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Some Pectinoidea (Bivalvia: Propeamussiidae and Pectinidae) from the Berau Islands (East Kalimantan, Indonesia)*

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Abstract: The Pectinoidea species collected on the coral reefs around the Berau Islands (East Kalimantan, Indonesia) were studied. Nineteen species (four Propeamussiidae, fifteen Pectinidae) are listed from the Berau Islands. Three pectinoidean species are new to science, of which two are described herein: *Parvamussium caesicum* n. sp. and *Talochlamys inaequalis* n. sp. Two pectinid species (*Paschahinnites coruscans coruscans* and *Palliolium minutulum*) are new records for Indonesia.

Keywords: Pectinoidea, Propeamussiidae, Pectinidae, biodiversity, new species, Berau Islands, Indonesia

Introduction

Coral reefs are mainly distributed in tropical coastal waters. The health of these reefs is in serious decline due to human activities. Due to their rich habitat and ecological complexity they have the largest biodiversity of marine species and molluscs are a major part of that community. In East Kalimantan, the reefs around the Berau Islands are influenced by the river Berau and oceanic waters. Deforesting is a serious threat and although reasonably unspoiled, the reefs around the Berau Islands will be influenced by this in the near future. In October 2003 Naturalis (Leiden) and the Indonesian Foundation for Research (LIPI) initiated a marine expedition in this area to study the biodiversity of these reefs. Fieldwork was mainly done by SCUBA diving and sediment samples were taken down to about 30 m depth. These samples (1-2 kg) were dried and sent to the Zoological Museum Amsterdam for sorting. From each sample between 3000 and 9000 shells were separated, and for this article we studied the shells of the families Propeamussiidae and Pectinidae.

Pectinoidea species from earlier publications (see cited literature) are briefly reported and not refigured. All material studied is deposited in the Zoological Museum Amsterdam, but a representative part of it will be stored in the Museum Zoologi Bogor (Cibinong, Indonesia).

Abbreviations: LIPI – Lembaga Ilmu Pengetahuan Indonesia (Indonesian Foundation for Research), Jakarta; MZB – Museum Zoologi Bogor, Cibinong; NBE – Netherlands Berau Expedition; ZMA – Zoological Museum Amsterdam, University of Amsterdam, Amsterdam.

Systematics

Family Propeamussiidae Abbott, 1954
Genus *Parvamussium* Sacco, 1897

*New records and/or range extensions of marine molluscs in Indonesia no. 2

***Parvamussium caesicum* n. sp.**

(Figs. 1–4)

Material examined: NBE stat. 35. Kakaban Island, W-side, 02°08'21.0"N, 118°30'20.1"E, 10–25 m, scuba diving, 21.X.2003 (paratype: 1 valve, ZMA Moll. 404056). NBE stat. 49. Kakaban Island, NE-side, entrance of tidal lake Kehe Daing, 02°08'53.2"N, 118°32'31.6"E, 10–25 m, scuba diving, 28.X.2003 (holotype: one left valve, ZMA Moll. 404023; paratypes: 20 valves, ZMA Moll. 404024; 10 valves (MZB)).

Type locality: NBE stat. 49. Indonesia, Kalimantan, Berau Islands, Kakaban Island, NE-side, entrance of tidal lake Kehe Daing, 02°08'53.2"N, 118°32'31.6"E, 10–25 m, scuba diving, 28.X.2003.

Description: Shell small, approximately 3 mm in height and length, fragile, circular, inequivalve, rather inflated, left and right valve equally convex, anterior auricle larger than posterior, umbonal angle about 110°, colour whitish, transparent in early growth stage, semi-transparent later.

Left valve sculptured with widely spaced, delicate commarginal lamellae in early growth stage, commencing at 0.3 mm shell height, extending to 1 mm shell height, increasing by finer lamellae and much smaller spacing to ventral margin. Radial riblets (ca. 15) commence at ca. 1 mm shell height and become stronger to the ventral margin (ca. 30). Radial ribs bear small nodules. Anterior auricle with prominent commarginal lirae (ca. 12), weaker on posterior auricle, smaller in number (ca. 8) and more closely spaced.

Right valve with regularly arranged, very closely spaced commarginal lirae. Anterior auricle much larger than posterior with 3–5 radial riblets, posterior auricle with antimarginal microsculpture. Hinge line straight. Byssal notch shallow, byssal fasciole and ctenolium lacking. Ten or eleven internal ribs plus a few rudimentary and one weak auricular on each side, commencing at 1 mm shell height and extending close to ventral margin.

Dimensions of the holotype: height 3.2 mm, length 3.2 mm.

Etymology: The sculpture of the left valve looks like a fine closely woven white curtain (Lat. *caesicius*, adj. = closely woven).

Discussion: *Parvamussium caesicum* n. sp. closely resembles in sculpture *P. carbaceum* Dijkstra, 1991, known from bathyal depths in the Banda and Flores Seas (Indonesia), but differs by lacking secondary intercostal radial riblets (1–4 on the left valve of *P. carbaceum*), by the more closely spaced commarginal sculpture on the anterior auricle of the left valve, by a more transparent early growth stage (opaque in *P. carbaceum*) and by the number of internal ribs (10–11 plus 1–2 rudimentary of *P. caesicum* n. sp., 13 plus several rudimentary in *P. carbaceum*).

Parvamussium undosum Dijkstra, 1991, known from bathyal depths in the Banda Sea (Indonesia), also has very closely spaced commarginal lamellae, but these also cover the radial ribs. Moreover, these ribs are much broader and smaller in number than those of *P. caesicum* n. sp.

***Parvamussium pauciliratum* (Smith, 1903)**

Amussium pauciliratum Smith, 1903: 622, pl. 36, figs. 23–24.

Parvamussium pauciliratum; Dijkstra, 1991: 14, figs. 33–34 [description, distribution]; Dijkstra, 1995: 26, figs. 107–110, 151–152 [lectotype]; Dijkstra & Kastoro, 1997: 261, figs. 73–74.

Material examined: NBE stat. 40. Baliktaba reef, NE-side, N of Panjang Island, 02°35'14.6"N, 118°00'34.6"E, dead, 10–25 m, scuba diving, 24.X.2003 (6 valves, ZMA Moll. 139505).

Distribution and ecology: Northern Indian Ocean eastwards to New Caledonia. Living littorally on soft bottom assemblages with gravel and/or coral rubble.



Figs. 1-4. *Parvamussium caesicium* n. sp. Indonesia, Berau Islands, stat. 49. 1-2. Exterior resp. interior view of left valve holotype, height 3.2 mm. 3-4. Exterior resp. interior view of right valve paratype, height 2.1 mm.

Figs. 5-6. *Cyclochlamys* n. sp. Indonesia, Berau Islands, stat. 36. Exterior resp. interior view of left valve, height 1.8 mm.

Figs. 7-10. *Talochlamys inaequalis* n. sp. Indonesia, Berau Islands, stat. 05, holotype, height 18.0 mm. 7-8. Exterior resp. interior view of right valve. 9-10. Exterior resp. interior view of left valve.

Remarks: The present species was previously recorded from the Indonesian Archipelago by Dijkstra (1991: 14) and Dijkstra & Kastoro (1997: 261).

Genus *Cyclopecten* Verrill, 1897

***Cyclopecten cancellus* Dijkstra, 1991**

Cyclopecten cancellus Dijkstra, 1991: 21, figs. 66–70.

Material examined: NBE stat. 03. Derawan Island, S-side, jetty Derawan Dive Resort, 02°17′03.3″N, 118°14′48.8″E, 10–25 m, dead, scuba diving, 04.X.2003 (1 valve, ZMA Moll. 139537). NBE stat. 36. Kakaban Island, SE-side, 02°07′56.6″N, 118°32′39.8″E, 10–25 m, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139540). NBE stat. 38. Maratua Island, W-side, 02°12′16.3″N, 118°35′18.9″E, 10–25 m, dead, scuba diving, 22.X.2003 (1 valve, ZMA Moll. 101071).

Distribution and ecology: Indonesia and Vanuatu (Dijkstra, 2001: 90). Only dead records from bathyal depths amongst fine shell grit, gravel or rubble on sandy or muddy sand bottoms (130–375 m). Present valves are from shallow water.

Remarks: The present species was previously recorded from the Flores and Banda Seas (Dijkstra, 1991: 21).

Genus *Cyclochlamys* Finlay, 1926

***Cyclochlamys* sp.**

(Figs. 5–6)

Material examined: NBE stat. 36. Kakaban Island, SE-side, 02°07′56.6″N, 118°32′39.8″E, 10–25 m, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 094317).

Remarks: This new propeamussiid species is not described herein, but will be treated later when more material has come up.

The left valve resembles *Cyclochlamys incubata* (Hayami & Kase, 1993) in shape and size, but differs in the reticular sculpture, which is much more prominent in *C. incubata*.

Family Pectinidae Wilkes, 1810

Genus *Coralichlamys* Iredale, 1939

***Coralichlamys madreporarum* (Sowerby II, 1842)**

Pecten madreporarum Sowerby II, 1842: 68.

Coralichlamys madreporarum; Dijkstra, 1991: 32 [references].

Material examined: NBE stat. 30. Lighthouse-I reef, N-side, S of Derawan Island, 02°16′02.1″N, 118°14′22.6″E, 10–25 m, dead, scuba diving, 18.X.2003 (1 valve, ZMA Moll. 094312).

Distribution and ecology: Throughout the tropical Indo-Pacific. Living littorally in the axils of the branches of *Acropora*, enclosed like a pocket.

Remarks: The present species was previously recorded from Indonesia by Adam & Leloup (1939: 58), Dijkstra (1991: 32) and Dharma (2005: 248).

Genus *Laevichlamys* Waller, 1993***Laevichlamys andamanica* (Preston, 1908)**

Chlamys andamanicus Preston, 1908: 204, pl. 14, fig. 19; Dijkstra, 1991: 29.

Mimachlamys andamanica; Dijkstra & Knudsen, 1998: 81, pl. 4, figs. 14-15 [references, description].

Laevichlamys andamanica; Dijkstra, 1998: 30.

Material examined: NBE stat. 36. Kakaban Island, SE-side, 02°07'56.6"N, 118°32'39.8"E, 10-25 m, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139503).

Distribution and ecology: Tropical Indo-West Pacific (Dijkstra & Knudsen, 1998: 82). Living littorally, byssally attached to underside of rocks or coral or amongst coral rubble on sandy substrates.

Remarks: This species was previously recorded from Indonesia by Dijkstra (1991: 29).

***Laevichlamys cuneata* (Reeve, 1853)**

Pecten irregularis Sowerby II, 1842: 69, pl. 13, figs. 51-52 [preoccupied by Von Schlotheim, 1813].

Pecten cuneatus Reeve, 1853: sp. 94 [text unpaginated], pl. 24, figs. 94a, 95.

Chlamys irregularis; Dijkstra, 1991: 31.

Laevichlamys irregularis; Dijkstra, 1997: 320, figs. 5-8 [references].

Material examined: NBE stat. 35. Kakaban Island, W-side, 02°08'21.0"N, 118°30'20.1"E, 10-25 m, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139513).

Distribution and ecology: Throughout the tropical Indo-West Pacific and central Pacific. Living littorally, byssally attached to corals on sandy sediments.

Remarks: This species was previously recorded from Indonesia by Dautzenberg & Bavay (1912: 13), Adam & Leloup (1939: 57), Dijkstra (1991: 31), Dharma (1992: 84) and Dijkstra (1997: 320).

***Laevichlamys limatula* (Reeve, 1853)**

Pecten limatula Reeve, 1853: sp. 124 [text unpaginated], pl. 28, fig. 124.

Pecten (Chlamys) limatula; Dautzenberg & Bavay, 1912: 12.

Laevichlamys limatula; Waller, 1993: 204.

Material examined: NBE stat. 49. Kakaban Island, NE-side, entrance of tidal lake Kehe Daing, 02°08'53.2"N, 118°32'31.6"E, 10-25 m, dead, scuba diving, 28.X.2003 (1 valve, ZMA Moll. 094308).

Distribution and ecology: Tropical Indo-West Pacific. Living littorally, byssally attached to underside of rocks or coral or amongst coral rubble on sandy bottoms.

Remarks: This species was previously recorded from Indonesia by Dautzenberg & Bavay (1912: 12).

***Laevichlamys squamosa* (Gmelin, 1791)**

Ostrea squamosa Gmelin, 1791: 3319.

Chlamys squamosa; Dijkstra, 1991: 31.

Laevichlamys squamosa; Dijkstra, 1997: 322, figs. 13-17 [references]; Dijkstra, 1998: 33, pl. 6, figs. 1-4.

Material examined: NBE stat. 38. Maratua Island, W-side, 02°12'16.3"N, 118°35'18.9"E, 10–25 m, dead, scuba diving, 22.X.2003 (1 valve, ZMA Moll. 094301). NBE stat. 48. Maratua Island, S-side, bay southeast of village, 02°11'01.6"N, 118°36'15.2"E, 10–25 m, dead, scuba diving, 28.X.2003 (1 valve, ZMA Moll. 139536).

Distribution and ecology: Throughout tropical Indo-Pacific, except Hawaiian Islands. Living littorally, byssally attached to rocks or coral or amongst gravel or rubble on sandy or muddy sand bottoms.

Remarks: This species was previously recorded from Indonesia by Dautzenberg & Bavay (1912: 14), Adam & Leloup (1939 : 58), Dijkstra (1990: 11), Dijkstra (1991: 31), Dharma (1992: 84 ; 2005 : 248) and Dijkstra (1997: 322).

Laevichlamys wilhelminae (Bavay, 1904)

Chlamys wilhelminae Bavay, 1904: 200, pl. 6, figs. 13–14.

Laevichlamys wilhelminae; Dijkstra, 1997: 323 [references].

Material examined: NBE stat. 30. Lighthouse-1 reef, N-side, S of Derawan Island, 02°16'02.1"N, 118°14'22.6"E, 10–25 m, dead, scuba diving, 18.X.2003 (1 valve, ZMA Moll. 094311). NBE stat. 35. Kakaban Island, W-side, 02°08'21.0"N, 118°30'20.1"E, 10–25 m, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139508). NBE stat. 36. Kakaban Island, SE-side, 02°07'56.6"N, 118°32'39.8"E, 10–25 m, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139509). NBE stat. 39. Baliktaba reef, SW-side, N of Panjang Island, 02°34'43.3"N, 118°00'48.2"E, 10–25 m, dead, scuba diving, 24.X.2003 (1 valve, ZMA Moll. 094313).

Distribution and ecology: Tropical Indo-West Pacific. Living littorally, byssally attached to corals or amongst coral rubble on sandy bottoms.

Remarks: This species was previously recorded from Indonesia by Bavay (1904: 200), Dautzenberg & Bavay (1912: 17), Adam & Leloup (1939: 59) and Dijkstra (1997: 323).

Genus *Paschinnites* Dijkstra & Raines, 1999

Paschinnites coruscans coruscans (Hinds, 1845)

Pecten coruscans Hinds, 1845: 61, pl. 17, fig. 3.

Semipallium coruscans coruscans; Dijkstra & Kilburn, 2001: 294, figs. 31–32 [references, type data, description].

Paschinnites coruscans coruscans; Paulay, 2003: appendix 1, note 39.

Material examined: NBE stat. 35. Kakaban Island, W-side, 02°08'21.0"N, 118°30'20.1"E, 10–25 m, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139504). NBE stat. 49. Kakaban Island, NE-side, entrance of tidal lake Kehe Daing, 02°08'53.2"N, 118°32'31.6"E, 10–25 m, dead, scuba diving, 28.X.2003 (1 valve, ZMA Moll. 139539).

Distribution and ecology: Throughout tropical Indo-West Pacific. Living intertidally to littorally, byssally attached to rocks or corals, often nestling in crevices, or amongst coral rubble on sandy bottoms.

Remarks: This is the first record of this species for Indonesia.

Semipallium dringi (Reeve, 1853)

Pecten dringi Reeve, 1853: sp. 152 [text unpaginated], pl. 33, fig. 152b.

Semipallium dringi; Dijkstra, 1991: 39.

Material examined: NBE stat. 36. Kakaban Island, SE-side, 02°07'56.6"N, 118°32'39.8"E, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 094303). NBE stat. 38. Maratua Island, W-side, 02°12'16.3"N, 118°35'18.9"E, alive, scuba diving, 22.X.2003 (1 pair + 1 valve, ZMA Moll. 094302). NBE stat. 48. Maratua Island, S-side, bay southeast of village, 02°11'01.6"N, 118°36'15.2"E, dead, scuba diving, 28.X.2003 (3 valves, ZMA Moll. 094304). NBE stat. 49. Kakaban Island, NE-side, entrance of tidal lake Kehe Daing, 02°08'53.2"N, 118°32'31.6"E, scuba diving, 28.X.2003 (1 valve, ZMA Moll. 094307).

Distribution and ecology: Tropical Indo-West Pacific. Living littorally, byssally attached to corals or amongst coral rubble on sandy bottoms.

Remarks: This species was previously recorded from Indonesia by Dijkstra (1991: 39).

Semipallium fulvicostatum (Adams & Reeve, 1850)

Pecten fulvicostatus Adams & Reeve, 1850: 74, pl. 21, fig. 11.

Semipallium fulvicostatum; Dijkstra, 1997: 333, figs. 42-45 [references].

Material examined: NBE stat. 30. Lighthouse-I reef, N-side, S of Derawan Island, 02°16'02.1"N, 118°14'22.6"E, dead, scuba diving, 18.X.2003 (1 valve, ZMA Moll. 094310). NBE stat. 36. Kakaban Island, SE-side, 02°07'56.6"N, 118°32'39.8"E, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139516). NBE stat. 40. Baliktaba reef, NE-side, N of Panjang Island, 02°35'14.6"N, 118°00'34.6"E, dead, scuba diving, 24.X.2003 (1 valve, ZMA Moll. 139510).

Distribution and ecology: Tropical Indo-West Pacific. Living littorally, byssally attached to rocks or corals or amongst coral rubble on sandy bottoms.

Remarks: This species was previously recorded from Indonesia by Dautzenberg & Bavay (1912 : 16), Dijkstra (1990 : 12), Dijkstra (1991 : 38) and Dijkstra (1997 : 333).

Genus *Talochlamys* Iredale, 1929

Talochlamys inaequalis n. sp.

(Figs. 7-10)

Material examined: Holotype (articulated specimen) (ZMA Moll. 404025), paratype (juvenile specimen) (ZMA Moll. 404026).

Type locality: NBE stat. 05. Indonesia, Kalimantan, Berau Islands, Berau delta, Lighthouse-2 reef, 02°09'33.9"N, 118°10'11.4"E, scuba diving, 05.X.2003.

Description: Shell approximately 18 mm in height, rather solid, elongate, inequivalve, inflated, left valve slightly more convex than right valve, anterior auricle much larger than posterior, umbonal angle about 90°, colour pinkish and brownish with white dots, right valve paler.

Valves sculptured with irregularly spaced and developed high rounded radial ribs, commencing at 0.5 mm shell height, extending and increasing by irregularly developed primary and secondary ribs to the ventral margin (ca. 40). Radial ribs bear small, widely spaced lamellae. Rather widely spaced commarginal intercostal lamellae throughout all growth stages. Anterior auricle of left valve with squamous radial riblets (ca. 12), anterior auricle of right valve with 5 prominent radial ribs. Posterior auricles nearly smooth. Hinge line straight. Byssal notch moderately deep, byssal fasciole rather broad and ctenolium with 6 teeth.

Dimensions of the holotype: height 18.0 mm, length 14.9 mm, thickness 5.8 mm.

Etymology: The radial sculpture is irregular and unequal (Lat. *inaequalis*, adj. = irregular,

unequal, rough).

Discussion: *Talochlamys inaequalis* n. sp. closely resembles *T. zelandiae* (Gray, 1843) from New Zealand in shape, but differs in sculpture by having more delicate secondary radial riblets (coarser on *T. zelandiae*), more developed intercostal commarginal lamellae (absent in late ontogeny on *T. zelandiae*) and antimarginal microsculpture (lacking in *T. inaequalis* n. sp. and prominent in *T. zelandiae*).

Talochlamys pulleineana (Tate, 1887) from southeastern and southern Australia also has prominent intercostal commarginal lamellae, but differs from *T. inaequalis* n. sp. in shape (more oval in *T. pulleineana*, more elongate in *T. inaequalis* n. sp.), convexity (more flattened in *T. pulleineana*, more inflated in *T. inaequalis* n. sp.), sculpture (stronger developed and more closely spaced lamellae on ribs of *T. pulleineana*, weaker and wider spaced on ribs of *T. inaequalis* n. sp.), and in antimarginal microsculpture (weak in *T. pulleineana*, lacking in *T. inaequalis* n. sp.).

Genus *Palliolium* Monterosato, 1884

***Palliolium minutulum* Dijkstra & Southgate, 2000**

Palliolium minutulum Dijkstra & Southgate, 2000: 14, figs. 1–7.

Material examined: NBE stat. 03. Derawan Island, S-side, jetty Derawan Dive Resort, 02°17′03.3″N, 118°14′48.8″E, dead, scuba diving, 04.X.2003 (1 valve, ZMA Moll. 139538).

Distribution and ecology: Australia (Queensland), Solomon Islands, New Caledonia, Fiji and Kiribati (Dijkstra & Southgate, 2000: 16). Living littorally, amongst algae on soft sediments.

Remarks: This is the first record of this species for Indonesia.

Genus *Cryptopecten* Dall, Bartsch & Rehder, 1938

***Cryptopecten nux* (Reeve, 1853)**

Pecten coruscans Reeve, 1853: sp. 143 [text unpaginated], pl. 32, fig. 143 (not *Pecten coruscans* Hinds, 1845).

Pecten nux Reeve, 1853: index, errata [text unpaginated].

Cryptopecten nux; Dijkstra & Kilburn, 2001: 310, figs. 50–51 [references, description].

Material examined: NBE stat. 40. Baliktaba reef, NE-side, N of Panjang Island, 02°35′14.6″N, 118°00′34.6″E, dead, scuba diving, 24.X.2003 (1 valve, ZMA Moll. 139514).

Distribution and ecology: Tropical and subtropical Indo-West Pacific. Living littorally to bathyally, byssally attached to rocks or corals, or amongst gravel or coral rubble on sandy bottoms.

Remarks: This species was previously recorded from Indonesia by Dautzenberg & Bavay (1912 : 23), Dijkstra (1990 : 12), Dijkstra (1991 : 36) and Dijkstra & Kastoro (1997 : 275).

Genus *Excellichlamys* Iredale, 1939

***Excellichlamys spectabilis* (Reeve, 1853)**

Pecten spectabilis Reeve, 1853: sp. 128 [text unpaginated], pl. 29, fig. 128.

Excellichlamys spectabilis; Dijkstra, 1997: 327, figs. 24–27 [references].

Material examined: NBE stat. 35. Kakaban Island, W-side, 02°08'21.0"N, 118°30'20.1"E, dead, scuba diving, 21.X.2003 (1 valve, ZMA Moll. 139515). NBE stat. 40. Baliktaba reef, NE-side, N of Panjang Island, 02°35'14.6"N, 118°00'34.6"E, dead, scuba diving, 24.X.2003 (1 valve, ZMA Moll. 139506).

Distribution and ecology: Tropical Indo-West Pacific. Living littorally, byssally attached to corals or amongst coral rubble on sandy bottoms.

Remarks: This species was previously recorded from Indonesia by Dautzenberg & Bavay (1912: 22), Dijkstra (1990: 12), Dijkstra (1991: 44), Dharma (1992: 84 ; 2005: 250) and Dijkstra (1997: 327).

Genus *Gloripallium* Iredale, 1939

***Gloripallium pallium* (Linnaeus, 1758)**

Ostrea pallium Linnaeus, 1758: 697.

Gloripallium pallium; Dijkstra & Kilburn, 2001: 280 [references, description].

Material examined: NBE stat. 04. Derawan Island, S-side, Snapper Point, 02°17'03.4"N, 118°14'49.0"E, dead, scuba diving, 04.X.2003 (1 valve, ZMA Moll. 139512). NBE stat. 06. Shoal between Lighthouse-2 reef and Derawan Island, 02°12'08.6"N, 118°11'34.9"E, alive, scuba diving, 05.X.2003 (1 pair, ZMA Moll. 139502). NBE stat. 30. Lighthouse-I reef, N-side, S of Derawan Island, 02°16'02.1"N, 118°14'22.6"E, dead, scuba diving, 18.X.2003 (2 valves, ZMA Moll. 094309). NBE stat. 35. Kakaban Island, W-side, 02°08'21.0"N, 118°30'20.1"E, alive, scuba diving, 21.X.2003 (2 pair + 1 valve, ZMA Moll. 139501). NBE stat. 36. Kakaban Island, SE-side, 02°07'56.6"N, 118°32'39.8"E, dead, scuba diving, 21.X.2003 (2 valves, ZMA Moll. 139511). NBE stat. 48. Maratua Island, S-side, bay southeast of village, 02°11'01.6"N, 118°36'15.2"E, dead, scuba diving, 28.X.2003 (3 valves, ZMA Moll. 094305 ; 2 valves, ZMA Moll. 139535). NBE stat. 49. Kakaban Island, NE-side, entrance of tidal lake Kehe Daing, 02°08'53.2"N, 118°32'31.6"E, scuba diving, 28.X.2003 (1 valve, ZMA Moll. 094306).

Distribution and ecology: Throughout the tropical Indo-Pacific, except the Red Sea and Hawaiian Islands. Living littorally, byssally attached to rocks or corals, or amongst gravel or coral rubble on sandy bottoms.

Remarks: The species was previously recorded from Indonesia by Dautzenberg & Bavay (1912: 19), Adam & Leloup (1939: 59), Waller (1972: 242), Dijkstra (1990: 12), Dijkstra (1991: 46), Dharma (1992: 84 ; 2005: 250) and Dijkstra (1997: 328).

Genus *Mirapecten* Dall, Bartsch & Rehder, 1938

***Mirapecten rastellum* (Lamarck, 1819)**

Pecten rastellum Lamarck, 1819: 166.

Mirapecten rastellum; Dijkstra, 1991: 48 [references].

Material examined: NBE stat. 40. Baliktaba reef, NE-side, N of Panjang Island, 02°35'14.6"N, 118°00'34.6"E, dead, scuba diving, 24.X.2003 (1 valve, ZMA Moll. 139507).

Distribution and ecology: Tropical Indo-West Pacific. Living littorally to sublittorally, amongst corals, gravel or coral rubble on sandy bottoms.

Remarks: This species was previously recorded from Indonesia by Dijkstra (1991: 48).

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References

- Adam, W. & Leloup, E. 1939. Gastropoda-Pulmonanta, Scaphopoda and Bivalvia. *In*: Van Straelen, V., Résultats scientifiques du voyage aux Indes Orientales Néerlandaises de LL. AA. RR. le Prince et la Princesse Léopold de Belgique. *Mémoires du Musée Royal d'Histoire Naturelle de Belgique*, hors série 2 (20) : 1-126.
- Bavay, A. 1904. Descriptions de quelques nouvelles espèces du genre *Pecten* et rectifications. *Journal de Conchyliologie* 52 : 197-206.
- Dautzenberg, P. & Bavay, A. 1912. Les lamellibranches de l'expédition du « Siboga ». Partie Systématique. I. Pectinidés. *In*: Weber, M. (ed.), Résultats des explorations zoologiques, botaniques, océanographiques et géologiques entreprises aux Indes Néerlandaises Orientales en 1899-1900, à bord du Siboga [...]. 53b : 127-167.
- Dharma, B. 1992. *Indonesian shells II*. 135 pp., 38 pls. Christa Hemmen, Wiesbaden.
- Dharma, B. 2005. *Recent & fossil Indonesian shells*. 424 pp., 150 pls. Conch Books, Hackenheim.
- Dijkstra, H. H. 1990. Three new pectinacean species from the Indonesian Archipelago collected during the Siboga expedition (1899-1900) with additional information and corrections on the previous report (Mollusca: Propeamussiidae, Pectinidae). *Beaufortia* 40: 1-14.
- Dijkstra, H. H. 1991. A contribution to the knowledge of the pectinacean Mollusca (Bivalvia: Propeamussiidae, Entoliidae, Pectinidae) from the Indonesian Archipelago. *Zoologische Verhandelingen* 271: 1-57.
- Dijkstra, H. H. 1995. Bathyal Pectinoidea (Bivalvia: Propeamussiidae: Entoliidae, Pectinidae) from New Caledonia and adjacent areas. *In*: Bouchet, P. (ed.), Résultats des campagnes MUSORSTOM, volume 14. *Mémoires du Muséum national d'Histoire naturelle* 167: 9-73.
- Dijkstra, H. H. 1997. Results of the Rumphius Biohistorical Expedition to Ambon (1990). Part 6. Mollusca, Bivalvia, Pectinidae. *Zoologische Mededelingen* 71 (27): 313-343.
- Dijkstra, H. H. 1998. Pectinoidea (Mollusca: Bivalvia: Pectinidae: Propeamussiidae) from Hansa Bay, Papua New Guinea. *Molluscan Research* 19: 11-52.
- Dijkstra, H. H. 2001. Bathyal Pectinoidea (Bivalvia: Propeamussiidae, Entoliidae and Pectinidae) from Wallis and Futuna Islands, Vanuatu Archipelago and New Caledonia. *In*: Bouchet, & P. Marshall, B. A. (eds.), Tropical deep-sea benthos, volume 22. *Mémoires du Muséum national d'Histoire naturelle* 185: 73-95.
- Dijkstra, H. H. & Kastoro, W. K. 1997. Mollusca Bivalvia: Pectinoidea (Propeamussiidae and Pectinidae) from eastern Indonesia. *In*: Crosnier, A. & Bouchet, P. (eds.), Résultats des campagnes MUSORSTOM, volume 16. *Mémoires du Muséum national d'Histoire naturelle* 172: 245-285.
- Dijkstra, H. H. & Kilburn, R. N. 2001. The family Pectinidae in South Africa and Mozambique (Mollusca: Bivalvia: Pectinoidea). *African Invertebrates* 42: 263-321.
- Dijkstra, H. H. & Knudsen, J. 1998. Some Pectinoidea (Mollusca: Bivalvia: Propeamussiidae, Pectinidae) of the Red Sea. *Molluscan Research* 19: 43-104.
- Dijkstra, H. H. & Marshall, B. A. 1997. Pectinoidea (Mollusca: Bivalvia: Propeamussiidae: Pectinidae) of Lord Howe Island, Norfolk Island and the Kermadec Islands. *Molluscan Research* 18: 73-114.
- Dijkstra, H. H. & Raines, B. K. 1999. *Paschinnites* n. gen. for "*Pecten (Chalmys)*" [sic] *pasca* Dall, 1908, a cemented Easter Island scallop (Bivalvia: Pectinidae). *Basteria* 63: 199-203.
- Dijkstra, H. H. & Southgate, P. C. 2000. A new living scallop (Bivalvia: Pectinidae) from the southwestern Pacific. *Molluscan Research* 20: 13-18.
- Gray, J. E. 1843. Catalogue of the species of Mollusca and their shells, which have hitherto been recorded as found at New Zealand, together with the description of some lately discovered species. Appendix 4. *In*: Dieffenbach, E., *Travels in New Zealand; with contributions to the geography*,

- geology, botany and natural history of that country* 2: 228–265. John Murray, London.
- Hayami, I. & Kase, T. 1993. Submarine cave Bivalvia from the Ryukyu Islands: systematics and evolutionary significance. *The University Museum, The University of Tokyo, Bulletin* 35: i–vi, 1–133.
- Paulay, G. 2003. Marine Bivalvia (Mollusca) of Guam. *Micronesica* 35–36 : 218–243.
- Tate, R. W. 1887. Descriptions of some new species of South Australian marine and fresh-water Mollusca. *Transactions and Proceedings of the Royal Society of South Australia* (for 1885–6) 9: 62–75.
- Waller, T. R. 1972. The Pectinidae (Mollusca: Bivalvia) of Eniwetok Atoll, Marshall Islands. *The Veliger* 14: 221–264.
- Waller, T. R. 1993. The evolution of “Chlamys” (Mollusca: Bivalvia: Pectinidae) in the tropical western Atlantic and eastern Pacific. *American Malacological Bulletin* 10: 195–249.

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インドネシア東カリマンタン, ベラウ諸島のイタヤガイ類

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要 旨

インドネシア, 東カリマンタン, ベラウ諸島の周辺のサンゴ礁から採集されたイタヤガイ上科の貝類を分類学的に調べた結果, 19種類(ワタゾコツキヒガイ科4種, イタヤガイ科15種類)を認めた。これらのうち3種は未記載種であり, その2種類を新種として記載した。また, *Paschinnites coruscans coruscans* (Hinds, 1845) ヤガスリヒヨクと *Palliolium minutulum* Dijkstra & Southgate, 2000 の2種類はインドネシアから新記録となる。

Parvamussium caesicium n. sp.

タイプ標本: ホロタイプ ZMA Moll. 404023, 左殻片, 殻高 3.2 mm, 殻長 3.2 mm。

タイプ産地: ベラウ諸島, カカバン島北東礁湖入り口近く, 水深 10-25 m。

記載: 貝殻は小型で脆く, 殻径, 殻高ともにおよそ 3 mm。概形は円く, 不等殻。膨らみはやや強く, 左右ではほぼ同等。前耳は後耳よりも大きく, 殻頂角は約 110°。殻色は白みを帯び, 初期成長期の部分は透明で, その後半透明となる。左殻は, 初期成長期の部分には間隔の広い同心円状の繊細な肋を具えるが, 殻高 1 mm を超えた部分からは急激に細かく, 間隔が狭くなる。その前後から放射状の肋も現れ, 腹縁に向かって徐々に太くなる。前耳には顕著な同心円状の肋があるが, 後耳の肋は弱く間隔も狭い。右殻(パラタイプに基づく)は, 全面に非常に狭い間隔で規則的に並ぶ, 同心円状の細肋を持つ。前耳は後耳よりも著しく大きく, 3-5本の放射肋を持つ。鉸線は直線的。足糸湾入は浅く, 櫛歯を欠く。殻頂から 1 mm 付近から 10-11本の内肋が現れ, 腹縁近くまで伸びる。

比較: 本種はバンダ・フローレス海の漸深海域から知られる *P. carbaceum* Dijkstra, 1991 に最も近似するが, 左殻の放射肋の間に二次肋を持たないこと, 左殻前耳の輪肋の間隔が狭いこと, 及び初期成長期部分が透明であることなどで異なる。同じくバンダ海の漸深海から知られる *P. undosum* Dijkstra, 1991 も本種に近似するが, 輪状細肋が放射肋の上にも及ぶこと, 及び放射肋が太く, 数が少ないことで異なる。

Talochlamys inaequalis n. sp.

タイプ標本: ホロタイプ ZMA Moll. 404025, 合弁, 殻高 18.0 mm, 殻長 14.9 mm。

タイプ産地: 東カリマンタン, ベラウ川河口リーフ, スキューバダイビングにより採集。

記載: 殻は高さ 18 mm でむしろ堅固。細長く, 不等殻で, 膨らみ強く, 左殻はやや右殻よりも深い。前耳は後耳よりも遥かに大きく, 殻頂角は約 90°。殻色はピンク色, もしくは褐色を帯び, 白色の斑点を持ち, 右殻の方が色彩が淡い。貝殻表面には, 丸みを帯びた明らかな放射肋が, やや不規則に並び, 肋間に現れる二次肋とともに, 腹縁に向かってやや不規則に発達する。放射肋の上には, 小さな鱗片が間隔を置いて並び, また肋間には全面にわたり同心円状の細肋が現れる。左殻の前耳には鱗片を具えた放射肋(12本)が, 右殻の前耳には5本の顕著な放射肋がある。後耳はほとんど平滑。鉸線は直線的。足糸湾入は比較的深く, 足糸帯はむしろ広く, 櫛歯は6を数える。

比較: 本種は殻形においてニュージーランドの *T. zelandiae* (Gray, 1843) に近似するが, 放射肋の間に繊細な二次肋を持つことや, 肋間に同心円状の細肋を持つことなどで異なる。南東~南オーストラリアに分布する *T. pulleineana* (Tate, 1887) は同様に肋間の同心円状細肋を持つことで本種に類似するが, 殻形が異なる。