

A catalogue of Recent and fossil chitons (Mollusca: Polyplacophora) Addenda

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ABSTRACT. This paper lists species-group names of Recent and fossil Polyplacophora (Mollusca) that were published after 1998 (for the Recent species) and 1987 (for the fossil species). A total of 171 species were since then introduced, of which 123 are attributed to valid fossil taxa and 48 to valid Recent taxa. The authorship and complete references are provided for each species-group name.

INTRODUCTION

Taxonomic work is impossible without an overview of the scientific names existing in the particular taxon group. Catalogues generally are a great tool to obtain such overviews, as they often summarize information otherwise hard to gather and master.

Of the nearly 2600 taxa introduced on species level within the Polyplacophora, 368 fossils and 914 Recent species are considered as valid (closing date: 31/10/2005).

In the past, excellent catalogues of species-group names in Polyplacophora were compiled by Kaas & Van Belle (1980, 1998) for Recent species, and by Van Belle (1981) and Smith & Hoare (1987) for fossils.

However, this means that the latest available summary of Recent-species names dates back to 1998, for fossils even to 1987, even though since then 123 fossil and 48 Recent species have been introduced as new to science.

The aim of the present catalogue is to update the necessary information overview. The author also adds taxa, which were not included in the cited catalogues. Inspired by the catalogue of Smith & Hoare (1987), a more complete form of reference citation is used. Fossil taxa are marked with “†”. All species-group names are arranged alphabetically and given in their original spelling (necessary emendations are clearly signaled). The present author chooses to avoid information on new combinations and comments on current taxonomic status, and also neglects any synonymies other than those given in the original description of the respective taxon.

SYSTEMATICS

† *abacinus* Dell'Angelo & Palazzi, 1989
Lepidopleurus (*Leptochiton*).

Considerazioni sulla famiglia Leptochitonidae Dall, 1889 (Mollusca: Polyplacophora). III. Le species terziarie e quaternarie Europee, con note sistematiche e filogenetiche. - *Atti della prima Giornata di Studi Malacologici Centro Italiano di Studi Malacologici* (1989): 19-140 (: 79; pl. 26).

Type locality: Pezzo, near Villa S. Giovanni (Reggio Calabria prov.); in material of upper Pleistocene, but presumably originated from adjacent deposits of lower Pleistocene of bathyal facies [Pezzo, presso Villa S. Giovanni (RC); in materiale del Pleistocene superiore, ma presumibilmente originato da contigui depositi del Pleistocene inferiore di facies batiale].

Geological age: Pleistocene.

† *abrupta* Stinchcomb & Darrough, 1995
Hemithecella.

Some molluscan Problematica from the Upper Cambrian - Lower Ordovician of the Ozark Uplift. - *Journal of Paleontology* 69 (1): 52-65 (: 62; figs 6.16, 6.17).

Type locality: United States of America: Chert masses and granular chert from the main faunal zone of the Gasconade Formation near the crest of hill in S½, sec. 5, T39N, R2W, Crawford Co., Missouri. Sullivan 7½' quadrangle. Reliability index E. [Locality M-4].

Geological age: Lower Ordovician.

† *absidatus* Hoare, 2002 *Pterochiton*.

European Paleozoic Polyplacophora, Multiplacophora, and Turrelpadida in United States repositories. - *Journal of Paleontology* 76 (1): 95-108 (: 98; figs 1.29-1.39).

Type locality: Belgium: Visé.

Geological age: Lower Carboniferous.

† *actinis* Cherns, 1998 *Chelodes*.

Chelodes and closely related Polyplacophora (Mollusca) from the Silurian of Gotland, Sweden. - *Palaeontology* 41 (3): 545-573 (: 558; pls 3-6, text-fig. 4).

Type locality: Sweden: Möllbos, Gotland, Halla Formation.

Geological age: Silurian.

† *affinis* Ashby & Cotton MS, Gowlett-Holmes & McHenry, 1988 *Callistochiton*.

Fossil mollusc type specimens in the South Australian Museum. 1. Polyplacophora. - *Records of the South Australian Museum* 22 (1): 1-11 (: 6) *nomen nudum*.

Type locality: Australia: from MacDonalds (Bank), Muddy Creek, Hamilton, Victoria, Grange Burn Formation.

Geological age: Early Pliocene.

= *Callistochiton inexpectus* Ashby & Cotton, 1939 (*fide* Gowlett-Holmes & McHenry, 1988).

† *allynsmithi* Hoare, Mapes & Atwater, 1983 *Acutichiton*.

Pennsylvanian Polyplacophora (Mollusca) from Oklahoma and Texas. - *Journal of Paleontology* 57 (5): 992-1000 (: 996; figs 1C, 2A, B, 3A-U, 4A, B, 5N, O).

Type locality: United States of America: from the Gene Autry Formation (Morrowan) at an exposure in a series of east-west gullies, on the east side of an unnamed tributary of Sycamore Creek, on the Daube Ranch, NW¼, NW¼, SW¼, sec. 2, T4S, R4E, Johnston Co., southern Oklahoma, Ravia 7½' quadrangle.

Geological age: Carboniferous.

† *arenaria* Gowlett-Holmes & McHenry, 1988 *Notoplax* (*Notoplax*).

A new species of Tertiary chiton (Mollusca: Polyplacophora: Acanthochitonidae) from South Australia. - *Transactions and Proceedings of the Royal Society of South Australia* 112 (2): 81-82 (: 81; fig. 1).

Type locality: Australia: collected from 100.9 m (331 feet), Angas Home Bore, Parafield Gardens, Section 2259, Hundred of Yatala, County Adelaide, South Australia (34°47'06''S 138°36'26''E), Dry Creek Sands.

Geological age: Late Pliocene.

† *asper* Bielokrys, 1999 *Ischnochiton*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 9; pl. 2, figs 7-10).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk.

Geological age: Late Eocene.

ater Saito, 1997 *Leptochiton*.

Deep-sea chiton fauna of Suruga Bay (Mollusca: Polyplacophora) with descriptions of six new species. - *National Science Museum Monographs, Tokyo* 12: 31-58, pls 1-2 (: 40; figs 1E, 5; pl. 1, fig. 5).

Type locality: Japan: Honshu: Suruga Bay, off Osezaki, 140-400 m depth, CT94-7 (35°00.5'N 138°45.1'E).

attuensis Clark, 2000 *Lepidozона* (*Tripoplax*).

Three new chitons of the genus *Lepidozона* Pilsbry, 1892 (Polyplacophora: Ischnochitonidae) from the Aleutian Islands. - *Nemouria* 42: 1-16 (: 9; figs 15-21).

Type locality: United States of America: Murder Point, Massacre Bay, Pacific side of Attu Island, Near Islands, Aleutian Islands, Alaska (52°47.6'N, 173°11.0'E).

† *auctus* Hoare & Cook, 2000 *Harpidochiton*.

Devonian and Early Carboniferous Polyplacophora from Western Australia. - *Memoirs of the Queensland Museum* 45 (2): 395-403 (: 401; figs 1E, F, 4).

Type locality: Australia: Septimus Limestone, low spur on NW side of Mt Septimus, Ivanhoe Station, Bonaparte Gulf Basin, West Australia (15°42.5'S, 128°59.22'E).

Geological age: Carboniferous.

balaenophila Schwabe & Sellanes, 2004 *Lepidozона*.

A new species of *Lepidozона* (Mollusca: Polyplacophora: Ischnochitonidae), found on whale bones off the coast of Chile. - *Iberus* 22 (1): 147-153 (: 149; figs 1-10).

Type locality: Chile: just beneath the shelf break of Concepción (36°29.9'S 73°40.8'W), attached to osseous remains (mainly pieces of whale ribs) and rocks at 240 m depth.

† *baluki* Macioszczyk, 1988 *Lepidochitona*.

Polyplacophora from the Badenian deposits of Weglinek, Weglin and Lychow (Western Roztocze - Poland). - *Prace Museum Ziemi, Warszawa* 40: 47-58; pls 1-4 (: 53; pl. 2, fig. 4; pl. 3, figs 10-12).

Type locality: Poland: Western Roztocze, Weglinek - 53 km to south-southwest of Lublin, on a hill slope, 300 m to the east from the Trzydniczanka Stream channel, limy sands.

Geological age: Miocene.

baxteri Clark, 2000 *Lepidozона* (*Tripoplax*).

Three new chitons of the genus *Lepidozона* Pilsbry, 1892 (Polyplacophora: Ischnochitonidae) from the Aleutian Islands. - *Nemouria* 42: 1-16 (: 6; figs 8-14).

Type locality: United States of America: Eider Point, west side of entrance to Unalaska Bay, Bering Sea side of Unalaska Island, Aleutian Islands, Alaska (53°57.40'N, 166°35.30'W).

bayeri Schwabe, 1998 *Callochiton*.

Description of a new species of the genus *Callochiton* Gray, 1847 from the south-west Pacific (Mollusca: Polyplacophora). - *Club Conchyliia Informationen* 30 (4-6): 33-38 (: 33; figs 1-8).

Type locality: Western Samoa: Savaii Island, Vaisala-lagoon, about 100 metres in front of the "Vaisala Hotel", on reef in 1 m depth, at low tide.

beringiana Clark, 2000 *Lepidozona* (*Tripoplax*).

Three new chitons of the genus *Lepidozona* Pilsbry, 1892 (Polyplacophora: Ischnochitonidae) from the Aleutian Islands. - *Nemouria* 42: 1-16 (: 3; figs 1-7).

Type locality: United States of America: South of Semisopochnoi Island, Rat Islands, Aleutian Islands, Alaska (51°53.34'N, 179°45.58'E), 121 m.

† **beskidensis** Plička, 1981 *Chiton*.

Chiton beskidensis n. sp. from the Upper Cretaceous (upper Godula beds) in the Moravskoslezské Beskydy (mountains), Czechoslovakia. - *Západné Karpaty, série paleontológia* 6: 25-30 (: 26; pl. 12, figs 1-2, textfig.).

Type locality: Czech Republic: Nýdek, a brook, 2.7 km SE from the village

Geological age: Upper Cretaceous.

† **biformis** Yu, 1987 *Yunnanopleura*.

Yangtze Micromolluscan fauna in Yangtze region of China with notes on Precambrian-Cambrian boundary. 19-275, pls 1-68. In: *Stratigraphy and Palaeontology of systemic boundaries in China. Precambrian-Cambrian Boundary* (1). compiled by Nanjing Institute of Geology and Palaeontology, Academia Sinica (Nanjing University Publishing House) (: 128; pl. 17, figs 1-8; pl. 18, figs 1-9; text fig. 43).

Type locality: China: at Xianfeng, Baizai of Xundian, eastern Yunnan (Tongying formation), *Yangtzeomus priscus* - *Archaeospira ornata* assemblage, Zhongyicun member.

Geological age: Lower Cambrian.

boucheti Sirenko, 2001 *Leptochiton*.

Deep-sea chitons (Mollusca, Polyplacophora) from sunken wood off New Caledonia and Vanuatu. In: P. Bouchet & B. A. Marshall (eds) *Tropical Deep-Sea Benthos, volume 22*. - *Mémoires du Muséum national d'Histoire naturelle* 185: 39-71 (: 49; figs 65-80, 174-177).

Type locality: Vanuatu: NE of Epi Island, 16°28'S, 167°54'E [Musorstom 8, st. CP 1054], 522-527 m.

† **buicki** Gowlett-Holmes, 1992 *Notoplax*.

A new species of Tertiary *Notoplax* (Mollusca: Polyplacophora: Acanthochitonidae) from South Australia. - *Journal of the Malacological Society of Australia* 13: 31-34 (: 31; fig. 1).

Type locality: Australia: collected from 91 m (300 feet), Angus Home Bore, Parafield Gardens, Section 2259, Hundred of Yatala, County Adelaide, South Australia (34°47'06''S 138°36'26''E), Dry Creek Sands.

Geological age: Late Pliocene.

burghardtae (*nomen correctum* for *burhardtae* in Reyes-Gómez & Salcedo-Vargas, 2002 The recent Mexican chiton (Mollusca: Polyplacophora) species. - *The Festivus* 34 (2): 17-27 [: 23]) Clark, 2000 *Acanthochitona*.

The chiton fauna of the Gulf of California Rhodolith beds (with descriptions of four new species). - *Nemouria* 43: 1-19 (: 13; figs 20-25).

Type locality: Mexico: Gulf of California, Canal de San Lorenzo, about 40 km N of La Paz, Baja California (24°21'N, 111°15'W), 12 m.

callisto Clark, 2002 *Micichiton*.

A new species of chiton from The Aleutian Islands. - *Nemouria* 46: 1-6 (: 2; figs 1-6).

Type locality: United States of America: Alaska, Aleutian Islands, Andreanof Islands, point at east side of entrance to Crescent Bay, NW end of Atka Island (Bering Sea) (52°02'N 174°14'W), 10 m, on coralline algae (*Lithothamnion*?) encrusted rock ledge.

† **cancellatus** Bielokrys, 1999 *Ischnochiton*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 7; pl. 1, figs 1-3).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk.

Geological age: Late Eocene.

† **cancellus** DeBrock, Hoare & Mapes, 1984 *Pileochiton*.

Pennsylvanian (Desmoinesian) Polyplacophora (Mollusca) from Texas. - *Journal of Paleontology* 58 (4): 1117-1135 (: 1125; figs 2E, F; 5A-T).

Type locality: United States of America: the Lazy Bend Formation is exposed 30 m north of where Farm to Market Road 1189 crosses Rocky Branch, a small tributary of Kickapoo Creek, approximately 8.5 km northeast of Lipan and 0.75 km south of Kickapoo Falls, Hood County, Texas, Dennis 7½' quadrangle.

Geological age: Carboniferous.

† **capecchii** Chirli, 2004 *Chiton*.

Malacofauna Pliocenica Toscana. Vol. 4. Polyplacophora Gray, J. E., 1821; Monoplacophora Odhner, 1940; Archaeogastropoda Thiele, 1925. 157 pp., 41 pls. (: 12; pl. 3, figs 17-18; pl. 4, figs 1-16).

Type locality: Italy: Tuscan, Poggio alla Fame.

Geological age: Pliocene.

† **carinatus** Bielokrys, 1999 *Schizochiton*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 12; pl. 1, figs 8-11).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk.

Geological age: Late Eocene.

† **carpenteri** Hoare, 2002 *Helminthochiton*.

European Paleozoic Polyplacophora, Multiplacophora, and Turrelpadida in United States repositories. - *Journal of Paleontology* 76 (1): 95-108 (: 95; figs 1.1-1.9).

Type locality: Germany: Villmar, Stringocephalenkalk Geological age: Devonian.

christamariae Schwabe, 2003 *Callochiton*.

Taxonomic notes on chitons. 3. Notes on the genus *Callochiton* Gray, 1847 (Mollusca: Polyplacophora: Callochitonidae) from the Indian ocean. - *Malakologische Abhandlungen* 21: 19-27 (: 19; figs 1.1, 2.1-2.12).

Type locality: Mauritius: E coast c. 4 km north of Trou d'Eau Douce, under pieces of corals in 0.5 m depth).

† ***chubutensis*** Hoare & Sabattini, 2000 *Asketochiton*.

Lower Permian Polyplacophora (Mollusca) from Argentina. - *Journal of Paleontology* 74 (2): 189-191 (: 189; figs 2.1-2.9).

Type locality: Argentina: Chubut Province at the Ferraroti locality, Rio Genoa Formation.

Geological age: Lower Permian.

† ***collectus*** Hoare & Cook, 2000 *Gryphochiton*.

Devonian and Early Carboniferous Polyplacophora from Western Australia. - *Memoirs of the Queensland Museum* 45 (2): 395-403 (: 396; figs 1A-B, 2).

Type locality: Australia: Septimus Limestone, low spur on NW side of Mt Septimus, Ivanhoe Station, Bonaparte Gulf Basin, West Australia (15°42.5'S, 128°59.22'E).

Geological age: Carboniferous.

compostellanum Carmona Zalvide & Urgorri, 1999 *Leptochiton* (*Leptochiton*).

Description of two new species of Mollusca Polyplacophora from the Iberian Atlantic coast: *Leptochiton* (*L.*) *gascognensis* Kaas and Van Belle, 1985 and *L.* (*L.*) *compostellanum* sp. nov. - *Iberus* 17 (2): 97-107 (: 104; figs 22-39).

Type locality: Spain: Galicia (43°20.00-20.37'N, 09°34.48'-34.54'W), 753-836 m.

† ***comptus*** Hoare & Smith, 1984 *Ochmazochiton*.

Permian Polyplacophora (Mollusca) from West Texas. - *Journal of Paleontology* 58 (1): 82-103 (: 87; figs 2, 3).

Type locality: United States of America: Bone Spring Formation: 32.4 m above Hueco Limestone on East side of hill 4402, North end of Baylor Mountains, West side of Texas Highway 54, 0.97 km S 22° W of bench mark 3806, Van Horn quadrangle [Location USNM 725d].

Geological age: Permian.

† ***concisus*** Hoare, 1999 *Arcochiton*.

New occurrences and a new species of Pennsylvanian Polyplacophorans (Mollusca) in Ohio. - *Ohio Journal of Sciences* 99 (3): 49-52 (: 99; figs 2.20-2.28).

Type locality: United States of America: Boggs? limestone exposed in roadcut on the east side of Ohio 146 approx. 5.0 km north of Dillon Falls, on the east side of Dillon Lake, just south of road elevation 788, Falls Twp., Muskingum Co., Dresden 7.5' quadrangle. Geological age: Carboniferous.

† ***cordatus*** Hoare & Farrell, 2004 *Chelodes*.

Lower Devonian Polyplacophora from New South Wales, Australia. - *Palaeontology* 47 (6): 1495-1506 (: 1498; pl. 1, figs 1-19).

Type locality: Australia: New South Wales, Garra Formation, „GAP“ section.

Geological age: Lower Devonian.

Synonyms:

Chelodes intermedius; Farrell, 1992: 32 (partim); pl. 6, figs 32-33, 35-37 (Farrell, J. R., 1992 The Garra Formation (Early Devonian: Late Lachkovian) between Cumnock and Larras Lee, New South Wales, Australia: stratigraphic and structural setting, faunas and community sequence. - *Palaeontographica Abteilung A*, 222: 1-41).

† ***corrugata*** Bischoff, 1981 *Cobcrephora*.

Cobcrephora n. g., representative of a new polyplacophoran order Phosphatoloricata with calciumphosphatic shells. - *Senckenbergiana lethaea* 61 (3-6): 173-215 (: 192; pl. 2, figs 31-33).

Type locality: Australia: New South Wales: about 21 km West of Orange: Quarry Creek Limestone (type section), Panuara Group, sample QCr 11 (6.4 m above base of limestone). Outcrops at south bank of Quarry Creek (33°17'34''S 148°52'15''E; 1 : 250 000 geol. sheet S I 55-8 Bathurst), *amorphognathoides* Zone.

Geological age: Silurian.

corteziana Clark, 2000 *Lepidochitona*.

The chiton fauna of the Gulf of California Rhodolith beds (with descriptions of four new species). - *Nemouria* 43: 1-19 (: 10; figs 15-19).

Type locality: Mexico: Gulf of California, Canal de San Lorenzo, about 40 km N of La Paz, Baja California, (24°21'N, 111°15'W), 12 m.

† ***coxi*** Hoare & Smith, 1984 *Stegochiton*.

Permian Polyplacophora (Mollusca) from West Texas. - *Journal of Paleontology* 58 (1): 82-103 (: 99; figs 10A-I).

Type locality: United States of America: Skinner Ranch Formation (lower): At break in slope 2.18 km S 83° W of hill 5816, 0.54 km N 30° W of hill 5305, North side of Hess Ranch Horst, Hess Canyon quadrangle [Location USNM 720g].

Geological age: Permian.

† ***curiosus*** Hoare, 2000 *Plasiochiton*.

Considerations on Paleozoic Polyplacophora including the description of *Plasiochiton curiosus* n. gen. and sp. - *American Malacological Bulletin* 15 (2): 131-137 (: 135; fig. 6).

Type locality: United States of America: Devonian Sherman Ridge Member of the Mahantango Formation exposed in an abandoned shale pit at the intersection of U.S. 11-15 and Pennsylvania 104, Perry Co., Pennsylvania, 40°36.52'N, 76°57.21'W, Millersburg 7.5 minute quadrangle.

Geological age: Devonian.

† **decora** Cherns, 1998 *Enetoplax*.

Silurian Polyplacophoran Molluscs from Gotland, Sweden. - *Palaeontology* 41 (5): 939-974 (: 961; pls 7-8).

Type locality: Sweden: Möllbus-I, Gotland Island, Halla Formation.

Geological age: Silurian.

† **decorus** Hoare & Mapes, 1985 *Colapterochiton*.

New Mississippian and Pennsylvanian Polyplacophora (Mollusca) from North America. - *Journal of Paleontology* 59 (4): 875-881 (: 878; figs 2.1-2.14).

Type locality: United States of America: The Gene Autry Formation (Morrowan) exposed in a series of gullies striking east-west on the east side of an unnamed tributary to Sycamore Creek on the Daube Ranch, NW¼, NW¼, SW¼ sec. 2, T4S, R4E, Johnston Co., Oklahoma, Ravia 7½' quadrangle.

Geological age: Carboniferous.

deecresswellae Anseeuw & Terryn, 2002 *Leptochiton* (*Leptochiton*).

Leptochiton (*Leptochiton*) **deecresswellae** (Mollusca: Polyplacophora), a new deep-sea chiton from New Zealand. - *Gloria Maris* 41 (4-5): 76-83 (: 77; pl 1-3).

Type locality: New Zealand: off east Otago Heads, edge of Papanui Canyon, on mud and coarse sand bottom, 600 m.

deforgesi Sirenko, 2001 *Leptochiton*.

Deep-sea chitons (Mollusca, Polyplacophora) from sunken wood off New Caledonia and Vanuatu. In: P. Bouchet & B. A. Marshall (eds) *Tropical Deep-Sea Benthos*, volume 22. - *Mémoires du Muséum national d'Histoire naturelle* 185: 39-71 (: 51; figs 81-96, 178-179).

Type locality: Vanuatu: NE of Epi Island, 16°28'S, 167°54'E [Musorstom 8, st. CP 1054], 522-527 m.

† **demissus** Hoare, 2001 *Gryphochiton*.

Early Mississippian Polyplacophora (Mollusca) from Iowa. - *Journal of Paleontology* 75 (1): 66-74 (: 66; figs 2.1-2.27).

Type locality: United States of America: Gilmore City Formation (Humboldt Member) exposed in the east pit of P. & M. quarry, 3.8 km northeast of the intersection of Highways 3 and 169 on the northwest side of the East Fork of Des Moines River, northeast of Humboldt, Humboldt Co., Iowa.

Geological age: Lower Carboniferous.

denhartogi Strack, 2003 *Leptochiton*.

Leptochiton **denhartogi**, a new species of Polyplacophora (Mollusca) from Angola. - *Zoologische Verhandelingen, Leiden* 345: 409-412 (: 409; figs 1-8).

Type locality: Angola: off Luanda, 50-60 m, attached to stones or dead shells.

† **depressolatus** Hoare & Farrell, 2004 *Acutichiton*.

Lower Devonian Polyplacophora from New South Wales, Australia. - *Palaeontology* 47 (6): 1495-1506 (: 1504; pl. 3, figs 1-17).

Type locality: Australia: New South Wales, Garra Formation, „GAP“ section.

Geological age: Lower Devonian.

dicksae Sirenko & Hayes, 1999 *Lepidochitona*.

A new species of *Lepidochitona* (Mollusca, Polyplacophora) from South Africa. - *Ruthenica* 9 (2): 81-86 (: 81; figs 1-4).

Type locality: Republic of South Africa: Noordhoek, Algoa Bay, Indian Ocean, 20 metres deep, on base of a sea fan.

disalvoi Dell'Angelo, Raines & Bonfitto, 2004 *Rapanuia*.

The Polyplacophora of Easter Island. - *The Veliger* 47 (2): 130-140 (: 135; figs 4-6).

Type locality: Chile: Easter Islands, Hanga Nui.

† **discomptus** DeBrock, Hoare & Mapes, 1984 *Pedanochiton*.

Pennsylvanian (Desmoinesian) Polyplacophora (Mollusca) from Texas. - *Journal of Paleontology* 58 (4): 1117-1135 (: 1123; figs 2C, D; 4A-Z, AA, BB).

Type locality: United States of America: the Lazy Bend Formation is exposed 30 m north of where Farm to Market Road 1189 crosses Rocky Branch, a small tributary of Kickapoo Creek, approximately 8.5 km northeast of Lipan and 0.75 km south of Kickapoo Falls, Hood County, Texas, Dennis 7½' quadrangle.

Geological age: Carboniferous.

† **disdoma** Conway Morris in Bengtson, Conway Morris, Cooper, Jell & Runnegar, 1990 *Triplicatella*.

Early Cambrian fossils from South Australia. - *Memoir of the Association of Australasian Paleontologists* 9: 1-364 (: 232; figs 157, 158).

Type locality: Australia: South Australia: Yorke Peninsula, Limestone c. 2.5 m above UNEL1763B [= Trilobite bed in Curramulka Quarry section {about 1 km SSW of Curramulka - 34°42'S 137°42'E}] (*Abadiella huoi* Zone, Parara Lst.) [UNEL1848].

Geological age: Cambrian.

Described as a probable operculum of an undiscovered tubular fossil of uncertain systematic position, but referred to Polyplacophora in:

Yates, A. M., Gowlett-Holmes, K. L. & McHenry, B. J., 1992. *Triplicatella disdoma* Conway Morris, 1990, reinterpreted as the earliest known polyplacophoran. - *Journal of the Malacological Society of Australia* 13: 71.

† **distinctus** Hoare, Plas & Yancey, 2002 *Gryphochiton*.

Permian Polyplacophora (Mollusca) from Nevada, Utah, and Arizona. - *Journal of Paleontology* 76 (2): 256-264 (: 256; fig. 2).

Type locality: United States of America: Bird Springs Formation (USMP D-5252) exposed along the west side of the ridge on both sides of the east-west road SW 1/4, NM 1/4 sec. 26, T15S, R64E, approx. 10 km northwest of Interstate 15 where the road to the range front passes through the gap between Lookout Hill and the ridge to the north in the Arrow Canyon Range about 96.5 km northeast of Las Vegas, Clark Co., Nevada. Arrow Canyon SE 7.5' quadrangle.
Geological age: Permian.

† *dolii* Van Belle & Dell'Angelo, 1998 *Ischnochiton*.

Description of a new species *Ischnochiton dolii* sp. nov. (Polyplacophora: Ischnochitonidae) from Civitavecchia, Italy. - *Apex* 13 (1-2): 77-79 (: 77; figs 1-5).

Type locality: Italy: off Civitavecchia (Tyrrhenian Sea), - 550 m.

† *dufoei* Pojeta, Eernisse, Hoare & Henderson, 2003 *Echinochiton*.

Echinochiton dufoei: a new spiny Ordovician chiton. - *Journal of Paleontology* 77 (4): 646-654 (: 650; figs 1-7).

Type locality: United States of America: bed near the top of a quarry on the north side of Wisconsin State Route 213, Rock County, Wisconsin, west of Beloit. (SE 1/4, NW 1/4, SE 1/4 of sec. 25, T1N, R11E (Newark Quadrangle)) from the Forrester Member, Grand Detour Formation, Platteville Group, and are Blackriveran in age.

Geological age: Middle Ordovician.

† *eckelsheimensis* Gürs, 1992 *Lepidopleurus*.

Zwei neue Polyplacophorenarten (Mollusca) aus marinen Küstenablagerungen des Mainzer Beckens und der Kasseler Bucht (Oligozän, Rupelium und Chattium). - *Geologisches Jahrbuch Hessen* 120: 5-9 (: 6; pl. 1, figs 1a-e).

Type locality: Germany: marine sandy sediments of the Mainz Basin, ancient sandpit Gaul am Steigerberg, near Eckelsheim [ehemalige Sandgrube Gaul am Steigerberg bei Eckelsheim], sandy backfilling in Zwickeln of a boulder layer [Sandige Verfüllung in Zwickeln eines Geröllhorizontes].

Geological age: Oligocene.

† *elaboratus* Bielokryz, 2000 *Lepidopleurus*.

Lepidopleurida (Polyplacophora) from the Upper Eocene of Ukraine. - *Paleontologicheskii Zhurnal* 2000 (2): 47-52 (: 49; pl. 4, figs 8-9).

Type locality: Ukraine: near Dnepropetrovsk, left bank of the Dnieper River, Mandrikovka beds.

Geological age: Upper Eocene.

† *elimatus* Hoare & Mapes, 1986 *Glaphurochiton*.

The Polyplacophoran "*Chiton*" *carbonarius* Stevens, 1858, in North America and new related species. - *Journal of Paleontology* 60 (3): 627-635 (: 632; figs 3.1-3.15).

Type locality: United States of America: Ames Shale exposed in bottom of an abandoned quarry on the east side of US 92, 1.1 km northeast of Dent, Preston Co., West Virginia. Fellowship 7½' quadrangle.

Geological age: Carboniferous.

Synonyms:

Glaphurochiton carbonarius; Raymond, 1910: 153, pl. 26, fig. 6 [non pl. 28, figs 15, 16] (Raymond, P. E., 1910. A preliminary list of the fauna of the Allegheny and Conemaugh series in Western Pennsylvania. - *Annals of the Carnegie Museum* 7 (1): 144-158, pls 24-28).

Pterochiton sp. A.; Hoare & Sturgeon, 1979: pl. 2, figs 10-11 (Hoare, R. D. & Sturgeon, M. T., 1979 Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America. - *8th International Congress of Carboniferous Stratigraphy and Geology, Compte Rendu* 3: 176-183, pls 1-3).

† *ellipticus* Hoare, 2001 *Euleptochiton*.

Early Mississippian Polyplacophora (Mollusca) from Iowa. - *Journal of Paleontology* 75 (1): 66-74 (: 67; figs 3.1-3.18).

Type locality: United States of America: Gilmore City Formation (Humboldt Member) exposed in the east pit of P. & M. quarry, 3.8 km northeast of the intersection of Highways 3 and 169 on the northwest side of the East Fork of Des Moines River, northeast of Humboldt, Humboldt Co., Iowa.

Geological age: Lower Carboniferous.

† *elongata* Stinchcomb & Darrough, 1995 *Hemithecella*.

Some molluscan Problematica from the Upper Cambrian - Lower Ordovician of the Ozark Uplift. - *Journal of Paleontology* 69 (1): 52-65 (: 62; figs 7.10, 7.11).

Type locality: United States of America: Red-orange cherts of the upper part of the Eminence Formation associated with large hemispheroidal stromatolites in unsectioned French land grant in what would be NE¼, NE¼, sec. 18, T38N, R3W, Washington Co., Missouri, Old Mines, Missouri, 7½' quadrangle. Reliability index B. [Locality H-2].

Geological age: Upper Cambrian.

† *elongatus* Yu, 1984 *Yangtzechiton*.

Early Cambrian molluscan faunas of Meishucun stage with special reference to Precambrian-Cambrian boundary. pp. 21-35 In: Su, Zongwei [Ed.]. *Contribution to 27th International Geological Congress, 1984, Moscow*. Developments in geoscience. Science Press, Beijing: i-vi, 1-677 (: 25; pl. 1, figs 1-7).

Type locality: China: East Yunnan [Sheng]: Zhongyicun member of Dengying Formation, Jinning [Xian].

Geological age: Lower Cambrian.

† **eminensis** Stinchcomb & Darrough, 1995 *Hemithecella*.

Some molluscan Problematica from the Upper Cambrian - Lower Ordovician of the Ozark Uplift. - *Journal of Paleontology* 69 (1): 52-65 (: 61; figs 7.7-7.9, 7.12).

Type locality: United States of America: Cherts of the Eminence Formation in abandoned barite pits 2-4 km north of Potosi, Washington Co., Missouri; locality in unsectioned area east of Missouri Highway 21. Potosi 7½' quadrangle. Reliability index C. [Locality I].

Geological age: Upper Cambrian.

† **etheridgei** Smith & Hoare, 1987 *Acutichiton*.

Paleozoic Polyplacophora: A checklist and bibliography. - *Occasional Papers of the California Academy of Sciences* 146: 1-71 (: 27).

Type locality: England: from the Main or Hurlet Limestone, Law Quarry, near Dalry, Ayrshire.

Geological age: Lower Carboniferous.

Synonym:

Chiton cordatus; Etheridge, 1882: 93-94, pl. 1, figs 20-22 (Etheridge, R. (Jr.), 1882. A contribution to the study of the British Carboniferous Chitonidae. - *Proceedings of the Natural History Society of Glasgow* 5: 84-107, pls 1-2).

† **etruscus** Dell'Angelo & Forli, 1995 *Chiton* (*Rhyssoplax*).

I Polyplacophora del Pleistocene Inferiore di Riparbella (Pisa), con Elenco dei Molluschi Rinvenuti. - *Bollettino Malacologico* 30 (9-12) (1994): 221-252 (: 233; figs 2-5, 9, 19).

Type locality: Italy: Riparbella (Pisa): from a sedimentary matter that can be referred to lower Pleistocene, and mainly formed by yellow-orange thin sands, with sandy limestone and lens of sandy clays inserted, situated near Riparbella (Pisa prov.), along the provincial route n. 13 at km. 2,500 [da un corpo sedimentario riferibile al Pleistocene inferiore e costituito in prevalenza da sabbie fini, giallo arancio, con intercalazioni di calcareniti sabbiose e lenti di argille sabbiose, situato nei pressi di Riparbella (Pisa), lungo la strada provinciale n. 13 al km 2,500].

Geological age: Pleistocene.

† **formosus** Hoare & Cook, 2000 *Compsochiton*.

Devonian and Early Carboniferous Polyplacophora from Western Australia. - *Memoirs of the Queensland Museum* 45 (2): 395-403 (: 398, figs 1C, D, 3).

Type locality: Australia: Septimus Limestone, low spur on NW side of Mt Septimus, Ivanhoe Station, Bonaparte Gulf Basin, West Australia (15°42.5'S, 128°59.22'E).

Geological age: Carboniferous.

† **fornicis** Hoare & Smith, 1984 *Lekiskochiton*.

Permian Polyplacophora (Mollusca) from West Texas. - *Journal of Paleontology* 58 (1): 82-103 (: 95; figs 70-X).

Type locality: United States of America: Road Canyon Formation: At 1484 m elevation, 2.19 km S 4° W of Willis Ranch, 1.57 km N 68° E of hill 5801, Hess Canyon quadrangle [Location USNM 726d].

Geological age: Permian.

gallaecus Carmona-Zalvide, Urgorri & García, 2001 *Ischnochiton* (*Stenosemus*).

Ischnochiton (*Stenosemus*) *gallaecus* spec. nov. (Mollusca, Polyplacophora), an Atlantic species from the Iberian Peninsula. - *Iberus* 19 (2): 1-7 (: 2; figs 1-20).

Type locality: Spain: Quiniela (Galicia), 43°17'22"-52°N 9°36'38"-45°W, at 752 m; in strong currents, attached to a stone on bottoms with ferromanganese nodules, calcareous plaques and coral slag.

† **gazdzickii** Dzik, 1986 *Carnicoleus*.

Turrilepadida and other Machaeridia. In: Hoffman, A. & M. H. Nitecki (eds) *Problematic Fossil Taxa*, 116-134. Oxford University Press, New York (: 133; fig. 10 A-D).

Type locality: Austria: Carnic Alps: Valentin Törl, Orthoceras Limestone.

Geological age: Silurian.

† **gerki** Hoare, 2001 *Platychiton*.

Early Mississippian Polyplacophora (Mollusca) from Iowa. - *Journal of Paleontology* 75 (1): 66-74 (: 70; figs 4.1-4.20).

Type locality: United States of America: Gilmore City Formation (Humboldt Member) exposed in the east pit of P. & M. quarry, 3.8 km northeast of the intersection of Highways 3 and 169 on the northwest side of the East Fork of Des Moines River, northeast of Humboldt, Humboldt Co., Iowa.

Geological age: Lower Carboniferous.

† **girtyi** Hoare & Smith, 1984 *Helminthochiton*.

Permian Polyplacophora (Mollusca) from West Texas. - *Journal of Paleontology* 58 (1): 82-103 (: 92; figs 6; 7A-G).

Type locality: United States of America: Road Canyon Formation: At 1484 m elevation, 2.19 km S 4° W of Willis Ranch, 1.57 km N 68° E of hill 5801, Hess Canyon quadrangle [Location USNM 726d].

Geological age: Permian.

† **gracilis** Hoare, Plas & Yancey, 2002 *Acutichiton*.

Permian Polyplacophora (Mollusca) from Nevada, Utah, and Arizona. - *Journal of Paleontology* 76 (2): 256-264 (: 257; fig. 3).

Type locality: United States of America: Bird Springs Formation exposed on the cap of a low bench near the quarter corner between secs. 4 an 9, T18S, R64E, 22 km SSW of D-5252, Dry Lake Range, Clark Co., Nevada, Dry Lake 7.5' quadrangle.

Geological age: Permian.

† *guizhouensis* Feng, 1992 *Sinochiton*.

First discovery of Middle Triassic Polyplacophora (Mollusca) in China. - *Gushengwu-xuebao (Acta Palaeontologica Sinica)* 31 (6): 724-729, pl. 1 (: 31; pl. 1, figs 1-8, text-figs 1-2).

Type locality: China: Xinyuan Formation of lower Middle Triassic in southwestern Guizhou.

Geological age: Middle Triassic.

habei Saito, 1997 *Leptochiton*.

Deep-sea chiton fauna of Suruga Bay (Mollusca: Polyplacophora) with descriptions of six new species. - *National Science Museum Monographs, Tokyo* 12: 31-58, pls 1-2 (: 44; figs 1D, 7; pl. 2, fig. 1).

Type locality: Japan: Honshu: Suruga Bay, off Kogane-zaki, Izu Peninsula, 200-300 m depth.

† *hirtus* Bielokrys, 1999 *Schizochiton*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 13; pl. 2, fig. 11).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk.

Geological age: Late Eocene.

hodgsoni Sirenko, 2000 *Parachiton*.

A new and unusual species of *Parachiton* (Mollusca: Polyplacophora) from South Africa. - *African Zoology* 35 (1): 93-98 (: 93; figs 1-4).

Type locality: Republic of South Africa: False Bay, Glencairns, 34°10'S, 18°27'E, under stones at low-water mark.

† *humboldtensis* Hoare, 2001 *Angulochiton*.

Early Mississippian Polyplacophora (Mollusca) from Iowa. - *Journal of Paleontology* 75 (1): 66-74 (: 72; figs 5.1-5.12).

Type locality: United States of America: Gilmore City Formation (Humboldt Member) exposed in the east pit of P. & M. quarry, 3.8 km northeast of the intersection of Highways 3 and 169 on the northwest side of the East Fork of Des Moines River, northeast of Humboldt, Humboldt Co., Iowa.

Geological age: Lower Carboniferous.

† *hystricosus* Hoare & Mapes, 1996 *Aenigmatectus*.

Late Paleozoic problematic sclerites of Hercolepadid affinities. - *Journal of Paleontology* 70 (3): 341-347 (: 342; figs 1, 2, 3.1-3.9).

Type locality: United States of America: Boggs limestone exposed in roadcut on the east side of Ohio Rte. 146, on the east side of Dillon Reservoir, approximately 13.5 km northwest of Zanesville, east cent. NW¼, sec. 2, Falls Twp., Muskingum County, Dresden 7½' quadrangle (GSO #16866).

Geological age: Carboniferous.

Described as probable Hercolepadid of uncertain systematic position. Referred to Polyplacophora in:

Vendrasco, M. J., Wood, T. E. & Runnegar, B. N., 2004. Articulated Palaeozoic fossil with 17 plates greatly expands disparity of early chitons. - *Nature* 96

429 (6989): 288-291 (supplement files available under <http://www.nature.com/nature>) (: 291).

† *implumis* Bielokrys, 1999 *Tonicella*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 11; pl. 2, figs 1-3).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk.

Geological age: Late Eocene.

† *jansseni* Gürs, 1995 *Lepidopleurus*.

Revision der marinen Molluskenfauna des Unteren Meeressandes (Oligozän, Rupelium) des Mainzer Beckens. Dissertation zur Erlangung des Doktorgrades an der Johannes Gutenberg Universität Mainz. 319 pp. (: 22; pl. 2, figs 1-5). Not available name, but species description in preparation (pers. comm. Karl Gürs).

Type locality: Germany: marine sandy sediments of the Mainz Basin, ancient sandpit Gaul am Steigerberg, near Eckelsheim [ehemalige Sandgrube Gaul am Steigerberg bei Eckelsheim], sandy backfilling in Zwickeln of a boulder layer [Sandige Verfüllung in Zwickeln eines Geröllhorizontes].

Geological age: Oligocene.

japonica Saito, 1997 *Hanleyella*.

Deep-sea chiton fauna of Suruga Bay (Mollusca: Polyplacophora) with descriptions of six new species. - *National Science Museum Monographs, Tokyo* 12: 31-58, pls 1-2 (: 48; figs 8, 9; pl. 2, fig. 3).

Type locality: Japan: Honshu: Suruga Bay, SW of Heda, 370-400 m depth, DG93-8 (34°58.0'N 138°44.2'E).

jeareyae Dell'Angelo & Mifsud, 1998 *Callochiton*.

Callochiton jeareyae, a new species from South Africa (Mollusca, Polyplacophora). - *Bollettino Malacologico* 33 (1-4): 25-28 (: 25; figs 1-15).

Type locality: Republic of South Africa: Algoa Bay, - 15 m.

jordanensis Anseeuw & Terryn, 2004 *Leptochiton (Parachiton)*.

Intertidal chitons (Mollusca: Polyplacophora) from the coast of Jordan, Red Sea, with the description of a new species of *Parachiton* Thiele, 1909. - *Bollettino Malacologico*, Suppl. 5 [2003]: 1-24 (: 4; pl. 2, figs 7-15 [not 17 as mentioned in original description]; pl. 5, figs 32-35).

Type locality: South Jordan: between Saudi border and Potash Salt factory (locality # 6), on a dead *Terebra dimidiata*, on sandy bottom, -3 m, in open space in coral flat.

† *juxtaterminus* Hoare & Mapes, 1985 *Elachychiton*.

New Mississippian and Pennsylvanian Polyplacophora (Mollusca) from North America. - *Journal of Paleontology* 59 (4): 875-881 (: 880; figs 3.1-3.12).

Type locality: United States of America: The Imo Formation (Chesterian) exposed in a roadcut just

south of the Van Buren County border on U.S. Highway 65, approximately 6.4 km southeast of Leslie, Searcy Co., Arkansas, NW¼ sec. 11, T13N, R15W, Leslie 7½' quadrangle, just above the middle of three limestone units.
Geological age: Carboniferous.

kaasi Saito, 1997 *Connexochiton*.

Deep-sea chiton fauna of Suruga Bay (Mollusca: Polyplacophora) with descriptions of six new species. - *National Science Museum Monographs, Tokyo* 12: 31-58, pls 1-2 (: 50; figs 10-12; pl. 2, fig. 5).
Type locality: Japan: Honshu: Suruga Bay, South Senoumi bank, 92 m depth, DG95-7 (34°38.4'N 138°28.6'E).

kaasi Carmona Zalvide & García, 2000 *Lepidochitona*.
El género *Lepidochitona* Gray, 1921 (sic!) (Mollusca, Polyplacophora) en el litoral Atlántico de la Península Ibérica. - *Iberus* 18 (2): 17-30 (: 24; fig. 3).
Type locality: Spain: Isla las Palomas de Tarifa, Cádiz (36°01.8'N, 05°36.22'E), intertidal.

karenae Sirenko, 2001 *Ferreiraella xylophaga* ssp.
Deep-sea chitons (Mollusca, Polyplacophora) from sunken wood off New Caledonia and Vanuatu. In: P. Bouchet & B. A. Marshall (eds) *Tropical Deep-Sea Benthos, volume 22*. - *Mémoires du Muséum national d'Histoire naturelle* 185: 39-71 (: 57; figs 132-146, 184-191).
Type locality: Vanuatu: SE of Espiritu Santo Island, 15°48'S, 167°24'E [Muserstom 8, sta. CP1074], 775-798 m.

† **kielcensis** Dzik in Dzik, Olempska & Pisera, 1994 *Sarkachiton*.
Machaeridians, Chitons, and Conchiferan Molluscs of the Mójca Limestone. In: J. Dzik, Olempska, E. & A. Pisera, 1994. Ordovician carbonate platform ecosystem of the Holy Cross Mountains. - *Palaeontologia Polonica* 53 (1): 213-252, pls 52-56 (: 222; pl. 53, figs 8-10, text-figs 3c-g).
Type locality: Poland: Mójca Limestone section at Mójca, Holy Cross Mountains, 1.5 m above the bentonite (sample MA-5), *Amorphognathus tvaerensis* Zone.
Geological age: Ordovician.

† **knighti** Hoare & Smith, 1984 *Chauliochiton*.
Permian Polyplacophora (Mollusca) from West Texas. - *Journal of Paleontology* 58 (1): 82-103 (: 96; figs 8; 9A-J).
Type locality: United States of America: Bone Spring Formation: 32.4 m above Hueco Limestone on East side of hill 4402, North end of Baylor Mountains, West side of Texas Highway 54, 0.97 km S 22° W of bench mark 3806, Van Horn quadrangle [Location USNM 725d].
Geological age: Permian.

† **lira** Cherns, 1998 *Alastega*.
Silurian Polyplacophoran Molluscs from Gotland, Sweden. - *Palaeontology* 41 (5): 939-974 (: 953; pl. 4, text fig. 4).
Type locality: Sweden: Möllbus-I, Gotland Island, Halla Formation.
Geological age: Silurian.

littlerorum Sirenko, 2003 *Choneplax*.
First Pacific species of the genus *Choneplax* (Mollusca: Polyplacophora). - *Ruthenica* 13 (1): 33-39 (: 33; figs 1A-H, 2, 3, 4A-C).
Type locality: American Samoa: Tutuila Island, Pago Pago Harbor, Goal Is. Point (14°16.659'S 170°40.926'W), 5-3 m, on crustose coralline algae.

lokii Clark, 1999 *Tonicella*.
The *Tonicella lineata* (Wood, 1815) species complex (Polyplacophora: Tonicellidae), with descriptions of two new species. - *American Malacological Bulletin* 15 (1): 33-46 (: 39; figs 17-24).
Type locality: United States of America: Coast Guard breakwater, Monterey Bay, Monterey County, California (36°45'N, 121°55'W), 0-13 m.

longispinus Saito, 2001 *Leptochiton*.
Chitons (Mollusca: Polyplacophora) collected by the R/V Kotaka-Maru from Tosa Bay, Western Japan, with descriptions of two new species. In: T. Fujita, H. Saito & M. Takeda (eds) *Deep-Sea Fauna and Pollutants in Tosa Bay*. - *National Science Museum Monographs* 20: 101-119 (: 111; figs 6, 7; pl. 1, figs 4-6).
Type locality: Japan: Central part of Tosa Bay (33°10.5'N, 133°41.3'E), 621-622 m.

† **lowenstami** Kluessendorf, 1987 *Hawthorneachiton*.
First report of Polyplacophora (Mollusca) from the Silurian of North America. - *Canadian Journal of Earth Science* 24 (3): 435-441 (: 438; fig. 3; pl. 1, fig. 2).
Type locality: United States of America: Illinois: Cook County: Cicero: Racine Dolomite, Hawthorne quarry of the Dolese and Shepard Company.
Geological age: Silurian.

† **lunatus** Hoare, 2000 *Pyknochiton*.
New Permian Polyplacophora (Mollusca) from Malaysia. - *Journal of Paleontology* 74 (4): 571-574 (: 573; figs 1.21-1.26).
Type locality: Malaysia: upper limestone exposed in the opencast H.S. Lee Mine No. 8 approx. 2.4 km southwest of Kampar on the road to the Tronoh Mines New Village in the Kinta Valley, Parak (4°18'N, 101°09'E).
Geological age: Permian.

† **magnacavus** Hoare & Mapes, 1996 *Aenigmatectus*.
Late Paleozoic problematic sclerites of Hercolepadid affinities. - *Journal of Paleontology* 70 (3): 341-347 (: 346; figs 3.10-3.17, 4.1-6).

Type locality: United States of America: An exposure of the Dickerson Shale 30 m north of where Farm to Market Road 1189 crosses Rocky Branch, a small tributary of Kickapoo Creek, approximately 8.5 km northeast of Lipan and 0.75 km south of Kickapoo Falls, Hood County, Texas, Dennis 7½' [wrongly cited as 71/7'].

Geological age: Carboniferous.

Described as probable Hercolepadid of uncertain systematic position. Referred to Polyplacophora in:

Vendrasco, M. J., Wood, T. E. & Runnegar, B. N., 2004. Articulated Palaeozoic fossil with 17 plates greatly expands disparity of early chitons. - *Nature* 429 (6989): 288-291 (supplement files available under <http://www.nature.com/nature>) (: 291).

† **magnificus** Hoare, 2000 *Kraterochiton*.

New Permian Polyplacophora (Mollusca) from Malaysia. - *Journal of Paleontology* 74 (4): 571-574 (: 571; figs 1.1-1.12).

Type locality: Malaysia: upper limestone exposed in the opencast H.S. Lee Mine No. 8 approx. 2.4 km southwest of Kampar on the road to the Tronoh Mines New Village in the Kinta Valley, Parak (4°18'N, 101°09'E).

Geological age: Permian.

† **marcoi** Dell'Angelo & Giusti, 1997 *Lepidochitona*.

Mediterranean Polyplacophora from a deep sea Taphocoenosis. - *La Conchiglia* 283: 51-58 (: 53; figs 8, 10, 12, 13, 15).

Type locality: Italy: Southern Ligurian Sea, between the southern tip of Corsica and the Capri Island, biocoenosis, between 350-500 m deep.

Geological age: Late Quaternary (last glaciation).

† **margitae** Dulai, 2001 *Cryptoplax*.

Middle Miocene (Badenian) Polyplacophora (Mollusca) remains from borehole Szokolya-2 (Börzsöny Mts, Hungary, Central Paratethys). - *Fragmenta Palaeontologica Hungarica* 19: 39-49 (: 45; pl. 4, figs 1-6).

Type locality: Hungary: Börzsöny Mts, borehole Szokolya-2, 92.7-93 m, marly sandstone.

Geological age: Middle Miocene.

† **martinelli** Dell'Angelo, Landau & Marquet, 2004 *Ischnochiton*.

Polyplacophora from the Pliocene of Estepona (Málaga, West Spain). - *Bollettino Malacologico*, Suppl. 5 [2003]: 25-44 (: 33; pl. 4, fig. 8, pl. 5, figs 1-4, 6-8; pl. 6, figs 1-8; pl. 7, fig. 1).

Type locality: Spain: Málaga: Velerín Curretera, near Estepona.

Geological age: Pliocene.

mauricejayi Schwabe, 2002 *Parachiton hylkiae* ssp.

A new subspecies of the genus *Parachiton* Thiele, 1909 from the Indian Ocean. - *Of Sea and Shore* 24 (4): 220-223 (: 220; figs 1-12; text fig. B).

Type locality: Reunion: St. Gilles les Bains, lagoon of Grand-Ford, under rocks in shallow water.

† **merriami** Hoare, 2000 *Thairoplax*.

Silurian Polyplacophora and Rostroconchia (Mollusca) from Northern California. - *Proceedings of the California Academy of Sciences* 52 (3): 23-31 (: 24; figs 2A-N).

Type locality: United States of America: 2 km southeast of Parker Ranch, East Fork of the Scott River, SW 1/4 sec. 29, T41N, R7W, Siskiyou County, California, Etna quadrangle, USGS locality M1027.

Geological age: Silurian.

† **milleri** Vendrasco & Runnegar, 2004 *Eukteanochiton*.

Late Cambrian and Early Ordovician stem group chitons (Mollusca: Polyplacophora) from Utah and Missouri. - *Journal of Paleontology* 78 (4): 675-689 (: 684; figs 4.1-4.2, 11, 12.1-12.13).

Type locality: United States of America: Red Tops Member of the Notch Peak Formation, *Saukiela junia* shelly fossil zone, at Steamboat Pass, midwestern Utah.

Geological age: Late Cambrian.

† **minimus** Yu, 1987 *Gotlandochiton*?

Yangtze Micromolluscan fauna in Yangtze region of China with notes on Precambrian-Cambrian boundary. 19-275, pls 1-68. In: *Stratigraphy and Palaeontology of systemic boundaries in China. Precambrian-Cambrian Boundary* (1). compiled by Nanjing Institute of Geology and Palaeontology, Academia Sinica (Nanjing University Publishing House) (: 125; pl. 15, figs 1-3; pl. 16, figs 1-8; text fig. 42).

Type locality: China: at Meishucun of Jinning, Xianfeng of Xundian, eastern Yunnan, *Yangtzeconus priscus*-*Archaeospira ornata* assemblage, Zhongyicun member.

Geological age: Lower Cambrian.

† **modestus** Yu, 1987 *Runnegarochiton*.

Yangtze Micromolluscan fauna in Yangtze region of China with notes on Precambrian-Cambrian boundary. 19-275, pls 1-68. In: *Stratigraphy and Palaeontology of systemic boundaries in China. Precambrian-Cambrian Boundary* (1). compiled by Nanjing Institute of Geology and Palaeontology, Academia Sinica (Nanjing University Publishing House) (: 108; pl. 6, figs 1-6; text figs 13, 35).

Type locality: China: at Meishucun of Jinning, Xianfeng of Xundian, eastern Yunnan, *Yangtzeconus priscus*-*Archaeospira ornata* assemblage, Zhongyicun member.

Geological age: Lower Cambrian.

† **multicavus** Bielokrysz, 1999 *Chiton*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 5; pl. 2, figs 1-6).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk
Geological age: Late Eocene.

mumuena Schwabe & Sliker, 2001 *Callochiton*.

A new species of *Callochiton* Gray, 1847 (Mollusca: Polyplacophora) from Western Samoa. - *Deinsea* 8: 225-228 (: 226; figs 1-6).

Type locality: Western Samoa: Savaii Island, Vaisala lagoon, under coral slab at about 1m depth.

† ***nevadensis*** Hoare, Plas & Yancey, 2002 *Acutichiton*.

Permian Polyplacophora (Mollusca) from Nevada, Utah, and Arizona. - *Journal of Paleontology* 76 (2): 256-264 (: 260; fig. 4).

Type locality: United States of America: Bird Springs Formation (USMP D-5252) exposed along the west side of the ridge on both sides of the east-west road SW 1/4, NM 1/4 sec. 26, T15S, R64E, approx. 10 km northwest of Interstate 15 where the road to the range front passes through the gap between Lookout Hill and the ridge to the north in the Arrow Canyon Range about 96.5 km northeast of Las Vegas, Clark Co., Nevada. Arrow Canyon SE 7.5' quadrangle.

Geological age: Permian.

† ***nodum*** Stinchcomb & Darrough, 1995 *Robustum*.

Some molluscan Problematica from the Upper Cambrian - Lower Ordovician of the Ozark Uplift. - *Journal of Paleontology* 69 (1): 52-65 (: 62; figs 6.16, 6.17).

Type locality: United States of America: Concentrations of fossiliferous chert of the Gasconade Formation in small valley along Elm Spring Branch in SW 1/4, NW 1/4, SE 1/4, sec. 11, T40N, R2W, Franklin Co., Missouri. Meramec State Park 7 1/2' quadrangle. Reliability index B. [Locality M-1].

Geological age: Lower Ordovician.

† ***notabilis*** Yu, 1987 *Tchangichiton*.

Yangtze Micromolluscan fauna in Yangtze region of China with notes on Precambrian-Cambrian boundary. 19-275, pls 1-68. In: *Stratigraphy and Palaeontology of systemic boundaries in China. Precambrian-Cambrian Boundary* (1). compiled by Nanjing Institute of Geology and Palaeontology, Academia Sinica (Nanjing University Publishing House) (: 104; pl. 4, figs 1-10; text fig. 33).

Type locality: China: at Tianzhushan of Yichang, western Hubei, *Yangtzeconus priscus*-*Archaeospira ornata* assemblage, Huangshandong Member.

Geological age: Lower Cambrian.

† ***ochtinensis*** Turek & Prokop, 1982 *Rhombichiton*.

Two remarkable finds of molluscs in the Carboniferous of Slovakia. - *Časopis pro mineralogii a geologii* 27 (3): 285-293, pls 1-2 (: 288; pl. 2, figs 1-2; text-fig. 2).

Type locality: Slovakia: Quarry northwest of the village of Ochťiná in the Spišsko-gemerské Rudohorie Mountains.

Geological age: Middle Carboniferous.

okamurai Saito, 2001 *Leptochiton*.

Chitons (Mollusca: Polyplacophora) collected by the R/V Kotaka-Maru from Tosa Bay, Western Japan, with descriptions of two new species. In: T. Fujita, H. Saito & M. Takeda (eds) *Deep-Sea Fauna and Pollutants in Tosa Bay. - National Science Museum Monographs* 20: 101-119 (: 107; figs 3-4; pl.1, figs 2-3).

Type locality: Japan: Central Part of Tosa Bay (33°10.8'N, 133°38.1'E), 408-413 m ("400 m").

oliveri Schwabe, 2004 *Cryptoconchus*.

The Polyplacophora (Mollusca) collected during the First International Marine Biodiversity Workshop for Rodrigues (western Indian Ocean), with the description of a new species. - *Journal of Natural History* 38: 3143-3173 (: 3164; figs 14-16, 17E).

Type locality: Mauritius: Mascarene Islands, Rodrigues Island, Grande Baie (19°39.047'S 63°26.381'E), coral rubble, 21.5 m.

† ***onerous*** Hoare & Smith, 1984 *Stegochiton*?

Permian Polyplacophora (Mollusca) from West Texas. - *Journal of Paleontology* 58 (1): 82-103 (: 96; figs 8; 9A-J).

Type locality: United States of America: Hess Formation: At 1408 m in section 2.27 km N 63° E of Hess Ranch house, Hess Canyon quadrangle [Location USNM 709d].

Geological age: Permian.

† ***ornata*** Cherns, 1998 *Arctoplax*.

Silurian Polyplacophoran Molluscs from Gotland, Sweden. - *Palaeontology* 41 (5): 939-974 (: 964; pl. 9).

Type locality: Sweden: Möllbus-I, Gotland Island, Halla Formation.

Geological age: Silurian.

† ***paeninsulae*** Gürs, 1992 *Lepidopleurus*.

Zwei neue Polyplacophorenarten (Mollusca) aus marinen Küstenablagerungen des Mainzer Beckens und der Kasseler Bucht (Oligozän, Rupelium und Chattium). - *Geologisches Jahrbuch Hessen* 120: 5-9 (: 7; pl. 1, figs 2a-c).

Type locality: Germany: marine sandy sediments of the Kassel Bay, ancient lignite - strip mining Höllkopf near Glimmerode / Hessisch Lichtenau, new profil segment on peninsula [ehemaliger Braunkohlentagebau Höllkopf bei Glimmerode / Hessisch Lichtenau, neuer Profilabschnitt an der Halbinsel], sandy-silty, blackish potter's clay, with less grit and much Schill [stark sandig-siltiger, schwarzer Ton mit geringem Kies- und sehr hohem Schillanteil].

Geological age: Oligocene.

† ***pannuceus*** Hoare & Mapes, 1985 *Acutichiton*.

A new species of Pennsylvanian Polyplacophora (Mollusca) from Texas. - *Journal of Paleontology* 59 (5): 1324-1326 (: 1324; figs 1.1-1.15).

Type locality: United States of America: The Finis Shale (Virgilian) is exposed in gullies south of pond dam, located 250 m north of Lost Creek Cemetery, 0.4 km east of Highway 59 and 8.3 km northeast of Jacksboro, Jack Co., Texas, Cundiff 7½' quadrangle, from below the the Jacksboro Limestone where the associated fauna is dominated by a large accumulation of wewokellid sponges, diverse bryozoans, brachiopods and fusulinids. Molluscs are relatively rare.

Geological age: Carboniferous.

† *papilla* Cherns, 1998 *Heloplax*.

Silurian Polyplacophoran Molluscs from Gotland, Sweden. - *Palaeontology* 41 (5): 939-974 (: 958; pls 5-6).

Type locality: Sweden: Möllbus-I, Gotland Island, Halla Formation.

Geological age: Silurian.

† *papillosus* Bielokrys, 2000 *Lepidopleurus*.

Lepidopleurida (Polyplacophora) from the Upper Eocene of Ukraine. - *Paleontologicheskii Zhurnal* 2000 (2): 47-52 (: 48; pl. 4, figs 5-7).

Type locality: Ukraine: near Dnepropetrovsk, left bank of the Dnieper River, Mandrikovka beds.

Geological age: Upper Eocene.

† *paragrapsina* Hoare & Mapes, 1995 *Diadeloplax*.

Relationships of the Devonian Strobilepis and related Pennsylvanian problematica. - *Acta Palaeontologica Polonica* 40 (2): 111-128 (: 124; figs 4-7, 8C-D).

Type locality: United States of America: from the Gene Autry Formation (Morrowan) at an exposure in a series of east-west gullies, on the east side of an unnamed tributary of Sycamore Creek, on the Daube Ranch, NW¼, NW¼, SW¼, sec. 2, T4S, R4E, Johnston Co., southern Oklahoma (Ravia 7½' quadrangle).

Geological age: Carboniferous.

Described as Multiplacophoran of uncertain systematic position. Referred to Polyplacophora in:

Vendrasco, M. J., Wood, T. E. & Runnegar, B. N., 2004. Articulated Palaeozoic fossil with 17 plates greatly expands disparity of early chitons. - *Nature* 429 (6989): 288-291 (supplement files available under <http://www.nature.com/nature>) (: 291).

† *parallelus* DeBrock, Hoare & Mapes, 1984 *Coryssochiton*.

Pennsylvanian (Desmoinesian) Polyplacophora (Mollusca) from Texas. - *Journal of Paleontology* 58 (4): 1117-1135 (: 1127; figs 2G, H; 6A-O).

Type locality: United States of America: the Lazy Bend Formation is exposed 30 m north of where Farm to Market Road 1189 crosses Rocky Branch, a small tributary of Kickapoo Creek, approximately 8.5 km northeast of Lipan and 0.75 km south of Kickapoo Falls, Hood County, Texas, Dennis 7½' quadrangle.

Geological age: Carboniferous.

† *parcus* Bielokrys, 1999 *Schizochiton*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 12; pl. 1, fig. 12).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk.

Geological age: Late Eocene.

† *parus* Ashby & Cotton MS, Gowlett-Holmes & McHenry, 1988 *Acanthochiton*.

Fossil mollusc type specimens in the South Australian Museum. 1. Polyplacophora. - *Records of the South Australian Museum* 22 (1): 1-11 (: 4) *nomen nudum*.

Type locality: Australia: from Clifton Bank, Muddy Creek, Hamilton, Victoria, Muddy Creek Marl.

Geological age: Middle Miocene.

= *Acanthochitona sabrata* Ashby & Cotton, 1939 (*vide* Gowlett-Holmes & McHenry; 1988).

† *patulus* Hoare & Farrell, 2004 *Jugochiton*.

Lower Devonian Polyplacophora from New South Wales, Australia. - *Palaeontology* 47 (6): 1495-1506 (: 1505; pl. 1, figs 20-28).

Type locality: Australia: New South Wales, Garra Formation, „GAP“ section.

Geological age: Lower Devonian.

Synonyms:

Helminthochiton sp. nov. Farrell, 1992: 32; pl. 6, figs 23-31 (Farrell, J. R., 1992 The Garra Formation (Early Devonian: Late Lachkovian) between Cumnock and Larras Lee, New South Wales, Australia: stratigraphic and structural setting, faunas and community sequence. - *Palaeontographica Abteilung A*, 222: 1-41).

† *pelta* Cherns, 1998 *Thairoplax*.

Silurian Polyplacophoran Molluscs from Gotland, Sweden. - *Palaeontology* 41 (5): 939-974 (: 947; pl. 2, figs 1-3).

Type locality: Sweden: Möllbus-I, Gotland Island, Halla Formation.

Geological age: Silurian.

pepezamorai Carmona Zalvide, Urgorri & García, 2004 *Leptochiton* (*Leptochiton*).

Two new species of *Leptochiton* Gray, 1847 (Polyplacophora) from the Iberian Peninsula (eastern Atlantic coast). - *The Nautilus* 118 (4): 144-151 (: 147; figs 21-38).

Type locality: Spain: Galicia: off A Quiniela (43°17'18"N 09°36'35"W), 753-786 m depth, with strong currents, attached to a rock from a bottom with ferromanganese nodules, calcareous plaques, and coal slag.

† *phallerium* Stinchcomb & Darrough, 1995 *Robustum*.

Some molluscan Problematica from the Upper Cambrian - Lower Ordovician of the Ozark Uplift. - *Journal of Paleontology* 69 (1): 52-65 (: 64; figs 8.12, 8.21).

Type locality: United States of America: Concentrations of fossiliferous chert of the Gasconade Formation in small valley along Elm Spring Branch in SW¼, NW¼, SE¼, sec. 11, T40N, R2W, Franklin Co., Missouri. Meramec State Park 7½' quadrangle. Reliability index B. [Locality M-1]. Geological age: Lower Ordovician.

† *pilatis* Cherns, 1998 *Spicuchelodes*.

Chelodes and closely related Polyplacophora (Mollusca) from the Silurian of Gotland, Sweden. - *Palaeontology* 41 (3): 545-573; 7 pls (: 562, pl. 7). Type locality: Sweden: Krakfot, Gotland, Klinteberg Formation. Geological age: Silurian.

† *pileus* Hoare, 2000 *Hadrochiton*.

New Permian Polyplacophora (Mollusca) from Malaysia. - *Journal of Paleontology* 74 (4): 571-574 (: 573; figs 1.13-1.20). Type locality: Malaysia: upper limestone exposed in the opencast H.S. Lee Mine No. 8 approx. 2.4 km southwest of Kampar on the road to the Tronoh Mines New Village in the Kinta Valley, Parak (4°18'N, 101°09'E). Geological age: Permian.

† *planoplata* Hanger, Hoare & Strong, 2000 *Gryphochiton*.

Permian Polyplacophora, Rostroconchia, and problematica from Oregon. - *Journal of Paleontology* 74 (2): 192-198 (: 192, figs 2.1-2.15). Type locality: United States of America: Crook County, Oregon, Twelvemile Reservoir 7.5 minute quadrangle, 119°47.17'N, 97°44.10'W, Universal Transverse Mercator coordinate 11TKU75826907. Geological age: Early Permian.

† *propeporcina* Gowlett-Holmes, 1990 *Bassethullia*.

A review of the endemic Australian chiton genus *Bassethullia* Pilsbry, 1928 (Mollusca: Polyplacophora: Acanthochitonidae). - *Journal of the Malacological Society of Australia* 11: 9-28 (: 24; fig. 8). Type locality: Australia: from 33.4 m, Paulik's Bore, E. end of lot 41, Semple Road, Jandakot, Western Australia (32°06.91'S 115°50.46'E). Geological age: Plio-Pleistocene.

† *pustuliferus* Bielokrysz, 2000 *Lepidopleurus*.

Lepidopleurida (Polyplacophora) from the Upper Eocene of Ukraine. - *Paleontologicheskii Zhurnal* 2000 (2): 47-52 (: 47; pl. 4, figs 1-4). Type locality: Ukraine: near Dnepropetrovsk, left bank of the Dnieper River, Mandrikovka beds. Geological age: Upper Eocene.

† *quinquelites* Stinchcomb & Darrough, 1995 *Hemithecella*.

Some molluscan Problematica from the Upper Cambrian - Lower Ordovician of the Ozark Uplift. -

Journal of Paleontology 69 (1): 52-65 (: 62; figs 6.16, 6.17).

Type locality: United States of America: Concentrations of fossiliferous chert of the Gasconade Formation in small valley along Elm Spring Branch in SW¼, NW¼, SE¼, sec. 11, T40N, R2W, Franklin Co., Missouri. Meramec State Park 7½' quadrangle. Reliability index B. [Locality M-1]. Geological age: Lower Ordovician.

† *raaschi* Kluessendorf, 1987 *Chelodes*.

First report of Polyplacophora (Mollusca) from the Silurian of North America. - *Canadian Journal of Earth Science* 24 (3): 435-441 (: 436; fig. 2; pl. 1, fig. 1a). Type locality: United States of America: Wisconsin, Milwaukee County, Franklin, reef facies of the Racine Dolomite, Franklin Aggregate (formerly Franklin Stone Products) quarry. Geological age: Silurian.

† *recavus* Hoare, 2002 *Diadelochiton*.

New genera of Paleozoic Polyplacophora (Mollusca). - *Journal of Paleontology* 76 (3): 570-573 (: 570; figs 1.1-1.6). Type locality: Germany: Winterberg. Geological age: Devonian.

rhodolithophilus Putman MS, Clark, 2000 *Ischnochiton*.

The chiton fauna of the Gulf of California Rhodolith beds (with descriptions of four new species). - *Nemouria* 43: 1-19 (: 5; figs 6-10). Type locality: Mexico: Gulf of California, Isla El Requeson, Bahia Concepcion, Baja California Sur (26°43'N, 111°46'W), 4-9 m.

† *richardsoni* Hoare, Plas & Yancey, 2002 *Arcochiton*. Permian Polyplacophora (Mollusca) from Nevada, Utah, and Arizona. - *Journal of Paleontology* 76 (2): 256-264 (: 263; fig. 5).

Type locality: United States of America: Bird Springs Formation (USMP D-5252) exposed along the west side of the ridge on both sides of the east-west road SW 1/4, NM 1/4 sec. 26, T15S, R64E, approx. 10 km northwest of Interstate 15 where the road to the range front passes through the gap between Lookout Hill and the ridge to the north in the Arrow Canyon Range about 96.5 km northeast of Las Vegas, Clark Co., Nevada. Arrow Canyon SE 7.5' quadrangle. Geological age: Permian.

† *saeniensis* Laghi, 1984 *Chiton*.

Sorprendente densità di Chiton saeniensis n. sp. in sabbie gialle plioceniche dei dintorni di Serre di Rapolano (Siena). - *Bollettino de Museo Regionale di Scienze Naturali, Torino* 2 (2): 555-564 (: 557; pl. 1, figs 1-20).

Type locality: Italy: In an outgroup situated near Serre di Rapolano (Siena) [„Il Campino“ di Serre di

Rapolano (Siena)], yellow sands overhanging the northeast border of the „crete senesi“ formation.
Geological age: Pliocene.

saitoi Sirenko, 2001 *Leptochiton*.

Deep-sea chitons (Mollusca, Polyplacophora) from sunken wood off New Caledonia and Vanuatu. In: P. Bouchet & B. A. Marshall (eds) *Tropical Deep-Sea Benthos, volume 22. - Mémoires du Muséum national d'Histoire naturelle* 185: 39-71 (: 47; figs 48-64, 172-173).

Type locality: New Caledonia: 20°34'S, 164°58'E [Bathus 4, sta. CP946], 386-430 m.

† **salicensis** Dell'Angelo & Bonfitto, 2005 *Lepidopleurus* (*Leptochiton*).

Notes on Fossil Chitons. 1. A new species of *Lepidopleurus* (Mollusca: Polyplacophora) from the Pleistocene of Salice (Sicily, Italy). - *Zootaxa* 821: 1-6 (: 2; figs 1-8).

Type locality: Italy: Sicily: Messina Province: Salice, on the Peloritani Mountains, at an elevation of about 340 m, at top of the hill, where the former Salice military fort („Coilare“) is; upper bathyal sediments.
Geological age: Pleistocene.

† **santacrucensis** Dzik in Dzik, Olempska & Pisera, 1994 *Bursata*.

Machaeridians, Chitons, and Conchiferan Molluscs of the Mójca Limestone. In: J. Dzik, Olempska, E. & A. Pisera, 1994. *Ordovician carbonate platform ecosystem of the Holy Cross Mountains. - Palaeontologia Polonica* 53 (1): 213-252, pls 52-56 (: 224; pl. 53, figs 4-7; text-figs 4a-i).

Type locality: Poland: Mójca Limestone section at Mójca, Holy Cross Mountains, topmost bed.

Geological age: Ordovician.

schilfi Schwabe & Ruthensteiner, 2001 *Callochiton*.

Callochiton schilfi (Mollusca: Polyplacophora: Ischnochitonidae) a new species from Indonesian waters. - *Vita Marina* 47 (4): 175-184 (: 176; figs 1-5, tab. 1).

Type locality: Indonesia: Bali, Kuta Bay, half way between Kuta and the Ngurah Rai Airport (8°44'S, 115°09'E), on pieces of dead coral encrusted with coralline algae at 2-3 m depth (low tide level).

† **scirpeus** Bielokrys, 2000 *Lepidopleurus*.

Lepidopleurida (Polyplacophora) from the Upper Eocene of Ukraine. - *Paleontologicheskii Zhurnal* 2000 (2): 47-52 (: 50; pl. 4, figs 10-11).

Type locality: Ukraine: near Dnepropetrovsk, left bank of the Dnieper River, Mandrikovka beds.

Geological age: Upper Eocene.

seishinmaruae Saito, 1997 *Leptochiton*.

Deep-sea chiton fauna of Suruga Bay (Mollusca: Polyplacophora) with descriptions of six new species. - *National Science Museum Monographs, Tokyo* 12: 31-58, pls 1-2 (: 42; figs 1F, 6; pl. 1, fig. 6).

102

Type locality: Japan: Honshu: Suruga Bay, off Heda, 870-950 m depth, BT93-1 (35°01.1'N 138°59.9'E).

severiano Carmona Zalvide & García, 2000 *Lepidochitona*.

El género *Lepidochitona* Gray, 1921 (sic!) (Mollusca, Polyplacophora) en el litoral Atlántico de la Península Ibérica. - *Iberus* 18 (2): 17-30 (: 26; fig. 4).

Type locality: Spain: La Ballenera, Bahía de Algeciras, Cádiz, 12 m.

† **sigillarius** Bielokrys, 1999 *Stenoplax*.

Late Eocene Chitonids (Class Polyplacophora) from Ukraine. - *Paleontologicheskii Zhurnal* 1999 (4): 5-15 (: 10; pl. 1, figs 4-7).

Type locality: Ukraine: left bank of the Dniepr River, in the vicinity of the city of Dnepropetrovsk.

Geological age: Late Eocene.

† **silurica** Bischoff, 1981 *Cobcrephora*.

Cobcrephora n. g., representative of a new polyplacophoran order Phosphatoloricata with calciumphosphatic shells. - *Senckenbergiana lethaea* 61 (3-6): 173-215 (: 189; pl. 1, pl. 2, figs 18-29; pl. 4, figs 42, 43; pl. 5, pl. 6, figs 47-48; pl. 7, figs 51-56).

Type locality: Australia: New South Wales: Limestone beds and lenses in Panuara Group, Cobblers Creek area, approx. 30 km SW Orange (33°32'42"S 148°53'10"E; 1 : 250 000 geol. sheet S I 55-8 Bathurst), sample CC 23, with *Icriodina* n. sp.

Geological age: Early Silurian.

† **siskiyouensis** Hoare, 2000 *Paleochiton*.

Silurian Polyplacophora and Rostroconchia (Mollusca) from Northern California. - *Proceedings of the California Academy of Sciences* 52 (3): 23-31 (: 24; fig. 1).

Type locality: United States of America: 2 km southeast of Parker Ranch, East Fork of the Scott River, SW 1/4 sec. 29, T41N, R7W, Siskiyou County, California, Etna quadrangle, USGS locality M1027.

Geological age: Silurian.

† **soccus** Hanger, Hoare & Strong, 2000 *Arcochiton*.

Permian Polyplacophora, Rostroconchia, and problematica from Oregon. - *Journal of Paleontology* 74 (2): 192-198 (: 193, figs 3.1-3.3).

Type locality: United States of America: Crook County, Oregon, Twelvemile Reservoir 7.5 minute quadrangle, 119°47.17'N, 97°44.10'W, Universal Transverse Mercator coordinate 11TKU75826907.

Geological age: Early Permian.

† **spinus** Yu, 1984 *Luyanhaochiton*.

Early Cambrian molluscan faunas of Meishucun stage with special reference to Precambrian-Cambrian boundary. pp. 21-35 In: Su, Zongwei [Ed.]. *Contribution to 27th International Geological Congress, 1984, Moscow. Developments in geoscience*. Science Press, Beijing: i-vi, 1-677 (: 32 [25]; pl. 1, figs 8-9).

Type locality: China: East Yunnan [Sheng]: Zhongyicun member of Dengying Formation, Jinning [Xian].

Geological age: Lower Cambrian.

† **squarrosus** DeBrock, Hoare & Mapes, 1984 *Camptochiton*.

Pennsylvanian (Desmoinesian) Polyplacophora (Mollusca) from Texas. - *Journal of Paleontology* 58 (4): 1117-1135 (: 1120; figs 2A, B; 3A-U).

Type locality: United States of America: the Lazy Bend Formation is exposed 30 m north of where Farm to Market Road 1189 crosses Rocky Branch, a small tributary of Kickapoo Creek, approximately 8.5 km northeast of Lipan and 0.75 km south of Kickapoo Falls, Hood County, Texas, Dennis 7½' quadrangle.

Geological age: Carboniferous.

† **subcirculus** Hoare & Mapes, 1986 *Glaphurochiton*. The Polyplacophoran "*Chiton*" *carbonarius* Stevens, 1858, in North America and new related species. - *Journal of Paleontology* 60 (3): 627-635 (: 633; figs 4.1-4.6).

Type locality: United States of America: The LaSalle Formation exposed in SW¼ NE¼ sec. 25, T33N, R1E, LaSalle Co., Illinois.

Geological age: Carboniferous.

Synonym:

Pterochiton carbonarius; Hoare & Sturgeon, 1979: pl. 2, figs 12-13 (Hoare, R. D. & Sturgeon, M. T., 1979 Stratigraphic distribution of Polyplacophora in the Mississippian and Pennsylvanian of North America. - 8th International Congress of Carboniferous Stratigraphy and Geology, *Compte Rendu* 3: 176-183, pls 1-3).

surugensis Saito, 1997 *Leptochiton*.

Deep-sea chiton fauna of Suruga Bay (Mollusca: Polyplacophora) with descriptions of six new species. - *National Science Museum Monographs, Tokyo* 12: 31-58, pls 1-2 (: 33; figs 1A, 2; pl. 1, fig. 1).

Type locality: Japan: Honshu: Suruga Bay, SW of Heda, 370-400 m depth, DG93-8 (34°58.0'N 138°44.2'E).

† **tavianii** Dell'Angelo, Landau & Marquet, 2004 *Lepidopleurus* (*Leptochiton*).

Polyplacophora from the Pliocene of Estepona (Málaga, West Spain). - *Bollettino Malacologico*, Suppl. 5 [2003]: 25-44 (: 29; pl. 1, figs 1-8; pl. 2, figs 1, 5).

Type locality: Spain: Málaga: Velerín Curretera, near Estepona.

Geological age: Pliocene.

† **tegulus** Cherns, 1998 *Plectrochiton*.

Silurian Polyplacophoran Molluscs from Gotland, Sweden. - *Palaeontology* 41 (5): 939-974 (: 952; pl. 3, figs 1-3).

Type locality: Sweden: Möllbus-I, Gotland Island, Halla Formation.

Geological age: Silurian.

thandari Sirenko, 2001 *Leptochiton*.

Deep-sea chitons (Mollusca, Polyplacophora) from sunken wood off New Caledonia and Vanuatu. In: P. Bouchet & B. A. Marshall (eds) *Tropical Deep-Sea Benthos, volume 22. - Mémoires du Muséum national d'Histoire naturelle* 185: 39-71 (: 55; figs 112-131, 182-183).

Type locality: Vanuatu: SE of Efate Island, 17°56'S, 168°44'E [Musorstom 8, sta. CP1035], 765-780 m.

† **tholus** Hoare, Mapes & Atwater, 1983 *Pterochiton* Pennsylvanian Polyplacophora (Mollusca) from Oklahoma and Texas. - *Journal of Paleontology* 57 (5): 992-1000 (: 997; figs 2C, 5A-K).

Type locality: United States of America: from the Gene Autry Formation (Morrowan) at an exposure in a series of east-west gullies, on the east side of an unnamed tributary of Sycamore Creek, on the Daube Ranch, NW¼, NW¼, SW¼, sec. 2, T4S, R4E, Johnston Co., southern Oklahoma (Ravia 7½' quadrangle).

Geological age: Carboniferous.

tomhalei Clark, 2000 *Ischnochiton*.

The chiton fauna of the Gulf of California Rhodolith beds (with descriptions of four new species). - *Nemouria* 43: 1-19 (: 7; figs 11-14).

Type locality: Mexico: Gulf of California, Punta Bajo (about 10 km N of Loreto), Baja California Sur (approx. 26°05'N, 112°42'W), 12 m.

† **torus** Hoare & Mapes, 1985 *Euleptochiton*.

New Mississippian and Pennsylvanian Polyplacophora (Mollusca) from North America. - *Journal of Paleontology* 59 (4): 875-881 (: 875; figs 1.1-1.17).

Type locality: United States of America: The Finis Shale (Virgilian) collected above the Jacksboro Limestone exposed in gullies south of pond dam located 250 m north of Lost Creek Cemetery, 0.4 km east of Highway 59 and 8.3 km northeast of Jacksboro, Jack Co., Texas, Cundiff 7½' quadrangle.

Geological age: Carboniferous.

† **triangulus** Hoare, 2001 *Systemochiton*.

Early Mississippian Polyplacophora (Mollusca) from Iowa. - *Journal of Paleontology* 75 (1): 66-74 (: 71, 73; figs 6.1-6.26).

Type locality: United States of America: Gilmore City Formation (Humboldt Member) exposed in the east pit of P. & M. quarry, 3.8 km northeast of the intersection of Highways 3 and 169 on the northwest side of the East Fork of Des Moines River, northeast of Humboldt, Humboldt Co., Iowa.

Geological age: Lower Carboniferous.

† **triangulus** Hanger, Hoare & Strong, 2000 *Homeochiton*.

Permian Polyplacophora, Rostroconchia, and problematica from Oregon. - *Journal of Paleontology* 74 (2): 192-198 (: 195; figs 3.4-3.10).

Type locality: United States of America: Crook County, Oregon, Twelvemile Reservoir 7.5 minute quadrangle, 119°47.17'N, 97°44.10'W, Universal Transverse Mercator coordinate 11TKU75826907.
Geological age: Early Permian.

truncosoi Carmona Zalvide, Urgorri & García, 2004 *Leptochiton* (*Leptochiton*).

Two new species of *Leptochiton* Gray, 1847 (Polyplacophora) from the Iberian Peninsula (eastern Atlantic coast). – *The Nautilus* 118 (4): 144-151 (: 144; figs 1-20).

Type locality: Spain: Galicia: off A Quiniela (43°17'22"-43°18'52"N 09°36'38"-09°35'45"W), 753-832 m depth, with strong currents, attached to a rock from a bottom with ferromanganese nodules, calcareous plaques, and coal slag.

† **ulivii** Dell'Angelo & Forli, 1996 *Ischnochiton*

Two new Polyplacophora species from the Tuscan Pliocene – *La Conchiglia* 28, Suppl. (279): 42-49 (: 46; figs 16-26).

Type locality: Italy: Tuscany, Siena, Pietrafitta „Sbarra“, near San Gimignano.

Geological age: Pliocene.

usticensis Dell'Angelo & Castriota, 1999 *Ischnochiton* (*Ischnochiton*).

A new *Ischnochiton* from the Mediterranean. – *La Conchiglia* 291: 23-26 (: 23; figs 2-10).

Type locality: Italy: Southwest of Ustica, between Punta Gavazzi and Punta dell'Arpa, about 50 m, bottom mainly composed of biogenic and volcanic particles together with a significant red calcareous algae component.

† **utahensis** Vendrasco & Runnegar, 2004 *Orthriochiton*.

Late Cambrian and Early Ordovician stem group chitons (Mollusca: Polyplacophora) from Utah and Missouri. – *Journal of Paleontology* 78 (4): 675-689 (: 686; figs 4.7, 4.8, 8.7, 12.14-12.31).

Type locality: United States of America: at Lawson Cove, midwestern Utah, in the upper portion of the Hellmuth Member of the Notch Peak Formation, from massive carbonate beds (0.2-1.0 m).

Geological age: Late Cambrian.

vanbellei Sirenko, 2001 *Leptochiton*.

Deep-sea chitons (Mollusca, Polyplacophora) from sunken wood off New Caledonia and Vanuatu. In: P. Bouchet & B. A. Marshall (eds) *Tropical Deep-Sea Benthos*, volume 22. – *Mémoires du Muséum national d'Histoire naturelle* 185: 39-71 (: 53; figs 97-111, 180-181).

Type locality: Vanuatu: Bougainville Guyot, SW of Espiritu Santo Island, 15°58'S, 166°38'E [Museum 8, sta. CP1125], 1160-1220 m.

† **veneta** Dell'Angelo & Palazzi, 1992 *Stenoplax*.

First record of a species of Polyplacophora in the Italian Oligocene. – *Journal of the Malacological Society of Australia* 13: 27-30 (: 28; figs 1-3).

Type locality: Italy: Small exposure of brownish yellow silty sandstone capping, in stratigraphic unconformity, a „pietra serena“ quarry near Case Soghe in the Colli Berici (near M. Lungo, Arcugnano, Vicenza province).

Geological age: Oligocene.

venusta Clark, 1999 *Tonicella*.

The *Tonicella lineata* (Wood, 1815) species complex (Polyplacophora: Tonicellidae), with descriptions of two new species. – *American Malacological Bulletin* 15 (1): 33-46 (: 41; figs 25-32, 34).

Type locality: United States of America: Mountain Point, 8 km south of Ketchikan, Revillagigedo Island, Alexander Archipelago, SE Alaska (55°17.35'N, 131°32.20'W), 1-10 m.

† **verrucosa** Dell'Angelo & Forli, 1996 *Lepidochitona*.

Two new Polyplacophora species from the Tuscan Pliocene – *La Conchiglia* 28, Suppl. (279): 42-49 (: 42; figs 1-12).

Type locality: Italy: Tuscany, Siena, Pietrafitta „Melograni“, near San Gimignano.

Geological age: Pliocene.

† **vickersianum** Vendrasco, Wood & Runnegar, 2004 *Polysacos*.

Articulated Palaeozoic fossil with 17 plates greatly expands disparity of early chitons. – *Nature* 429 (6989): 288-291 (supplement files available under <http://www.nature.com/nature>) (: 291; fig. 1a).

Type locality: United States of America: Edwardsville Formation, Monroe County, Indiana.

Geological age: Carboniferous.

vietnamensis Sirenko, 1998 *Leptochiton*.

One more deep-water chiton living and feeding on sunken wood: *Leptochiton vietnamensis* sp. nov. from the South China Sea (Mollusca, Polyplacophora). – *Ruthenica* 8 (1): 1-6 (: 1; figs 1-3).

Type locality: South China Sea (11°09.6'N, 110°02.0'E), 700 m, mud.

† **vulgarus** Yu, 1987 *Meishucunchiton*.

Yangtze Micromolluscan fauna in Yangtze region of China with notes on Precambrian-Cambrian boundary. 19-275, pls 1-68. In: *Stratigraphy and Palaeontology of systemic boundaries in China. Precambrian-Cambrian Boundary* (1). compiled by Nanjing Institute of Geology and Palaeontology, Academia Sinica (Nanjing University Publishing House) (: 111; pl. 15, figs 4-10; text fig. 36-37).

Type locality: China: at Meishucun of Jinning, Xianfeng of Xundian, eastern Yunnan, *Yangtzeconus priscus*-*Archaeospira ornata* assemblage, Zhongyicun member.

Geological age: Lower Cambrian.

† *wahwahensis* Vendrasco & Runnegar, 2004 *Matthevia*.

Late Cambrian and Early Ordovician stem group chitons (Mollusca: Polyplacophora) from Utah and Missouri. - *Journal of Paleontology* 78 (4): 675-689 (: 683; figs 2, 3, 4.3-4.5, 6.2, 8.1-8.4, 9, 10, 11).

Type locality: United States of America: at Lawson Cove, midwestern Utah, in the upper portion of the Hellnmaria Member of the Notch Peak Formation, from massive carbonate beds (0.2-1.0 m).

Geological age: Late Cambrian.

Synonyms:

Matthevia variabilis; Runnegar, Pojeta, Taylor & Collins, 1979: 1377; pl. 1, figs 5-13, 15-18 (Runnegar, B., Pojeta, J. (jr.), Taylor, M. E. & Collins, D., 1979. New species of the Cambrian and Ordovician chitons *Matthevia* and *Chelodes* from Wisconsin and Queensland: evidence for the early history of polyplacophoran mollusks. - *Journal of Paleontology* 53 (6): 1374-1394).

Matthevia variabilis; Yochelson, 1966: pl. 1, figs 6-11, 15-17, 19-22, 30-32, 36, 37, 40, 41 (Yochelson, E. L., 1966. *Mattheva*, a proposed new class of mollusks. - *U.S. Geological Survey Professional Paper* 523-B: B1-B11).

† *yochelsoni* Hoare & A.G. Smith, 1984 *Soleachiton*. Permian Polyplacophora (Mollusca) from West Texas. - *Journal of Paleontology* 58 (1): 82-103 (: 90; figs 4, 5).

Type locality: United States of America: Cathedral Mountain Formation (mostly *Institella* zone): Slopes on S side of road 0.65-0.81 km NE of Split Tank, 2.57 km N 56° E of Old Word Ranch house, Hess Canyon quadrangle [= R. E. King 128, 151; AMNH 500], [Location USNM 702].

Geological age: Permian.

† *zardini* Laghi, 1981 *Crenatorica*.

Crenatorica zardini n. gen., n. sp. of polyplacophoran from St. Cassian Beds (Dolomites, Italy). - *Bollettino della Società Paleontologica Italiana* 20 (2): 155-158 (: 157; pl 1, figs 1-3).

Type locality: Italy: Eastern Dolomites, Campo, near Cortina d'Ampezzo.

Geological age: Upper Triassic.

† *zbyi* Dell'Angelo & da Silva, 2003 *Ischnochiton*.

Polyplacophora from the Pliocene of Vale de Freixo: Central-West Portugal. - *Bollettino Malacologico* 39 (1-4): 7-16 (: 10; figs 5-11).

Type locality: Portugal: Pombal region, Leiria district, Vale de Freixo.

Geological age: Pliocene.

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