3 are in the Australian Museum, Sydney (Reg. No. W7447).

**Rhamphobranchium maculatum** Estcourt, 1966

HOLOTYPE

Estcourt, 1966 : 205-7, text-figs 1-3; 19 January 1966.

TYPE LOCALITY

"... from 25 feet in North-West Bay, Great Island, Three Kings Islands, on a sandy, boulder strewn bottom, living in the alga *Sargassum johnsonii* Chapman." Collected by A.N. Baker (= NZOI Stn Z2463).

NZOI MATERIAL

Stn Z2463 : H-16 (holotype); Stn Z2405 : 4 specimens.

REMARKS

A single specimen taken originally but further specimens were given to NZOI by Prof. G.A. Knox on 31 August 1973 (Stn Z2405).

**Phylum SIPUNCULIDA**

**Paraspidosiphon klunzingeri** (Selenka, de Man & Bülow, 1883)

FIGURED SPECIMENS

Edmonds, 1973 : 33, figs 1-2.

NZOI MATERIAL

Stn A544 : 12 specimens, 1 fragment; Stn A548 : 2; Stn A550 : 9; Stn A551 : 1; Stn A556 : 6; Stn A672 : 2; Stn A677 : 1; Stn A686 : 1 fragment.

REMARKS

Other sipunculids were taken at three stations (A550, A544, A672). These were referred by Edmonds (1973) to the genus *Phascolosma* "but were unidentifiable to species level because of their small size or poor condition".

*Paraspidosiphon klunzingeri*, "a well known inhabitant of warm waters and especially of coral reefs", was originally described by Selenka, de Man & Bülow (1883 115-16, pl. 13, figs 187-89) from Koseir (? Red Sea). Redescription and distribution have recently been given by Stephen & Edmonds (1972 : 247-9).

**Phylum ARTHROPODA**

Subphylum CRUSTACEA

Class CIRRIPEDIA

**Cryptophialus tomlinsoni** Newman & Ross, 1971

FIGURED SPECIMEN

Newman & Ross, 1971 : 25-8, text-fig. 5M.

NZOI MATERIAL

Stn A465 : cyprid larva.

REMARKS

"The taking of *Cryptophialus* by the *Eltanin* and the *Endeavour* (Stn A465) in the Antarctic to depths of 600 metres is of considerable interest because heretofore acrothoracicans have been known only from shallow water."

**Hexelasma** n.sp. Foster, 1979

HOLOTYPE

Buckeridge, 1975 : 124, fig. 3 (as *H.* sp.) Foster, in press, pl. 10], figs A-B.

TYPE LOCALITY

NZOI Stn F132 (49°59 'S, 177°32 'E, 1335 m; 29 January 1965).

NZOI MATERIAL

Stn C171; Stn C704; Stn D5; Stn D6; Stn D22; Stn D160; Stn D166; Stn D169; Stn E81; Stn E852; Stn E855; Stn E870; Stn E902; Stn E903; Stn F117; - all shell plates only; Stn F132 : 2 live specimens, 1 intact and numerous shell plates (including holotype, H-205, the larger live specimen, pl. 10, figs A-B).

REMARKS

Discussing the ecology of modern cirripedes in relation to the palaeoecology of Miocene rocks on Motutapu Island in the Hauraki Gulf, Buckeridge (1975) figured a "Recent *Hexelasma* from the New Zealand fauna, 1335 metres ... from NZOI specimen". Although no station number is given, the figured specimen is obviously from Stn F132 at which 2 live specimens, 1 intact and numerous shell plates were collected of a new species being described in press by Foster. This species contributes markedly to sediment formation in the form of hexelasmid plate gravel recorded in NZOI descriptions as "barnacle plates".

**Hexelasma antarcticum** Borradaile, 1916  
[= *Bathylasma corolliforme* (Hoek, 1883)]

FIGURED SPECIMENS

Bullivant, 1967 : 56, pl. 14.  
Newman & Ross, 1971 : 143-9, text-fig. 72, pls XV-XXII, XLIII.

NZOI MATERIAL

Stn A463 : numerous living specimens (Bullivant, pl. 14; disarticulated specimens figured by Newman & Ross, text-fig. 72, pls XV-XVII); Stn A456 (Newman and Ross, pl. XXX, fig. B).

#### REMARKS

Originally described by Borradaile (1916 : 132-4, figs 7a, a'-f, f') from subfossil material on glacial ice, Evans' Cove, Terra Nova Bay, Victoria Land, Antarctica (75°02'S, 163°48'E). A very full description (largely of this "species") and a discussion of its geological significance has been given by Weisbord (1967).

Bullivant (1967 : 50-3) has discussed the ecology of barnacle banks composed of this species on the edge of the deep shelf of the Ross Sea.

A more recent review of Antarctic barnacles by Newman & Ross (1971) has resulted in the placing of *H. antarcticum* Borradaile in the synonymy of *Bathylasma corolliforme* (Hoek, 1883), a species now regarded as widespread in the Antarctic. Their "thorough examination" of many specimens "yielded convincing evidence that the two forms are the same species ..."

#### *Stomatolepas elegans* (Costa, 1838)

##### FIGURED SPECIMEN

McCann, 1969 : 154, figs 3-5.

##### NZOI MATERIAL

Stn Z2278 (taken from young female luth or leatherback turtle (*Dermochelys coriacea* (Linnaeus)) "stranded at the mouth of the Whareama River, south of Castlepoint, on the east coast of the North Island of New Zealand (41°01'S, 176°06'W)").

##### REMARKS

"*Stomatolepas elegans* has been recorded as epizoic on the luth *Dermochelys coriacea* (Zullo & Bleakney, 1966) and on the loggerhead turtle *Caretta caretta* (Hiro, 1936). The distribution of this barnacle, like other epizoic species, is dependent on the movement of the host. Recently *S. elegans* was taken from the back of a luth off the coast of Nova Scotia at about 45°N (Zullo & Bleakney, 1966); this is believed to be the most northerly record of this barnacle. The present record from the Whareama River bank is, so far as is known, the first discovery of *S. elegans* in the Southern Hemisphere. (Smith, pers. comm.)." (McCann, 1969 : 152).

Foster (in press) remarks : "The illustrations by McCann are poorly orientated, possibly leading to the statement that this barnacle "affixes itself so that its appendages are turned towards the substratum ... I can see no reason for supposing this barnacle operates upside down."

Smaldon & Lyster (1976) have given more recent records, also noting that McCann's figures are upside down.

According to Dr Ronald Monroe, Curator of Crustacea, Queensland Museum, Brisbane (*in litt.* 17 June 1977), these specimens (15) represent a new species of *Stomatolepas*, and they have been used as paratypes in a description now in press (Monroe, R.W. & Limpus, C.J., Barnacles on turtles in Queensland waters. *Mem. Qd Mus.*).

#### Class COPEPODA

#### *Acartia ensifera* Brady, 1899

##### FIGURED SPECIMEN

Bradford, 1976b : 184-6, figs 20-22.

##### NZOI MATERIAL

Stn Z2680 : about 50 males (fig. 22) and females (figs 20-21, 23).

##### REMARKS

This species is - "Probably found in all New Zealand waters. Specimens seen from Wellington Harbour, off the Kaikoura Peninsula, Port Chalmers."

G.S.Brady (1899 : 33-4, pl. IX, figs 8-15) described it from material sent to him by Mr G.M. Thomson in "surface gatherings from Otago Harbour, Port Chalmers, Bay of Islands, and Napier; also in the net at a depth of 7 fathoms off Gisborne. These gatherings consist almost entirely of females ..."

#### *Acartia jilletti* Bradford, 1976

##### HOLOTYPE

Bradford, 1976b : 189-92, figs 26-28; 26 April 1976.

##### PARATYPES

##### TYPE LOCALITY

36°48.8'S, 174°49.6'E, Waitemata Harbour (= Stn A of Jillett 1971).

##### NZOI MATERIAL

Stn Z2679 : H-207 (holotype, female), P-284 (paratypes, 4 females, 4 males) and others (*see* Bradford 1976b : 189); Stn Z2680 : 1 male, 1 female.

##### REMARKS

Paratype lots of 4 females and 4 males are in the British Museum (Natural History), London, (Reg. No. 1975 : 874-881), the National Museum of Natural History, Smithsonian Institution (Reg. No. 152627), and the National Museum of N.Z., Wellington (Reg. No. NMNZ Z.Cr.1977) as well as in the N.Z. Oceanographic Institute (P-284).

The species was named for Dr John Jillett (1971 : 55) who had earlier recorded it from Waitemata Harbour in part as *A. clausi* of Giesbrecht.

#### *Acartia lefevreae* Bradford, 1976

##### PARATYPES

Bradford, 1976b : 168-70, figs 5-7; 26 April 1976.

##### TYPE LOCALITY

48°38.8'N, 3°51.7'W, Riviere de Morlaix, Brest, France, coll. 18 May 1967 (= Stn 7 of Le Fevre-Lehoerff, 1971).

##### NZOI MATERIAL

Stn Z2684 : P-286 (paratypes, 6 females, 4 males; figs 5-6 (female), fig. 7 (male)).

##### REMARKS

The holotype female (Reg. No. 1975 : 844) and a paratype lot of 6 females and 4 males (Reg. No.



1975 :845–854) are in the British Museum (Natural History), London. Similar paratype lots are in the National Museum of Natural History, Smithsonian Institution, Washington (Reg. No. 152629) as well as in the N.Z. Oceanographic Institute (P-286).

This species, named for the collector Mm G. Le Fevre-Lehoerff, is known “also from Genoa Harbour and possibly Garaa Achkel, Tunisia (Gurney 1931).”

#### **Acartia omorii** Bradford, 1976

##### PARATYPE

Bradford, 1976b : 173–6, figs 11–13; 26 April 1976.

##### TYPE LOCALITY

35°20.5'N, 139°41'E, Tokyo Bay, Japan (Mori 1937).

##### NZOI MATERIAL

Stn Z2681 : P-285 (paratypes, 7 females, 6 males).

##### REMARKS

Originally recorded from Tokyo Bay by Mori (1937 : 103, pl. 50, figs 5–7) as *A. clausi* Giesbrecht, but Bradford has elucidated the synonymy.

The holotype is a female (Reg. No. NSMT–Cr.4944) in the National Museum of Science, Tokyo, where there is also a paratype lot of 7 females and 6 males (Reg. No. NSMT–Cr.4945–57). Similar paratype lots are in the National Museum of Natural History, Smithsonian Institution, Washington, D.C., (Reg. No. 152628), the British Museum (Natural History), London, (Reg. No. 1975 : 861–873) as well as in the N.Z. Oceanographic Institute (P-285).

#### **Acartia simplex** Sars, 1905

##### FIGURED SPECIMEN

Bradford, 1976b : 187–9, figs 23–25.

##### NZOI MATERIAL

Stn Z2685 : about 500 males (fig. 25) and females (fig. 23–24) from the lagoon on Chatham Island; Stn Z2680 : 1 female and 2 males from Wellington Harbour.

##### REMARKS

Sars (1905 : 375–7, pl. 15, figs 13–20) described this species from the Chatham Islands. Its known distribution is – “In Chatham Islands lagoon and Stn B at Leigh 26 Apr 1964 and 25 Jul 1964 (Jillett 1971, as *A. clausi*). A few specimens of what appears to be this species have been taken in Wellington Harbour, so it is possible *A. simplex* is found in estuarine conditions more broadly in New Zealand waters.”

#### **Acartia teclae** Bradford, 1976

##### PARATYPE

Bradford, 1976b : 170–3, figs 8–10; 26 April 1976.

##### TYPE LOCALITY

Genoa Harbour, Italy, 13 May 1971.

##### NZOI MATERIAL

Stn Z2682 : P-287 (paratypes, 6 females).

##### REMARKS

The holotype female (Reg. No. 1975 : 855) and a paratype lot of 3 females and 2 males (Reg. No. 1975 : 856–860) are in the British Museum (Natural History), London. Other paratype lots are in the National Museum of Natural History, Smithsonian Institution (Reg. No. 152626, 6 females and 2 males) and in the N.Z. Oceanographic Institute (P-287).

The species is named for Dr Tecla Zunini Sertorio who made available the specimens from Genoa Harbour. Its distribution is – “From present observations in the Mediterranean and also in British waters according to Gurney (1931).”

#### **Acartia tranteri** Bradford, 1976

##### PARATYPES

Bradford, 1976b : 192–4, figs 29–31; 26 April 1976.

##### TYPE LOCALITY

30°05'S, 151°13'E, Port Hacking, N.S.W., Australia.

##### NZOI MATERIAL

Stn Z2683 : P-288 (paratypes, 7 females, 7 males).

##### REMARKS

The holotype female (Reg. No. AM P20617) and a paratype lot of 7 females and 7 males are in the Australian Museum, Sydney. Similar paratype lots are in the British Museum (Natural History), London, (Reg. No. 1975 : 882–895) and the National Museum of Natural History, Smithsonian Institution, Washington, D.C., (Reg. No. 152630) as well as in the N.Z. Oceanographic Institute (P-288).

The species was named for Dr D.J. Tranter. Dakin & Colefax (1940 : 106, figs 157a–c) had recorded it as *A. clausii* of Giesbrecht.

#### **Aetideopsis carinata** Bradford, 1969

##### PARATYPE

Bradford, 1969a : 81–6, text-figs 29–53; March 1969.

##### TYPE LOCALITY

South-east Atlantic Ocean, off the coast of South West Africa, 21°09'S, 12°44'E, 23 August 1963.

##### NZOI MATERIAL

Stn Z2424 : P-55 (paratype), female.

##### REMARKS

“The holotype, a female, is deposited at the South African Museum (Cat. No. SAM A12639)”.

“Paratypes : one female (Cat. No. SAM A12641) and one male (Cat. No. SAM A12640) have been deposited at the South African Museum; one female is in the collection of the N.Z. Oceanographic Institute, Wellington, Reg. No. 55; one female and one male are at the British Museum (Nat. Hist.), London, (BM(NH) Reg. No. 1968.4.30.1 (female) and BM(NH) Reg. No. 1968.4.30.2 (male))”.

**Aetideopsis minor** (Wolfenden, 1911)

FIGURED SPECIMEN

Bradford, 1971c : 18, fig. 30 (female leg 2).

NZOI MATERIAL

Stn A453 : 3 females, 2.9 mm, 1 male copepodite.

REMARKS

Described by Wolfenden (1911 : 214-5) in the genus *Faroella* from two specimens taken on 6 and 10 March 1903, NW of the Antarctic *Gauss* station, this species "is characteristic of the Southern Ocean and is found in the intermediate and deep water bordering the Antarctic continent ..."

**Aetideopsis tumorosa** Bradford, 1969

HOLOTYPE

Bradford, 1969a : 74-80, figs 1-13; March 1969.

PARATYPES (6)

Bradford, 1969a : 74-80, figs 14-23.

TYPE LOCALITY

42°26'S, 173°52'E, off Kaikoura, east coast, South Island, 200-600 m, 5 May 1965 (= NZOI Stn Z2425).

NZOI MATERIAL

Stn B120; Stn G142 : 1 male specimen 2.40 mm long; Stn Z2425 : H-45 (holotype, female), P-52 (paratype, male, figured), P-53 (paratype, 5 females).

REMARKS

"Paratypes : pairs of female specimens have been deposited at - Dominion [National] Museum, Wellington, (Cat. No. Cr.1806); the British Museum (Natural History), (B.M. Reg. No. 1968.3.18.1); and the Smithsonian Institution (Cat. No. USNM 122638). The remaining five female paratypes have been deposited in the collection of the New Zealand Oceanographic Institute ... Descriptions and drawings were made from the female holotype and one paratype specimen and the male paratype." (Bradford 1969a : 78-9).

**Aetideus acutus** Farran, 1929

FIGURED SPECIMENS

Bradford, 1971a : 30, figs 12d-h.

NZOI MATERIAL

Stn A295 : 1 female, 1 male (figs 12g-h); Stn A301 : 1 female; Stn A302 : 1 male, 1 female (figs 12d-f); Stn A303 : 1 male; Stn F945 : 2 females.

REMARKS

Originally described by Farran (1929 : 228-9, figs 5a-b) from "only three specimens, females, ... taken on three stations to the north-west of the north point of New Zealand, surface to 2 metres."

**Aetideus australis** (Vervoort, 1957)

FIGURED SPECIMENS

Bradford, 1971a : 19-22, figs 5a-h, 6a, 7a-m, table 1.

NZOI MATERIAL

Stn B109 : 2 females including that figured in figs 5a-h; Stn B114 : 1 female; Stn B117 : 2 females; Stn D599 : 1 female; Stn G142 : 18 females, 2 males; Stn G144 : 2 females, 1 male (figs 7a-m).

REMARKS

Originally described by Vervoort (1957 : 46-8, figs 16-19, 20a) from BANZAR Expedition Stn 65 (47°43'S, 76°48'E, 250-100 m) as *Euaetideus*. Previous South-west Pacific records are listed by Bradford (1971a : 19).

Bradford (1970) recorded as *A. armatus* (Boeck, 1872) both *A. australis* and her new species, *A. pseudarmatus*. The distribution of *A. australis* was therefore further discussed by her in 1971.

**Aetideus divergens** Bradford, 1971

PARATYPES (5)

Bradford, 1971a : 24-6, figs 9a-h; March [July] 1971.

TYPE LOCALITY

*Albatross* Stn 4758 (52°02'N, 132°53'W, 550 m, off British Columbia); 19 May 1960 (= NZOI Stn Z2426).

NZOI MATERIAL

NZOI Stn Z2426 : (*Albatross* Stn 4758) P-124 (paratypes, 3 females, 2 males).

REMARKS

Also known from other localities in the North-east Pacific (Scripps Institution of Oceanography Norpac 63, Norpac 70, CalCOFI 580460.60 - further details in Bradford (1971a : 25, and Appendix, pp.39-40).

The holotype (female) is in the Smithsonian Institution, National Museum of Natural History, (USNM 128617) with paratypes (130 females, 3 males) (USNM 70668).

**Aetideus giesbrechti** Cleve, 1904

FIGURED SPECIMENS

Bradford, 1971a : 28-9, figs 11a-k, 12a-c.

NZOI MATERIAL

Stn A318 : 1 male; Stn A343 : 9 females; Stn C526 : 1 female; Stn F945 : 3 females; Stn F946 : 12 females including that figured in figs 11a-k, 4 males including that figured in figs 12a-c; Stn F947 : 7 females; Stn G142 : 1 male.

**Aetideus pseudarmatus** Bradford, 1971

HOLOTYPE

PARATYPE

Bradford, 1971a : 23-4, figs 8a-e; March [July] 1971.

TYPE LOCALITY

NZOI Stn A313 (46°46'S, 164°35'E, SW of New Zealand, 0-500 m; 17 August 1956).

**NZOI MATERIAL**

Stn A313 : H-68 (holotype, female); Stn A315 : P-123 (paratype, female); Stn G142 : 3 females; Stn G144 : 1 female.

**REMARKS**

Also known from Canterbury University Stn K4/4/65, Otago University Mu67/88, Mu67/48, and Administration of South West Africa, Marine Research Laboratory, KTE and C (further details in Bradford (1971a : 34, and Appendix, pp.39–40)).

**Alloiodopus pinguis** Bradford, 1969

**HOLOTYPE**

Bradford, 1969b : 475, 500–1, figs 199–215; December 1969.

**PARATYPE**

**TYPE LOCALITY**

NZOI Stn F911 (34°38'S, 174°36'E, E of North Cape, northern New Zealand, 1,697–1,690 m, *Globigerina* ooze, 11 October 1968).

**NZOI MATERIAL**

Stn F879 : P-122 (paratype, female); Stn F911 : H-65 (holotype, female).

**REMARKS**

This is the type species of the new genus *Alloiodopus* Bradford, 1969. “The generic name (Greek *alloios* = different, and *podos* = foot) refers to the modified mouthparts, and the specific name to the deep cephalothorax (Latin *pinguis* = stout)”.

**Amphiascopsis cinctus** (Claus, 1866)

**FIGURED SPECIMENS**

Hicks, 1971 : 112–15, figs 16a–b, 17c–h; March [July] 1971.

**NZOI MATERIAL**

Stn Z2319 : 8 females (figs 16a–b, 17c–g), 4 males (fig. 17h).

**REMARKS**

A discussion of the distribution and variability of this species has been given by Lang (1965 : 266–72).

**Amphiascopsis southgeorgiensis** (Lang, 1936)

**FIGURED SPECIMENS**

Hicks, 1971 : 115–7, figs 18–19; March [July] 1971.

**NZOI MATERIAL**

Stn Z2319 : “A single ovigerous female specimen ...”

**REMARKS**

Originally described by Lang (1936) from South Georgia with further details later (Lang, 1948). Additional drawings of some of the more important structures have been given by Hicks (1971).

**Amphiascus lobatus** Hicks, 1971

**HOLOTYPE**

**PARATYPES**

Hicks, 1971 : 108–12, figs 13a–c (female), 14d–k (female), 14l–m (male), 15n–o (male), 15p (female), 15q (male), 15r–u (female); March [July] 1971.

**TYPE LOCALITY**

“Type material was taken in June 1969 at Island Bay, Wellington (NZOI Stn Z2319); the animals were associated with *Corallina officinalis* in mid-littoral pools”.

**NZOI MATERIAL**

Stn Z2319 : H-70 (holotype, female); P-127 (paratypes, 6 females) (figs 13a–c, 14d–k, 15p, 15r–u); P-128 (paratype, 1 male) (figs 14l–m, 15n–o).

**REMARKS**

“Drawings and descriptions were taken from 6 female and 1 male mounted paratype specimens.” (Hicks, 1971 112).

**Arietellus aculeatus** (T. Scott, 1894)

**FIGURED SPECIMEN**

Bradford, 1974b : 526–30, figs 4a–d.

**NZOI MATERIAL**

Stn F945 : 1 male, 1 stage V female.

**REMARKS**

Originally described by Scott (1894 : 31, pl. 2, figs 11–24) in the genus *Rhincalanus* from the Gulf of Guinea, this species was redescribed by Bradford who noted : “It appears that although it has been rarely caught, [it] has a wide distribution ...”

**Bradyidius brevispinus** Bradford, 1969

**HOLOTYPE**

Bradford, 1969b : 475, 479, figs 32–43; December 1969.

**TYPE LOCALITY**

NZOI Stn F892 (36°58'S, 176°41'E, 5 October 1968, 1,278–1,194 m, mud, off Coromandel Peninsula, NE New Zealand).

**NZOI MATERIAL**

Stn F892 : H-55 (holotype, female).

**REMARKS**

Known only from the holotype. “The specific name refers to the short terminal spine of the exopod, leg 2.”

**Bradyidius dentatus** Bradford, 1969

**HOLOTYPE**

Bradford, 1969b : 475, 481, figs 44–56; December 1969.

**PARATYPE**

**TYPE LOCALITY**

NZOI Stn F874 (37°18'S, 178°11'E, 3 October 1968, 1,357 m, mud, off East Cape, NE New Zealand).

**NZOI MATERIAL**

Stn F874 : H-56 (holotype, male); Stn F911 : P-115 (paratype, male).

**REMARKS**

The specific name refers to the “unusually large number of closely set teeth on the terminal spines of the swimming leg exopods”.

**Bradyidius hirsutus** Bradford, 1976**PARATYPES**

Bradford, 1976a : 1-10; December 1976.

**TYPE LOCALITY**

Mouth of Mgazana Lagoon, Pondoland, South Africa (31°50'S), plankton sample, collected by T. Wooldridge, 1 September 1972.

**NZOI MATERIAL**

Stn Z2518 : P-295 (paratypes, 1 female, 1 male).

**REMARKS**

Holotype (an adult female; Reg. No. SAM A13661) and paratypes are in the South African Museum. Other paratypes are in the British Museum (Natural History), London.

**Bradyidius robustus** Bradford, 1969**HOLOTYPE**

Bradford, 1969b : 475, 476-9, figs 2-17; December 1969.

**PARATYPES (7)**

Bradford, 1969b : 476-9, figs 18-31.

**TYPE LOCALITY**

NZOI Stn E788 (44°00'S, 168°11'E, off Cascade Point, SW New Zealand, 1193-1184 m, 17 October 1967).

**NZOI MATERIAL**

Stn E788 : H-54 (holotype, female), P-113-114 (paratypes, 6 females, 1 male, being figured specimens).

**REMARKS**

Other paratypes are in – British Museum (Natural History), London, Reg. No. 1969.6.5.1. (6 females); National Museum of Natural History, Smithsonian Institution, Washington, Cat. No. USNM 126107 (6 females).

“The specific name refers to the robust nature of the copepod”. “Known only from type locality”.

**Bradyidius spinibasis** Bradford, 1969**HOLOTYPE**

Bradford, 1969b : 475, 481, 483-4, figs 57-67, 69; December 1969.

**PARATYPE**

Bradford, 1969b : 481, 483-4, fig. 68.

**TYPE LOCALITY**

NZOI Stn F911 (34°38'S, 174°36'E, E of North Cape,

northern New Zealand, 11 October 1968, 1,697-1,690 m, *Globigerina* ooze.

**NZOI MATERIAL**

Stn F911 : H-57 (holotype, stage V female), P-116 (paratype, stage V male).

**REMARKS**

Known from holotype and paratype only (both immature).

“The specific name refers to the spiny nature of the first basipods of swimming legs 1-4”.

**Bradyidius spinifer** Bradford, 1969**HOLOTYPE**

Bradford, 1969a : 87-92, figs 54-64; March 1969.

**PARATYPE**

Bradford, 1969a : 87-92, figs 65-74.

**TYPE LOCALITY**

Kaikoura, New Zealand, 42°26'S, 173°52'E, haul 0-600 m, 29 October 1964 (= NZOI Stn Z2427).

**NZOI MATERIAL**

Stn Z2427 : H-46 (holotype, female), P-54 (paratype, male).

**REMARKS**

“Only the holotype and paratype ... were available for description.”

**Candacia maxima** Vervoort, 1957**FIGURED SPECIMEN**

Bradford, 1971c : 27, fig. 125.

**NZOI MATERIAL**

Stn A453 : 1 male, 3.6 mm.

**REMARKS**

Vervoort (1957 : 142-4, figs 132-38) described this species from a single male and female (both dissected) from BANZAR Expedition Stn 65, 47°43'S, 76°48'E, 500-250 m, 4 March 1930 (also collected at Stns 45 and 99) and noted : “The remaining specimens from Stn 65 form the type lot”. Bradford (1971c : 27) remarked : “From the occurrence of a large number of specimens outside the Antarctic Convergence Vervoort (1957) deduced that the species is a sub-antarctic form occasionally transported south of the Antarctic Convergence in intermediate water masses.” The word “large” is an error for “larger” since Vervoort had examined only 6 adult males and 6 females and one female copepodite from Stn 65. His words were : “The occurrence of a larger number of specimens at Sta. 65, outside the Antarctic Convergence, seems to suggest that the species is a subantarctic and Antarctic form, occurring in intermediate waters, which is occasionally transported South of the convergence.”

**Chiridiella megadactyla** Bradford, 1971**HOLOTYPE**

Bradford, 1971c : 19-20, figs 49-60; 1971.

TYPE LOCALITY

NZOI Stn A462 (71°15'S, 176°30'E, 1000–0 m, Ross Sea, Antarctica, 20 January 1959).

NZOI MATERIAL

Stn A462 : H-51 (holotype, 1 female).

**Chondracanthus radiatus** (Müller, 1776)

FIGURED SPECIMEN

Ho, 1975b : 311–12, figs 7A–C.

NZOI MATERIAL

Stn E414 : one female, from inner side of operculum of a rat-tail fish *Macrurus carinatus*.

REMARKS

“The only known specimen (figs 7A–C) is unfortunately broken into head and trunk at the neck region.” This species, described by Müller (1776 : 226) in the genus *Lernaea* from a macrurid fish in the North Atlantic, was previously known only from this region. “The present record lends a support to Ho’s (1975) recent finding that copepod parasites of deep-sea fishes have extremely wide geographical distribution.” (Ho, 1975b : 312).

Ho (1971 : 15–17, fig. 11) has given a description and references and synonymy for this species together with other remarks based on specimens examined from the macrurids *Macrurus bairdii* Goode & Bean and *M. fabricii* Linnaeus. The New Zealand host, *M. carinatus* Günther, 1878, is documented in a forthcoming memoir on the New Zealand macrurid fishes by McCann & McKnight (in press).

**Comantenna crassa** Bradford, 1969

HOLOTYPE

Bradford, 1969b : 475, 484–6, figs 70–81; December 1969.

TYPE LOCALITY

NZOI Stn F881 (37°07'S, 177°14'E, off Bay of Plenty, NE New Zealand, 4 October 1968, 1,260–1,234 m).

NZOI MATERIAL

Stn F881 : H-58 (holotype, female).

REMARKS

Known from holotype only. “The specific name refers to the compact nature of the copepod”.

**Crassantenna comosa** Bradford, 1969

HOLOTYPE

Bradford, 1969b : 475, 493–4, figs 143–57; December 1969.

TYPE LOCALITY

NZOI Stn F910 (34°56'S, 175°23'E, E of North Cape, northern New Zealand, 10 October 1968, 1,383–1,397 m, *Globigerina* ooze).

NZOI MATERIAL

Stn F910 : H-63 (holotype, female).

REMARKS

This is the type species of the new genus *Crassantenna* Bradford, 1969 and is known only from the holotype. “The generic name (Latin *crassa* = thick and *antenna*) refers to the squat endopod of antenna 1; the specific name *comosa* refers to the “hairy” antenna 1 ...”

**Crassantenna mimorostrata** Bradford, 1969

HOLOTYPE

Bradford, 1969b : 475, 495–6, figs 158–70; December 1969.

PARATYPE

TYPE LOCALITY

NZOI Stn F911 (34°38'S, 174°36'E, E of North Cape, northern New Zealand, 11 October 1968, 1,697–690 m, *Globigerina* ooze).

NZOI MATERIAL

Stn F881; Stn F911 : H-67 (holotype, female), P-119 (paratype, female).

REMARKS

One paratype in British Museum (Nat. Hist.), London, Reg. No. 1969.6.5.2. (female) from NZOI Stn F881. “... the specific name ... *mimorostrata* [refers] to the very small rostrum”.

**Disseta magna** Bradford, 1971

HOLOTYPE

Bradford, 1971b : 133–4, figs 11a–q; March [July] 1971.

TYPE LOCALITY

Victoria University Stn VUZ 106, 41°47'S, 175°01'E, 28 December 1957, 823–914 m (= NZOI Stn Z2428).

NZOI MATERIAL

Stn Z2428 : H-109 (holotype, female).

REMARKS

Known only from the holotype.

**Euchaeta marinella** Bradford, 1974

HOLOTYPE

Bradford, 1974a : 168, figs 1c, 3e–f, 4i–l, table 2; April 1974.

PARATYPES (12)

TYPE LOCALITY

NZOI Stn C544 (23°01.2'S, 166°19'W, 24 September 1960, surface haul).

NZOI MATERIAL

Stn C544 : H-108 (holotype, female), P-174 (paratypes, 8 females, 6 males). Bradford (1974a : 161) listed 23 females and 11 males taken at this station.

REMARKS

Paratypes are also in the National Museum of Natural History, Smithsonian Institution (7 females, 4 males). The number of paratypes in NZOI was omitted in Bradford’s account (p.168).

**Eupelte regalis** Hicks, 1971

HOLOTYPE

PARATYPES

Hicks, 1971 : 102-6, figs 10a-h (female), 11i-l (female), 12m-s (male); March [July] 1971.

TYPE LOCALITY

“The type material was taken in a net from amongst various sub-littoral seaweeds at Island Bay, Wellington, in January 1970 (NZOI Stn Z2320)”.

NZOI MATERIAL

Stn Z2320 : H-76 (holotype, whole mount, female), P-142 (paratypes, dissected, 2 females, 3 males).

REMARKS

“Descriptions and drawings have been made from the holotype and paratype specimens”. (Hicks, 1971 : 104).

**Farrania frigida** (Wolfenden, 1911)

FIGURED SPECIMEN

Bradford, 1971c : 17, fig. 21.

NZOI MATERIAL

Stn A453 : 2 females, 2.85 mm, few copepodites.

REMARKS

Described by Wolfenden (1911 : 245-7, text-figs 29a-b) in a new genus *Drepanopsis* (later found to be pre-occupied) from *Gauss* stations “im sudlichen Eismeer” (1200 m, 6 March 1903) and “unter dem Aquator im Atlantischen Ozean” (3000 m, 26 September 1903), this species is “classified as a characteristic Antarctic deep-water form known from the Atlantic, Indian and Pacific sectors.”

**Haloptilus ocellatus** Wolfenden, 1905

FIGURED SPECIMEN

Bradford, 1971c : 26-7, figs 104-109.

NZOI MATERIAL

Stn A453 : 1 male, 4.1 mm (figs 104-110); Stn A462 : 1 female, 8.3 mm (figs 111-118).

REMARKS

Described by Wolfenden (1905a : 14, pl. V) from the South Atlantic, this “well recognisable species” is a “very characteristic Antarctic copepod” according to Vervoort (1957 : 138) who gave further literature references to it. It inhabits the Deep Warm Current.

**Haloptilus oxycephalus** (Giesbrecht, 1889)

FIGURED SPECIMEN

Bradford, 1971c : 27, figs 120-124.

NZOI MATERIAL

Stn A453 : 1 male 3.1 mm, 1 female 2.85 mm; Stn A463 : 1 female copepodite 2.7 mm.

REMARKS

Described by Giesbrecht (1889 : 813) in the genus *Hemicalanus* from the Pacific Ocean between 11°N and

3°S, this species “is not confined to the Antarctic, although it is regularly found in Antarctic and sub-antarctic plankton. At tropical and temperate localities it is a deep-water form ...” (Bradford, 1971c : 71, following Vervoort, 1957 : 138).

**Heterorhabdus abyssalis** (Giesbrecht, 1889)

FIGURED SPECIMENS

Bradford, 1971b : 120, 127, 135, 137, figs 6a (female), 6b-c (male).

NZOI MATERIAL

Stn G142 : several hauls, includes figured male and female.

REMARKS

Bradford (1971b : 120, 126-7, 135) discussed the confusion of this species with *H. proximus* Davis, 1949 which she recorded from six stations within the New Zealand region.

**Heterorhabdus caribbeanensis** Park, 1970

FIGURED SPECIMENS

Bradford, 1971b : 129, 135, 136, text-figs 8a-l (female), 8m-p (male).

NZOI MATERIAL

Stn A303 : 1 female, 1 male; Stn C537 : 1 male.

REMARKS

Originally described by Park (1970 : 523) from 980-1,990 m in the Caribbean Sea. Bradford (1971b : 129) recorded it from the Southwest Pacific and discussed the previously undescribed male.

**Heterorhabdus farrani** Brady, 1918

FIGURED SPECIMEN

Bradford, 1971c : 25, figs 97-100.

NZOI MATERIAL

Stn A453 : 1 female 3.8 mm, 1 male 3.6 mm; Stn A462 : 1 stage V female copepodite.

REMARKS

G.S. Brady (1918 : 27, pl. 4, figs 10-18) described this species from AAE Stns 9 and 11 in the Australian sector of the Antarctic at 64°34.5'S, 127°8'E. Bradford noted from published records that it is characteristic of the southern oceans and inhabits the Deep Warm Current but also occurs north of the Antarctic Convergence in small numbers.

**Heterorhabdus lobatus** Bradford, 1971

HOLOTYPE

Bradford, 1971b : 131-3, fig. 10c, table 2; March [July] 1971.

PARATYPE

Bradford, 1971b : 131-3, figs 9, 10a-b, table 2.

**TYPE LOCALITY**

NZOI Stn G142 (42°24.5'S, 174°01.8'E, 0–500 m, 20–21 September 1967).

**NZOI MATERIAL**

Stn A313 : 3 females, 4 males; Stn A318 : 2 males; Stn A332 : 7 females; Stn B120 : 1 female; Stn D614 : 1 female; Stn D619 : 1 female; Stn F881 : 1 female; Stn F945 : 1 female; Stn F946 : 1 male; Stn F947 : 1 female; Stn G142 : H-107 (holotype, female), P-172 (paratype, male) 8 females, 9 males; Stn G144 : 1 male, 2 females.

**REMARKS**

Other paratypes in – British Museum (Nat. Hist.), London, Reg. No. 1971.1.5.3 (female), 1971.1.5.4. (male); Smithsonian Institution, National Museum of Natural History, Cat. No. USNM 13730. Also known from Otago University Zoology Department, Stn Mu67/52s, Mu67/62s.

**Heterorhabdus proximus** Davis, 1949**FIGURED SPECIMENS**

Bradford, 1971b : 120, 126–7, 135, 137, figs 6d (female), 6e–f (male).

**NZOI MATERIAL**

Stn F881 : 1 male; Stn F910 : 1 male; Stn F945 : 2 females, 1 male; Stn F946 : 4 females, 4 males; Stn F947 : 1 male; Stn G142 : 1 female.

**REMARKS**

Bradford (1971b : 120, 126–7) has discussed the confusion of this species with *H. abyssalis* (Giesbrecht, 1889) recorded from NZOI Stn G142.

**Heterorhabdus pustulifer** Farran, 1929**FIGURED SPECIMENS**

Bradford, 1971b : 127–8, 135, 137, text-figs 7a (male); Bradford, 1971c : 26, figs 101–102.

**NZOI MATERIAL**

Stn A453 : 1 female 3.2 mm (Bradford, 1971c : figs 101–102); Stn B109 : 1 male; Stn B110 : 1 male; Stn B111 : 1 male.

**REMARKS**

Originally described by Farran (1929 : 266, figs 27a–d) from “a few females” ... from *Terra Nova* Stns 287 and 285, 66°30' – 76°S, this species is known only from the Antarctic. “One male specimen of *H. pustulifer*, taken in the Ross Sea at NZOI Sta. A453, was incorrectly identified as *H. austrinus* by Bradford (1971, fig. 96)” (Bradford, 1971b : 128)“. Also known from Otago University Zoology Department Stn Mu67/94s, Mu67/104s, Mu67/116s.

**Heterorhabdus spinosus** Bradford, 1971**HOLOTYPE****PARATYPE**

Bradford, 1971b : 121–5, figs 1, 2g–k, 3c, 4c, table 1; March [July] 1971.

**TYPE LOCALITY**

Victoria University Stn VUZ 105 (41°47'S, 175°01'E, 28 December 1957, 823–914 m) (= NZOI Stn Z2429).

**NZOI MATERIAL**

Stn Z2429 : H-110 (holotype, female), P-175 (paratype, male); Stn F946 : 5 females; Stn G142 : 3 females.

**REMARKS**

Other paratypes in – British Museum (Nat. Hist.), London, BM(NH) Reg. No. 1971.1.5.1 (female), 1971.1.5.2 (male); Smithsonian Institution, National Museum of Natural History, Cat. No. USNM 135731 (female, male).

Also known from Victoria University Stn VUZ 93, VUZ 112 and Otago University Zoology Department Stn Mu67/52s, 57s, 94s, 104s, 116s, 147s (further details in Bradford, 1971b : 123, and Appendix, pp.139–40).

**Heterostylites major** (F. Dahl, 1894)**FIGURED SPECIMEN**

Bradford, 1971c : 26, fig. 103.

**NZOI MATERIAL**

Stn A453 : 1 male 4.5 mm.

**REMARKS**

Described by Dahl (1894 : 79) in the genus *Heterochaeta* from the Atlantic Ocean, this species is distributed in Antarctic waters at moderate depths and is also found north of the Antarctic Convergence and at scattered deep water localities in the Atlantic, Indian and Pacific Oceans.

**Lucicutia macrocera** Sars, 1920**FIGURED SPECIMEN**

Bradford, 1971c : 24, fig. 89.

**NZOI MATERIAL**

Stn A453 : 1 male 3.8 mm.

**REMARKS**

Described by Sars (1920 : 10) from a single adult female, 3.3 mm long, taken in the Atlantic west of Brittany at 48°42'N, 18°18'W, 2200 m – surface, this species termed “very rare” by Vervoort (1957 : 130), “occurs occasionally in deep hauls in the North Atlantic, Western Pacific, and Indian Oceans, but is comparatively abundant in Antarctic waters ...” (Bradford, 1971c : 24).

**Lutamator hurleyi** Bradford, 1969**HOLOTYPE**

Bradford, 1969b : 475, 491–3, figs 128–142; December 1969.

**PARATYPE****TYPE LOCALITY**

NZOI Stn F874 (37°18'S, 178°11'E, off East Cape, NE New Zealand, 3 October 1968, 1,357 m, mud).

**NZOI MATERIAL**

Stn F874 : H-62 (holotype, female), P-118 (paratype, female).

**REMARKS**

This is the type species of the new genus *Lutamator* Bradford. "This species is named for Dr D.E. Hurley, who began the Menzies trawl sampling programme in New Zealand waters and the generic name comes from Latin *Lutum* = mud, and *amator* = lover."

**Nannocalanus minor** (Claus, 1863)**FIGURED SPECIMEN**

Bradford, 1971c : 15, fig. 6.

**NZOI MATERIAL**

Stn A466 : 1 female 1.75 mm.

**REMARKS**

Originally described in the genus *Cetochilus* by Claus (1863 : -) from off Messina, this species has its southern limit "somewhere north of the Subtropical Convergence". Bradford considered this specimen "a stray into the Antarctic environment" at 78°26'S.

**Neoscolecithrix** sp. Bradford, 1973**FIGURED SPECIMEN**

Bradford, 1973 : 147-9, figs 4a-o.

**NZOI MATERIAL**

Stn Z2430 : 1 juvenile.

**REMARKS**

A description was given of a stage V copepodite, total length 3.2 mm.

**Onchocalanus wolfendeni** Vervoort, 1950**FIGURED SPECIMEN**

Bradford, 1971c : 22, figs 72-73 (female leg 5, leg 1).

**NZOI MATERIAL**

Stn A453 : 1 female 6.2 mm; Stn A462 : stage V copepodite 5.0 mm.

**REMARKS**

Vervoort (1950 : 22-6, figs 9-11) described this species from a single adult female collected from the Dutch whaling factory ship *Willem Barendsz* on its 1946/47 expedition at Stn AO27, 66°04'S, 11°W. From an adult female collected on the National Antarctic (*Discovery*) Expedition by a vertical haul through an ice hole "while the ship was in Winter Quarters", Wolfenden (1908 : 34, 37, pl. VII, figs 1-9) originally reported this species as *Xanthocalanus magnus* Wolfenden, 1906, but later separated both forms and used the name *Onchocalanus magnus* for the small form now recognised as *O. wolfendeni*. *O. magnus* (Wolfenden, 1906) is reserved for the large Antarctic form discussed by Vervoort (1950 : 17-21, figs 5-8).

**Paracalanus indicus** Wolfenden, 1905**FIGURED SPECIMEN**

Bradford, 1978 : 135-8, figs 1-4.

**NZOI MATERIAL**

Stn N355; Stn N372; Stn N400 (fig. 4); Stn N409; Stn N439; Stn N451; Stn N461 (fig. 3); Stn N478.

**REMARKS**

This species had previously been recorded in New Zealand waters as *Paracalanus parvus* (Claus) "but Bowman's work (1971) makes it evident that this north Atlantic species is not found in New Zealand waters." Wolfenden (1905b : 998, pl. XCVI, fig. 10) described it from collections made around the Maldive Islands in the Indian Ocean. Bradford has redescribed it from New Zealand material, giving references to its local records as *P. parvus*.

**Paragaptilus buchani** (?) Wolfenden, 1904**FIGURED SPECIMEN**

Bradford, 1974b : 524, figs 2a-b.

**NZOI MATERIAL**

Stn F946 : 1 male.

**REMARKS**

"It seems likely that there is more than one species which can be referred to *P. buchani* ..." The species was originally described by Wolfenden (1904 : 112, 123-4, pl. IX, figs 44-45) from an adult female collected during 1903 in the "warm area" of the North Atlantic (51° - 60°N). He noted : "I attach to it the name of my sailing master, to whose continual labour in the management of instruments I owe a great deal". Buchan Henry was in charge of Wolfenden's 40 ton cutter *Walwin* used for his notable series of plankton investigations in the North Atlantic.

**Paragaptilus magnus** Bradford, 1974**HOLOTYPE**

Bradford, 1974b : 523-4, figs 1a-n; September [= October] 1974.

**TYPE LOCALITY**

NZOI Stn F911 (34°38'S, 174°36'E, off NE coast of the North Island, 1697 m, 11 October 1968).

**NZOI MATERIAL**

Stn F911 : H-199 (holotype, 1 male).

**REMARKS**

"This species is named for its large size."

**Pleuromamma gracilis** (Claus, 1863)**FIGURED SPECIMEN**

Bradford, 1971c : 24, fig. 88.

**NZOI MATERIAL**

Stn A459 : 1 female 1.8 mm.



#### REMARKS

This species was described by Claus (1863 : 197, pl. V, figs 7–11) as *Pleuromma gracile*. Farran (1929 : 60) noted its distribution based on *Terra Nova* collections : “Of frequent occurrence in the North Temperate and Tropical Atlantic from 29°10'N southwards. Common off New Zealand and sometimes abundant. Its range extended as far south as the Auckland and Campbell Islands” (Stns 235, 238, 241). Bradford (1971c : 24) remarked : “The occurrence of this one battered specimen is anomalous [at 75°17'S], although Farran (1929) recorded it as far south as 52°S.” Incidentally, the date for Claus was given incorrectly as 1893.

#### **Porcellidium dilatatum** Hicks, 1971

##### HOLOTYPE

##### PARATYPES

Hicks, 1971 : 94–8, figs 5–7; March [= July] 1971.

##### TYPE LOCALITY

“The type material was taken in a net from amongst various sub-littoral seaweeds at Island Bay, Wellington, in January 1970 (NZOI Stn Z2320).”

##### NZOI MATERIAL

Stn Z2320 : H-71 (holotype, female), P-129 (paratype, male), P-130 (paratypes, female (figs 5a, c; figs 6e–l; figs 7o–q), male (figs 5b, d, 6m–n)).

##### REMARKS

Other paratype pairs (female, male) in – National Museum, Wellington (Z.Cr. 1863); British Museum (Nat. Hist.), London, (BM(NH) Reg. No. 1969.12.1.1); National Museum of Natural History, Smithsonian Institution, Washington, D.C., (USNM 128136).

“Descriptions and drawings have been made from the paratype specimens”.

#### **Porcellidium erythrum** Hicks, 1971

##### HOLOTYPE

##### PARATYPES

Hicks, 1971 : 98–102, figs 8–9; March [= July] 1971.

##### TYPE LOCALITY

“Type material was taken in a net from amongst various sub-littoral seaweeds at Island Bay, Wellington, in January 1970 (NZOI Stn Z2320).”

##### NZOI MATERIAL

Stn Z2320 : H-75 (holotype, female), P-140 (paratype, male (figs 9n, q, s)); P-141 (paratype, 2 females (figs 8a–k, 9l–m, 9o–p, 9r)).

##### REMARKS

“Descriptions and drawings have been made from the paratype specimens”.

#### **Pseudeuchaeta flexuosa** Bradford, 1969

##### HOLOTYPE

Bradford, 1969b : 475, 488, figs 98–111; December 1969.

##### TYPE LOCALITY

NZOI Stn F911 (34°38'S, 174°36'E, E of North Cape, northern New Zealand, 11 October 1968, 1,697–1,690 m, *Globigerina* ooze).

##### NZOI MATERIAL

Stn F911 : H-60 (holotype, female).

##### REMARKS

Known only from the holotype. “The specific name ... refers ... to the curved posterior thoracic points”.

#### **Pseudeuchaeta magna** Bradford, 1969

##### HOLOTYPE

Bradford, 1969b : 475, 486–7, figs 82–97; December 1969.

##### TYPE LOCALITY

NZOI Stn F911 (34°38'S, 174°36'E, E of North Cape, northern New Zealand, 11 October 1968, 1,697–1,690 m, *Globigerina* ooze).

##### NZOI MATERIAL

Stn F911 : H-59 (holotype, female).

##### REMARKS

Known only from holotype. “The specific name *magna* refers to overall size ...”.

#### **Scaphocalanus brevicornis** (Sars, 1900)

##### FIGURED SPECIMEN

Bradford, 1971c : 73, figs 81–82.

##### NZOI MATERIAL

Stn A454 : 1 female 2.5 mm (figs 81, 83), 1 male 2.75 mm (fig. 82).

##### REMARKS

Described by Sars (1900 : 46, pl. 10) in the genus *Scolecithrix* from material collected on the Norwegian North Polar Expedition, this “species occurs in deep water in all oceans ...”

#### **Scolecithricella glacialis** (Giesbrecht, 1902)

##### FIGURED SPECIMEN

Bradford, 1971c : 23, fig. 78.

##### NZOI MATERIAL

Stn A453 : 1 female 1.3 mm.

##### REMARKS

Described as a species of *Scolecithrix* by Giesbrecht (1902 : 25, pl. IV, figs 1–7) from three females taken at plankton Stn XIII A. No. 377, 1134, 71°15'S, 87°27'W, 400 m, 21 May 1898, and Stn XXVIII, No. 761, 69°54'S, 82°49'W, 475 m, 6 December 1898, this species “is characteristic of Antarctic surface water, and in areas north of the Antarctic Convergence it usually occurs in intermediate bodies of water ...”

#### **Scutellidium spinatum** Hicks, 1971

##### HOLOTYPE

##### PARATYPES

Hicks, 1971 : 87–92, figs 1–4; March [= July] 1971.

#### TYPE LOCALITY

“The type material came from one sample collected in June 1969 at Island Bay, Wellington, New Zealand, associated with *Corallina officinalis* in mid-littoral pools (NZOI Stn Z2319).”

#### NZOI MATERIAL

Stn Z2319 : H-69 (holotype, female), P-125 (paratypes, 4 males), (figs 1b, 2e-f, 3m-n), P-126 (paratypes, 5 females) (figs 1a, 2c-d, 3g-l, 3o-p, 4q-v).

#### REMARKS

“Paratypes : A pair of female specimens have been deposited at the National Museum, Wellington (Z.Cr. 1864) and the British Museum (Nat. Hist.), London, BM(NH) 1969.12.1.2.”

“Descriptions and drawings have been made from the paratype specimens.”

### **Scutogerulus pelophilus** Bradford, 1969

#### HOLOTYPE

#### PARATYPES (2)

Bradford, 1969b : 475, 495-9, figs 171-198; December 1969.

#### TYPE LOCALITY

NZOI Stn F910 (34°56'S, 175°23'E, 10 October 1968, 1,383-1,397 m, *Globigerina* ooze, E of North Cape, northern New Zealand).

#### NZOI MATERIAL

Stn F910 : H-64 (holotype, female), P-120 (paratype, female); Stn F881 : P-121 (paratype, male).

#### REMARKS

This is the type species of the new genus *Scutogerulus* Bradford, 1969. “The generic name (Latin *scutum* = shield and *gerulus* = bearer) refers to the shield-shaped appendages on the maxilla 2 and maxilliped setae of the female, the specific name to the presumed bottom-living (hence mud-loving) habits of the species.”

### **Spinocalanus magnus** Wolfenden, 1904

#### FIGURED SPECIMEN

Bradford, 1971c : 18, figs 28-29.

#### NZOI MATERIAL

Stn A453 : 7 females 2.35-2.6 mm.

#### REMARKS

Originally described (but not figured) by Wolfenden (1904 : 118) as the largest known species of *Spinocalanus*, “very common in deep water in the Atlantic off the west coast of Ireland” (i.e., in the “warm area of the Atlantic (51-60°N)”), this species has been found to have world-wide distribution.

### **Spinocalanus terranovae** Damkaer, 1975

#### PARATYPES (5)

Damkaer, 1975 : 60-2, figs 141-147, 159; June 1975.

#### TYPE LOCALITY

*Terra Nova* Stn, 66°38'S, 178°47'W, Pacific sector, Antarctica, 0-410 m, 10 December 1910.

#### NZOI MATERIAL

Stn A453 : P-261 (paratypes, 1 female in vial, 1 female on 3 slides); Stn A455 : P-261 (paratype, 1 female on 1 slide); Stn A462 : P-261 (paratypes, 1 female on 1 slide, 1 male on 2 slides).

#### REMARKS

The holotype is in the British Museum (Nat. Hist.), London. This species represents the larger size group of *S. abyssalis* of Bradford, 1971, in part, not of Giesbrecht, 1888.

### **Sursamucro spinatus** Bradford, 1969

#### HOLOTYPE

#### PARATYPE

Bradford, 1969b : 475, 488, 490c, figs 112-127; December 1969.

#### TYPE LOCALITY

NZOI Stn F879 (37°25'S, 177°30'E, Bay of Plenty, NE New Zealand, 4 October 1968, 1,267-1,238 m, mud).

#### NZOI MATERIAL

Stn F879 : H-61 (holotype, female); Stn F882 : P-117 (paratype, female); Stn F991.

#### REMARKS

One paratype (female) in British Museum (Nat. Hist.), London, BM(NH) Reg. No. 1969.6.5.3, NZOI Stn F991. The station number F911 was listed in error for F991 under “Distribution” in Bradford’s account (p.491).

This is the type species of the new genus *Sursamucro* Bradford, 1969. “The generic name (Latin *sursum* = upwards, and *mucro* = a sharp point) refers to the up-turned posterior points of the thorax, the specific name to the spiny hard borders of the abdomen.

### **Temora turbinata** (Dana, 1849)

#### FIGURED SPECIMEN

Bradford, 1977 : 134, figs 3-4.

#### NZOI MATERIAL

Stn N356 : female (fig. 3), male (fig. 4).

#### REMARKS

This species, “characteristic of northern inshore and shelf waters” in New Zealand and recorded also from “tropical, subtropical, and temperate coastal areas of the Indian Ocean, west Pacific and Atlantic Oceans”, was illustrated by Bradford (1977) in connection with a quantitative distributional study in New Zealand waters during the summer of 1974-5. Previous records of *T. turbinata* were summarised by Jillett (1971).

**Tigriopus angulatus** Lang, 1933

FIGURED SPECIMENS

Bradford, 1967 : 53-4, text-figs 2(a-j); 8 December 1967.

NZOI MATERIAL

Stn D140.

REMARKS

Originally described from Macquarie Island by Lang (1933 : 1-8, figs 1-14), the species was collected by E.W. Dawson on the Snares Islands in 1964 (NZOI Stn D140) from rock pools in the splash zone conspicuously red coloured by blooms of this animal. Other New Zealand records have been given by Bradford (1967 : 53).

**Tigriopus raki** Bradford, 1967

HOLOTYPE

PARATYPES

Bradford, 1967 : 54-59, text-figs 2(a-j), 3(a-g); 8 December 1967.

TYPE LOCALITY

Splash zone pool, "Leigh, north of Auckland, at about 36°30'S on the east coast". "All of the type material came from one sample collected by Miss P.A. Luckens". (= NZOI Stn Z2431).

NZOI MATERIAL

Stn Z2431 : H-36 (holotype, female), male; P-33 ( 8 paratype lots, 3 females, 3 males).

REMARKS

Paratype lots (3 females, 3 males) deposited in - National Museum, Wellington (Z.Cr. 1690); British Museum (Nat. Hist.), London, BM(NH) Reg. No. 1966.11.30.1; Smithsonian Institution, National Museum of Natural History, Washington, (USNM 120022).

The specific name means "north" in Maori. "Description and drawings were made from dissections of three male and three female paratype specimens".

Class MALACOSTRACA

Subclass PERACARIDA

Order CUMACEA

**Colurostylis longicauda** Jones, 1963

HOLOTYPE

Jones, 1963 : 67, 69-71, text-figs 302-11.

FIGURED SPECIMEN

Jones, 1963 : 69-71, text-fig. 312.

TYPE LOCALITY

NZOI Stn B42 (39°15'S, 177°03.5'E, 21 m, 2 September 1957).

NZOI MATERIAL

Stn B42 : H-6 (holotype, female), 1 male (figured specimen); and 3 other females; Stn B43 : 1 female.

**Eudorella hurleyi** Jones, 1963

HOLOTYPE

Jones, 1963 : 47-9, text-figs 168-78.50

TYPE LOCALITY

NZOI Stn B45 (39°29.75'S, 171°06.5'E, Hawke Bay, 40 m, 3 September 1957).

NZOI MATERIAL

None, see "Remarks".

REMARKS

The only known specimen (H-5, holotype, female) was lost in transit from author, November, 1962 (see Jones, 1963 : 49); named for Dr D.E. Hurley "... for supplying me with recently collected material".

**Gynodiastylis milleri** Jones, 1963

HOLOTYPE

Jones, 1963 : 71, 75, text-figs 343-50.

TYPE LOCALITY

"Devonport wharf, Auckland, 1960, tow net after dark, bottom muddy sand, 3 fm, 1 female, coll. M.C. Miller." (= NZOI Stn Z2432).

NZOI MATERIAL

Stn Z2432 : H-10 (holotype, female).

REMARKS

Named for the collector, Dr M.C. Miller, University of Auckland.

**Leucon (?) latispina** Jones, 1963

HOLOTYPE

Jones, 1963 : 39, 40-2, text-figs 112-22.

TYPE LOCALITY

NZOI Stn B59 (39°28.5'S, 177°32.5'E, 119 m, 4 September 1957).

NZOI MATERIAL

Stn B56 : 1 female; Stn B59 : H-4 (holotype, female); Stn B61 : 1 female; Stn B62 : 2 females, 1 juvenile.

**Makrokyllindrus inscriptus** Jones, 1971

HOLOTYPE

Jones, 1971 : 39-40, fig. 4.

TYPE LOCALITY

Stanford University Stn GLD-9, 75°15'S, 165°55'E, Ross Sea, Antarctica, 808 m, 29 November 1958, collected by J.H. Dearborn.

NZOI MATERIAL

Stanford University Stn GLD-9 : H-218 (holotype, ovigerous female).

**Paralamprops rossi** Jones, 1971

HOLOTYPE

Jones, 1971 : 37-9, fig. 3.

TYPE LOCALITY

Stanford University Stn GLD-5, 76°11.6'S, 164°46'E, Ross Sea, Antarctica, 695 m, 27 November 1958, collected by J.H. Dearborn.

NZOI MATERIAL

Stanford University Stn GLD-5 : H-217 (holotype, female).

REMARKS

A generic review, diagnosis and key has been given by Day (1978).

**Procampylaspis meridiana** Jones, 1971

HOLOTYPE

Jones, 1971 : 37, fig. 2.

TYPE LOCALITY

NZOI Stn A468 (76°59'S, 167°36'E, Ross Sea, Antarctica, 110 m, 26 January 1959).

NZOI MATERIAL

Stn A468 : H-114 (holotype, subadult male), 1 juvenile.

Order ISOPODA

**Amphoroidea longipes** Hurley & Jansen, 1977

HOLOTYPE

Hurley & Jansen, 1977 : 27-8, figs 16G-I; November 1977.

PARATYPES (10)

TYPE LOCALITY

“Kaikoura” = NZOI Stn Z2304, Island Bay, Wellington [see below].

NZOI MATERIAL

Stn Z2304 : H-146 (holotype, male 13 mm); P-203 (paratypes, 5 juvs 2-8 mm, 4 females 9-12 mm, 6 males 10-13 mm).

REMARKS

Although the type locality is given as being “Kaikoura”, the holotype and the 10 paratypes come from NZOI Stn Z2304, Island Bay, Wellington, collected by Dr J.G. Gibbs, 1 August 1950, on the seaweed *Lessonia*. The paratype station number is incorrectly given as Z2034. Presumably figs 16G-I illustrate the holotype.

**Cassinidopsis admirabilis** Hurley & Jansen, 1977

HOLOTYPE

Hurley & Jansen, 1977 : 29, fig. 17; November 1977.

PARATYPES (13)

TYPE LOCALITY

“Leigh” [see below].

NZOI MATERIAL

Stn E956 : 1 juvenile 1.5 mm; Stn E967 : 24 juvs 1.5-2.5 mm; Stn E975; Stn E979 : H-150 (holotype, male 3 mm), P-207 (paratypes, 5 juvs 1.5-2 mm, 7 females 2-2.5 mm, 1 male 3.5 mm); Stn E982 : 4 juvs 1.5-2.4 mm.

REMARKS

Figs 17A-D illustrate a mature male, presumably the holotype. The type locality is given as “Leigh” but the holotype comes from Stn E979, Huaroa Point, Whangaparaoa Peninsula, collected by J.L. Barnard, in a heavy strand of algae at low water, 16 February 1968, although its labels are only the station and holotype numbers.

**Cilicæa angustispinata** Hurley & Jansen, 1977

PARATYPES

Hurley & Jansen, 1977 : 47, fig. 32F; November 1977.

TYPE LOCALITY

“Hauraki Gulf (North Channel), Kawau Island” = Little Barrier Island, 55 m, coll. Mortensen Expedition, 29 November 1914.

NZOI MATERIAL

Copenhagen Museum collections COP 10 : P-202 (paratypes, 4 males 5-7 mm, 1 female 6 mm (fig. 32F), 1 juvenile 3 mm).

REMARKS

The type locality given in the description seems to refer to the paratypes only since the holotype comes from COP 7, Little Barrier Island, 55 m, Mortensen Expedition, 29 November 1914. The paratypes are from COP 10 “North Channel, Kawau Is, Hauraki Gulf, 18 m”.

**Cilicæa tasmanensis** Hurley & Jansen, 1977

HOLOTYPE

Hurley & Jansen, 1977 : 45, figs 35A-F; November 1977.

PARATYPES (7)

Hurley & Jansen, 1977 : 45, figs 35G-H.

TYPE LOCALITY

“Cook Strait” = NZOI Stn B686 (40°16'S, 172°32.3'E, 28 October 1962).

NZOI MATERIAL

Stn B686 : H-144 (holotype, male 20 mm), P-201 (Paratypes, 1 male 9 mm, 6 females (figs 35G-H)); Stn C752 : 1 male 13 mm; Stn C814 : 3 females 10-11 mm, 1 male 14 mm.

REMARKS

The type material under the type locality of “Cook Strait” is from off Cape Farewell, collected by TAL (6 ft Agassiz trawl) not TAM (4 ft) as listed in the description on page 45.

**Cymodoce allegra** Hurley & Jansen, 1977

HOLOTYPE

Hurley & Jansen, 1977 : 47, fig. 36; November 1977.

PARATYPES (6)

Hurley & Jansen, 1977 : 47, figs 40I-J.

TYPE LOCALITY

“North of Auckland Islands” = NZOI Stn B176 (50°29'S, 166°30.5'E, 84 m, 9 October 1959).

#### NZOI MATERIAL

Stn B176 : H-137 (holotype, male 10 mm), P-194 (paratypes, 4 females 7-9 mm (figs 40I-J), 2 males 9-10 mm); Stn B260 : 1 male, 2 females 10 mm; Stn B582 : 1 male 6 mm; Stn D52 : 1 male 9 mm; Stn D53 : 1 specimen; Stn D60 : 2 females 8 mm; Stn D65 : 1 juvenile 7 mm; Stn D71 : 3 females 7 mm; Stn D132 : 1 male 8 mm; Stn E422 : 2 females 9 mm; Stn E820 : 1 male 8 mm; Stn F97 : 1 male 9 mm and 2 other specimens.

#### **Cymodoce iocosa** Hurley & Jansen, 1977

##### HOLOTYPE

Hurley & Jansen, 1977 : 51, fig. 42; November 1977.

##### PARATYPES (6)

Hurley & Jansen, 1977 : 51, figs 40G-H.

##### TYPE LOCALITY

“Off Cape Egmont” = NZOI Stn B660 (38°40'S, 172°12'E, 71 m, 24 October 1962).

##### NZOI MATERIAL

Stn B660 : H-139 (holotype, male 8 mm), P-196 (paratypes, 2 juvs 7 mm, 2 females 8 mm (figs 40G-H), 2 males 8 mm); Stn B669 : 3 females 7 mm; Stn B686 : 2 males 8 mm; Stn C171 : 1 juvenile 7 mm; Stn C186 : 1 female 7 mm; Stn C672 : 1 female 7 mm.

#### **Cymodoce penserosa** Hurley & Jansen, 1977

##### HOLOTYPE

Hurley & Jansen, 1977 : 51, figs 43A-D; November 1977.

##### PARATYPES (3)

Hurley & Jansen, 1977 : 51, figs 40K-L.

##### TYPE LOCALITY

“Blueskin Bay, Otago” = NZOI Stn Z2285 (Blueskin Bay, Otago, trawled from fishing vessel *Grace*, coll. D.E. Hurley, 1 October 1952).

##### NZOI MATERIAL

Stn Z2285 : H-138 (holotype, male 10 mm), P-195 (paratypes, 1 female (figs 40K-L), 2 males 10 mm).

#### **Cymodocella capra** Hurley & Jansen, 1977

##### HOLOTYPE

Hurley & Jansen, 1977 : 31, fig. 18; November 1977.

##### PARATYPE

##### TYPE LOCALITY

“Leigh, Auckland” [see below] = NZOI Stn E977 (Leigh, Marine Station, coll. R.H. Hedley, 15 February 1968).

##### NZOI MATERIAL

Stn E977 : H-147 (holotype, male 3 mm), P-204 (paratype, male 2.8 mm).

##### REMARKS

In the “List of Stations” (p.13), the locality for Stn E977 is given as “Leigh (Marine Stn), Huaroa Pt, Whangaparaoa Peninsula ...” Leigh is correct, the rest of the information pertains to Stn E978.

#### **Cymodopsis impudica** Hurley & Jansen, 1977

##### HOLOTYPE

Hurley & Jansen, 1977 : 53, figs 45A-D, I-J; November 1977.

##### PARATYPES (2)

##### TYPE LOCALITY

“Off Dunedin” = NZOI Stn E401 (46°00'S, 171°12'E, 914-823 m, 7 October 1965).

##### NZOI MATERIAL

Stn D134 : 1 specimen; Stn E401 : H-140 (holotype, male 9.5 mm); Stn E417 : P-197 (paratypes, 2 males 5.5 mm); Stn F104; Stn F753 : 4 juvs 8 mm.

#### **Cymodopsis montis** Hurley & Jansen, 1977

##### HOLOTYPE

Hurley & Jansen, 1977 : 53-4, fig. 46; November 1977.

##### PARATYPES (2)

##### TYPE LOCALITY

“Mt Maunganui” = NZOI Stn E959 (Mount Maunganui, shore collection, intertidal fairly exposed rocky shore, coll. K.P. Jansen, 25 October 1968).

##### NZOI MATERIAL

Stn E959 : H-141 (holotype, male 5 mm), P-198 (paratypes, 2 females 5 mm).

#### **Cymodopsis sphyracephalata** Hurley & Jansen, 1977

##### HOLOTYPE

Hurley & Jansen, 1977 : 54, fig. 47; November 1977.

##### TYPE LOCALITY

“Southern Campbell Plateau” = NZOI Stn F147 (52°21'S, 173°09'E, 611 m, 1 February 1965).

##### NZOI MATERIAL

Stn F147 : H-143 (holotype, male 10 mm).

##### REMARKS

Only one specimen was collected.

#### **Cymodopsis torminosa** Hurley & Jansen, 1977

##### HOLOTYPE

Hurley & Jansen, 1977 : 55, fig. 48; November 1977.

##### PARATYPES (2)

##### TYPE LOCALITY

“Off Auckland Islands” = NZOI Stn D39 (50°58'S, 165°45'E, 549 m, 7 May 1963).

**NZOI MATERIAL**

Stn D39 : H-142 (holotype, male 7 mm), P-199 (paratypes, 2 juvs 5-6 mm (figs 48G-O); Stn E416 : 1 specimen.

**Dynamenella mortenseni** Hurley & Jansen, 1977**PARATYPES**

Hurley & Jansen, 1977 : 36, figs 26A-F; November 1977.

**TYPE LOCALITY**

"Cape Brett" among algae, Mortensen Expedition, COP 5.

**NZOI MATERIAL**

Copenhagen Museum Collection, COP 5 : P-205 (paratypes, 3 males 6-7 mm).

**REMARKS**

Named after the collector, Dr Th. Mortensen.

**Dynamenoides decima** Hurley & Jansen, 1977**HOLOTYPE**

Hurley & Jansen, 1977 : 37, figs 28A-D; November 1977.

**PARATYPES (41)**

Hurley & Jansen, 1977 : 37, figs 28E-F.

**TYPE LOCALITY**

"Castlepoint" = NZOI Stn E983 (shore collection, intertidal, rock pools, coll. D.E. Hurley, January 1965).

**NZOI MATERIAL**

Stn E952 : 1 specimen; Stn E956 : 1 juvenile 3 mm, 2 immature males 5.5-6 mm; Stn E959 : 2; Stn E966 : 4; Stn E967 : 2; Stn E971 : 1; Stn E975; Stn E978; Stn E979 : 27 juvs 1.5-5.5 mm; Stn E981 : about 20 specimens; Stn E983 : H-149 (holotype, male 6 mm), P-206 (paratypes, 36 juvs 3-6 mm, 3 immature males 5.5 mm (figs 28E-F), 2 mature males 5-6 mm); Stn E985 : about 15 specimens; Stn Z2297 : 4; Stn Z2298 : 1.

**Isocladus reconditus** Hurley & Jansen, 1977**HOLOTYPE**

Hurley & Jansen, 1977 : 65, figs 59A-D; November 1977.

**PARATYPES (69)**

Hurley & Jansen, 1977 : 65, figs 59E-G.

**TYPE LOCALITY**

"Mt Maunganui" = NZOI Stn E958 (Mount Maunganui, shore collection, intertidal, moderately sheltered stones, in sandy pools, coll. K.P. Jansen, 25 October 1968).

**NZOI MATERIAL**

Stn E952 : 2 juvs 6-7 mm, 8 females 5-9 mm, 7 males 6-10 mm; Stn E953 : 5 juvs 5-6 mm, 2 females 6-7 mm, 3 males 7-10 mm; Stn E958 : H-135 (holotype, male 9 mm); Stn E959 : P-192 (paratypes, 23 juvs

2-6 mm (figs 59E-F), 29 females 6-9 mm (fig. 59G), 17 males 6-9 mm).

**Isocladus spiculatus** Hurley & Jansen, 1977**HOLOTYPE**

Hurley & Jansen, 1977 : 67, figs 60A-D.

**PARATYPES (32)**

Hurley & Jansen, 1977 : 67, figs 60E-G.

**TYPE LOCALITY**

"Otago Harbour" = NZOI Stn Z2309 (Otago Harbour, Portobello Marine Station, sieved from sandbank, coll. D.E. Hurley, 6 June 1952).

**NZOI MATERIAL**

Stn Z2293 : 4 specimens; Stn Z2309 : H-136 (holotype, male 9 mm), P-193 (paratypes, 15 juvs 3-6 mm (fig. 60E), 20 females 5-8 mm (figs 60F-G), 7 males 5-9 mm); Stn Z2310 : 40-50 specimens.

**Macrochirodothea uncinata** Hurley & Murray, 1968**HOLOTYPE**

Hurley & Murray, 1968 : 244-8, figs 1-4; 5 September 1968.

**PARATYPES (4)**

Hurley & Murray, 1968 : 244-8, figs 2-4.

**TYPE LOCALITY**

"Muriwai Beach, just above extreme low water, neap, fully exposed beach, depth 3-4 cm, coll. R.H. Murray, 8.iv.66 ..." (= NZOI Stn Z2433).

**NZOI MATERIAL**

Stn Z2433 : H-43 (holotype, male), P-48-51 (4 paratypes, female).

**REMARKS**

Additional material and localities listed by Hurley & Murray (1968 : 247).

**Paravireia pistus** Jansen, 1973**HOLOTYPE**

Jansen, 1973 : 261-2, figs 1A-B; September 1973.

**PARATYPE****TYPE LOCALITY**

"Deep Bay, Paterson Inlet, Stewart Island, shallow water, muddy bottom. coll. A.A. Fincham, June 1972" (= NZOI Stn Z2434).

**NZOI MATERIAL**

Stn Z2434 : H-188 (holotype, 3 mm), P-259 (paratype, 2.5 mm), 1 male 7 mm (damaged), 1 specimen 7 mm (damaged).

**REMARKS**

"The present paper is to establish a valid specific name for a forthcoming ecological paper by Dr Fincham without the precipitate creation of a new major taxon."

**Pseudaega melanica** Jansen, 1978

HOLOTYPE

Jansen, 1978 : 152-4, figs 5A-S; June 1978.

PARATYPES

TYPE LOCALITY

“Lyall Bay, Wellington” = NZOI Stn K1023 (sand, broken shell, pebbles, midtidal to immediate subtidal), Lyall Bay, coll. K.P. Jansen, - April 1977.

NZOI MATERIAL

20 specimens as follows - Stn K1023 : H-240 (holotype, mature male 6 mm), P-341 (paratypes, 5 males 6-7 mm, 5 females 7-0 mm, 5 juvs 4-5 mm).

REMARKS

“*P. melanica* was named from a blackish area under the middle tergites caused by ingested sediment.”

**Pseudaega punctata** Thomson, 1884

FIGURED SPECIMEN

Jansen, 1978 : 147, 149, 154 (in key), figs 1A-S.

NZOI MATERIAL

Stn K1022 : topotypes, 1 immature male 5 mm, 5 juvs 4-5 mm.

REMARKS

Originally described by Thomson (1884 : 234) from “Ocean Beach, near Dunedin”.

“None of Thomson’s type or other original material has been found in New Zealand. Specimens from New Zealand, originally in the Rijks Museum von Natuurlijke Historie - Leiden (Nierstrasz 1917) have disappeared (Pinkster, pers. comm. 30 September 1971).”

**Pseudaega quarta** Jansen, 1978

HOLOTYPE

Jansen, 1978 : 151, 152-4, figs 5A-S; June 1978.

PARATYPE

TYPE LOCALITY

NZOI Stn J903 : “ Marsden Beach, south of entrance to Whangarei Harbour”, sand, shell grit, pebbles, midtidal to subtidal, 22 January 1976.

NZOI MATERIAL

33 specimens as follows -  
Stn C460 : 1 specimen; Stn C461 : 1; Stn C678 : 1; Stn J765 : 1; Stn J770 : 2; Stn J772 : 4; Stn J774 : 3 (including P-340, 2 males and female paratypes all 3.5 mm); Stn J839 : 1; Stn J843 : 7; Stn J895 : 1; Stn J900 : 4; Stn J901 : 1; Stn J903 : 3 (including H-239, holotype mature male 5.5 mm, and P-340, 2 male paratypes 4.5, 5 mm); Stn J905 : 2; Stn J908 : 1.

**Pseudaega secunda** Jansen, 1978

HOLOTYPE

Jansen, 1978 : 149, 152, 154 (in key), figs 3A-S; June 1978.

PARATYPES (3)

TYPE LOCALITY

NZOI Stn J903 : “Marsden Beach, south of entrance to Whangarei Harbour”, 22 January 1976.

NZOI MATERIAL

43 specimens as follows -  
Stn C351 : 1; Stn C448 : 2; Stn C449 : 5; Stn C460 : 2; Stn J752 : 2; Stn J765 : 1 (P-338, paratype female); Stn J770 : 4; Stn J900 : 4 (including P-338, paratype male 3 mm, female 4 mm); Stn J903 : 2 (including H-237, holotype male 4 mm).

**Pseudaega tertia** Jansen, 1978

HOLOTYPE

Jansen, 1978 : 149-50, 152, 154 (in key), figs 3A-F; June 1978.

PARATYPES

TYPE LOCALITY

NZOI Stn J746 : “Marsden Beach, south of entrance to Whangarei Harbour”, exposed sandy shelly beach, lower littoral, 31 January 1978.

NZOI MATERIAL

17 specimens as follows -  
Stn J743 : 3 specimens; Stn J745 : 3; Stn J746 : 5 (including H-238, holotype mature male 8 mm, and P-339, paratypes, 2 males 7, 8 mm, 2 females 8, 9 mm); Stn J811 : 1; Stn J813 : 3; Stn J872 : 1; Stn J875 : 1.

**Pseudosphaeroma callidum** Hurley & Jansen, 1977

HOLOTYPE

Hurley & Jansen, 1977 : 67, fig. 61; November 1977.

PARATYPE

TYPE LOCALITY

“Three Kings Rise” = NZOI Stn C758 (34°40'S, 172°14.5'E, 205 m, 17 February 1962).

NZOI MATERIAL

Stn C758 : H-133 (holotype, male 6 mm), P-190 (paratype, male 5 mm).

**Sphaeroma laurensi** Hurley & Jansen, 1977

HOLOTYPE

Hurley & Jansen, 1977 : 70, fig. 63; November 1977.

PARATYPES (5)

TYPE LOCALITY

“Gisborne” = NZOI Stn E982 (Makorori Beach, 13.4 km on road NE of Gisborne town cenotaph, shore collection, coll. J.L. Barnard, 20 February 1968).

NZOI MATERIAL

Stn E982 : H-134 (holotype, male 10 mm), P-191 (paratypes, 4 juvs 5-6 mm, 1 female 10 mm).

REMARKS

“This species is named after Dr J.L. Barnard, who collected the specimens.”

Order AMPHIPODA

**Amphilocus filidactylus** Hurley, 1955

PARATYPES

Hurley, 1955 : 208 (in key), 209–13, text-figs 8(67–73), 9(74–90); June 1955.

TYPE LOCALITY

“Off *Pyura pachydermatina* stalk with encrusting *Elterina blainvilli*, Portobello Marine Biological Station, coll. D.E.H., 15/5/52.” (= NZOI Stn Z2435).

NZOI MATERIAL

Stn Z2435 : P-1 (paratypes).

REMARKS

Holotype (slides P-130) in Portobello Marine Biological Station, Otago. Also recorded from Tristan da Cunha (cf. Hurley, 1955 : 215, synonymy).

**Amphilocus opunake** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 33–4, figs 4–5; December 1972.

PARATYPES (9)

TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

NZOI MATERIAL

Stn E967 : H-78 (holotype, juvenile female 1.9 mm), P-403 (6 paratypes); Stn E970 : P-404 (1 paratype); Stn E975 : P-405 (2 paratypes).

**Ampithoe aorangi** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 37, figs 8–9; December 1972.

PARATYPES (14)

Barnard, 1972 : 37, figs 10a–e.

TYPE LOCALITY

NZOI Stn E966 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

NZOI MATERIAL

Stn E966 : H-79 (holotype, male 5.3 mm), P-406 (2 paratypes); Stn E967 : P-407 (1 paratype); Stn E969 : P-408 (1 paratype); Stn E975 : P-409 (1 paratype); Stn E978 : P-410 (1 paratype).

**Ampithoe hinatore** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 37–42, figs 11f–l, 12d–i; December 1972.

PARATYPES (2)

Barnard, 1972 : 37–42, figs 11a–g, 12a–c.

TYPE LOCALITY

NZOI Stn E790 (Kaikoura, intertidal wash of algae, 22 January 1968).

NZOI MATERIAL

“Three specimens from the type locality” including Stn E970 : H-80 (holotype, male 9.0 mm) and P-411 (2 paratypes).

**Ampithoe (Pleonexes) lessoniae** Hurley, 1954

FIGURED SPECIMEN

Barnard, 1972 : 43–4, fig. 13.

NZOI MATERIAL

Stn E969 : 1 specimen; Stn E975 : figured specimen (figs 13a–i, 14a–e); Stn E978 : figured specimen (figs 13j–p, 14f).

REMARKS

Originally described by Hurley (1954 : 620–6, figs 1–2) from Island Bay, Wellington.

**Ampithoe** sp. Barnard, 1972

FIGURED SPECIMEN

Barnard, 1972 : 45, figs 15a–h; December 1972.

NZOI MATERIAL

Stn E979 : 1 female (figured specimen).

REMARKS

“The affinities of this species are unknown owing to the lack of a male ...”

**Aora maculata** (Thomson, 1879)

FIGURED SPECIMEN

Barnard, 1972 : 124, figs 10f–h.

NZOI MATERIAL

Stn E966 : 21 specimens; Stn E967 : 270 specimens including figured specimen, male; Stn E969 : 11 specimens; Stn E970 : 35; Stn E971 : 131; Stn E972 : 38; Stn E973 : 19; Stn E975 : 187; Stn E976 : 83; Stn E977 : 131; Stn E978 : 81; Stn E979 : 5; Stn E980 : 25; Stn E981 : 67; Stn E982 : 54.

REMARKS

Originally described in the genus *Microdeutopus* by Thomson (1879b : 331, pl. XVI, figs 5–8) from Dunedin.

**Aora** sp. Barnard, 1972

FIGURED SPECIMEN

Barnard, 1972 : 124–5, figs 10i–j.

NZOI MATERIAL

Stn E967 : 1 specimen; Stn E970 : 3; Stn E979 : 108; Stn E980 : 2.

REMARKS

The locality of the figured specimen is not indicated.

**Atyloella moke** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 66, figs 28–29; December 1972.



PARATYPE

TYPE LOCALITY

Portobello Marine Biological Station, Otago Harbour, off *Ceramium*, collected by D.E. Hurley, 31 May 1954, (= NZOI Stn Z2436).

NZOI MATERIAL

Stn Z2436 : "Two females from the type locality" including H-84 (holotype, female 8.8 mm) and P-412 (paratype).

**Bircenna fulva** Chilton, 1884

FIGURED SPECIMENS

Barnard, 1972 : 123, 179, 180-3, figs 67o (male, 2.5 mm), 100a-e (male 2.6 mm), f-h (female 1.9 mm), i (another male), 101a-m (male 2.6 mm).

NZOI MATERIAL

Stn E966 : 19 specimens, including figured male 2.6 mm; Stn E967 : 2; Stn E969 : 13, including figured male 2.5 mm; Stn E971 : 1; Stn E975 : 8; Stn E978 : 8; Stn E979 : 8; Stn E980 : 5; Stn E981 : 1.

REMARKS

Described by Chilton (1884 : 264, pl. XXI, figs 1a-e) from "Lyttelton Harbour".

"I do not know where to place this peculiar-looking little Amphiphod ... I have only a very few specimens."

**Ceina egregia** (Chilton, 1883)

FIGURED SPECIMENS

Barnard, 1972 : 169, 170-2, figs 93a-h (female 3.6 mm), i-j (female 6.2 mm), k (male 6.3 mm), 95a-o (female 3.6 mm), p-q (female 6.2 mm), r (male 6.3 mm).

NZOI MATERIAL

Stn E966 : 6 specimens, including figured female 3.6 mm; Stn E967 : 2; Stn E969 : 1; Stn E970 : 23, including figured male 6.3 mm; Stn E971 : 1; Stn E977 : 2.

REMARKS

Originally described in the genus *Nicea* by Chilton (1883 : 27-8, pl. II, fig. 2) from "Lyttelton Harbour. On seaweed, usually at roots of *Macrocystis*."

**Ceradocopsis peke** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 95-8, figs 45a-j, 46a-k; December 1972.

PARATYPES (3)

Barnard, 1972 : 95-8, figs 45k-l, 46l-q.

TYPE LOCALITY

NZOI Stn E969 (Kaikoura, "intertidal wash of kelp holdfasts and various red algae", 22 January 1968).

NZOI MATERIAL

"The holotype and three other specimens from the type locality". Stn E969 : H-88 (holotype, male 3.9 mm), P-413 (3 paratypes including figured female).

**Ceradocus rubromaculatus haumuri** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 98, fig. 47; December 1972.

PARATYPE

TYPE LOCALITY

NZOI Stn E966 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

NZOI MATERIAL

Stn E966 : H-89 (holotype, male 9.5 mm); Stn E969 : P-414 (paratype).

**Elasmopus neglectus** Chilton, 1915

FIGURED SPECIMEN

Barnard, 1972 : 101-3, figs 50a-k, 51a-j (male 14.5 mm), k-l (female 12.0 mm).

NZOI MATERIAL

Stn E969 : 4 specimens; Stn E970 : 37, including figured male.

REMARKS

Originally described by Chilton (1915 : 326-8, figs 7-10) from Blueskin Bay, Otago and Moko Hinau, Hauraki Gulf.

**Elasmopus wahine** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 103-5, figs 52c-h, 53b-j; December 1972.

PARATYPES (5)

Barnard, 1972 : 103-5, figs 52a-b (NZOI sample 6, female 6.8 mm), 53a (NZOI sample 6, 6.8 mm), k-l (male 10.5 mm).

TYPE LOCALITY

Chatham Islands Expedition Stn 19, off Cape Young, Chatham Island, 18 January 1954 (= NZOI Stn Z2437).

NZOI MATERIAL

Stn Z2437 : "6 specimens from the type locality" including H-90 (holotype, male 10.0 mm) and P-415 (paratypes).

**Eusiroides monoculoides** (Haswell, 1879)

FIGURED SPECIMEN

Barnard, 1972 : 66, 68, 123, fig. 67m.

NZOI MATERIAL

Stn E970 : 24 specimens including figured specimen; Stn E973 : 1.

REMARKS

Originally described in the genus *Atylus* by Haswell (1879 : 327-8, pl. XVIII, fig. 4) from Clark Island, Port Jackson, N.S.W.

Barnard gave the date of publication as 1880 but the part of the journal was issued on 1 December 1879 according to the index compiled by the Linnean Society of New South Wales.

**Gammaropsis tawahi** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 126, figs 68a-h, 69a-j; December 1972.

PARATYPES (74)

Barnard, 1972 : 126, figs 68i (male 4.0 mm), j-k (female 3.8 mm).

TYPE LOCALITY

NZOI Stn E969 (Kaikoura, intertidal wash of kelp holdfasts and various red algae; 22 January 1968).

NZOI MATERIAL

Stn E966 : P-416 (11 specimens); Stn E969 : 50, including H-94 (holotype, male 3.5 mm) and P-417 (49 paratypes); Stn E970 : P-418 (11); Stn E973 : P-419 (3).

**Gammaropsis typica** (Chilton, 1884)

FIGURED SPECIMENS

Barnard, 1972 : 126-30, figs 70a-e (male 4.1 mm), f-j (female 3.5 mm), 71a (male 4.1 mm), b-h (male 4.3 mm), i (male 3.4 mm), j-l (female 3.5 mm), m (male 4.1 mm), n-o (male 4.2 mm).

NZOI MATERIAL

Stn E966 : 67 specimens; Stn E967 : 275, including figured male specimen; Stn E969 : 51; Stn E970 : 211; Stn E971 : 234; Stn E973 : 81; Stn E974 : 1; Stn E975 : 50; Stn E977 : 65; Stn E978 : 2; Stn E979 : 129; Stn E980 : 6; Stn E982 : 129.

REMARKS

Originally described as the type species of his new genus *Teraticum* by Chilton (1884 : 257-8, pl. XVIII, figs 1a-g) from three specimens collected in "Lyttelton Harbour".

**Gitanopsis desmondi** Barnard, 1972

HOMEOTYPES (10)

Barnard, 1972 : 33; December 1972.

TYPE LOCALITY

Port Chalmers, Otago.

NZOI MATERIAL

Stn E970 : 1 specimen; Stn ?E971 : 1; Stn E973 : 7; Stn E975 : 3.

REMARKS

New name for *Gitanopsis pusilloides*, of Hurley (1955 : 216-20, figs 119-38), not of Shoemaker (1942 : 9).

"This species is gratefully dedicated to Dr Desmond E. Hurley who has shed so much light on the Amphipoda and Isopoda of southern waters" (Barnard, 1972 : 34). Holotype in Slide Tray 122/11, Chilton Collection, Canterbury Museum.

**Godogeneia danai** (Thomson, 1879)

FIGURED SPECIMENS

Barnard, 1972 : 87-90, figs 41a-f (NZOI Stn E979,

male 5.2 mm), g (?intersex), h-m (female 5.8 mm), 42a-m (Stn E967, male 2.4 mm), n (male 2.3 mm).

NZOI MATERIAL

Stn E967 : 23 specimens including figured male; Stn E969 : 34; Stn E971 : 38; Stn E973 : 1; Stn E974 : 5; Stn E975 : 13; Stn E977 : 18; Stn E978 : 13; Stn E979 : 35 including figured male, and 3 aberrations; Stn E981 : 6.

REMARKS

Originally described as *Atylus dania* [sic] by Thomson (1879b : 238-9, pl. X, fig. C.1) from "Rock pools, Dunedin" and "Named after Prof. Dana."

**Godogeneia rotorua** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 91, figs 43l-n; December 1972.

PARATYPES (8)

Barnard, 1972 : 91, figs 43a-k.

TYPE LOCALITY

NZOI Stn E970 (Kaikoura, wash of intertidal algae, 22 January 1968).

NZOI MATERIAL

Stn E970 : 8 specimens including H-87 (holotype, male 3.6 mm), and P-420 (figured paratype, female 6.7 mm); Stn E973 : P-421 (1 paratype).

**Guernea (?) timaru** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 49-51, figs 18-19; December 1972.

TYPE LOCALITY

NZOI Stn E980 (Huaroa Point, Whangaparaoa Peninsula, Northland, wash of rocks in shallow channels about 25 m from low water, 16 February 1968).

NZOI MATERIAL

Stn E980 : H-81 (holotype, female 1.9 mm).

REMARKS

"A subgenus may be required to contain this neozelanic *Guernea* that differs from the north Atlantic generic concept ..."

**Iphinotus typicus** (Thomson, 1882)

FIGURED SPECIMENS

Barnard, 1972 : 123, 191, 193-4, figs 67n (male 2.5 mm), 107a-m, 108a-j, 109a-h (all of female 2.7 mm).

NZOI MATERIAL

Stn E967 : figured specimen (female 2.7 mm); Stn E970 : 9 specimens; Stn E973 : 5; Stn E979 : 1; Stn E982 : figured specimen (male 2.5 mm).

REMARKS

Originally described as the type species of his new genus *Iphigenia* by Thomson (1882 : 237-8, pl. XVIII, fig. 4) from "Two specimens ... obtained by the dredge in Otago Harbour."

**Ischyrocerus longimanus** (Haswell, 1879)

FIGURED SPECIMENS

Barnard, 1972 : 133–5, figs 73a–k (male 2.5 mm), l–m (female 2.6 mm), n–o (young male 2.0 mm), p (young female 2.2 mm).

NZOI MATERIAL

Stn E966 : 4 specimens; Stn E967 : 373, including figured male 2.5 mm; Stn E969 : 67; Stn E970 : 7; Stn E971 : 69; Stn E973 : 176; Stn E974 : 1; Stn E978 : 51; Stn E979 : 104; Stn E981 : 57; Stn E982 : 40.

REMARKS

Originally described as the type species of his new genus *Wyvillea* by Haswell (1879 : 336–7, pl. XXII, fig. 7) from Port Jackson, N.S.W. Barnard gave the date incorrectly as 1880.

**Maera incerta** Chilton, 1883

FIGURED SPECIMEN

Barnard, 1972 : 105–7, 109, figs 54a–j.

NZOI MATERIAL

Stn E966 : 3 specimens including figured male 8.7 mm; Stn E967 : 5; Stn E969 : 1; Stn E970 : 2.

REMARKS

Chilton (1883 : 83–4, pl. III, fig. 3) described this species from “Lyttelton Harbour”.

**Maera tepuni** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 111–12, figs 57–58; December 1972.

TYPE LOCALITY

Chatham Islands Expedition Stn 49, Port Hutt, 18 February 1954 (= NZOI Stn Z2438).

NZOI MATERIAL

Stn Z2438 : H-91 (holotype, male 15.8 mm).

REMARKS

Barnard (1972 : 111) in his original description, cited “CIE Sta. 39, Port Hutt”. In his station list (p.204) it is correct as “49”.

**Melita awa** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 114–7, figs 61a–d, 62a–e, 63b–h; December 1972.

PARATYPES (113)

Barnard, 1972 : 114–7, figs 61e–h, 62f–i, 63a.

TYPE LOCALITY

NZOI Stn E987 (Hutt River, Lower Hutt, on levee near Mudie Street, in roots of dead submerged tussock grass, in saline water, 30 March 1968).

NZOI MATERIAL

Stn E967 : P-422 (50 specimens); Stn E970 : P-423 (8); Stn E971 : P-424 (11); Stn E973 : P-425 (2); Stn E975 : P-426 (2); Stn E976 : P-427 (1); Stn E977 : P-428 (5);

Stn E980 : P-429 (9); Stn E981 : P-430 (2); Stn E982 : P-431 (4); Stn E987 : H-92 (holotype, male 4.5 mm), and P-432 (over 30 paratypes including figured paratype (female 4.5 mm)).

**Melita inaequistylis** Dana, 1852

FIGURED SPECIMENS

Barnard, 1972 : 117–19, figs 61i–o, 62j–l (male 9.9 mm), 64a–h (male), i (male), j–k (female).

NZOI MATERIAL

Stn E967 : 50 specimens, including figured male (figs 64a–h); Stn E970 : 8; Stn E971 : 11, including figured male 9.9 mm (figs 61i–o, 62j–l); Stn E973 : 2; Stn E975 : 2; Stn E976 : 1; Stn E977 : 5; Stn E980 : 9; Stn E981 : 2; Stn E982 : 4.

REMARKS

Originally described by Dana (1852 : 214) as *Amphitoë (Melita) inaequistylis* and including *A. (M.) tenuicornis* (p.215) from the Bay of Islands.

**Mesoproboloides excavata** Fenwick, 1978

PARATYPES (4)

Fenwick, 1978 : 471–7, figs 1–22; 1977 [21 June 1978].

TYPE LOCALITY

St Kilda Rocks, Kaikoura, grid reference NZMS 1 S/49 188690), 5–6 m among *Caulerpa brownii*, coll. G.D. Fenwick, 2 November 1973.

NZOI MATERIAL

Stn Z2678 : P-298 (4 paratypes).

REMARKS

The holotype (Reg. No. Cr 2006 and 16 paratypes (Cr 2007) are in the National Museum of N.Z., Wellington. Other paratypes are in the National Museum of Natural History, Smithsonian Institution, the British Museum (Natural History) and the Australian Museum.

**Metaceradocus whakatane** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 119–22, figs 65a–g, 66a–m; December 1972.

PARATYPES (57)

TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

NZOI MATERIAL

Stn E966 : P-433 (1 paratype); Stn E967 : 3, including H-93 (holotype, female 6.7 mm), and P-434 (2 paratypes); Stn E970 : P-435 (11); Stn E971 : P-436 (1); Stn E975 : P-437 (1); Stn E977 : P-438 (40); Stn E982 : P-439 (1).

**Microdeutopus apopo** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 131, fig. 71; December 1972.

TYPE LOCALITY

NZOI Stn E977 (Leigh, Northland, wash of *Liagora harveyana*, intertidal, 15 February 1968).

NZOI MATERIAL

Stn E977 : H-95 (holotype, male 2.1 mm).

**Nihotunga noa** Barnard, 1972

HOLOTYPE

PARATYPES (94)

Barnard, 1972 : 142-3, figs 77a-i, 78a-g; December 1972.

TYPE LOCALITY

NZOI Stn E970 (Kaikoura, intertidal wash of algae, 22 January 1968).

NZOI MATERIAL

Stn E970 : 91 specimens, including H-96 (holotype, ovigerous female) and P-440 (90 paratypes); Stn E971 : P-441 (1); Stn E973 : P-442 (3).

**Oradarea novaezealandiae** (Thomson, 1879)

FIGURED SPECIMEN

Barnard, 1972 : 68-70, figs 30a-j.

NZOI MATERIAL

Stn E966 : 1 specimen; Stn E967 : 13; Stn E970 : figured female specimen; Stn E971 : 1 specimen.

REMARKS

Originally described in the genus *Pherusa* by Thomson (1879a : 239, pl. X, fig. C.2) from "Dunedin".

**Orchomenella plebs** Hurley, 1965

PARATYPES

Hurley, 1965 : 109-13, figs 1-2; 14 April 1965.

TYPE LOCALITY

Stanford University Stn A32, White Island, Ross Sea, 15 November 1961.

NZOI MATERIAL

Stn Z2686 : P-300 (several paratypes).

REMARKS

The holotype is in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (Reg. No. 112416). Paratypes have been deposited also in the British Museum (Natural History) and the National Museum of N.Z.

**Paracalliope karitane** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 74-8, figs 32a-g, 33, 34a-c; December 1972.

PARATYPES

Barnard, 1972 : 74-8, figs 32h-j (female 4.2 mm),

32k (juvenile 1.8 mm), 34d (female 4.2 mm), 34c (male).

TYPE LOCALITY

"Lower Hutt, June 25, 1951, coll. Dr Vida Stout, in Hutt River either in pools of Lower Hutt Reserve, in Willows near Hutt Bridge, or at Silverstream, near hospital in duckweed" (Dr Stout, pers. comm.) (= NZOI Stn Z2439).

NZOI MATERIAL

Stn Z2439 : H-85 (holotype, male 4.7 mm) and a "score" of specimens from the type locality (paratypes, P-507).

**Paracalliope ?novizealandiae** (Dana, 1853)

FIGURED SPECIMENS

Barnard, 1972 : 78-81, figs 35a-e (male 2.4 mm), f-i (male 2.0 mm), 36a-f (male 2.4 mm), g (female 2.3 mm), h (male 2.0 mm), 37a-j (male 2.4 mm), k-l (female 2.3 mm).

NZOI MATERIAL

Stn E967 : 23 specimens, including figured male 2.4 mm; Stn E972 : 1; Stn E975 : 21; Stn E976 : 57; Stn E977 : 1; Stn E978 : 43; Stn E979 : 1; Stn E980 : 127; Stn E981 : 83; Stn E982 : 12.

REMARKS

Originally described in the genus *Oedicerus* by Dana (1853 : 934-5, pl. 63, fig. 7) from small pools on the rocky shore at "Cororatika" (= Kororareka, now = Russell), Bay of Islands.

**Paradexamine houtete** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 53-7, figs 20-22; December 1972.

PARATYPES (56)

TYPE LOCALITY

NZOI Stn E979 (Huaroa Point, Whangaparaoa Peninsula, intertidal wash of algae, 16 February 1968).

NZOI MATERIAL

Stn E970 : P-443 (29 specimens); Stn E971 : P-444 (1); Stn E975 : P-445 (10); Stn E977 : P-446 (2); Stn E979 : 12, including H-82 (holotype, female 3.7 mm), and P-447 (paratypes); Stn E980 : P-448 (1); Stn E982 : P-449 (2).

**Paradexamine muriwai** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 57-9, figs 23i-j, 25n; December 1972.

PARATYPES (4)

Barnard, 1972 : 57-9, figs 23a-h, 24, 25a-m.

TYPE LOCALITY

NZOI Stn E970 (Kaikoura, "especially on *Caulerpa brownii*", 22 January 1968).

NZOI MATERIAL

Stn E970 : "5 specimens from type locality" including H-83 (holotype, male 4.7 mm) and P-450 (paratype, figured, female 4.2 mm).

**Paramoera chevreuxi** (Stephensen, 1927)

FIGURED SPECIMENS

Barnard, 1972 : 82, figs 38a-j, 39a-i.

NZOI MATERIAL

Stn E966 : 22 specimens; Stn E967 : 95, including figured specimen (female 9.00 mm); Stn E969 : 1; Stn E972 : 412; Stn E973 : 6; "Dunedin" : giant specimens of this species, 13 mm long".

REMARKS

Originally described in the genus *Atyloides* by Stephensen (1927 : 339-42, fig. 18) from Port Ross, Auckland Islands, under stones at low-tide, the species was also taken by the Mortensen Expedition at Campbell Island.

Its distribution is widespread according to Stephensen's synonymy.

**Paramoera rangatira** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 85, fig. 40; December 1972.

PARATYPES (9)

TYPE LOCALITY

NZOI Stn E974 (St Clair, Dunedin, holdfast of *Durvillea antarctica*, 25 January 1968).

NZOI MATERIAL

Stn E974 : 7 specimens, including H-86 (holotype, male 7.5 mm) and P-451 (paratype); Stn E981 : P-452 (3 specimens).

**Parapherusa crassipes** (Haswell, 1879)

FIGURED SPECIMEN

Barnard, 1972 : 122-4, figs 67a-j.

NZOI MATERIAL

Stn E966 : 14 specimens; Stn E967 : 17, including figured specimen (male 6.00 mm); Stn E969 : 79; Stn E970 : 87; Stn E971 : 17; Stn E973 : 1; Stn E975 : 3; Stn E977 : 51; Stn E979 : 1; Stn E980 : 1.

REMARKS

Originally described as the type species of his new genus *Harmomia* by Haswell (1879 : 330-1, pl. XIX, fig. 3) from Clark Island, Port Jackson, N.S.W. Barnard cited the date of publication incorrectly as 1880.

**Paraphoxus waipiro** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 143-5, figs 79a-i, 80a-g; December 1972.

PARATYPES (136)

TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae; 5 November 1967).

NZOI MATERIAL

Stn E967 : H-97 (holotype, female 3.8 mm), P-453 (41); Stn E970 : P-454 (26); Stn E971 : P-455 (1); Stn

E973 : P-456 (9); Stn E975 : P-457 (1); Stn E976 : P-458 (6); Stn E977 : P-459 (2); Stn E980 : P-460 (46); Stn E981 : P-461 (1); Stn E982 : P-462 (4).

**Parathaumatelson nasicum** (Stephensen, 1927)

FIGURED SPECIMENS

Barnard, 1972 : 158-60, figs 90a-f (? sex, 1 mm), g-l (? sex, 1.6 mm).

NZOI MATERIAL

Stn E973 : 8 specimens.

REMARKS

Originally described in the genus *Metopella* by Stephensen (1927 : 309-11, fig. 7) from Carnley Harbour, Auckland Islands, on the shore under stones at low tide.

"The specific name is a Roman name but is used as an allusion to the "nose" of ant. 1 on account of its likeness to the names of the two other species with "nose", *M. nasuta* and *M. nasutigenes*."

**Photis** sp. Barnard, 1972

FIGURED SPECIMEN

Barnard, 1972 : 131, figs 67h-j; December 1972.

NZOI MATERIAL

Stn E970 : young individual 1.6 mm.

**Podocerus karu** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 146-7, 149-50, figs 81a-h; December 1972.

PARATYPES (84)

Barnard, 1972 : 146-7, 149-50, figs 81i-k (female 3.7 mm), 83k (brood pouch juvenile 0.7 mm), 84j-l (juvenile female 2.5 mm).

TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

NZOI MATERIAL

Stn E967 : H-98 (holotype, male 3.4 mm), P-463 (23); Stn E970 : P-464 (1); Stn E971 : P-465 (3); Stn E973 : P-466 (6); Stn E975 : P-467 (5); Stn E977 : P-468 (19); Stn E978 : P-469 (2); Stn E979 : P-470 (7).

**Podocerus manawatu** Barnard, 1972

HOLOTYPE

Barnard, 1972 : 147-50, 152, figs 81l, 82a-h, 84a-i; December 1972.

PARATYPES (183)

Barnard, 1972 : 147-50, 152, figs 82e, 83i-j (female 2.2 mm).

TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

#### NZOI MATERIAL

Stn E966 : P-472 (11); Stn E967 : H-99 (holotype, male 4.9 mm) and P-471 (15); Stn E969 : P-473 (5); Stn E971 : P-474 (1); Stn E973 : P-475 (7); Stn E975 : P-476 (55); Stn E978 : P-477 (5); Stn E979 : P-478 (80); Stn E980 : P-479 (1); Stn E982 : P-480 (3).

#### **Podocerus wanganui** Barnard, 1972

##### HOLOTYPE

Barnard, 1972 : 151, 152-3, figs 85a-h, 86a-g; December 1972.

##### PARATYPE (1)

Barnard, 1972 : 151, 152-3, figs 85i-k, 86h-i.

##### TYPE LOCALITY

NZOI Stn E973 (St Clair, Dunedin, intertidal wash of algae, 25 January 1968).

##### NZOI MATERIAL

Stn E973 : H-100 (holotype, male 7.7 mm), P-481 (paratype, female).

##### REMARKS

This species was formerly identified by Chilton (1926) as *Podocerus laevis* Haswell (1885) but, according to Barnard (1972), "it differs in several gross points from material sketchily described by Haswell from Australia."

#### **Pontogeneiella levis** (Thomson, 1879)

##### FIGURED SPECIMENS

Barnard, 1972 : 93-5, figs 44a-i (female 7.2 mm), j-k (? male 5.7 mm), l (juvenile 4.0 mm).

##### NZOI MATERIAL

Stn E966 : 2 specimens; Stn E967 : 25, including figured specimens (female 7.2 mm, juvenile 4.0 mm); Stn E970 : 4, including figured specimen (? male 5.7 mm); Stn E971 : 16; Stn E973 : 1; Stn E975 : 1; Stn E978 : 1.

##### REMARKS

Originally described in the genus *Amphithonotus* by Thomson (1879a : 330, pl. XVI, figs 1-4) from Dunedin.

#### **Probolisca ovata** (Stebbing, 1888)

##### FIGURED SPECIMEN

Barnard, 1972 : 155, 157, figs 89f-j.

##### NZOI MATERIAL

Stn E966 : figured specimen (female 1.7 mm); Stn E973 : 77 specimens + juvs; Stn E974 : 9 specimens.

##### REMARKS

Originally described in the genus *Metopa* by Stebbing (1888 : 764-7, pl. XLIV) from a single female specimen collected at *Challenger* Stn 313, off Cape Virgins, Patagonia.

#### **Pseudoprotomina hurleyi** McCain, 1969

##### HOLOTYPE

McCain, 1969b : 292-3, text-fig. 3(a-j); June 1969.

##### PARATYPES (4)

##### TYPE LOCALITY

NZOI Stn F753 (44°45'S, 174°30'E, 854-788 m, 18 June 1966).

##### NZOI MATERIAL

Stn F753 : H-52 (holotype, male), P-105-106 (paratypes, 1 male, 1 female); Stn F744 : P-103-104 (paratypes, 1 male, 1 female).

##### REMARKS

Paratype from NZOI Stn F753 in National Museum of Natural History, Washington, D.C. Other paratypes were sent to the British Museum (Natural History), London, on 9 February 1970.

"The other specimens which were available to me agree very closely with the holotype. The specific name is in honour of Dr D.E. Hurley, New Zealand Oceanographic Institute, who supplied most of the material upon which this paper is based." (McCain, 1969b : 293).

#### **Raumahara rongo** Barnard, 1972

##### HOLOTYPE

Barnard, 1972 : 160-2, figs 91a-i, 92a-i; December 1972.

##### PARATYPES (108)

Barnard, 1972 : 160-2, fig. 91j (female 1.9 mm).

##### TYPE LOCALITY

NZOI Stn E970 (Kaikoura, intertidal wash of algae, 22 January 1968).

##### NZOI MATERIAL

Stn E970 : H-102 (holotype, female), P-482 (figured paratype, female 1.9 mm), and 87 other paratypes; Stn E971 : P-483 (1); Stn E975 : P-484 (2); Stn E979 : P-485 (13); Stn E982 : P-486 (4).

#### **Runanga wairoa** McCain, 1969

##### HOLOTYPE

McCain, 1969a : 17-19, text-fig. 1(a-m); March 1969.

##### TYPE LOCALITY

NZOI Stn F760 (42°45'S, 176°30'E, 705 m, 20 June 1966).

##### NZOI MATERIAL

Stn F760 : H-44 (holotype, female).

##### REMARKS

"A fragment of what appears to be a male of *R. wairoa* was found in the sample containing the female holotype."

#### **Seba typica** (Chilton, 1884)

##### FIGURED SPECIMENS

Barnard, 1972 : 154-5, figs 87g-j (male 2.4 mm), k (juvenile 2.0 mm).

#### NZOI MATERIAL

Stn E967 : 3 specimens, including figured male; Stn E970 : 2; Stn E975 : 1; Stn E976 : 6; Stn E977 : 1; Stn E980 : 4; Stn E981 : 3.

#### REMARKS

Originally described as the type species of his new genus *Paranaenia* by Chilton (1884 : 259-60, pl. XIX, figs 1a-h) from "Lyttelton Harbour".

"I have been much puzzled by this and the next two species [*P. dentifera* (Haswell, 1879) and *P. longimanus* n.sp., both from Lyttelton Harbour], and it is only with considerable hesitation that I advance *Paranaenia* as a new genus."

#### *Stenothoe moe* Barnard, 1972

##### HOLOTYPE

Barnard, 1972 : 156, 157-8, figs 88a-k, 89a-d; December 1972.

##### PARATYPES (160)

Barnard, 1972 : 156-8, fig. 89e (male 2.4 mm).

##### TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

#### NZOI MATERIAL

Stn E966 : P-488 (2 specimens); Stn E967 : H-101 (holotype, female), and P-487 (40 paratypes); Stn E969 P-489 (14); Stn E970 : P-490 (45); Stn E971 : P-491 (14); Stn E973 : P-492 (12); Stn E975 : P-493 (16); Stn E977 : P-494 (3); Stn E979 : P-495 (5); Stn E982 : P-496 (8).

#### *Taihape karori* Barnard, 1972

##### HOLOTYPE

Barnard, 1972 : 172, figs 95d, 97; December 1972.

##### PARATYPES (8)

Barnard, 1972 : 172, figs 95a-c, 96.

##### TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

#### NZOI MATERIAL

Stn E967 : H-103 (holotype, female 5.7 mm), P-497 (figured paratype, (juvenile 3.6 mm)), and one unfigured paratype; Stn E975 : P-498 (2); Stn E977 : P-499 (1); Stn E978 : P-500 (1); Stn E980 : P-501 (1); Stn E982 : P-502 (1).

#### *Tetradieon crassum* (Chilton, 1883)

##### FIGURED SPECIMEN

Barnard, 1972 : 154, 155, figs 87a-f.

#### NZOI MATERIAL

Stn E966 : 1 specimen; Stn E967 : 6, including figured specimen (female 3.3 mm); Stn E970 : 17; Stn E971 : 1; Stn E973 : 9; Stn E979 : 1; Stn E982 : 1.

#### REMARKS

In describing this species in the genus *Cyproidia* from "Lyttelton Harbour", Chilton (1883 : 79-81, pl. III, fig. 1) noted that "... it will probably form the type of a new genus, but, as I have only had two specimens, both of the same species, I prefer to leave it under Mr. Haswell's genus for the present."

#### *Ventojassa frequens* (Chilton, 1883)

##### FIGURED SPECIMENS

Barnard, 1972 : 135-7, figs 74a-e (male 3.3 mm, NZOI Stn E979), f-h (female), 75a-e (male 3.3 mm, Stn E979), f (male 2.7 mm).

#### NZOI MATERIAL

Stn E966 : 2; Stn E969 : 10; Stn E970 : 4; Stn E973 : 5; Stn E975 : 1; Stn E977 : 1.

#### REMARKS

NZOI Stn E979 is not listed in the "Material", although it is given in figure captions.

This species was originally described in the genus *Podocerus* by Chilton (1883 : 85, pl. III, fig. 2) from "Lyttelton Harbour".

#### *Waitomo manene* Barnard, 1972

##### HOLOTYPE

Barnard, 1972 : 176-7, figs 98a-h; December 1972.

##### PARATYPES

Barnard, 1972 : 176-7, fig. 99i (male 7.4 mm).

##### TYPE LOCALITY

NZOI Stn E417 (45°12'S, 171°49'E, off Oamaru, 860 m, 13 October 1965).

#### NZOI MATERIAL

Stn E417 : H-104 (holotype, male 6.4 mm), P-503 (paratype, male 7.4 mm); Stn E709 : P-504 (1 specimen); Stn F744 : P-505 (1 specimen).

#### *Wandelia (?) wairarapa* Barnard, 1972

##### HOLOTYPE

Barnard, 1972 : 187, 190, figs 105a-e, 106a-j; December 1972.

##### PARATYPES (3)

Barnard, 1972 : 187, 190, figs 105f-g, 106n-q (male 1.7 mm), figs 105h, 106k-m (female 1.8 mm).

##### TYPE LOCALITY

NZOI Stn E967 (Eve Bay, Wellington, intertidal wash of algae, 5 November 1967).

#### NZOI MATERIAL

Stn E967 : H-105 (holotype, male), P-506 (3 paratypes).

Order MYSIDACEA

**Mysidetes antarctica** Tattersall, 1965

HOLOTYPE

Tattersall, 1965 : 20-2, text-figs 5-7; 1965

TYPE LOCALITY

Stanford University Stn 317, Pram Point, McMurdo Sound, Antarctica, fish trap under ice 5 m thick, 27 April 1957 (= NZOI Stn Z2440).

NZOI MATERIAL

Stn Z2440 : H-14 (holotype, male).

REMARKS

“Captured together with two adult males of *Mysidetes posthon* H. & T. and many juveniles, probably *posthon*. 1 adult male 15 mm.”

Subclass EUCARIDA

Order DECAPODA

Suborder REPTANTIA

Section PAGURIDEA

**Neolithodes brodiei** Dawson & Yaldwyn, 1970

HOLOTYPE

Dawson & Yaldwyn, 1970 : 227-8, no fig.; 27 July 1970.

TYPE LOCALITY

NZOI Stn F135 (50°58'S, 173°57'E, Campbell Plateau, SE of New Zealand, 832 m, *Globigerina* ooze, 30 January 1965).

NZOI MATERIAL

Stn F135 : H-106 (holotype, female).

REMARKS

“This species is named after Mr J.W. Brodie, Director of the New Zealand Oceanographic Institute, in recognition of his leadership in New Zealand marine science.”

**Paralomis zealandica** Dawson & Yaldwyn, 1971

HOLOTYPE

Dawson & Yaldwyn, 1971 : 51-4, fig. 1; 6 April 1971.

TYPE LOCALITY

NZOI Stn E423 (44°18'S, 174°31'E, Chatham Rise, E of New Zealand, 640 m, fine sandy mud, 15 October 1965).

NZOI MATERIAL

Stn E423 : H-121 (holotype, male).

Section BRACHYURA

**Cyonomus bathamae** Dell, 1971

PARATYPES (2)

Dell, 1971 : 56-9, text-figs 1-10; 7 April 1971.

TYPE LOCALITY

“Portobello Station Mu67/142, 45°51'S, 170°02'E, Papanui Canyon, off Otago in 732 metres, 30-11-67 (holotype male, three male and three female paratypes).”

NZOI MATERIAL

Stn G184 : P-247 (paratype, female); Stn G696 : P-248 (paratype, female).

REMARKS

This is one of the first two records of the genus from the South Pacific. The holotype male (Cr. 1867) and a paratype female (Cr. 1868) are in the National Museum with 2 paratypes (P-247, P-248) in the N.Z. Oceanographic Institute and 7 paratypes in Portobello Marine Biological Station (Mu67/142, Mu68/27). Another species (*C. aequilonius*) was described at the same time by Dell (1971) from a single specimen collected off Mayor Island, Bay of Plenty.

**Eurynome bituberculata** Griffin, 1964

PARATYPES (5)

Griffin, 1964 : 197-203, figs 5, 6, 9-11; 3 January 1964.

TYPE LOCALITY

Off Glen Burn, E Wairarapa coast, southern North Island, 183 m, collected by R.A. Wilten, 12 September 1961.

NZOI MATERIAL

Stn B314 : P-135-139 (paratypes, 5 males) including figured specimen.

REMARKS

Holotype in National Museum, Wellington and figured by Griffin (1964 : 197-203, figs 1-4, 7, 8); 8 paratypes, 2 females (from type locality) in National Museum, 1 female, Stn VUZ55, off Cape Palliser, Zoology Department, Victoria University of Wellington, 5 males, NZOI Stn B314, New Zealand Oceanographic Institute, Wellington. Figures have also been given by Griffin (1966 : text-figs 6(5), 7(1, 2, 4)). “Note : In the original description of this species in *Crustaceana* 6(3), 1964 : 202, the figures of the male first pleopods are incorrectly designated - fig. 10 is of the abdominal aspect (not sternal) and fig. 11 of the sternal aspect.” (Griffin, 1966 : 45).

**Leptomithrax richardsoni** Dell, 1960

FIGURED SPECIMENS

Griffin, 1966 : 79-81, text-figs 16(1-7), 23(3-4), pls 3-4.

NZOI MATERIAL

Stn B182 : 1 female (ovigerous) (pl. 4).

REMARKS

Originally described by Dell (1960 : 2, text-fig. 3, pl. 2) from Chatham Islands 1954 Expedition Stn 52, 44°04'S, 178°04'W, 475 m.

Holotype (juvenile female) in Canterbury Museum, Christchurch, paratypes (3 juvenile females) in Canterbury Museum and the National Museum, Wellington.



***Nectocarcinus antarcticus* (Jacquinot, 1853)**

FIGURED SPECIMENS

Main, 1974 : 8, figs 2 and 4.

NZOI MATERIAL

Stn D46 : female, carapace length 60.1 mm (fig. 2);  
Stn D44 : male, carapace length 79.8 mm (fig. 4).

REMARKS

From a total of 2544 NZOI benthic stations, 577 specimens of two species of *Nectocarcinus* were collected - 209 specimens from 118 stations were *N. antarcticus*. An analysis of the distribution and ecology of *Nectocarcinus* in New Zealand waters has been given by Main (1974). Bennett (1964 : 656) has given references to earlier collections, some of which may include the later described *N. bennetti*, q.v. Other references can be found in Stephenson (1972 : 21).

***Nectocarcinus bennetti* Takeda & Miyake, 1969**

FIGURED SPECIMENS

Main, 1974 : 19, figs 3 and 4.

NZOI MATERIAL

Stn D48 : female, carapace length 52.2 mm (fig. 3);  
Stn D62 : male, carapace length 79.7 mm (fig. 4).

REMARKS

Attention was drawn by Dawson (1963) to the existence of a second form of *Nectocarcinus* in southern New Zealand waters based on extensive collections by NZOI around the Auckland Islands. A second species of *Nectocarcinus* was described by Takeda & Miyake (1969) from collections made by the Japanese research vessel *Kaiyo Maru* on the Chatham Rise. At the same time Dell *et al.* (1970) were submitting their account of a new species common around the Auckland Islands. The New Zealand authors' paper gives a valuable review of the genus although the new name which they were proposing had to be deleted from their final manuscript.

***Pteropeltarion novaezelandiae* Dell, 1972**

HOLOTYPE

Dell, 1972a : 56-9, figs 10-11; April 1972.

PARATYPES (15)

Dell, 1972a : 56-9, figs 1-9.

TYPE LOCALITY

NZOI Stn F105 (49°34.08'S, 170°57'E, 499 m, 20 January 1965).

NZOI MATERIAL

Stn D85 : P-249 (paratype, male); Stn D204 : P-250 (paratype, female); Stn D206 : P-251 (paratype, male); Stn D207 : P-252 (paratype, female); Stn D224 : P-253 (paratype, female); Stn D229 : P-254 (paratype, male); Stn E111 : P-255 (paratype, male); Stn E894 : P-256 (paratypes, 4 females); Stn E899 : P-257 (paratypes, 3 males); Stn F105 : H-113 (holotype, male), P-258 (paratypes, 3 males, 1 female).

OTHER MATERIAL

1 paratype subadult male (figs 1 and 8) at Portobello Marine Biological Station (from PMBS locality : Papa-

nui Canyon, off Otago, 686-631 m. 22 May 1967); 1 paratype male, 1 paratype female in the National Museum (from NZOI Stn F105).

REMARKS

"This is obviously a relatively common member of the deeper water crab fauna of New Zealand ..."

***Rochinia riversandersoni* (Alcock, 1895)**

FIGURED SPECIMENS

Yaldwyn & Dawson, 1976 : 98-101, figs 6-9.

NZOI MATERIAL

Stn E841 : 1 male (figs 6 and 9), 1 female (figs 7 and 8);  
Stn K804 : 1 male, 2 females; Stn K829a : 1 male; Stn K829b : 2 males, 1 female.

REMARKS

Originally described by Alcock (1895 : 203) from Indian waters and later found in the South China Sea, this species is known elsewhere only from these nine specimens collected off northern New Zealand and the Kermadec Islands. Yaldwyn & Dawson (1976) documented these records, commenting on the discontinuous distribution of the species, its relationship to the other 18 members of the genus and detailed its synonymy.

***Trichopeltarion fantasticum* Richardson & Dell, 1964**

PARATYPES (3)

Richardson & Dell, 1964 : 148-51, text-figs 1-11; 20 March 1964.

TYPE LOCALITY

VUZ Stn 42 (41°32'30"S, 174°52'E, Palliser Bay, c.183 m, 19 January 1956).

NZOI MATERIAL

Stn A759a : P-15 (paratype, female); Stn C690 : P-16 (paratypes, 2 males, 1 female); Stn C705 : P-17 (paratype, 1 ovigerous female).

REMARKS

Originally described by Richardson & Dell (1964) from Palliser Bay, the holotype male (Z.Cr. 1322) is in National Museum, Wellington; paratypes in National Museum, in Zoology Department, Victoria University of Wellington, Canterbury Museum, and in N.Z. Oceanographic Institute, Wellington (P-15-17). Other material examined by the authors is listed on pp.149-50 of their account.

Section THALASSINIDEA

***Jaxea novaezelandiae* Wear & Yaldwyn, 1966**

PARATYPES (3)

Wear & Yaldwyn, 1966 : 4-11, figs 1-2; December 1966.

TYPE LOCALITY

Shelly Bay, Wellington Harbour; 3 August 1964, collected by R.G. Wear.

#### NZOI MATERIAL

Stn A355 : P-29 (paratype); Stn B2 : 1 damaged specimen, not of type series; Stn C228 : P-30-31 (paratypes, associated pair).

#### REMARKS

Larval stages also described by Wear. "All other material ... with the exception of the (damaged) NZOI Stn B2 specimen is paratypic." Holotype (Z.Cr.1667), figured paratype (Z.Cr.1669) and the majority of paratypes (8 specimens, Z.Cr.1668, 1670-1673) are in the National Museum, Wellington. Other paratypes are in the Zoology Department, Victoria University of Wellington (6); the N.Z. Oceanographic Institute (3, P-28-31), the Australian Museum, Sydney (2, P15164), and in the Rijksmuseum voor Natuurlijken Historie, Leiden (2, Crust. D.22652-53).

### Subphylum PYCNOGONIDA

#### *Achelia dohrni* (Thomson, 1884)

##### FIGURED SPECIMENS

Clark, 1972b [as 1971] : 441-9, figs 6-10.

##### NZOI MATERIAL

Stn C795 : 1 female (fig. 6A); Stn D62 : 3 females (figs 8F, 9F), 2 males (figs 6D, 9E, 7E, 10D, 10R), 1 juvenile; Stn Z1895 : female (figs 8I, 9C, 10K).

#### *Ammothea antipodensis* Clark, 1972

##### FIGURED SPECIMEN

Clark, 1977a : 180-1, figs 15-24.

##### NZOI MATERIAL

Stn D62 : 1 male, 1 female (fig. 15).

##### REMARKS

"The original description was based on one adult male and two juveniles collected in the intertidal zone of the Antipodes Islands [Clark, 1972b : 435-8, figs 4A-K]. Now, with adequate material of both sexes and of juveniles, most from the sub-littoral of the Auckland Islands [14 males, 12 females, 15 juveniles, University of Canterbury Zoology Department collections; 1 male, 1 female, NZOI Stn D62, Auckland Islands, 18-24 m] the original description can be amplified, especially in respect of the hitherto unknown females."

#### *Ammothea makara* Clark, 1977

##### HOLOTYPE

Clark, 1977a : 182-4, text-figs 25-33; June 1977.

##### TYPE LOCALITY

"NZOI Stn Z1916, Makara, Wellington, 3 m below high water mark, on weed. Coll. R.W. Grace, 30 November 1963."

##### NZOI MATERIAL

Stn Z1916 : H-234 (holotype, 1 ovigerous male).

##### REMARKS

"*Ammothea makara* n.sp. takes its specific epithet

from the place name of the type locality." No type registration number was given in Clark's original description.

#### *Austrodecus enzoii* Clark, 1972

##### HOLOTYPE

Clark, 1972a [as 1971] : 338-40, figs 3H-M; April 1972.

##### TYPE LOCALITY

NZOI Stn D156 (48°01.5'S, 166°35.0'E, 81 m, coarse shelly sand, 10 January 1954).

##### NZOI MATERIAL

Stn D156 : H-119 (holotype, female).

##### REMARKS

"The specific epithet (*enzoii*) is a play on the initials of the collecting organisation, the New Zealand Oceanographic Institute (NZOI)."

#### *Austrodecus minutum* Clark, 1972

##### HOLOTYPE

Clark, 1972a [as 1971] : 336, 338, 339, figs 3A-G; April 1972.

##### TYPE LOCALITY

NZOI Stn D144 (48°31'S, 167°17'E, 132 m, sand with shells, 14 January 1964).

##### NZOI MATERIAL

Stn D144 : H-120 (holotype, male).

#### *Austroraptus juvenilis* Calman, 1915

##### FIGURED SPECIMEN

Fry & Hedgpeth, 1969 : text-fig. 189.

##### NZOI MATERIAL

Stn A450 : 2 females; Stn A467 : 1 male, 1 female (text-fig. 189); Stn A528 : 1 female.

##### REMARKS

Originally described by Calman (1915 : 63-65), from an ovigerous male at *Terra Nova* Stn 220 off Cape Adare, Antarctica, this species has been described and commented on by Fry & Hedgpeth (1969 : 117-9, text-figs 174-183, 187-189, 196).

#### *Dodecolopoda mawsoni* Calman & Gordon, 1933

##### FIGURED SPECIMEN

Fry & Hedgpeth, 1969 : frontispiece.  
Hedgpeth, 1971 : fig. 19.

##### NZOI MATERIAL

Stn A459 : 1 male.

##### REMARKS

Originally described by Calman & Gordon (1933 : 107-15, text-figs 1a-c) from BANZAR Expedition Stn 107, 219 m, Fry & Hedgpeth (1969 : 56-57, frontisp.,

text-figs 7–10, 77–82) have described and commented on this species. “This is the second specimen of this remarkable 12-legged form to be taken.”

### ***Pallenopsis (Pallenopsodon) antipoda* Clark, 1972**

#### HOLOTYPE

Clark, 1972b [as 1971] : 428–30, figs 1A–G; 19 July 1972.

#### TYPE LOCALITY

NZOI Stn F127 (49°22'S, 176°16'E, 1280 m, sand, rocks and pebbles, 20 January 1965).

#### NZOI MATERIAL

Stn F127 : H-128 (holotype, female).

### ***Pallenopsis kupei* Clark, 1972**

#### PARATYPES (2)

Clark, 1972b [as 1971] : 430–3, figs 2A–J; 19 July 1972.

#### TYPE LOCALITY

Portobello Marine Biological Station, Stn Mu67/142, (45°5'S, 171°02'E, Papanui Canyon, 730 m).

#### NZOI MATERIAL

Stn A740 : P-185 (paratype, female); Stn E413 : P-186 (paratype, female).

Also, not designated by author as paratypes although listed in “Material Examined” – Stn E719 : 2 females; Stn E237b : 1 female; Stn D17 : 1 female.

#### REMARKS

Holotype male, allotype [holotype of opposite sex] female and 3 female paratypes in the National Museum, Wellington; other paratypes at Portobello Marine Biological Station, Otago.

“The species is named for the legendary Maori navigator Kupe, presumably New Zealand’s first oceanographer.”

### ***Pallenopsis triregia* Clark, 1962**

#### HOLOTYPE

#### PARATYPE

Clark, 1962 : 517–19, fig. 1(A–H); December 1962.

#### TYPE LOCALITY

NZOI Stn B93 (34°00'S, 172°30'E, near Three Kings Islands, 82–137 m, 22 September 1958).

#### NZOI MATERIAL

Stn B93 : H-9 (holotype, female), P-9 (paratype, female).

#### REMARKS

Clark recorded : “The holotype is numbered 10 and the paratype P1.” These numbers should be corrected to H-9 and P-9 as listed above. Also the proposed new specific name has evidently been omitted from his formal description (Clark, 1962 : 517).

### ***Rhynchothorax articulatus* Stock, 1968**

#### FIGURED SPECIMEN

Clark, 1976 : 287–90, figs 2–9, 3–11.

#### NZOI MATERIAL

Stn F915 : one female.

#### REMARKS

“The genus *Rhynchothorax* was first reported from New Zealand waters by Stock (1968) when he described a male of *Rhynchothorax articulatus* from a “Galathea” station in the northwestern entrance to Cook Strait in 146 metres. The discovery of the female and another male of this species “extends the known range from the type locality at about 37 km northwest of Kapiti Island on the west coast of the North Island in 146 m to about 24 km NNE of Bay of Islands on the east coast of the Auckland Peninsula in 251–265 m [NZOI Stn F915], and to Papanui Canyon off Otago Peninsula at a depth of 500 m [*Munida* Stn 74/202].”

“Unfortunately the trunk of the only female specimen was damaged, after the scanning electron micrographs had been taken but before any measurements had been taken.”

### ***Rhynchothorax percivali* Clark, 1976**

#### PARATYPES

Clark, 1976 : 292–4, figs 1, 12–21; September 1976.

#### TYPE LOCALITY

“Intertidal pool on point between Ripapa Island and Shelly Bay, Lyttelton Harbour, NZMS 1, S84, 110451.” (= NZOI Stn Z2687).

#### NZOI MATERIAL

Stn Z2687 : P-295–6 (paratypes, 1 male, 1 female).

#### REMARKS

“Holotype male, allotype female and three paratypes deposited in National Museum Collection, Wellington; 1 male and 1 female paratype in British Museum (Natural History); 1 male and 1 female paratype in type collection, New Zealand Oceanographic Institute, Wellington [no Registration number quoted but = P-295–6.]”

“Material collected in three lots by E. Percival, 26 October 1957, and W.C. Clark, 27 December 1973 and 11 May 1975; 7 males, 4 females from “the Brachiopod Pool” Lyttelton Harbour near Ripapa Island, from the undersides of volcanic boulders in a rock pool about midtide level.”

“This species is named for the late Professor Edward Percival who, whilst engaged in a study of the brachiopods which inhabit the same pool, discovered and gave me the first specimens of this *Rhynchothorax* species. Because of their small size the animals are difficult to collect, and very easily overlooked.”

### ***Tanystylum excuratum* Stock, 1954**

#### FIGURED SPECIMEN

Clark, 1977b : 323–6, figs 14–17.

#### NZOI MATERIAL

Stn B51 : 1 ovigerous male.

#### REMARKS

Previously known only from Stock's (1954 : 146-9, figs 71-72) specimens collected in Lyttelton Harbour by Henry Suter in May 1897, "... this is a well-defined species, giving rise to the proposed name *excuratum*, which means "beautifully attired" " (Stock, 1954 : 148).

According to Clark, "Both localities where this species has been taken have muddy bottoms. The Hawke Bay record extends the known geographic range considerably."

#### *Tanystylum neorhetum* Marcus, 1940

#### FIGURED SPECIMEN

Clark, 1977b : 327-30, figs 31-39.

#### NZOI MATERIAL

Stn D10 (figs 31-32, 35, 38) : 3 males, 4 females, 2 juveniles; Stn D26 (figs 34, 39) : 1 male, 6 juveniles; Stn D62 [letter prefix omitted by Clark] : 1 juvenile; Stn E233 (figs 33, 34, 36) : 1 male, 1 juvenile.

#### REMARKS

"I am not convinced that this nomen does not embrace more than one species, but the matter cannot be further resolved without much more extensive material than is currently available to me."

*Tanystylum neorhetum* was proposed by Marcus (1940 95-6, 129 as a new name for *Clotenia dohrnii* Pfeffer, 1889, *T. pfefferi* Bouvier, 1913 and *T. pfefferi* Loman, 1923, preoccupied).

#### *Tanystylum oedinotum* Loman, 1923

#### FIGURED SPECIMEN

Clark, 1977b : 330-2, figs 44-50.

#### NZOI MATERIAL

Stn D26 : 1 female.

#### REMARKS

Originally described by Loman (1923 : 29, 30, fig. F) from the Falkland Islands.

"The present record is a fulfilment of Arnaud's (1972) prediction that this species probably occurs at Macquarie Island."

#### *Tanystylum styligerum* (Miers, 1875)

#### FIGURED SPECIMEN

Clark, 1977b : 333-6, figs 51-61.

#### NZOI MATERIAL

Stn A695 : 1 female; Stn A698 : 4 males, 5 females; Stn D10 : 1 female (figs 51-56).

#### REMARKS

Described by Miers (1875 : 76) from Kerguelen, this "species is probably the most easily recognised of all the southern members of the genus."

#### *Tanystylum* sp. Clark, 1977

#### FIGURED SPECIMENS

Clark, 1977b : 336, figs 62-67.

#### NZOI MATERIAL

Stn D10 : 1 female (fig. 62); Stn D26 : 1 female (figs 63-67).

#### REMARKS

"The problem is that the specimens appear to share a mixture of the characteristics of *T. styligerum*, *T. neorhetum* and *T. oedinatum* ... I have strong reservations against the creation of yet a further taxon to receive these diverse animals, and those reservations are strengthened by the realisation that Station D10 has also yielded specimens attributed to *T. neorhetum* and to *T. styligerum* ... and that Station D26 has also provided material identified as *T. neorhetum* and *T. oedinatum* ... a solution to the problem raised, other than more material is not apparent to me."

## Phylum MOLLUSCA

### Class GASTROPODA

#### *Alcithoe flemingi* Dell, 1978

#### PARATYPE

Dell, 1978 : 167-8, figs 17, 18, 33; 24 April 1978.

#### TYPE LOCALITY

Taiaroa Canyon, Otago, 722-768 m, 11 August 1974.

#### NZOI MATERIAL

Stn D85 : P-360 (two paratypes).

#### REMARKS

"In addition the New Zealand Oceanographic Institute has this species well represented from southern New Zealand. Holotype (M.58361) and paratypes in the National Museum, paratypes in New Zealand Oceanographic Institute, and in the National Museum of Natural History, Washington."

"This distinctive new species is named after Sir Charles Fleming on the occasion of his retirement from the New Zealand Geological Survey as a small tribute to his life work on the New Zealand fauna."

#### *Antarctoneptunea aurora* (Hedley, 1916)

#### FIGURED SPECIMEN

Dell, 1972b : 117-9, figs 6-7.

#### NZOI MATERIAL

Stn A528 : figured specimen; Stn E220b [incorrectly printed in Dell as "E2206"].

#### REMARKS

The new genus *Antarctoneptunea* was erected by Dell based on an examination of the holotype of *Fusitriton aurora* described by Hedley (1916 : 55-6, pl. VIII, figs 88-90) and on additional specimens collected by the N.Z. Oceanographic Institute and from the *Eltanin*.

"A single specimen was dredged alive, February 24th, 1914, from 1,800 fathoms. ooze bottom, off the coast

of South Australia, in South Lat. 35° 55½' and East Long. 134°18'' (Hedley, 1916 : 56).

**Capulus novaezelandiae** Dell, 1978

PARATYPE

Dell, 1978 : 164-6, figs 8-12; 24 April 1978.

TYPE LOCALITY

*Shinkai Maru* Stn 158, (53°11'S, 172°14'E, Campbell Plateau, 415-480 m, 16 February 1976).

NZOI MATERIAL

Stn F146 : P-359 (paratype).

REMARKS

The holotype is in the National Museum of N.Z., Wellington (Reg. No. M.58360). The known specimens of this species were attached to a giant limid bivalve of the genus *Acesta* (see Dell, 1978 : 165, fig. 7).

“The record of a large species of *Capulus* from deep water off southern New Zealand is unusual in itself. The use of a limid “host” is equally unusual” and “... its occurrence off southern New Zealand may perhaps be more comprehensible when more is known of the distribution of *Acesta* in the Southern Hemisphere.”

**Distorsio (Distorsionella) lewisi** Beu, 1978

HOLOTYPE

Beu, 1978a : 39-41, figs 23-24; 1 July 1978.

PARATYPES (3)

Beu, 1978a : 39-40, figs 5, 8, 19-22, 30A.

TYPE LOCALITY

NZOI Stn P57, (33°15.0'S, 169°59.0'E, central Reringa Ridge between northern New Zealand and the Norfolk Ridge, 563-614 m, 4 February 1977).

NZOI MATERIAL

Stn P57 : H-230 (holotype); Stn 197 : P-323 (figs 5, 19), P-324 (figs 8, 20, 30A) (two immature paratypes, collected alive); Stn K870 : P-325 (broken adult paratype) (figs 21-22).

REMARKS

“The new species is named in honour of Mr Hal Lewis of Philadelphia, who has done so much to clarify the genus *Distorsio* (Lewis, 1972) and who continues to be one of the few colleagues to appreciate the nuances of cymatiid taxonomy.”

**Eatoniella (Albitoniella) thola** Ponder, 1965

HOLOTYPE

Ponder, 1965a : 60-1, pl. 6, fig. 19; 15 October 1965.

PARATYPE

TYPE LOCALITY

NZOI Stn C760 (34°10.13'S, 172°8.06'E, off Three Kings Islands, 80 m, 18 February 1962).

NZOI MATERIAL

Stn C760 : H-21 (holotype), P-23 (paratype).

REMARKS

Other paratypes in Auckland Institute & Museum, National Museum, and N.Z. Geological Survey.

**Eatoniella (Caveatoniella) puniceomacer** Ponder, 1965

PARATYPE

Ponder, 1965a : 63-4, pl. 10, figs 16-18; 15 October 1965.

TYPE LOCALITY

Tryphena Bay, Great Barrier Island, shell sand, ex. Hipkins Coll. Auckland Institute & Museum (= NZOI Stn Z2441).

NZOI MATERIAL

Stn Z2441 : P-27 (paratype).

REMARKS

Holotype (pl. 10, figs 16-18) in Auckland Institute & Museum. “Paratypes : Auckland, Dominion, and Canterbury Museums; N.Z. Geological Survey, Lower Hutt; N.Z. Oceanographic Institute, Wellington; and K. Hipkins Collection.”

**Estea manawatawhia** Powell, 1937

FIGURED SPECIMEN

Ponder, 1965b : 141, pl. 21, fig. 7.

NZOI MATERIAL

Stn C760 : figured specimen.

REMARKS

Originally described by Powell (1937 : 198, pl. LIII, fig. 3) from *Discovery II* Stn 932, off Three Kings Islands, 184 m. Holotype in British Museum (Nat. Hist.), London.

**Estea praecidecosta** Ponder, 1965

HOLOTYPE

Ponder, 1965b : 144-5, pl. 21, fig. 8; 15 October 1965.

PARATYPE

TYPE LOCALITY

NZOI Stn C760 (34°10.13'S, 172°8.06'E, off Three Kings Islands, 80 m, 18 February 1962).

NZOI MATERIAL

Stn C760 : H-26 (holotype), P-26 (paratype).

REMARKS

Paratypes also in Auckland Institute & Museum, and other material listed by Ponder (1965b : 145).

**Estea subfusca aupouria** Ponder, 1968

HOLOTYPE

Ponder, 1968a : 115-6, 123, text-fig. C; 17 October 1968.

TYPE LOCALITY

NZOI Stn E314 (34°01.5'S, 171°58'E, 883 m, 10 April 1965).

NZOI MATERIAL

Stn E314 : H-250 (holotype).

REMARKS

The only other specimen, a paratype is in the National Museum of N.Z. (Reg. No. M.21748).

**Fulgurofusus** sp. cf. **F. benthocallis** (Melvill & Standen, 1907)

FIGURED SPECIMEN

Darragh, 1969 : 104, pl. 6, fig. 114.

NZOI MATERIAL

Stn E749 : see "Remarks"

REMARKS

Originally described in the genus *Columbarium* by Melvill & Standen (1907 : 140, 1 pl., figs 11-11a) from *Scotia* Stn 313 (62°10'S, 41°20'W) off South Orkney Islands in 1775 fm (3246 m), 10 March 1903.

"A single specimen from ... Station E749 ... off Castle Point ... is very similar to *F. benthocallis* ... Unfortunately ... it is not possible to determine the relationship of it or its relatives to the other New Zealand columbariids ..." (Darragh, 1969 : 104). Smaldon *et al.* (1976 : 41) listed the holotype of *F. benthocallis* as in the Royal Scottish Museum and noted that Darragh's figure of 1755 fathoms is an error.

The NZOI specimen apparently has been lost or mislaid at the National Museum of Victoria, Melbourne.

**Fusitriton magellanicus laudandus** Finlay, 1927

FIGURED SPECIMEN

Glasby, 1973 [as 1972] : 383-6, fig. 2.

NZOI MATERIAL

Stn D121 : several specimens including the one figured.

REMARKS

Superficial coatings of glauconite grains were noted on a specimen of *F. laudandum*. "The glauconite predates the shell on which it accretes and is incorporated on to the shell surface by agglutination of sand-size material by mucus secreted by epizoic anemones." (Glasby, 1973 383).

Cullen (1975 : 1), however, believed that this "material occurs, in fact, as discrete grains adhering to a mucus covering on the shell surfaces, and is not a "coating" in the sense used here. He also presented a chemical analysis showing it to be "an intimate intermixture of interlayering of glauconite with phosphorite."

*Fusitriton laudandum* is a widely distributed archi-benthal (bathyal) gastropod, originally described by Finlay (1927 : 399, pl. 20, fig. 5) from off Otago Heads in 40 fm. It is the subject of a major ecological analysis (also including a change of nomenclature to *F. cancellatus laudandus*) by Beu (1978b).

Beu (1978a : 34) has also recorded, under the name *Fusitriton magellanicus laudandus* "two large, typical but broken shells" at NZOI Stn K870 near Esperance

Rock, Kermadec Islands, noting that it occurs "sparsely as far north as the Three Kings Islands and from one sample on the southern end of Norfolk Ridge, but this is the sole record from the Kermadec Islands."

**Lirtoniella bicarinata** Ponder, 1965

HOLOTYPE

Ponder, 1965a : 94-5, pl. 11, figs 1-3 (operculum); 15 October 1965.

PARATYPE

TYPE LOCALITY

NZOI Stn C760 (34°10.13'S, 172°8.06'E, off Three Kings Islands, 30 m, 18 February 1962).

NZOI MATERIAL

Stn C760 : H-23 (holotype), P-24 (1 paratype).

REMARKS

Other paratypes in Auckland Institute & Museum and in the National Museum.

**Microdryas striatus** (Powell, 1927)

FIGURED SPECIMEN

Ponder, 1967 : 207, pl. 3, fig. 17 (operculum).

NZOI MATERIAL

Stn C760 : figured specimen.

REMARKS

Originally described in the genus *Epigrus* by Powell (1927 : 545, pl. 28, fig. 16) from 10-17 m off Mangonui, Northland.

**Notoscrobs erosus** (Odhner, 1924)

FIGURED SPECIMEN

Ponder, 1967 : 207, pl. 3, figs 13-15 (operculum).

NZOI MATERIAL

Stn C760 : figured specimen.

REMARKS

Originally described by Odhner (1924 : 23, pl. 1, figs 12-13) in the genus *Rissoa* from "some few specimens" from 119 m off the Three Kings Islands, 5 January 1915.

**Pteropurpura laetifica flemingi** (Beu, 1967)

FIGURED SPECIMEN

Beu, 1970 : 138-41, text-figs 1-2, pl. 2, figs 16-17, 19-26, table 1.

NZOI MATERIAL

Stn E875 : 2 specimens, one figured as pl. 2, figs 19-22.

REMARKS

Originally described by Beu (1967 : 102, pl. 1, fig. 9) as *Pterynotus (Pterynotus) flemingi* from two specimens in the late Pliocene Mangapanian siltstone east of Whangaimoana, Palliser Bay, South Wairarapa, Sheet

N165/1065. Powell (1967 : 192, pl. 37, figs 2-4) recorded living specimens from the North Cape - Three Kings area, collected from M. V. *Ikateri* and now in the collection of Mr & Mrs N. Gardiner, Titirangi, Auckland, as *Pteropurpura* cf. *plorator* (A. Adams & Reeve, 1850).

Beu (1970 : 139) recorded "two well preserved, dead, stained specimens of *Pteropurpura* very similar to *P. laetifica* at Stn E875, in approximately 480 m, off Ninety-Mile Beach, Northland."

### ***Pupatonia atoma* Ponder, 1965**

#### HOLOTYPE

Ponder, 1965a : 96, pl. 10, fig. 15; 15 October 1965.

#### PARATYPE

#### TYPE LOCALITY

NZOI Stn A739 (49°40.3'S, 178°44.05'E, off Bounty Islands, 110 m, 9 November 1962).

#### NZOI MATERIAL

Stn A739 : H-24 (holotype), P-25 (1 paratype).

#### REMARKS

Other paratypes in Auckland Institute & Museum (with additional specimens) and in the National Museum.

### ***Sassia (Proxicharonia) palmeri* (Powell, 1967)**

#### FIGURED SPECIMEN

Beu, 1978a : 32, 34, figs 7, 26-27.

#### NZOI MATERIAL

Stn J705; Stn K843 (fig. 27); Stn K869.

#### REMARKS

Powell (1967a : 188, pl. 36, figs 11-12) described this species from two specimens collected off the Poor Knights Islands.

The NZOI figured specimen from Stn K843 (east of Curtis and Macauley Islands, Kermadecs) is the largest shell examined (67 mm high), "considerably larger than the largest of the 10 or so shells so far collected in New Zealand."

### ***Sassia (Sassia) marshalli* Beu, 1978**

#### HOLOTYPE

Beu, 1978a : 31-2; 1 July 1978.

#### PARATYPE

#### TYPE LOCALITY

NZOI Stn K844 (30°11.2'S, 178°33.8'W, Kermadec Islands, 290 m, 29 July 1974).

#### NZOI MATERIAL

Stn K826 : P-326 (paratype); Stn K844 : H-231 (holotype).

#### REMARKS

"The new species is named in honour of Mr Bruce Marshall, National Museum of New Zealand, who pointed out the new material in this paper to the writer."

### ***Sassia (Sassia) nassariformis remensa* (Iredale, 1936)**

#### FIGURED SPECIMEN

Beu, 1978a : 31, figs 6, 13, 15-16.

#### NZOI MATERIAL

Stn J709 : 1 specimen (figs 15-16).

#### REMARKS

Iredale (1936 : 309, pl. 23, fig. 4, pl. 24, fig. 4) described this species as the type species of his new genus *Phanogesta*, *P. remesa*, from "the deeper edge of the Continental Shelf" of New South Wales, "110 fathoms east of Sydney."

### ***Seila (Hebeseila) regia* Marshall, 1978**

#### PARATYPES

Marshall, 1978a : 101, 115-6; 20 April 1978.

#### TYPE LOCALITY

National Museum of N.Z. BS 392 (38°08.5'S, 172°11'E, off North East I., Three Kings Is, 102 m, 18 February 1974).

#### NZOI MATERIAL

Stn E305 : P-359 (paratype) (fig. 19F); Stn E387 : P-360 (paratype).

#### REMARKS

The holotype (Reg. No. M51720) and paratypes are in the National Museum of N.Z. Paratypes are also in the Australian Museum, Sydney, the British Museum (Natural History), London, and the National Museum of Natural History, Smithsonian Institution, Washington, D.C.

### ***Thalassocyon tui* Dell, 1967**

#### FIGURED SPECIMENS

Beu, 1969 : 447-8, figs 2-8.

#### NZOI MATERIAL

Stn E709 : "one dead shell"; Stn E714 : "two live specimens" (fig. 2 (radula), figs 3-4, 6-8); Stn E719 : "one large dead shell" (fig. 5).

#### REMARKS

Originally described by Dell (1967 : 309, figs 1-2) from Stn AUZ98, near 30°11'5"S, 179°52'W, west of Kermadec Islands.

### ***Tridentifera roseoculma* Ponder, 1966**

#### HOLOTYPE

Ponder, 1966 : 183, pl. 1, fig. 10; 28 January 1966.

#### TYPE LOCALITY

NZOI Stn C760 (34°10.13'S, 172°8.06'E, off Three Kings Islands, 80 m, 18 February 1962).

#### NZOI MATERIAL

Stn C760 : H-25 (holotype).

#### REMARKS

"Paratypes : Auckland and Dominion Museums" *vide* Ponder (1966 : 183). Additional specimens subsequently dredged off Cape Maria van Diemen.

**Trophon** sp. cf. **T. coulmanensis** Smith, 1907

FIGURED SPECIMEN

Gardner & Gardner, 1978 : 102, 1 fig.

NZOI MATERIAL

Stn Q83(A) : 1.

REMARKS

A *Trophon* collected on the Lord Howe Rise in 816–841 m has been tentatively identified as cf. *coulmanensis*, an Antarctic species originally described from the Ross Sea. Its general distribution has been listed by Powell (1960 : 153).

Class BIVALVIA

**Aequipecten (Corymbichlamys) iredalei** Powell, 1958

PARATYPES

Powell, 1958 : 68–9, text-fig. A2, pl. 11, figs 1–2; 14 May 1958.

TYPE LOCALITY

*Galathea* Stn 675 (29°13.5'S, 177°57'W, off Raoul Island, Kermadec Islands, 58–60 m, 3 March 1952).

NZOI MATERIAL

Stn A297 : paratypes, on loan to Auckland Institute & Museum (see "Remarks" below).

REMARKS

In his first paper describing molluscs dredged by the Royal Danish Research ship *Galathea* in shallow water off the Kermadec Islands, Powell (1958) listed four lots of material lent to him some years ago from the collections of the N.Z. Oceanographic Institute. Two lots listed under two of Powell's new species must have paratypic status : another lot ("Two valves from a New Zealand Oceanographic Institute station, ½ m E. of Philip Is., Norfolk Island, 33 fathoms ..." probably represent a further new species of *Trachycardium* (Family Cardiidae), and the fourth lot, from the same station off Norfolk Island, is attributed to *Nemocardium (Pratulium) probatum* Iredale, 1927, originally described from Trial Bay, New South Wales. These four lots are still held by the Auckland Institute & Museum. The station number omitted by Powell is NZOI Stn A297.

The positions of *Galathea* stations 674 and 675 as given by Powell are incorrect and inconsistently cited : Stn 674 is listed as 29°15'S, 167°57'W on pp. 67, 70, 72, 73, 75, 78, 82, 83, and 84, as 29°15'S, 177°5'W on p.71, as 29°15'S, 177°51'W on p.78, and later (Powell, 1967b : 199) as 29°15'S, 177°53'W. Similarly, he gave the position of Stn 675 as 29°13.5'S, 177°57'W on p.68 and later as 29°13.5'S, 177°52'W on p.197.

It is not clear, also, which station the paratype of *Aequipecten (C.) iredalei* illustrated by Powell (1958 : pl.11, fig. 1) is from since the measurements given do not correspond to the three shells listed on p.68 from the type locality.

**Benthoquetia integra** (Hedley, 1907)

FIGURED SPECIMEN

Ponder, 1968b : 128–9, figs 6–7.

NZOI MATERIAL

Stn E405; Stn F753; Stn F764 : figured specimen.

REMARKS

Originally described by Hedley (1907 : 364, pl. LXVI, figs 7–10) from 23 miles E of Sydney, N.S.W., in 457 m. The first "few separate valves" were taken in 1330 m, 35 miles E of Sydney.

"*Benthoquetia* lives in what is assumed to be a commensal relationship with the holothurian *Mesothuria (Zygothuria) lactea* Theel ... an almost cosmopolitan species ..."

**Chlamys (Mimachlamys) asperrimoides** Powell, 1958

PARATYPES

Powell, 1958 : 70, text-fig. A3, pl. 11, figs 3–4; 14 May 1958.

TYPE LOCALITY

*Galathea* Stn 674 (29°15'S, 177°57'W, off Raoul Island, Kermadec Islands, 75–85 m, 3 March 1952).

NZOI MATERIAL

Stn A297 : paratypes (on loan to Auckland Institute & Museum).

REMARKS

See entry under "*Aequipecten (Corymbichlamys) iredalei*".

**Chlamys (Zygochlamys) delicatula** (Hutton, 1873)

FIGURED SPECIMENS

Pantin, 1963 : 507–12, text-figs 1, 3–4.

NZOI MATERIAL

Stn A444(B) : figured specimen (figs 1a–b, 3a); Stn C101 : figured specimen (fig. 4); Stn C733.

REMARKS

Originally described by Hutton (1873 : 30 (as *Pecten delicatulus* from the Tertiary of "Castle Point, Wellington; Chatham Islands"), 31 (as *P. diffluxa*) from the Weka Pass). Pantin discussed the biogeographical significance of the discovery of living specimens of this climate indicator as far north as Cook Strait, and it has been further discussed in more recent palaeoclimatological literature.

Many other specimens have been collected subsequently from Subantarctic localities.

**Divaricella (Divalucina) huttoniana** (Vanatta, 1901)

FIGURED SPECIMEN

Luckens, 1973 : 259–76, fig. 1.

NZOI MATERIAL

Stn B614 : figured specimen.

REMARKS

An account of the distribution of this species, particularly in relation to sediment, depth, temperature, and



geography has been given by Luckens (1973). Appendix 1 of this paper lists all other NZOI specimens identified by the author; Appendix 2 lists previously published records, and Appendix 3 lists specimens examined in the collections of the National Museum and Auckland Museum & Institute.

*Divaricella (D.) huttoniana* was previously recorded from New Zealand as *Lucina cumingii* Adams & Angas but was distinguished from it by Vanatta who gave a detailed description and figures (Vanatta, 1901 : 184–5, pl. V, figs 14–5). The types are in the Academy of National Sciences of Philadelphia (No. 63,758).

### **Halicardia maoria** Dell, 1978

#### HOLOTYPE

Dell, 1978 : 162–3, figs 1–3; 24 April 1978.

#### PARATYPE

#### TYPE LOCALITY

NZOI Stn D160 (49°31.5 'S, 166°15.5 'E, between the Snares and the Auckland Islands, 713–676 m, 18 January 1964).

#### NZOI MATERIAL

Stn D160 : H-233 (holotype), a single right valve; Stn E719 : P-359 (paratype), a complete half-grown specimen.

#### REMARKS

“The discovery of this fifth species of *Halicardia* [family Verticordiidae] by the New Zealand Oceanographic Institute supplies an intriguing addition to the New Zealand molluscan fauna.”

### **Limatula (Limatula) powelli powelli** Fleming, 1978

#### PARATYPE

Fleming, 1978 : 54, figs 30, 32–34, 39; March 1978.

#### TYPE LOCALITY

AUZ Stn 53, north of Three Kings Islands, 805 m.

#### NZOI MATERIAL

Many paratypes as follows – Stn A719; Stn A721; Stn A723; Stn A724; Stn A727 (fig. 36) : P-330 (paratype, 1 live), P-332 (paratypes, 4 valves), P-333 (paratypes, several hundred valves); Stn A741 : P-328 (1 paratype), P-331 (paratypes, 15 valves); Stn A744.

#### REMARKS

The holotype (Reg. No. M58356) and several paratype valves (M17258) and a few juvenile valves from the type locality as well as other paratypes (M58359) are in the National Museum, Wellington. The N.Z. Geological Survey holds paratype valves from the type locality (NZ 4937) and from other localities (NZ 4939). Other paratypes are in the Auckland Institute & Museum as well as in the N.Z. Oceanographic Institute.

“Named after Dr A.W.B. Powell ... pioneer student of deep-water Mollusca from the Subantarctic to the Kermadec Islands.”

### **Limatula (Limatula) vigilis** Fleming, 1978

#### PARATYPES

Fleming, 1978 : 58, figs 42–44; March 1978.

#### TYPE LOCALITY

*New Golden Hind* Stn 3, “Upper end of Narrows, Long Sound, Preservation Inlet, 39 fm [75 m]; medium to fine shell sand”, February 1946.

#### NZOI MATERIAL

Paratypes as follows – Stn A842 : P-350; Stn A855 : P-351; Stn C842 : P-352; Stn D1 : P-353; Stn D38 : P-354; Stn D60 : P-355; Stn D100 : P-356; Stn D103 : P-357; Stn D343 : P-358.

#### REMARKS

Fleming did not specify his paratypes by publication, but the specimens are so labelled.

The holotype (Reg. No. TM 5492) is in the N.Z. Geological Survey.

“This form was classed as *L. suteri* by Suter and some more recent National Museum curators and as *L. maoria* in the Geological Survey collection.”

“The species name is the genitive of the substantive form of the adjective *vigil* (awake, watchful, alert) and is chosen to commemorate the pioneer dredging expeditions of Mr A.J. Black in his harbour-defence motor launch, the “Alert”.”

### **Limatula (Limatuleta) japonica delli** Fleming, 1978

#### PARATYPE

Fleming, 1978 : 76–8, figs 82–84; March 1978.

#### TYPE LOCALITY

AUZ Stn 53, off Three Kings Islands, 805 m.

#### NZOI MATERIAL

Stn E297 (valve dimensions given on p.77); Stn E302; Stn E342 : P-334 (paratype valve) (as labelled by Fleming but not specified in publication (cf. p.77)).

#### REMARKS

The holotype (Reg. No. M58352) and paratypes (M58353, M58357) in the National Museum of N.Z. Two paratype valves (NZ 4938) are in the N.Z. Geological Survey.

### **Mesodesma arechavalettoi** Pilsbry, 1897

#### PARATYPE

Pilsbry, 1897 : 293, pl. 6, figs 15–16.

#### TYPE LOCALITY

Mar del Plata, Argentina (= NZOI Stn Z2688).

#### NZOI MATERIAL

Stn Z2688 : P-14, 1 paratype (ex ANSP 70486, coll. Dr W.H. Rush 1897).

#### REMARKS

Received on exchange from Dr R. Tucker Abbott, Pilsbry Chair of Malacology, Academy of Natural Sciences, Philadelphia (formerly registered as ANSP 70486).

**Neilo (Neilo) blacki** Marshall, 1978

PARATYPES

Marshall, 1978b : 430-2, figs 2E-J, table 2; 21 September 1978.

TYPE LOCALITY

National Museum of N.Z. BS 544 (42°28.5'S, 173°47.5'E, off Kaikoura, 786 m, 18 March 1976).

NZOI MATERIAL

Stn C692 : P-360; Stn C693 : P-361.

REMARKS

The holotype (Reg. No. M58364) and c.100 paratypes are in the National Museum of N.Z., Wellington. Other paratypes are in NZOI as listed above. Marshall examined a total of some 200 specimens ranging from Palliser Bay to off Banks Peninsula in 433-1097 m, and has discussed the phylogenetic relationships, palaeontological implications and ecology of this and the other Cenozoic members of the genus *Neilo* in New Zealand.

**Neilo (Neilo) wairoana delli** Marshall, 1978

PARATYPES

Marshall, 1978b : 428-30, figs 2G-I, table 1; 21 September 1978.

TYPE LOCALITY

National Museum of N.Z. BS 547 (43°24'S, 173°26'E, head of Pegasus Canyon, Pegasus Bay, 366-311 m, 18 March 1976).

NZOI MATERIAL

Stn A283; Stn C656; Stn C680; Stn C694; Stn C699; Stn D117; Stn E128; Stn E806 : P-342 (paratypes, 6 specimens); Stn E811 : P-342 (paratypes, 18 complete, 15 valves); Stn G29; Stn G32; Stn G253; Stn G273; Stn G291; Stn G292; Stn G305; Stn H219; Stn H221; Stn H222; Stn P66 : P-342 (paratypes, 5 specimens).

REMARKS

The holotype (Reg. No. M58365) and c.100 paratypes are in the National Museum of N.Z., Wellington. Although Marshall specified as paratypes in NZOI only those listed above as P-342, he had examined about 100 specimens from the NZOI collections. His paper is notable for the novel discussion of the phylogenetic relationships, palaeontological implications, and ecology of this and other Cenozoic members of the genus *Neilo* in New Zealand.

**Nemocardium (Pratulium) pulchellum** (Gray, 1843)

FIGURED SPECIMENS (2)

Luckens, 1972 : 48-9, fig. 1.

NZOI MATERIAL

Stn E86 : figured specimen, many other specimens in NZOI. "Up to April 1970 approximately 540 samples of *N. pulchellum* had been obtained ..." (Luckens, 1972 : 50).

REMARKS

"Described from a single valve; probably young" by

Gray (1843 : 253-4). "Inhabits New Zealand, East Coast, N. Island. Dr. Dieffenbach."

The geographic, bathymetric and sediment size distribution relationships have been fully documented by Luckens (1972) "based on the specimens collected from over 500 stations by the New Zealand Oceanographic Institute up to February 1970, published records, and the specimens in the collections of the Dominion [now National] Museum and the Auckland Institute and Museum."

**Tawera marionae** Finlay, 1928

PARATYPES (6)

Finlay, 1928 : 277-8, pl. 40, figs 21-24; 10 August 1928.

TYPE LOCALITY

"Off Otago Heads in 60 fathoms [100 m] (type and many others) and 20 fathoms [35 m] Chatham Is., two complete specimens and three valves." (= NZOI Stn Z2442).

NZOI MATERIAL

Stn Z2442 : P-143-148, 6 paratypes (single valves).

REMARKS

Holotype and 16 paratypes (AM 29846) in Auckland Institute & Museum (Powell, 1941 : 256). Paratypes (6) from AM 29846 received on exchange by N.Z. Oceanographic Institute, 7 May 1969.

**Tawera rosa** Powell, 1955

PLASTOTYPES (2)

TOPOTYPES (2)

Powell, 1955 : 41, pl. 5, figs 41-42.

NZOI MATERIAL

Stn Z2443 : Casts of holotype and figured paratype from N.Z. Geological Survey collection (see Boreham, 1959 : 18); Stn Z2444 : topotypes (2) valves, Main Auckland Island opposite Rose Island.

REMARKS

Originally described by Powell (1955 : 41, pl. 5, figs 41 (holotype), 42 (paratype)) from "a number of fairly fresh valves" found on "Outer coast opposite Rose Island, Auckland Islands (Cape Exped., C.A. Fleming)" and from "Rose Island, Auckland Islands." Listing of the type holdings in the N.Z. Geological Survey have been given by Boreham (1959 : 18) as "Holotype (TM 379) and figured paratype (TM 380).

Casts held at NZOI made by Mr I.W. Keyes, received 6 January 1970; topotypes collected by Dr C.A. Fleming, given to NZOI 5 December 1963 (ex NZGS 2793).

## Phylum BRACHIOPODA

*Neothyris dawsoni* Neall, 1972

HOLOTYPE

PARATYPES

Neall, 1972 : 236, 238, fig. 4b; 1 June 1972.

TYPE LOCALITY

NZOI Stn A916 (43°58.5'S, 175°11'E, Matheson Bank, Chatham Rise, 274 m, 15 September 1963).

NZOI MATERIAL

Stn A916 : H-66 (holotype), P-107-112 (6 paratypes);  
Stn A917 : many specimens seen by Neall.

REMARKS

Other paratypes (VB 71-73) from type locality in Geology Department, Victoria University of Wellington. The holotype was not figured. Many specimens have been collected subsequently. Topotypes now in the National Museum of N.Z., Wellington, the National Museum of Natural History, Smithsonian Institution, Washington, D.C., and the British Museum (Natural History), London.

"This species is named after Mr E.W. Dawson, N.Z. Oceanographic Institute, who has made extensive collections of Recent New Zealand and subantarctic brachiopods."

*Terebratulina whiterockensis* Hills, 1971

PARATYPES (3)

Hills, 1971 : 284-7, figs 1-2; 25 May 1971.

TYPE LOCALITY

"... the Whiterock Limestone on the east side of the Karetu River (grid reference S67/845015 (1965)) [NZMS 1] at the Karetu River Quarry (operated by the Whiterock Lime Co. Ltd) in the softer material near the base." (= NZOI Stn Z2445).

NZOI MATERIAL

Stn Z2445 : P-177-179 (3 paratypes).

REMARKS

The holotype is in the Canterbury Museum (B258). Other paratypes are in the Canterbury Museum (B259, B260); the National Museum (ZB 1358); the N.Z. Geological Survey (BR1674, BR1675) and in the British Museum (Nat. Hist.), London, (BB 33930-33932).

The age of the specimens appears to be Otaian (lower Miocene). The small size (average of 50 specimens, 5 mm, range 2-8 mm) and relatively coarse ribbing distinguish it from the other described New Zealand Tertiary species, *T. ellisoni* (Allan, 1932), *T. oamarutica* (Boehm, 1903), and *T. suessi* (Hutton, 1873).

Although the scientific name of this brachiopod was informally published in two Christchurch newspapers, *The Papanui Herald* and *The Press*, prior to formal publication in May 1976, both references are *nomina nuda*.

## Phylum BRYOZOA

*Arachnopusia quadralabia* Uttley & Bullivant, 1971

PARATYPES (2)

Uttley & Bullivant, 1971 : 23-4, fig. 10.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 166°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-158, P-159 (paratypes).

REMARKS

The holotype is in the Canterbury Museum, ZB 186.

*Beania plurispinosa* Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 28-9, figs 18-19.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 18, "off Cape Pattison, 43°41'S, 176°38'W, 15 fm [25 m]; rock. 28 January 1954 (= NZOI Stn Z2447).

NZOI MATERIAL

Stn Z2447 (CIE Stn 18) : P-162 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 189.

*Clipeochapèria funda* Uttley & Bullivant, 1971

PARATYPES (2)

Uttley & Bullivant, 1971 : 19-20, fig. 6.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-155, P-156 (paratypes).

REMARKS

The holotype is in the Canterbury Museum, ZB 184.

*Figularia mernae* Uttley & Bullivant, 1971

PARATYPES (2)

Uttley & Bullivant, 1971 : 16-17, fig. 3.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 3, "Mernoo Bank, 43°10.1'S, 175°36.5'W, 41 fm [75 m]; coarse bryozoan shell sand." 23 January 1954 (= NZOI Stn Z2448).

NZOI MATERIAL

Stn Z2448 (CIE Stn 3) : P-151 (paratype), P-152 (paratype) colony with ovicells.

REMARKS

The holotype is in the Canterbury Museum, ZB 181.

**Haswellina tubulata** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : fig. 25.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-164 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 191.

**Hippomenella curvata** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 44-5, fig. 38.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-169 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 197.

**Lacerna improvisa** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 39, fig. 30.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-165 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 193.

**Lacerna incurvata** Uttley & Bullivant, 1971

PARATYPES

Uttley & Bullivant, 1971 : 39-40, fig. 31.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-166, P-167 (paratypes).

REMARKS

The holotype is in the Canterbury Museum, ZB 194.

**Lacerna minuta** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 40, figs 32-33.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-168 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 195.

**Melicerita chathamensis** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 27-8, figs 16-17.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 34, "east of Forty-fours, 44°04'S, 176°23.5'W, 130 fm [215 m]; fine sand gravel." 1 February 1954 (= NZOI Stn Z2449).

NZOI MATERIAL

Stn Z2449 (CIE Stn 34) : P-161 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 188.

**Melicerita knoxi** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 26-7, figs 13-15.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 59, "Chatham Rise, 43°38'S, 177°19'E, 290 fm [465 m]; fine green sand, mud." 11 February 1954 (= NZOI Stn Z2450).

NZOI MATERIAL

Stn Z2450 (CIE Stn 59) : P-160 (paratype).

REMARKS

Named after Professor G.A. Knox, leader of the Chatham Islands 1954 Expedition. The holotype is in the Canterbury Museum, ZB 187.

**Microporella discors** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 45-6, fig. 39.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 1, "Mernoo Bank, 42°51.9'S, 176°26.5'E, 100 fm [165 m]; coarse bryozoan shell sand." 23 January 1954 (= NZOI Stn Z2451).

NZOI MATERIAL

Stn Z2451 (CIE Stn 1) : P-170 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 198.

**Parasmittina hexaspinosa** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 32, fig. 21.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-163 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 190.

**Parmachaperia chathamensis** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 20-1, frontis., fig. 7.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 5, "Chatham Rise, 43°32'S, 178°38'E, 300+ fm [500+ m]; fine green sand." 24 January 1954 (= NZOI Stn Z2452).

NZOI MATERIAL

Stn Z2452 (CIE Stn 5) : P-157 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 185. This is the type species of the new genus *Parmachaperia* Uttley & Bullivant, 1971.

**Rhynchozoon paa** Uttley & Bullivant, 1971

PARATYPES (2)

Uttley & Bullivant, 1971 : 48, fig. 41.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-171, P-172 (paratypes).

REMARKS

The specific name is "From *Paa* (Maori) - fortified village, usually on a hill top." The holotype is in the Canterbury Museum, ZB 199.

**Scutochaperia serrata** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 18, fig. 4.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 3, "Mernoo Bank, 43°10.1'S, 175°36.5'E, 41 fm [75 m]; coarse bryozoan shell sand." 23 January 1954 (= NZOI Stn Z2448).

NZOI MATERIAL

Stn Z2448 (CIE Stn 3) : P-153 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 182.

**Scutochaperia serrata biporosa** Uttley & Bullivant, 1971

PARATYPE

Uttley & Bullivant, 1971 : 19, fig. 5.

TYPE LOCALITY

Chatham Islands 1954 Expedition Stn 24, "south of The Sisters, 43°36.2'S, 176°48.5'W, 38 fm [65 m]; coarse shell sand gravel." 29 January 1954 (= NZOI Stn Z2446).

NZOI MATERIAL

Stn Z2446 (CIE Stn 24) : P-154 (paratype).

REMARKS

The holotype is in the Canterbury Museum, ZB 183.

## Phylum ECHINODERMATA

### Class CRINOIDEA

**Antedon detonna** McKnight, 1977

HOLOTYPE

McKnight, 1977c : 135-6, figs 6-7; October 1977.

TYPE LOCALITY

NZOI Stn P23(A) (29°06.74'S, 167°56.94'E, 15-24 m, 27 January 1977), 3 broken specimens.

NZOI MATERIAL

Stn P23(A) : H-229 (holotype), P-321 (2 paratypes); Stn P54 : P-322 (1 paratype).

REMARKS

"The specific name is an anagram of *Antedon*".

**Antedon incommoda incommoda** (Bell, 1888)

FIGURED SPECIMEN

McKnight, 1977c : 133-5, fig. 5.

NZOI MATERIAL

Stn P50 : 1 specimen.

REMARKS

This specimen was collected off Norfolk Island. "Previous records are from southern and southeastern Australia, with the subspecies *austini* occurring in western Australia."

**Argyrometra mortenseni** A.H. Clark, 1917

FIGURED SPECIMEN

A.M. Clark, 1966 : 700-2, text-figs 6-7; September 1966.

NZOI MATERIAL

Stn C749 : figured specimen (text-figs 6a-b); Stn C798 : 6 specimens, including that figured as fig. 7.

**REMARKS**

Originally described by A.H. Clark (1917 : 129) from off North Cape, New Zealand in 110 m. A.M. Clark (1966) discussed New Zealand records and subfamily placing. A.H. Clark & A.M. Clark (1967 : 98-9) gave a further description, references and notes by A.M. Clark.

**Bathycrinus australocruis** McKnight, 1973**HOLOTYPE**

McKnight, 1973b : 205-6, fig. 1; September 1973.

**PARATYPES (2)****TYPE LOCALITY**

NZOI Stn D244 (39°31'S, 171°00'E, 838 m, 3 October 1964).

**NZOI MATERIAL**

Stn B683 : P-181 (paratype, complete specimen); Stn D244 : H-155 (holotype, complete specimen), P-180 (paratype, stem and lower portion of calyx only), 2 specimens.

**Charitometra basicurva** (P.H. Carpenter, 1888)**FIGURED SPECIMEN**

McKnight, 1977a : 108, fig. 21.

**NZOI MATERIAL**

Stn E851 : fragments.

**Charitometra incisa** (P.H. Carpenter, 1888)**FIGURED SPECIMEN**

McKnight, 1977a : 106-8, figs 18-20.

**NZOI MATERIAL**

Stn F127 : arm fragments; Stn F132 : 1 specimen (figs 18-20).

**REMARKS**

"Previous records are from the Kermadec Islands and near Fiji, 1115-1152 m."

**Comanthoides gillstromi** McKnight, 1977**HOLOTYPE**

McKnight, 1977b : 123-5, fig. 1; September 1977.

**PARATYPES (5)****TYPE LOCALITY**

NZOI Stn K842 (30°16.2'S, 178°35.9'W, 325-370 m, 29 July 1974), 5 specimens.

**NZOI MATERIAL**

Stn K842 : H-226 (holotype), P-318 (4 paratypes); Stn K844 : P-319 (1 paratype).

**REMARKS**

"This species is named for Captain D.N. Gillstrom of the RV *Tangaroa*."

**Comanthus benhami** A.H. Clark, 1916**FIGURED SPECIMENS**

A.M. Clark, 1966 : 685-705, text-figs 1-7.  
McKnight, 1977a : 100-2, fig. 11.

**NZOI MATERIAL**

Stn B93 : 3 specimens; Stn B621 : 1; Stn C617 : 1; Stn C758 : figured specimen (A.M. Clark, 1966 : figs 1-7); Stn E720 : 6; Stn E728 : 1; Stn E729 : 1; Stn E845 : 1; Stn E876 : 8 (McKnight, 1977a : fig. 11); Stn F928 : 1; Stn J679 : 1; Stn K844 : 1; Stn Z2371 : 1; Stn Z2374 : 1.

**REMARKS**

Originally described by A.H. Clark (1916 : 48) from Preservation Inlet in 4.6-6 m. Description, references etc., have been given by A.H. Clark (1931 : 587-8, pl. 74, fig. 202) and by A.M. Clark (1966 : 685-7).

"*Comanthus benhami* is widespread throughout New Zealand and also occurs to the north, on Wanganella Bank and at the Kermadec Islands." (McKnight, 1977a : 135).

**Comanthus novaezealandiae** A.H. Clark, 1931**FIGURED SPECIMEN**

McKnight, 1977a : 102, fig. 12.

**NZOI MATERIAL**

Stn E876 : 2 specimens; Stn J679 : 1.

**REMARKS**

This species "occurs from off the Three Kings Islands to the Bay of Plenty, 84-328 m."

**Comanthus samoana** A.H. Clark, 1909**FIGURED SPECIMEN**

McKnight, 1977a : 102, fig. 13.

**NZOI MATERIAL**

Stn Z2090 : 4 specimens (fig. 13); Stn Z2407 : 1.

**REMARKS**

The specimens from Stn Z2090 (South Minerva Reef) were listed erroneously by McKnight (1968d : 714) as *Comatella maculata* (P.H. Carpenter, 1888).

**Comanthus trichoptera** (J. Müller, 1846)**FIGURED SPECIMEN**

McKnight, 1977a : 100, fig. 10.

**NZOI MATERIAL**

Stn E908 : 1 specimen; Stn F779 : 2; Stn F822 : 2; Stn I 26 : 1; Stn I 69 : 3 (fig. 10, but caption as "Stn I 96"); Stn J675(B) : 7; Stn Z2402 : 1; Stn Z2403 : 1.

**REMARKS**

"The present records ... are from near the Three Kings Islands to off East Cape and also from northwest of Cape Egmont ... and at present it is the only comatulid collected by scuba diving locally in New Zealand waters." These are the first New Zealand records.

**Comatulides dawsoni** McKnight, 1977

HOLOTYPE

McKnight, 1977a : 99–100, figs 7–9; July 1977.

PARATYPES (28)

TYPE LOCALITY

NZOI Stn D18 (52°31'S, 160°31'E, 128 m, 23 April 1963), 15 specimens.

NZOI MATERIAL

Stn D18 : H-222 (holotype), P-308 (14 paratypes); Stn F127 : P-309 (2 paratypes); Stn F146 : P-310 (8 paratypes); Stn G927 : P-311 (4 paratypes).

REMARKS

“The species is named for Mr E.W. Dawson of the N.Z. Oceanographic Institute”, leader of the “Macquarie Benthos” cruise on which the original specimens were collected from the Vema Seamount, North Macquarie Ridge.

**Comatulides decumtilos** McKnight, 1977

HOLOTYPE

McKnight, 1977a : 97–9, figs 5–6; July 1977.

PARATYPES (8)

TYPE LOCALITY

NZOI Stn E731 (37°23.5'S, 177°12'E, 602–503 m, 25 March 1967), 6 specimens.

NZOI MATERIAL

Stn E728 : P-306 (1 paratype); Stn E731 : H-221 (holotype), P-305 (5 paratypes); Stn F868 : P-307 (2 paratypes).

REMARKS

“The specific name is an anagram of *Comatulides*.”

**Comissia imossica** McKnight, 1975

HOLOTYPE

McKnight, 1975 : 50, 52, fig. 1; January 1975.

TYPE LOCALITY

NZOI Stn Z2098 (28°39.5'S, 173°01'E, 841 m, 6 September 1967).

NZOI MATERIAL

Stn Z2098 : 1 specimen, H-175 (holotype).

REMARKS

“The specific name is an anagram of *Comissia*.”

**Comissia mathesoni** McKnight, 1977

HOLOTYPE

McKnight, 1977a : 96, figs 3–4; July 1977.

TYPE LOCALITY

NZOI Stn F868 (37°28.5'S, 179°03.5'E, 808–924m, 2 October 1968), 1 specimen.

NZOI MATERIAL

Stn F868 : H-220 (holotype).

REMARKS

“The species is named for Captain R. Matheson of the MV *Taranui*, formerly used by the N.Z. Oceanographic Institute.”

**Comissia norfolkensis** McKnight, 1977

HOLOTYPE

McKnight, 1977c : 131–3, fig. 1; October 1977.

PARATYPE

McKnight, 1977c : 131–3, fig. 2.

TYPE LOCALITY

NZOI Stn I 92 (29°23.8'S, 168°13.2'E, 570–578 m, 23 July 1975), 1 specimen.

NZOI MATERIAL

Stn I 92 : H-228 (holotype); Stn P46 : P-320 (paratype).

REMARKS

The type locality is off Norfolk Island, hence the name.

**Cosmiometra dasybrachia** H.L. Clark, 1916

FIGURED SPECIMEN

McKnight, 1977a : 106, fig. 17.

NZOI MATERIAL

Stn E803 : 1 specimen.

REMARKS

“The only previous record is from off the Kermadec islands, 1152 m, *Challenger* Stn 170a.”

**Democrinus aoteanus** McKnight, 1973

HOLOTYPE

McKnight, 1973b : 208–9, fig. 3; September 1973.

PARATYPES (99)

TYPE LOCALITY

NZOI Stn D221 (40°00'S, 171°16'E, 668 m, 26 September 1964).

NZOI MATERIAL

Stn B683 : 55 specimens; Stn D221 : 100 specimens, H-177 (holotype), P-183 (99 paratypes); Stn D222 : 12; Stn D223 : 14; Stn D226 : 3; Stn D227 : 3; Stn D230 : 2; Stn E772 : 5.

**Eurythrometra rostrata** A.M. Clark, 1966

HOLOTYPE

A.M. Clark, 1966 : 696–700, text-figs 4–5; September 1966.

TYPE LOCALITY

NZOI Stn C758 (34°40'S, 172°14.5'E, near North Cape, 203 m, 17 February 1962).

NZOI MATERIAL  
Stn C758 : H-29 (holotype).

REMARKS  
Two specimens collected (one broken); 1 paratype in British Museum (Nat. Hist.), London.

**Florometra novaezealandiae** McKnight, 1977

HOLOTYPE  
McKnight, 1977a : 108–9, fig. 22; July 1977.

PARATYPES (12)

TYPE LOCALITY  
NZOI Stn E399 (46°00'S, 171°33'E, 1222 m, 6 October 1965), 9 specimens.

NZOI MATERIAL  
Stn E399 : H-224 (holotype), P-312 (8 paratypes); Stn E745 : P-313 (2 paratypes); Stn F752 : P-314 (2 paratypes).

**Glyptometra crassa** (A.H. Clark, 1912)

FIGURED SPECIMEN  
McKnight, 1977c : 133, figs 3–4.

NZOI MATERIAL  
Stn P46 : 1 specimen.

REMARKS  
This specimen was taken off Norfolk Island. "Previous records are from the Bay of Bengal to the Kei Islands in 73–1023 m."

**Helenametra perplexa** A.M. Clark, 1966

HOLOTYPE  
A.M. Clark, 1966 : 592–9, text-fig. 2; September 1966.

TYPE LOCALITY  
NZOI Stn C758 (34°40'S, 172°14.5'E, near North Cape, 203 m, 17 February 1962).

NZOI MATERIAL  
Stn C758 : 28 specimens, including H-28 (holotype).

REMARKS  
Type of new genus *Helenametra*, "named after my namesake, Helen E. Shearburn Clark, of Wellington, New Zealand. The specific name was prompted by the difficulty in assigning the species to any family as at present delimited." Total of 28 specimens collected : 5 paratypes (cf. text-figs 3f–g) in British Museum (Nat. Hist.), London.

**Monachocrinus aotearoa** McKnight, 1973

HOLOTYPE  
McKnight, 1973b : 206–8, fig. 2; September 1973.

PARATYPES

TYPE LOCALITY  
NZOI Stn J48 (36°30'S, 170°26'E, 2150 m, 20 April 1970).

NZOI MATERIAL  
Stn J48 : H-116 (holotype), crown and attached stalk fragment (fig. 2), P-182 (paratypes, the remaining material from Stn J48).

REMARKS  
Five fragments (probably of two specimens) collected at the type locality.

**Monachometra kermadecensis** McKnight, 1977

HOLOTYPE  
McKnight, 1977b : 126–7, figs 4–5; September 1977.

TYPE LOCALITY  
NZOI Stn K826, haul 3 (28°48.0'S, 177°48.0'W, 390–490 m, 25 July 1974), 1 specimen.

NZOI MATERIAL  
Stn K826, haul 3 : H-227 (holotype).

**Palaeocomatella hiwia** McKnight, 1977

HOLOTYPE  
McKnight, 1977a : 94–6, figs 1–2; July 1977.

PARATYPES (9)

TYPE LOCALITY  
NZOI Stn E728 (37°37.5'S, 177°12.2'E, 688–432 m, 25 March 1967), 5 specimens.

NZOI MATERIAL  
Stn E728 : H-219 (holotype), P-301 (4 paratypes); Stn E731 : P-302 (3 paratypes); Stn E851 : P-303 (1 paratype); Stn F868 : P-304 (1 paratype).

REMARKS  
"The specific name is derived from the Maori *hiwi* (ridge of a hill) and refers to the dorsal process."

**Pentametacrinus australis** McKnight, 1977

HOLOTYPE  
McKnight, 1977a : 111, fig. 26; July 1972.

PARATYPES (3)

TYPE LOCALITY  
NZOI Stn G700 (46°20'S, 171°15'E, 1110 m, 22 January 1970), 1 specimen.

NZOI MATERIAL  
Stn E406 : P-315 (paratype); Stn E411 : P-316 (paratype); Stn G700 : H-225 (holotype); Stn G705 : P-317 (paratype).

**Promachocrinus kerguelensis** P.H. Carpenter, 1880

FIGURED SPECIMEN  
Fell, 1961b : Col. pl. 1 (upper right); also in Billing & Mannering, 1964 : pl. 110.



NZOI MATERIAL  
Stn A537.

REMARKS

Originally described by P.H. Carpenter (1880 : 214, pl. 12, fig. 28) from *Challenger* material off Kerguelen Islands in 18–183 m. Further details have been given by A.H. Clark & A.M. Clark (1967 : 431–48).

**Stiremetra breviradia** (P.H. Carpenter, 1888)

FIGURED SPECIMEN

McKnight, 1977b : 125, figs 2–3.

NZOI MATERIAL

Stn K832 : arm fragments.

REMARKS

“*Stiremetra breviradia* is the only species known from the Kermadec Islands area with such prominent dorsal spines.”

**Thalassometra gracilis** (P.H. Carpenter, 1888)

FIGURED SPECIMEN

McKnight, 1977a : 103, fig. 14.

NZOI MATERIAL

Stn E399 : 1 specimen; Stn F126 : 2.

REMARKS

“Previous records are from off the Philippines and Japan, 804–914 m.”

**Thalassometra tara** McKnight, 1977

HOLOTYPE

McKnight, 1977a : 104, figs 15–16; July 1977.

TYPE LOCALITY

NZOI Stn E745 (38°04'S, 179°06.5'E, 1441–1412 m, 28 March 1967), 1 specimen.

NZOI MATERIAL

Stn E745 : H-223 (holotype).

REMARKS

“The specific name *tara* (Maori = spine or thorn) refers to the armature on the division series and lower brachials.”

“From NZOI Stn J65 (36°00.6'S, 179°12.8'E, 2515–2505 m, is a juvenile *Thalassometra* possibly referable to *T. tara* n.sp.”

**Thaumatocrinus** sp. McKnight, 1977

FIGURED SPECIMEN

McKnight, 1977b : 124, 127, figs 6–7.

NZOI MATERIAL

Stn K805 : 1 specimen.

REMARKS

“... this specimen resembles *T. renovatus* P.H. Carpenter (southern ocean) and *T. jungersenii* A.H. Clark

(North Atlantic) ... However ... mature specimens may be more akin to *T. naresi* (P.H. Carpenter) (the Philippines) or *T. borealis* (A.H. Clark) (Japan).”

**Tonrometra multicirra** A.H. Clark, 1929

FIGURED SPECIMEN

McKnight, 1977a : 109–11, figs 23–25.

NZOI MATERIAL

Stn E756 : 2 specimens; Stn E800 : 2.

REMARKS

“Previous records of *T. multicirra* are from Indonesian seas, 1097–1280 m. A juvenile antedonid from northwest of New Zealand (McKnight, 1975) may be referable to this species.”

Class ECHINOIDEA

**Aphanophora echinobrissoides** de Meijere, 1904

FIGURED SPECIMEN

McKnight, 1968b : 206, fig. 1.

NZOI MATERIAL

Stn G3 : 2 tests.

REMARKS

Originally described by de Meijere (1904 : 142–3, pl. VI, fig. 79, pl. XIX, figs 272–9), “*Aphanophora echinobrissoides* is now known from the Timor and Sulu Seas in 350 to 390 m and from approximately 150 miles north of Norfolk Island in 710 m.”

**Austrocidaris pawsoni** McKnight, 1974

HOLOTYPE

McKnight, 1974 : 26–8, figs 1a–b; April 1974.

PARATYPES (4)

TYPE LOCALITY

NZOI Stn F108 (48°19'S, 171°59'E, 1108 m, 21 January 1964), 1 specimen.

NZOI MATERIAL

Stn E148 : P-237 (1 paratype); Stn F108 : H-181 (holotype); Stn G700 : P-238 (3 paratypes).

REMARKS

“Fragments of *Austrocidaris* from the Antipodes Islands (Pawson, 1968) appear referable to this new species.”

**Brisaster tasmanicus** McKnight, 1974

HOLOTYPE

McKnight, 1974 : 40–1, figs 7a–b; April 1974.

PARATYPE

TYPE LOCALITY

NZOI Stn E788 (44°00'S, 168°11'E, 1184–1193 m, 17 October 1967), 1 specimen.

**NZOI MATERIAL**

Stn E399 : P-246 (paratype), 1 broken; Stn E788 : H-187 (holotype).

**Brisaster** n.sp. Pawson, 1968

**FIGURED SPECIMEN**

Pawson, 1968 : 18, text-fig. 1(3-7), pl. 1, figs 5-6.

**NZOI MATERIAL**

“Fragments of dorsal side of body of approximately 8 specimens” from - Stn A702; Stn A703; Stn A710; Stn A712; Stn A714; Stn A747; Stn A753 : fragmentary test.

**REMARKS**

“There is little doubt that these fragments are of a species of the genus *Brisaster*, but certain specific determination is impossible ... the record ... from near the Bounty Islands is of importance from the point of view of zoogeography and establishes the fact that this genus is truly circum-polar in distribution.”

**Caenopedina otagoensis** McKnight, 1968

**HOLOTYPE**

McKnight, 1968a : 90-4, fig. 1; March 1968.

**PARATYPES (4)**

McKnight, 1968a : 90-4, figs 2-3.

**TYPE LOCALITY**

NZOI Stn E427 (44°54'S, 172°54'E, 1240 m, 16 October 1965).

**NZOI MATERIAL**

Stn E399 : 11 specimens; Stn E427 : H-22 (holotype, female), P-38-41 (4 paratypes), 108; Stn F751 : 1.

**Ctenocidaris aotearoa** McKnight, 1974

**HOLOTYPE**

McKnight, 1974 : 30-3, figs 3a-b; April 1974.

**PARATYPES (7)**

**TYPE LOCALITY**

NZOI Stn F123 (47°38'S, 178°57'W, 1280 m, 27 January 1965), 4 specimens.

**NZOI MATERIAL**

Stn D591 : P-241 (2 paratypes); Stn F123 : H-183 (holotype), P-239 (3 paratypes); Stn F127 : P-240 (2 paratypes); Stn G701 : 2 specimens; Stn G704 : 2.

**Ctenocidaris perrieri** Koehler, 1912

**FIGURED SPECIMEN**

Fell, 1961 : col. pl. 2, fig. c.

**NZOI MATERIAL**

Stn A521.

**REMARKS**

This species, originally described by Koehler (1912a :

161), has been discussed in detail by Mortensen (1928 : 123-4).

**Echinocardium** sp. McKnight, 1968

**FIGURED SPECIMEN**

McKnight, 1968a : 109-10, fig. 7.

**NZOI MATERIAL**

Stn C602 : fragments of 3 specimens.

**REMARKS**

Baker (1969 : 173) considered that this material was most probably *Echinocardium lymani* (Lambert, 1924), a species which he recorded for the first time for New Zealand from 4 specimens taken in 210-366 m between Mayor Island and Slipper Island, Bay of Plenty. Further details, figures, and references are in Baker's account.

**Goniocidaris magi** Pawson, 1964

**HOLOTYPE**

Pawson, 1964 : 67-9, text-figs 1-4, pl. 1 (upper); 24 September 1964.

**PARATYPES (2)**

Pawson, 1964 : 67-9, text-figs 1-4, pl. 1 (lower).

**TYPE LOCALITY**

NZOI Stn B93 (39°59'S, 172°21'E, off Three Kings Islands, 137 m, 22 September 1958).

**NZOI MATERIAL**

Stn B93 : H-11 (holotype), P-11 (2 paratypes), 7 other specimens.

**REMARKS**

The species has also been illustrated and discussed by McKnight (1969 : 41-2, figs 5 (distrib. map), 6.

**Gracilechinus multidentatus** (H.L. Clark, 1925)

**FIGURED SPECIMENS**

McKnight, 1968a : 94-9, figs 4-6.

**NZOI MATERIAL**

Stn A915 : 1 small specimen; Stn D138 : 1 specimen; Stn E76 : 19 specimens, including figured specimen; Stn E148 : 1 specimen; Stn F754 : numerous; Stn F761 : numerous; Stn F767.

**REMARKS**

Originally described by H.L. Clark (1925 : 115-16, pl. VI, figs 1-2). “Definite records of this species are from *Challenger* Stn 170, near the Kermadec Islands (the type locality), off the southern Wairarapa coast, on the Chatham Rise, and on the northern Campbell Plateau in depths of 658 to 1,326 metres.”

**Gymnopatagus magnus** A. Agassiz & H.L. Clark, 1907

**FIGURED SPECIMEN**

McKnight, 1968a : 102, fig. 9.

**NZOI MATERIAL**

Stn D221 : fragments; Stn D224 : fragments; Stn D227 : 1 specimen and fragments (fig. 9); Stn D229 : 5 fragmentary specimens; Stn D230 [not D231 as in McKnight (1968a : 102)] : 16 specimens, mostly fragmented; Stn D231 : 21 specimens, mostly fragmented.

**REMARKS**

“In New Zealand waters it is recorded only from the Challenger Plateau ... also known from Japan, the Philippines and Celebes Islands and the Indian Ocean ...” Originally described by Agassiz & Clark (1907 : 133) from *Albatross* Stn 5082, off Omai Saki Light, Japan, in 1110 m. McKnight (1968a : 102) gave later references.

**Hemiaster expergitus gibbosus** A. Agassiz, 1879**FIGURED SPECIMEN**

McKnight, 1968a : 100-2, fig. 8.

**NZOI MATERIAL**

Stn C693 : 4 broken specimens (including that figured); Stn E417 : fragments; Stn E437 : fragments; Stn E438 : 5 fragmented specimens; Stn E753 : 1 specimen; Stn F99 : fragments; Stn F753 : 9 fragmented specimens; Stn F755 : fragments; Stn F760 : fragments.

**REMARKS**

Originally described by Agassiz (1879 : 210) and “... previously reported from Malayan and Japanese seas in depths of 450 to 1,850 m.” McKnight (1968a : 100) has given later references.

**Kupeia toi** McKnight, 1974**HOLOTYPE**

McKnight, 1974 : 437-40, figs 6a-b; April 1974.

**PARATYPES (2)****TYPE LOCALITY**

NZOI Stn E883 (36°00'S, 172°52'E, 999-1046 m, 23 March 1968), 6 fragments.

**NZOI MATERIAL**

Stn D221 : P-245 (1 paratype); Stn E883 : H-186 (holotype), P-244 (1 paratype).

**REMARKS**

This is the type species for the new genus *Kupeia*. “The generic name (masculine gender) is derived from Kupe – an early Maori explorer”. “The specific name commemorates a second early Maori explorer, and is treated as a noun in apposition.”

**Notocidaris bakeri** McKnight, 1974**HOLOTYPE**

McKnight, 1974 : 28-30, figs 2a-b; April 1974.

**TYPE LOCALITY**

NZOI Stn D539a (41°00'S, 178°25'E, 3017-3109 m, 26 January 1967), 1 specimen.

**NZOI MATERIAL**

Stn D593a : H-182 (holotype).

**REMARKS**

“This species is named for Dr A.J. [= A.N.] Baker, National Museum, Wellington.”

**Peripatagus cinctus** Koehler, 1895**FIGURED SPECIMEN**

McKnight, 1974 : 43, figs 8a-b.

**NZOI MATERIAL**

Stn F868 : 3 specimens.

**REMARKS**

Originally described by Koehler (1895 : 231) and later discussed by Koehler (1909 : 248-51) and by Mortensen (1921 : 306). “The only previous records of this species are from the North Atlantic Ocean, near the Azores, 880-1494 metres. The present material is from off East Cape.”

**Pourtalesia laguncula** A. Agassiz, 1879**FIGURED SPECIMEN**

McKnight, 1968a : 99-100, fig. 7.

**NZOI MATERIAL**

Stn F125 : 1 fragment; Stn F752 : 1 specimen (figured), 1 crushed fragment.

**REMARKS**

Originally described by Agassiz (1879 : 205) from *Challenger* Stns 168 and 169 off New Zealand. Other records are from Malayan and Japanese seas in depths of 220 to 1370 m. McKnight (1968a : 99) has given further details.

**Pseudechinus** sp. McKnight, 1969**FIGURED SPECIMEN**

McKnight, 1969 : 54, fig. 25.

**NZOI MATERIAL**

Stn C760 : 6 tests.

**REMARKS**

“... appears most clearly related to *P. grossularia* (Studer) recorded from the same general area, and also to *P. variegatus* Mortensen from northeastern New Zealand, and *P. notius* (H.L. Clark) from Australia. These three specimens are of rare occurrence and their variation unknown.” (McKnight, 1969 : 56).

**Spatangus mathesoni** McKnight, 1968**HOLOTYPE**

McKnight, 1968a : 102-7, fig. 10; March 1968.

**PARATYPES (2)**

McKnight, 1968a : 102-7, figs 11, 12.

**TYPE LOCALITY**

NZOI Stn D226 (39°54'S, 168°40'E, Chatham Rise, 823 m, 27-28 September 1964), 1 specimen.

**NZOI MATERIAL**

Stn D221 : 2 fragments; Stn D224 : 1 partially fragmented specimen; Stn D226 : H-27 (holotype); Stn D231 : P-42-43 (2 paratypes).

**Spatangus** sp. McKnight, 1968**FIGURED SPECIMEN**

McKnight, 1968a : 108-9, fig. 13; March 1968.

**NZOI MATERIAL**

Stn B312 : fragments.

**REMARKS**

"... it is possible that these fragments represent a further hybrid, *S. thor* X *S. mathesoni*."

**Sterechinus neumayeri** (Meissner, 1900)**FIGURED SPECIMEN**

Fell, 1961b : col. pl. 1 (upper left and lower left).

**NZOI MATERIAL**

Stn A537.

**REMARKS**

Originally described by Meissner (1900 : 12). Further details have been given by Mortensen (1943 : 106-8, pl. LVI, figs 18-20).

**Sterechinus** sp. Fell, 1961**FIGURED SPECIMEN**

Fell, 1961b : col. pl. 2, fig. c.

**NZOI MATERIAL**

Stn A521 : 2 immature specimens.

**Trigonocidaris radiata** Mortensen, 1943**FIGURED SPECIMEN**

McKnight, 1968c : 50-9, fig. 1.

**NZOI MATERIAL**

Stn C527 : 2 tests.

**REMARKS**

Originally described by Mortensen (1943a : 228). "The species is recorded from the Kei Islands in 300 m and may also occur in the Sulu Sea in 275 m. An eroded and encrusted test from [NZOI] Sta. C531, near Raoul Island ... may be of this species ..." (McKnight, 1968c : 509).

**Urechinus antipodeanus** McKnight, 1974**HOLOTYPE**

McKnight, 1974 : 33-5, figs 4a-b; April 1974.

**PARATYPES (40)****TYPE LOCALITY**

NZOI Stn G705 (46°04'S, 172°28.5'E, 1500 m, 23 January 1970), 41 specimens.

**NZOI MATERIAL**

Stn G701 : fragments; Stn G704 : 2 specimens and fragments; Stn G705 : H-184 (holotype), P-242 (40 paratypes); Stn G706 : 3 specimens and fragments.

**Urechinus aoteanus** McKnight, 1974**HOLOTYPE**

McKnight, 1974 : 35, figs 5a-b; April 1974.

**PARATYPES (2)****TYPE LOCALITY**

NZOI Stn E903a (37°38'S, 172°05'E, 964-962 m, 9 October 1968), 3 broken specimens.

**NZOI MATERIAL**

Stn E903a : H-185 (holotype), P-243 (2 paratypes).

**REMARKS**

The type locality is on the Aotea Seamount; hence the specific name proposed.

## Class ASTEROIDEA

**Acodontaster capitatus** (Koehler, 1912)**FIGURED SPECIMEN**

H.E.S. Clark, 1963 : 41-2, text-fig. 9, pl. 6, figs 5-6.

**NZOI MATERIAL**

Stn A436 : 1 specimen; Stn A450 : 1; Stn A459 : 1; Stn A528 : 1; Stn A530 : figured specimen.

**REMARKS**

Originally described by Koehler (1912b : 82, pl. 6, figs 5-9, 11) from the entrance to Marguerite Bay, Palmer Peninsula, 67°43'S, 70°45'42"W.

**Acodontaster conspicuus** (Koehler, 1920)**FIGURED SPECIMEN**

Fell, 1961b : col. pl. 1 (middle), same figure in Billing & Mannering, 1964 : pl. 110; Clark, 1963 : 39-41, text-fig. 8, pl. 6, figs 7-8.

**NZOI MATERIAL**

Stn A537 : 1 specimen.

**REMARKS**

Originally described from the Australian Antarctic Expedition Stn A, 66°50'S, 152°06'E, in 655 m by Koehler (1920 : 202-10, pl. XLII, figs 1-7, pl. XLIII, figs 1-10, pl. LXX, fig. 1).

**Anseropoda aotearoa** McKnight, 1973**HOLOTYPE**

McKnight, 1973d : 11, 12, figs 5a-b; November 1973.

**TYPE LOCALITY**

NZOI Stn Z2374 (42°09'S, 170°36'E, 366 m, 16 April 1971), 1 specimen.

**NZOI MATERIAL**

Stn Z2374 : H-173 (holotype).

**Bathybiaster loripes obesus** Sladen, 1889

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 28-9, text-fig. 3, pl. 3, figs 5-6.

NZOI MATERIAL

Stn A448 : 1 specimen; Stn A457 : 3; Stn A459 : 2; Stn A460 : 12; Stn A461 : "one and remains of at least one other" including figured specimen; Stn A466 : 1; Stn A644 : 2.

REMARKS

Originally described by Sladen (1889 : 242) from *Challenger* Stn 149H, off Cumberland Bay, Kerguelen Island, in 127 fm (235 m).

**Brisingella aotearoa** McKnight, 1973

HOLOTYPE

PARATYPE

McKnight, 1973c : 235-6, 238, fig. 8; October 1973.

TYPE LOCALITY

NZOI Stn D206 (50°36'S, 171°23.5'E, 529 m, 24 January 1964), 3 discs, arm fragments.

NZOI MATERIAL

Stn C605 : 1 disc, arm fragments; Stn D206 : H-157 (holotype) 1 disc, 1 detached ray, P-218 (paratype), 2 discs one with attached arm, plus detached arms; Stn D208 : arm fragments; Stn D211 : 1 disc, arm fragments; Stn E120 : arm fragments; Stn E433 : arm fragments; Stn E724 : arm fragments; Stn F115 : arm fragments; Stn F126 : 1 disc, arm fragments; Stn F128 : arm fragments; Stn F137 : arm fragments; Stn F138 : arm fragments; Stn F755 : arm fragments.

**Ceramaster lennoxkingi** McKnight, 1973

HOLOTYPE

McKnight, 1973a : 178-80, figs 4a-b; August 1973.

PARATYPES (32)

TYPE LOCALITY

NZOI Stn D85 (49°50'S, 170°13'E, 511 m, 13 May 1963).

NZOI MATERIAL

Stn D85 : H-162 (holotype), P-224 (32 paratypes); Stn D134 : 1 specimen; Stn D136 : 4; Stn D137 : 3; Stn D138 : 4; Stn D207 : 1; Stn D211 : 15; Stn E401 : 1; Stn E404 : 1; Stn E757 : 1; Stn F90 : 1; Stn F95 : 1; Stn F102 : 1; Stn F104 : 10; Stn F107 : 2; Stn F120 : 2; Stn F122 : 2; Stn F124 : 6; Stn F135 : 1; Stn F151 : 13.

REMARKS

A goniasterid asteroid from the New Zealand bathyal zone, this "species is named for the then commanding officer of HMNZS *Endeavour* (Lt Cdr James Lennox-King, RNZN, VRD) from which it was first collected."

Dawson (1965 : 53, 55) commented on the biogeographic significance of the finding of a species of *Ceramaster* in the New Zealand region.

Since all the NZOI specimens have been listed under "Material Examined" they are all strictly speaking paratypic (apart from the holotype H-162). However, by the specific designation of P-224 as "paratypes" only the 32 specimens from Stn D85 are paratypes.

**Cheiraster monopedicellaris** McKnight, 1973

HOLOTYPE

PARATYPE

McKnight, 1973c : 23-5, figs 3a-b; October 1973.

TYPE LOCALITY

NZOI Stn E712 (39°20'S, 178°15.8'E, 772-717 m, 22 March 1967), 2 specimens.

NZOI MATERIAL

Stn E712 : H-152 (holotype), P-210 (paratype).

**Cheiraster otagoensis** McKnight, 1973

HOLOTYPE

PARATYPES (2)

McKnight, 1973c : 220-3, figs 2a-b; October 1973.

TYPE LOCALITY

NZOI Stn E410 (46°40'S, 170°44.6'E, 1086 m, 10 October 1965), 2 specimens.

NZOI MATERIAL

Stn E399 : P-209 (paratype); Stn E405 : 2 specimens; Stn E410 : H-151 (holotype), P-208 (paratype), 1 specimen; Stn E414 : 1; Stn F108 : 4; Stn F123 : 1; Stn F126 : 2; Stn F758 : 3; Stn F761 : 5.

**Craterobrisinga chathamica** McKnight, 1973

HOLOTYPE

PARATYPES (2)

McKnight, 1973c : 237, 238-9, figs 9a-b; October 1973.

TYPE LOCALITY

NZOI Stn J59 (43°51'S, 179°25'W, 309 m, 20 May 1970), one disc, arm fragments.

NZOI MATERIAL

Stn D90 : arm fragments; Stn J58 : arm fragments; Stn J59 : H-159 (holotype), one disc, arm fragments.

REMARKS

The name *chathamica* is derived from the type locality situated on the Chatham Rise.

**Crossaster campbellicus** McKnight, 1973

HOLOTYPE

PARATYPE

McKnight, 1973d : 2-4, figs 1a-b; November 1973.

TYPE LOCALITY

NZOI Stn D210 (49°21.5'S, 171°53'E, 353 m, 26 January 1964), 1 specimen.

#### NZOI MATERIAL

Stn D210 : H-169 (holotype); Stn E407 : P-230 (paratype).

**Crossaster canopus** H.E. Shearburn Clark, 1963  
[= *Solaster regularis subarcuatus* Sladen, 1889]

#### HOLOTYPE

H.E.S. Clark, 1963 : 55-6, pl. 10, figs 1-2, pl. 11; 1963.

#### TYPE LOCALITY

NZOI Stn A455 (74°22'S, 178°35'W, Pennell Bank, Ross Sea, Antarctica, 314-332 m, 6 July 1960), 1 specimen.

#### NZOI MATERIAL

Stn A455 : H-72 (holotype).

#### REMARKS

"*C. canopus* is named after the southern star, *Canopus*, the trivial name being treated as a nominative in apposition." (Clark, 1963 : 56).

McKnight (1976 : 28) has remarked : "An examination of the holotype, and only specimen of *Crossaster canopus* H.E.S. Clark (NZOI holotype No. 72) reveals no features by which it can be distinguished from the above specimen [NZOI Stn E188, Ross Sea] of *Solaster regularis subarcuatus* Sladen or from the published accounts of this species."

*Solaster regularis subarcuatus* described by Sladen (1889 : 455, pls 70 (fig. 2), 72 (figs 7-8), from *Challenger* Stn 150, between Kerguelen and Heard Islands, collected on 2 February 1874 in 150 fathoms, is "more or less circumpolar and extends northwards to Kerguelen and Heard Islands," according to McKnight.

**Cuenotaster involutus** (Koehler, 1912)

#### FIGURED SPECIMEN

H.E.S. Clark, 1963 : 58-60, text-fig. 13, pl. 10, figs 3-4; see also Fell (1961b : col. pl. 1 (middle)) determined as *Cuenotaster* sp. and also illustrated in Billing & Manering (1964 : pl. 110).

#### NZOI MATERIAL

Two specimens from 2 stations; Stn A461 : 1 specimen; Stn A537 : figured specimen.

#### REMARKS

Originally described by Koehler (1912b : 55, pl. 5, figs 1-3, 6-7, 10-11) from Amiraute Bay, King George Sound, South Shetland Islands, in 75 m.

**Diplasterias brucei** (Koehler, 1908)

#### FIGURED SPECIMEN

H.E.S. Clark, 1963 : 75-7, pl. 2c, pl. 14, figs 5-7.

#### NZOI MATERIAL

Stn A448 : 1 specimen; Stn A450 : 6; Stn A456 : 2; Stn A457 : 1; Stn A467 : 6; Stn A468 : 3; Stn A469 : 1; Stn A471 : 7; Stn A520 : 1; Stn A528 : 2; Stn A530 : figured specimen; Stn A533 : 2; Stn A534 : 1.

#### REMARKS

Originally described by Koehler (1908 : 569, pl. 5, figs 46-47) from Scotia Bay, South Orcades Islands, in 10 "brasses" (approx. 18-19 m).

**Diplopteraster hurleyi** McKnight, 1973

#### HOLOTYPE

#### PARATYPES (3)

McKnight, 1973d : 6-8, fig. 3; November 1973.

#### TYPE LOCALITY

NZOI Stn F911 (34°38'S, 174°36'E, 1697-1690 m, 11 October 1968), 1 specimen.

#### NZOI MATERIAL

Stn E406 : P-233 (paratype); Stn F911 : H-171 (holotype); Stn G702 : P-234 (paratype); Stn G703 : P-235 (paratype).

#### REMARKS

This is one of the species "named for N.Z. Oceanographic Institute staff members" (in this case, Dr D.E. Hurley, now Director of the N.Z. Oceanographic Institute).

**Gilbertaster brodiei** McKnight, 1973

#### HOLOTYPE

McKnight, 1973a : 192-4, figs 10a-b; August 1973.

#### TYPE LOCALITY

NZOI Stn E719 (38°46'S, 178°48'E, 913-750 m, 23 March 1967), 1 specimen.

#### NZOI MATERIAL

Stn E719 : H-168 (holotype).

#### REMARKS

A goniasterid asteroid from the New Zealand bathyal zone, this is one of "several species ... named for N.Z. Oceanographic Institute staff members" (in this case, Mr J.W. Brodie, formerly Director of the N.Z. Oceanographic Institute).

**Henricia tahia** McKnight, 1975

#### HOLOTYPE

McKnight, 1975 : 57, figs 3a-b; January 1975.

#### TYPE LOCALITY

NZOI Stn Z2098 (28°39.5'S, 173°01'E, 841 m, 6 September 1967), 1 specimen.

#### NZOI MATERIAL

Stn Z2098 : H-177 (holotype).

#### REMARKS

"The specific name is derived from the Maori word *tahi* (one or single), referring to the monocanthid abactinal marginal and actinal intermediate plates."

**Hoplaster kupe** McKnight, 1973

#### HOLOTYPE

#### PARATYPES (4)

McKnight, 1973c : 227-9, figs 5a-b; October 1973.

TYPE LOCALITY

NZOI Stn J42 (36°50'S, 170°26'E, 1996–2008 m, 19 April 1970), 2 specimens.

NZOI MATERIAL

Stn J42 : H-154 (holotype), P-212 (paratype); Stn J44 P-213 (2 paratypes); Stn J51 : P-214 (paratype).

**Hymenaster estcourti** McKnight, 1973

HOLOTYPE

McKnight, 1973d : 9–10, figs 4a–b; November 1973.

TYPE LOCALITY

NZOI Stn F126 (49°48'S, 176°91'E, 1256 m, 28 January 1965), 1 specimen.

NZOI MATERIAL

Stn F126 : H-172 (holotype).

REMARKS

This is one of the species “named for N.Z. Oceanographic Institute staff members” (in this case Dr I.N. Estcourt).

**Kampylaster incurvatus** Koehler, 1920

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 48–50, text-figs 12A–B, pl. 9, figs 1–3.

NZOI MATERIAL

Stn A449 : 8 specimens, including figured specimen; Stn A450 : 1; Stn A456 : 1; Stn A457 : 2; Stn A468 : 5; Stn A528 : 2; Stn A529 : 10.

REMARKS

Originally described by Koehler (1920 : 138, pl. 36, figs 4, 6–12, pl. 37, figs 1–3, pl. 66, fig. 10) from off Adelie Land, 66°32'S, 141°39'E, in 279 m.

**Leptychaster flexuosus** Koehler, 1920

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 26–7, pl. 3, figs 1–2.

NZOI MATERIAL

Stn A456, 1 specimen; Stn A457 : 1.

REMARKS

Originally described by Koehler (1920 : 252, pl. 51, figs 1–4, pl. 75, fig. 3) from off Adelie Land, 66°55'S, 145°21'E, in 588 m.

**Lithosoma novaezealandiae** McKnight, 1973

HOLOTYPE

McKnight, 1973b : 189–92, figs 9a–b; August 1973.

PARATYPES (6)

TYPE LOCALITY

NZOI Stn D137 (48°50.5'S, 169°07'E, 688 m, 12 January 1964), 7 specimens.

NZOI MATERIAL

Stn D85 : 2 specimens; Stn D134 : 2; Stn D136 : 3; Stn D137 : H-167 (holotype), P-229 (6 paratypes), 7

specimens; Stn D138 : 3; Stn D226 : 1; Stn D243 : 1; Stn E404 : 1; Stn E409 : 1; Stn E734 : 1; Stn F90 : 1; Stn F91 : 2; Stn F99 : 1; Stn F100 : 2; Stn F753 : 1.

REMARKS

“Two unexpected new generic records of starfish from the Campbell Plateau of considerable biogeographic interest are *Lithosoma* and *Ceramaster*, genera previously unknown from Australasia. The *Lithosoma* species is probably new, but related to *L. penichra* Fisher.”

“*Lithosoma* comprises five known species, all Indo-West Pacific. This is the first record south of the Tropics and is of particular interest since fragments of a fossil *Lithosoma* have been found in the New Zealand Tertiary.” (Dawson, 1965 : 53, 55).

**Lophaster gaini** Koehler, 1912

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 61–2, text-fig. 14, pl. 12, figs 3–4.

NZOI MATERIAL

Stn A449 : figured specimen; Stn A461 : 1.

REMARKS

Originally described by Koehler (1912b : 42, pl. 4, figs 4–5, 12–13) from Amirauté Bay, King George Sound, South Shetland Islands, in 420 m.

**Luidiaster gerlachei** (Ludwig, 1903)

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 32–3, text-fig. 5, pl. 5, figs 1–2.

NZOI MATERIAL

Stn A448 : 1, part only; Stn A456 : 1; Stn A457 : 3; Stn A459 : 1; Stn A461 : 10 specimens, including figured specimen; Stn A527 : 1.

REMARKS

Originally described by Ludwig (1903 : 9–17, pl. 1, figs 1–8, pl. II, figs 9–10) from *Belgica* Stn “Faubert VII”, 70°23'S, 82°47'W, in c.450 m, 8 October 1898.

**Lyasterias adelie** (Koehler, 1920)

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 72–3, pl. 13, figs 3–4.

NZOI MATERIAL

Stn A450 : 1 specimen; Stn A456 : 1; Stn A461 : 3; Stn A527 : figured specimen.

REMARKS

Originally described by Koehler (1920 : 26, pl. 1, figs 1–2, 5–8, 10, pl. 56, fig. 1) from off Adelie Land in 22 m.

**Lyasterias joffrei** (Koehler, 1920)

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 74–5, pl. 13, figs 1–2.

**NZOI MATERIAL**

Stn A448 : 1 specimen; Stn A467 : 2, including figured specimen.

**REMARKS**

Originally described by Koehler (1920 : 30, pl. 1, figs 3-4, 9, pl. 2, figs 7-9, pl. 56, fig. 2) from off Adelie Land, 66°50'S, 142°06'E, in 655 m.

**Macroptychaster accrescens** (Koehler, 1920)**FIGURED SPECIMENS**

H.E.S. Clark, 1962c : 45, fig.  
H.E.S. Clark, 1963 : 23-6, text-figs 2A-C, pl. 1, pl. 2, pl. 3, figs 3-4.

**NZOI MATERIAL**

Three specimens from 3 stations including A460 : figured specimens.

**REMARKS**

Originally described by Koehler (1920 : 246, pl. 52, fig. 5, pl. 53, figs 1-3, pl. 54, figs 2-9, pl. 55, fig. 1, pl. 75, fig. 1) from "Probably the Davis Sea, near Queen Mary Land (65°42'S, 92°10'E) in 60 fm (111 m)." Clark (1963 : 23-6, etc.) has given a description with synonymy and references.

**Marginaster** sp. cf. **M. paucispinus** Fisher, 1919**FIGURED SPECIMEN**

McKnight, 1968c : 513-14, fig. 3.

**NZOI MATERIAL**

Stn C531 : figured specimen.

**REMARKS**

McKnight compared this specimen with a small specimen of *Marginaster* from off Tasmania described by A.M. Clark (1962) and with *M. paucispinus* described by Fisher (1919) from near Hong Kong and concluded "The three forms, each known from a single specimen, may well be variants of the one species."

**Mediaster dawsoni** McKnight, 1973**HOLOTYPE**

McKnight, 1973a : 175-7, figs 3a-b; August 1973.

**PARATYPES (2)****TYPE LOCALITY**

NZOI Stn F90 (49°30.5'S, 157°40'E, 601 m, 16 January 1965).

**NZOI MATERIAL**

Stn D401 : 2 specimens; Stn D468 : 1; Stn E414 : 1; Stn E426 : 1; Stn E719 : 2; Stn F90 : H-161 (holotype); Stn F104 : P-222 (paratype); Stn F732 : P-223 (paratype).

**REMARKS**

A goniasterid asteroid from the New Zealand bathyal zone, this is one of "several species ... named for N.Z. Oceanographic Institute staff members" (in this case, Mr E.W. Dawson).

**Myoraster antarcticus** (Koehler, 1912)**FIGURED SPECIMEN**

H.E.S. Clark, 1963 : 56-7, pl. 10, figs 5-6.

**NZOI MATERIAL**

Stn A449 : 1 specimen; Stn A450 : 1; Stn A459 : 2; Stn A461 : figured specimen; Stn A467 : 1; Stn A468 : 1; Stn A528 : 2; Stn A534 : 1; Stn A537 : 1.

**REMARKS**

Originally described by Koehler (1912b : 46, pl. 3, figs 4-5) from between Jenny and Adelaide Islands, Antarctic Peninsula, 67°43'S, 70°45'42"W, 254 m.

**Notasterias armata** Koehler, 1911**FIGURED SPECIMENS**

H.E.S. Clark, 1963 : 67-70, text-figs 16A-C, 17, 18, pl. 13, figs 5-6.

**NZOI MATERIAL**

Stn A448 : 1 specimen; Stn A456 : 1 specimen, figured (text-fig. 18); Stn A459 : 5 specimens, including that figured in text-fig. 16C; Stn A460 : 3 specimens, including figured specimens (text-figs 16A, B, D, 17); Stn A461 : 3 specimens, also 4 broken arms; Stn A467 : 2; Stn A527 : 1.

**REMARKS**

Originally described by Koehler (1911 : 39, pl. 5, figs 6-11, pl. 6, figs 1-8) from Cape Royds Bay, Ross Sea, Antarctica, in 10-18 "brasses" (approx. 18-33 m).

**Notasterias stolophora** Fisher, 1940**FIGURED SPECIMEN**

H.E.S. Clark, 1963 : 70-1, pl. 15, figs 1-2.

**NZOI MATERIAL**

Two specimens from 2 stations including A528 : figured specimen.

**REMARKS**

Originally described by Fisher (1940 : 226-7, figs J, 1-1e, 2b, pl. XVII, fig. 4) from east of Joinville Island, Antarctic Peninsula, 63°29.6'S, 54°03.1'W, in 247 m.

**Odinia novaezelandiae** H.E. Shearburn Clark, 1962**HOLOTYPE**

H.E.S. Clark, 1962a : 6-10, text-figs 5-14, pl. 2, figs 1-2; October 1962.

**TYPE LOCALITY**

NZOI Stn C618 (43°52'S, 175°20'W, off Chatham Islands, 625-690 m, 30 April 1961).

**NZOI MATERIAL**

Stn C618 : H-7 (holotype).

**REMARKS**

Position incorrectly given in original description as 175°20'E.



**Odontaster aucklandensis** McKnight, 1973

HOLOTYPE

PARATYPES (4)

McKnight, 1973c : 225–7, figs 4a–b; October 1973.

TYPE LOCALITY

NZOI Stn D176 (51°06'S, 167°48.5'E, 216 m, 21 January 1964) 1 specimen.

NZOI MATERIAL

Stn D104 : 1 specimen; Stn D176 : H-153 (holotype); Stn D193 : 1; Stn D194 : 1; Stn D200 : P-211 (4 paratypes); Stn D208 : 1.

**Odontaster meridionalis** (Smith, 1876)

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 34–5, text-fig. 6, pl. 6, figs 3–4.

NZOI MATERIAL

Stn A459 : 1 specimen; Stn A460 : 3 specimens, including figured specimen; Stn A471 : 7; Stn A520 : 1; Stn A525 : 2; Stn A527 : 3; Stn A533 : 2; Stn A537 : 1; Stn A625 : 2.

REMARKS

Originally described by Smith (1876 : 109) from Royal Sound, Kerguelen Islands, in 10–28 m.

**Ophidiaster mcknighti** H.E. Shearburn Clark, 1962

HOLOTYPE

H.E.S. Clark, 1962a : 2–4, text-figs 1–4, pl. 1, figs 1–2; October 1962.

TYPE LOCALITY

NZOI Stn C814 (37°40'S, 178°56.4'E, off East Cape, 205–154 m, 25 February 1962), 1 specimen.

NZOI MATERIAL

Stn C814 : H-8 (holotype).

**Paragonaster ridgwayi** McKnight, 1973

HOLOTYPE

McKnight, 1973a : 172, 174–5, figs 2a–b; August 1973.

PARATYPE

TYPE LOCALITY

NZOI Stn J48 (36°30'S, 170°26'E, 215 m, 20 April 1970).

NZOI MATERIAL

Stn J40 : P-221 (paratype); Stn J48 : H-160 (holotype).

REMARKS

A goniasterid asteroid from the New Zealand bathyal (= archibenthal) zone, this is one of “several species ... named for N.Z. Oceanographic Institute staff members” (in this case, Mr N.M. Ridgway).

**Paralophaster lorioli** (Koehler, 1908)

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 60–1, pl. 12, figs 1–2.

NZOI MATERIAL

Stn A523 : 1 specimen.

REMARKS

Originally described by Koehler (1908 : 558, pl. 4, figs 40–41) from the Weddell Sea, Antarctica, 67°33'S, 36°35'W, in 2500 “brasses” (approx. 3625 m).

**Patiriella oliveri** (Benham, 1911)

FIGURED SPECIMEN

McKnight, 1968 : 511–13, fig. 2.

NZOI MATERIAL

Stn Z1966 : 1 specimen.

REMARKS

Originally described by Benham (1911 : 145–6, text-fig. 6) from the Kermadec Islands.

**Pedicellaster hypernotius** Sladen, 1889

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 66–7, pl. 12, fig. 5.

NZOI MATERIAL

Stn A464 : figured specimen; Stn A527 : 1 specimen.

REMARKS

Originally described by Sladen (1889 : 458–60, pl. CV, figs 5–7) from *Challenger* Stn 145, off Marion Island, Southern Ocean, 46°43'S, 38°4.30'E, in 259 m.

**Pergamaster triseriatus** H.E. Shearburn Clark, 1962

HOLOTYPE

H.E.S. Clark, 1962c : 46, text-fig. 2; 11 September 1962.

TYPE LOCALITY

NZOI Stn A464 (73°20'S, 174°09'E, off Coulman Island, Ross Sea, Antarctica, 361–376 m, 22 January 1959).

NZOI MATERIAL

Stn A464 : H-13 (holotype).

REMARKS

Further details have been given by Clark (1963 : 43–5, text-figs 10A–C, pl. 5, figs 3–4).

**Peribolaster powelli** H.E. Shearburn Clark, 1963

HOLOTYPE

H.E.S. Clark, 1963 : 63–4, text-fig. 15, pl. 9, figs 6–7.

TYPE LOCALITY

NZOI Stn A456 (74°30'S, 179°40'W, Pennell Bank, Ross Sea, Antarctica, 235–198 m).

NZOI MATERIAL

Stn A456 : H-74 (holotype), and one other specimen; Stn A457 : 1; Stn A461 : 1; Stn A464 : 1; Stn A520 : 5; Stn A521 : 1; Stn A522 : 2; Stn A525 : 1; Stn A527 : 2; Stn A529 : 6.

**Perissasterias monacantha** McKnight, 1973

HOLOTYPE

McKnight, 1973c : 231, 233, figs 6a–b; October 1973.

PARATYPE

TYPE LOCALITY

NZOI Stn D138 (48°32'S, 168°18.5'E, 668 m, 13 January 1964), 2 specimens.

NZOI MATERIAL

Stn D138 : H-155 (holotype), P-215 (paratype).

REMARKS

McKnight (1973c : 231) gave the generic name incorrectly as *Periassasterias*; elsewhere in his account it is correctly spelled as *Perissasterias*.

**Perknaster densus** Sladen, 1889

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 52–3, pl. 8, figs 3–4.

NZOI MATERIAL

Stn A455 : 1 specimen.

REMARKS

Originally described by Sladen (1889 : 552, pl. 97, figs 1–2, pl. 98, figs 11–12) from off Cumberland Bay, Kerguelen Islands in 127 fm (235 m).

**Perknaster sladeni** (Perrier, 1891)

FIGURED SPECIMEN

H.E.S. Clark, 1963 : 53–5, pl. 8, figs 5–6.

NZOI MATERIAL

Stn A449 : 1 specimen; Stn A450 : 1; Stn A455 : 1; Stn A456 : 1; Stn A457 : 1; Stn A464 : 1; Stn A528 : 1; figured specimen.

REMARKS

Originally described by Perrier (1891 : 104, pl. II, figs 2a–b) from Malouines Islands, Falklands Islands.

**Pillsburiaster aoteanus** McKnight, 1973

HOLOTYPE

McKnight, 1973a : 180–3, figs 5a–b; August 1973.

PARATYPES (10)

TYPE LOCALITY

NZOI Stn E401 (46°00'S, 171°12'E, 914–823 m, 7 October 1965).

NZOI MATERIAL

Stn D137 : 1 specimen; Stn D211 : 6; Stn E401 : H-163 (holotype), P-225 (10 paratypes); Stn E404 : 1; Stn F100 : 1; Stn F104 : 8; Stn F107 : 5; Stn F150 : 1; Stn F151 : 1.

REMARKS

All the “Material Examined” is strictly paratypic but by the specific designation of P-225 as “paratypes” only the 10 specimens from Stn E401 are paratypes.

**Pillsburiaster maini** McKnight, 1973

HOLOTYPE

McKnight, 1973a : 183–5, figs 6a–b; August 1973.

TYPE LOCALITY

NZOI Stn J42 (36°50'S, 160°26'E, 1996–2008 m, 19 April 1970).

NZOI MATERIAL

Stn J42 : H-164 (holotype).

REMARKS

A goniasterid asteroid from the New Zealand bathyal zone, this is one of “several species ... named for N.Z. Oceanographic Institute staff members” (in this case, Mr W.de L. Main).

**Plinthaster singletoni** McKnight, 1973

HOLOTYPE

McKnight, 1973a : 185–7, figs 7a–b; August 1973.

PARATYPES (3)

TYPE LOCALITY

NZOI Stn F763 (41°01.8'S, 176°32.3'E, 711–814 m, 21 August 1966).

NZOI MATERIAL

Stn F755 : P-226 (paratype); Stn F763 : H-165 (holotype); Stn G666 : P-227 (paratype); Stn G667 : P-228 (paratype).

REMARKS

Listed from Stn F756 in error for F755 under “Material Examined”. A goniasterid asteroid from the New Zealand bathyal zone, this is one of “several species ... named for N.Z. Oceanographic Institute staff members” (in this case, Mr R.J. Singleton).

**Porania antarctica** Smith, 1876 [**glabra** Sladen, 1889]

FIGURED SPECIMEN

Fell, 1961b : col. pl. 2, fig. a (as *P. antarctica* Smith); H.E.S. Clark, 1963 : 43–8, text-figs 11A–B, pl. 5, figs 5–6.

NZOI MATERIAL

Stn A448 : 1 specimen; Stn A449 : 4; Stn A450 : figured specimen (Clark); Stn A455 : 1; Stn A457 : 1; Stn A460 : 1; Stn A465 : 1, damaged; Stn A470 : 1; Stn A471 : 6; Stn A521 : 1; Stn A522 : 2; Stn A527 : 1; Stn A528 : 2; Stn A533 : 1; Stn A538 : figured specimen (Fell); Stn A625 : 1.

REMARKS

Originally described by Sladen (1889 : 360, pl. 59, figs 1–2) as *P. glaber* from off Cape Maclear, Kerguelen Island, in 55 m. Studer (1885) later placed it as a subspecies of *P. antarctica* Smith (1876 : 108–9).

**Porcellanaster caeruleus** Wyville Thomson, 1877

FIGURED SPECIMENS

McKnight, 1973c : 220, fig. 1.

NZOI MATERIAL

Stn D591 : 5 specimens; Stn E399 : 1; Stn E411 : 1;

Stn E709 : 1; Stn F744 : 1 adult, 2 juveniles (figured specimens); Stn G704 : 1; Stn G705 : 2; Stn G706 : 1.

#### REMARKS

This species was first described by Wyville Thomson (1877 : 378-80, figs 97-98) from specimens dredged by the *Challenger* SE of New York in 2270 m. Madsen (1961 : 126-9, figs 22-24) recorded it from the Tasman Sea and the Kermadec Trench and gave a full history and description with synonymy.

#### **Psalidaster mordax** Fisher, 1940

##### FIGURED SPECIMEN

H.E.S. Clark, 1963 : 71-2, pl. 14, figs 1-2.

##### NZOI MATERIAL

Stn A449 : 1 specimen; Stn A527 : figured specimen.

##### REMARKS

Originally described by Fisher (1940 : 229-31, figs K, 2-2g, 3, 1b, pl. XVIII, figs 1-2) from off the Falkland Islands, 52°55.75'S, 60°55'W, in 351-367 m.

#### **Pseudarchaster maddougalli** McKnight, 1973

##### HOLOTYPE

McKnight, 1973a : 172, figs 1a-b; August 1973.

##### TYPE LOCALITY

NZOI Stn J45 (36°40'S, 170°00'E, 2146 m, 20 April 1970).

##### NZOI MATERIAL

Stn J45 : H-159 (holotype).

##### REMARKS

A goniasterid asteroid from the New Zealand bathyal (= archibenthal) zone, this is one of "several species ... named for N.Z. Oceanographic Institute staff members" (in this case, Mr J.C. McDougall).

#### **Pseudechinaster rubens** H.E. Shearburn Clark, 1962

##### PARATYPE

H.E.S. Clark, 1962 : 41-4, text-figs a-f, pl. 1; 1962.

##### TYPE LOCALITY

"... collected by Mr F. Abernethy, from the vicinity of Cape Campbell, Cook Strait, March 1957. Depth 55 to 63 fathoms [102 to 116 metres]", 9 specimens (= NZOI Stn Z2404).

##### NZOI MATERIAL

Stn Z2404 : P-8 (1 paratype).

#### **Psilaster charcoti** (Koehler, 1906)

##### FIGURED SPECIMEN

H.E.S. Clark, 1963 : 30-1, text-figs 4A-C, pl. 3, figs 7-8.

##### NZOI MATERIAL

Stn A448 : figured specimen; Stn A459 : 1 specimen; Stn A461 : 3; Stn A466 : 1.

##### REMARKS

Originally described by Koehler (1906 : 4-6, pl. III, figs 20-21, 31-32) from Booth-Wandel Island, Antarctic Peninsula.

#### **Pteraster (Apterodon) stellifer** Sladen, 1882

##### FIGURED SPECIMEN

H.E.S. Clark, 1963 : 64-5, pl. 9, figs 8-9.

##### NZOI MATERIAL

Stn A461 : 2 specimens; Stn A464 : 1; Stn A521 : 2; Stn A522 : 2; Stn A523 : 1; Stn A525 : 2; Stn A526 : figured specimen; Stn A527 : 1.

##### REMARKS

Originally described by Sladen (1882 : 193) from off the entrance to Smyth Channel, southern Chile, 52°45'30"S, 73°46'W, in 453 m.

#### **Pteraster (Pteraster) robertsoni** McKnight, 1973

##### HOLOTYPE

McKnight, 1973d : 4-6, figs 2a-b; November 1973.

##### PARATYPES (2)

##### TYPE LOCALITY

NZOI Stn F127 (49°22'S, 176°16'E, 1280 m, 28 January 1965), 2 specimens.

##### NZOI MATERIAL

Stn F127 : H-170 (holotype), P-231 (paratype); Stn F878 : P-232 (paratype).

##### REMARKS

This is one of the species "named for N.Z. Oceanographic Institute staff members" (in this case Mr N.D. Robertson).

#### **Rosaster endilius** McKnight, 1975

##### HOLOTYPE

McKnight, 1975 : 54-6, figs 2a-b; January 1975.

##### TYPE LOCALITY

NZOI Stn Z2098 (28°39.5'S, 173°01'E, 841 m, 6 September 1967), 1 specimen.

##### NZOI MATERIAL

Stn Z2098 : H-176 (holotype).

##### REMARKS

"The specific name is derived from an anagram of the collector, Dr W.J.M. van der Linden."

#### **Saliasterias brachiata** Koehler, 1920

##### FIGURED SPECIMEN

H.E.S. Clark, 1963 : 78, pl. 14, figs 3-4.

##### NZOI MATERIAL

Stn A528 : 1 specimen.

##### REMARKS

Originally described by Koehler (1920 : 54, pl. 11, figs 1-4, pl. 12, figs 1-8, pl. 58, fig. 3) from off Adelie Land, 66°50'S, 142°06'E, in 655 m.

**Sphaeriodiscus maui** McKnight, 1973

HOLOTYPE

McKnight, 1973a : 187-9, figs 8a-b; August 1973.

TYPE LOCALITY

NZOI Stn E902 (haul 4) (37°34 'S, 172°05 'E, 1009-1032 m, 26 March 1968).

NZOI MATERIAL

Stn E902 : H-166 (holotype).

**Tarachaster australis** McKnight, 1973

HOLOTYPE

McKnight, 1973d : 13, 14, figs 6a-b; November 1973.

TYPE LOCALITY

NZOI Stn E849 (33°45 'S, 171°32 'E, 216 m, 17 March 1968), 1 specimen.

NZOI MATERIAL

Stn E849 : H-174 (holotype).

**Taranuiaster novaezealandiae** McKnight, 1973

HOLOTYPE

PARATYPES (2)

McKnight, 1973a : 232-3, 235, figs 7a-b; October 1973.

TYPE LOCALITY

NZOI Stn J55 (44°05.5 'S, 176°12 'E, 198 m, 17 May 1970), 2 specimens.

NZOI MATERIAL

Stn F873 : P-217 (paratype); Stn J55 : H-156 (holotype), P-215 (paratype).

REMARKS

This is the type species of the new genus *Taranuiaster* - "the generic name (feminine gender) is derived from the collecting ship, *MV Taranui*".

**Small specimens of Family ECHINASTERIDAE**

FIGURED SPECIMENS

H.E.S. Clark, 1963 : 54-5, pl. 9, figs 4-5.

NZOI MATERIAL

Stn A455 : 2, including figured specimens; Stn A456 : 1; Stn A464 : 1; Stn A521 : 1; Stn A526 : 1.

REMARKS

The specimens range in size from 8 to 26 mm and are possibly of the genus *Henricia*, or *Rhopiella*, or *Echinaster*, according to Clark (1963).

Class OPHIUROIDEA

**Amphiodia joubini** (Koehler, 1912)

FIGURED SPECIMENS

Fell, 1961b : 40-3, text-fig. 4, pl. 16, fig. 3, pl. 17, fig. 4.

NZOI MATERIAL

Stn A448 : 13 specimens; Stn A449 : 1; Stn A450 : 2;

Stn A451 : 4; Stn A457 : 1; Stn A459 : 2; Stn A460 : 2; Stn A461 : 3; Stn A466 : 1; Stn A530 : figured specimen; Stn A531(B) : 3; Stn A533 : 1.

REMARKS

Originally described by Koehler (1912b : 132, pl. 11, figs 9 and 13) from Marguerite Bay, Antarctic Peninsula. "This species is notable as being the only ophiuroid known to be shared by the faunas of New Zealand and Antarctica." Fell (1961b : 42). See also Dawson (1970 : 134-5, table 1).

**Amphiophiura kermadecensis** (Benham, 1911)

FIGURED SPECIMEN

McKnight, 1968c : 520-2, fig. 6.

NZOI MATERIAL

Stn C531 : 6 specimens.

REMARKS

Originally described by Benham (1911 : 156-8, text-figs 18-23) from the Kermadec Islands.

**Amphiophiura taranuia** McKnight, 1968

HOLOTYPE

McKnight, 1968b : 208-10, fig. 2; June 1968.

TYPE LOCALITY

NZOI Stn G1 (32°35 'S, 167°32 'E, 138 m, 14 September 1966), 1 specimen.

NZOI MATERIAL

Stn G1 : H-40 (holotype).

REMARKS

"The specific name of this new species is derived from *MV Taranui*."

**Amphiura belgicae** Koehler, 1900

FIGURED SPECIMEN

Fell, 1961b : 38-9, pl. 2d (2), pl. 16, fig. 4, pl. 17, fig. 3.

NZOI MATERIAL

Stn A454 : 5 specimens; Stn A455 : 5; Stn A456 : 6; Stn A457 : 7, including that figured in pl. 16, fig. 4, pl. 17, fig. 3; Stn A 464 : 3; Stn A520 : 6; Stn A525 : 1 juvenile; Stn A526 : 1; Stn A527 : 11; Stn A528 : 10, including that figured in pl. 2d (2); Stn A529 : 6; Stn A534 : 1 juvenile.

REMARKS

Originally described by Koehler (1900 : 819) from west Antarctica. Fell (1961b) has given further references and synonymy.

**Asteroceras maui** McKnight, 1968

HOLOTYPE

PARATYPES (3)

McKnight, 1968c : 516-19, figs 4-5; September 1968.

TYPE LOCALITY

NZOI Stn C527 (32°30'S, 179°12'W, 508 m, 18 September 1960), 7 specimens.

NZOI MATERIAL

Stn C527 : H-41 (holotype), P-44-46 (3 paratypes).

**Astrochlamys bruneus** Koehler, 1912

FIGURED SPECIMENS

Fell, 1961b : 28-9, col. pl. 2, fig. c, pl. 10, figs 3, 7-8, pl. 11, figs 1, 4, 7.

NZOI MATERIAL

Stn A454 : 1 specimen; Stn A464 : 3; Stn A521 : 4 small specimens, including those figured.

REMARKS

The following specimens as illustrated are the same in Fell (1961b) : pl. 10, fig. 9, and pl. 11, fig. 4; pl. 10, fig. 3 and pl. 11, fig. 1; pl. 10, fig. 8 and pl. 11, fig. 7.

Originally described by Koehler (1912b : 143, pl. XI, figs 3-4, 6-7, 14-15) from east coast of the Bellingshausen Sea, Antarctica. Further details have been given by Fell (1961b).

**Astrohamma tuberculatum** (Koehler, 1923)

FIGURED SPECIMEN

Fell, 1961b : 29-30, pl. 10, figs 5-6, pl. 11, fig. 2.

NZOI MATERIAL

Stn A464 : 1 specimen; Stn A465 : figured specimen; Stn A527 : 3 specimens.

REMARKS

Originally described by Koehler (1923 : 133, figs 1a-f) from the Antarctic Peninsula, south of Seymour Island.

**Astrophura kohurangi** McKnight, 1975

HOLOTYPE

McKnight, 1975 : 65-7, figs 5a-b; January 1975.

TYPE LOCALITY

NZOI Stn Z2095 (22°47.5'S, 159°21'E, 805 m, 21 August 1967), 1 specimen.

NZOI MATERIAL

Stn Z2095 : H-179 (holotype).

REMARKS

“The specific name *kohurangi* (Maori - rare treasure) is treated as a noun in apposition.”

**Astrotoma agassizii** Lyman, 1875

FIGURED SPECIMENS

Fell, 1961b : 26-7, col. pl. 1 (middle), col. pl. 2, fig. b, pl. 1, fig. b, pl. 10, fig. 1, pl. 18, fig. 4.

NZOI MATERIAL

Stn A448 : 9 small specimens; Stn A450 : 2 small specimens; Stn A451 : 1; Stn A455 : 1; Stn A456 : 14

small specimens; Stn A459 : 2 small specimens; Stn A461 : 2 ; Stn A464 : 1; Stn A465 : 6 fragmentary specimens; Stn A468 : 1 large specimen; Stn A469 : 14 small specimens; Stn A528 : 1 small specimen; Stn A531(B) : figured specimen (pl. 10, fig. 1); Stn A534 : 1 large specimen; Stn A537 : figured specimen (col. pl. 1); Stn A538 : 1 large and 2 small specimens, including figured specimens (col. pl. 2).

REMARKS

Originally described by Lyman (1875 : 24, pl. IV, figs 52-56) from western end of Magellan Strait. The coloured plate (col. pl. 1 (middle)) is also given in Billing & Mannering (1964 : pl. 110). Station A537, at which this photograph was taken, is not listed in Fell's (1961b : 27) “Material Examined”.

**Euvondrea floretta** Fell, 1961

HOLOTYPE

Fell, 1961b : 64-5, text-figs 6A-B, pl. 4, figs 1-2; 1961.

PARATYPES (4)

Fell, 1961a : 841, text-figs 2-3; Fell, 1961b : 64-5, pl. 4, figs 3-43 (juvenile paratypes).

TYPE LOCALITY

NZOI Stn A522 (73°48'S, 176°41'W, to 73°50'S, 176°54'W, Pennell Bank, Ross Sea, Antarctica, 135 m, 4 February 1960), 5 specimens.

NZOI MATERIAL

Stn A522 : H-1 (holotype), P-2-5 (paratypes); Stn A523 : 13 specimens.

REMARKS

Type of new genus. No paratypes were designated by Fell in his original description. The type locality station number was incorrectly given as A523 instead of A522. “The name *Euvondrea*, which is to be treated as a feminine noun of the first declension, is formed by an anagram from the name of H.M.N.Z.S. *Endeavour*, by which all specimens were obtained.” (Fell, 1961a : 841).

**Glaciacantha jason** Fell, 1961

PARATYPES (2)

Fell, 1961a : 839.

TYPE LOCALITY

Stanford University Stn GLD-15 [= USS *Glacier* Deep Freeze IV Oceanographic Station GI-16], 75°58.5'S, 168°29'E, Ross Sea, Antarctica, 365 m, 2 December 1958.

NZOI MATERIAL

Stn A450 : P-7 (paratype); Stn A527 : P-6 (paratype).

REMARKS

Type of new genus. Holotype in National Museum of Natural History, Smithsonian Institution, Washington. Further details of this species have been given by Fell (1961a : 839, figs 4-6 (holotype), pl. 7, figs 1-2). To draw attention to the relationship with the genus *Ophiomedea* Koehler, 1906, Fell proposed the specific name to commemorate Medea's companion. The generic name refers to the icebreaker USS (now USCGC) *Glacier*.

**Ophiacantha antarctica** Koehler, 1900

FIGURED SPECIMENS

Fell, 1961b : 32-4, col. pl. 1 (lower right), col. pl. 2, figs b-d, pl. 3, fig. 1, pl. 14, fig. 7, pl. 15, fig. 6.

NZOI MATERIAL

Stn A448 : 2 specimens; Stn A449 : 105; Stn A450 : 20; Stn A451 : 1; Stn A455 : 30; Stn A457 : 32; Stn A458 : 118; Stn A459 : 12; Stn A460 : 7; Stn A461 : 37, including figured specimen (pl. 14, fig. 7, pl. 15, fig. 6); Stn A464 : 5; Stn A465 : 48; Stn A466 : 5; Stn A467 : 18; Stn A468 : 46; Stn A470 : 4; Stn A516 : 24, including figured specimen (col. pl. 2, fig. c); Stn A522 : 14; Stn A523 : 35; Stn A526 : 6; Stn A527 : 21; Stn A528 : 44; Stn A529 : 9; Stn A530 : 9; Stn A531(B) : 6; Stn A532 : 4; Stn A534 : 22; Stn A537 : 77, including figured specimen (col. pl. 1); Stn A538 : 40, including figured specimen (col. pl. 2, fig. b, pl. 3(1)).

REMARKS

Originally described by Koehler (1900 : 819) from west Antarctica, 70° - 71°S, 83°W. The coloured plate (col. pl. 1) is also given in Billing & Mannering (1964 : pl. 110). Fell (1961b) has given further details.

**Ophiacantha pentactis** Mortensen, 1936

FIGURED SPECIMEN

Fell, 1961b : 31-2, pl. 14, fig. 1, pl. 15, fig. 2.

NZOI MATERIAL

Stn A455 : 66 specimens, including figured specimen; Stn A464 : 17; Stn A516 : 1; Stn A523 : 14; Stn A527 : 106.

REMARKS

Originally described by Mortensen (1936 : 253, pl. 7, figs 3-4) presumably from west Antarctica (see Fell, 1961b : 32).

**Ophiacantha vivipara** Ljungman, 1870

FIGURED SPECIMEN

Fell, 1961b : 30-1, col. pl. 2, fig. a, pl. 14, fig. 2, pl. 15, fig. 1.

NZOI MATERIAL

Stn A449 : 3 specimens; Stn A450 : 1; Stn A455 : 19; Stn A464 : 5; Stn A467 : 23; Stn A469 : 3; Stn A526 : 7; Stn A527 : 1; Stn A528 : 2; Stn A538 : 8, including figured specimen.

REMARKS

Originally described by Ljungman (1870 : 470) from a locality "presumed to be Falkland Islands ..." (see Fell, 1961b : 31 for further details).

**Ophioceres incipiens** Koehler, 1922

FIGURED SPECIMENS

Fell, 1961b : 69-70, col. pl. 2, fig. c, pl. 1A, fig. 3, pl. 2A, fig. 1, pl. 3, fig. 2, pl. 9, fig. 2(2).

NZOI MATERIAL

Stn A454 : 6 specimens; Stn A455 : 24; Stn A456 : 25; Stn A457 : 13; Stn A464 : 19; Stn A465 : 2; Stn A520 : 7, including figured specimen (pl. 9, fig. 2); Stn A521 : 29, including figured specimen (col. pl. 2, fig. c); Stn A525 : 1; Stn A526 : 14; Stn A527 : 73; Stn A528 : 25; Stn A529 : 13; Stn A538 : 3, including figured specimen (pl. 1A(3), 2a(1), 2b (same specimen as in pl. 1A(1)), pl. 3(2)).

REMARKS

Originally described by Koehler (1922 : 48, pl. 84, figs 1-6, 13-14) from off Adelie Land, 60°32'S, 141°39'E, 280 m; type locality designated by Fell (1961b : 69).

**Ophiocten megaloplax** Koehler, 1900

FIGURED SPECIMEN

Fell, 1961b : 49-50, pl. 8, figs 4 & 6.

NZOI MATERIAL

Stn A448 : 16 specimens, mostly juvenile with no arm comb developed, including figured specimen; Stn A459 : 1 specimen; Stn A538 : 1 large specimen.

REMARKS

Originally described by Koehler (1900 : 819) from the Bellingshausen Sea, west Antarctica.

**Ophiodaces inanis** Koehler, 1922

FIGURED SPECIMEN

Fell, 1961b : 35-6, pl. 6, figs 1 & 4.

NZOI MATERIAL

Stn A466 : figured specimen.

REMARKS

Originally described by Koehler (1922 : 24, pl. 78) from off Wilkes Land, east Antarctica.

**Ophiogymna saltatrix** McKnight, 1968

HOLOTYPE

McKnight, 1968c : 522-5, figs 7-8; September 1968.

PARATYPE

TYPE LOCALITY

NZOI Stn C527 (32°30'S, 179°12'W, off the Kermadec Islands, 508 m, 18 September 1960), 2 specimens.

NZOI MATERIAL

Stn C527 : H-42 (holotype), P-47 (1 paratype).

REMARKS

"The specific name suggested by Dr D.E. Hurley, refers to the resemblance in Fig. 7 to a dancer."

**Ophiomastus bispinosus** Mortensen, 1925

FIGURED SPECIMEN

Fell, 1961b : 53-4, pl. 19, figs 1-4.

**NZOI MATERIAL**

Stn A464 : 3 specimens, including figured specimen;  
Stn A466 : 2.

**REMARKS**

Originally described by Mortensen (1925 : 6) from  
Discovery Inlet, Ross Sea.

***Ophionotus taylori* McKnight, 1967****HOLOTYPE**

McKnight, 1967 : 317–21, figs 1–2,; September 1967.

**TYPE LOCALITY**

NZOI Stn Z1788 (Cape Hallett, Ross Sea, trap, position B, half mile north of base, 27 m, 29 August 1962).

**NZOI MATERIAL**

Stn Z1788 : H-39 (holotype).

**REMARKS**

“... named for Mr C.B. Taylor, who was responsible for the collections.”

***Ophionotus victoriae* Bell, 1902****FIGURED SPECIMEN**

Fell, 1961b : 47–8, pl. 2, fig. d, pl. 14, fig. 5, pl. 15, fig. 7, pl. 18, fig. 5.

**NZOI MATERIAL**

Stn A448 : 11 large specimens; Stn A456 : 2; Stn A457 : 1; Stn A459 : 32; Stn A460 : 1; Stn A461 : arm fragment; Stn A464 : 2 specimens; Stn A466 : 16 specimens and fragments; Stn A520 : figured specimen (see Remarks), 5 specimens; Stn A531(B) : 2.

**REMARKS**

Originally described by Bell (1902 : 219, pl. XXVIII) from either off Cape Adare or Franklin Island, Ross Sea (see Fell, 1961b : 48). Station A516 at which the species was photographed is not listed in Fell's “Material Examined”.

***Ophiopyren regularis* Koehler, 1900****FIGURED SPECIMEN**

Fell, 1961b : 45–6, pl. 6, figs 2–3.

**NZOI MATERIAL**

Stn A454 : 2 specimens; Stn A521 : 1; Stn A525 : 2 figured specimens.

**REMARKS**

Originally described by Koehler (1900 : 819) from west Antarctica, 70° – 71°S, 80°50'W.

***Ophiosteira antarctica* Bell, 1902****FIGURED SPECIMENS**

Fell, 1961b : 65–6, pl. 8, figs 2–3.

**NZOI MATERIAL**

Stn A448 : 8 specimens, including 2 figured specimens;  
Stn A457 : 2; Stn A459 : 3; Stn A461 : 20; Stn A538 : 1.

**REMARKS**

Originally described by Bell (1902 : 218, pls 26–27) from off Cape Adare, Antarctica.

***Ophiosteira bullivanti* Fell, 1961****HOLOTYPE**

Fell, 1961a : 841, fig. 1.  
Fell, 1961b : 67–8, text-fig. 7, pl. 5, figs 4–5;

**PARATYPES**

Fell, 1961b : 67–8, pl. 8, fig. 1.

**TYPE LOCALITY**

NZOI Stn A526 (74°07'S, 177°41'W, Pennell Bank, Ross Sea, Antarctica, 451–455 m, 7 February 1960), 1 adult and two juveniles.

**NZOI MATERIAL**

Stn A448 : 1 specimens; Stn A526 : H-2 (holotype), P-149–50 (paratypes) juveniles.

**REMARKS**

Named for the collector, Dr J.S. Bullivant, New Zealand Oceanographic Institute. “... subsequently found at other stations ...”

***Ophiosteira echinulata* Koehler, 1912****FIGURED SPECIMEN**

Fell, 1961b : 67, pl. 5, figs 1–3, pl. 8, fig. 5.

**NZOI MATERIAL**

Stn A455 : 2 specimens; Stn A468 : 2 specimens, figured (pl. 5, figs 1, 2, pl. 8, fig. 5); Stn A470 : 1; Stn A527 : 3; Stn A534 : 1.

**REMARKS**

Originally described by Koehler (1912b : 38–41, pl. LXXXII (82), figs 5–10, pl. LXXXVIII (88), figs 1–7) from off Adelie Land in 100 m.

***Ophiotholia multispina* Koehler, 1904****FIGURED SPECIMEN**

McKnight, 1968b : 210–13, fig. 3.

**NZOI MATERIAL**

Stn G3 : figured specimen.

**REMARKS**

Originally described by Koehler (1904 : 99–100, pl. 33(4–5)) from Indonesian waters in 216–567 m, it is here recorded from near Norfolk Island.

***Ophiura ambigua* (Lyman, 1878)****FIGURED SPECIMENS**

Fell, 1961b : 51–2, col. pl. 2, fig. c, pl. 14, figs 3 & 6, pl. 15, figs 4–5, pl. 18, fig. 3.

**NZOI MATERIAL**

Stn A454 : 8 specimens, including figured specimen (pl. 14, fig. 6, pl. 15, fig. 5, pl. 18, fig. 3); Stn A464 : 10; Stn A521 : 4 specimens, including figured specimen

(col. pl. 2, fig. c); Stn A523 : 9; Stn A527 : 9, including figured specimen (pl. 14, fig. 3, pl. 14, fig. 4).

REMARKS

Originally described by Lyman (1878 : 79) from Royal Sound, Kerguelen Island.

**Ophiura crassa** Mortensen, 1936

FIGURED SPECIMENS

Fell, 1961b : 52-3, pl. 11, figs 3, 6.

NZOI MATERIAL

Stn A455 : 3 specimens, including figured specimens.

REMARKS

Originally described by Mortensen (1936 : 333, fig. 46) from off Clarence Island, South Shetland Islands.

**Ophiura flexibilis** (Koehler, 1911)

FIGURED SPECIMEN

Fell, 1961b : 52, pl. 7, figs 3, 6.

NZOI MATERIAL

Stn A450 : 2 specimens, including figured specimen; Stn A457 : 3; Stn A533 : 11.

REMARKS

Originally described by Koehler (1911 : 44, pl. V) from off Cape Royds, Ross Sea, Antarctica.

**Ophiuroglypha carinifera** (Koehler, 1901)

FIGURED SPECIMENS

Fell, 1961b : 54-5, pl. 9, fig. 1.

NZOI MATERIAL

Stn A449 : 1 disc, 2 specimens; Stn A450 : 2 specimens; Stn A455 : 22; Stn A456 : 9, including figured specimen (pl. 9, fig. 1 (to the left)); Stn A457 : 3; Stn A464 : 1; Stn A465 : 2; Stn A520 : 1; Stn A527 : 7; Stn A528 : 30, including figured specimen (pl. 9, fig. 1 (above)).

REMARKS

Originally described by Koehler (1901 : 14, pl. 1, figs 3-7) from west Antarctica.

**Ophiurolepis brevirima** Mortensen, 1936

FIGURED SPECIMENS

Fell, 1961b : 60, pl. 12, fig. 2, pl. 13, figs 3, 6.

NZOI MATERIAL

Stn A448 : 2 small specimens, 4 possible hybrids; Stn A449 : 9 specimens; Stn A450 : 5; Stn A455 : 4; Stn A456 : 1 specimen possibly hybrid; A457 : 4; Stn A459 : 23, including figured specimens (pl. 13, figs 3, 6); Stn A461 : 5; Stn A470 : "various early developmental stages"; Stn A519 : 1 small specimen; Stn A521 : 8; Stn A527 : 15; Stn A528 : 15; Stn A529 : 2, including figured specimen (pl. 12, fig. 2).

REMARKS

Originally described by Mortensen (1936 : 319, pl. 8, figs 8-13) from off Cape Bowles, Clarence Islands, Antarctic Peninsula; type locality designated by Fell (1961b 61).

**Ophiurolepis gelida** (Koehler, 1900)

FIGURED SPECIMENS

Fell, 1961b : 58-60, col. pl. 1 (lower right), col. pl. 2, figs a, b, pls 1-2, pl. 12, figs 1, 3-5.

NZOI MATERIAL

Stn A450 : 4 specimens; Stn A456 : 22; Stn A457 : 20; Stn A459 : 14; Stn A460 : 1; Stn A461 : 44; Stn A467 : 1; Stn A468 : 1; Stn A519 : 13, including figured specimen (pl. 12, fig. 3); Stn A520 : 22; Stn A521 : 1; Stn A525 : 1; Stn A527 : 5; Stn A528 : 98, including figured specimen (pl. 2c, fig. 4); Stn A529 : 32; Stn A530 : 41, including 3 figured specimens (pl. 12, figs 1, 4, 5); Stn A532 : 3; Stn A534 : 36; Stn A537 : 24, including figured specimen (col. pl. 1); Stn A538 : 7, including figured specimen (col. pl. 2, figs a, b, pl. 1A(1)).

REMARKS

Originally described by Koehler (1900 : 819) from the Bellingshausen Sea, west Antarctica. The coloured plate (col. pl. 1) is the same as that given in Billing & Manering (1964 : pl. 110).

**Ophiurolepis martensi** (Studer, 1885)

FIGURED SPECIMENS

Fell, 1961b : 61-2, pl. 13, figs 2, 5.

NZOI MATERIAL

Stn A448 : 1 specimen; Stn A450 : 1; Stn A455 : 1; Stn A459 : 1; Stn A467 : 52, including 2 figured specimens; Stn A468 : 2; Stn A469 : 9; Stn A470 : 6; Stn A471 : 6; Stn A533 : 34; Stn A538 : 10.

REMARKS

Originally described by Studer (1885 : 131) from South Georgia.

**Ophiurolepis tuberosa** (Mortensen, 1936)

FIGURED SPECIMEN

Fell, 1961b : 62-3, pl. 13, figs 1, 4.

NZOI MATERIAL

Stn A448 : 2 specimens; Stn A460 : 2 figured specimens; Stn A461 : 14 specimens.

REMARKS

Originally described by Mortensen (1936 : 329, fig. 43) from Bransfield Strait, South Shetland Islands; type locality designated by Fell (1961b : 63).

**Ophiozonoida parva** McKnight, 1975

HOLOTYPE

McKnight, 1975 : 67, figs 6a-b; January 1975.

PARATYPES (2)

TYPE LOCALITY

NZOI Stn E864 : (32°36'S, 167°36'E, 130 m, 19 March 1968), 3 specimens.

NZOI MATERIAL

Stn E862 : 1 specimen; Stn E864 : H-180 (holotype), P-236 (2 paratypes).



**REMARKS**

The specimen from Stn E862 was used in the description but was not designated a paratype. Strictly, it is paratypic unless specifically excluded.

***Stegophiura singletoni* McKnight, 1975****HOLOTYPE**

McKnight, 1975 : 62-4, figs 4a-b; January 1975.

**TYPE LOCALITY**

NZOI Stn E870 (34°05'S, 168°10'E, 1488-1556 m, 20 March 1968), 1 specimen.

**NZOI MATERIAL**

Stn E870 : H-178 (holotype).

**REMARKS**

"The species is named for Mr R.J. Singleton of the N.Z. Oceanographic Institute."

***Theodorina relegata* (Koehler, 1912)****FIGURED SPECIMEN**

Fell, 1961b : 56-7, pl. 7, figs 4-5.

**NZOI MATERIAL**

Stn A449 : 1 specimen; Stn A460 : 10, including figured specimen.

**REMARKS**

Originally described by Koehler (1912b : 57, pl. 88, figs 1-7) from off Enderby Land, 65°42'S, 92°10'E. Fell placed the species in a new genus *Theodorina* "so named to commemorate Theodor Mortensen."

***Toporkovia antarctica* (Lyman, 1882)****FIGURED SPECIMENS**

Fell, 1961b : 43-4, text-fig. 5, pl. 16, fig. 1, pl. 17, fig. 1, pl. 18, fig. 1.

**NZOI MATERIAL**

Stn A449 : figured specimen (pl. 16, fig. 1, pl. 17, fig. 1, pl. 18, fig. 1); Stn A454 : 4 specimens; Stn A455 : 5, including figured specimen (text-fig. 5); Stn A456 : 1; Stn A457 : 1; Stn A516 : 1; Stn A525 : 10; Stn A528 : 2.

**REMARKS**

Originally described by Lyman (1882 : 107, pl. 23, figs 1-3) from off Marion Island and Prince Edward Islands, southern Indian Ocean. Fell (1961b) has given further details with description, references and synonymy.

**Class HOLOTHUROIDEA*****Placothuria squamata* Pawson, 1968****HOLOTYPE****PARATYPE**

Pawson, 1968 : 19, fig. 2(5-9); April 1968.

**TYPE LOCALITY**

NZOI Stn A701 (47°41'S, 179°23'E, off Bounty Islands, 159 m, 3 November 1962).

**NZOI MATERIAL**

Stn A701 : H-13 (holotype); Stn A714 : P-13 (paratype); Stn A715 : 2 fragments; Stn D74 : fragment.

***Protankyra rigida* Pawson, 1965****HOLOTYPE**

Pawson, 1965 : 75-7, text-figs 1-3; 7 April 1965.

**TYPE LOCALITY**

NZOI Stn C166 (39°37'S, 178°58.2'E, 180-270 m, 3 September 1959), 1 specimen.

**NZOI MATERIAL**

Stn C166 : H-15 (holotype).

**Phylum CHORDATA****Subphylum VERTEBRATA****Class PISCES*****Apsilus fuscus* Valenciennes, 1830****FIGURED SPECIMEN**

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 53, fig. 4.

**NZOI MATERIAL**

Stn A685 : 1 specimen.

**REMARKS**

Originally described by Valenciennes (*in* Cuvier & Valenciennes, 1830 : 549, pl. 168b) from Porto Praya, Cape Verde, this species has been discussed by Smith (1961 : 253, fig. 656).

***Bathygadus cottoides* Günther, 1878****FIGURED SPECIMEN**

McCann, 1973 [1972] : 624-5, figs 6-7.

**NZOI MATERIAL**

Stn E750 : 1 specimen.

**REMARKS**

Originally described by Günther (1878 : 23) from 14 specimens taken at *Challenger* Stn 169 off New Zealand and Stn 170, 170A, 171, off the Kermadec Islands, this species was later described in more detail and figured by Günther (1887 : 154-5, pl. XLII, fig. A). The NZOI specimen was collected from quite near the type locality at 37°34'S, 179°22'E, 1250 m.

***Bathygadus longifilis* Goode & Bean, 1885****FIGURED SPECIMEN**

McCann, 1973 [1972] : 625-6, figs 8-9.

NZOI MATERIAL

Stn E856 : figured specimen; Stn E873 : 1; Stn E892 : 1.

REMARKS

Originally described by Goode & Bean (1885 : 599) from the North Atlantic (38°40'N, 87°27'W, 1305 m) this species was later discussed and illustrated by Günther (1887 : 155, 157, pl. XLII) and by Goode & Bean (1895 : 422-3). This is the first New Zealand record.

**Bathylagus antarcticus** Günther, 1878

FIGURED SPECIMEN

McCann, 1973 [1972] : 620, fig. 1.

NZOI MATERIAL

Stn A790 : 1 specimen.

REMARKS

Originally described by Günther (1878 : 248), this species was first collected at *Challenger* Stn 157 (53°45'S, 108°35'E) in 3,560 m. This is the first New Zealand record and was collected during the N.Z. Oceanographic Institute's first trials with an Isaacs-Kidd Midwater Trawl.

**Bathypterois longifilis** Günther, 1878

FIGURED SPECIMEN

McCann, 1973 [1872] : 620-2, figs 2-3.

NZOI MATERIAL

Stn E732 : 1 specimen.

REMARKS

Originally described by Günther (1878 : 183) and later illustrated by him (1887 : 185-8, pl. XLVII, fig. B, pl. XLVIII, fig. B), this species was first collected at *Challenger* Stns 170, 170A, 29°55'S, 178°14'W, Kermadec Islands, 950-1150 m.

**Callionymus phasis** Günther, 1880

FIGURED SPECIMEN

McCann, 1973 [1972] : 632-4, figs 16-17.

NZOI MATERIAL

Stn G156 : 1 specimen (male).

REMARKS

Originally described by Günther (1880 : 28, pl. 15, fig. C) from a single specimen taken at *Challenger* Stn 204B off the Philippine Islands, this species was recorded for the first time in New Zealand waters by McCann (1973) who has given references to subsequent figures and discussion and believed "that *C. phasis* Günther will be found to be synonymous with *C. lyra* Linnaeus", the type species of the genus described from the Atlantic Ocean.

**Caranx speciosus** (Forsk., 1775)

FIGURED SPECIMEN

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 52, fig. 3.

NZOI MATERIAL

Stn A685 : 1 specimen.

REMARKS

Originally described by Forskål (1775 : 54) from Arabian seas, this species has been figured by Ogilby (1915 : 67, pl. XXI) who has given detailed references and synonymy.

**Cataetx messieri** (Günther, 1878)

FIGURED SPECIMEN

McCann, 1973 [1972] : 634-7, figs 18-20.

NZOI MATERIAL

Stn E773 : 1 specimen (female).

REMARKS

Originally described by Günther (1878 : 19) from a single specimen taken at *Challenger* Stn 306A, off the Strait of Magellan, and later illustrated by him (Günther, 1887 : 104-5, pl. XLII, fig. B), this species was recorded from the New Zealand region for the first time by McCann (1973) who gave further references and discussion.

**Chaetodon auriga** Forskål, 1775

FIGURED SPECIMEN

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 53, fig. 5.

NZOI MATERIAL

Stn A687(H) : 1 specimen; Stn A770 : 2, including figured specimen; Stn A958 : 1.

REMARKS

Originally described by Forskål (1775 : XIII, 60) from Arabian seas, this species has been redescribed and figured by Woods (1953 : 591-2, pl. 56, B).

**Chaetodon ephippium** Cuvier, 1831

FIGURED SPECIMEN

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 54, fig. 6.

NZOI MATERIAL

Stn A676 : 1 specimen; Stn A687(H) : 1; Stn A761 : 1; Stn A781 : 2; Stn A959 : figured specimen (see Remarks).

REMARKS

Originally described by Cuvier (*in* Cuvier & Valenciennes, 1831 : 80, pl. 174) from the Molucca Sea, this species has been redescribed and figured by Woods (1953 : 590-1, pl. 56, A).

The figured specimen is described incorrectly in the caption as from NZOI Stn A958.

**[Chionodraco markhami** Miller & Reseck, 1961]

HOLOTYPE

Miller & Reseck, 1961 : 50-53, text-fig. 1, tables 1, 2, 17 March 1961.

TYPE LOCALITY

NZOI Stn A460 (75°38'S, 168°32'E, c. 24 miles N of Franklin Island, Ross Sea, Antarctica, 407–422 m, 17 January 1959).

NZOI MATERIAL

None (see Remarks).

REMARKS

The holotype (male from NZOI Stn A460) was originally recorded as being in the Dominion Museum, Wellington (No. 2963). A paratype (male) from NZOI Stn A459, 75°17'S, 172°20'E, 75 miles NE of Franklin Island, Ross Sea, in 290 fm was deposited in the Smithsonian Institution, National Museum of Natural History (No. 179895). The species was named after Mr G.W. Markham, then Superintendent of Antarctic Division, DSIR, Wellington.

Since, at the time of description of this species, it was not envisaged that fish types would be retained at the N.Z. Oceanographic Institute, the holotype was presented to the Dominion Museum. However, since it is now generally known that types of specimens originating from the collections of the N.Z. Oceanographic Institute are retained there, such a retrospective type as this might now be looked for in the Institute rather than in the institution designated in the original description. Therefore, to avoid any such error, reference is included to it in the present catalogue although it was accessioned as part of the Dominion [now National] Museum's collections.

**Cirrhitis alternatus** Gill, 1862

FIGURED SPECIMEN

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 57, fig. 9.

NZOI MATERIAL

Stn A685 : 2 specimens; Stn A687(H) : 2 specimens.

REMARKS

Originally described by Gill (1862 : 122) from off Honolulu, this species has been keyed out by Schultz (1960b : 260).

**Euclichthys polynemus** McCulloch, 1926

FIGURED SPECIMEN

McCann, 1973 [1972] : 630–2, figs 14–15.

NZOI MATERIAL

Stn Z2141 = Victoria University of Wellington trawl 4, 1967, collected by R.D. Cooper : 2 specimens.

REMARKS

Originally described by McCulloch (1926 : 174–6, pl. xlv, fig. 2) from the Great Australian Bight SE of Eucla, 635–840 m, this species was recorded from New Zealand for the first time by McCann (1973) who noted "In colour pattern this species is reminiscent of another small deep-sea cod, *Lotella marginata* Guenther, from which it may be readily distinguished by the absence of a barbel and by the five elongated undivided rays of the ventral."

**Fistularia petimba** Lacépède, 1803

FIGURED SPECIMEN

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 51, fig. 2.

NZOI MATERIAL

Stn A685 : 1 specimen.

REMARKS

Originally described by Lacépède (1803 : 349, 350, pl. 18, fig. 3) from New Britain, this species has been redescribed by Schultz (1953 : 228–9).

**Halaelurus dawsoni** Springer, 1971

PARATYPE

Springer, 1971 : 235–41, fig. 1; November 1971.

TYPE LOCALITY

West of southern South Island, 44°32.5'S, 166°41'E, 389–420 m, 20 November 1970.

NZOI MATERIAL

Stn F89 : P-187 (paratype, female).

REMARKS

Holotype in the National Museum, Wellington; paratypes, 3 females and 2 immature males in National Museum, 1 immature female ex NZOI Stn F89 in National Museum of Natural History (USNM 205537), 1 immature male (from type locality) in National Museum of Natural History (USNM 206096), 1 female (NZOI Stn F89) in N.Z. Oceanographic Institute (P-187).

"I am grateful to Mr E.W. Dawson for bringing the first specimens of the species here named *Halaelurus dawsoni* to my attention ..."

**Hoplostethus gilchristi** Smith, 1935

FIGURED SPECIMEN

McKnight, 1972 : 151–5, fig. 1.

NZOI MATERIAL

Stn E719 : 2 specimens (fig. 1); Stn F878 : 1 specimen.

REMARKS

This species, previously known from off South Africa (Smith, 1935 : 182–4, pl. XXII, E) was recorded for the first time in New Zealand waters by McKnight (1972) who remarked : "Field notes (Sta. D719 [note – correctly E719] record the capture of eight large specimens of *Hoplostethus* – 'bright red in colour and excellent eating' ". Further records of *H. intermedius* (Hector) were given in this account with a key to the Australasian species of the family Trachichthyidae. It should be noted that couplet 8(9) of this key (p.154) is misplaced.

**Lampanyctus australis** Tåning, 1932

[as *L. guentheri* Goode & Bean, 1895]

FIGURED SPECIMEN

McCann, 1973 [1972] : 623–4, figs 4–5.

NZOI MATERIAL

Stn F891 : 1 specimen.

**REMARKS**

This is the first record of this species, from the Pacific Ocean. Its type locality was not stated but McCann has noted that it was “presumably North Atlantic” since it was “taken by the Gloucester fleet”. The New Zealand identification was based on the original description and figure of Goode & Bean (1895 : 79, fig. 90) and on Brauer (1904 : 395). Paxton (1974) has since re-identified this specimen as *Lampanyctus australis* Tåning, 1932, a common myctophid peculiar to New Zealand waters, originally described as a subspecies of *L. alatus* Goode & Bean from “southern waters off New Zealand and Australia and off the Cape ...” (Tåning, 1932 : 145-6).

**Melanonus gracilis** Günther, 1878**FIGURED SPECIMEN**

McCann, 1973 [1972] : 628-30, figs 12-13.

**NZOI MATERIAL**

Stn F113 : 1 specimen.

**REMARKS**

Originally described by Günther (1878 : 19) from a single specimen taken at *Challenger* Stn 156 in the Southern Ocean at 62°26'S, 95°44'E, 3620 m, and later illustrated by Günther (1887 : pl. 14, fig. B), this species was later described in more detail and figured by Günther (1887 : 84-5, pl. XIV, fig. B).

**Moringua sempervirens** McCann, 1967**HOLOTYPE**

McCann, 1967 : 211-13, text-figs 1-6; 25 April 1967.

**TYPE LOCALITY**

NZOI Stn A958 (10°26.4'S, 161°03.1'W, south end of Tauhunu, edge of reef flat, Manihiki, northern Cook Islands, 16 August 1960, collected by J.S. Bullivant), 1 specimen.

**NZOI MATERIAL**

Stn A958 : H-20 (holotype).

**REMARKS**

The specific name is derived thus : “The entire specimen is a very pale translucent bottle green throughout ... This colouration still persists after five years in formalin.”

“It ... differs from other described immature and mature specimens in its green colouring – a crab and a reef coral associated with it were of similar colour.”

**Parexocoetus** sp.**FIGURED SPECIMEN**

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 50, fig. 1.

**NZOI MATERIAL**

Stn A685 : 1 specimen.

**Rhinecanthus aculeatus** (Linnaeus, 1758)**FIGURED SPECIMEN**

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 58, fig. 11.

**NZOI MATERIAL**

Stn A668 : figured specimen; Stn A961 : 1 specimen.

**REMARKS**

Originally described by Linnaeus (1758 : 406) from Indian waters, this species has been described by Munro (1955 : 272).

**Rhinecanthus rectangulus** (Schneider, 1801)**FIGURED SPECIMEN**

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 58, fig. 12.

**NZOI MATERIAL**

Stn A685 : figured specimen; Stn A687(H) : 1 specimen.

**REMARKS**

Originally described by Schneider (1801 : 465) from the Indian Ocean, this species has been discussed by Smith (1961 : 410).

**Ruvettus prometheus** Cuvier & Valenciennes, 1831**FIGURED SPECIMEN**

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 57, fig. 10.

**NZOI MATERIAL**

Stn A685 : 1 specimen.

**REMARKS**

Originally described by Cuvier & Valenciennes (1831 : 213, pl. 222) from off Madeira, this species (as occurring in New Zealand waters) was discussed by McCann (1953 : 15-17, text-figs 16-18) who drew attention to the extreme porosity of the skin and to features of the scales.

**Scarus harid** Forskål, 1775**FIGURED SPECIMEN**

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 55, fig. 7.

**NZOI MATERIAL**

Stn A571 : 1 specimen; Stn A687(H) : figured specimen.

**REMARKS**

Originally described by Forskål (1775 : X, 30) from Arabian seas, this species was discussed by Schultz (1960a : 243-4).

**Scarus lunula** (Snyder, 1908)**FIGURED SPECIMEN**

Bullivant & McCann *in* Bullivant & McCann (eds), 1973 : 55, fig. 8.

NZOI MATERIAL  
Stn A685 : 2 specimens.

REMARKS

Originally described by Snyder (1908 : 99) from off Okinawa, this species has been commented upon further by Schultz (1960a : 244).

**Snyderidia canina** Gilbert, 1905

FIGURED SPECIMEN

McCann, 1973 [1972] : 637-9, figs 21-22.

NZOI MATERIAL

Stn Z2137 : a single specimen collected within the New Zealand region but lacking its original label.

REMARKS

Originally described by Gilbert (1905 : 555, pl. 92) from a single specimen (length 309 mm) taken at *Albatross* Stn 3989 off Kauai, Hawaii, in 700-910 m, this species was recorded from the New Zealand region for the first time by McCann (1973) based on a specimen of total length 232 mm which lacks any station data.

**Tripterophycis gilchristi** Boulenger, 1902

FIGURED SPECIMEN

McCann, 1973 [1972] : 626-8, figs 10-11.

NZOI MATERIAL

Stn E118 : 1 specimen.

REMARKS

Originally described by Boulenger (1902 : 335-6) from off Cape Point, South Africa in 360 m, this species was first recorded in New Zealand waters by Stephenson (1971 : 135-6, fig. 1) based on many specimens from the

Bay of Plenty. References to other descriptions and records have been given by McCann (1973 : 628) who attributed the species to Boulenger, 1904 : 167.

Class REPTILIA

Order SQUAMATA

**Ablepharus boutonii** (Desjardins, 1831)

(= *Cryptoblepharus boutonii poecilopleurus*  
Wiegmann, 1835)

FIGURED SPECIMEN

McCann *in* Bullivant & McCann (eds), 1973 : 62, 63, figs 1a-3.

NZOI MATERIAL

Stn A766 : 2 specimens; Stn A783 : 1 specimen.

REMARKS

Variability in this very variable and widely distributed skink, seven races of which have been described by Boulenger (1887 : 347-8), is illustrated. The Manihiki specimens are attributed to the subspecies *poecilopleurus* Wiegmann, 1835.

McCann wrongly attributed the authorship of the species to Gray (1845). It is clear, however, from Gray's *Catalogue* that it was first described by Desjardins (1831 : 298-9) from Mauritius in the genus *Scincus* with the original spelling "*boutonii*" derived in the following way : "Je dédie cette espèce à mon collègue et ami Louis Bouton, qui cultive avec succès la botanique" (Desjardins, 1831 : 299).

According to Greer (1974), *A. boutonii* belongs to the genus *Cryptoblepharus* Wiegmann, 1834, composed of a single widespread species reviewed by Mertens (1964) with 36 subspecies including *poecilopleurus* Wiegmann, 1835, in which these specimens may be placed on geographic grounds.

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## STATION DATA

Stn No.	Latitude (°S)	Longitude (° ')	Depth (m)	Date	Stn No.	Latitude (°S)	Longitude (° ')	Depth (m)	Date
A155	36 41	173 45 E	684	14.5.55	A537	77 30	165 12 E	561-531	17.2.60
A181	33 53	173 50 E	1917	16.5.55	A538	(77 34.8 to 77 29	165 19 E	265-252	17.2.60
A295	29 04	168 37 W	400-1000	6.6.56	A544	10 23.9	161 01.5 W	24-11	29.6.60
A297	29 07.3	167 57 6 E	60	8.6.56	A548	10 27.03	160 59.08 W	24	2.7.60
A301	28 56	178 56 W	1211	1.7.56	A550	10 25.5	160 59.2 W	29	4.7.60
A302	28 52	178 05 W	1741	1-2.7.56	A551	10 24.3	161 00.2 W	29	4.7.60
A303	31 40	177 33 W	450-1000	3.7.56	A556	10 25.6	161 02.5 W	17	7.7.60
A313	46 46	164 35 E	467	17.8.56	A571	10 26.75	161 00.15 W	51	21.7.60
A315	39 56	167 45 E	0-500	19.8.56	A625	75 00	163 58.7 E	508	5.2.61
A318	36 36	179 18 W	4938	10.1.57	A644	72 18.3	170 14.7 E	530	1.3.61
A332	41 41	167 03 E	surface	1-2.2.57	A668	10 25.25	161 00.16 W	4-9	2.8.60
A343	37 46	167 28 E	816	13.2.57	A672	10 24.9	161 02.5 W	18	26.7.60
A355	41 15.1	174 50 E	21	19.7.57	A676	10 25.9	161 00.7 W	shore	4.7.60
A406	21 05	175 13 W	33	18.3.58	A677	10 25.0	161 00 W	shore	4.7.60
A426	41 38.9	174 33.0 E	150	30.9.58	A685	10 25.3	161 03.09 W	200	13.7.60
A429	41 28.7	174 35.0 E	183-274	1.10.58	A686	10 25.3	161 00.6 W	4	5.7.60
A431	39 47.5	173 46 E	77	2.10.58	A687 (H)	10 25.3	161 03.03 W	shore	15.8.60
A432	39 53	173 43 E	104	2.10.58	A696	54 37.7	158 57 E	433	1.3.62
A439	40 59.6	174 27.6 E	146-165	4.10.58	A701	47 41	179 23 E	159	3.11.62
A444 (B)	(41 21.9 to 41 21.2	174 31.5 E to 174 32.7 E	232	5.10.58	A702	47 41	179 31 E	168	3.11.62
A448	77 27	172 22 E	733	10.1.59	A703	47 42	179 39 E	183	4.11.62
A449	77 05	177 12 E	354	11.1.59	A710	47 32	177 14 E	913	4.11.62
A450	(76 42 to 76 36	179 44 E to 179 53 E	395	11.1.59	A712	47 47	178 42 E	326	5.11.62
A451	(76 00 to 75 50	175 25 W to 175 20 W	509	12.1.59	A714	47 43.5	179 04 E	165	5.11.62
A453	75 09	171 00 W	2195	13.1.59	A715	47 41	179 03 E	121	5.11.62
A454	75 56	176 30 W	895-809	14-15.1.59	A719	48 09.5	179 04 E	371	5.11.62
A455	74 22	178 35 W	314-332	15.1.59	A721	49 39.5	178 53 E	132	6.11.62
A456	74 30	179 40 E	235-198	16.1.59	A723	49 42	178 50.3 E	123	7.11.62
A457	72 02	175 50 E	307-336	16.1.59	A724	49 43	178 50 E	201	7.11.62
A458	75 10	174 00 E	453-478	16.1.59	A727	49 38.7	178 52 E	150	7.11.62
A459	75 17	172 20 E	534-549	16-17.1.59	A734	49 42	178 44.3 E	150	8.11.62
A460	75 38	168 32 E	407-422	17.1.59	A739	49 40.03	178 44.05 E	110	9.11.62
A461	71 15	176 30 E	1831-2381	20.1.59	A741	49 41.5	178 51.5 E	132	9.11.62
A462	71 15	176 30 E	1831-2381	20.1.59	A742	49 37.9	178 52.4 E	150	9.11.62
A463	72 20	174 50 E	460-457	21.1.59	A744	49 36.7	178 48.1 E	360	9.11.62
A464	73 20	174 00 E	361-376	22.1.59	A745	49 36.7	178 50.5 E	399	9.11.62
A465	72 55	175 30 E	391	22.1.59	A747	47 40.9	179 03.1 E	113	16.11.62
A466	78 26	174 50 W	555	24-25.1.59	A753	47 55	179 35 E	183	17.11.62
A467	77 25	169 28 E	88-183	26.1.59	A759 (A)	43 16	176 11 E	351	21.11.62
A468	76 59	167 36 E	110	26.1.59	A761	10 27.6	161 00.5 W	shore	9.8.60
A469	77 50	166 33 E	64	29.1.59	A766	10 27.6	161 00.8 W	shore	12.8.60
A470	77 50	166 30 E	377	4.2.59	A770	10 25.3	161 02.9 W	2	18.8.60
A471	77 37	166 20 E	169-73	6.2.59	A781	10 23.6	161 02.4 W	shore	27.8.60
A489	41 27	174 50 8 E	101	12.10.59	A783	10 25.25	161 00.16 W	1-6	2.8.60
A491	41 25	175 02 E	37	13.10.59	A790	41 55	175 04 E	2195	25.3.63
A520	74 20	179 30 E	201-205	7.2.60	A804	39 38	177 34.3 E	150	4.4.63
A521	73 54	177 44 W	569-546	4.2.60	A821	46 27.5	167 20 E	91	25.8.63
A522	(73 48 to 73 50	176 41 W to 176 56 W	1335	4.2.60	A831	46 50.4	167 04.3 E	717	25.8.63
A523	(73 34 to 73 31	175 47 W to 175 34 W	2762-2804	5.2.60	A842	47 10.5	167 28.5 E	84	26.8.63
A525	(74 09 to 74 07	177 16 W to 177 09 W	578-570	7.2.60	A845	47 13.5	167 15 E	139	26.8.63
A526	74 07	177 41 W	451-455	7.2.60	A855	47 15	168 15 E	102	26.8.63
A527	74 10	178 17 W	352-331	7.2.60	A901	43 17	177 03.5 E	251	8.9.63
A528	74 23	179 26 W	270-261	7.2.60	A908	43 27.3	179 03 W	459	13.9.63
A529	74 20	179 55 W	202-213	8.2.60	A910	43 04	178 39 W	349	13.9.63
A530	(74 03.5 to 74 05	179 21 E to 179 19 E	267-263	8.2.60	A915	44 25	178 11.5 W	909	15.9.63
A531 (B)	(75 02 to 75 12	178 10 E to 178 14 E	342	9.2.60	A916	43 58.5	175 11 E	274	15.9.63
A533	77 34	166 10 E	90	16.2.60	A917	43 56	179 15 W	203	15.9.63
A534	(77 36.7 to 77 36	166 08 E to 166 12 E	380-366	16.2.60	A958	10 26.4	161 03.1 W	shore	10.8.60
					A959	10 34.7	161 01.5 W	shore	17.6.60
					A961	10 22.5	161 01.3 W	shore	20.6.60
					B2	39 08.8	177 11.8 E	12	25.8.56
					B32	53 38	169 52 E	650	1.1.57
					B33	52 00	167 30 E	700	1-2.1.57
					B42	39 15	177 03.5 E	21	2.9.57
					B43	39 32.2	176 55.8 E	8	3.9.57
					B45	39 29.75	171 06.5 E	40	3.9.57



Stn No.	Latitude (°S)	Longitude (° ')	Depth (m)	Date	Stn No.	Latitude (°S)	Longitude (° ')	Depth (m)	Date
B56	39 30.8	177 18.4 E	65	4.9.57	C202	41 04.25	174 28 E	117	11.9.59
B59	39 28.5	177 32.5 E	121	4.9.57	C228	41 19	174 10 E	15	15.9.59
B61	39 34.8	177 22.7 E	121	4.9.57	C248	41 28.5	175 41 E	220	7.10.59
B62	39 37.5	177 17.8 E	115	4.9.57	C272	38 20.3	174 11.8 E	91	22.10.59
B74	20 57	175 14 W	914	9.9.58	C291	38 02.5	174 13.5 E	68	23.10.59
B88	19 02.5	177 13 E	2399	17.9.58	C325	37 20	174 24.2 E	55	25.10.59
B95	34 00	172 30 E	55-110	22.9.58	C363	38 40	172 40 E	146	27.10.59
B109	62 37	169 51 E	0-125	1.12.58	C375	38 54	174 08.5 E	71	28.10.59
B110	61 55.5	170 26 E	0-500	1.12.58	C410	44 33.7	174 37 E	476	4.5.60
B111	61 25.5	170 41 E	0-500	2.12.58	C432	39 20	172 29 E	179	6.5.60
B114	59 39	171 02 E	0-125	3.12.58	C438	40 00	173 36.5 E	84	7.5.60
B117	57 11	171 05 E	0-500	4.12.58	C439	40 00	173 49 E	88	7.5.60
B120	53 26.3	170 15.0 E	0-400	5.12.58	C464	40 45	172 52 E	26	9.5.60
B172	48 18.5	168 30 E			C467	40 39	172 44.5 E	15	9.5.60
	48 22.9	168 30 E	731	8.10.59	C474	40 37	172 44.5 E	17	9.5.60
B176	50 29	166 30.5 E			C488	41 37.0	175 39.2 E	459	17.6.60
	50 27	166 29 E	84	9.10.59	C504	41 21.5	176 00.3 E	146	19.6.60
B180	50 50	166 20 E	91	10.10.59	C506	41 14.4	176 09.2 E	146	19.6.60
B182	52 28.5	168 32 E	169	11.10.59	C510	40 36.0	177 02 E	384	20.6.60
B192	Perseverance Harbour, Campbell Island		165-192	15.10.59	C520	41 39.4	175 09.6 E	112	21.6.60
B200	41 23	174 42 E	73	2.11.59	C524	41 17.7	174 37.7 E	2	3.8.56
B205	41 27.5	174 53.5 E	93	2.11.59	C526	33 40	179 09 E	3658	17.2.60
B260	46 45.4	165 39 E	25	27.5.60	C527	32 50	179 12 W	508	10.9.60
B312	39 23	171 35 E	644	25.10.60	C531	29 14.7	178 00.2 W	179	19.9.60
B314	39 22	171 50 E	1655-2245	25.10.60	C537	25 46	170 16 W	5200	22.9.60
B319	39 03.5	172 21.5 E	638	27.10.60	C544	23 01.2	166 19 W	surface	24.9.60
B323	40 15	173 38 E	88	27.10.60	C602	43 13.2	176 40.3 E	287	24.4.61
B324	42 00	175 20 E	2432	1.11.60	C605	43 40	179 30 E	441-461	26.4.61
B359	41 20	174 49.85 E	intertidal	31.8.60	C607	43 48	179 00 E	431-421	27.4.61
B368	41 20.5	174 51.4 E	intertidal	12.10.60	C617	43 58.4	175 22.9W	302-288	30.4.61
B374	41 20.9	174 48.5 E	intertidal	27.9.60	C618	43 52	175 20 E	623-688	2.5.61
B379	41 06.19	174 52.18 E	intertidal	1.9.60	C623	44 25.5	175 16 W	398-697	7.5.61
B388	41 06.6	174 51.7 E	intertidal	1.9.60	C627	39 13	171 54 E	393	26.5.61
B391	43 34.6	172 46.7 E	intertidal	21.9.60	C629	39 15	171 54 E	298	26.5.61
B399	43 37.3	172 45.4 E	intertidal	22.9.60	C632	39 14	172 01 E	406	27.5.61
B400	43 37.3	172 45.4 E	intertidal	22.9.60	C633	39 16	171 54 E	344	27.5.61
B405	45 49.8	170 38.4 E	intertidal	2.12.60	C634	39 48	171 48 E	366	27.5.61
B416	45 49.6	170 39.95 E	intertidal	3.12.60	C640	39 17	171 55 E	364	28.5.61
B434	37 37.9	176 10.06 E	intertidal	1.4.61	C642	36 15.5	171 52.5 E	354	28.5.61
B439	39 03.4	174 03.9 E	intertidal	29.12.60	C645	39 18	172 00 E	442	28.5.61
B473	43 20	169 47 E	206-210	3-4.6.61	C648	37 29	172 00 E	1011	29.5.61
B490	45 44.3	166 44.8 E	114-118	8.6.61	C654	42 49.4	173 35.4 E	124	14.6.61
B556	44 00	173 35 E	128	6.10.62	C656	42 49.5	173 43.8 E	592	14.6.61
B559	44 40.4	172 10 E	132	7.10.62	C672	42 45.6	173 30.6 E	64	16.6.61
B560	44 40	172 24 E	254	7.10.62	C678	42 43.3	178 38.2 E	124	16.6.61
B582	48 00	167 38 E	143	11.10.62	C680	42 41	173 40 E	235	16.6.61
B605	46 23.5	167 22 E	73	17.10.62	C683	42 28	173 40.1 E	88	17.6.61
B614	45 43.8	166 39.6 E	27	18.10.62	C686	42 52.5	173 45.1 E	820	17.6.61
B616	45 20	166 47 E	134	18.10.62	C690	42 33.2	173 33.8 E	180-400	18.6.61
B621	43 59	168 20.4 E	117	19.10.62	C692	42 51.2	173 38.7 E	549	18.6.61
B642	40 40	172 09 E	77	21.10.62	C693	42 32.2	173 40.4 E	878	18.6.61
B646	40 00	173 00 E	117	22.10.62	C694	42 33.6	173 41 E	732	18.6.61
B648	40 00	173 52 E	97	22.10.62	C695	42 34.6	173 32 E	24	19.6.61
B653	39 20	173 42 E	79	23.10.62	C699	42 35.1	173 40.1E	274	19.6.61
B660	38 40	174 12 E	71	24.10.62	C703	42 42	173 37.8 E	140-100	19.6.61
B669	37 18.7	174 06.2 E	130	25.10.62	C704	42 45.3	173 45.2 E	750	19.6.61
B675	36 40	173 50 E	384	26.10.62	C705	42 27	173 37.4 E	180-140	20.6.61
B683	40 00	171 15 E	695	28.10.62	C733	54 25	159 02 E	100	25.11.61
B686	40 16	172 32.3 E	126	28.10.62	C734	53 55	158 55 E	360	25.11.61
B783	38 07.8	174 17.7 E	86	15.3.62	C749	36 00	173 31 E	210	16.2.62
B784	38 10	174 05 E	108	15.3.62	C752	35 19	172 37.5 E	131	17.2.62
B797	38 49	173 54 E	106	17.3.63	C758	34 40	172 14.5 E	203	17.2.62
B808	39 29	173 48 E	55	18.3.63	C760	34 10.13	172 08.06 E	80	18.2.62
B868	40 17.8	177 01.8 E	278	11.3.64	C770	34 39.9	173 20.5 E	134	20.2.62
B874	40 26.0	177 08.9 E	580	11.3.64	C781	36 00	175 20.6 E	93	21.2.62
					C783	36 00	175 45.8 E	192	21.2.62
					C787	36 40	175 06.1 E	39	22.2.62
C89	41 26.06	174 19.3 E	37	7.5.58	C789	36 18.7	175 17.5 E	59	22.2.62
C101	41 18.2	174 29.8 E	210	8.5.58	C790	36 10.9	175 21.4 E	20	22.2.62
C166	39 37	178 58.2 E	180-270	3.9.59	C792	36 40	175 57.1 E	73	23.2.62
C171	39 40	172 52.5 E	163	4.9.59	C795	37 20	175 27 E	17	23.2.62
C175	39 40	173 44 E	84	4.9.59	C796	37 20	176 11.2 E	73	23.2.62
C186	40 40	173 03 E	37	7.9.59	C798	37 20.1	176 19 E	205	23.2.62
C197	41 00	174 39 E	192	11.9.59	C800	37 40	176 36.2 E	73	24.2.62



Stn No	Latitude (°S)	Longitude (° ' )	Depth (m)	Date	Stn No.	Latitude (°S)	Longitude (° ' )	Depth (m)	Date
C801	37 40.3	176 48.1 E	130	24.2.62	D220	39 32	171 48 E	337	26.9.64
C812	37 39	178 37.6 E	75	25.2.62	D221	40 06	171 16 E	688	26.9.64
C814	37 40	178 56.4 E	194	25.2.62	D222	40 38	170 46 E	651	27.9.64
C842	41 38.5	175 20 E	77	1.3.62	D223	41 10	170 14 E	770	27.9.64
C844	41 38.3	175 11.2 E	88	1.3.62	D224	40 47	169 41 E	903	27.9.64
C850	40 40.2	175 01.4 E	73	2.3.62	D226	39 54	168 40 E	823	27-28.9.64
C852	40 41.3	174 20.3 E	132	2.3.62	D227	39 50	169 43 E	711	28.9.64
C857	40 56.1	173 48.4 E	31	2.3.62	D228	39 08	170 19 E	662	28.9.64
C859	40 59.7	173 46.5 E	33	3.3.62	D229	38 37	170 56 E	885	28.9.64
C869	41 13	176 17.1 E	35	5.3.62	D230	38 10	170 21 E	861	29.9.64
C870	41 14.3	174 12.8 E	53	5.3.62	D231	37 53	169 45 E	744	29.9.64
C871	41 14.4	174 09.1 E	66	5.3.62	D237	38 55	167 45 E	668	1.10.64
C896	44 33	167 43 E	95	3.12.62	D243	38 50	169 20 E	519	2.10.64
C915	41 09.2	173 52.2 E	11	8.2.63	D244	39 31	171 00 E	838	3.10.64
C919	41 47.3	173 53.4 E	52	8.2.63	D292	41 15.4	174 49.5 E	22	18.11.64
C921	41 04.9	173 57.3 E	75	10.2.63	D343	41 21.6	174 49.9 E	21	19.11.64
C924	41 03.1	173 56.4 E	63	10.2.63	D401	37 00	178 00 E	2100	1.3.65
C957	43 09	175 15 E	123	7.3.63	D468	37 32	179 21 E	1280	4.11.65
D1	44 18	176 10 E	132	12.4.63	D591	42 28.8	176 51.2 E	1829	26.1.67
D5	56 40.6	158 45.5 E	1280	19.4.63	D593(A)	41 00	178 25 E	3017-3109	26.1.67
D6	56 29	158 31.5 E	415	20.4.63	D599	47 58	176 10 E	100-250	10.4.67
D10	54 40	159 01 E	71	2.4.63	D614	41 20	178 48 E	100-250	16.4.67
D17	52 31	160 31 E	124	23.4.63	D619	41 56	175 17.5 E	250-500	18.4.67
D18	52 31	160 31 E	128	23.4.63	D876	43 20	176 50 W	148	25.3.69
D22	50 38	163 57 E	755	26.4.63	D878	43 25	176 40 W	116	25.3.69
D38	51 58	165 28 E	188	7.5.63	D883	43 35	176 40 W	58	26.3.69
D39 (A)	50 58	165 45 E	549	7.5.63	D904	43 58.5	178 40 W	459	30.3.69
D44	50 51.5	166 01.4 E	53	8.5.63	D905	44 08	178 46 W	607	30.3.69
D46	50 50.2	166 05.3 E	71	8.5.63	D906	43 54	179 14 W	222	31.3.69
D48	50 44.25 to 50 44.4	166 18.5 E 166 12.4 E	95	8.5.63	D907	43 54	179 14 W	202	31.3.69
D52 (TAM)	50 41.8	166 14.75 E	73	9.5.63	E76	44 00	178 00 E	830	23.3.64
D53	50 41.6	166 24 E	81	9.5.63	E81	43 03	179 30 W	529	25.3.64
D60	50 36.1	166 15.3 E	49	9.5.63	E86	41 03.05	173 55.2 E	29-25.6	31.3.64
D62	50 31.3	166 16.9 E	22	10.5.63	E111	43 00	176 30 W	675	12.10.64
D65	50 32.6	166 13.3 E	20	10.5.63	E118	43 15	176 00 W	496	14.10.64
D71	50 30.8 50 30.8	166 21.1 E 166 21.5 E	42-46	11.5.63	E120	42 59	175 29 W	872	14.10.64
D73	50 18	166 23.5 E	177	11.5.63	E128	44 05	175 25 W	488	15.10.64
D74	60 55.65	165 54.8 E	168	12.5.63	E140	44 30	176 00 W	192	17.10.64
D85	49 50	170 13 E	611	13.5.63	E148	44 30	177 45 E	880	17.10.64
D90	43 50	179 00 W	399	17.5.63	E171	76 01.0	168 20.0 E	101	13.1.65
D100	48 02	166 36 E	161	26.9.63	E172	76 02.0	168 21.0 E	280	13.1.65
D103	50 40	166 19.5 E	71	29.6.63	E175	75 56.0	168 00.0 E	512	14.1.65
D104	50 49.2	166 15.6 E	95	29.9.63	E177	75 59.0	168 11.0 E	190	14.1.65
D117	43 15	178 40 E	432	10.10.63	E186	72 17.1	170 13.0 E	59	20.1.65
D119	43 45	178 40 E	492	11.10.63	E188	72 10.4	170 48.4 E	353	20.1.65
D121	43 16.5	177 10.5 E	208-210	11.10.63	E189	72 01.2	170 57.5 E	298	20.1.65
D132	48 06	167 36.5	134	12.1.64	E193 (C)	71 18.0	170 02.0 E	59	26.1.65
D134	48 16.0	168 43.5 E	677	12.1.64	E197 (A)	67 21.8	164 46.0 E	185	29.1.65
D136	48 33.5	169 10 E	713	12.1.64	E200	67 33.0	165 14.0 E	646	29.1.65
D137	48 50.5	169 07.0 E	668	12.1.64	E209 (B)	66 41.0	162 57.0 E	190	2.2.65
D138	48 32	168 19.5 E	668-677	13.1.64	E212	66 57.0	163 14.0 E	91	2.2.65
D140	48 01	166 34.5 E	intertidal	13.1.64	E215 (A)	66 30.2	162 25.0 E	209	7.2.65
D144	48 31	167 17 E	132	14.1.64	E215 (B)	66 31.7	162 28.6 E	190	7.2.65
D156	48 01.5	166 35 E	81	16.1.64	E220 (B)	66 28.03	162 45.08 E	371	9.2.65
D159	49 01.0	164 30 E	741	17.1.64	E223	66 57.8	163 13.4 E	199	11.2.65
D160	49 31.5	166 15.5 E	722	18.1.64	E224	66 31.2	162 27.0 E	199	12.2.65
D166	49 49.0	163 51.0 E	668	19.1.64	E225	66 31.0	162 26.0 E	209-218	12.2.65
D169	50 47.5	163 57.5 E	896	20.1.64	E237 (B)	54 51.0	158 38.0 E	155	27.2.65
D171	50 57.0	165 47.0 E	501	20.1.64	E246	34 39.0	172 50.0 E	33	5.4.65
D176	51 06	167 48.5 E	216	21.1.64	E265	34 30.7	172 35 E	48	7.4.65
D181	Carnley Harbour, Auckland Is		77	22.1.64	E292	34 15	172 00 E	172	8.4.65
D182	Carnley Harbour, Auckland Is		64	22.1.64	E293	34 17.5	172 02.5 E	205	8.4.65
D193	50 40.5	166 21.5 E	71	22.1.64	E295	34 13	172 05 E	132	8.4.65
D194	50 44.0	166 21.0 E	95	22.1.64	E296	34 14	172 06 E	132	9.4.65
D200	50 22.0	167 28.0	113	23.1.64	E297	34 16	172 09.4 E	315	9.4.65
D204	50 58.5	170 16.0 E	565	24.1.64	E302	34 06.7	172 10 E	132	9.4.65
D206	50 36.0	171 23.5 E	529	24.1.64	E312	34 00	171 47.5 E	119	10.4.65
D207	50 04.0	171 23.0 E	510	25.1.64	E314	34 01.5	171 58 E	883	10.4.65
D208	49 18.0	171 46.5 E	113	25.1.64	E319	33 56	172 17 E	104	11.4.65
D210	49 21.5	171 53.0 E	353	26.1.64	E323	34 00	172 15.0 E	165	11.4.65
D211	48 53.0	172 17.5 E	519	26.1.64	E342	34 11.5	172 35 E	106	12.4.65
					E349	34 37	173 15 E	121	13.4.65
					E353	34 37	173 02.5 E	27	14.4.65



Stn No.	Latitude (°S)	Longitude (° ' )	Depth (m)	Date	Stn No.	Latitude (°S)	Longitude (° ' )	Depth (m)	Date
E372	34 20	173 05 E	135	15.4.65	E873	34 37	171 52 E	970	21.3.68
E399	46 10	171 33 E	1222	6.10.65	E875	34 39	172 07 E	489-492	21.3.68
E400	46 00	171 02 E	622-768	7.10.65	E876	34 39	172 14 E	216-247	21.3.68
E401	46 00	171 12 E	914-823	7.10.65	E879	35 19.0	172 25.0 E	768-786	22.3.68
E404	47 20	169 44 E	761	9.10.65	E880	35 20	172 20 E	1029-1074	22.3.68
E405	47 20	169 55 E	1004	9.10.65	E882	36 10	172 42 E	1210-1212	22.3.68
E406	47 20	170 17 E	1213	9.10.65	E883	36 00	172 52 E	999-1046	23.3.68
E407	46 40	170 08 E	278-305	10.10.65	E884	35 59.0	173 10.0 E	701-659	23.3.68
E409	46 41	170 21 E	743	10.10.65	E890	36 40	173 59.0 E	1014	23-24.3.68
E410	46 40	170 44.6 E	1086	10.10.65	E892	37 20	173 55 E	1232	24.3.68
E411	46 38.5	170 59 E	1275	10.10.65	E893	37 19	173 51 E	979	24.3.68
E413	45 12	171 44 E	594	11.10.65	E894	37 20	173 57 E	728-708	24.3.68
E414	45 16	171 49 E	999	11.10.65	E899	38 00	173 47 E	729-715	25.3.68
E416	45 21	171 57 E	1225	13.10.65	E901	38 00	173 19 E	1247-1250	25-26.3.68
E417	45 12	171 49 E	860	13.10.65	E902	37 34	172 05 E	1009-1032	26.3.68
E421	44 00	175 00 E	494	15.10.65	E903(A)	37 33	172 05 E	964-962	27.3.68
E422	44 15	175 00 E	615	15.10.65	E903(B)	37 33	172 05 E	988-966	27.3.68
E423	44 18	174 31 E	640	15.10.65	E906	38 39	172 38 E	691-751	28.3.68
E426	44 47	172 48 E	1130	16.10.65	E908	38 38	172 41 E	256-236	28.3.68
E427	44 54	172 54 E	1240	16.10.65	E952	Maunganui Bluff, N of Dargaville		intertidal	22.10.68
E433	43 43	174 30 E	571	18.10.65	E953	Ocean Beach, Whangarei Heads		intertidal	23.10.68
E437	42 13	174 33 E	1847	19.10.65	E956	Leigh		intertidal	24.10.68
E438	41 37.5	174 53 E	1064	19.10.65	E958	Mt Maunganui		intertidal	25.10.68
E707	40 10.3	177 18.3 E	951-834	21.3.67	E959	Mt Maunganui		intertidal	25.10.68
E709	40 28	177 45 E	1642-1683	21.3.67	E966	Eve Bay, Wellington		intertidal	5.11.67
E712	39 20	178 15.8 E	772-717	22.3.67	E967	Eve Bay, Wellington		intertidal	5.11.67
E714	39 19.1	178 21.05 E	1284-1249	22.4.67	E969	Kaikoura		intertidal	22.1.68
E719	38 46	178 48 E	913-750	23.3.67	E970	Kaikoura		intertidal	22.1.68
E720	37 33.0	178 35.0 E	256-252	24.3.67	E971	Kaikoura		intertidal	23.1.68
E724	37 23.3	178 00.5 E	645-651	24.3.67	E972	Kaikoura		intertidal	23.1.68
E728	37 37.5	177 12.2 E	688-432	25.3.67	E973	St Clair, Dunedin		intertidal	25.1.68
E729	37 33.1	177 11.5 E	289-410	25.3.67	E974	St Clair, Dunedin		intertidal	25.1.68
E731	37 23.5	177 12 E	602-503	25.3.67	E975	Leigh Marine Station		intertidal	15.2.68
E732	37 16	177 15.7 E	959	25.3.67	E976	Leigh Marine Station		intertidal	15.2.68
E734	37 36.5	176 48 E	402-413	26.3.57	E977	Leigh Marine Station		intertidal	15.2.68
E736	37 08.2	176 48.0 E	1033-1116	26.3.67	E978	Huaroa Point, Whanga- paroa Peninsula		intertidal	16.2.68
E745	38 04	179 06.5 E	1441-1412	28.3.67	E979	Huaroa Point, Whanga- paroa Peninsula		intertidal	16.2.68
E749	40 47	176 57 E	913-997	29.3.67	E980	Huaroa Point, Whanga- paroa Peninsula		intertidal	16.2.68
E750	40 48.5	177 02 E	1353	29.3.67	E981	Tapeka Point		intertidal	17.2.68
E753	41 46.2	175 15 E	1074-1227	30.3.67	E982	Makorori Beach		intertidal	20.2.68
E756	42 01.8	174 26.5 E	885-969	30.3.67	E983	Castlepoint		intertidal	19.1.65
E757	42 03.2	174 27.2 E	1081-1125	30.3.67	E985	Island Bay, Wellington		intertidal	4.11.64
E772	42 00	170 16 E	748	14-15.10.67	E987	Hutt River, Lower Hutt		intertidal	30.3.68
E773	42 00	169 54 E	970	15.10.67	F57	35 21	175 10.5 E	514	11.11.64
E776	42 43.0	169 15.5 E	978-1067	15.10.67	F58	35 13.6	175 19.0 E	922	11.11.64
E784	43 23	168 05 E	1221-1213	17.10.67	F59	35 08	175 23.5 E	1176	11.11.64
E788	44 00	168 11 E	1193-1184	17.10.67	F60	35 02	175 26.9 E	1309	11.11.64
E790	Kaikoura		intertidal	22.1.68	F61	34 53.6	175 37.4 E	1686	11.11.64
E800	45 20.5	166 41.5 E	1003-913	20.10.67	F62	34 36.0	175 42.0 E	1931	11.11.64
E803	45 57	166 09 E	534-514	21.10.67	F63	34 30	175 31 E	1884	11.11.64
E806	46 02.2	166 35 E	238-258	21.10.67	F64	34 39.5	175 22.2 E	1781	11.11.64
E811	46 07.1	166 41.8 E	178-188	22.10.67	F65	34 46.5	175 16 E	1587	11.11.64
E820	46 35	165 58 E	220	23.10.67	F68	35 07	174 55 E	554	12.11.64
E822	46 50.6	165 36 E	682-781	23-24.10.67	F31	36 07.5	175 55 E	179	8.11.64
E823	46 55	165 30.5 E	1083-1046	24.10.67	F32	35 53	175 26 E	150	8.11.64
E830	47 21	167 00 E	682-619	25.10.67	F35	36 18.5	174 45 E	22	9.11.64
E840	33 52	172 16 E	757-729	16.3.68	F36	36 10.5	174 49.2 E	57	9.11.64
E841	33 53	172 17 E	479-428	6.3.68	F37	36 01.5	174 58 E	84	9.11.64
E845	34 07.5	172 01 E	277-179	16.3.68	F38	35 52	175 07 E	113	9.11.64
E849	33 55	171 32 E	216	17.3.68	F39	35 47.3	175 11.5 E	146	9.11.64
E850	33 49	171 19 E	509-515	17.3.68	F40	35 41.8	175 17 E	174	9.11.64
E851	33 43	171 10 E	542-545	17.3.68	F41	35 35.5	175 23 E	406	10.11.64
E852	33 38	170 55 E	1024-1049	17.3.68	F42	35 29.3	175 29 E	695	10.11.64
E855	33 10	169 56 E	742-716	17.3.68	F45	35 13	175 44.5 E	1591	10.11.64
E856	32 11	168 18 E	1169	18.3.68	F46	35 06.5	175 53 E	1858	10.11.64
E859	32 01	168 03 E	500	18.3.68	F47	34 59	176 00 E	2041	10.11.64
E860	32 21	167 41 E	1246-1258	18.3.68	F55	35 33	174 58.2 E	256	11.11.64
E861	32 25	167 35 E	318-383	18.3.68	F56	35 27	175 04 E	388	11.11.64
E862	32 28	167 31 E	130	18.3.68					
E864	32 36	167 36 E	130	19.3.68					
E868	33 51.0	167 20.0 E	751-672	19.3.68					
E869	33 58	167 45 E	1705-1685	19.3.68					
E870	34 05	168 10 E	1488-1556	20.3.68					
E871	34 09	169 20 E	1930-1936	20.3.68					

Stn No.	Latitude (°S)	Longitude (° ' )	Depth (m)	Date	Stn No.	Latitude (°S)	Longitude (° ' )	Depth (m)	Date
F75	35 30	174 43 E	121	12.11.64	F924	34 07.5	172 47 E	315-439	13.10.68
F81	49 32	167 01 E	401	14.1.65	F928	34 06.2	172 06.8 E	388-406	14.10.68
F89	50 01	167 49 E	371-375	16.1.65	F932	34 26.7	173 07.5 E	113-115	15.10.68
F90	49 30.5	167 40 E	585	16.1.65	F945	31 19.5	165 19 E	3300	22.10.68
F91	49 00	167 30 E	687	16.1.65	F946	34 32.5	157 31.5 E	4788	2-3.11.68
F94	48 31	168 01 E	604	17.1.65	F947	43 18.5	165 05.5 E	0-500	5.11.68
F95	48 53	168 39 E	646	17.1.65	G1	32 35	167 32 E	138	14.9.66
F97	48 00	168 32 E	134	17.1.65	G3	26 25	167 15 E	710	27.9.66
F99	48 32	168 54.5 E	706	18.1.65	G29	43 48	175 01 E	434	23.2.67
F100	49 02	168 53.5 E	733-746	18.1.65	G32	43 44	176 29 E	402	23.2.67
F102	48 39	169 51 E	810	19.1.65	G142	42 25	174 00.8 E	250-500	20.9.67
F104	48 40	170 48.5 E	814-788	20.1.65	G144	42 24.8	174 01.6 E	250-500	21.9.67
F105	49 34.08	170 57 E	499	20.1.65	G156	42 58	177 30 E	110-128	13.11.67
F107	48 45	172 00 E	658	20.1.65	G184	44 06	179 25 W	344	18.1.68
F108	48 19	171 59 E	1108	21.1.65	G254	43 35	179 29 E	417	23.1.68
F113	48 46	177 02 E	1372	23.1.65	G259(A)	43 33	179 22 E	410	23.1.68
F115	49 18.5	179 52 E	1518	23.1.65	G273	43 30	179 15 E	410	24.1.68
F117	49 40	179 00 E	1202-1293	24.1.65	G279	43 39	179 07 E	426	24.1.68
F120	48 18	179 16 E	494-512	25.1.65	G284(A)	43 26	179 01 E	421	24.1.68
F122	48 06	179 57 W	252	26.1.65	G291	43 42	179 01 E	402	25.1.68
F123	47 38	178 57 E	1280	27.1.65	G292	43 42	179 48 E	454	25.1.68
F124	47 34	179 56 W	476	27.1.65	G305	43 13	179 20 W	455	26.1.68
F125	48 32	177 59 E	1052	27.1.65	G342	43 52	178 52 W	447	2.2.68
F126	49 48	176 01 E	1256	28.1.65	G403	43 54	179 49 W	391	7.2.68
F127	49 22	176 16 E	1280	28.1.65	G651	44 00	174 51 E	572	17.1.70
F128	49 09	177 18 E	978	28.1.65	G652	44 00	174 10 E	557	17.1.70
F132	49 59	177 32 E	1335	29.1.65	G666	44 52.2	172 20.2 E	1015	18-19.1.70
F135	50 58	173 57 E	832	30.1.65	G667	44 57	172 05 E	872	19.1.70
F137	51 42	171 31 E	519	31.1.65	G675	45 27	171 24 E	792	19.1.70
F138	52 03	170 23 E	353-342	31.1.65	G688	46 10	171 00.2 E	731	20.1.70
F143	53 05.5	170 13 E	380	1.2.65	G696	46 18.08	170 34.08 E	680	21.1.70
F144	55 29	170 56 E	596	1.2.65	G700	46 20	171 15 E	1110	22.1.70
F146	53 00	172 45 E	435	1.2.65	G701	46 20	171 30 E	1400	22.1.70
F147	52 21	173 09 E	611	1.2.65	G702	46 20	171 45 E	1400	22-23.1.70
F150	49 28	174 35 E	501	2.2.65	G703	46 20	172 04 E	1480	23.1.70
F151	48 32	174 50 E	814	3.2.65	G704	46 17	172 37 E	1600	23.1.70
F323	19 16.0	159 00.7 W	940	30.5.65	G705	46 04	172 28.5 E	1500	23.1.70
F732	39 05	171 50 E	293	30.3.66	G706	45 49	172 30 E	1550	23.1.70
F744	41 10	176 58 E	1069	3.4.66	G927	53 32.8	172 16.6 E	580	12.1.71
F751	45 21	175 29 E	1277-1258	18.8.66	H55	50 00	170 00 E	608	20.2.70
F752	45 25	174 30 E	1225-1236	18.8.66	H142	32 59	169 07 E	2295	11.1.71
F753	44 45	174 30 E	854-788	18.8.66	H219	45 01.05	167 14.7 E	208	29.1.71
F754	42 48	174 32 E	1324	19.8.66	H221	44 59.95	167 11.4 E	411	29.1.71
F755	43 00	174 30 E	854-748	19.8.66	H222	49 01	167 14.5 E	273	29.1.71
F758	42 37	175 30 E	1245	19.8.66	I26	35 53.1	174 02.1 E	34	6.5.75
F760	42 45	176 30 E	705	20.8.66	I69	36 11.2	175 17.7 E	23	14.5.75
F761	42 33.2	176 23.5 E	1234-1205	20.8.66	I92	29 24.8	168 13.2 E	570-578	23.7.75
F763	41 01.8	176 32.3 E	711-814	21.8.66	I97	32 22.9	167 28.2 E	540-544	25.7.75
F764	41 05	176 37.5 E	999-1030	20.8.66	J29	38 40	169 39 E	550	16.4.70
F767	41 30.8	176 07 E	1205-1293	21.8.66	J35	38 30	169 26 E	546	17.4.70
F779	37 27	178 58 E	161	5.9.66	J40	36 50	170 00 E	2113	18.4.70
F868	37 28.5	179 03.5 E	808-942	2.10.68	J42	36 50	170 26 E	1996-2008	19.4.70
F870	37 25.5	178 10.8 E	263-254	2.10.68	J44	36 40	170 13 E	2068-2062	19.4.70
F872	37 20.6	178 11.2 E	878-832	3.10.68	J45	36 40	170 00 E	2146	20.4.70
F873	37 19.5	178 11 E	1050-1053	3.10.68	J48	36 30	170 26 E	2150	20.4.70
F874	37 18	178 11 E	1357	3.10.68	J51	36 52	170 42 E	1975-2000	21.4.70
F875	37 34.3	177 35.2	311-282	3.10.68	J55	44 05.5	176 12 E	198	17.5.70
F876	37 32.5	177 34 E	529-492	3.10.68	J58	43 31	179 09.5 W	512	20.5.70
F878	37 28.5	177 31.5 E	997-942	3.10.68	J59	43 51	179 25 W	309	20.5.70
F879	37 25	177 30 E	1267-1238	4.10.68	J71	37 30.7	177 36.1 E	682	7.6.70
F881	37 07.8	177 14 E	1253	4.10.68	J675(B)	37 32.25	177 11.15 E	20-30	8.9.74
F883	37 22	177 01 E	735-713	4.10.68	J679	37 21.15	177 11.75 E	316-320	8.9.74
F884	37 29.5	176 50.5 E	684-662	4.10.68	J705	37 16	176 51 E	190	11.9.74
F891	37 04	176 31 E	1031	5.10.68	J709	37 15.2	176 50 E	328-406	11.9.74
F892	36 58	176 41 E	1278-1194	5.10.68	J746		Marsden Point	shore	31.1.75
F897	36 40.5	176 24.0 E	1306-1231	6.10.68	J903		Marsden Point	offshore	22.1.76
F900	36 13	176 23 E	754-721	9.10.68	K804	29 14.8	177 49.6 W	590-490	22.7.74
F909	35 06.4	175 11 E	1002-1030	10.10.68	K805	29 10.7	177 47.4 W	1162-1156	22-23.7.74
F910	34 56	175 23 E	1383-1397	10.10.68	K826(C)	28 48	177 48 W	390-490	25.7.74
F911	34 38	174 36 E	1697-1690	11.10.68	K829(A)	29 13	177 52.4 W	610-635	26.7.74
F913	34 43.5	174 31.5 E	743	11.10.68	K829(B)	29 12.35	177 52.8 W	590-566	26.7.74
F915	34 58.7	174 18 E	251-265	11.10.68					
F921	34 02.1	172 31 E	344-304	13.10.68					
F922	33 59	172 16 E	84-70	13.10.68					



Stn No.	Latitude (°S)	Longitude (° ')	Depth (m)	Date	Stn No.	Latitude (°S)	Longitude (° ')	Depth (m)	Date
K832	29 49.7	178 17.55 W	1030-1230	27.7.74	Z2404		Off Cape Campbell	102-116	-3.57
K842	30 16.2	178 35.9 W	325-370	29.7.74	Z2405		North-west Bay, Great I., Three Kings Islands	25 ft	-
K843	30 16.5	178 34.5 W	254-260	29.7.74	Z2407		Heron Island, Queensland coll. E.W. Bennett	-	18.4.45
K844	30 11.2	178 33.8 W	290	29.7.74	Z2421	53 32.45	109 56.75 E	-	-
K869	31 21.6	178 53 W	285-390	1.8.74			[DSDP Site 265]	-	-
K870	31 21.2	178 44.5 W	510-610	2.8.74	Z2422		Heathcote Estuary, Christchurch	-	1960/61
K1022		Ocean Beach, Brighton, Otago	shore	-10.76	Z2423		Heathcote Estuary, Christchurch	-	19.5.61
K1023		Lyall Bay, Wellington	shore	-4.77	Z2424	21 09	12 44 E	-	23.8.63
M3		Pauatahanui	3.6	7.11.74	Z2425	42 26	173 52 E	200-600	5.5.65
M5		Pauatahanui	-	19.11.74	Z2426	52 02 N	132 53 W	550	19.5.60
N113	35 00.7	169 05.23 E	-	4.11.73	Z2427	42 26	173 52 E	0-600	29.10.64
N433	41 46.1	171 25.9 E	25	30.1.75	Z2428	41 47	175 01 E	823-914	28.12.57
N452	45 56.8	166 39.4 E	372	2.2.75	Z2429	41 47	175 01 E	823-914	28.12.57
N473	46 00.8	166 36.4 E	351	2.2.75	Z2430	42 26	173 52 E	0-600	29.12.64
N474	46 04	166 34.5 E	120	2.2.75	Z2431		Leigh, Northland	intertidal	-
P23(A)	29 06.74	267 56.94 E	15-24	27.1.77	Z2432		Devonport Wharf, Auckland	5	1960
P46	28 42.3	167 56.7 E	475-450	29.1.77	Z2433		Muriwai Beach, Auckland	low water	8.4.66
P50	29 06.64	167 57.1 E	5-26	30.1.77	Z2434		Deep Bay, Paterson Inlet, Stewart Island	shallow water	-6.72
P54	29 00.3	167 57.6 E	15-24	2.2.77	Z2435		Portobello Marine Station	-	15.5.52
P57	33 15.0	169 59 E	563-614	4.2.77	Z2436		Portobello Marine Station	-	31.5.54
P66	35 03.8	172 22.6 E	435-529	7.2.77	Z2437		Off Cape Young, Chatham Is	-	18.1.54
Q83(A)	33 00.2	163 01.2 E	816-841	7.6.78	Z2438		Port Hutt, Chatham Is	-	18.2.54
Z1696	36 38	179 28 E	1380	1962	Z2439		Hutt River	-	25.6.51
Z1766	29 28	169 46 E	-	1962	Z2440		Pram Point, McMurdo Sound	-	27.4.57
Z1767	31 57	177 37 E	-	1962	Z2441		Tryphena Bay, Great Barrier I -	-	-
Z1769	30 17	180 00 E	-	1962	Z2442		Off Otago Heads	100	-
Z1788		Cape Hallett, Ross Sea	27	29.8.62	Z2443		Auckland Is (opp. Rose I.)	-	-
Z1814	16 32.36	178 39.7 W	2668	24.1.63	Z2444		Auckland Is (opp. Rose I.)	-	-
Z1895		Beeman Cove jetty, Campbell I. -	-	19.6.63	Z2445		E side, Karetu River, Nth Canterbury	-	-
Z1916		Makara, Wellington coll. R.V. Grace	-	30.11.63	Z2446	43 36.2	176 48.5 W	65	29.1.54
Z1996		North Beach, Raoul I., Kermadec Islands	shore	-11.64	Z2447	43 41	176 48 W	25	28.1.54
Z2006	1 00	143 52.5 E	2626-2673	13.2.64	Z2448	43 10.1	175 36.5 E	75	23.1.54
Z2090		South Minerva Reef, 24°S, coll. C.B. Kensler	-	25.8.67	Z2449	44 04	176 23.5 W	215	1.2.54
Z2095	22 47.5	159 21 E	805	21.8.67	Z2450	43 38	177 19 E	465	11.2.54
Z2098	28 39.5	173 01 E	841	6.9.67	Z2451	42 51.9	176 26.5 E	165	23.1.54
Z2137		New Zealand : no details	-	-	Z2452	43 32	178 38 E	500+	24.1.54
Z2141	37 07	176 14 E	366	1967	Z2453	43 36.2	176 48.5 W	65	29.1.54
Z2278	41 01	176 06 E	beach	18.5.67	Z2454	43 36.2	176 48.5 W	65	29.1.54
Z2285		Blueskin Bay, Otago	20	1.10.52	Z2455	44 04	175 23.5 W	238	31-1.2.54
Z2293		Portobello Marine Station Otago Harbour	-	1952-54	Z2456	43 38	177 19 E	531	11.2.54
Z2297		Tangoio, coll. D.E. Hurley	-	-	Z2457	42 51.9	175 26.5 E	183	23.1.54
Z2298		Island Bay, Wellington	intertidal	19.2.49	Z2458	43 32	178 38 E	549+	24.1.54
Z2304		Island Bay, Wellington	intertidal	1.8.50	Z2459	43 36.2	176 48.5 W	65	29.1.54
Z2309		Quarantine I., Otago Hbr	sandbank	1.6.52	Z2460	43 36.2	176 48.5 W	65	29.1.54
Z2310		Portobello Marine Station	off jetty	3.6.52	Z2461	43 10.1	175 36.5 E	75	23.1.54
Z2319		Island Bay, Wellington	intertidal	6.69/1.70	Z2462	43 36.2	176 48.5 W	65	29.1.54
Z2320		Island Bay, Wellington	intertidal	-1.70	Z2463		North-west Bay, Great I., Three Kings Islands	25 ft	-
Z2366	37 19	176 26.5 E	366	-3.71	Z2678		St Kilda Rocks, Kaikoura (NZMS 1 S/49 188690)	3-4	8.11.73
Z2368	37 21	176 24 E	183-201	-3.71	Z2679	36 48.8	174 49.8 E	-	-
Z2371	41 23	170 47 E	366	15.4.71	Z2680		Wellington Harbour	-	-3.73
Z2374	42 09	170 36 E	366	16.4.71	Z2681	35 20.5 N	139 41 E	-	-
Z2402		Poor Knights Islands, coll. A.N. Baker	-	19.5.69	Z2682		Genoa Harbour, Italy	-	13.5.71
Z2403		Poor Knights Islands coll. A.N. Baker	-	25.5.69	Z2683	30 05	151 13 E	-	-
					Z2684	48 38.8 N	3 51.7 W	-	18.5.67
					Z2685		Lagoon, Chatham I	-	19.11.73
					Z2686		White I. Ross Sea	-	15.11.61