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**MEDEDEELINGEN VAN DE LANDBOUW-
HOOGESCHOOL TE WAGENINGEN (NEDERLAND)**

**ONDER REDACTIE VAN EEN COMMISSIE
UIT DEN SENAAT
SECRETARIS PROF. DR. G. GRIJNS**

**DEEL 29
VERHANDELING 1**

**REPORT ON A COLLECTION OF
RECENT SHELLS FROM OBI AND
HALMAHERA (MOLUCCAS)**

BY

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GEDRUKT TER ALGEMEENE LANDSDRUKKERIJ

The present paper deals with a collection of recent shells, chiefly marine, from the islands of Obi Major and Halmahera (or Gilolo) in the Moluccas (East Indian Archipelago). This collection forms part of the conchological collections kept in the Geological Museum of the Agricultural University at Wageningen (Holland).

The shells from Halmahera have been collected on the East coast by the Rev. Maan, missionary at the mission Buli and Weda-bay, E. coast of Halmahera, The shells from Obi Major were collected on the shores by Mrs. Ham when accompanying Prof. S. P. Ham, now in Wageningen, during a stay at that island in 1899.

As I thought it useful to give a summary of the whole littoral marine and submarine molluscan fauna of the neighbourhood, I have included all the shell-bearing species which have hitherto been recorded from the Obi Is. and from Halmahera and surrounding islands¹).

Owing to the kindness of Dr. Fr. Haas, I was able to prepare part of this paper at the Senckenberg Museum in Frankfurt-on-Main, where I could avail myself of the excellent library. As to the part of this work made in Wageningen, I am much indebted to Prof. van Baren for his help in procuring the most indispensable literature. Mr. J. J. Verwijnen has greatly obliged me by the loan of books from the rich library of Teyler's Museum.

In conclusion, I have to express my thanks to Miss W. S. S. van Benthem Jutting, of the Zoological Museum at Amsterdam, and to Dr. E. d. Lamy, of the Museum d'Histoire naturelle in Paris, who have kindly assisted me in the identification of certain critical specimens.

A summary of previous work on the marine Mollusca of the northern Moluccas may now be given.

Between 1860 and 1865 the region under consideration has been explored by Dr. H. A. Bernstein who collected for the

¹) The names (and synonymy) of species not in the collection are printed in smaller type.

Leyden Museum at Halmahera, Rau, Morotai, Bachan and the Obi Is.¹⁾ A considerable number of *Prosobranchia* and one species of *Chiton*, collected by him, were listed in the Catalogue of the Leyden Museum by HORST and SCHEPMAN (63). Moreover some shells from Ternate, collected by Dr. Semmelink, were mentioned in that catalogue.

In 1862 Halmahera and the islands west of it (the Moluccas proper) were explored for shells by Professor EDUARD VON MARTENS. Collections were made by him at Halmahera, Ternate, Tidore, Mareh, Motir, Makian, Kajoa, (Great-) Tawali, Kema, and Bachan. Apart from the terrestrial Mollusca, the results of his investigations were published in his monographs of *Neritina* (104), *Navicella* (106), and *Nerita* (108) in the Conchylien-Cabinet, in MAX WEBER's „Zoologische Ergebnisse einer Reise in Niederländisch Ost-Indien“ (109), and in the „Rumphius Gedenkboek“ (110).

In 1889 Dr. Adolf Strubell collected some shells at Bachan, which were described by O. BOETTGER (13).

Prof. W. KÜKENTHAL in 1893—94 made zoological collections at Halmahera, Ternate, and Bachan. The results of his voyage were published in a series of articles by several zoologists. Some articles deal with testaceous Mollusca (191) (192) (193).

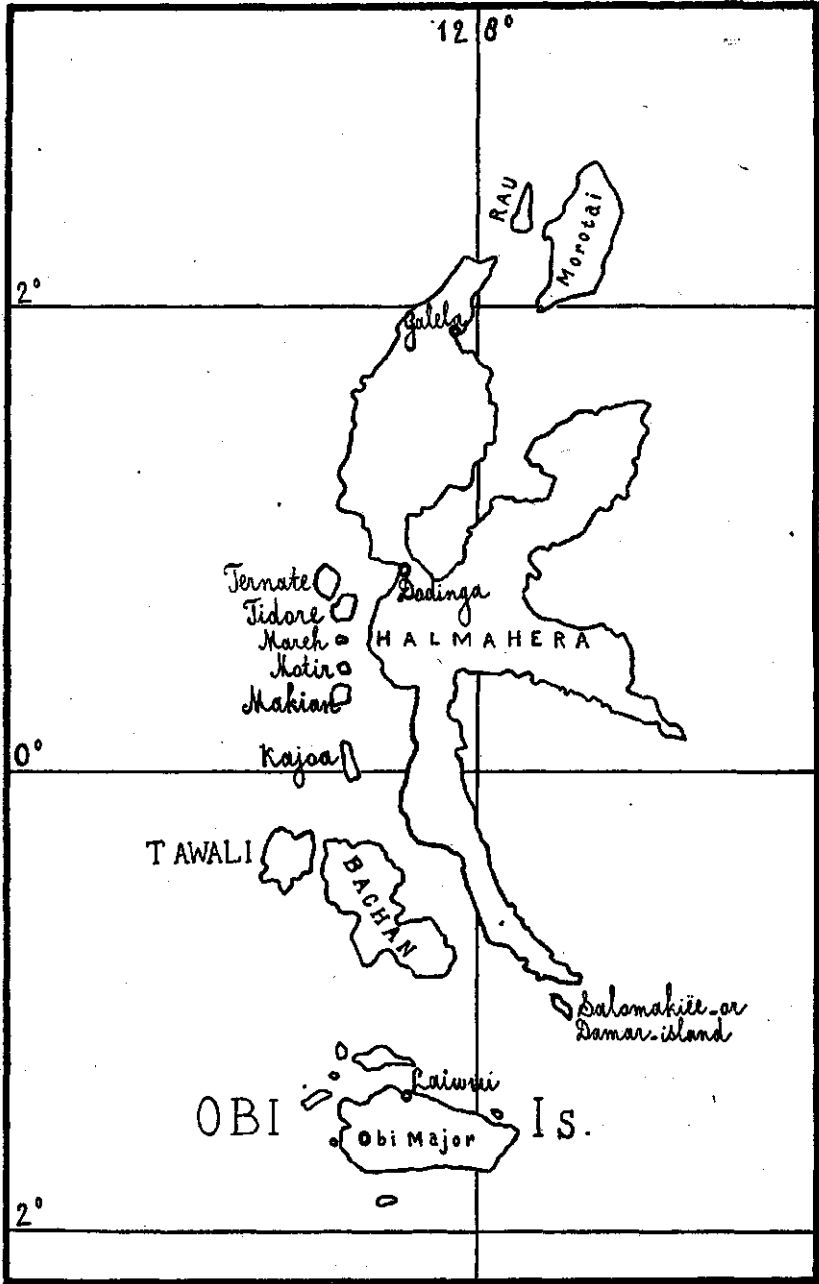
As to the Mollusca collected by the Siboga expedition (1899—1900), I have included the shells collected near Laiwui (Obi Major), and north of Salomakiëe-island near the southern peninsula of Halmahera. A considerable number of *Gastropoda* were recorded from these localities by M. M. SCHEPMAN (155), moreover some Chitons by H. F. NIERSTRASZ (203), and a single representative of the family *Pectinidae* by DAUTZENBERG and BAVAY (39).

In 1910 PH. DAUTZENBERG (38) listed a collection of marine shells sent from Halmahera to the „Musée Océanographique“ at Monaco.

N.B.: In the systematic portion authors' names are printed in capitals, names of scientific travellers who collected molluscs are in ordinary type.

The numbers in parentheses following authors' names refer to corresponding numbers in the Bibliography given at the end of this paper.

¹⁾ All the islands mentioned here have been indicated on the appended sketch-map.



AMPHINEURA.

FAM. ISCHNOCHITONIDAE.

1. *Craspedochiton tessellatus* Nierstrasz.

- 1905 *Craspedochiton tessellatus* nov. spec., NIERSTRASZ, Chitonen der Siboga (203), pp. 43—46, nr. 1, pl. I, figs. 12—14; pl. III, figs. 93—94; pl. IV, figs. 95—96.
Salomakiëe-island, reef (Siboga exp.).

FAM. ACANTHOCHITIDAE.

1 a. *Leptoplax varius* Nierstrasz.

- 1905 *Leptoplax varius* nov. spec., NIERSTRASZ, Chitonen d. Siboga (203), pp. 52—53, nr. 1, pl. II, figs. 24—25; pl. V, figs. 134—140.
Salomakiëe-island, reef (Siboga exp.).

FAM. CRYPTOPLACIDAE.

1 b. *Cryptoplax burrowi* (E. A. Smith).

- 1905 *Cryptoplax burrowi* E. A. Smith. NIERSTRASZ, Chitonen der Siboga (203), pp. 71—73, nr. 1, pl. II, figs. 26—27; pl. V, figs. 141—145; pl. VI, figs. 146—150.
Salomakiëe-island, reef (Siboga exp.).

FAM. CHITONIDAE.

1 c. *Tonicia (Tonicia) confossa* Gould.

- 1905 *Tonicia confossa* Gould. NIERSTRASZ, Chitonen der Siboga (203), pp. 90—91, nr. 1, pl. II, fig. 31; pl. VI, fig. 165.
Salomakiëe-island, reef (Siboga exp.).

1 d. *Acanthopleura spinigera* (Sowerby).

- 1902 *Chiton (Acanthopleura) spiniger* Sow., VON MARTENS, Rumphius Gedenkb. (110), p. 129.

- 1908 *Acanthopleura spinigera* Sowerby. HORST et SCHEPMAN, Catalogue, (63), p. 527.

Halmahera and Morotai (Bernstein, Leyden Museum).

Bachan (collected by VON MARTENS).

1 e. *Schizochiton incisus* (Sowerby).

- 1905 *Schizochiton incisus* Sowerby. NIERSTRASZ, Chitonen der Siboga (203), pp. 104—105, nr. 1, pl. VI, figs. 162—164.

Laiwui, Obi Major, reef (Siboga exp.).

GASTROPODA.

PROSOBRANCHIA.

FAM. PATELLIDAE.

2. *Helcioniscus testudinarius* (Linné).

For the synonymy and the distribution of this species see my paper on shells from Java (129), pp. 9—10. The following references may be added:

- 1757 Bouclier, de couleur d'écaille de Tortuë. D'ARGENVILLE (4), part. I, p. 189, pl. 2, fig. P.
- 1764 *Patella testudinaria*. LINNÉ, Mus. Lud. Ulr. (95), p. 693, nr. 420.
- 1769 *Lepades vertice & limbo integro depressiores, ovatae, Testudinis clypeum colore referendes*. MARTINI, Conch.-Cab. (122), vol. I, pp. 104—106, pl. VI, figs. 45—48.
- 1832 *Patela* (p. err. typ.) *testudinaria*. DESHAYES, Encycl. méth. (49), vol. III, p. 707, nr. 8.
- 1869 *Patella insignis* Dnk. VON FRAUENFELD, Nicobaren (55), pp. 872, 897.
- — *testudinaria* L. VON FRAUENFELD, *ibid.*, p. 873.
- 1880 *Patella testudinaria* Linne. VON MARTENS, Mauritius (105), p. 299.
- 1901 *Helcioniscus testudinarius* (L.). MELVILL and STANDEN, Persian Gulf (124), I, p. 343.

Obi Major, 2 specimens.

East coast of Halmahera, 1 specimen.

Specimens from the Obi Is., from Northern Halmahera and Morotai, collected by Dr. Bernstein, are in the Leyden Museum. VON MARTENS collected this species at Bachan.

Add to distribution: Nicobar Is. (Novara); Mekran Coast of Baluchistan and Southern Persia (MELVILL and STANDEN). — Mauritius (Robillard).

3. *Helcioniscus eucosmius* Pilsbry.

- 1902 *Patella variegata* Reeve. VON MARTENS, Rumphius Gedenk. (110), p. 124.

Bachan (collected by VON MARTENS).

Synonymy and distribution in: „Recent shells from Java” (129), p. 10.

FAM. FISSURELLIDAE.

4. *Fissuridea ticaonica* (Reeve).

- 1908 *Glyphis ticaonica* Reeve. SCHEPMAN, Siboga (155), p. 86.
North of Salomakiëe-island, coral bottom and Lithothamnion
(Siboga exp.).

5. *Submarginula tricarinata* (Born).

- 1908 *Submarginula tricarinata* Born. SCHEPMAN, Siboga (155), p. 93.
North of Salomakiëe-island, Lithothamnion-bottom (Siboga
exp.).

6. *Scutus unguis* (Linné).

- 1908 *Scutus unguis* (L.). R. BERGH in SCHEPMAN, Siboga (155), p. 99.
North of Salomakiëe-island (Siboga exp.).

6 a. *Scutus granulatus* (de Blainville).

- 1897 *Scutus granulatus* (Blainv.). BERGH, Opisthobranchiaten v. Kükenthal
(191), pp. 124—127.
Near Ternate (Kükenthal).

FAM. HALIOTIDAE.

7. *Haliotis (Haliotis) varia* Linné.

- 1705 *Auris marina*. RUMPHIUS (151), p. 121, pl. XL, fig. G.
1758 *Haliotis varia*. LINNÉ, Syst. Naturae, edit. X (94), p. 780,
nr. 650.
1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 684, nr. 404.
1767 — — LINNÉ, Syst. Nat. XII (96), p. 1256, nr. 743.
1769 *Auris marina 5 foraminibus pervia, etc.*. MARTINI, Conch-
Cab. (122), vol. I,
pp. 183—184, pl.
XV, fig. 144.
1791 *Haliotis varia*. GMELIN, Syst. Nat. (56), p. 3688, nr. 4
(exclusive of several synonyms!).
1817 — — DILLWYN, A descriptive Catalogue of
recent shells, vol. II, p. 1010, nr. 7.
1843 — — Lin. DESHAYES in DESHAYES—LA-
MARCK, An. s. vert. (86), vol. IX, pp.
31—32, nr. 17.
1846 *Haliotis viridis*. REEVE, Proc. Zool. Soc. (144), p. 56.
— — *semistriata*. REEVE, *ibid.*, p. 57.

- 1846 *Haliotis varia*. REEVE (145), vol. III, *Haliotis*, pl. II, fig. 4.
 — — *viridis*. REEVE, *ibid.*, pl. XIII, fig. 40.
 — — *semistriata*. REEVE, *ibid.*, pl. XIV, figs. 51 a, b, c.
 1854 *Haliotis varia*, Linn. H. and A. ADAMS, *Genera* (3), vol. I,
 p. 442.
 — — *semistriata*, Reeve. H. and A. ADAMS, *ibid.*, p. 442.
 — — *viridis*, Reeve. H. and A. ADAMS, *ibid.*, p. 442.
 1855 *Haliotis varia*. HANLEY, *Ipsa Linn. Conch.* (58), pp.
 411—412, 544.
 1869 — — , Linneo. ISSEL, *Mar Rosso* (65), p. 230.
 1880 — — Linne. VON MARTENS, *Mauritius* (105),
 p. 298.
 1882 — — , Linnaeus and var. *semistriata* Rve.. SO-
 WERBY, *Thesaurus* (167), vol. V, p. 28,
 nr. 46, pl. 428, figs. 5—7, 11, 12; pl. 435,
 fig. 61.
 1883 — — Linné. WEINKAUFF, *Haliotis* (185), p. 10,
 pl. 3, fig. 4.
 1886 — — , Linne. BOOG WATSON, *Challenger Ga-*
sterop. (182), p. 677.
 1890 *Haliotis (s. str.) varia* Linné and vars. *semistriata* Rve,
viridis Rve and *pustulifera* Pilsbry. PILSBRY, *Manual*
 (177), vol. XII, pp.
 95—96, pl. 17, figs.
 91, 93, 99, 100; pl.
 23, figs. 52—55.
 1899 *Haliotis varia*, L.. MELVILL and STANDEN, *Torres Straits*
 (123), p. 179, nr. 224.
 1902 *Haliotis varia* L.. VON MARTENS, *Rumphius Gedenkb.*
 (110), p. 124.
 1908 *Haliotis (Haliotis) varia* Linné and vars. *semistriata* Reeve
 and *pustulifera* Pilsbry. HORST et SCHEPMAN, *Catalogue*
 (63), p. 483.
 1908 *Haliotis varia*, Lin.. NOBRE, *Timor* (128), p. 228.
 1908 *Haliotis varia* Linné. SCHEPMAN, *Siboga exp.* (155), pp.
 76—77.
 1909 — — L.. LAMY, *Java* (89), p. 467.

East coast of H a l m a h e r a, 3 specimens.
 This species was collected at Tidore by VON MAR-
 TENS; specimens from Bachan and Morotai collec-
 ted by Dr. Bernstein are in the Leyden Museum.

Distribution: East Indian Archipelago (on reefs and shores): Banda (Siboga); Waigeu (Leyden Mus., Siboga); Misol (Leyden Mus.); Skroë, New Guinea (Leyden Mus.); Kur-island, S. E. of Ceram (Siboga); Kisser, N. of Timor and Timor (Leyden Mus.); Dilly, Timor (NOBRE); Rotti-island (Siboga); Solor (Leyden Mus.); Larentuka, Flores (Leyden Mus.); Lombok (Siboga); Java (LAMY); Palabuan, south coast of Java (VON MARTENS); Northern Celebes and Togean Is. (A. B. Meyer); Sangir Is. (Leyden Mus.); Talaut Is. (Siboga).

Torres Straits (MELVILL and STANDEN). — Australia (SOWERBY). — Philippines (Cuming, Challenger); China. — Nicobar Is.; Ceylon (Cuming). — Gulf of Suez (ISSEL); Mauritius (Möbius); Réunion; Mozambique.

8. *Haliotis (Haliotis) glabra* Gmelin.

1902 *Haliotis glabra* Chemn.. VON MARTENS, Rumphius Gedenkb. (110), p. 124.

Bachan (collected by VON MARTENS).

9. *Haliotis (Teinotis) asinina* Linné.

1910 *Teinotis asinina* Linné. DAUTZENBERG, Halmahera (38), p. 3.

Halmahera (recorded by DAUTZENBERG).

FAM. STOMATIIDAE.

10. *Gena planulata* (Lamarck).

1902 *Stomatella (Gena) planulata* Lam.. VON MARTENS, Rumphius Gedenkb. (110), p. 124.

Ternate (collected by VON MARTENS).

11. *Gena lintrricula* A. Adams.

1908 *Gena lintrricula* Adams. SCHEPMAN, Siboga (155), p. 81.

North of Salomakiëe-island, coral bottom and Lithothamnion (Siboga exp.).

FAM. TURBINIDAE.

12. *Turbo (Turbo) marmoratus* Linné.

1705 *Cochlea Lunaris Major*. RUMPHIUS (151), pp. 69, 72, pl. XIX, figs. A, B; pl. XX, fig. A (operculum).

1758 REGENFUSS, Auserlesne Schnecken, Muscheln und andre Schaalthiere, vol. I, pl. 5, fig. 52.

- 1758 *Turbo marmoratus*. LINNÉ, *Systema Naturae*, edit. X (94), p. 763, nr. 539.
 — — *Olearius*. LINNÉ, *ibid.*, p. 763, nr. 541.
- 1764 *Turbo marmoratus*. LINNÉ, *Mus. Lud. Ulr.* (95), p. 655, nr. 345.
- 1767 *Turbo marmoratus*. LINNÉ, *Syst. Nat.* XII (96), p. 1234, nr. 619.
 — — *Olearius*. LINNÉ, *ibid.*, p. 1235, nr. 621.
- 1781 *Cochlea lunaris maxima*. CHEMNITZ, *Conch.-Cab.* (122), vol. V, pp. 182—185, pl. CLXXVIII, figs. 1771—1772.
 — *Cochlea lunaris perforata viridescens, etc.*. CHEMNITZ, *ibid.*, pp. 185—186, pl. CLXXVIII, figs. 1773—1774.
 — *Turbo marmoratus Linnaei*. CHEMNITZ, *ibid.*, pp. 188—190, pl. CLXXIX, figs. 1775—1776.
 — *Cochlea lunaris viridis, etc.*. CHEMNITZ, *ibid.*, pp. 208—211, pl. CLXXXII, figs. 1805—1806.
- 1791 *Turbo Cochlus*. GMELIN (56), p. 3590, nr. 9.
 — — *marmoratus*. GMELIN, *ibid.*, pp. 3592—3593, nr. 15.
 — — *Olearius*. GMELIN, *ibid.*, p. 3593, nr. 17.
- 1816 *Turbo marmoratus*. LAMARCK, *Tableau encycl.* (49 a), pl. 448, figs. 1 a, b; *Liste d. obj.*, p. 10 (Explan. of plates by BORY DE ST.-VINCENT, p. 175; 1827).
- 1822 *Turbo marmoratus*. LAMARCK, *An. s. vert.* (85), vol. VII, p. 39, nr. 1.
- 1832 — — DESHAYES, *Encycl. méth.* (49), vol. III, p. 1092, nr. 1.
- 1834 — — QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 212—216, nr. 1, pl. 59, figs. 10—16.
- 1842 *Turbo olearius* Gmelin. KÜSTER in PHILIPPI, *Turbo* (136), pp. 4—6, pl. 1, figs. 1, 2; pl. 4, figs. 1—4; pl. 8, figs. 1, 2.
- 1843 *Turbo marmoratus*, Lin.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. IX, pp. 185—186, nr. 1.

- 1848 *Turbo marmoratus*. REEVE (145), vol. IV, Turbo, pl. I, fig. 2.
- 1850 *Turbo Regenfussii* [not of Deshayes]. PHILIPPI, Turbo (136), pp. 88—89, pl. 4, figs. 3, 4.
- — *marmoratus*, Linné. PHILIPPI, *ibid.*, pp. 89—90, pl. 1, figs. 1, 2.
- 1855 *Turbo marmoratus*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 333, 531.
- — *olearius*. HANLEY, *ibid.*, pp. 333—334, 532.
- 1869 *Turbo marmoratus* Linné. LISCHKE, *Japan. Meeresconch.* (98), vol. I, pp. 86—87.
- 1871 — — LISCHKE, *ibid.*, vol. II, p. 81.
- 1873 — — Linné. P. FISCHER in KIENER (71), vol. X, Turbo, pp. 7—8, 119, 124, pls. 1, 2.
- 1880 *Turbo marmoratus* Linné. VON MARTENS, *Mauritius* (105), p. 293.
- 1882 — — Lin.. DUNKER, *Index Moll. maris Japon.* (48), p. 128.
- 1886 *Turbo (Turbo) marmoratus*. SOWERBY, *Thesaurus* (167), vol. V, p. 191, nr. 2, pl. 493, fig. 4; pl. 496, fig. 34.
- 1887 *Turbo marmoratus*, L.. VON MARTENS, *Mergui* (107), p. 195, nr. 224.
- 1888 *Turbo (s. str.) marmoratus* Linn.. PILSBRY (177), vol. X, pp. 191—192, pl. 41, fig. 23 and operculum: pl. 59, fig. 21.
- 1893 *Turbo marmoratus* Linné. DAUTZENBERG, *Séchelles* (32), p. 83.
- 1899 *Turbo marmoratus*, L.. MELVILL and STANDEN, *Torres Straits* (123), p. 175, nr. 196.
- 1902 *Turbo marmoratus* L.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 113.
- 1907 *Turbo marmoratus* Lin.. SCHEPMAN, *Posttertiär Celebes* (154), p. 194.
- 1908 *Turbo (Turbo) marmoratus* Linné. HORST et SCHEPMAN, *Cat.* (63), p. 438.
- 1908 *Turbo marmoratus* Lin.. NOBRE, *Timor* (128), p. 227.
- 1909 — — L.. LAMY, *Java* (89), p. 467.

1910 *Turbo marmoratus* Linné. DAUTZENBERG, Halmahera (38), p. 3.

1916 *Turbo (Turbo) marmoratus* L. CAES. BOETTGER, Hanseatische Südsee-Expedition (11), p. 305.

East coast of H a l m a h e r a, 1 operculum.

DAUTZENBERG mentioned also an operculum from Halmahera. VON MARTENS collected this species at Bachan.

Distribution: East Indian Archipelago (on steep crags in the surf, according to RUMPHIUS); Amboina (RUMPHIUS, Astrolabe); Waigeu (Astrolabe); Skroë, W. coast of New Guinea (Leyden Museum); Timor (NOBRE); Java (LINNÉ, LAMY); Tjilatjap, S. coast of Java (Leyden Mus.); Northern Celebes (A. B. Meyer).

Torres Straits (MELVILL and STANDEN). — Melanesia: Anir-island, N. E. of New Ireland and Solomon Is. (Hanseatic Pacific exped.). — Philippines (Cuming); Formosa (Swinhoe); Nagasaki, South Japan (LISCHKE). — Mergui-archipelago (Anderson); Moulmein, Tenasserim (MITCHELL); Ceylon (LINNÉ). — Seychelles, numerous on stony bottom beneath low-water mark (DUFO, Möbius, DAUTZENBERG); Amirantes (DUFO); St. Mary-island near Madagascar (SGANZIN); Sakatia near Nossi-Bé (Pollen and van Dam).

Fossil in the Pleistocene of Northern Celebes (Minahassa) (SCHEPMAN).

13. *Turbo (Turbo) petholatus* Linné.

1910 *Turbo petholatus* Linné. DAUTZENBERG, Halmahera (38), p. 3.
Halmahera (recorded by DAUTZENBERG).

14. *Turbo (Senectus) setosus* Gmelin.

1908 *Turbo (Senectus) setosus* Gmelin. HORST et SCHEPMAN, Cat. (63), p. 439.
Obi Is. (Bernstein, Leyden Museum).

15. *Turbo (Senectus) intercostalis* Menke.

1908 *Turbo (Senectus) intercostalis* Menke. HORST et SCHEPMAN, Cat. (63), p. 440.
Bachan (Bernstein, Leyden Mus.).

16. *Turbo (Senectus) ticaonicus* Reeve.

1902 *Turbo Ticaonicus* Reeve. VON MARTENS, Rumphius Gedenkb. (110), p. 113.

1908 *Turbo (Senectus) ticaonicus*, var. *disjuncta* Anton. HORST et SCHEP-
MAN, Cat. (63), p. 441.

Dodinga, Halmahera (VON MARTENS).

Ternate (Leyden Mus.).

Synonymy and distribution in: „Recent shells from Java” (129), pp. 11—12,
158.

17. *Astraea (Calcar) calcar* (Linné).

1908 *Astralium (Stella) calcar* Linné, and var. *helicina* Gmelin. HORST et
SCHEPMAN, Cat. (63), p. 447.

1908 — (*Cyclocantha*) *calcar* Linné, var. *helicinum* Gmelin. SCHEP-
MAN, Siboga (155), p. 29.

Obi Is. (Bernstein, Leyden Mus.); Laiwui, Obi Major, reef
(Siboga exp.).

Bachan (Bernstein, Leyden Mus.).

18. *Astraea (Calcar) provisoria* (Schepman).

1908 *Astralium (Cyclocantha) provisorium* n. sp. SCHEPMAN, Siboga (155),
p. 31, pl. II, fig. 3.

North of Salomakiëe-island, Lithothamnion-
bottom (Siboga exp.).

FAM. DELPHINULIDAE.

19. *Delphinula delphinus* (Linné).

1705 *Cochlea Laciniata*. RUMPHIUS (151), p. 73, pl. XX, fig. H.

1758 *Turbo Delphinus*. LINNÉ, Systema Naturae, edit. X (94),
p. 764, nr. 546.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 657,
nr. 349.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1236,
nr. 626.

1781 *Delphinus recens natus anfractibus subnodosis*. CHEMNITZ,
Conchyl.-Cab. (122), vol. V, p. 157, pl.
CLXXV, fig. 1727.

— *Delphinus junior anfractibus spinosis*. CHEMNITZ, *ibid.*, p.
158, pl. CLXXV, fig. 1728.

— *Delphinus decrepitus, etc.*. CHEMNITZ, *ibid.*, p. 158, pl.
CLXXV, fig. 1729.

— *Delphinus atratus, etc.*. CHEMNITZ, *ibid.*, p. 158, pl.
CLXXV, figs. 1730—1731.

— *Cochlea laciniata laciniis purpurascens*. CHEMNITZ,
ibid., p. 159, pl. CLXXV, fig.
1732.

- 1781 *Cochlea laciniata carnea, laciniis cornubus cervinis similis munita*. CHEMNITZ, *ibid.*, p. 159, pl. CLXXV, fig. 1733.
- *Cochlea laciniata nigricans veluti unguibus animantium armata*. CHEMNITZ, *ibid.*, p. 159, pl. CLXXV, figs. 1734—1735.
- *Delphinus supra et infra tuberculato-nodosus, etc.*. CHEMNITZ, *ibid.*, p. 160, pl. CLXXIV, figs. 1723—1724.
- *Delphinus iratus etc.*. CHEMNITZ, *ibid.*, p. 161, pl. CLXXV, fig. 1736.
- 1791 *Turbo Delphinus*. GMELIN (56), pp. 3599—3600, nr. 44.
- — *nodulosus*. GMELIN, *ibid.*, p. 3600, nr. 45.
- 1795 *Turbo Delphinus monstrosus*. CHEMNITZ, *Conch.-Cab.* (122), vol. XI, p. 292, pl. 211, figs. 2090—2091.
- 1798 *Angaria delphinus* Bolten. *Museum Boltenianum*, p. 71, nr. 911.
- 1816 *Delphinula laciniata*. LAMARCK, *Tableau encycl.* (49a), pl. 451, figs. 1 a, b; *Liste des objets repr.*, p. 11 (*Explan. of plates by BORY DE ST.-VINCENT*, p. 176; 1827).
- 1817 *Delphinula ungulata*. SCHUMACHER, *Nouv. syst.* (158), p. 196 (for CHEMNITZ, figs. 1727—1735).
- 1822 *Delphinula laciniata*. LAMARCK, *An. s. vert.* (85), vol. VI, 2nd part, pp. 230—231, nr. 1.
- 1830 — — Lamk. DESHAYES, *Encycl. méth.* (49), vol. II, part 2, p. 64.
- 1833 — — SOWERBY, *Genera* (168), *Delphinula*, figs. 1, 2.
- 1834 — — QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 278—279, pl. 62, figs. 26, 27.
- 1838-'39 — — , Lam. KIENER (71), vol. X, *Delphinula*, pp. 3—4, pl. 1, figs. 1, 1; pl. 2, figs. 1a, 1a, 2; 2 (figs. 2 are called *Delph. distorta* [not of LINNÉ and LAMARCK] on the plate!).

- 1842 *Delphinula melanacantha*. REEVE, *Conchologia systematica*, vol. II, pl. 211, fig. 4; pl. 212, fig. 10.
- — *aculeata*. REEVE, *ibid.*, pl. 212, fig. 8.
- — *formosa*. REEVE, *ibid.*, pl. 212, fig. 9.
- — *incisa*. REEVE, *ibid.*, pl. 212, fig. 11.
- 1843 *Delphinula imperialis*. REEVE, *New species Delphinula* (143), pp. 102—103, (new name for *D. melanacantha*).
- — *incisa*. REEVE, *ibid.*, p. 103.
- — *formosa*. REEVE, *ibid.*, p. 103.
- — *aculeata*. REEVE, *ibid.*, pp. 103—104.
- 1843 *Delphinula imperialis*. REEVE, *Conch. Icon.* (145), vol. I, *Delphinula*, pl. I, figs. 1a, b.
- — *formosa*. REEVE, *ibid.*, pl. I, fig. 2; pl. III, fig. 2b.
- — *aculeata*. REEVE, *ibid.*, pl. I, fig. 3; pl. III, fig. 3 b.
- — *atrata*. REEVE, *ibid.*, pl. I, fig. 4.
- — *incisa*. REEVE, *ibid.*, pl. I, fig. 5.
- — *nodosa*. REEVE, *ibid.*, pl. II, fig. 8.
- — *laciniata*. REEVE, *ibid.*, pl. II, figs. 9a, b.
- 1843 *Delphinula laciniata* Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. IX, pp. 86—87, nr. 1.
- 1850 *Delphinula euracantha*, Adams. A. ADAMS, *Liotia*, etc. (1), p. 51.
- 1851 *Delphinula laciniata*, Lam.. WOODWARD, *Manual* (187), p. 145, pl. 10, fig. 13.
- 1853 *Delphinula laciniata* Lamk.. PHILIPPI, *Delphinula* (137), pp. 2—4, pl. 1, figs. 1, 4; pl. 2, figs. 1—4; pl. 4, fig. 10.
- — *atrata* Chemn.. PHILIPPI, *ibid.*, p. 4, pl. 1, fig. 5; pl. 2, figs. 5—9.
- — *melanacantha* Reeve. PHILIPPI, *ibid.*, pp. 4—5, pl. 1, fig. 2; pl. 2, fig. 10; pl. 3, figs. 1, 2.
- — *incisa* Reeve. PHILIPPI, *ibid.*, p. 5, pl. 3, fig. 6.

- 1853 *Delphinula aculeata* Reeve. PHILIPPI, *ibid.*, p. 7, pl. 3, fig. 5.
- — *nodulosa* Gm., PHILIPPI, *ibid.*, p. 8, pl. 4, figs. 7, 8.
- — *formosa* Reeve. PHILIPPI, *ibid.*, pp. 9—10, pl. 3, figs. 7, 8.
- — *venusta*, PHILIPPI, *ibid.*, pp. 9—10, pl. 1, fig. 6.
- 1854 *Delphinula Martinii*, A. Adams. A. ADAMS, *Descript. new species* (2), p. 42, pl. XXVII, fig. 8.
- 1854 *Angaria aculeata*, Reeve, *atrata* Chem., *delphinus*, Linn., *euracantha*, A. Adams, *formosa*, Reeve, *incisa*, Reeve, *Martinii*, A. Adams, *melanacantha*, Reeve, *nodulosa*, Gmel., H. and A. ADAMS, *Genera* (3), vol. I, p. 411, pl. 46, figs. 5, 5a—c.
- 1855 *Turbo delphinus*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 336, 532.
- 1859 *Delphinula laciniata*, Lamarck. CHENU, *Manuel* (19), vol. I, p. 355, fig. 2629.
- — *melanacantha*. CHENU, *ibid.*, p. 356, fig. 2636.
- 1869 *Delphinula atrata* Chemnitz. LISCHKE, *Japan. Meeresconch.* (98), vol. I, p. 89.
- 1880 *Delphinula laciniata* Lam., VON MARTENS, *Mauritius* (105), p. 297.
- 1882 *Delphinula atrata* Chemn. (*Delphinus*). DUNKER, *Index Moll. maris Japon.* (48), p. 137.
- — *formosa* Reeve. DUNKER, *ibid.*, p. 137.
- 1884 *Delphinula laciniata*, Lamarck. SOWERBY, *Thesaurus* (167), vol. V, p. 153, nr. 1, pl. 477, figs. 1, 6.
- — *incisa*, Reeve. SOWERBY, *ibid.*, pp. 153—154, nr. 2, pl. 477, fig. 9.
- — *euracantha*, Adams. SOWERBY, *ibid.*, p. 154, nr. 3, pl. 477, fig. 8.
- — *atrata*, Chemnitz. SOWERBY, *ibid.*, p. 154, nr. 4, pl. 478, fig. 12.
- — *aculeata*, Reeve. SOWERBY, *ibid.*, p. 154, nr. 5, pl. 477, fig. 7.

- 1884 *Delphinula imperialis*, Reeve. SOWERBY, *ibid.*, p. 154,
nr. 7, pl. 478, fig. 11.
- — *nodosa*, Chemnitz. SOWERBY, *ibid.*, pp. 154—
155, nr. 8, pl. 477, fig. 5.
- — *formosa*, Reeve. SOWERBY, *ibid.*, p. 155, nr. 10,
pl. 477, fig. 2.
- 1885 *Delphinula laciniata*, Lamarck. P. FISCHER, Manuel (52),
p. 829, pl. 10, fig. 13.
- 1887 *Delphinula laciniata*, Lam.. VON MARTENS, Mergui (107),
p. 195, nr. 229.
- — *atrata*, Chemnitz. VON MARTENS, *ibid.*, p.
195, nr. 230.
- 1888 *Delphinula laciniata* Lamarck and vars. *atrata* Reeve and
melanacantha Reeve. PILSBRY (177), vol. X, pp. 266—268,
pl. 67, figs. 1—4; pl. 65, figs. 6, 7, 9, 11;
pl. 66, figs. 14—19.
- 1899 *Delphinula formosa*, Rve., MELVILL and STANDEN, Tor-
res Straits (123), p. 177, nr. 218.
- 1902 *Delphinula laciniata* Lam.. VON MARTENS, Rumphius
Gedenkb. (110), p. 114.
- 1908 *Delphinula laciniata* Lamarck and vars. *atrata* Chemnitz
and *formosa* Reeve. HORST et SCHEPMAN, Cat. (63),
p. 475.
- 1908 *Delphinula laciniata*, Lamk. and var. *atrata* Chemn..
NOBRE, Timor (128), pp. 227—228.
- 1908 *Delphinula laciniata* Lamarck and var. *atrata* Chemnitz.
SCHEPMAN, Siboga (155), pp. 32—
33.
- 1909 *Delphinula laciniata* Lk.. LAMY, Java (89), p. 467.
- 1920 *Delphinula laciniata* Lam. var. *atrata* Chemn.. TESCH,
Timor (175), II, pp. 78, 115, pl.
CXXXIII, figs. 220, 220b.

East coast of Halmahera, 1 specimen of the
typical form, resembling figs. 9 a, b of REEVE'S
Conchol. Iconica.

Distribution: East Indian Archipelago (on reefs): Ceram
(Siboga); Manipa, between Ceram and Buru (Leyden Museum);
Amboina (RUMPHIUS, VON MARTENS, Leyden Mus.); Luci-

para-island, Banda and Kur-island west of Kei Is. (Siboga); Timor (Leyden Mus., NOBRE); Larentuka, Flores (VON MARTENS, Leyden Mus.); Java (LAMY); Tjilatjap, S. coast of Java (Leyden Mus.); Palos-bay, W. coast of Celebes (Siboga); Pulu Kaniungan ketjil near Cape Mangkalihat, E. Borneo (Siboga); Banka (Leyden Mus.); Riouw; Padang, Sumatra (Capt. Martin, *D. Martinii* A. ADAMS).

New Ireland (Astrolabe). — Torres Straits (MELVILL and STANDEN); Port Essington, Northern Australia (Gilbert). — Philippines, on the reefs (Cuming); Japan (von Siebold); Nagasaki, Japan (LISCHKE); China (WOODWARD). — Singapore; Salang-island; Mergui-archipelago (Anderson); Ceylon.

East coast of Africa (PHILIPPI); Madagascar, rather rare on the reefs (SGANZIN).

Fossil in the Pliocene of Timor (TESCH).

Though this species is generally known as *Delphinula laciniata* Lamarck, it is inevitable to restore its ancient Linnean specific name of *delphinus*.

FAM. TROCHIDAE.

The following species, not represented in the collection, have been recorded from the northern Moluccas:

20. *Trochus (Tectus) fenestratus* Gmelin. Laiwui, Obi Major, reef (SCHEPMAN, Siboga (155), p. 37).
Synonymy and distribution in: „Recent shells from Java” (129), p. 14.
21. *Trochus (Lamprostoma) maculatus* Linné. Bachan (Bernstein, Leyden Museum).
Synonymy and distribution in: „Recent shells from Java” (129), pp. 15—16.
22. *Trochus (Lamprostoma) incrassatus* Lamarck. Obi Is. (Bernstein, Leyden Mus.).
23. *Trochus (Lamprostoma) creniferus* Kiener. Laiwui, Obi Major, mud (SCHEPMAN, Siboga (155), p. 39).
24. *Monodonta (Monodonta) labio* (Linné). Near Dodinga, Halmahera (VON MARTENS (110), p. 114).
Synonymy and distribution in: „Recent shells from Java” (129), pp. 17—19.
25. *Calliostoma (Astele) scitulum* A. Adams. North of Salomakiëe-island, coral bottom and Lithothamnion (SCHEPMAN, Siboga (155), p. 66).
26. *Euchelus (Euchelus) atratus* (Gmelin). Bachan (Bernstein, Leyden Mus.).

FAM. NERITIDAE.

27. *Nerita albicilla* Linné.

For synonymy and distribution see „Recent shells from Java“ (129), pp. 21—22, 159, and the following additions:

- 1764 *Nerita Albicilla*. LINNÉ, Mus. Lud. Ulr. (95), p. 679, nr. 394.
 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1254, nr. 733.
 1781 *Palatum bovis*. *Albicilla Linnaei*. CHEMNITZ, Conch.-Cab. (122), vol. V, pp. 313—315, pl. CLXXXIII, figs. 2000 a-f (? g, h).
 1832 *Nerita albicilla*. DESHAYES, Encycl. (49), vol. III, p. 621, nr. 12.
 1855 — — HANLEY, Ipsa Linn. Conch. (58), pp. 405, 543.
 1863 — — L. DESHAYES, Réunion (44), p. 79, nr. 236.
 1869 *Theliostyla albicilla* L. VON FRAUENFELD, Nicobaren (55), p. 869.
 1869 *Nerita albicilla*, L. VON MARTENS, v. d. Decken's Reisen (103), p. 64.
 1874 *Nerita albicilla* Linneo. TAPPARONE—CANEFRI, Magenta (173), p. 156.
 1880 — — Linné. VON MARTENS, Mauritius (105), p. 291.
 1884 *Nerita albicilla*, Linné. E. A. SMITH, Alert (160), p. 503, nr. 84.
 1888 — — JOUSSEAUME, Mer Rouge (68), p. 192, nr. 94.
 1893 — — Linné. DAUTZENBERG, Séchelles (32), pr. 83.
 1901 — — L. MELVILL and STANDEN, Persian Gulf (124), part I, p. 353.
 1906 — — Linné. DAUTZENBERG, Ambodifoutra (37).
 1908 — — Lin. NOBRE, Timor (128), p. 226.
 1916 *Nerita (Nerita) albicilla* L. CAES. BOETTGER, Hanseatische Südsee-Expedition (11), p. 305.

Obi Major, 4 specimens. Two of them have many more ribs than usual, the number of ribs amounting to 34, moreover the ribs are rather sharp on the back. Apart from this these specimens agree with typical ones. Miss W. S. S. van Benthem Jutting had the kindness to inform me, that there are identical specimens from the E. coast of Sumatra in the Zoological Museum at Amsterdam.

Nerita albicilla was also collected at Obi Major by the Siboga expedition. The species was collected at Kema-island near Bachan by VON MARTENS.

Add to distribution: Micronesia: Pelew Is. (Hanseatic Pacific exped.). — Bias Bay, N. E. of Hongkong (Magenta); North-island (Magenta); Madras (Novara); Goa (MELVILL and STANDEN); Bombay (ABERCROMBIE); Karachi, upon rocks at half-tide (MELVILL and STANDEN).

Zanzibar and Kendwa Is. (von der Decken); Seychelles (DUFO, Möbius, DAUTZENBERG); Amirantes (Alert); Mauritius (FAVANNE, LIÉNARD, Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar, on rocks (SGANZIN, DAUTZENBERG); Nossi-Fali near Nossi-Bé (Pollen and van Dam); Querimba Is. and Mozambique (W. Peters).

28. *Nerita undata* Linné.

- A 1758 *Nerita undata*. LINNÉ, Systema Naturae, edit. X (94), p. 779.
- A 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 682, nr. 399 (good description!).
- A 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1255, nr. 738.
- A 1781 *Nerita undata, striata striis aequalibus, etc.* CHEMNITZ, Conch.-Cab. (122), vol. V, pp. 292—293, pl. CLXXXX, figs. 1950, 1951.
- A — Die feinere und leichtere gewässerte Nerite. CHEMNITZ, *ibid.*, p. 301, pl. CLXXXI, figs. 1970, 1971.
- D — *Nerita maris rubri*. CHEMNITZ, *ibid.*, p. 304, pl. CLXXXI, figs. 1974, 1975.
- A 1791 *Nerita undulata*. GMELIN (56), p. 3678, nr. 36.
- A — — *undata*. GMELIN, *ibid.*, p. 3682, nr. 50 (in part).
- D — — *quadricolor*. GMELIN, *ibid.*, p. 3684, nr. 60.

- B** 1815 *Nerita striata*. BURROW, Elements of Conchology, p. 172, pl. 20, fig. 8.
- A** 1830 *Nerita Novae-Guineae*. LESSON, Voyage autour du monde exécuté sur la corvette de S. M. la Coquille, pendant les années 1822—'25; Zoologie, vol. II, p. 371.
- D** 1838 *Nerita quadricolor* Gmel.. DESHAYES in DESHAYES-LAMARCK, An. s. vert. (86), vol. VIII, pp. 615—616, nr. 26.
- A** — — *undata* Lin.. DESHAYES in DESHAYES-LAMARCK, *ibid.*, p. 616, nr. 27.
- B** 1841 *Nerita chrysostoma*. RECLUZ in: Revue Zoologique, par la Société Cuvierienne, p. 104.
- A** — — *Papuana*. RECLUZ, *ibid.*, p. 105.
- A** 1841 *Nerita marmorata*. HOMBRON et JACQUINOT, Voyage au Pôle Sud; Moll., pl. 16, figs. 14—17.
- B** — — *Tongaensis*. HOMBRON et JACQUINOT, *ibid.*, pl. 16, fig. 18.
- B** 1842 *Nerita aurantia*. RECLUZ in: Revue Zoologique, par la Société Cuvierienne, p. 43.
- A** — — *Le-Guillouana*. RECLUZ, *ibid.*, p. 178.
- C** 1843 *Nerita Spengleriana*. RECLUZ, Descript. new species (141), p. 201.
- B** 1844 *Nerita costulata* v. d. Busch. VON DEM BUSCH in PHILIPPI, Abbild. (134), vol. I, p. 86 (4), nr. 7, *Nerita*, pl. I, fig. 8.
- A** 1850 *Nerita undata*. RECLUZ in: Journal de Conchyliologie, vol. I, p. 283.
- A** — — *Novae-Guineae*. RECLUZ, *ibid.*, p. 283.
- A** — — *Le-Guillouana*. RECLUZ, *ibid.*, p. 284.
- B** — — *aurantia*. RECLUZ, *ibid.*, p. 283, pl. 11, fig. 11.
- D** — — *quadricolor*. RECLUZ, *ibid.*, p. 283.
- D** 1855 *Nerita quadricolor*. REEVE (145), vol. IX, *Nerita*, pl. I, figs. 4 a, b.
- A** — — *Le Guillouana*. REEVE, *ibid.*, pl. IV, figs. 15 a,b.
- B** — — *chrysostoma*. REEVE, *ibid.*, pl. IV, figs. 18 a, b.

- B 1855 *Nerita grisea*. REEVE, *ibid.*, pl. V, species 23, figs. 19 a, b.
- B — — *Essingtoni*. REEVE, *ibid.*, pl. VI, figs. 29 a, b.
- A — — *Saviana*. REEVE, *ibid.*, pl. VIII, figs. 37 a, b.
- C — — *oleagina*. REEVE, *ibid.*, pl. X, figs. 47 a, b.
- B — — *aurantia*. REEVE, *ibid.*, pl. XI, figs. 49 a, b.
- A — — *Novae-Guineae*. REEVE, *ibid.*, pl. XIII, figs. 59 a, b.
- C — — *Spengleriana*. REEVE, *ibid.*, pl. XVII, figs. 73 a, b.
- A 1855 *Nerita undata*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 407—408, 543—544.
- A 1869 *Nerita undata*, L. VON MARTENS, v. d. Decken's Reisen (103), p. 64.
- D 1870 *Nerita (Pila) quadricolor*, Chemn.. M'ANDREW, Test. Gulf of Suez (100), p. 443.
- B 1871 *Nerita undata* L. var.. VON MARTENS u. LANGKAVEL, *Donum Bismarck.* (111), p. 43.
- A 1879 *Nerita undata* Lam.. K. MARTIN, *Tertiärsch. auf Java* (112), I, p. 83, pl. XIII, figs. 17, 17 a.
- A-B 1880 *Nerita undata* Linne. VON MARTENS, *Mauritius* (105), p. 291.
- A 1883 *Nerita Novae-Guineae*. SOWERBY, *Thesaurus* (167), vol. V, p. 108, nr. 20, pl. 466, fig. 78.
- D — — *quadricolor*. SOWERBY, *ibid.*, p. 115, nr. 58, pl. 463, fig. 14.
- A — — *undata*. SOWERBY, *ibid.*, pp. 115—116, nr. 61, pl. 463, fig. 5.
- B — — *chrysostoma*. SOWERBY, *ibid.*, p. 116, nr. 63, pl. 464, fig. 35.
- B — — *aurantia*. SOWERBY, *ibid.*, p. 117, nr. 73, pl. 466, fig. 81.
- C — — *Spengleriana*. SOWERBY, *ibid.*, p. 118, nr. 77, pl. 468, fig. 121.
- D 1885 *Nerita quadricolor*, Chemn. [*histrion*, L.]. COOKE, Test. moll. Gulf of Suez (21), part. III.

- A 1887, 1889 *Nerita (Cymostyla) undata*, L. and var. *Micronesica*. VON MARTENS, *Nerita* (108), pp. 34—37, 42, 110—111, 124, pl. 6, figs. 10—16; pl. 1, figs. 15, 16 (= CHEMNITZ, figs. 1970, 1971).
- B — — (—) *striata* Burrow and vars. *icterina*, *nigra*, and *minor*. VON MARTENS, *ibid.*, pp. 37—39, 43, 111, 124, pl. 7, figs. 1—5.
- C — — (—) *Spengleriana* Recl., VON MARTENS, *ibid.*, pp. 39—40, 43, 124, pl. 7, figs. 6, 7.
- D — — (—) *quadricolor* Gm., VON MARTENS, *ibid.*, pp. 41—42, 43, 124, pl. 1, figs. 19, 20 (= CHEMNITZ, figs. 1974, 1975); pl. 8, figs. 8—13.
- A—D 1888 *Nerita (Pila) undata*, Linn. and vars. *micronesica*, Martens, *striata*, Burrow, *Spengleriana*, Recluz and *quadricolor*, Gmelin. TRYON (177), vol. X, pp. 28—29, pl. 5, figs. 87—90 (figs. 87, 88 = REEVE, figs. 15 a, 37 b; fig. 89 = *Nerita crassa*, GOULD, Wilkes Expedition, Mollusca, fig. 195 a; fig. 90 = REEVE, fig. 59 b); var. *striata*: pl. 5, figs. 91—94 (= REEVE, figs. 18, 49 a, 19 a, 29 a); var. *Spengleriana*: pl. 6, figs. 96—98 (= REEVE, figs. 47 a, b, 73 a); var. *quadricolor*: pl. 5, fig. 86 (= REEVE, fig. 4 a).
- A 1891 *Nerita undata* (L.). O. BOETTGER, Ad. Strubell's *Konch.* II (13), p. 310, nr. 11.
- A—B 1893 *Nerita (Cymostyla) undata* Linné, et var. *striata* Burrow. DAUTZENBERG, *Séchelles* (32), p. 83.
- A 1895 *Nerita striata* Burrow. SCHEPMAN, *Borneo* (153), p. 162.
- A 1899 *Nerita undata*, L., MELVILL and STANDEN, *Torres Straits* (123), p. 174, nr. 190.

- A 1901 *Nerita undata* L.. H. FISCHER, Djibouti, etc. (54), p. 121.
- A 1908 *Nerita undata*, Lin.. NOBRE, Timor (128), p. 226.
- A 1908 *Nerita (Cymostyla) undata* Linné. HORST et SCHEP-
MAN, Cat. (63), p. 408.
- B — — (—) *striata* Burrow. HORST et SCHEP-
MAN, *ibid.*, p. 408.
- C — — (—) *spengleriana* Recluz. HORST et
SCHEPMAN, *ibid.*, p.
408.
- D — — (—) *quadricolor* Gmelin. HORST et
SCHEPMAN, *ibid.*, p.
409.
- A 1908 *Nerita (Cymostyla) undata* Linné. SCHEPMAN, Siboga
(155), p. 5, nr. 9.
- C — — (—) *Spengleriana* Recluz. SCHEPMAN,
ibid., p. 6, nr. 10.
- B — — (—) *striata* Burrow. SCHEPMAN, *ibid.*,
p. 6, nr. 11.
- A 1915 *Nerita (Pila) undata* L.. CAES. BOETTGER, Wasser-
moll. Aru- u. Kei-Inseln (10), p.
136.
- A 1916 — (—) — L.. CAES. BOETTGER, Hanseati-
sche Südsee-Expedition (11), p. 305.
- A 1919 *Nerita undata* Linné. K. MARTIN, Palaeozool. Kennt-
nis v. Java (119), p. 101.
- A—B 1923 *Nerita (Cymostyla) undata* Linné and forma *striata*
Burrow. OOSTINGH, Java (129), pp. 26—29.

Obi Major, 1 specimen of the typical form; the outer lip is almost without teeth, only the larger one is still conspicuous.

Obi Major, 1 specimen of the form *striata* Burrow, agreeing with the specimen figured under the name of *Nerita grisea* by REEVE ((145), fig. 19), (VON MARTENS (108), fig. 5). My specimen has three teeth on the central part of the columellar margin instead of two as usual, the lower tooth being probably bipartite.

Altitude : 18, maximum diameter : 17 millimetres, (VON MARTENS (108) gives 19 and 19 millimetres).

The species (typical form) was recorded from Ternate by RECLUZ. The form *spengleriana* Recluz was recorded from the Obi Is. in the Catalogue of the Leyden Museum (collect. Dr. Bernstein), this form was also collected on a reef at Laiwui, Obi Major (Siboga exped.).

Distribution: East Indian Archipelago: Ceram (Leyden Museum, C); Amboina (VON MARTENS, Strubell, Leyden Mus., A, B); Banda (VON MARTENS, A, B); Misol (Leyden Mus., Siboga, A, C); New Guinea (Coquille, RECLUZ, A, B); Aru Is., numerous on the shore (Merton, A); Timor (Leyden Mus., NOBRE, Siboga, A, C); Kupang, Timor (VON MARTENS, B, C); Rotti-island, reef (Siboga, C); Flores (Leyden Mus., Siboga, A, C); Tanah Djampeah, Flores Sea, reef (Siboga, A); Lombok (Siboga, A); Kangeang-island east of Madura (Siboga, C); Java (RECLUZ, D; F. Jagor, Zool. Mus. Amsterdam, A, C); Banjuwangi, E. Java (Geerts, A, B); Tjilatjap, S. coast of Java (Leyden Mus., C); coral-island Pulu Pandjang near Japara, N. coast of Java (van Baren, A); Anjer, W. coast of Java (VON MARTENS, B); Northern Celebes (A. B. Meyer, A, B); Gorontalo, N. Celebes (Riedel, B); Talaut Is., N. E. of Celebes (Siboga, B); Sambas, W. Borneo, on the shore (Hallier, A); Billiton (Leyden Mus., A); Banka (VON MARTENS, A, B).

Melanesia: New Britain (O. Finsch, A); New Ireland (REEVE, Gazelle, Hanseatic Pacific expedition, A, C); Nissan near New Ireland (Hanseatic Pacific exp., A); Solomon Is. (Zélée, E. A. SMITH, A, C); New Hebrides (Hanseatic Pacific exp., A); Viti Is. (VON MARTENS, A, B). — Micronesia: Jaluit, Marshall Is. and Ponape, Caroline Is. (O. Finsch, A); Pelew Is. (VON MARTENS, A). — Polynesia: Tonga (HOMBRON et JACQUINOT, B); Samoa (Museum Godeffroy, B); Tahiti (VON FRAUENFELD, B). — Torres Straits (MELVILL and STANDEN, A); Port Essington, N. Australia (REEVE, B).

Philippines (Cuming, A—C); Japan (von Siebold, A); Hongkong (Schmacker, A); Gulf of Siam (F. von Richthofen, A); Singapore (F. Jagor, B); Ceylon (Theobald, B); Bombay (Mus. Geneva, B, D); Kathiawar (Theobald, B).

Red Sea (FORSKAL, Ehrenberg, D); Gulf of Suez, low water (M' ANDREW, D); Massaua, Eritrea (Jickeli, D); Jibuti, Somaliland (de Gennes, A); Zanzibar and Kendoa (von der Decken); Seychelles (DUFO, Möbius, DAUTZENBERG, A, B);

Amirantes (DUFO); Mauritius (Robillard, B); Nossi-Fali near Nossi-Bé (Pollen and van Dam, A); Querimba Is. near the coast of Mozambique (W. Peters, D); Natal (KRAUSS, D).

Fossil in the Upper Miocene (Tjilanang-beds) of Residency Preanger, Java (K. MARTIN, A).

N. B.: References and localities for the typical form have been indicated by A, those for the form *striata* Burrow by B, those for the form *spengleriana* Recluz by C, and those for the form *quadricolor* Gmelin by D.

The following species, not represented in the collection, have been recorded from the northern Moluccas:

29. *Nerita exuvia* Linné. E. coast of Halmahera near Dodinga (VON MARTENS (108), p. 14); Morotai (Bernstein, Leyden Museum).
30. *Nerita patula* Recluz. Ternate and Bachan (VON MARTENS (108), p. 54).
31. *Nerita chamaeleon* Linné. Ternate (VON MARTENS (108), p. 22); Galela, Northern Halmahera (Bernstein, Leyden Mus.).
Synonymy and distribution in: „Recent shells from Java” (129), pp. 24—26, 159.
32. *Nerita costata* Gmelin. Obi Is. (Bernstein, Leyden Mus.).
33. *Nerita semirugosa* Recluz. Ternate (REEVE); Galela, Northern Halmahera and Morotai (Bernstein, Leyden Mus.).
34. *Nerita plicata* Linné. Ternate, Tidore and Tawali (VON MARTENS (108), p. 66); Morotai (Bernstein, Leyden Mus.).
Synonymy and distribution in: „Recent shells from Java” (129), pp. 29—30.
35. *Nerita planospira* Anton. Bachan (VON MARTENS (108), p. 25); Morotai (Bernstein, Leyden Mus.).
36. *Nerita polita* Linné. Ternate (Cuming); Ternate and Bachan (VON MARTENS (108), p. 80); Northern Halmahera (Bernstein, Leyden Mus.).
Synonymy and distribution in: „Recent shells from Java” (129), pp. 30—33.
37. *Nerita insculpta* Recluz. Ternate (VON MARTENS (108), p. 90); Galela, Northern Halmahera and Morotai (Bernstein, Leyden Mus.).
Synonymy and distribution in: „Recent shells from Java” (129), pp. 33—34.

Genus *Theodoxis* Montfort, 1810

(= *Neritina* Lamarck, 1822).

The following brackish-water species have been recorded from the region under consideration:

38. *Theodoxis (Neripteron) auriculata* (Lamarck). Ternate (VON MARTENS (104), p. 276).

39. *Theodoxis (Neritaea) coromandeliana* (G. B. Sowerby) (= *ziczac* auct., non Lamarck). Ternate (VON MARTENS (104), pp. 103, 280); Galela, Northern Halmahera (Bernstein, Leyden Mus.).
40. *Theodoxis (Neritaea) turrita* (Gmelin). Bachan (VON MARTENS (104), p. 108; Bernstein, Leyden Mus.).
41. *Theodoxis (Neritaea) communis* (Quoy et Gaimard). Bachan (VON MARTENS (104), pp. 115—116); Bachan and Galela, Northern Halmahera (Bernstein, Leyden Mus.).
42. *Theodoxis (Neritodryas) dubia* (Gmelin). Bachan (VON MARTENS (104), p. 139; Bernstein, Leyden Mus.).
43. *Theodoxis (Neritodryas) cornea* (Linné). Bachan (VON MARTENS (104), p. 141; Bernstein, Leyden Mus.); Obi Is. (Leyden Mus.).
44. *Theodoxis (Neritodryas) subsulcata* (G. B. Sowerby). Bachan (VON MARTENS (104), p. 143).
45. *Theodoxis (Clithon) diadema* (Recluz). Ternate (Leyden Mus.).
46. *Theodoxis (Clithon) oualaniensis* (Lesson). Ternate (Sammelink, Leyden Mus.).

Genus *Septaria* Férussac, 1807

(= *Navicella* Lamarck, 1822).

47. *Septaria tessellata* (Lamarck). Bachan, brackish water (VON MARTENS (106), p. 40; (109), p. 218).

FAM. TURRITELLIDAE.

48. *Turritella (Turritella) cingulifera* G. B. Sowerby I.

- 1909 *Turritella (s. str.) cingulifera* Sowerby. SCHEPMAN, Siboga (155), p. 187.

Laiwui, Obi Major, mud (Siboga exp.).

Synonymy and distribution in: „Recent shells from Java" (129), pp. 40—41.

FAM. VERMETIDAE.

49. *Tenagodus (Tenagodus) trochlearis* Mörch.

- 1909 *Tenagodus (s. str.) trochlearis* Mörch. SCHEPMAN, Siboga (155), p. 183.

Salomakiëe-island, coral-bottom and Lithothamnion (Siboga exp.).

FAM. MELANIIDAE.

50. *Faunus (Faunus) ater* (Linné).

- 1891 *Faunus ater* (L.). O. BOETTGER, Strubell's Konch. II (13), p. 308, nr. 3.

- 1897 *Faunus ater* L. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 191—192.

Bachan, in brackish water (collected by VON MARTENS).
Bachan (collected by A. Strubell).

FAM. LITTORINIDAE.

51. *Littorina (Littorinopsis) scabra* (Linné).

- 1897 *Littorina (Littorinopsis) scabra* L. and var. *arboricola* Reeve. VON MARTENS, Süß- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 194—197.
- 1899 *Littorina scabra* Linné. HORST et SCHEPMAN, Cat. (63), p. 283.
- 1902 — — L. VON MARTENS Rumphius Gedenkb. (110), p. 119.

Halmahera (Bernstein, Leyden Museum).

Near Dodinga (Halmahera), Ternate, Tawali and Bachan, on twigs and leaves of mangrove-trees (collected by VON MARTENS).

52. *Littorina (Littorinopsis) undulata* Gray.

- 1897 *Littorina (Littorinopsis) undulata* Gray. VON MARTENS, Süß- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 199—200.
- 1899 — — *undulata* Gray. HORST et SCHEPMAN, Cat. (63), p. 282.

Ternate and Bachan (collected by VON MARTENS).
Ternate (Semmelink, Leyden Mus.).

53. *Tectarius (Tectarius) bullatus* (Martyn).

- 1897 *Littorina (Tectus) bullata* Martyn. VON MARTENS, Süß- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 202—203.
- 1899 *Tectarius bullatus*, var. *rustica* Philippi. HORST et SCHEPMAN, Cat. (63), p. 285.

Bachan (Bernstein, Leyden Mus.).

FAM. ARCHITECTONICIDAE.

Genus *Architectonica* Bolten, 1798

(= *Solarium* Lamarck, 1799).

54. *Architectonica perspectiva* (Linné).

- 1758 *Trochus perspectivus*. LINNÉ, Syst. Nat., edit. X (94), p. 757, nr. 503 (in part, the great majority of the references).
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 646, nr. 329.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1227, nr. 581 (in part).
- 1781 *Trochus perspectivus seu opticus. Labyrinthus*. CHEMNITZ, Conch.-Cab. (122), vol. V, pp. 121—126 (in part), pl. CLXXII, fig. 1693 (tantum).

- 1798 *Architectonica perspectiva* Bolten. Museum Boltenianum, p. 78, nr. 1022, var. B.
- 1844 *Solarium formosum*. HINDS in: Proceedings Zoological Society, London, 1844, p. 22, nr. 1.
- 1849 *Solarium australe*. PHILIPPI, Centuria tertia test. nov. (133), p. 168, nr. 44.
- — *incisum*. PHILIPPI, *ibid.*, p. 169, nr. 45.
- — *zonatum*. PHILIPPI, *ibid.*, p. 173, nr. 54.
- 1852 *Solarium striatum*. SOULEYET, Voyage de la Bonite (50), vol. II, p. 587, pl. 37, figs. 10—14.
- 1853 *Solarium incisum* Ph.. PHILIPPI, *Solarium* (138), pp. 27—28, nr. 30, pl. 4, fig. 6.
- — *formosum* Hinds. PHILIPPI, *ibid.*, pp. 9, 28—29, nr. 31, pl. 4, fig. 7; pl. 2, fig. 3 (= CHEMNITZ, fig. 1693). (According to PHILIPPI *S. zonatum* Ph. is identical!).
- — *australe* Ph.. PHILIPPI, *ibid.*, p. 29, nr. 32, pl. 4, fig. 8.
- 1853 *Architectonica perspectiva*, Linnaeus. H. and A. ADAMS, Genera (3), vol. I, p. 242, pl. XXV, figs. 6, 6 a, b, c (fig. 6 = Voyage d. l. Bonite, pl. 37, fig. 10).
- — *formosa*, Hinds. H. and A. ADAMS, *ibid.*, p. 242.
- — *incisa*, Phil.. H. and A. ADAMS, *ibid.*, p. 242.
- 1855 *Trochus perspectivus*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 314—315, 527.
- 1863 *Solarium (Architectonica) perspectivum*, Linn. and vars. *incisa*, Phil. and *Australis*, Phil.. HANLEY in SOWERBY, *Thesaurus* (167), vol. III, p. 228, nr. 1, pl. 253, figs. 36, 37, 38.
- 1864 *Solarium perspectivum*. REEVE (145), vol. XV, *Solarium*, pl. II, figs. 11 a, b.
- 1869 *Architectonica perspectiva* L.. VON FRAUENFELD, *Nicobaren* (55), p. 862.
- 1882 *Solarium perspectivum* Lin. (*Trochus*). DUNKER, *Index Moll. mar. Japon* (48), p. 92.

- 1885 *Solarium (Architectonica) perspectivum* (Linne). BOOG WATSON, Challenger Gasterop. (182), pp. 135—136, nr. 1.
- 1887 *Solarium (s. str.) perspectivum*, Linn. (in part) and var. *Australis*, Phil.. MARSHALL in TRYON (177), vol. IX, p. 8, pl. 2, figs. 20, 21 (not figs. 18, 19 = *A. trochlearis* (Hinds)).
- 1888 *Verticillus formosum*. JOUSSEAUME, Mer Rouge (68), p. 194, nr. 106.
- 1901 *Solarium perspectivum* L.. MELVILL and STANDEN, Persian Gulf (124), part. I, p. 363.
- 1902 *Solarium perspectivum* L., kleinere Form. VON MARTENS, Rumphius Gedenkb. (110), p. 118.
- 1905 *Solarium (s. str.) perspectivum* Linn.. K. MARTIN, Foss. v. Java (120), pp. 246—247, pl. XXXVII, figs. 594, 594 a.
- 1919 *Solarium perspectivum* Linn.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 97, 132.
- 1920 *Solarium perspectivum* L.. TESCH, Timor (175), II, pp. 65—66, nr. 158, pl. CXXXII, figs. 200 a, b.
- Not:** *Solarium perspectivum*. SOWERBY, Genera (168), Solarium, plate (2 figures of the shell and 2 of the operculum) (= *A. trochlearis* (Hinds)).
- Not:** *Solarium perspectivum*, Lam.. KIENER (71), vol. X, Solarium, pp. 3—4, nr. 1, pl. 1, figs. 1, 1 (= *A. trochlearis* (Hinds)).
- Not:** *Solarium perspectivum*. PHILIPPI, Centuria tertia test. nov. (133), p. 170 (= *A. trochlearis* (Hinds)).
- Not:** *Solarium perspectivum* L. (part.). VON MARTENS, Mauritius (105), p. 290; Mergui (107), p. 193, nr. 216 (= *A. trochlearis* (Hinds)).

East coast of H a l m a h e r a, 5 specimens, typical.

Distribution: East Indian Archipelago: Amboina (HANLEY, VON MARTENS); Java (Novara).

Australia (HANLEY). — Tahiti (PHILIPPI, Novara). — [? New Zealand (Largilliert)].

Philippines, on sand (Challenger); Manila (PHILIPPI); Japan (DUNKER); Hongkong (Novara); Madras (Novara); Henjam Island, Persian Gulf, 15 fathoms, mud (MELVILL and STANDEN); Charbar, S. E. Persia, at 5—10 fathoms, amongst loose rocks and muddy sand (MELVILL and STANDEN).

Obock, Somaliland (Faurot); Zanzibar (Rob. Philippi).

Fossil occurrence: Pliocene of Timor (TESCH). Pliocene of Tji Djadjar, Resid. Cheribon, Java (K. MARTIN).

For the present I have followed HANLEY and BOOG WATSON in excluding *Solarium trochleare* Hinds from the synonymy of the species under consideration, although I am not convinced that they are really distinct species. It is not, however, possible for me with the limited material at my disposal to definitely decide as to whether they should be considered as conspecific. Until this question may be settled, I think it will be advisable to deal with *A. perspectiva* and *trochlearis* as distinct species.

I cannot cite SCHEPMAN (Siboga exp.) and some other authors, as their synonymy includes also figures for *A. trochlearis*¹). Consequently the number of localities enumerated above is rather small, since I have omitted all doubtful ones, though most of them may be for *perspectiva*.

FAM. RISSOINIDAE.

55. *Rissoina* (*Mörchiella*) *spirata* (G. B. Sowerby I).

1909 *Rissoina* (*Mörchiella*) *spirata* Sowerby, var. *Montrouzieri* Souverbie.
SCHEPMAN, Siboga (155), p. 195.

Laiwui, Obi Major, mud (Siboga exp.).

FAM. AMALTHEIDAE.

Genus *Amalthea* Schumacher, 1817

(= *Hipponyx* Defrance, 1819).

56. *Amalthea conica* Schumacher.

1897 *Hipponyx australis* Quoy. KÜKENTHAL, Parasit. Schnecken (193), p. 10, pl. II, fig. 13.

¹) I have not referred to the synonymy of *S. perspectivum* given in my paper on Gastropoda from Java, as some of the figures cited there represent *A. trochlearis*. Moreover not all localities which I have enumerated in my previous paper are reliable.

As the specimen from Surabaya mentioned in my previous paper is somewhat bleached, it is difficult to say whether it belongs to *A. perspectiva* or to *A. trochlearis*.

- 1909 *Amalthea conica* Schumacher. SCHEPMAN, Siboga (155), p. 199.
 Ternate (collected by KÜKENTHAL).
 Laiwui, Obi Major, reef (Siboga exp.).
 Genus *Mitrularia* Schumacher, 1817
 (= *Calyptraea* Lamarck, 1801; not of Lamarck, 1799).
57. *Mitrularia equestris* (Linné).
- 1902 *Calyptraea equestris* (L.) Lam., VON MARTENS, Rumphius Gedenkb. (110), p. 124.
 Ternate (collected by VON MARTENS).

FAM. CALYPTRAEIDAE.

Genus *Thyca* H. and A. Adams, 1854.

58. *Thyca crystallina* (Gould).
- 1897 *Thyca crystallina* Gould. KÜKENTHAL, Parasit. Schnecken (193), p. 9, pl. II, figs. 10—12.
 Ternate, parasitic on *Linckia (Asteroidea)* (collected by KÜKENTHAL).
59. *Thyca pellucida* Kükenthal.
- 1897 *Thyca pellucida* n. sp., KÜKENTHAL, Parasit. Schnecken (193), pp. 7—9, pl. II, figs. 7—9.
 Ternate, parasitic on *Linckia* (collected by KÜKENTHAL).

FAM. NATICIDAE.

Genus *Natica* Scopoli, 1777

(= *Nacca* Risso, 1826).

60. *Natica (Natica) solida* de Blainville.
- 1827 *Natica solida*. DE BLAINVILLE, Manuel de Malacologie et Conchologie, pl. 36 bis, fig. 8.
- 1838 *Natica lupinus* Desh., DESHAYES in DESHAYES-LAMARCK, An. s. vert. (86), vol. VIII, p. 648, nr. 36.
- 1855 *Natica solida*. REEVE (145), vol. IX, *Natica*, pl. XVI, figs. 71 a, b.
- 1902 *Natica cinnamomea* Menke 1830 (*lupinus* Desh. 1838), VON MARTENS, Rumphius Gedenkb. (110), p. 114.
 Bachan (collected by VON MARTENS).
- Distribution: East Indian Archipelago: Amboina; Kei Is.; Timor; Flores; Sumbawa; Lombok; Borneo-bank, Straits of Makassar; Banka. Philippines.

61. *Natica (Natica) buriasiensis* Recluz.

- 1843 *Natica buriasiensis*. RÉCLUZ, Descript. new species in: Proc. Zool. Soc. (141), p. 212.
- 1855 *Natica Buriasensis*. REEVE (145), vol. IX, *Natica*, pl. XXVII, fig. 128.

1909 *Natica buriasensis* Recluz. SCHEPMAN, Siboga (155), pp. 210—211, nr. 15.

Laiwui, Obi Major, reef (Siboga exp.).

Distribution: East Indian Archipelago: Sumba; Sumbawa; Lombok; Sula Is.; Makassar, Southern Celebes.

Burias, Philippines.

62. *Natica (Natica) gracilis* Recluz.

1850 *Natica gracilis*. RECLUZ in: Journal de Conchyliologie, vol. I, p. 387, pl. 14, fig. 11.

1909 *Natica gracilis* Recluz. SCHEPMAN, Siboga (155), p. 211, nr. 17.

Laiwui, Obi Major, reef (Siboga exp.).

Distribution: East Indian Archipelago: Sumbawa; Java.

Subgenus *Polinices* Montfort, 1810

(= *Mamma* (Klein, 1753) H. and A. Adams, 1853;

Uber Humphrey, 1797 (the Mus. Calonn. cannot be accepted);

Naticella Guilding, 1840;

Mamillaria Swainson, 1840).

63. *Natica (Polinices) mammilla* (Linné).

1705 *Valvata septima sive albula*. RUMPHIUS (151), p. 76, pl. XXII, fig. F.

1758 *Nerita Mammilla*. LINNÉ, Systema Naturae, edit. X (94), p. 776, nr. 627.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 675, nr. 386 (for the greater part!).

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1252, nr. 719.

1781 *Mamma. Albula*. CHEMNITZ, Conch.-Cab. (122), vol. V, pp. 280—282, pl. CLXXXIX, figs. 1928—1931.

1791 *Nerita Mammilla* (ex parte). GMELIN (56), p. 3672, nr. 6.

1816 *Natica mammilla*. LAMARCK, Tableau encycl. (49a), pl. 453 figs. 5 a, b; Liste des objets repr., p. 11; (Explanation of plates by BORY DE ST.-VINCENT, p. 176; 1827).

1817 *Natica Mammilla*. SCHUMACHER, Nouv. syst. (158), p. 189.

1817 *Nerita mammilla*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 984, nr. 17.

- 1818 *Nerita mammilla*. WOOD, Index Testaceologicus, p. 178, pl. XXXV, fig. 19.
- 1822 *Natica mamilla*. LAMARCK, An. s. vert. (85), vol. VI, 2nd part, p. 197, nr. 4.
- 1823 *Natica mammilla*. SOWERBY, Genera (168), Natica, fig. 2.
- 1832 *Natica mamilla*. DESHAYES, Encycl. méth. (49), vol. III, p. 599, nr. 4.
- 1838 *Natica mamilla* Lamk.. DESHAYES-LAMARCK, An. s. vert. (86), vol. VIII, p. 630, nr. 4.
- 1843 *Natica pyriformis*. RECLUZ, Descr. new species in: Proc. Zool. Soc. (141), p. 211.
- 1851 *Natica albula*. RECLUZ, Coq. nouv. (142), pp. 194—197.
- 1851 *Natica vestalis*. PHILIPPI in: Proceedings of the Zoological Society of London, p. 234.
- 1852 *Natica mamilla*. SOULEYET, Voyage de la Bonite (50), vol. II, p. 576, nr. 172, pl. 35, figs. 16, 17.
- 1852 *Natica mamilla* Linne. PHILIPPI, Natica u. Amaura (135), pp. 31—32, pl. 4, figs. 7, 8 (= CHEMNITZ, figs. 1928—1929).
- — *pyriformis* Recluz. PHILIPPI, *ibid.*, p. 60, pl. 9, fig. 8.
- 1852—'53 — *ponderosa* Ph.. PHILIPPI, *ibid.*, pp. 32—33, 125, pl. 4, figs. 9, 10 (= CHEMNITZ, figs. 1930—1931); pl. 18, figs. 4, 5.
- 1853 — *vestalis* Ph.. PHILIPPI, *ibid.*, p. 126, pl. 18, fig. 6.
- 1853 *Mamma mamilla*, Linn.. H. and A. ADAMS, Genera (3), vol. I. pp. 210—211, pl. XXII, figs. 6, 6 c.
- — *albula*, Rumph.. H. and A. ADAMS, *ibid.*, p. 211.
- — *pyriformis*, Recluz. H. and A. ADAMS, *ibid.*, p. 211.
- — *vestalis*, Phil.. H. and A. ADAMS, *ibid.*, p. 211.
- 1855 *Natica pyriformis*. REEVE (154), vol. IX, Natica, pl. V, fig. 16.
- — *albula*. REEVE, *ibid.*, pl. VI, figs. 23 a, b.
- — *mamilla*. REEVE, *ibid.*, pl. VII, figs. 27 a, b.
- — *intermedia* (printed by error instead of *N. vestalis* Philippi). REEVE, *ibid.*, pl. X, figs. 38 a, b.

- 1855 *Nerita mammilla*. HANLEY, *Ipsa* Linn. Conch. (58), pp. 396—397, 542.
- 1863 *Natica mamilla*, Lin.. DESHAYES, Réunion (44), p. 79, nr. 230.
- 1864 *Natica Flemingiana?*, [not of] Récluz. JENKINS, On some tertiary mollusca from Mount Séla, in the Island of Java (*Quart. Journ. of the geol. Soc.*, vol. XX), p. 57, pl. VI, fig. 7.
- 1869 *Mamma mamilla* L.. VON FRAUENFELD, *Nicobaren* (55), p. 861.
- — *pyriformis* Recl. VON FRAUENFELD, *ibid.*, p. 861.
- 1869 *Natica mamilla*, Linneo. ISSEL, *Mar Rosso* (65), pp. 186—187, 285.
- 1869 *Natica mammilla*, (L.) Lam., var.: *N. pyriformis*, Recluz. VON MARTENS, v. d. Decken's *Reisen* (103), p. 63.
- 1870 *Mamma mamilla*, Lam.. M'ANDREW, *Test. Gulf of Suez* (100), p. 437.
- 1871 *Natica pyriformis* Recl.. LISCHKE, *Japan. Meeresconch.* (98), vol. II, p. 169.
- 1874 — — Recl.. LISCHKE, *ibid.*, vol. III, p. 53.
- 1874 *Neverita (Mamma) pyriformis* Recluz. TAPPARONE-CANEFRI, *Magenta* (173), p. 137.
- 1879 *Natica mamilla* Lam.. K. MARTIN, *Tertiärsch. auf Java* (112), I, p. 81, pl. XIII, figs. 13, 13 a.
- 1880 *Natica (Mamma) mammilla* L. and var. *pyriformis* Recluz. VON MARTENS, *Mauritius* (105), p. 276.
- — (—) *albula* Recluz. VON MARTENS, *ibid.*, p. 276.
- 1881 *Natica mamilla* Lam.. K. MARTIN, *Posttertiary fauna from Blitong* (202), p. 20, nr. 17.
- 1882 *Uber mamilla* Lin.. DUNKER, *Index Moll. Japon.* (48), pp. 62—63.
- 1883 *Natica mamilla*, Linnaeus. SOWERBY, *Thesaurus* (167), vol. V, p. 85, nr. 58, pl. 456, figs. 28—30.
- 1885 *Natica (Mamma) mamilla* (Linne). BOOG WATSON, *Challenger Gasterop.* (182), pp. 452—453, nr. 26.

- 1885 *Natica mamilla*, Lam., COOKE, Test. Gulf of Suez (21), part II, pp. 37—38.
- 1886 *Natica (Mamma) mamilla*, Linn., TRYON (177), vol. VIII, p. 49, pl. 16, figs. 46, 48; pl. 15, fig. 43.
- — (—) *albula*, Recluz. TRYON, *ibid.*, p. 49, pl. 16, fig. 47.
- 1887 *Natica (Polinices) mammilla*, L., VON MARTENS, Mergui (107), p. 188, nr. 185.
- 1888 *Natica vestalis*. JOUSSEAUME, Mer Rouge (68), p. 192, nr. 93.
- 1893 *Natica (Mamilla) mamilla* Linné. DAUTZENBERG, Séchelles (32), p. 83.
- 1897 *Natica mamilla* (L.), VON MARTENS, Süss- u. Brackwasser-Moll. d. Ind. Arch. (109), p. 291.
- 1899 *Natica mamilla*, Linné. DAUTZENBERG, Sumatra (34), p. 4.
- 1901 *Natica mamilla* Linné sp.. H. FISCHER, Djibouti (54), p. 120, nr. 45.
- 1901 *Natica (Mamma) mamilla* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 359.
- 1901 *Natica mammilla* (Linn.), ASHINGTON BULLEN, Raised beaches of Perim Island (204), p. 255.
- 1902 *Natica (Polinices) mammilla* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 114.
- 1903 *Natica (Mamma) mamilla* Lm., STURANY, Gastrop. d. Rothen Meeres (171), pp. 256, 276—277.
- 1905 *Natica (Polinices) mamilla* Linn., K. MARTIN, Foss. v. Java (120), p. 263.
- 1906 *Natica mamilla* Linné. DAUTZENBERG, Ambodifoutra (37).
- 1908 *Natica (Pollinices) mamilla* Linné. HORST et SCHEPMAN, Cat. (63), pp. 379—380.
- 1908 *Natica mamilla*, Lin., NOBRE, Timor (128), p. 222.
- 1909 *Natica (Mamma) mamilla* Linné. SCHEPMAN, Siboga (155), p. 215, nr. 29.
- 1909 *Natica mamilla* L., LAMY, Java (89), p. 467.

- 1911 *Natica mamilla* Linn.. K. MARTIN, Vorläuf. Bericht (118), p. 47.
- 1911 *Natica (Polinices) mamilla* Lam.. H. MARTIN-ICKE, Trinil (121), pp. 47, 49.
- 1915 *Natica mamilla* Lin.. STAUB, Sangkulirangbai (169), p. 125.
- — *pyriformis* Recl.. STAUB, *ibid.*, p. 125.
- 1919 *Natica mamilla* Linn.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 99, 122, 123, 128, 132, 142, 146.
- 1920 *Natica mamilla* L.. TESCH, Timor (175), II, p. 71, nr. 167, pl. CXXXIII, figs. 209 a, b, 210 a, b.
- 1923 *Natica (Mama) mamilla* L.. HENRICH, Meeresmoll. Sinai (60), p. 73.
- 1923 *Natica (Polinices) mamilla* Linné sp.. OOSTINGH, Java (129), pp. 68—70, 160.

Obi Major, 3 specimens.

East coast of Halmahera, 1 specimen.

There is also a specimen from Halmahera in the Senckenberg Museum, it belongs to the form *ponderosa* Philippi (= *pyriformis* with a part of the umbilicus open).

The species was collected at Bachan by VON MARTENS.

Distribution: East Indian Archipelago: Ceram (Leyden Museum), reef (Siboga); Amboina (VON MARTENS, Leyden Mus.), on sand (Siboga); Misol (Leyden Mus.); Kei Is. (Siboga); Wetter (Leyden Mus.); Timor (VON MARTENS, Leyden Mus.); Dilly, Timor (NOBRE); Adonara (VON MARTENS); Larentuka, Flores (Leyden Mus.); Flores and Sumbawa, on mud (Siboga); Java (LAMY); Tjilatjap, S. coast of Java and N. coast of Residency Besuki, East Java (Leyden Mus.); Surabaya, Java (Senckenberg Mus. (collect. H. Fruhstorfer)); coral-island Pulu Pandjang near Japara, N. coast of Java (van Baren); Anjer, W. coast of Java (VON MARTENS); Northern Celebes (VON MARTENS); Palos-bay, W. coast of Celebes, mud (Siboga); Pare-Pare, north of Makassar, Southern Celebes, on the shore (Max Weber); Sangkulirang-bay, E. Borneo, sand and mud (STAUB); Banka (Leyden Mus.); Padang, W. coast of Sumatra (Senckenberg Mus. (collect. Verbeek)); between Padang and Indrapura (Weyers).

Torres Straits (Challenger); Western Australia (PHILIPPI). — Wallis-island, N. E. of Viti Is. (RECLUZ).

Philippines, on the sand and in sandy mud (Cuming); Japan (Leyden Mus. (collect. von Siebold)); Yokohama (DUNKER); Bias Bay, N. E. of Hongkong (Magenta); Hongkong (Novara); Singapore; Salang-island near Malacca (Senckenberg Mus.); Mergui-archipelago (PHILIPPI, Anderson); Nicobars; Andamans (Leyden Mus.); Madras (Novara); Ceylon; Bombay and Bassein (MELVILL and STANDEN); Mekran Coast of Baluchistan and Southern Persia, from low-tide mark to 10 fathoms, on muddy sand (MELVILL and STANDEN); Maskat, Oman (MELVILL and STANDEN); Aden (Faurot); Perim-island (Pola); Red Sea (Pola, Leyden Mus.); Gulf of Akabah (ISSEL, Pola); S. coast of Sinai-peninsula (M'ANDREW, HENRICH); Jibuti, Somaliland (de Genes); Zanzibar (PHILIPPI, v. d. Decken, Leyden Mus.); Seychelles and Amirantes, everywhere numerous on muddy sand-bottom, from 1—4 M. (DUFO); Seychelles (LIÉNARD, Möbius, DAUTZENBERG); Cargados and Rodríguez (LIÉNARD); Mauritius, on rocks (SGANZIN), (LIÉNARD, Möbius); Réunion, on rocks (SGANZIN), (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Madagascar, on rocks (SGANZIN); Nossi-Fali near Nossi-Bé (Pollen and van Dam); Mozambique (PHILIPPI); Natal (Senckenberg Mus.); Natal-bay (Leyden Mus. (collect. Krauss)).

Fossil: Pliocene of Timor (TESCH).

Pleistocene deposits in the environs of Grisee, Resid. Surabaya, Java (K. MARTIN). Pliocene of Waled, Resid. Cheribon and of Resid. Bantam, Java (K. MARTIN), Pliocene of Sondé, Padas Malang and Duku Pengkol, Resid. Madiun, Java (K. MARTIN, H. MARTIN-ICKE). Upper Miocene (Tjilanangbeds) of Resid. Preanger, Java (K. MARTIN).

Pleistocene of Billiton (K. MARTIN).

Raised beaches of the Red Sea (ISSEL). Raised beach at Perim Island (ASHINGTON BULLEN), and at Kamaran-island, southern Red Sea (Faurot).

Subgenus **Mammilla** Schumacher, 1817

(= *Ruma* (Chemnitz) H. and A. Adams, 1853).

64. **Natica (Mammilla) melanostoma** (Gmelin).

1705 *Valvata septima sive albula*, var.. RUMPHIUS (151), p. 76, nr. VII b.

1780 *Helix mammillaris* (not of Linné). BORN, Testacea musei caes. Vindobonensis (16), p. 380, pl. 15, figs. 13, 14.

- 1781 *Mamma Aethiopissae, seu Nerita adusta, etc.* CHEMNITZ, Conch.-Cab. (122), vol. V, pp. 278—280, pl. CLXXXIX, figs. 1926—1927.
- *Mamma mulieris Indicae*. CHEMNITZ, *ibid.*, p. 284, pl. CLXXXIX, figs. 1936—1937.
- 1791 *Nerita melanostoma* (exclusive of vars. β , δ , ϵ , ζ). GMELIN (56), p. 3674, nr. 19.
- 1817 *Mammilla fasciata*. SCHUMACHER, *Nouv. système* (158), p. 190, (for CHEMNITZ, figs. 1936—1937 and perhaps also figs. 1926—1927).
- 1822 *Natica melanostoma*. LAMARCK, *An. s. vert.* (85), vol. VI, 2nd part, p. 198, nr. 5 (exclusive of var. b).
- 1832 *Natica melanostoma*. QUOY et GAIMARD, *Astrolabe* (140), vol. II, pp. 228—229, pl. 66, figs. 1—3.
- 1838 *Natica melanostoma*, Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. VIII, pp. 631—632, nr. 5.
- 1852 *Natica melanostoma* Gm. and var. *balteata* Ph.. PHILIPPI, *Natica u. Amaura* (135), pp. 30—31, 34—35, pl. A, figs. 1, 2 (animal and operculum); pl. 4, figs. 5, 6 (type = figs. 1926—1927 of CHEMNITZ), figs. 15, 16 (var. *balteata* = figs. 1936—1937 of CHEMNITZ).
- 1853 *Ruma mamillaris*, Born. H. and A. ADAMS, *Genera* (3), vol. I, pp. 209—210, pl. XXII, figs. 5, 5 a—c.
- 1855 *Natica melanostoma*. REEVE (145), vol. IX, *Natica*, pl. VIII, figs. 30 a, b.
- 1863 *Natica melanostoma*, Gmel.. DESHAYES, *Réunion* (44), p. 78, nr. 228.
- 1869 *Natica melanostoma*, Gmelin. ISSEL, *Mar Rosso* (65), p. 187.

- 1869 *Natica melanostoma*, Lam.. VON MARTENS, v. d. Decken's Reisen (103), p. 63.
- 1870 *Ruma melanostoma*, Lam.. M'ANDREW, Test. Gulf of Suez (100), p. 437.
- 1871 *Natica (Mamilla) melanostoma* Gmel.. VON MARTENS u. LANGKAVEL, Donum Bismarckianum (111), p. 24.
- 1880 *Natica (Mammilla) melanostoma* Gmelin. VON MARTENS, Mauritius (105), p. 277.
- 1883 *Natica melanostoma*, Lamarck. SOWERBY, Thesaurus (167), vol. V, p. 97, pl. 459, fig. 72.
- 1885 *Natica melanostoma*, Lam.. COOKE, Test. Gulf of Suez (21), part II, p. 37.
- 1886 *Natica (Mamilla) melanostoma* Gmel.. TRYON (177), vol. VIII, p. 50, pl. 21, figs. 13, 14.
- 1891 *Natica (Mamilla) melanostoma*, Lamarck. E. A. SMITH, Aden (162), p. 414.
- 1893 *Natica (Mamilla) melanostoma* Gmelin. DAUTZENBERG, Séchelles (32), p. 83.
- 1900 *Natica (Mammilla) melanostoma*, Gmelin. BULLEN NEWTON, Raised beaches Red Sea (127), pp. 505—506.
- 1902 *N. (Mammilla) melanostoma* Gm.. VON MARTENS, Rumphius Gedenkb. (110), p. 114.
- 1903 *Natica (Mamilla) melanostoma* Lm.. STURANY, Gastr. d. Roth. Meeres (171), pp. 256, 276—277.
- 1903 *Mamilla melanostoma*, Lamarck. E. A. SMITH, Maldives and Laccadives (164), p. 616, nr. 243.
- 1905 *Natica (Mamilla) melanostoma* Gmelin. K. MARTIN, Foss. v. Java (120), pp. 266—267, pl. XXXIX, figs. 642, 642 a.
- 1906 *Natica melanostoma* Gmelin. DAUTZENBERG, Ambodifoutra (37).
- 1907 *Natica melanostoma* Gmelin. COUTURIER, Tahiti, etc. (25), p. 165.

- 1907 *Natica melanostoma* Gmel.. SCHEPMAN, Posttertiär Celebes (154), p. 192.
- 1908 *Natica (Mamilla) melanostoma* Gmelin. HORST et SCHEPMAN, Cat. (63), pp. 380—381.
- 1909 *Natica (Mamilla) melanostoma* Gmelin. SCHEPMAN, Siboga (155), p. 216, nr. 32.
- 1910 *Natica melanostoma* Gmelin. DAUTZENBERG, Halmahera (38), p. 3.
- 1911 *Natica melanostoma* Gmel.. K. MARTIN, Vorläuf. Bericht (118), p. 47.
- 1911 *Natica (Mamilla) melanostoma* Gmel.. H. MARTIN—ICKE, Trinil (121), pp. 47, 49.
- 1916 *Neverita (Mamilla) melanostoma* Gmel.. CAES. BOETTGER, Hanseatische Südsee-Expedition (11), p. 302.
- 1919 *Natica melanostoma* Gmel.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 99, 128, 142.
- 1920 *Natica melanostoma* Gmel.. TESCH, Timor (175), II, pp. 72—73, nr. 169, pl. CXXXIII, figs. 212 a, b.
- 1923 *Natica (Mamilla) melanostoma* Gmel.. HENRICH, Meeresmoll. Sinai (60), p. 72.

Obi Major, 2 specimens.

There is also a specimen from the Obi Is. in the Leyden Museum. The species has been recorded from Halmahera by DAUTZENBERG and from Bachan by VON MARTENS.

Distribution: East Indian Archipelago: Amboina (Leyden Mus.); Gisser-island, east of Ceram, reef (Siboga); Misol (Leyden Mus.); between Misol and New Guinea, on sandy bottom (Siboga); Timor (VON MARTENS, Leyden Mus.); Flores (VON MARTENS, Leyden Mus.); Java (VON MARTENS); Rantjaherang, S. coast of Java (Senckenberg Museum (collect. H. Fruhstorfer)); Talaut Is., N. E. of Celebes, on mud- and sand-bottom (Siboga); Badjoa, Southern Celebes (Leyden Mus.); Borneo-bank, Straits of Makassar, on sand (Siboga).

Melanesia: St. Matthias and Nissan near New Ireland (Hanseatic Pacific exped.); Viti Is.. — Polynesia: Samoa; Tonga

(Astrolabe); Rarotonga; Moorea (Eimeo), Society Is. (Leyden Mus); Paumotu and Gambier Is. (COUTURIER); Hawaii (VON MARTENS u. LANGKAVEL). — N. E. Australia (Senckenberg Mus.).

Mulaku Atoll and Minikoi, Maldives, on reefs (E. A. SMITH); Aden (E. A. SMITH); Red Sea (ISSEL, Leyden Mus); Gulf of Akabah (STURANY); Ras Mahommed, S. coast of Sinai-peninsula, on the shore, dead (M'ANDREW); Gulf of Suez (HENRICH); Seychelles and Amirantes, on earthy bottom with seaplants, from 2—3 M. (DUFO); Seychelles (DAUTZENBERG); Mauritius (SGANZIN, LIÉNARD, Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Madagascar (SGANZIN); Nossi-Bé (Pollen and van Dam); Mozambique (VON MARTENS).

Fossil: Pliocene of Timor (TESCH).

Pliocene of Sondé and Padas Malang, Resid. Madiun, Java (K. MARTIN, H. MARTIN—ICKE). Upper Miocene (Tjilanang-beds) of Resid. Preanger, Java (K. MARTIN). Pleistocene of the Minahassa, Northern Celebes (SCHEPMAN).

Raised beaches of the Gulf of Suez (BULLEN NEWTON).

Fam. Planaxidae.

Genus *Fissilabria* Brown, 1836

(= *Quoyia* (vernac.) Deshayes, 1832; *Quoyia* Gray, 1840).

65. *Fissilabria decollata* (Quoy et Gaimard).

1897 *Quoyia decollata* Q. G. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 192—193.

Ternate, Bachan and Tawali (collected by VON MARTENS).

FAM. CERITHIIDAE.

Genus *Cerithium* Bruguière, 1789.

66. *Cerithium nodulosum* Bruguière.

1899 *Cerithium (Cerithium) nodulosum* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 224.

Halmahera (Bernstein, Leyden Museum).

67. *Cerithium citrinum* G. B. Sowerby II.

1909 *Cerithium citrinum* Sowerby. SCHEPMAN, Siboga (155), pp. 157—158. North of Salomakiëe-island, coral-bottom and Lithothamnion (Siboga exp.).

68. *Cerithium corallium* (Dufresne) Kiener.

1897 *Cerithium corallinum* Kien. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 169.

1899 *Cerithium (Cerithium) coralium* Dufresne. HORST et SCHEPMAN, Cat. (63), p. 226.

Bachan (collected by VON MARTENS).

Morotai (Bernstein, Leyden Mus.).

69. *Cerithium pellucidum* Hombron et Jacquinot.

1841 *Cerithium pellucidum*. HOMBRON et JACQUINOT, Voyage au Pôle Sud; Zoologie, Atlas, pl. XXIII, figs. 24, 25.

1854 — — ROUSSEAU in HOMBRON et JACQUINOT, Voy. Pôle Sud; Moll., p. 101.

1855 — *patulum*. SOWERBY, Thesaurus (167), vol. II, pp. 871—872, nr. 97, pl. CLXXIX, fig. 74.

1897 — — Sow., VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 170.

Tawali, in brackish water (collected by VON MARTENS).

Distribution: East Indian Archipelago: Ceram; Amboina; Celebes.

Caroline Is.; Philippines; Tongking; Singapore; Mergui-archipelago.

70. *Cerithium tuberculatum* (Linné).

1884 *Cerithium tuberculatum*. E. A. SMITH, Alert (160), pp. 63—64.

1897 — — Linne VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109) pp. 170—171.

— — *variegatum* (Q. G.?) Kien., var. *Janellei* H. J., VON MARTENS, *ibid.*, pp. 171—172.

1909 — *tuberculatum* Linné, var. *variegatum* Quoy and Gaimard. SCHEPMAN, Siboga (155), p. 161.

East coast of Halmahera, near Dodinga (collected by VON MARTENS).

Bachan (collected by VON MARTENS).

Laiwui, Obi Major, reef (Siboga exp.).

71. *Cerithium concisum* Hombron et Jacquinot.

1897 *Cerithium morum* Lam., VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 172—173.

Bachan (collected by VON MARTENS).

Synonymy and distribution in: „Recent shells from Java” (129), pp. 70—73, figs. 9, 10.

72. *Cerithium purpurascens* G. B. Sowerby II.

1897 *Cerithium morum* Lam., var. *purpurascens* Sow., VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109) p. 173.

East coast of Halmahera near Dodinga, and Bachan (collected by VON MARTENS).

Synonymy in: DAUTZENBERG et H. FISCHER, Indo-Chine (41), pp. 407—408.

73. *Cerithium pauxillum* A. Adams.

- 1909 *Cerithium pauxillum* A. Adams. SCHEPMAN, Siboga (155), p. 162.
Laiwui, Obi Major, coral-bottom and Lithothamnion (Siboga exp.).

74. *Cerithium subbreviculum* n. nom.

- 1834 *Cerithium breviculum*. G. B. SOWERBY, Genera (168), part 42, Cerithium, fig. 1.
1897 — — Sow. 2. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 174.

Bachan (collected by VON MARTENS).

Cer. breviculum being preoccupied for a fossil species by DESHAYES (Descript. d. Coquilles foss. des env. de Paris, vol. II, p. 425; 1833), I have renamed SOWERBY's species.

75. *Cerithium inflatum* Quoy et Gaimard.

- 1897 *Cerithium inflatum* Q. G., VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 174—175.
East coast of Halmahera near Dodinga, on stones on muddy bottom (collected by VON MARTENS).

76. *Cerithium obesum* G. B. Sowerby II.

- 1897 *Cerithium obesum* Sow.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 175.
Ternate, on mangrove-trees (collected by VON MARTENS).

Genus *Clava* Martyn, 1789

(= *Vertagus* Schumacher, 1817; *Rhinoclavis* Swainson, 1840).

Clava Gmelin (*Hydrozoa*) dates only from 1791, not from 1789, as erroneously stated by COSSMANN, who adopts SWAINSON's name *Rhinoclavis* for the genus (COSSMANN (23), livr. 7, p. 83).

77. *Clava vertagus* (Linné).

- 1899 *Cerithium (Vertagus) vertagus* Linné. HORST et SCHEPMAN, Cat. (63), p. 230.
Obi Is. (Bernstein, Leyden Museum).

78. *Clava fasciata* (Bruguère).

- 1910 *Vertagus fasciatus* Bruguère. DAUTZENBERG, Halmahera (38), p. 3.
Halmahera (recorded by DAUTZENBERG).

79. *Clava pfefferi* (Dunker).

- 1909 *Clava Pfefferi* Dunker. SCHEPMAN, Siboga (155), pp. 165—166.
Laiwui, Obi Major, sand and mud (Siboga exp.).

Genus *Potamides* Brongniart, 1810.

Subgenus *Terebralia* Swainson, 1840.

80. *Potamides (Terebralia) palustris* (Linné).

- 1692 LISTER, *Historia Conchyliorum*, IV, [pl. 836], fig. 62; [pl. 837], fig. 63.
- 1705 *Strombus palustris*. RUMPHIUS (151), p. 101, pl. XXX, fig. Q.
- 1767 *Strombus palustris*. LINNÉ, *Syst. Nat.* XII (96), p. 1213, nr. 515.
- 1780 *Turbo palustris Ceramicus*. CHEMNITZ, *Conch.-Cab.* (122), vol. IV, pp. 311—314, pl. 156, fig. 1472.
- 1791 *Strombus palustris*. GMELIN (56), p. 3521, nr. 38.
 — — *agnatus*. GMELIN, *ibid.*, p. 3523, nr. 45.
- 1792 *Cerithium palustre*. BRUGUIÈRE, *Encycl. méth.* (49), vol. I, part. 2, p. 486, nr. 19.
- 1817 *Cerithium palustre*. SCHUMACHER, *Nouv. syst.* (158), p. 224.
- 1817 *Strombus palustris*. DILLWYN, *A descriptive Catalogue of recent shells*, vol. II, p. 676, nr. 39.
- 1818 — — WOOD, *Index Testaceologicus*, p. 119, pl. 25, fig. 39.
- 1822 *Cerithium palustre*. LAMARCK, *An. s. vert.* (85), vol. VII, p. 66, nr. 2.
 — — *crassum*. LAMARCK, *ibid.*, p. 71, nr. 15.
- 1834 *Cerithium palustre*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 122—123, nr. 12, pl. 55, figs. 14—16.
- 1841-'42 *Cerithium palustre*, Brug. . KIENER (71), vol. V, *Cerithium*, pp. 81—82, pl. 1.
- 1842 *Cerithium palustre*. HOMBROU et JACQUINOT, *Voyage au Pôle Sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée*; *Atlas, Mollusques*, pl. 23, fig. 2.
- 1843 *Cerithium palustre*, Brug. . DESHAYES-LAMARCK, *An. s. vert.* (86), vol. IX, pp. 284—285, nr. 2.
 — — *crassum*, Lamk. . DESHAYES—LAMARCK, *ibid.*, p. 294, nr. 15 (= *Cerith. palustre*, junior, according to DESHAYES).

- 1854 *Pyrazus palustris*, Linn. . H. and A. ADAMS, Genera (3), vol. I, p. 291, pl. 30, figs. 8, 8a, 8b.
- 1855 *Cerithium (Potamides) palustre*, Linnaeus. SOWERBY, Thesaurus (167), vol. II, p. 883, nr. 153, pl. CLXXXV, fig. 261.
- 1855 *Strombus palustris*. HANLEY, Ipsa Linn. Conch. (58), pp. 277, 519.
- 1865 *Pyrazus palustris*. SOWERBY in REEVE (145), vol. XV, Pyrazus, figs. 2 a, b.
- 1869 *Pyrazus palustris* L. . VON FRAUENFELD, Nicobaren (55), pp. 866, 895.
- 1869 *Cerithium (Pyrazus) palustre*, Bruguière. ISSEL, Mar Rosso (65), p. 150.
- 1869 *Cerithium (Potamides) palustre*, L. sp. . VON MARTENS, v. d. Decken's Reisen (103), p. 64.
- 1874 *Pyrazus palustris* Linneo. TAPPARONE—CANEFRI, Magenta (173), pp. 145—146.
- 1879 *Pyrazus palustris*, Linn. . WOODWARD, Fossil shells from Sumatra (186), pp. 498—499, nr. 47, pl. XIII, fig. 11.
- 1880 *Potamides (Pyrazus) palustris* L. . VON MARTENS, Mauritius (105), p. 281.
- 1883 *Potamides (Pyrazus) palustris* (Linné). TAPPARONE CANEFRI, Nuova Guinea (174), I, p. 55.
- 1884 *Potamides (Terebralia) palustris*, Bruguière. P. FISCHER, Manuel (52), p. 681, fig. 447.
- 1887 *Potamides (Tympanotonos) palustris*, Linn. . TRYON, Manual (177), vol. IX, p. 160, pl. 32, figs. 41—42.
- 1890 *Cerithium (Pyrazus) palustre* Linné. KOBELT, Cerithium (72), pp. 35—37, pl. 8, figs. 1, 2; pl. 9, figs. 1, 2.
- 1893 *Potamides (Pyrazus) palustris* Linné. DAUTZENBERG, Séchelles (32), p. 83.

- 1897 *Potamides (Pyrazus) palustris* L.. VON MARTENS, Süss- u. Brackwasser-Moll. d. Ind. Arch. (109), pp. 176—177, pl. IX, figs. 24, 25.
- 1899 *Potamides (Terebralia) palustris* Linné. HORST et SCHEPMAN, Cat. (63), pp. 233—234.
- 1899 *Potamides (Tympanotonus) palustris*, L.. MELVILL and STANDEN, Torres Straits (123), p. 169, nr. 147.
- 1899 *Potamides (Terebralia) palustris* Linn. var.. K. MARTIN, Foss. v. Java (120), pp. 210—211, pl. XXXII, fig. 478.
- 1899 *Pyrazus palustris*, Linné. DAUTZENBERG, Sumatra (34), p. 4.
- 1902 *Potamides palustris* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 120.
- 1907 *Potamides (Terebralia) palustris* Linn. var.. ICKE en K. MARTIN, Nias (64), p. 217.
- 1907 *Pyrazus palustris* Linné. COUTURIER, Tahiti, etc. (25), p. 157.
- 1908 *Potamides (Terebralia) palustris* (L.) var.. O. BOETTGER, Liste tert. u. jüng. Verstein. (14), p. 669, nr. 14.
- 1908 *Potamides palustris*, Brug.. NOBRE, Timor (128), p. 225.
- 1909 *Potamides palustris* L.. LAMY, Java (89), p. 467.
- 1909 *Potamides (Terebralia) palustris* Linné. SCHEPMAN, Siboga (155), p. 168, nr. 2.
- 1914 *Potamides palustris*. LESCHKE, Java u. Celebes (93), p. 259.
- 1916 *Potamides (Tympanotonos) palustris* L.. CAES. BOETTGER, Hanseatische Südsee-Expedition (11), p. 303.
- 1919 *Potamides palustris* Linn. var.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 93, 130, 132.

1920 *Potamides (Terebralia) palustris* L. . TESCH; Timor (175),
 II, p. 57, nr. 142, pl.
 CXXXI, figs. 183 a, b, 184.

East coast of H a l m a h e r a, 1 specimen.

Specimens from Northern Halmahera and from the Obi Is, collected by Dr. Bernstein, are in the Leyden Museum. The species was collected at Kajoa-island north of Bachan by VON MARTENS.

Distribution (in mangrove-swamps, brackish marshes and estuaries): East Indian Archipelago: Buru and Ceram, in marshy sago-forests (RUMPHIUS), Buru (VON MARTENS), Wahai, N. coast of Ceram, on the shore (VON MARTENS); Amboina (VON MARTENS, Leyden Mus., Semon); Lucipara-island (Gazelle); Sorong, New Guinea (Beccari); Raffles-bay, New Guinea (HOMBRON et JACQUINOT); Dilly, Timor (NOBRE); Java (Novara, LAMY); Palabuan, Wijnkoopsbay, Java (VON MARTENS); Muara-Tangerang, northwest of Batavia, in mangrove-swamps along the river (Magenta); Celebes (RUMPHIUS); Menado, Northern Celebes (Astrolabe); Palos-bay, W. coast of Celebes, on the shore (Siboga); Makassar, Southern Celebes (Max Weber); Saleyer, reef (Siboga); N. E. coast of Borneo near Ligitan-island, in mangrove-swamps (A. ADAMS); Sumatra (TAPPARONE-CANEFRI, Leyden Mus.); between Padang and Indrapura, W. coast of Sumatra (Weyers).

Melanesia: Immer-island or Aniwa, New Hebrides (Hanseatic Pacific expedition). — Micronesia: Pelew Is. (Schmeltz). — Polynesia: Puamu, Gambier Is. (COUTURIER). — Torres Straits (MELVILL and STANDEN); Somerset, Cape York Peninsula, Northern Queensland (O. Finsch).

Luzon, Philippines (F. Jagor); Siam (VON MARTENS); Singapore (Traill); Nicobars, one of the most common Gastropoda (Novara); Andaman Is.; Madras (Novara); Tranquebar, Coromandel Coast (CHEMNITZ); Ceylon (Novara).

Red Sea (KIENER, ISSEL, Leyden Mus.); Massaua, Eritrea (Jickeli); Seychelles, on mud in mouths of rivers (DUFO, Möbius, DAUTZENBERG); Amirantes; Mauritius (LISTER); Madagascar (SGANZIN); Nossi-Fali near Nossi-Bé (Pollen and van Dam); Mozambique (VON MARTENS).

The locality Auckland, New Zealand (VON FRAUENFELD) is at least very doubtful.

Fossil occurrence: Pliocene of Timor (O. BOETTGER, TESCH). Pleistocene on the N. coast of New Guinea, near mouth of river Tami; Pleistocene of Tempe, Celebes.

Pliocene of Tji Djadjar, Resid. Cheribon, and Upper Miocene of Selatjau on river Tji Longan, Resid. Preanger, Java (K. MARTIN).

Pleistocene deposits of Nias, west of Sumatra (WOODWARD¹), ICKE en K. MARTIN).

Pliocene of the Philippine Islands.

Several authors have located this species in the subgenus *Pyrazus* Montfort, 1810. L. VIGNAL (Note sur la section „*Pyrazus*” (179), p. 32), however, stated that *Potamides ebeninus* Brug., indicated and figured by MONTFORT, is the true type of *Pyrazus*. *Potamides palustris*, taken as the type of *Pyrazus* by KOBELT, does not belong to this group. It is the type of the subgenus *Terebralia* Swainson, 1840.

81. *Potamides* (*Terebralia*) *sulcatus* (Born).

1897 *Potamides* (*Pyrazus*) *sulcatus* Born. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 178—180, pl. IX, fig. 27.

1899 — (*Terebralia*) *sulcatus* Born. HORST et SCHEPMAN, Cat. (63), p. 234.

Bachan (collected by VON MARTENS).

Morotai (Bernstein, Leyden Museum).

Genus *Cerithidea* Swainson, 1840.

82. *Cerithidea ornata* A. Adams.

1897 *Potamides* (*Cerithidea*) *ornatus* A. Ad. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 189.

1899 — (—) — A. Adams. HORST et SCHEPMAN, Cat. (63), p. 235.

Bachan, in brackish water (collected by VON MARTENS; Bernstein, Leyden Mus.).

FAM. STROMBIDAE.

Genus *Strombus* Linné, 1758.

Section *Strombus s. str.*

Type *Str. pugilis* Linné, selected by LAMARCK in 1799. (*Monodactylus* [Klein] Herrmannsen, 1847; non Lacépède, *Pisc.*, 1800; nec Merr., *Rept.*, 1820).

¹) About the formation from which the specimen described by WOODWARD was obtained and its geological age see also: K. MARTIN, Melawigruppe (116), pp. 283—284; K. MARTIN, Foss. v. Java (120), p. 211; ICKE en K. MARTIN, Nias (64), p. 208.

In my opinion *Monodactylus* cannot be separated even as a section. The two closely related species *Str. costatus* Gmelin and *peruvianus* Swainson form a link between *Strombus s. str.* and *Monodactylus*.

83. *Strombus (Strombus) canarium* Linné.

For the synonymy and the distribution of this species see OOSTINGH, Java (129), pp. 80—82, 161. The following references may be added:

- 1764 *Strombus Canarium*. LINNÉ, Mus. Lud. Ulr. (95), p. 623, nr. 287.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1211, nr. 507.
- 1777 *Cochlis alata crassa, etc. Alata Gallinula gibba dicta*. MARTINI, Conch.-Cab. (122), vol. III, pp. 107—108, pl. LXXIX, figs. 817, 818.
- 1832 *Strombus canarium*. DESHAYES, Encycl. méth. (49), vol. III, pp. 990—991, nr. 9 and var. a.
- 1855 *Strombus Canarium*. HANLEY, Ipsa Linn. Conch. (58), pp. 273, 518.
- 1869 *Gallinula canarium* L. VON FRAUENFELD, Nicobaren (55), p. 863.
- 1874 *Strombus (Gallinula) gibbus* Martini. TAPPARONE-CANEFRI, Magenta (173), p. 114.
- 1876 *Strombus (Gallinula) canarium*, Linné. ISSEL e TAPPARONE CANEFRI, Strombidi (66), pp. 343—344.
- 1881 *Strombus isabella* Lam. K. MÁRTIN, Posttertiary fauna from Blitong (202), p. 19, nr. 4.
- — *canarium* Lin (?). K. MARTIN, *ibid.*, pp. 19, 20—21, nr. 5.
- 1885 *Strombus (s. str.) canarium*, Linn. and var. *Isabella*, Lam. TRYON (177), vol. VII, p. 110, pl. 2, figs. 18—20; pl. 3, fig. 21.
- 1907 *Strombus (s. str.) isabella* Lam. ICKE en K. MARTIN, Nias (64), p. 214.

1908 *Strombus canarium*, Lin. and var. *Isabella*, Lamk.. NOBRE, Timor (128), p. 216.

1909 *Strombus canarium* L.. LAMY, Java (89), p. 466.

Obi Major, 1 specimen.

East coast of Halmahera, 1 specimen.

This species was collected at Bachan by VON MARTENS.

Distribution: The localities roadstead of Batavia (Magenta), Hongkong (Magenta) and Madras may be added to those enumerated in my previous paper.

84. *Strombus (Strombus) lamarckii* Gray.

1705 *Pugiles*. RUMPHIUS (151), p. 111, pl. XXXVII, fig. R.

1758 *Strombus Auris Dianae*. LINNÉ, Systema Naturae, edit. X (94), p. 743, nr. 429 (as far as the references to RUMPHIUS and perhaps KLEIN (copied from BONANNI, fig. 302); exclusive of the references to D'ARGENVILLE and GUALTIERI).

1761 SEBA, Locuplet. rerum naturalium thesauri, vol. III, pl. 62, fig. 13.

1764 *Strombus Auris dianae*. LINNÉ, Mus. Lud. Ulr. (95), p. 620, nr. 280 (in part, as far as the reference to RUMPHIUS).

1767 *Strombus Auris Dianae*. LINNÉ, Syst. Nat. XII (96), p. 1209, nr. 497 (in part, as far as the references to RUMPHIUS, SEBA (pl. 62, fig. 13) and ?KLEIN; exclusive of the references to D'ARGENVILLE, GUALTIERI and SEBA, pl. 61).

1777 *Cochlis alata, digito simplici tereti armato, granulato-striata, etc. . Pugil striato-granulatus*. MARTINI, Conch. — Cab. (122), vol. III, pp. 132—136, pl. LXXXIV, figs. 838—839.

1791 *Strombus Auris Dianae*. GMELIN (56), p. 3512, nr. 12 (in part).

- 1817 *Strombus auris Dianae* Lin. . SCHUMACHER, *Nouv. syst.* (158), pp. 220—221 (in part, exclusive of the reference to CHEMNITZ, vol. X, figs. 1487, 1488).
- 1822 *Strombus auris Dianae*. LAMARCK, *An. s. vert.* (85), vol. VII, p. 204, nr. 11 (in part).
- 1842 *Strombus Lamarckii* Gray. SOWERBY, *Thesaurus* (167), vol. I, pp. 35—36, nr. 50, pl. IX, figs. 98, 99, 88, 93.
- 1843 *Strombus auris-Dianae*, Lin. . KIENER (71), vol. IV, *Strombus*, pp. 22—23, nr. 16, pl. 16, figs. 1, 1.
- 1843 *Strombus auris Dianae* Lin. . DESHAYES in DESHAYES—LAMARCK, *An. s. vert.* (86), vol. IX, p. 694, note 1.
- 1845 *Strombus auris Dianae*, Linné. KÜSTER, *Strombea* (77), pp. 25—26, pl. 6, figs. 1, 2 (= MARTINI, figs. 838—839).
- 1851 *Strombus auris-Dianae*. REEVE (145), vol. VI, *Strombus*, pl. XV, fig. 36 b.
- 1852 *Monodactylus striato granulatus* Mart. . MÖRCH, *Yoldi Cat.* (125), fasc. I, p. 62.
- 1855 *Strombus auris-Dianae* (in part). HANLEY, *Ipsa Linn. Conch.* (58), pp. 268—269, 516.
- 1863 *Strombus Auris Dianae* Lin. . DESHAYES, *Réunion* (44), p. 113, nr. 373.
- 1880 *Strombus auris-Dianae* L. . VON MARTENS, *Mauritius* (105), p. 277.
- 1885 *Strombus (Monodactylus) auris-Dianae*, Linn. . TRYON (177), vol. VII, p. 113 (in part), pl. 4, fig. 37 (= SOWERBY, *Thesaurus*, fig. 88).
- 1899 *Strombus (Monodactylus) auris-dianae* Linné. HORST et SCHEPMAN, *Cat.* (63), pp. 215—216.
- 1899 *Strombus (Monodactylus) Lamarcki*, Gray. MELVILL and STANDEN, *Torres Straits* (123), p. 165, nr. 122.

- 1902 *Strombus auris-Dianae* L. . VON MARTENS, Rumphius Gedenkb. (110), p. 122.
- 1908 *Strombus Auris-Dianae*, Lin. . NOBRE, Timor (128), p. 216.
- 1909 *Strombus auris-dianae* L. . LAMY, Java (89), p. 466.
- 1909 *Strombus (Monodactylus) auris Dianae* Linné. SCHEPMAN, Siboga (155), p. 148, nr. 6.
- 1915 *Strombus auris Dianae*, Lin. . STAUB, Sangkulirangbai (169), p. 126.
- 1916 *Strombus (Monodactylus) auris-dianae* L. . CAES. BOETTER, Hanseatische Südsee- Exped. (11), p. 300.

Obi Major, 1 specimen.

A specimen from Bachan, collected by Dr. Bernstein, is in the Leyden Museum.

Distribution: East Indian Archipelago (on reefs, etc.): Amboina (RUMPHIUS, VON MARTENS); Nusa-Laut-island near Amboina (Siboga); Misol and Timor (Leyden Mus.); Dilly, Timor (NOBRE); Kupang, Timor (VON MARTENS); Savu-island (Siboga); Larentuka, Flores (Leyden Mus., VON MARTENS); Java (LAMY); Tjilatjap, S. coast of Java (Leyden Mus.); Batavia, Java (Winter); Gorontalo, Celebes (Leyden Mus.); Pulu Kaniungan ketjil near Cape Mangkalihat, E. Borneo (Siboga); Sangkulirang-bay, E. Borneo, on the shore (STAUB); Billiton (Leyden Mus.).

Torres Straits (MELVILL and STANDEN); Solomon Is. (Hanseatic Pacific exped.). — Loo-Choo Is. (Senckenberg Museum); Singapore (Leyden Mus.).

Zanzibar Coast (Leyden Mus.); Seychelles (Möbius); Mauritius (LIÉNARD); Réunion (DESHAYES); Madagascar (SGANZIN).

The *Strombus Auris Dianae* of LINNÉ embraced both the species under consideration and the *Strombus guttatus* of authors, but, as HANLEY has pointed out, the language of the „Museum Lud. Ulricae“, upon the whole, favours *guttatus*. LAMARCK did not distinguish the two closely-allied species even as varieties.

SOWERBY *) was the first binomial author, who distinguished them and, in accordance with the International rules of nomenclature

*) Gray seems to have only named, but not described the species under consideration.

ture, we have to adopt his view. In consequence, the species under consideration ought to bear the name of *Str. lamarckii*.

It is much to be regretted, that KIENER and DESHAYES did not apply the Linnean name to the same species as SOWERBY and that the majority of subsequent authors have followed them.

85. *Strombus (Strombus) auris-dianae* Linné.

- 1742 GUALTIERI, Index Testarum Conchyliorum, pl. 32, fig. H.
- 1758 *Strombus Auris Dianae*. LINNÉ, Systema Naturae, edit. X (94), p. 743, nr. 429 (in part, exclusive of the references to RUMPHIUS and ? KLEIN).
- 1761 SEBA, Locuplet. rerum naturalium thesauri, vol. III, pl. 61, figs: 1—4.
- 1764 *Strombus Auris dianae*. LINNÉ, Mus. Lud. Ulr. (95), p. 620, nr. 280 (in part, exclusive of the reference to RUMPHIUS).
- 1767 *Strombus Auris Dianae*. LINNÉ, Syst. Nat. XII (96), p. 1209, nr. 497 (in part, exclusive of the references to RUMPHIUS, SEBA, pl. 62 and ? KLEIN).
- 1777 *Cochlis alata monodactylos, etc. Pugil guttatus laevis*. MARTINI, Conch.-Cab. (122), vol. III, pp. 136—137, pl. LXXXIV, fig. 840.
- 1791 *Strombus Auris Dianae*. GMELIN (56), p. 3512, nr. 12 (in part) and var. β .
- 1834 *Strombus auris Dianae*. QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 68—69, nr. 5, pl. 51, figs. 1, 2.
- 1842 *Strombus auris-dianae*. SOWERBY, Thesaurus (167), vol. I, p. 35, nr. 49, pl. IX, figs. 101, 102.
- 1843 *Strombus guttatus* Martini. KIENER (71), vol. IV, Strombus, pp. 24—25, nr. 17, pl. 15, figs. 1, 1.
- 1843 *Strombus guttatus* Martini. DESHAYES in DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, p. 694, note 1.
- 1845 *Strombus guttatus* Martini. KÜSTER, Strombea (77), pp. 26—28, pl. 6, fig. 3.

- 1851 *Strombus guttatus*. REEVE (145), vol. VI, *Strombus*, pl. XIV, fig. 33.
- 1855 *Strombus auris-Dianae*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 268—269, 516.
- 1885 *Strombus (Monodactylus) auris-Dianae*, Linn. TRYON (177), vol. VII, p. 113 (*in part*).
- 1899 *Strombus (Monodactylus) guttatus* Martyn (sic!). HORST et SCHEPMAN, *Cat.* (63), p. 216.
- 1902 *Strombus guttatus* Desh.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 122.
- 1909 *Strombus (Monodactylus) guttatus* Martini. SCHEPMAN, *Siboga* (155), p. 148, nr. 7.

O b i M a j o r, 1 specimen.

Distribution: East Indian Archipelago (on reefs and stony bottom): Amboina (*Astrolabe*, Leyden Museum); Nusa-Laut-island near Amboina and Island Gisser east of Ceram (*Siboga*); Misol (*Leyden Mus.*); Timor (*Leyden Mus.*); Savu-island (*Siboga*); Flores (*Leyden Mus.*); Tjilatjap, S. coast of Java (*Leyden Mus.*); Banka (*Leyden Mus.*).

Philippines (Cuming); Japan (DUNKER, *Leyden Mus.*).

For the reasons, that have induced me to apply the name *auris-dianae* to the *Str. guttatus* of authors, see my remarks on the preceding species.

Section *Euprotomus* Gill, 1869.

86. *Strombus (Euprotomus) lentiginosus* Linné.

- 1705 *Lentiginosa*. RUMPHIUS (151), p. 111, pl. XXXVII, fig. Q.
- 1758 *Strombus lentiginosus*. LINNÉ, *Systema Naturae*, edit. X (94), p. 743, nr. 427.
- 1764 — — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 619, nr. 278.
- 1767 *Strombus Lentiginosus*. LINNÉ, *Syst. Nat.* XII (96), p. 1208, nr. 495.
- 1777 *Alata lentiginosa, etc.* . MARTINI (122), vol. III, pp. 118—120, pl. LXXX, figs. 825—826; pl. LXXXI, figs. 827—828.
- 1791 *Strombus lentiginosus*. GMELIN (56), p. 3510, nr. 8 (exclusive of vars. α and β).

- 1817 *Strombus lentiginosus*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 660, nr. 10.
- 1818 *Strombus lentiginosus*. WOOD, Index Testaceologicus, p. 123, pl. XXIV, fig. 10.
- 1822 *Strombus lentiginosus*. LAMARCK, An. s. vert. (85), vol. VII, pp. 203—204, nr. 10.
- 1822 *Strombus lentiginosus*. SWAINSON, Zool. Illustr. (172), vol. III, pl. 134, lower figure.
- 1832 *Strombus lentiginosus*. DESHAYES, Encycl. méth. (49), vol. III, pp. 989—990, nr. 7.
- 1834 *Strombus lentiginosus*. QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 65—66, nr. 3, pl. 50, fig. 3.
- 1842 *Strombus lentiginosus*. SOWERBY, Thesaurus (167), vol. I, p. 37, nr. 56, pl. VIII, fig. 79.
- 1843 *Strombus lentiginosus*, Lin. . KIENER (71), vol. IV, Strombus, pp. 25—26, nr. 18, pl. 18, figs. 1, 1.
- 1843 — — , Lin. . DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, pp. 693—694, nr. 10.
- 1845 *Strombus lentiginosus* Linné. KÜSTER, Strombea (77), pp. 21—23, pl. 4, figs. 1, 2; pl. 5, figs. 2, 3.
- 1851 *Strombus lentiginosus*. REEVE (145), vol. VI, Strombus, pl. XIII, fig. 31.
- 1855 *Strombus lentiginosus*. HANLEY, Ipsa Linn. Conch. (58), pp. 268, 516.
- 1863 *Strombus lentiginosus* Lin. . DESHAYES, Réunion (44), p. 113, nr. 372.
- 1869 *Strombus lentiginosus* L. . VON FRAUENFELD, Nicobaren (55), pp. 863, 893.
- 1869 *Strombus lentiginosus*, L. . VON MARTENS, v. d. Decken's Reisen (103), p. 64.
- 1880 *Strombus lentiginosus* L. . VON MARTENS, Mauritius (105), p. 277.
- 1885 *Strombus (Euprotomus) lentiginosus*, Linn. . TRYON (177), vol. VII, p. 110, pl. 3, figs. 23, 24.

- 1885 *Strombus lentiginosus*, Linne. BOOG WATSON, Challenger Gasterop. (182), p. 415, nr. 1.
 1893 *Strombus lentiginosus* Linné. DAUTZENBERG, Séchelles (32), p. 82.
 1899 *Strombus (Strombus) lentiginosus* Linné. HORST et SCHEPMAN, Cat. (63), p. 212.
 1902 *Strombus lentiginosus* L.. VON MARTENS, Rumphius Gedenk. (110), p. 122.
 1908 *Strombus lentiginosus*, Lin.. NOBRE, Timor (128), p. 216.
 1909 — — L.. LAMY, Java (89), p. 466.
 1909 *Strombus (Euprotomus) lentiginosus* Linné. SCHEPMAN, Siboga (155), p. 147.
 1915 *Strombus lentiginosus*, Lin.. STAUB, Sangkulirangbai (169), p. 126.

Obi Major, 1 young specimen.

This species was already recorded from Obi Major by SCHEPMAN (Siboga expedition), it was collected by VON MARTENS at Mareh near Tidore.

Distribution: East Indian Archipelago (on reefs, etc.): Amboina (Leyden Museum); Nusa-Laut-island near Amboina (Siboga); Lucipara-island (Siboga); Doreh, New Guinea (Astrolabe); Waigeu (Leyden Mus.); Kur-island and Kei Is. (Siboga); Aru Is. (Leyden Mus.); Timor (Leyden Mus.); Dilly, Timor (NOBRE); Kupang, Timor (VON MARTENS); Rotti-island (Siboga); Java (Novara, LAMY); Sula Is. (Siboga); Northern Celebes (A. B. Meyer); Sangkulirang-bay, E. Borneo, on the shore (STAUB).

New Caledonia to Viti Is. (TRYON); Philippines (Cuming); Singapore (Leyden Mus.); Nicobars.

Zanzibar (von der Decken, Leyden Museum); Seychelles (DUFO, DAUTZENBERG); Cargados (LIÉNARD); Mauritius (LIÉNARD); Réunion (DESHAYES); Mozambique (VON MARTENS). — Simons Bay, Cape of Good Hope (Challenger).

Section *Labiostrombus* n. nom.

(= *Gallinula* (Klein) Herrmannsen, 1847, H. and A. Adams, 1854; non Brisson, *Aves*, 1760).

Type: *Strombus succinctus* Linné.

87. *Strombus (Labiostrombus) minimus* Linné.

For synonymy and distribution see OOSTINGH, Java (129), pp. 82—83 with the following additions:

- 1789 *Strombus Epidromis minima*. CHEMNITZ, Conch.-Cab. (122), vol. X, pp. 214—215, pl. 156, figs. 1491, 1492.
- 1832 *Strombus troglodytes*. DESHAYES, Encycl. méth. (49), vol. III, p. 992, nr. 13.
- 1855 *Strombus minimus*. HANLEY, Ipsa Linn. Conch. (58), pp. 455, 555.
- 1869 *Gallinula minimus* L.. VON FRAUENFELD, Nicobaren (55), p. 863.

Obi Major, 1 specimen.

Add to Distribution: Java (Novara). — Tranquebar, Coromandel Coast (CHEMNITZ).

Section *Canarium* Schumacher, 1817

(= *Strombidea* Swainson, 1840).

Type: *Canarium ustulatum* Schumacher.

88. *Strombus (Canarium) plicatus* Lamarck.

- B 1705 *Canarium*. RUMPHIUS (151), p. 111, pl. XXXVII, fig. T.
- A 1777 *Alata Canarium, muricatum*. MARTINI, Conch.-Cab. (122), vol. III, pp. 85, 98—101, 165, pl. LXXVIII, figs. 803—806.
- B 1791 *Strombus dentatus* [not of Linné]. GMELIN (56), p. 3519, nr. 31.
- D 1795 *Strombus Erythrinus*. CHEMNITZ, Conch.-Cab. (122), vol. XI, pp. 146—147, pl. 195A, figs. 1874—1875.
- B 1816 *Strombus plicatus*. LAMARCK, Tableau encycl. (49a), pl. 408, figs. 2 a, b (drawn reversed, in common with all the figures on this plate); Liste des objets repr., p. 3; (Explanation of plates by BORY DE ST.-VINCENT (1827), p. 170).
- A 1817 *Canarium ustulatum*. SCHUMACHER, Nouveau système (158), p. 219.
- D 1817 *Strombus erythrinus*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 673.

- A 1818 *Strombus urceus* [not of Linné]. WOOD, Index Testaceologicus, p. 124, pl. 25, fig. 32.
- D — — *erythrinus*. WOOD, *ibid.*, p. 124, pl. 25, fig. 33.
- A 1822 *Strombus urceus* [not of Linné]. LAMARCK, An. s. vert. (85), vol. VII, p. 210, nr. 25.
- B — — *plicatus*. LAMARCK, *ibid.*, p. 210, nr. 26.
- E 1825 *Strombus rugosus*. SOWERBY, A Catalogue of the Shells contained in the collection of the Earl of Tankerville; Appendix, p. XX, nr. 1791.
- E 1828 *Strombus jugosus*. WOOD, Index Testaceologicus, Supplement, p. 215, pl. IV, fig. 4.
- A 1832 *Strombus urceus* [not of Linné]. DESHAYES, Encycl. méth. (49), vol. III, p. 993, nr. 15.
- B 1834 *Strombus plicatus*. QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 70—71, nr. 7, pl. 51, fig. 5.
- A 1842 *Strombus Urceus*. SOWERBY, Thesaurus (167), vol. I, p. 30, nr. 21 (exclusive of var. *S. incisus* Wood), pl. VII, figs. 34—36 (not 37, 41, 42).
- E — — *rugosus* Sow. SOWERBY, *ibid.*, p. 30, nr. 23, pl. VII, figs. 58, 60.
- B — — *plicatus*, Lam. SOWERBY, *ibid.*, p. 30, nr. 24, pl. VII, fig. 56.
- C — — *elegans*. SOWERBY, *ibid.*, p. 30, nr. 25, pl. VII, figs. 43, 48.
- A 1843 *Strombus urceus*, [not of] Lin. KIENER (71), vol. IV; *Strombus*, pp. 60—62, nr. 46, pl. 15, figs. 2, 2; pl. 30, figs. 2, 2, 3, 3.
- B — — *plicatus*, Lam. KIENER, *ibid.*, pp. 62—63, nr. 47, pl. 31, figs. 1, 1, 1 a, 1 b, 1 b.
- A 1843 *Strombus urceus* [not of] Lin. DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, pp. 705—706, nr. 25.
- B — — *plicatus* Lamk. DESHAYES—LAMARCK, *ibid.*, pp. 706—707, nr. 26.

- A 1844—'45 *Strombus urceus* [not of] Linné. DUCLOS in CHENU, Illustr. conch. (17), *Strombus*, p. 4, pl. 5, figs. 8—15 (*S. Dentatus*, var. *urceus* Lamarck on the plate!); pl. 24, figs. 5, 6.
- A — — *anatellus*. DUCLOS, *ibid.*, p. 5.
- B — — *dentatus* [not of] Linné. DUCLOS, *ibid.*, p. 4, pl. 5, figs. 1—6.
- B — — *olydius*. DUCLOS, *ibid.*, p. 4, pl. 5, fig. 7.
- B — — *radians*. DUCLOS, *ibid.*, p. 5, pl. 4, figs. 15, 16.
- D — — *erythrinus* (sic!) (ex errore typ.). Chemnitz. DUCLOS, *ibid.*, p. 3, pl. 5, figs. 16—19.
- A 1846 *Strombus urceus*, [not of] Linné. KÜSTER, *Strombea* (77), pp. 51—53, pl. 9, figs. 4—6 (not 7); pl. 14, fig. 9.
- B, D 1846 *Strombus plicatus*, *Encyclopaedie*. KÜSTER, *ibid.*, pp. 59—61, pl. 13, figs. 3—6.
- E 1850 *Strombus corrugatus*. A. ADAMS, *The Zoology of the Voyage of H. M. S. Samarang; Mollusca*, p. 35, pl. 10, fig. 19.
- A 1850 *Strombus urceus* [not of Linné]. REEVE (145), vol. VI, *Strombus*, pl. XI, figs. 24 a, b, c.
- B — — *dentatus*. REEVE, *ibid.*, pl. IX, fig. 17.
- D — — *Ruppellii*. REEVE, *ibid.*, pl. VIII, fig. 13 a.
- E — — *rugosus*. REEVE, *ibid.*, pl. IX, fig. 16.
- C 1851 — *elegans*. REEVE, *ibid.*, pl. XVII, figs. 41 a, b.
- B 1852 *Aporrhais plicatus* Lam. . MÖRCH, *Yoldi Cat.* (125), fasc. I, p. 63.
- C — — *elegans* Sow. . MÖRCH, *ibid.*, p. 63.
- A 1854 *Strombus (Canarium) urceus*, [not of] Linné. H. and A. ADAMS, *Genera* (3), vol. I, p. 260.

- B 1854 *Strombus (Canarium) plicatus* Lam. . H. and A.
ADAMS, *ibid.*, p. 260.
- C — — (—) *elegans*, Sow. . H. and A.
ADAMS, *ibid.*, p. 260.
- D — — (—) *Rüppellii*, Reeve. H. and A.
ADAMS, *ibid.*, p. 260.
- A 1859 *Strombus (Strombidea) urceus*, [not of] Linné. CHENU,
Manuel (19), vol. I, p. 257, fig.
1606.
- B — — (—) *plicatus*, Lamarck. CHENU,
ibid., p. 257, fig. 1608.
- A 1869 *Strombus urceus* [not of Linné]. ISSEL, Mar Rosso (65),
p. 132.
- D — — *Ruppellii*, Reeve. ISSEL, *ibid.*, pp. 131, 270.
- A 1869 *Canarium urceum* [not of] L. . VON FRAUENFELD,
Nicobaren (55), p. 864.
- A 1869 *Strombus urceus* [not of Linné]. LISCHKE, Japan.
Meeresconch. (98), vol. I. p. 30.
- C 1870 *Strombus elegans*, Sowerby. P. FISCHER, Suez (51), p.
162.
- C 1870 *Strombus (Canarium) elegans*, Sow. . M'ANDREW, Test.
Gulf of Suez (100), p. 440.
- D — — (—) *Rüppellii*, Rve. . M'ANDREW,
ibid., p. 440.
- A 1871 *Strombus urceus*. LISCHKE, Japan. Meeresconch. (98),
vol. II, p. 23.
- D, C 1876 *Strombus erythrinus*, Chemnitz, and var. *a*. ISSEL e
TAPPARONE CANEFRI,
Strombidi (66), pp. 351—352.
- A-D 1880 *Strombus urceus* [not of Linné] and vars. *plicatus*
Lam. and *elegans*. VON MARTENS,
Mauritius (105), pp. 277—278.
- A 1881 *Strombus urceus* [not of] Lin. . K. MARTIN, Posttertiary
fauna from Blitong (202), p. 19, nr. 3.
- A 1885 *Strombus (Canarium) urceus*, [auct., non] Linn. . TRYON
(177), vol. VII, p. 118, pl. 6, figs.
65—67.

- B-E 1885** *Strombus (Canarium) dentatus*, [not of] Linn. and vars. *erythrinus*, Chemn. and *rugosus*, Sowb.
 TRYON, *ibid.*, pp. 118—119, pl. 6, figs. 68—69; pl. 7, figs. 67—72 (pl. 7, fig. 70 = KIENER, pl. 31, fig. 1; pl. 6, fig. 68 = CHENU, *Illustr. conch.*, pl. 5, fig. 7; pl. 7, figs. 67, 69 = *Illustr. conch.*, pl. 4, fig. 16, pl. 5, fig. 6; pl. 7, fig. 72 = *Voy. Samarang*, pl. 10, fig. 19; pl. 6, fig. 69, pl. 7, figs. 68, 71 = REEVE, figs. 13 a, 17, 41 a).
- A 1885** *Strombus (Canarium) muricatus*, Martini. BOOG WATSON, *Challenger Gasterop.* (182), p. 417, nr. 4.
- E — — (—)** *rugosus*, Sowerby. BOOG WATSON, *ibid.*, p. 417, nr. 5.
- D — — (—)** *rupellii*, Reeve. BOOG WATSON, *ibid.*, p. 418, nr. 6.
- C 1885** *Strombus elegans*, Sowb. (= *dentatus*, [auct., non] L.). COOKE, *Test. moll. Gulf of Suez* (21) part I, p. 324.
- D — —** *Rüppellii*, Reeve (= *dentatus*, [not of] L., var.). COOKE, *ibid.*, pp. 324—325.
- A, B 1887** *Strombus urceus*, [auct., non] L. and var. *plicatus*, Lam. VON MARTENS, *Mergui* (107), p. 189, nr. 188.
- D 1888** *Strombidea erythrinus*. JOUSSEAUME, *Mer Rouge* (68), p. 174, nr. 26.
- E 1893** *Strombus (Canarium) dentatus* [not of] Linné, var. *rugosa* Sowerby. DAUTZENBERG, *Séchelles* (32), p. 82.

- B** 1899 *Strombus (Canarium) dentatus* [auct., non] Linné.
HORST et SCHEP-
MAN, Cat. (63), pp.
217—218.
- D** — — (—) *Rüppelli* Reeve. HORST et
SCHEPMAN, *ibid.*, p.
218.
- C** — — (—) *elegans* Sowerby. HORST et
SCHEPMAN, *ibid.*, p.
218.
- A** — — (—) *muricatus* Martini. HORST et
SCHEPMAN, *ibid.*, p.
218.
- A** 1899 *Strombus (Gallinula) urceus*, [auct., non] L.. MEL-
VILL and STANDEN,
Torres Straits (123), p.
165, nr. 118.
- B** — — (*Canarium*) *dentatus*, [auct., non] L.. MEL-
VILL and STANDEN,
ibid., p. 165, nr. 121.
- B** 1899 *Strombus (Canarium) dentatus* [auct., non] Linn. var..
K. MARTIN, Foss. v.
Java (120), pp. 188—
189, pl. XXX, fig. 437.
- D** 1900 *Canarium dentatum*, Linnaeus, var. *erythrynum*, Chem-
nitz. BULLEN NEWTON, Raised
beaches Red Sea (127), pp. 508—
509.
- D** 1901 *Strombus erythrinus* Chemnitz. H. FISCHER, Djibouti
(54), p. 107.
- D** 1901 *Canarium dentatum*, var. *erythrinum* (Chem.). ASHING-
TON BULLEN, Raised beaches of
Perim Island (204), p. 254.
- B** 1902 *Strombus urceus* var. *plicatus* Lam.. VON MARTENS,
Rumphius Gedenkb. (110), p. 122.
- B, D** 1903 *Strombus (Canarium) dentatus* [auct., non] L. and
var. *erythrinus* Chemn.. STURANY, Gastr. Roth. Mee-
res (171), pp. 253, 276—277.
- A** 1906 *Strombus urceus* [auct., non] Linné. DAUTZENBERG
et H. FISCHER, Indo-Chine (41), pp.
405—407.

- A 1907 *Strombus urceus* [auct. non] Linné. COUTURIER, Tahiti, etc. (25), p. 153.
- B — — *plicatus* Lamarck. COUTURIER, *ibid.*, p. 153.
- A 1907 *Strombus muricatus* Martini. SCHEPMAN, Posttertiär Celebes (154), p. 186.
- C — — *dentatus* Lin., var. *elegans* Sow.. SCHEPMAN, *ibid.*, p. 186.
- A 1907 *Strombus (Canarium) muricatus* Martini. ICKE en K. MARTIN, Nias (64), pp. 214, 240.
- A 1908 *Strombus urceus* [not of] Lin.. NOBRE, Timor (128), p. 216.
- B 1909 *Strombus dentatus* [not of] L.. LAMY, Java (89), p. 466.
- A 1909 *Strombus (Canarium) muricatus* Martini. SCHEPMAN, Siboga (155), p. 151, nr. 15.
- B, D 1909 *Strombus (Canarium) dentatus* [auctorum, non] Linné and var. *Rüppellii* Reeve. SCHEPMAN, *ibid.*, p. 151, nr. 16.
- B 1911 *Strombus (Canarium) dentatus* [auct., non] Linn. var.. H. MARTIN-ICKE, Trinitil (121), p. 47.
- B 1919 *Strombus dentatus* [auct., non] Linn. var.. K. MARTIN, Palaezool. Kenntnis Java (119), pp. 91, 141.
- A 1920 *Strombus urceus* [auct., non] L.. TESCH, Timor (175), II, pp. 49—50, pl. CXXX, figs. 168 a, b.
- A 1923 *Strombus (Canarium) muricatus* Martini. OOSTINGH, Java (129), pp. 83—84, 161.

N. B.: References for the form *ustulatus* Schumacher (= *Str. muricatus* (Martini) auct. = *Str. urceus* auct., non Linné) are indicated by A, those for the typical *plicatus* (= *Str. dentatus* auct., non Linné) by B; references for the form *elegans* Sowerby are indicated by C, those for the form *rüppellii* Reeve by D, and those for *rugosus* Sowerby by E.

Obi Major, 2 specimens of the form *ustulatus* Schum.; 1 specimen almost intermediate between the typical *plicatus* and the form *ustulatus*, not very prominently ribbed, but shorter than most specimens of the form *ustulatus*, resembling the specimen figured by K. MARTIN (Foss. v. Java (120), pl. XXX, fig. 437).

East coast of Halmahera, 1 specimen of the form *ustulatus*; 4 specimens of the typical *plicatus*.

The species has been previously recorded from the Obi Is. in the Catalogue of the Leyden Museum (form *ustulatus*, collect. Dr. Bernstein). Specimens from Ternate and Bachan (typical *plicatus*) were collected by VON MARTENS.

Distribution: East Indian Archipelago (on coral-reefs, shores, etc.): Amboina (Leyden Mus., Mus. Amsterdam, A, B); Nusalaut-island near Amboina, reef (Siboga, B); Lucipara-island (Gazelle, B); Waigeu (Leyden Mus., B); Doreh, New Guinea (Astrolabe, B); West coast of New Guinea, reef (Siboga, A); Aru Is. (Leyden Mus., A, B); Roma-island, reef (Siboga, B); Timor (Leyden Mus., Siboga, A, B); Dilly, Timor (NOBRE, A); Kupang, Timor (VON MARTENS, B); Rotti-island (Siboga, D); Flores (Leyden Mus., B); Larentuka, Flores (Leyden Mus., VON MARTENS, A, B); Sumbawa, shore (Siboga, A); Paternoster-islands, coral-bottom (Siboga, D); Lombok, at 22 M. (Siboga, D); Kangeang-island east of Madura, shore (Siboga, A); Bawean-island, at 32 M., coral-bottom (Siboga, D); Java (Novara, LAMY, A, B); shore north of Banjuwangi, Java (Geerts, A); N. coast of Resid. Besuki, E. Java (Leyden Mus., A); coral-island Pulu Pandjang near Japara, Java (van Baren, A); Sula Is., E. of Celebes, at 22 M., muddy bottom (Siboga, B); Pulu Barang near Makassar, shore (Siboga, A); Banka (Leyden Mus., A, B).

New Caledonia (A, B); Viti Is. (Challenger, D, E); Paumotu (COUTURIER, A, B); Hawaii (Senckenberg Museum, A). — Torres Straits (Challenger, MELVILL and STANDEN, A, B); Northern Australia (A, D).

Philippines, on the reefs (Cuming, British Museum, Senckenberg Mus., A, B, C, E); Japan (DUCLOS, B); Nagasaki, Japan (LISCHKE, A); Korea (Voyage Samarang, E); China (DUCLOS, D); Hongkong (Novara, A); Cochin China (Mansuy, A); Singapore (VON MARTENS, A, B); Salang-island (A, B); Mergui-archipelago (Anderson, A, B); Andaman Is. (Leyden Mus., B, D); Ceylon (Novara, A).

Red Sea (CHEMNITZ, Rüppell, MÖRCH, ISSEL, ISSEL e TAPPARONE CANEFRI, Leyden Mus., Pola, **A, B, C, D**); Gulf of Akabah (ISSEL, P. FISCHER, Pola, **B, C, D**); Gulf of Suez (M'ANDREW, **C, D**); Obock (Faurot, **D**); Jibuti, Somaliland (de Gennes, **D**); Seychelles (COOKE, DAUTZENBERG, **E**); Mauritius (LIÉNARD, VON MARTENS, **B, C**); Madagascar (SGANZIN, **A**); Nossi-Fali near Nossi-Bé (Pollen and van Dam, **B**).

Fossil occurrence: In pleistocene deposits in the Minahassa, Northern Celebes (SCHEPMAN, **A, C**), at Makassar, Southern Celebes (**A**), and at Billiton (K. MARTIN, **A**).

Pliocene of Timor (TESCH, **A**); Pliocene (Sondé-beds) of Sondé and Padas Malang near Trinil, Residency Madiun, Java (K. MARTIN, H. MARTIN-ICKE, **B**). Neogene deposits at Nias (**A**).

Raised beaches of Perim Island (ASHINGTON BULLEN, **D**), of the Red Sea (ISSEL, **D**), and of the Gulf of Suez (BULLEN NEWTON, **D**).

The forms **A** (*ustulatus* (Schumacher)) and **B** (*plicatus* Lamarck) have been considered to be distinct species by the majority of authors.

DESHAYES (49), however, said about *Str. urceus* of LAMARCK (= **A**): „Quoique ce Strombe ait en apparence des caractères bien tranchés, il se lie cependant par quelques variétés avec celui désigné sous le nom de *Strombus plicatus*, et il est à présumer, quand on aura recueilli un plus grand nombre de variétés, qu'on pourra réunir ces deux espèces en une seule." After having examined a series of specimens, DUCLOS declared that he could not find any marked difference between *S. plicatus* and *S. urceus* of LAMARCK: „Le plus important [des caractères], concernant l'*Urceus*, est d'avoir la bouche noire et d'être plus effilé. Eh bien, j'ai bon nombre d'exemplaires de cette forme qui ont la bouche de couleur blanche, jaune, rouge et même violette; et ce phénomène, si c'en est un, existe sur les individus de taille plus courte, à tubercules plus développés, qui constituent le *Strombus plicatus* et l'*Urceus* ne devra être considéré que comme une variété à bouche noire des nombreuses variétés, que l'on constate dans le *Dentatus*." VON MARTENS too has united *plicatus* and *urceus*, considering *plicatus* as a variety of *Str. urceus*.

TRYON says about *S. dentatus* [auct., non] L. (= **B**): „The difference between this species and *S. urceus* is so slight, and there is so much variation in the shells, that it is very doubtful whether their separation can be maintained; several distin-

guished modern conchologists have united them." MELVILL and STANDEN (123) say regarding *S. dentatus* [auct., non] L.: „Only, we think, a sub-species of *S. urceus*, L..”

According to KIENER, KÜSTER and TRYON *Str. urceus* (A) and *plicatus* (B) of LAMARCK differ in the ridges of the columellar lip, the inner lip of *Str. plicatus* being radiately ridged over its whole length, while *Str. urceus* (A) has the ridges only on its upper and lower part. Moreover *Str. plicatus* is a shorter and more strongly ribbed shell.

The general form of the shell and the ridges on the columellar lip, however, don't always correlate. I have before me specimens, said to come from the „Moluccas”, which, according to their general appearance and the ribs on the last whorl, belong to A (*ustulatus*), whilst they have the whole inner lip ridged; on the other hand, I find a specimen agreeing with *plicatus* in general form, which shows no ridges on the middle portion of the inner lip. Moreover in the specimens with ridged central portion of the inner lip these ridges vary from rather strong to scarcely visible. Consequently no characters of permanent value separate *Str. ustulatus* (A) from *Str. plicatus* (B).

As to *Str. rüppellii*, this is not even a subspecies of *Str. plicatus*, as it is not confined to the Red Sea, but occurs just as well in the Malay Archipelago, etc..

Much difference of opinion has existed with regard to the names which ought to be assigned to the forms A and B. GMELIN and many subsequent authors have applied the Linnean name of *Strombus dentatus* to the form B of our present species. However, according to HANLEY (58), *Str. dentatus* Linné is the shell known as *Str. tridentatus* Gmelin (= *Str. samar* (Chemnitz) Dillwyn, = *Str. samarensis* Reeve). The name *dentatus* being not applicable to the species under consideration, the form B should bear the name of *Strombus plicatus* Lamarck, 1816.

As the name *urceus* Linné cannot be used for the form A of our present species (*Strombus urceus* of LINNÉ being the same as *Strombus floridus* Lamarck), this form has been called *Str. muricatus* (Martini) by BOOG WATSON and some subsequent authors. However, MARTINI is a non-binomial writer, and *muricatus* takes date only from its validation by BOOG WATSON in 1885. *Canarium ustulatum* Schumacher, 1817, antedates the validation by many years, consequently the form A should be called *ustulatus* Schum. .

As LAMARCK's specific name *plicatus* has already been published in 1816 in the „Liste des objets représentés” which accompanied the plates of the „Encyclopédie Méthodique”

issued in that year, it has priority over SCHUMACHER's name *ustulatus*. Consequently the present species, as I understand it, ought to bear the name *Str. plicatus* Lamarck.

89. *Strombus (Canarium) urceus* Linné.

1899 *Strombus (Canarium) urceus* Linné (— *floridus* Lamarck). HORST et SCHEPMAN, Cat. (63), p. 217.

1902 — *floridus* Lam., VON MARTENS, Rumphius Gedenkb. (110), p. 122.

Ternate (collected by VON MARTENS).

Bachan (collected by VON MARTENS; Bernstein, Leyden Museum).

90. *Strombus (Canarium) gibberulus* Linné.

1705 *Canarium*. RUMPHIUS (151), p. 111, pl. XXXVII, fig. V.

1758 *Strombus gibberulus*. LINNÉ, Systema Naturae, edit. X (94), p. 744, nr. 433.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 621, nr. 283.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1210, nr. 501.

1777 *Alata Canarium gibbosum*. MARTINI, Conch.-Cab. (122), vol. III, pp. 93—96, pl. LXXVII, figs. 792—798.

1791 *Strombus gibberulus*. GMELIN (56), p. 3514, nr. 17.

1816 *Strombus succinctus*. LAMARCK, Tableau encycl. (49 a), pl. 408, figs. 3 a, b (drawn reversed, in common with all the figures on this plate); Liste des objets repr., p. 3; (Explanation of plates by BORY DE ST.-VINCENT, p. 170; 1827).

1817 *Strombus gibberulus*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 666, nr. 20.

1818 — — WOOD, Index Testaceologicus, p. 123, pl. XXV, fig. 20.

1822 — — LAMARCK, An. s. vert. (85), vol. VII, p. 205, nr. 14.

1832 — — DESHAYES, Encycl. (49), vol. III, p. 997, nr. 23.

- 1834 *Strombus gibberulus*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 66—67, nr. 4, pl. 50, fig. 14.
- 1842 *Strombus Gibberulus*. SOWERBY, *Thesaurus* (167), vol. I, p. 31, nr. 27, pl. VI, figs. 18, 19, 24—26.
- 1843 *Strombus gibberulus*, Lin. . KIENER (71), vol. IV, *Strombus* pp. 37—38, nr. 28, pl. 28, figs. 1, 1, 1a; pl. 33, fig. 5.
- 1843 — — — — — DESHAYES-LAMARCK, *An. s. vert.* (86), vol. IX, pp. 697—698, nr. 14.
- 1844—'45 *Strombus gibberulus*, Linné. DUCLOS in CHENU, *Illustr. conch.* (17), *Strombus*, p. 8, pl. 14, fig. 1; pl. 15, figs. 1—6.
- 1846 *Strombus gibberulus*, Linné. KÜSTER, *Strombea* (77), pp. 48—50, pl. 8, figs. 3—9, 11.
- 1850 *Strombus gibberulus*. REEVE (145), vol. VI, *Strombus*, pl. VIII, figs. 15 a, b.
- 1852 *Aporrhais albus*. MÖRCH, *Yoldi Cat.* (125), fasc. I, p. 62 (for MARTINI, figs. 797, 798 and SOWERBY, *Thesaurus*, fig. 18).
- 1854 *Strombus (Canarium) gibberulus*, Linn. . H. and A. ADAMS, *Genera* (3), vol. I, p. 260.
- — — (—) *albus*, Mart. . H. and A. ADAMS, *ibid.*, p. 260.
- 1855 *Strombus gibberulus*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 270, 517.
- 1863 *Strombus gibberulus*, Lin. . DESHAYES, *Réunion* (44), p. 114, nr. 376.
- 1869 *Strombus gibberulus*, L., var. : *Str. rhodostomus*, Mörch. VON MARTENS, v. d. Decken's *Reisen* (103), p. 64.
- 1869 *Canarium gibberulum* L. . VON FRAUENFELD, *Nicobaren* (55), p. 864.
- 1869 *Strombus Mauritanus* [not of Lamarck]. ISSEL, *Mar Rosso* (65), pp. 130—131, 270.
- — — *gibberulus*, Linneo and var. *rhodostomus*. ISSEL, *ibid.*, pp. 131—132.

- 1870 *Strombus gibberulus*, Linné. P. FISCHER, Suez (51), p. 162.
- 1870 *Strombus (Canarium) gibberulus*, Linné. M'ANDREW, Test. Gulf of Suez (100), p. 440.
- 1876 *Strombus gibberulus*, Linné. ISSEL e TAPPARONE CANEFRI, Strombidi (66), pp. 349—350, 365.
- 1880 *Strombus gibberulus* L.. VON MARTENS, Mauritius (105), p. 278.
- 1884 *Strombus gibberulus*, Linné. E. A. SMITH, Alert (160), p. 503, nr. 76.
- 1885 *Strombus gibberulus*, L.. COOKE, Test. moll. Gulf of Suez (21), part. I, p. 324.
- 1885 *Strombus (Canarium) gibberulus*, Linné. TRYON (177), vol. VII, p. 121, pl. 8, fig. 85.
- 1885 — (—) — , Linne. BOOG WATSON, Challenger Gasterop. (182), p. 416, nr. 3.
- 1888 *Gibberulus gibberulus*. JOUSSEAUME, Mer Rouge (68), p. 174, nr. 24.
- 1893 *Strombus (Canarium) gibberulus* Linné. DAUTZENBERG, Séchelles (32), p. 82.
- 1899 *Strombus (Canarium) gibberulus* Linné and var. *rhodostomus* Issel. HORST et SCHEPMAN, Cat. (63), pp. 218—219.
- 1900 *Canarium gibberulum*, Linnaeus. BULLEN NEWTON, Raised beaches Red Sea (127), p. 509, pl. XX, fig. 2.
- 1901 — — (Linné). ASHINGTON BULLEN, Raised beaches of Perim Island (204), p. 254.
- 1901 *Strombus (Canarium) gibberulus* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 380.
- 1901 *Strombus gibberulus* Linné. H. FISCHER, Djibouti (54), p. 107.
- 1902 — — L.. VON MARTENS, Rumphius Gedenkb. (110), p. 122.

- 1903 *Strombus (Canarium) gibberulus* L.. STURANY, Gastr. Roth. Meeres (171), pp. 254, 276—277.
- 1906 *Strombus gibberulus* Linné. DAUTZENBERG, Ambodifoutra (37).
- 1907 *Strombus gibberulus* Linné. COUTURIER, Tahiti, etc. (25), p. 153.
- 1909 — — — L.. LAMY, Java (89), p. 466.
- 1909 *Strombus (Canarium) gibberulus* Linné. SCHEPMAN, Siboga (155), p. 152.
- 1916 *Strombus (Gallinula) gibberulus* L.. CAES. BOETTGER, Hanseatische Südsee-Exped. (11), p. 300.
- 1920 *Strombus gibberulus* L.. TESCH, Timor (175), II, pp. 49, 113, pl. CXXX, figs. 166 a, b.
- 1923 *Strombus (Canarium) gibberulus* L.. HENRICH, Sinai (60), p. 73.

East coast of H a l m a h e r a. The only specimen is coloured dark purplish brown within the aperture. Specimens from the Obi Is., collected by Dr. Bernstein, are in the Leyden Museum.

Distribution: East Indian Archipelago (on coral-reefs, in sand, etc.): Amboina (RUMPHIUS, Leyden Museum); Banda (VON MARTENS); Lucipara-island (Siboga); Jobi near New Guinea and Sorong, New Guinea (Beccari); Geelvink Bay, New Guinea (d'Albertis); Kei and Aru Is. (Beccari); Roma-island (Siboga); Timor (Leyden Mus.); Kupang, Timor (VON MARTENS); Samau-island near Kupang (Siboga); Flores (Leyden Mus.); Paternoster Is. (Siboga); Java (Novara, LAMY, Zool. Museum Amsterdam); Gorontalo, Northern Celebes (Riedel); Tiger-islands near Saleyer (Leyden Mus.); Banka (Leyden Mus.); Benkulen, Sumatra (VON MARTENS); Olehleh, Achin, Northern Sumatra (Museum Wageningen); Mentawai Is. west of Sumatra (Maass).

Mariana Is. (Astrolabe); Viti Is. (Challenger); Tonga (Astrolabe, Challenger); Samoa (Senckenberg Museum); Society Is. (Cuming); Tahiti (Novara, Hanseatic Pacific exped.); Paumotu (COUTURIER). — New Holland (DUCLOS).

Philippines (Cuming); Japan (von Siebold); China (DUCLOS); Singapore (Leyden Mus.); Nicobar Is. (Novara); Andaman Is. (Leyden Mus.); Ceylon; Bombay (ABERCROMBIE); Maskat, Oman (MELVILL and STANDEN).

Perim-island (STURANY); Red Sea (FORSKÅL, DUCLOS, VON MARTENS, Leyden Mus.); Kamaran-island, southern Red Sea (Faurot); Gulf of Akabah (ISSEL, P. FISCHER); S. coast of Sinai-peninsula (M'ANDREW, HENRICH); Kosseir, Upper Egypt (Fraas); Massaua, Eritrea (Senckenberg Museum); Obock (Faurot); Jibuti, Somaliland (H. FISCHER).

Zanzibar (von der Decken); Zanzibar Coast (Leyden Mus.); Seychelles (DUFO, LIÉNARD, Möbius, Alert, DAUTZENBERG); Amirantes (DUFO, Alert); Cargados (LIÉNARD); Rodriguez (LIÉNARD); Mauritius (MARTINI, LIÉNARD, Möbius, Leyden Mus.); Réunion (Maillard, DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Madagascar (SGANZIN); Nossi-Bé and Mayotta (Pollen and van Dam); Mozambique (Alert); Natal (KRAUSS).

The locality St. Helena (DUCLOS) is without doubt incorrect.

Fossil: Pliocene of Timor (TESCH). Quaternary deposits at Kupang, Timor and at Makassar, Southern Celebes.

Raised beaches of Perim-island (ASHINGTON BULLEN), of the Red Sea (ISSEL), and of the Gulf of Suez (BULLEN NEWTON).

DUCLOS says about *Str. gibberulus*: „dans toute la mer Rouge, il est blanc, et l'intérieur de la bouche est teint de la plus belle couleur rose". This is the form distinguished as var. *rhodostomus* by VON MARTENS and ISSEL. Specimens from the S. E. coast of the Sinai-peninsula (mentioned by HENRICH) and from Massaua, which I could examine in the Senckenberg Museum, all belonged to this form. There is however no reason to regard it as a subspecies, as it is not confined to the Red Sea, but occurs also at Zanzibar. Moreover ISSEL and TAPPARONE-CANEFRI (66) recorded also white specimens with roseate aperture from New Guinea.

Section *Conomurex* Bayle, 1884.

Type: *Strombus luhuanus* Linné.

91. *Strombus (Conomurex) luhuanus* Linné.

1705 *Luhuana*, Loehoneesche Hoorntjes. RUMPHIUS (151), p. 111, pl. XXXVII, fig. S.

1758 *Strombus Luhuanus*. LINNÉ, Systema Naturae, edit. X (94), p. 744, nr. 432.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 621, nr. 282.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1209, nr. 500 (exclusive of the reference to D'ARGENVILLE).

- 1777 *Alata Luhuana fasciata*. MARTINI, Conch.-Cab. (122),
vol. III, pp. 91—93, pl. LXXVII,
figs. 789—790.
- — — *nivea*. MARTINI, *ibid.*, p. 93, pl. LXXVII,
fig. 791.
- 1791 *Strombus Luhuanus*, GMELIN (56), pp. 3513—3514, nr. 16
(in part, and exclusive of var *a* (= *Str. mauritanus* Lamarck)).
- 1817 *Strombus Luhuanus* Lin. SCHUMACHER, *Nouv. système*
(158), p. 220 (in part).
- 1822 *Strombus luhuanus*. LAMARCK, *An. s. vert.* (85), vol.
VII, p. 206, nr. 15.
- 1832 — — — DESHAYES, *Encycl. méth.* (49), vol.
III, p. 990, nr. 8 (exclusive of var. *a*
(= *Str. mauritanus* Lamck.)).
- 1834 — — — QUOY et GAIMARD, *Astrolabe*
(140), vol. III, pp. 69—70, nr. 6, pl.
51, figs. 3, 4.
- 1842 — — — SOWERBY, *Thesaurus* (167), vol. I,
p. 29, nr. 17, pl. VII, fig. 54.
- 1843 *Strombus luhuanus*, Lin. KIENER (71), vol. IV, *Strom-*
bus, pp. 39—40, nr. 30, pl. 27, figs.
1, 1.
- 1843 — — — Lin. DESHAYES—LAMARCK, *An.*
s. vert. (86), vol. IX, pp. 698—699,
nr. 15.
- 1846 *Strombus luhuanus*, Linné. KÜSTER, *Strombea* (77), p. 46,
pl. 8, figs. 1, 2, 10.
- 1850 *Strombus Luhuanus*. REEVE (145), vol. VI, *Strombus*, pl.
IX, fig. 19.
- 1855 — — — HANLEY, *Ipsa Linn. Conch.* (58), pp.
270, 517.
- 1869 *Canarium luhuanus* L. VON FRAUENFELD, *Nicobaren*
(55), p. 864.
- 1869 *Strombus luhuanus* Linné. LISCHKE, *Japan. Meeres-*
conch. (98), vol. I, p. 31.
- 1871 — — — LISCHKE, *ibid.*, vol. II, p. 24.
- 1874 *Strombus (Canarium) luhuanus* Linneo. TAPPARONE—
CANEFRI, *Magenta* (173),
p. 114.

- 1880 *Strombus Luhuanus* L.. VON MARTENS, Mauritius (105), p. 278.
- 1882 *Strombus luhuanus* Lin.. DUNKER, Index Moll. maris Japon. (48), p. 96.
- 1885 *Strombus (Conomurex) Luhuanus*, Linn.. TRYON (177), vol. VII, p. 122, pl. 8, figs. 91, 92.
- 1887 *Strombus luhuanus*, L.. VON MARTENS, Mergui (107), p. 189, nr. 186.
- 1899 *Strombus (Conomurex) luhuanus*, L.. MELVILL and STANDEN, Torres Straits (123), p. 166, nr. 124.
- 1899 — (—) — Linné. HORST et SCHEPMAN, Cat. (63), p. 219.
- 1902 *Strombus Luhuanus* L.. VON MARTENS, Rumphius Ge- denkb. (110), p. 122.
- 1908 — — , Lin.. NOBRE, Timor (128), p. 216.
- 1909 *Strombus (Conomurex) luhuanus* Linné. SCHEPMAN, Si- boga (155), p. 153, nr. 21.
- 1909 *Strombus luhuanus* L.. LAMY, Java (89), p. 466.
- 1910 — — Linné. DAUTZENBERG, Halmahera (38), p. 3.
- 1920 *Strombus luhuanus* L.. TESCH, Timor (175), II, p. 49, pl. CXXX, figs. 167 a, b.
- 1923 *Strombus (Conomurex) luhuanus* Linné. OOSTINGH, Java (129), pp. 84—85.

Obi Major, 1 specimen.

East coast of H a l m a h e r a, 1 deformed specimen with somewhat exserted spire.

The species has been previously recorded from the Obi Is. in the Catalogue of the Leyden Museum (collect. Dr. Bernstein), and from Halmahera both by VON MARTENS and DAUTZENBERG. Dr. Bernstein collected also a specimen at Bachan, and the species was collected at Mareh-island near Tidore by VON MARTENS.

Distribution: East Indian Archipelago (on coral and Lithothamnion-bottom, reefs and shores): Luhu and the whole bay of Kaibobo, S. W. coast of Ceram (RUMPHIUS); Amboina (Leyden Mus., Zool. Museum Amsterdam); Lucipara-island (Siboga); Banda (VON MARTENS, Siboga); Waigeu and Misol (Leyden Mus.); Doreh, New Guinea (Astrolabe); Kur-island, west of Kei Is. (Siboga); Timor (Leyden Mus.); Dilly, Timor (NOBRE); Kupang, Timor (VON MARTENS); Rotti-island (Siboga); Larentuka, Flores (VON MARTENS); Sumbawa and Paternoster-islands (Siboga); Java (Novara, LAMY); Banjuwangi and Panarukan, E. Java (OOSTINGH); Tjilatjap, S. coast of Java (Leyden Mus.); Batavia, Java (Winter); Northern Celebes (A. B. Meyer); Tiger-islands near Saleyer, south of Celebes (Leyden Mus.); Borneo-bank, Straits of Makassar (Siboga); Banka (Leyden Mus.).

New Caledonia; Viti Is.; Tahiti (Novara). — West coast of Australia; Torres Straits (MELVILL and STANDEN); N. E. coast of Australia; Sydney, N. S. Wales (Novara).

Sulu-archipelago, Lithothamnion-bottom, etc. (Siboga); Philippines, on sand banks on the reefs (Cuming); Nagasaki, Southern Japan (LISCHKE); Tokyo, Japan (DUNKER); Hongkong (Novara, Magenta); Singapore (Leyden Mus.); Mergui-archipelago (Anderson).

Seychelles and Amirantes (DUFO); Cargados, Rodriguez and Mauritius (LIÉNARD); Réunion (DESHAYES); Madagascar (SGANZIN).

Fossil in the Pleistocene of Kupang, Timor and in deposits in that island, that may be Lower Pleistocene or Upper Pliocene.

Genus *Pterocera* Lamarck, 1799.

92. *Pterocera* (*Pterocera*) *lambis* (Linné).

1705 *Cornuta*. RUMPHIUS (151), p. 110, pl. XXXV, figs. E, F; pl. XXXVI, fig. G.

1758 *Strombus Lambis*. LINNÉ, Systema Naturae, edit. X (94), p. 743, nr. 425.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1208, nr. 493.

1777 *Alata heptadactylos*. MARTINI, Conch.-Cab. (122), vol. III, pp. 151—153, pl. LXXXVI, fig. 855.

— *Heptadactylos marmorata*. MARTINI, *ibid.*, pp. 154—156, pl. LXXXVII, figs. 858, 859.

- 1788 *Strombus Camelus*. CHEMNITZ, Conch.-Cab. (122), vol. X, p. 204, pl. 155, fig. 1478.
- 1791 *Strombus Lambis*. GMELIN (56), pp. 3508—3509, nr. 5 (exclusive of var. γ).
- 1822 *Pterocera lambis*. LAMARCK, An. s. vert. (85), vol. VII, p. 196, nr. 2.
- 1832 — — DESHAYES, Encycl. méth. (49), vol. III, p. 856, nr. 2.
- 1834 *Strombus Lambis* (Linné). QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 61—63, nr. 1, pl. 50, figs. 6—11.
- 1842 *Pteroceras Lambis* Lin.. SOWERBY, Thesaurus (167), vol. I, pp. 41—42, nr. 2, pl. XI, figs. 5—7.
- 1843 *Pterocera lambis*. DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, pp. 672—673, nr. 2.
- 1843-'44 *Pterocera Lambis*, Lam.. KIENER (71), vol. IV, Pterocera, pp. 7—8, nr. 4, pl. 3; pl. 9, fig. 2; pl. 4, fig. 1.
- 1846 *Pterocera lambis* Linné. KÜSTER, Strombea (77), p. 82, pl. 10, fig. 7; pl. 16, figs. 3, 4; pl. 17, fig. 3; pl. 18, figs. 5, 6.
- 1851 — — REEVE (145), vol. VI, Pterocera, pl. V, fig. 8.
- 1851 *Pteroceras lambis*, L.. WOODWARD, Manual (187), part I, p. 105, pl. 4, fig. 3.
- 1854 *Harpago (Heptadactylus) lambis* Linn.. H. and A. ADAMS, Genera (3), vol. I, p. 261, pl. XXVII, figs. 2, 2 a, 2 b.
- 1855 *Strombus lambis*. HANLEY, Ipsa Linn. Conch. (58), pp. 267, 516.
- 1859 *Pterocera (Heptadactylus) lambis*, Linné. CHENU, Manuel (19), vol. I, p. 259, fig. 1613 (on p. 258).
- 1869 *Heptadactylus lambis* L.. VON FRAUENFELD, Nicobaren (55), p. 864.
- 1869 *Pterocera lambis*, Linneo. ISSEL, Mar Rosso (65), pp. 132—133.
- 1869 *Pterocera lambis*, (L.) Lam.. VON MARTENS, v. d. Decken's Reisen (103), p. 64.

- 1876 *Pterocera Lambis*, Linné. ISSEL e TAPPARONE CANE-FRI, Strombidi (66), pp. 356—358.
- 1880 *Pterocera lambis* L.. VON MARTENS, Mauritius (105), p. 279.
- 1881 *Pteroceras lambis* Lam.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 19, nr. 6.
- 1882 *Pterocera lambis* Lin. (*Strombus*). DUNKER, Index Moll. maris Japon, (48), p. 96.
- 1884 *Pterocera (Pterocera) lambis*, Linné. P. FISCHER, Manuel (52), p. 671, pl. IV, fig. 3.
- 1885 *Pterocera (Heptadactylus) lambis*, Linn.. TRYON (177), vol. VII, p. 124, pl. 8, figs. 1—3.
- 1887 *Pterocera lambis* L.. VON MARTENS, Mergui (107), p. 190, nr. 193.
- 1899 *Pterocera (Heptadactylus) lambis* L.. MELVILL and STANDEN, Torres Straits (123), p. 166, nr. 125.
- 1899 *Pterocera (Pterocera) lambis* Linné. HORST et SCHEP-MAN, Cat. (63), pp. 220—221.
- 1901 *Pterocera lambis* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 381.
- 1902 *Pterocera lambis* L.. VON MARTENS, Rumphius Gedenk. (110), p. 122.
- 1907 — — — COUTURIER, Tahiti, etc. (25), p. 154.
- 1908 — — — Lin.. NOBRE, Timor (128), p. 217.
- 1909 — — — Linné. SCHEPMAN, Siboga (155), pp. 153—154, nr. 1.
- 1910 — — — Linné. DAUTZENBERG, Halmahera (38), p. 3.
- 1915 — — — Lin.. STAUB, Sangkulirangbai (169), p. 133.
- 1923 — — — Linné sp.. OOSTINGH, Java (129), pp. 77—78, 160.

Obi Major, 8 specimens.

East coast of Halmahera, 1 specimen.

Specimens from the Obi Is., collected by Dr. Bernstein, are in the Leyden Museum; the Siboga expedition collected specimens at Laiwui, N. coast of Obi Major.

This species was already recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago (on coral, reefs and shores): Amboina (RUMPHIUS, Leyden Mus., VON MARTENS, Zool. Mus. Amsterdam); Nusa-Laut-island near Amboina (Siboga); Banda (REGENFUSS); Waigeu (Leyden Mus.); Jobi near New Guinea (Beccari); Kei Is. (Beccari, Siboga); Aru Is. (Beccari); Roma-island (Siboga); Timor (Leyden Mus.); Dilly, Timor (NOBRE); Kupang, Timor (VON MARTENS); Larentuka, Flores (Leyden Mus.); Kangeang-island, east of Madura (Siboga); Java (Novara); Batjulmati, E. coast of Java (Siboga); Banjuwangi, E. coast, and Bay of Popoh, S. coast of Java (Geerts); Badjoa, Southern Celebes (Leyden Mus.); Borneo-bank, Strait of Makassar (Siboga); Sangkulirang-bay, E. Borneo, on coral-reefs (STAUB); Billiton, Banka and Sumatra (Leyden Mus.).

Vanikoro, Melanesia (Astrolabe); Tonga (Astrolabe); Society Is. (Cuming); Paumotu (COUTURIER). — New Zealand(?) (KIENER). — Port Denison, Queensland (Mus. Godeffroy); Torres Straits (MELVILL and STANDEN); Western Australia (MENKE).

Philippines (REEVE); Japan (DUNKER); China (WOODWARD); Singapore; Nicobar Is.; Mergui Archipelago (Anderson); Madras (Novara); Ceylon (SOWERBY); Bombay (ABERCROMBIE); Maskat, Oman (MELVILL and STANDEN). — Red Sea (FORSKÅL, ISSEL e TAPPARONE CANEFRI, Leyden Mus.); Gulf of Akabah (Arconati); Zanzibar (von der Decken); Mauritius (LIÉNARD); Réunion (Maillard, DESHAYES); Madagascar (SGANZIN, Pollen and van Dam); Mayotta, Comoro Is.; Mozambique (VON MARTENS).

Fossil in the Pleistocene of Billiton (K. MARTIN).

93. *Pterocera (Millepes) scorpio* (Linné).

1899 *Pterocera (Pterocera) scorpio* Linné. HORST et SCHEPMAN, Cat. (63), p. 221.

Obi Is. (Bernstein, Leyden Museum).

Synonymy and distribution in: „Recent shells from Java” (129), pp. 78—79.

94. *Pterocera* (*Harpago*) *chiragra* (Linné).

For the synonymy and the distribution of this species see: OOSTINGH, Java (129), pp. 79—80, 160 and the following additional references:

- 1758 *Strombus Chiragra*. LINNÉ, *Systema Naturae*, edit. X (94), p. 742, nr. 423.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 615, nr. 274.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1207, nr. 491 (exclusive of several references).
- 1777 *Harpago digitis apertis*. MARTINI, *Conch.-Cab.* (122), vol. III, pp. 145—147, pl. LXXXV, figs. 851, 852; pl. LXXXVII, figs. 856, 857; pl. XCII, figs. 895, 896, 898, 900, 901.
- *Harpago digitis clausis uncinatis*. MARTINI, *ibid.*, pp. 148—151, pl. LXXXVI, figs. 853—854.
- 1791 *Strombus Chiragra*. GMELIN (56), pp. 3507—3508, nr. 3.
- 1832 *Pterocera chiragra*. DESHAYES, *Encycl. méth.* (49), vol. III, p. 858, nr. 6.
- 1846 *Pterocera chiragra*, Linné. KÜSTER, *Strombea* (77), pp. 91—92, pl. 16, figs. 1, 2 (= MARTINI, figs. 856, 857); pl. 17, figs. 1, 2 (= MART., figs. 853, 854); pl. 18, figs. 2, 3, 4, 7, 8 (= MART., figs. 898, 895, 896, 900, 901).
- 1855 *Strombus chiragra*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 266—267, 516.
- 1874 *Pterocera chiragra* Linneo. TAPPARONE-CANEFRI, *Magenta* (173), p. 115.
- 1880 *Pterocera chiragra* L.. VON MARTENS, *Mauritius* (105), p. 278.
- 1882 *Pterocera chiragra* Lin. (*Strombus*). DUNKER, *Index Moll. maris Japon.* (48), p. 96.
- 1893 *Pterocera* (*Harpago*) *chiragra* Linné. DAUTZENBERG, *Séchelles* (32), p. 83.
- 1908 *Pterocera chiragra*, Gmelin. NOBRE, *Timor* (128), p. 217.

1916 *Pterocera (Harpago) chiragra* L.. CAES. BOETTGER,
Hanseatische Südsee-Exped. (11), p. 300.

Obi Major, 2 specimens.

A specimen from Morotai, north of Halmahera
(collect. Dr. Bernstein) is in the Leyden Museum.

Distribution: The following localities may be added to those
enumerated in my previous paper:

East Indian Archipelago: Dilly, Timor (NOBRE); roadstead
of Batavia (Magenta).

Melanesia: Solomon Is. (Hanseatic Pacific exped.). — Japan
(DUNKER); Singapore (Magenta).

Seychelles and Amirantes, on sandy bottom (DUFO); Seychelles
(DAUTZENBERG); Mauritius (MARTINI, Möbius); Madagascar
(SGANZIN).

95. *Pterocera (Harpago) rugosa* (G. B. Sowerby II).

1910 *Pterocera (Harpago) rugosa* Sowerby. DAUTZENBERG, Halmahera
(38), p. 3.

Halmahera (recorded by DAUTZENBERG).

FAM. AMPHIPERASIDAE.

Genus *Amphiperas* Gronovius, 1781

(= *Ovula* Brugière, 1789;

Ovulus Montfort, 1810;

Ovulum G. B. Sowerby I, 1828).

96. *Amphiperas ovum* (Linné).

1705 *Ovum*. RUMPHIUS (151), p. 115, pl. XXXVIII, fig. Q.

1758 *Bulla Ovum*. LINNÉ, Systema Naturae, edit. X (94), p.
725, nr. 327.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 584, nr. 215.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1181, nr. 369.

1769 *Bulla perfecta, non umbilicata, etc.* MARTINI, Conch.-
Cab. (122), vol. I,
pp. 292—294, pl.
XXII, figs. 205-206.

1791 *Bulla Ovum*. GMELIN (56), p. 3422, nr. 1 (exclusive of
var. β).

- 1798 *Ovula* LAMARCK, Tableau encycl. (49 a), pl. 358, figs. 1 a, b (*Ovula oviformis* in the Explanation of plates by BORY DE ST.-VINCENT, p. 164; 1827).
- 1810 *Ovula oviformis*. LAMARCK, *Ovula* (84 b), p. 110, nr. 1.
- 1817 *Ovula alba*. SCHUMACHER, *Nouv. système* (158), p. 258.
- 1817 *Bulla Ovum*. DILLWYN, *A descriptive Catalogue of recent shells*, vol. I, p. 472, nr. 1.
- 1818 — — WOOD, *Index Testaceologicus*, pl. 18, fig. 1.
- 1821 *Ovula Ovum*. SOWERBY, *Genera* (168), *Ovula*, figs. 1—3.
- 1822 *Ovula oviformis*. LAMARCK, *An. s. vert.* (85), vol. VII, pp. 366—367, nr. 1.
- 1824—'26 *Ovula oviformis*. QUOY et GAIMARD, *Voyage autour du monde exécuté sur l'Uranie et la Physicienne, pendant 1817—20; Zoologie*, p. 444, pl. 75, figs. 2, 3.
- 1828 *Ovulum Ovum*. SOWERBY, *Ovulum* (166), pp. 149—150.
- 1832 *Ovula oviformis*. DESHAYES, *Encyclopédie méth.* (49), vol. III, p. 684, nr. 1.
- 1834 *Ovula oviformis*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 50—51, nr. 1, pl. 47, fig. 7.
- 1843—'44 *Ovula oviformis*, Lamk.. KIENER (71), vol. I, *Ovula*, pp. 3—4, pl. 1; pl. 3, fig. 5.
- 1844 *Ovula oviformis* Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. X, pp. 467—468, nr. 1.
- 1849 *Ovulum Ovum*. SOWERBY, *Thesaurus* (167), vol. II, p. 467, pl. XCIX, figs. 1—3.
- 1854 *Amphiperas ovum*, Linn.. H. and A. ADAMS, *Genera* (3), vol. I, pp. 270—271, pl. XXVIII, figs. 6, 6 a.
- 1855 *Bulla ovum*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 199—200, 501.
- 1865 *Ovulum ovum*. REEVE (145), vol. XV, *Ovulum*, pl. I, fig. 3.
- 1869 *Amphiperas ovum* L.. VON FRAUENFELD, *Nicobaren* (55), p. 865.
- 1869 *Ovula ovum*, (L.) Desh.. VON MARTENS, *v. d. Decken's Reisen* (103), p. 63.
- 1880 *Ovula ovum* L.. VON MARTENS, *Mauritius* (105), p. 274.

- 1881 *Ovula ovum* L. sp.. WEINKAUFF, Cypraea u. *Ovula* (184), pp. 168—169, pl. 44, figs. 2, 4, 5.
- 1882 *Amphiperas Ovum* Lin. (*Bulla*). DUNKER, Index Moll. maris Japon. (48), p. 101.
- 1885 *Ovula (s. str.) ovum*, Linn.. TRYON (177), vol. VII, p. 246, pl. 1, figs. 11, 12.
- 1887 *Ovula ovum*, L.. VON MARTENS, Mergui (107), p.^o 187, nr. 172.
- 1893 *Ovula ovum* Linné. DAUTZENBERG, Séchelles (32), p. 82.
- 1899 *Ovula (Amphiperas) ovum* Linné. HORST et SCHEPMAN (63), pp. 187—188.
- 1902 *Ovula ovum* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 123.
- 1908 *Ovula ovulum* (sic!), Lin.. NOBRE, Timor (128), p. 220.
- 1909 *Ovula ovum* L.. LAMY, Java (89), p. 466.
- 1909 *Amphiperas ovum* Linné. SCHEPMAN, Siboga (155), pp. 140—141, nr. 1.
- 1915 *Ovula Ovum* Lin.. STAUB, Sangkulirangbai (169), p. 133.
- 1916 *Ovula (Ovula) ovum* L.. CAES. BOETTGER, Hanseatische Südsee-Exped. (11), p. 302.

Obi Major, 1 specimen.

East coast of Halmahera, 1 specimen.

A specimen from the Obi Is., collected by Dr. Bernstein, was already mentioned in the Catalogue of the Leyden Museum.

Distribution: East Indian Archipelago (on reefs, etc.): Ceram (RUMPHIUS, Leyden Museum); Amboina (Leyden Mus., Siboga); Waigeu (Leyden Mus.); Doreh, New Guinea (Astrolabe); Timor (Leyden Mus., NOBRE); Rotti-island (Siboga); Larentuka, Flores (Leyden Mus., VON MARTENS); Java (Leyden Mus., LAMY); Celebes; Saleyer (Siboga); coral-reefs near the Sangkulirang-bay, E. Borneo (STAUB).

Solomon Is. (Hanseatic Pacific exped.); New Caledonia (CROSSE); Tonga (LAMARCK); Society Is. (SOWERBY).

Philippines (SOWERBY); Japan (DUNKER). — Nicobar Is. (Novara); Mergui-archipelago (Anderson); Andaman Is.; Madras (Novara); Ceylon (HANLEY).

Zanzibar (Leyden Mus.); Seychelles (DUFO, Möbius, DAUTZENBERG); Amirantes (DUFO); Mauritius (LIÉNARD); Réunion (DESHAYES); Madagascar (SGANZIN); Nossi-Bé and Sakatia near Nossi-Bé (Pollen and van Dam).

FAM. CYPRAEIDAE.

For the arrangement of the *Cypraeidae* I have followed the latest classification, worked out by VREDENBURG (180).

Genus *Cypraea* Linné, 1758.Subgenus *Cypraea* s. str.

(= *Mauritia*, *Lyncina*, *Talparia* Troschel, 1863; *Mauxiena*, *Vulgusella*, *Ponda*, *Tessellata*, *Arabica* Jousseaume, 1884; *Porcellana* (Rumphius) Jousseaume, 1884 (pars); *Trona* Jousseaume, 1884 (pars); *Basterotia* Jousseaume, 1884 (non *Basterotia* Hoernes, 1859); *Pantherinaria* Sacco, 1894; *Cavicypraea* Cossmann, 1895).

97. *Cypraea* (*Cypraea*) *vitellus* Linné.

1758 *Cypraea vitellus*. LINNÉ, Systema Naturae, edit. X (94), p. 721.

1845 — — REEVE (145), vol. III, *Cypraea*, pl. V, fig. 14.

1906-'07 *Cypraea Vitellus* Linné. HIDALGO, *Cypraea* (62), pp. 143, 228, 559—562, nr. 213.

1910 *Cypraea vitellus* Linné. DAUTZENBERG, Halmahera (38), p. 3.

1920 *Cypraea* (*Cypraea*) *vitellus* Linné. VREDENBURG, *Cypraeidae* (180), p. 87, nr. 2.

Halmahera (recorded by DAUTZENBERG).

Distribution: Throughout the Indo-Pacific region.

Fossil in the Upper Miocene of Java.

Raised beaches of the Red Sea.

98. *Cypraea* (*Cypraea*) *lynx* Linné.

For synonymy and distribution see my paper on Gastropoda from Java (129), pp. 98—100, 161, and besides the following additional references:

1764 *Cypraea Lynx*. LINNÉ, Mus. Lud. Ulr. (95), p. 573, nr. 194.

— — *Vanelli*. LINNÉ, *ibid.*, p. 569, nr. 186 (young specimen!).

1767 *Cypraea Lynx*. LINNÉ, Syst. Nat. XII (96), p. 1176, nr. 344.

— — *Vanelli*. LINNÉ, *ibid.*, p. 1175, nr. 336.

1769 *Porcellana simplex conglobata & crassa, etc.*. MARTINI, Conch.-Cab. (122), vol. I, pp. 329—330, pl. XXIII, figs. 230—231.

- 1798 *Cypraea* LAMARCK, Tableau encycl. (49 a), pl. 355, figs. 8 a, b (*Cypraea Lynx* in the Explanation of plates by BORY DE ST.-VINCENT, p. 164; 1827).
- 1810 *Cypraea linx*. LAMARCK, *Cypraea* (84 a), vol. XVI, p. 92, nr. 29.
- 1832 *Cypraea lynx*. DESHAYES, Encycl. méth. (49), vol. III, p. 825, nr. 25.
- 1855 *Cypraea Vanelli*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 184—185, 497.
- — *lynx*. HANLEY, *ibid.*, pp. 187—188, 498.
- 1869 *Luponia lynx* L.. VON FRAUENFELD, *Nicobaren* (55), p. 864.
- 1869 *Cypraea lynx*, L.. VON MARTENS, v. d. *Decken's Reisen* (103), p. 63.
- 1870 *Luponia lynx*, Linn.. M'ANDREW, *Test. Gulf of Suez* (100), p. 440.
- 1874 *Cypraea (Luponia) lynx* Linneo. TAPPARONE—CANE-FRI, *Magenta* (173), p. 134.
- 1880 *Cypraea lynx* L.. VON MARTENS, *Mauritius* (105), pp. 268—269.
- 1884 — — , Linn.. E. A. SMITH, *Alert* (160), p. 59, nr. 55.
- 1885 — — , L.. COOKE, *Test. moll. Gulf of Suez* (21), part I, p. 339.
- 1893 *Cypraea lynx* Linné. DAUTZENBERG, *Séchelles* (32), p. 82.
- 1906 *Cypraea lynx* Linné. DAUTZENBERG, *Ambodifoutra* (37).
- 1908 — — , Lin.. NOBRE, *Timor* (128), p. 219.
- 1910 — — Linné. DAUTZENBERG, *Halmahera* (38), p. 3.
- 1911 — — , Linn.. E. A. SMITH, *Marine shells Christmas Island* (165), p. 315.
- 1920 — (*s. str.*) *lynx* Linn.. VREDENBURG, *Cypraeidae* (180), p. 88.

O b i M a j o r, 4 specimens, some of them not quite fullgrown. East coast of *H a l m a h e r a*, 1 specimen belonging to the typical form.

This species was already mentioned from *Halma-hera* by DAUTZENBERG.

99. *Cypraea* (*Cypraea*) *tigris* Linné.

- 1705 *Porcellana guttata*. RUMPHIUS (151), p. 113, pl. XXXVIII, fig. A.
- 1758 *Cypraea Tigris*. LINNÉ, Systema Naturae, edit. X (94), p. 721, nr. 302.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 573, nr. 193.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1176, nr. 343.
- 1769 *Porcellana simplex conglobata, crassa, guttis nigris majoribus maculata*. MARTINI, Conch.-Cab. (122), vol. I. pp. 330—333, pl. XXIV, figs. 232—234.
- 1791 *Cypraea tigrina*. GMELIN (56), pp. 3404—3405, nr. 29 (immature specimen).
- — *Tigris*. GMELIN, *ibid.*, p. 3408, nr. 44.
- — *flammea*. GMELIN, *ibid.*, p. 3408, nr. 45.
- — *feminea*. GMELIN, *ibid.*, p. 3409, nr. 47 (immature).
- — *ambigua*. GMELIN, *ibid.*, p. 3409, nr. 50.
- 1798 *Cypraea onca* Bolten. Museum Boltenianum, p. 24, nr. 293.
- — *pardus* Bolten. Mus. Bolt., p. 24, nr. 295 (in part).
- — *pardalis* Bolten. Mus. Bolt., p. 24, nr. 296.
- 1798 *Cypraea* LAMARCK, Tableau encycl. (49 a), pl. 353, fig. 3 (*Cypraea Tigris* in the Explanation of plates by BORY DE ST.-VINCENT, p. 163; 1827).
- 1810 *Cypraea tigris*. LAMARCK, *Cypraea* (84 a), vol. XV, pp. 452—453, nr. 15.
- 1817 *Cypraea seriata* Solander. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 449.
- 1817 *Cypraea Tigris* Lin.. SCHUMACHER, Nouv. syst. (158), p. 246.
- 1822 *Cypraea tigris*. LAMARCK, An. s. vert. (85), vol. VII, pp. 382—383, nr. 15.
- 1824 *Cypraea Tigris*. GRAY, Monograph (57), vol. I, pp. 367—368, nr. 27.

- 1824—'26 *Cypraea tigris*. QUOY et GAIMARD, Voyage autour du monde exécuté sur l'Uranie et la Physicienne, pendant 1817—'20; Zoologie, p. 441, pl. 70, figs. 1—3.
- 1828 *Cypraea Leopardalis*, Humph. (as = *C. Tigris*, junior).
*GRAY, Monograph (57), vol. IV, p. 76, nr. 27.
- 1830 *Cypraea alauda* (in part). MENKE, Synopsis methodica molluscorum quae in Museo Menkeano adservantur (Pyrmonti), p. 82.
- 1832 *Cypraea tigris*. DESHAYES, Encycl. (49), vol. III, pp. 817—818, nr. 9.
- 1834 *Cypraea tigris*. QUOY et GAIMARD, Voyage de l'Astrolabe (140), vol. III, pp. 29—30, pl. 47, figs. 1, 2.
- 1844 *Cypraea tigris* Lin.. DESHAYES—LAMARCK (86), vol. X, pp. 502—503, nr. 15.
- 1844 *Cypraea tigris*, Lin.. KIENER (71), vol. I, *Cypraea*, pp. 4—5, pl. 45, fig. 1; pl. 46, fig. 1.
- 1845—'46 *Cypraea tigris*. REEVE (145), vol. III, *Cypraea*, pl. IV, figs. 12 a, b; pl. XXVII, fig. 12 d.
- 1850 *Cypraea tigris* L.. BERGE, Conchylienbuch (6), p. 243, pl. 43, fig. 14.
- 1855 *Cypraea tigris*. HANLEY, Ipsa Linn. Conch. (58), pp. 187, 498.
- 1869 *Luponia tigris* L.. VON FRAUENFELD, Nicobaren (55), p. 864.
- 1869 *Cypraea tigris*, L.. VON MARTENS, v. d. Decken's Reisen (103), p. 63.
- 1870 *Cypraea tigris*, Linn.. SOWERBY, Thesaurus (167), vol. IV, *Cypraea*, p. 20, nr. 59, pl. XXI, figs. 172—175.
- 1879 *Cypraea tigris* Linn.. K. MARTIN, Tertiärsch. auf Java (112), p. 22, pl. IV, figs. 6, 6 a (not fig. 5).
- 1880 *Cypraea tigris* L.. VON MARTENS, Mauritius (105), p. 268.
- 1881 *Cypraea tigris* L.. WEINKAUFF, *Cypraea* (184), pp. 91—92, pl. 28, fig. 1; pl. 29, fig. 1; pl. 30, fig. 1.
- 1882 *Cypraea tigris* Lin.. DUNKER, Index Moll. maris Japon. (48), p. 99.

- 1885 *Cypraea (Luponia) tigris*, Linn.. ROBERTS in TRYON (177), vol. VII, pp. 180—181, pl. 11, figs. 49, 50.
- 1887 *Cypraea tigris*, L.. VON MARTENS, Mergui (107), p. 185, nr. 157.
- 1888 *Vulgasella tigris*. JOUSSEAUME, Mer Rouge (68), p. 191, nr. 85.
- 1893 *Cypraea tigris* Linné et var. *flavida*. DAUTZENBERG, Séchelles (32), p. 82.
- 1899 *Cypraea (Luponia) tigris* Linné. HORST et SCHEPMAN (63), p. 200.
- 1902 *Cypraea tigris* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 122.
- 1906 *Cypraea tigris* Linné. DAUTZENBERG, Ambodifoutra (37).
- 1906—'07 *Cypraea Tigris* L.. HIDALGO (62), pp. 142, 226, 540—544.
- 1907 *Cypraea tigris* L.. COUTURIER, Tahiti, etc. (25), p. 150.
- 1908 *Cypraea tigris*, Lin.. NOBRE, Timor (128), p. 220.
- 1909 *Cypraea (Luponia) tigris* Linné. SCHEPMAN, Siboga (155), pp. 131, 231, nr. 14.
- 1909 *Cypraea tigris* L.. LAMY, Java (89), p. 466.
- 1915 *Cypraea tigris* Lin.. STAUB, Sangkulirangbai (169), pp. 131, 133.
- 1915 *Cypraea (Luponia) tigris* L.. CAES. BOETTGER, Wassermoll. Aru- u. Kei-Inseln (10), p. 132.
- 1916 *Cypraea (Luponia) tigris* L.. CAES. BOETTGER, Hanseatische Südsee-Exped. (11), p. 301.
- 1919 *Cypraea tigris* Linn.. K. MARTIN, Palaeozool. Kenntn. Java (119), p. 90.
- 1920 *Cypraea (s. str.) tigris* Linn.. VREDENBURG, Cypraeidae (180), p. 88.
- 1923 *Cypraea tigris* Linné. TOMLIN, South African marine mollusca (176), p. 47.

Obi Major, 3 specimens.

C. tigris was previously collected at Laiwui, Obi Major by the Siboga expedition. It is also recorded from the Obi Is. and from the island of Rau, north of Halmahera in the Catalogue of the Leyden Museum (collect. Dr. Bernstein).

Distribution: East Indian Archipelago (on reefs, etc.): Amboina (Leyden Mus.); Gisser, east of Ceram (Siboga); Sorong, New Guinea; Jobi (TAPPARONE CANEFRI); Waigeu and Misol (Leyden Mus.); Kei Is.; Aru Is. (Merton); Timor (Leyden Mus., NOBRE); Larentuka, Flores (Leyden Mus.); Sumbawa (Siboga); Java (Novara, LAMY); Tjilatjap, S. coast of Java (Leyden Mus.); Sula Is. (Siboga); Gorontalo, Northern Celebes (VON MARTENS) and Badjoa, Southern Celebes (Leyden Mus.); Saleyer (Siboga); Tiger-islands near Saleyer (Leyden Mus.); Sangkulirang-bay, E. Borneo, on coral and between stones (STAUB); Billiton (Leyden Mus.).

Melanesia: New Ireland; York; New Britain; Nissan and Solomon Is. (Hanseatic Pacific exped.); New Hebrides; New Caledonia (DAUTZENBERG); Loyalty Is. (MELVILL and STANDEN); Viti Is. (GARRETT). — Micronesia: Caroline and Gilbert Is. (GARRETT). — Polynesia: Hawaii (GARRETT); Ellice Is.; Tonga (Astrolabe, GARRETT); Samoa and Cook Is. (GARRETT); Tahiti (Novara); Marquesas Is. and Paumotu (GARRETT); Gambier Is. (COUTURIER). — Western Australia (MENKE); Torres Straits (BRAZIER); Moreton Bay, Queensland (BRAZIER).

Sulu Is. (Siboga); Philippines (HIDALGO); Formosa (Swinhoe); Loo-Choo (O. BOETTGER); Japan (DUNKER, PILSBRY); Tizard-bank, South China Sea (SMITH); Singapore; Mergui-archipelago (Anderson); Nicobar Is. (Novara); Andaman Is.; Ceylon; Chagos (LIÉNARD); Maldives; Laccadives.

Obock (Faurot); Sokotra; Zanzibar (v. d. Decken); Seychelles (DUFO, LIÉNARD, Möbius, DAUTZENBERG); Amirantes (DUFO); Cargados and Rodriguez (LIÉNARD); Mauritius (LAMARCK, SGANZIN, QUOY et GAIMARD, LIÉNARD); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Madagascar (LISTER, SGANZIN); Nossi-Bé near Madagascar and Mayotta, Comoro Is. (Pollen and van Dam); Querimba Is. and Mozambique (VON MARTENS); Natal (TOMLIN).

Fossil in the Upper Miocene (only in the Tjilanang-beds) of Java (K. MARTIN).

C. tigris has been recorded from the Red Sea by ISSEL (65) and STURANY ((171), pp. 255, 276, 277). SCHILDER (195),

however, states that the species does not occur in the Red Sea. According to SCHILDER (156) all the Red Sea specimens assigned to it belong to *Cypraea vinosa* Gmelin.

100. *Cypraea (Cypraea) talpa* Linné.

- 1758 *Cypraea talpa*. LINNÉ, *Systema Naturae*, edit. X (94), p. 720.
 1845 — — REEVE (145), vol. III, *Cypraea*, pl. II, fig. 5.
 1906-'07 *Cypraea Talpa* Linné. HIDALGO, *Cypraea* (62), pp. 142, 225, 532—534, nr. 198.
 1910 *Cypraea talpa* Linné. DAUTZENBERG, *Halmahera* (38), p. 3.
 1920 *Cypraea (Cypraea) talpa* Linné. VREDENBURG, *Cypraeidae* (180), p. 88, nr. 22.

Halmahera (recorded by DAUTZENBERG).

Distribution: Throughout the Indo-Pacific region.

101. *Cypraea (Cypraea) mauritiana* Linné.

- 1705 Groote Slangekoppen. RUMPHIUS (151), p. 114, pl. XXXVIII, fig. E.
 1758 *Cypraea mauritiana*. LINNÉ, *Systema Naturae*, edit. X (94), p. 721, nr. 299.
 1764 *Cypraea mauritanica* (sic.). LINNÉ, *Mus. Lud. Ulr.* (95), p. 571, nr. 190.
 1767 *Cypraea mauritiana*. LINNÉ, *Syst. Nat.* XII (96), p. 1176, nr. 340.
 1769 *Porcellana in utroque latere fimbriata ex fusco atra, etc.*. MARTINI, *Conch.-Cab.* (122), vol. I, pp. 388—390, pl. XXX, fig. 317.
 — *Bulla non umbilicata, rarior etc.*. MARTINI, *ibid.*, pp. 295—296, pl. XXII, figs. 207—208 (immature).
 1773 *Conus bullatus marmoreus* (in part). MARTINI *Conch.-Cab.* (122), vol. II, pp. 359—361, pl. LXV, figs. 726—727 (immature).
 1780 *Cypraea fragilis* [not of Linné]. BORN, *Testacea musei caes. Vindobonensis* (16), p. 179, pl. 8, fig. 6 (immature).
 — *Bulla Cypraea*. BORN, *ibid.*, p. 206, pl. 9, fig. 2 (junior).

- 1789 *Regina Cypraeorum*. CHEMNITZ, Conch.-Cab. (122), vol. X, pp. 101—102, pl. 144, figs. 1335—1336 (immature).
- *Cypraea undata*. CHEMNITZ, *ibid.*, pp. 102—103, pl. 144, fig. 1337 (immature).
- 1791 *Cypraea turbinata*. GMELIN (56), p. 3404, nr. 22 (immature specimen).
- — *trifasciata*. GMELIN, *ibid.*, p. 3405, nr. 31 (immature).
- — *Regina*. GMELIN, *ibid.*, p. 3406, nr. 117 (immature).
- — *undulata*. GMELIN, *ibid.*, p. 3406, nr. 118 (for CHEMNITZ, fig. 1337; immature).
- — *mauritiana*. GMELIN, *ibid.*, p. 3407, nr. 41.
- *Bulla ovata*. GMELIN, *ibid.*, p. 3432, nr. 34 (immature).
- 1798 *Cypraea paschalis* Bolten. Museum Boltenianum, p. 22, nr. 265 (immature).
- — *castanea* Bolten. Mus. Bolten., p. 23, nr. 274.
- 1798 *Cypraea*. LAMARCK, Tableau encycl. (49 a), pl. 350, figs. 2 a, b (*Cypraea mauritiana* in the Explanation of plates by BORY DE ST.-VINCENT, p. 163; 1827).
- 1810 *Cypraea mauritiana*. LAMARCK, *Cypraea* (84a), vol. XV, pp. 448—449, nr. 5.
- 1811 *Cypraea mauritania* (sic!). PERRY, Conchology, pl. 21, figs. 6, 7.
- — *fuliginosa*. PERRY, *ibid.*, pl. 22, fig. 1 (immature).
- 1817 *Cypraea nebulosa* Solander. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 447 (immature).
- 1822 *Cypraea mauritiana*. LAMARCK, An. s. vert. (85), vol. VII, p. 377, nr. 5.
- 1823 *Cypraea Mauritiana*. SOWERBY, Genera (168), *Cypraea*, figs. 1, 2.
- 1824 *Cypraea Maurittiana*. GRAY, Monograph (57), vol I, pp. 79—80.
- 1832 *Cypraea mauritiana*. DESHAYES, Encycl. méth. (49), vol. III, p. 815, nr. 5.

- 1834 *Cypraea mauritiana*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 35—36, nr. 6, pl. 48, figs. 2—4.
- 1837 *Cypraea Mauritiana*. SOWERBY, *The Conchological Illustrations*, *Cypraea*, fig. 164.
- 1844 *Cypraea mauritiana* Lin.. DESHAYES-LAMARCK (86), vol. X, pp. 492—494, nr. 5.
- 1845 *Cypraea mauritiana*, Lin.. KIENER (71), vol. I, *Cypraea*, pp. 103—104, pl. 39, fig. 1; pl. 40, fig. 1; pl. 47, figs. 1, 1.
- 1845—'46 *Cypraea Mauritiana*. REEVE (145), vol. III, *Cypraea*, pl. I, figs. 1 a, b; pl. XXVII, fig. 1 c.
- 1850 *Cypraea mauritiana* L.. BERGE, *Conchylienbuch* (6), p. 243, pl. 43, fig. 9.
- 1855 *Cypraea Mauritiana*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 186, 497—498.
- 1869 *Arícia mauritiana* L.. VON FRAUENFELD, *Nicobaren* (55), p. 864.
- 1870 *Cypraea mauritiana*. SOWERBY, *Thesaurus* (167), vol. IV, *Cypraea*, p. 16, nr. 45, pl. IX, figs. 51, 52.
- 1880 *Cypraea mauritiana* L.. WEINKAUFF, *Cypraea* (184), pp. 71—72, pl. 6, figs. 5—7; pl. 21, figs. 3, 6, 7.
- 1880 *Cypraea Mauritiana* L.. VON MARTENS, *Mauritius* (105), pp. 271—272.
- 1882 — — Lin.. DUNKER, *Index Moll. maris Japon.* (48), p. 98.
- 1885 *Cypraea (Arícia) Mauritiana*, Linn.. ROBERTS in TRYON (177), vol. VII, p. 173, pl. 7, figs. 8—11.
- 1887 *Cypraea mauritiana*, L.. VON MARTENS, *Mergui* (107), p. 186, nr. 166.
- 1888 *Trona mauritiana*. JOUSSEAUME, *Mer Rouge* (68), p. 191, nr. 84.
- 1893 *Cypraea mauritiana* Linné. DAUTZENBERG, *Séchelles* (32), p. 82.
- 1899 *Cypraea (Arícia) mauritiana* Linné. HORST et SCHEPMAN (63), p. 197.

- 1901 *Cypraea mauritiana* L.. MELVILL and STANDEN, Persian Gulf (124), part. I, p. 383.
- 1902 *Cypraea mauritiana* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 122.
- 1906—'07 *Cypraea Mauritiana* L.. HIDALGO (62), pp. 140, 209, 420—424.
- 1907 *Cypraea mauritiana* L.. COUTURIER, Tahiti, etc. (25), p. 150.
- 1908 — — , Lin.. NOBRE, Timor (128), p. 219.
- 1909 — — Linné. SCHEPMAN, Siboga (155), p. 231, nr. 9.b.
- 1909 — — L.. LAMY, Java (89), p. 466.
- 1911 *Cypraea Mauritiana*, Linn.. E. A. SMITH, Marine shells Christmas Island (165), p. 315.
- 1916 *Cypraea (Aricia) mauritiana* (sic!) L.. CAES. BOETTGER, Hanseatische Südsee-Expedition (11), p. 301.
- 1920 *Cypraea (s. str.) mauritiana* Linn.. VREDENBURG, Cypraeidae (180), p. 88.

East coast of Halmahera, 1 specimen of the typical form (KIENER, pls. 39 and 40, fig. 1).

From the island of Rau, north of Halmahera and from the Obi Is. in the Leyden Museum (collect. Dr. Bernstein). Prof. VON MARTENS collected this species at Bachan.

Distribution: East Indian Archipelago: Buru (Museum Wageningen); Amboina (RUMPHIUS); Nusa-Laut-island near Amboina (Siboga); Sorong, New Guinea (TAPPARONE CANEFRI); Timor (Leyden Mus., NOBRE); Adonara (VON MARTENS); Java (LAMY); Tjilatjap, S. coast of Java (Leyden Mus.); Northern Celebes (VON MARTENS); Borneo (SOWERBY); Banka (VON MARTENS).

Melanesia: New Britain; Duke of York-island; New Ireland (Astrolabe, Hanseatic Pacific expedition); Nissan (Hanseatic Pacific exped.); Solomon Is.; Santa Cruz Is. (Hanseatic Pacific exped.); New Hebrides; New Caledonia (SOWERBY); Loyalty Is. (MELVILL and STANDEN); Viti Is. (GARRETT). — Micronesia: Mariana Is. (HIDALGO); Pelew Is.; Caroline and Gilbert Is. (GARRETT). — Polynesia: Hawaii (GARRETT); Ellice Is.; Tonga, Samoa, Cook Is., Society and Marquesas Is. (GARRETT); Paumotu (GARRETT, COUTURIER); Gambier Is. (COUTURIER). — Western Australia (MENKE); Queensland. — New Zealand.

Philippines (HIDALGO); Loo-Choo (O. BOETTGER); Hakodate,

Northern Japan. — Christmas Island, Ind. Ocean (E. A. SMITH). — Nicobar Is. (Novara); Mergui-archipelago (Anderson); Andaman Is.; Madras (Novara); Ceylon (REEVE); Chagos (LIÉNARD); Maldives and Laccadives; Maskat, Oman (MELVILL and STAN DEN).

Aden (SHOPLAND); Red Sea; Obock (Faurot); Zanzibar; Seychelles (DUFO, DAUTZENBERG); Amirantes; Mauritius (LISTER, SGANZIN, LIÉNARD, Möbius); Réunion (DESHAYES); Madagascar (SGANZIN); Querimba Is. and Mozambique (VON MARTENS); Durban, Natal; Port Elizabeth, Cape Province (SOWERBY).

102. *Cypraea (Cypraea) arabica* Linné.

For the synonymy and the distribution of this species see: „Recent shells from Java" (129), pp. 93—95, 161. The following references may be added:

- 1769 *Porcellana in utroque latere fimbriata, spiralis, dorso fascia longitudinali & characteribus Arabicis distincto, etc.* MARTINI, Conch.-Cab. (122), vol. I, pp. 397—399, pl. XXXI, fig. 328.
- 1791 *Cypraea arabica*. GMELIN (56), p. 3398, nr. 3.
 — — *fragilis*. GMELIN, *ibid.*, p. 3402, nr. 14 (immature).
- 1798 *Cypraea canaliculata* Bolten. Museum Boltenianum, p. 24, nr. 291 (immature).
 — — *undosa* Bolten. Mus. Bolten., p. 26, nr. 324.
- 1798 *Cypraea* LAMARCK, Tableau encycl. (49 a), pl. 352, figs. 1, 2 (*Cypraea arabica*, a in the Explanation of plates by BORY DE ST.-VINCENT, p. 163; 1827).
- 1810 *Cypraea arabica*. LAMARCK, *Cypraea* (84 a), vol. XV, pp. 449—450, nr. 7.
- 1817 *Cypraea arabica* Lin. SCHUMACHER, *Nouv. syst.* (158), p. 246.
- 1832 *Cypraea arabica*. DESHAYES, *Encycl. méth.* (49), vol. III, pp. 816—817, nr. 7.
- 1855 *Cypraea Arabica*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 181, 496.
 — — *fragilis*. HANLEY, *ibid.*, pp. 185, 497.
- 1869 *Aricia arabica* L. VON FRAUENFELD, *Nicobaren* (55), p. 864.

- 1869 *Cypraea Arabica*, L.. VON MARTENS, v. d. Decken's Reisen (103), p. 63.
- 1874 *Cypraea (Aricia) arabica* Linneo. TAPPARONE—CANE-FRI, Magenta (173), p. 133.
- 1880 *Cypraea Arabica* L.. VON MARTENS, Mauritius (105), p. 272.
- 1881 *Cypraea arabica* Lin.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 16.
- 1882 *Cypraea Arabica* Lin.. DUNKER, Index Moll. maris Japon. (48), p. 98.
- 1884 *Cypraea arabica*, Linn.. E. A. SMITH, Alert (160), p. 59, nr. 54.
- 1887 *Cypraea arabica*, L.. VON MARTENS, Mergui (107), p. 187, nr. 167.
- 1888 *Arabica arabica*. JOUSSEAUME, Mer Rouge (68), p. 192, nr. 89.
- 1893 *Cypraea arabica* Linné. DAUTZENBERG, Séchelles (32), p. 82.
- 1900 *Cypraea Arabica*, Linnaeus. BULLEN NEWTON, Raised beaches Red Sea (127), p. 504.
- 1901 *Cypraea arabica* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 382.
- 1906 *Cypraea arabica* Linné. DAUTZENBERG, Ambodifoutra (37).
- 1908 *Cypraea arabica*, Lin.. NOBRE, Timor (128), p. 218.
- 1909 *Cypraea arabica*, Linn. and var. *prasina*. SHAW, *Cypraea* and *Trivia* (159), pp. 306, 312.
- 1911 *Cypraea arabica*, Linn.. E. A. SMITH, Marine shells Christmas Island (165), p. 315.
- 1916 *Cypraea (Aricia) arabica* L.. CAES. BOETTGER, Hanseatische Südsee-Exped. (11), p. 301.
- 1920 *Cypraea (s. str.) arabica* Linn.. VREDENBURG, *Cypraeidae* (180), p. 88.

Obi Major, 1 specimen (typical *arabica*).

Previously mentioned from the Obi Is. and also from Halmahera in the Catalogue of the Leyden Museum (collect. Dr. Bernstein). SCHEPMAN (Siboga exped.) has also recorded a specimen from a reef north of Salomakiëe-island near the southern peninsula of Halmahera.

Add to Distribution: Christmas Island, Ind. Ocean (E. A. SMITH). — Labuan, N. Borneo (SHAW); Tizard-bank, South China Sea (SMITH); Madras (Novara); Chagos (LIÉNARD); Maldives and Laccadives; Bombay (ABERCROMBIE); Karachi (MELVILL and STANDEN); Mekran Coast of Baluchistan and Persia and Persian Gulf, mostly being found under rocks at low tide (MELVILL and STANDEN).

Kamaran-island, southern Red Sea and Obock (Faurot); Zanzibar (von der Decken); Seychelles and Amirantes, stony bottom (DUFO); Seychelles (DAUTZENBERG); Mauritius (SGANZIN, Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Nossi-Fali near Nossi-Bé and Mayotta, Comoro Is. (Pollen and van Dam); Mozambique (VON MARTENS).

Fossil in the Pleistocene of Billiton (K. MARTIN). Raised beaches of the Red Sea (ISSEL), and of the Gulf of Suez (BULLEN NEWTON).

Moreover the following so-called species have been united to *C. arabica* by H. O. N. SHAW (159): *C. eglantina* Duclos, *C. gilleyi* Jousseau, *C. histrio* Gmelin, and *C. reticulata* Martyn.

Section Bernaya Jousseau, 1884

(= *Luria* Jousseau, 1884;

Zoila Jousseau, 1884;

false *Bernayia* Cossmann, 1889).

103. *Cypraea* (Bernaya) *isabella* Linné.

1705 *Isabella*. RUMPHIUS (151), p. 118, pl. XXXIX, fig. G.

1758 *Cypraea Isabella*. LINNÉ, Systema Naturae, edit. X (94), p. 722, nr. 304.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 574, nr. 195.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1177, nr. 345.

1769 *Porcellana longa, parva, cinerea, etc.*. MARTINI, Conch.-Cab. (122), vol. I, pp. 357—358, pl. XXVII, fig. 275.

1791 *Cypraea Isabella*. GMELIN (56), p. 3409, nr. 49.

1798 *Cypraea* LAMARCK, Tableau encycl. (49 a), pl. 355, fig. 6 (*Cypraea Isabella* in the Explanation of plates by BORY DE ST.-VINCENT, p. 164; 1827).

- 1810 *Cypraea isabella*. LAMARCK, *Cypraea* (84 a), vol. XVI, pp. 93—94, nr. 33.
- 1822 — *isabella*. LAMARCK, *An. s. vert.* (85), vol. VII, p. 390, nr. 33.
- 1824 — *Isabella*. GRAY, *Monogr.* (57), vol. I, pp. 142—143, nr. 13.
- — *controversa*. GRAY, *ibid.*, pp. 144—145, nr. 15, pl. 7, fig. 7; pl. 12, fig. 7.
- 1832 *Cypraea isabella*. DESHAYES, *Encycl.* (49), vol. III, pp. 827—828, nr. 29.
- 1834 — *isabella*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, p. 47, nr. 15, pl. 48, fig. 18.
- 1836 — *Isabella*. SOWERBY, *The Conchological Illustrations, Cypraea*, fig. 98.
- 1844 — *isabella* Linn. DESHAYES—LAMARCK (86), vol. X, p. 518, nr. 33.
- 1845 — *isabella*, Linn. KIENER (71), vol. I, *Cypraea*, p. 87, pl. 48, figs. 3, 3, 3 a.
- 1845 — — REEVE (145), vol. III, *Cypraea*, pl. XII, fig. 51.
- 1855 — *Isabella*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 188, 498.
- 1869 — *isabella* L. VON FRAUENFELD, *Nicobaren* (55), p. 864.
- 1870 — *isabella*, Linn. SOWERBY, *Thesaurus* (167), vol. IV, *Cypraea*, p. 6, nr. 9, pl. IV, figs. 16—18; pl. XXVII, fig. 258.
- 1870 — *Isabella*, Linn. M'ANDREW, *Test. Gulf of Suez* (100), p. 440.
- 1880 — *isabella* L. WEINKAUFF, *Cypraea* (184), p. 17, pl. 4, fig. 7; pl. 12, figs. 10, 11.
- 1880 *Cypraea isabella* L. VON MARTENS, *Mauritius* (105), pp. 270—271.
- 1882 — *Isabella* Linn. DUNKER, *Index Moll. maris Japon.* (48), p. 97.
- 1885 — *Isabella*, Linn. ROBERTS in TRYON (177), vol. VII, p. 165, pl. 1, figs. 6, 7.
- 1885 — — , L. COOKE, *Test. moll. Gulf of Suez* (21), part I, p. 338.
- 1893 — *isabella* Linné. DAUTZENBERG, *Séchelles*(32), p. 82.

- 1899 *Cypraea (Cypraea) isabella* Linné. HORST et SCHEP-
MAN (63), p. 192.
- 1900 — *isabella*, Linnaeus. BULLEN NEWTON, Raised
beaches Red Sea (127), p. 505.
- 1902 — *isabella* L.. VON MARTENS, Rumphius Ge-
denkb. (110), p. 123.
- 1903 — — L.. STURANY, Gastr. Roth. Meeres
(171), pp. 254, 276, 277.
- 1906 *Cypraea Isabella* Linné. DAUTZENBERG, Ambodifoutra
(37).
- 1906-'07 *Cypraea Isabella* L.. HIDALGO (62), pp. 139, 204,
389—391.
- 1907 *Cypraea Isabella* L.. COUTURIER, Tahiti, etc. (25), p.
149.
- 1907 — *isabella* Lin.. SCHEPMAN, Posttertiär Celebes
(154), p. 183.
- 1909 — — Linné. SCHEPMAN, Siboga (155), p.
126, nr. 1.
- 1909 — — L.. LAMY, Java (89), p. 466.
- 1916 *Cypraea (Cypraea) isabella* L.. CAES. BOETTGER, Han-
seatische Südsee-Exped. (11),
p. 300.
- 1920 *Cypraea (Bernayia) isabella* Linn.. VREDENBURG, Cy-
praeidae (180), p. 93.

Obi Major, 3 specimens, all without the black
dots and dashes.

Distribution: East Indian Archipelago (on reefs, etc.): Amboina
(Leyden Museum); Nusa-Laut-island near Amboina (Siboga);
Manipa, between Ceram and Buru (Leyden Mus.); New Guinea;
Misol (Leyden Mus.); Kei Is.; Aru Is.; Lucipara-island (Siboga);
Timor and Flores (Leyden Mus.); Lombok (Siboga); Java (VON
MARTENS, LAMY); Tjilatjap, S. coast of Java (Leyden Mus.);
Northern Celebes (VON MARTENS); Kwandang-bay, Northern
Celebes (Siboga); Banka (Leyden Mus.).

Melanesia: Santa Cruz Is. (Hanseatic Pacific expedition); New
Hebrides; New Caledonia (DAUTZENBERG); Loyalty Is. (MEL-
VILL and STANDEN); Viti Is. (GARRETT). — Micronesia:
Mariana Is. (HIDALGO); Caroline and Gilbert Is. (GARRETT).
— Polynesia: Hawaii (GARRETT); Ellice Is.; Tonga (Astrolabe,
GARRETT); Samoa, Cook, Society and Marquesas Is. (GAR-
RETT); Paumotu (GARRETT, COUTURIER, Hanseatic Pacific

exped.); Gambier Is. (COUTURIER). — Western Australia (MENKE); Torres Straits (BRAZIER); North East Australia; Moreton Bay, Queensland (BRAZIER); New South Wales (BRAZIER).

Sulu and Philippine Is. (HIDALGO); Loo-Choo (O. BOETTGER); Japan (DUNKER, PILSBRY). — Islands in the Gulf of Siam (MORLET); Nicobars (Novara); Andamans (SMITH); Ceylon; Chagos (LIÉNARD); Maldives; Laccadives.

Aden (E. A. SMITH); Red Sea; Gulf of Akabah; Gulf of Suez (M'ANDREW); Seychelles (DUFO, LIÉNARD, Möbius, DAUTZENBERG); Amirantes (DUFO); Mauritius (LISTER, SGANZIN, LIÉNARD, Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Madagascar (LISTER, SGANZIN); Nossi-Bé, Sakatia and Nossi-Fali (Pollen and van Dam); Glorioso Is. (DAUTZENBERG); Mayotta, Comoro Is. (Pollen and van Dam); Querimba Is. and Mozambique (VON MARTENS); Port Elizabeth, Cape Province (SOWERBY).

Fossil in the Pleistocene of the Minahassa, Northern Celebes (SCHEPMAN).

Raised beaches of the Red Sea near Kosseir and of the Gulf of Suez (BULLEN NEWTON).

Subgenus *Naria* Gray, 1857

(= *Erronea* Troschel, 1863;

Zonaria, *Adusta*, *Stolida* and *Cribraria* Jousseau, 1884).

104. *Cypraea* (*Naria*) *felina* Gmelin.

1791 *Cypraea felina*. GMELIN (56), p. 3412, nr. 66.

1846 — — REEVE (145), vol. III, *Cypraea*, pl. XIX, figs. 105 a, b.

1902 — — Gmel. VON MARTENS, Rumphius Gedenk. (110), p. 123

1906-'07 *Cypraea felina* Gmelin. HIDALGO, *Cypraea* (62), pp. 138, 198—199, 351—353, nr. 76.

1920 *Cypraea* (*Adusta*) *fabula* Kien. VREDENBURG, *Cypraeidae* (180), p. 103, nr. 142.

Ternate (VON MARTENS).

Distribution: Throughout the Indo-Pacific region.

105. *Cypraea* (*Naria*) *teres* Gmelin (= *tabescens* Dillwyn).

1791 *Cypraea teres*. GMELIN, *Syst. Nat.* (56), p. 3405, nr. 35.

1817 *Cypraea tabescens* Solander. DILLWYN, *A descriptive Catalogue of recent shells*, vol. I, p. 463 (exclusive of the reference to MARTINI, I, figs. 294—295).

- 1818 *Cypraea cylindrica* [not of Bornl. WOOD, Index Testaceologicus, pl. 17, fig. 29.
- 1824 *Cypraea tabescens*. GRAY, Monograph (57), vol. I, pp. 381—382, nr. 44 (exclusive of several references).
- 1844 *Cypraea tabescens* Dillw.. DESHAYES in DESHAYES-LAMARCK, An. s. vert. (86), vol. X, pp. 555—556, nr. 81.
- 1845 — — , Soland.. KIENER (71), vol. I, *Cypraea*, p. 88, pl. 5, figs. 3, 3.
- 1845 — — REEVE (145), vol. III, *Cypraea*, pl. XIV, figs. 66 a, b.
- 1869 — — Sol.. VON FRAUENFELD, Nicobaren (55), p. 864.
- 1870 — — , Sol.. SOWERBY, Thesaurus (167), vol. IV, *Cypraea*, p. 9, nr. 18, pl. XXVII, figs. 261—265.
- 1880 — — Solander. VON MARTENS, Mauritius (105), p. 271.
- 1880 *Cypraea teres* Gmelin. WEINKAUFF, *Cypraea* (184), pp. 28—29, pl. 8, figs. 1—3.
- 1885 *Cypraea tabescens*, Sol.. ROBERTS in TRYON (177), vol. VII, p. 170, pl. 5, figs. 82—84.
- 1899 *Cypraea (Cypraea) tabescens* Solander. HORST et SCHEPMAN (63), pp. 192—193.
- 1902 *Cypraea tabescens* Sol.. VON MARTENS, Rumphius Gedenkb. (110), p. 123.
- 1906—'07 *Cypraea punctulata* [? not of] Gmel.. HIDALGO (62), pp. 141, 178, 218, 484—486.
- 1907 *Cypraea tabescens* Sol.. COUTURIER, Tahiti, etc. (25), p. 150.
- 1909 *Cypraea tabescens*, Dillwyn, in part (as = *C. teres*, Gmelin). SHAW, *Cypraea* and *Trivia* (159), p. 304.
- Not:** *Cypraea teres* (not of Gmelin). SOWERBY, Conchol. Illustrations, p. 8, fig. 56; KIENER (71), vol. I, *Cypraea*, p. 91, pl. 39, fig. 3; REEVE (145), pl. XVIII, figs. 93 a, b; SOWERBY, Thesaurus (167), vol. IV, *Cypraea*, p. 9, pl. XXVII, figs. 259—260; HIDALGO (62), pp. 142, 225, 534—535 (= *Cypraea subteres* Weinkauff).

Obi Major, 1 young specimen with brown dorsal blotch, belonging to the form *tabescens* Dillwyn (= HIDALGO's *C. punctulata*, var. 2).

Distribution: East Indian Archipelago: Amboina (Leyden Museum); Flores (Leyden Mus., VON MARTENS); Tjilatjap, S. coast of Java (Leyden Mus.); Borneo.

Melanesia: New Caledonia (SOWERBY); Loyalty Is., — Micronesia: Mariana Is.; Marshall Is.. — Polynesia: Hawaii; Cook Is.; Tahiti, on the reefs (Cuming); Marquesas Is.; Paumotu (COUTURIER). — New South Wales. — Philippines; Nicobar Is. (Novara); Salang-island near Malacca; Ceylon (REEVE); Chagos Is..

Red Sea; Mauritius (SOWERBY, LIÉNARD); Réunion (DES-HAYES); Madagascar; Mozambique; Port Elizabeth, Cape Province.

GMELIN founded his *C. teres* on a figure of SCHROETER, which represents the *C. tabescens* of authors. Therefore I have followed SHAW in occupying the name *C. teres* Gmel. for the present species.

106. *Cypraea (Naria) caurica* Linné.

1758 *Cypraea caurica*. LINNÉ, Systema Naturae, edit. X (94), p. 723.

1845 — — REEVE (145), vol. III, *Cypraea*, pl. XI, fig. 46.

1906-'07 *Cypraea caurica* Linné. HIDALGO, *Cypraea* (62), pp. 137, 191; 297—300, nr. 39.

1910 *Cypraea caurica* Linné. DAUTZENBERG, Halmahera (38), p. 3.

1920 *Cypraea (Adusta) caurica* Linné. VREDENBURG, *Cypraeidae* (180), p. 103, nr. 148.

Halmahera (recorded by DAUTZENBERG).

Distribution: Throughout the Indo-Pacific region.

Fossil in the raised beaches of the Red Sea and the Gulf of Suez.

107. *Cypraea (Naria) lutea* Gronovius.

1781 *Cypraea lutea*. GRONOVIVS, Zoophylacium Gronovianum, Fasc. III, p. V, pl. 19, fig. 17.

1846 — — REEVE (145), vol. III, *Cypraea*, pl. XX, figs. 110 a—c.

1906-'07 *Cypraea lutea* Gronovius. HIDALGO, *Cypraea* (62), pp. 139, 207; 405—408, nr. 113.

1920 *Cypraea (Adusta) lutea* Gronov.. VREDENBURG, *Cypraeidae* (180), p. 101, nr. 100.

Halmahera (HIDALGO).

I don't know on whose authority this habitat has been recorded by HIDALGO.

Distribution: Java; New Caledonia; Viti Is.; E. Australia; Philippines.

Subgenus *Monetaria* Troschel, 1863
 (= *Aricia* Gray, 1837 (non: *Aricia* Savigny, 1822).

108. *Cypraea* (*Monetaria*) *moneta* Linné.

- 1705 *Thoracium vulgare, sive Cauricium*. RUMPHIUS (151), p. 117, pl. XXXIX, fig. C.
- 1758 *Cypraea Moneta*. LINNÉ, *Systema Naturae*, edit. X (94), p. 723, nr. 312.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 578, nr. 203.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1178, nr. 354.
- 1769 *Porcellana in utroque latere fimbriata, nodoso-tuberosa, etc.* MARTINI, *Conch.-Cab.* (122), vol. I, pp. 404—407, pl. XXXI, figs. 337—338.
- 1791 *Cypraea Moneta*. GMELIN (56), pp. 3414—3415, nr. 81.
- 1798 *Cypraea numisma* Bolten. *Museum Boltenianum*, p. 24, nr. 285.
- 1798 *Cypraea* LAMARCK, *Tableau encycl.* (49 a), pl. 356, fig. 3 (*Cypraea Moneta* in the Explanation of plates by BORY DE ST.-VINCENT, p. 164; 1827).
- 1810 *Cypraea icterina*. LAMARCK, *Cypraea* (84 a), vol. XVI, p. 91, nr. 25.
- — *moneta*. LAMARCK, *ibid.*, p. 102, nr. 59.
- 1822 *Cypraea icterina*. LAMARCK, *An. s. vert.* (85), vol. VII, p. 387, nr. 25.
- — *moneta*. LAMARCK, *ibid.*, p. 401, nr. 59.
- 1824 *Cypraea icterina*. GRAY, *Monograph* (57), vol. I, pp. 386—387, nr. 50.
- 1825 — *moneta*. GRAY, *ibid.*, pp. 492—493, nr. 60.
- 1828 — *icterina*, Lam. (as = *C. moneta*, young). GRAY, *ibid.*, vol. IV, p. 67.
- 1832 *Cypraea moneta*. DESHAYES, *Encycl.* (49), vol. III, pp. 831—832, nr. 40.
- 1834 *Cypraea moneta*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 44—45, nr. 13, pl. 48, fig. 17.

- 1844 *Cypraea icterina* Lamk., DESHAYES—LAMARCK (86), vol. X, pp. 510—511, nr. 25.
- — *moneta* Lin., DESHAYES—LAMARCK, *ibid.*, pp. 537—538, nr. 59.
- 1845 *Cypraea moneta*, Lin., KIENER (71), vol. I, *Cypraea*, p. 122, pl. 34, figs. 1, 1.
- — *icterina*, Lam., KIENER, *ibid.*, p. 123, pl. 34, figs. 3, 3.
- 1845 *Cypraea moneta*. REEVE (145), vol. III, *Cypraea*, pl. XV, fig. 74.
- 1847 Porcelaine monnaie de Guinée. CHENU, Leçons élémentaires (18), pl. 11, figs. 21, 22.
- 1850 *Cypraea moneta* L., BERGE, Conchylienbuch (6), p. 244 (the figure is bad!).
- 1853 — — L., DUNKER, Moll. Guin. Tams (47), p. 31.
- 1855 *Cypraea moneta*. HANLEY, Ipsa Linn. Conch. (58), pp. 192, 499.
- 1859 *Cypraea (Aricia) moneta*, Linné. CHENU, Manuel (19), vol. I, p. 267, figs. 1692—1693.
- 1861 *Cypraea Barthelemyi*. BERNARDI in: Journal de Conchyliologie, vol. IX, p. 48, pl. 1, figs. 3, 4.
- 1869 *Aricia moneta* L., VON FRAUENFELD, Nicobaren (55), p. 864.
- 1870 *Cypraea moneta*, Linn. and vars. *icterina* Lam. and *Barthelemyi* Bern., SOWERBY, Thesaurus (167), vol. IV, *Cypraea*, p. 17, nr. 50, pl. XXVI, figs. 244—251.
- 1870 *Aricia moneta*, Linn., M'ANDREW, Test. Gulf of Suez (100), p. 440.
- 1874 *Cypraea (Aricia) moneta* Linneo. TAPPARONE—CANEFRI, Magenta (173), p. 133.
- 1880 *Cypraea moneta* L., WEINKAUFF, *Cypraea* (184), p. 67, pl. 20, figs. 1—4.
- 1880 — — L., VON MARTENS, Mauritius (105), p. 273.
- 1882 *Cypraea moneta* Lin., DUNKER, Index Moll. maris Japon. (48), p. 99.

- 1884 *Monetaria Moneta, ethnographica, mercatorium, vestimenti, Barthelemyi, pleuronectes, icterina* and *plumaria*. ROCHEBRUNE, Monographie des formes appartenant au genre *Monetaria* (Bulletin de la Société Malac. de France, vol. I), pp. 77—87, pl. 1, figs. 1—4, 6; pl. 2, figs. 1, 2.
- 1885 *Cypraea (Aricia) moneta*, Linn.. ROBERTS in TRYON (177), vol. VII, pp. 177—178, pl. 10, fig. 46; pl. 11, figs. 51—54; pl. 23, figs. 60—67, 69.
- 1885 *Cypraea moneta*, L.. COOKE, Test. moll. Gulf of Suez (21), part I, p. 339.
- 1887 *Cypraea moneta*, L.. VON MARTENS, Mergui (107), p. 187, nr. 168.
- 1893 *Cypraea moneta* Linné, var. *icterina* Lamarck. DAUTZENBERG, Séchelles (32), p. 82.
- 1899 *Cypraea (Aricia) moneta* Linné and var. *icterina* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 198.
- 1901 *Cypraea moneta* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 383.
- 1902 *Cypraea moneta* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 123.
- 1906-'07 *Cypraea Monetaria* L.. HIDALGO (62), pp. 140, 210, 431—435.
- 1907 *Cypraea moneta* L.. COUTURIER, Tahiti, etc. (25), p. 151.
- 1908 *Cypraea moneta*, Linn.. NOBRE, Timor (128), p. 219.
- 1909 *Cypraea (Aricia) moneta* Linné and var. *icterina* Lamarck. SCHEPMAN, Siboga (155), pp. 129—130, nr. 12.
- 1909 *Cypraea moneta* L.. LAMY, Java (89), p. 466.
- 1909 *Cypraea moneta*, Linn., var. *aurea*. SHAW, *Cypraea* and *Trivia* (159), p. 312.
- 1911 *C. moneta*, Linn.. E. A. SMITH, Marine shells Christmas Island (165), p. 315.
- 1916 *Cypraea (Aricia) moneta* L.. CAES BOETTGER, Hanseatische Südsee-Expedition (11), p. 301.
- 1920 *Cypraea (Monetaria) moneta* Linn.. VREDENBURG, *Cypraeidae* (180), p. 107.

East coast of H a l m a h e r a, 2 specimens.

The species has been recorded from Bachan by VON MARTENS.

Distribution: East Indian Archipelago (on reefs, etc.): Amboina (Leyden Mus.); Kei Is.; Aru Is.; West coast of New Guinea (Siboga); Lucipara-island (VON MARTENS); Timor (Leyden Mus., NOBRE, Siboga); Flores (Leyden Mus., VON MARTENS); Lombok (Siboga); Java (Novara, LAMY); Batjulatmati, E. coast of Java (Siboga); Sula Is. (Siboga); Northern Celebes (VON MARTENS); near Makassar, Southern Celebes (Siboga); E. coast of Borneo (Siboga); Banka (Leyden Mus.); Mentawai-islands west of Sumatra (VON MARTENS).

Melanesia: Louisiade Archipelago; Solomon Is.; New Hebrides: New Caledonia (DAUTZENBERG); Loyalty Is. (MELVILL and STANDEN); Viti Is. (GARRETT). — Micronesia: Mariana Is. (HIDALGO); Pelew Is. (Hanseatic Pacific exped.); Caroline Is. (GARRETT); Gilbert Is. (GARRETT). — Polynesia: Hawaii (GARRETT); Ellice Is.; Tonga (Astrolabe); Samoa and Cook Is. (GARRETT); Tahiti (Cuming, Novara); Marquesas Is. (GARRETT); Paumotu and Gambier Is. (COUTURIER). — Western Australia; Torres Straits; Sydney; Lord Howe Island (ETHE-RIDGE).

Christmas Island, Ind. Ocean (E. A. SMITH). — Sulu-archipelago (Siboga); Philippines (HIDALGO); Loo-Choo (O. BOETTER); Nagasaki, Southern Japan (LISCHKE); Hakodate, Northern Japan (VON SCHRENCK); Tizard-bank, South China Sea (SMITH); Gulf of Siam (MORLET); North-island (Magenta); Singapore; Salang-island (VON MARTENS); Nicobars (Novara); Mergui-archipelago (Anderson); Bengal; Madras (Novara); Ceylon; Chagos (LIÉNARD); Maldives (RUMPHIUS, MARTINI); Laccadives; Bombay (MELVILL and ABERCROMBIE); Maskat, Oman (MELVILL and STANDEN).

Aden (SHOPLAND); Gulf of Suez (M'ANDREW); Zanzibar (Leyden Mus.); Seychelles (DUFO, LIÉNARD, Möbius, DAUTZENBERG); Amirantes (DUFO); Cargados and Rodriguez (LIÉNARD); Mauritius (LIÉNARD, Möbius); Réunion (DESHAYES); Glorioso Is. (DAUTZENBERG); Querimba Is. and Mozambique (VON MARTENS); Port Elizabeth, Cape Province (SOWERBY).

St. Helena (JEFFREYS); Loanda, Angola (Tams); Guinea; Senegal (ROCHEBRUNE); Cape Verde Is.; Canary Is..

MELVILL and STANDEN (124) are of the opinion that this species and *C. annulus* are probably the extremes of one variable mollusc, but in this they are probably mistaken, as QUOY and

GAIMARD (Voyage de l'Astrolabe, vol. III, p. 45) say regarding *C. annulus*: „Si jamais il y a eu des doutes pour distinguer cette espèce de la précédente [*C. moneta*], il suffit de jeter un coup d'oeil sur nos figures pour voir combien les animaux diffèrent.”

109. *Cypraea (Monetaria) annulus* Linné.

For the synonymy see „Recent shells from Java” (129), pp. 95—97, and the following additions:

- 1764 *Cypraea Annulus*. LINNÉ, Mus. Lud. Ulr. (95), p. 578, nr. 204.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1179, nr. 355.
- 1769 *Porcellana simplex conglobata & crassa, Caurica, etc.*. MARTINI, Conch.-Cab. (122), vol. I, pp. 335—337, pl. XXIV, figs. 239—240.
- 1791 *Cypraea Annulus*. GMELIN (56), p. 3415, nr. 82.
- 1798 *Cypraea* LAMARCK, Tableau encycl. (49 a), pl. 356, fig. 7 (*Cypraea Annulus* in the Explanation of plates by BORY DE ST.-VINCENT, p. 164; 1827).
- 1810 *Cypraea annulus*. LAMARCK, *Cypraea* (84 a), vol. XVI, p. 102, nr. 61.
- 1832 — — DESHAYES, Encycl. méth. (49), vol. III, p. 832, nr. 41.
- 1855 — — HANLEY, *Ipsa Linn. Conch.* (58), pp. 192, 499.
- 1869 *Aricia annulus* L. VON FRAUENFELD, *Nicobaren* (55), p. 864.
- 1870 — — , *Linn. M'ANDREW, Test. Gulf of Suez* (100), p. 440.
- 1874 *Cypraea (Aricia) annulus* Linneo. TAPPARONE—CANEFRI, *Magenta* (173), p. 133.
- 1880 *Cypraea annulus* L. VON MARTENS, *Mauritius* (105), p. 273.
- 1882 — — Lin. DUNKER, *Index Moll. maris Japon.* (48), p. 99.

- 1884 *Cypraea annulus*, Linn.. E. A. SMITH, Alert (160), p. 59, nr. 56.
- 1885 *Cypraea (Aricia) moneta*, Linn. (form *C. camelorum*, Rochebr.). ROBERTS in TRYON (177), vol. VII, p. 178, pl. 23, fig. 68.
- — (—) *annulus*, Linn.. ROBERTS in TRYON, *ibid.*, pp. 178—179, pl. 11, figs. 57—61; pl. 23, figs. 71, 72.
- 1885 *Cypraea annulus*, L., COOKE, Test. Gulf of Suez (21), part I, p. 339.
- 1893 *Cypraea annulus* Linné. DAUTZENBERG, Séchelles (32), p. 82.
- 1900 *Cypraea annulus*, Linnaeus. BULLEN NEWTON, Raised beaches Red Sea (127), p. 504.
- 1901 *Cypraea annulus* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 382.
- 1906 — — Linné. DAUTZENBERG, Ambodifoutra (37).
- 1908 — — Lin.. NOBRE, Timor (128), p. 218.
- 1911 *C. annulus*, Linn.. E. A. SMITH, Marine shells Christmas Island (165), p. 315.
- 1916 *Cypraea (Aricia) annulus* L.. CAES. BOETTGER, Hanseatische Südsee-Exped. (11), p. 301.
- 1918 *Cypraea annulus* Linné. SCHEPMAN, New Guinea (194), p. 19.
- 1920 *Cypraea (Monetaria) annulus* Linn.. VREDENBURG, Cypraeidae (180), p. 108.

Obi Major, 2 specimens.

East coast of Halmahera, 1 specimen, almost like var. 1 of HIDALGO's monograph.

• A specimen from Bachan was collected by Dr. Bernstein (Leyden Museum).

Distribution: For the distribution (recent and fossil) within the East Indian Archipelago see: „Recent shells from Java”, p. 97.

Melanesia: Kajo-bay, Northern New Guinea, under stones between high- and low-watermark (van Kampen and Gjellerup); Solomon Is.; New Caledonia (DAUTZENBERG); Loyalty Is. (MELVILL and STANDEN); Viti Is. (GARRETT). — Micronesia: Mariana Is. (HIDALGO); Caroline and Gilbert Is. (GARRETT). — Polynesia: Ellice Is.; Hawaii (BALDWIN); Tonga (Astrolabe); Samoa (GARRETT); Tahiti; Marquesas Is.; Paumotu and Gambier Is. (COUTURIER). — Torres Straits (MELVILL and STANDEN); Port Molle, Queensland, coral-reef (Alert); Moreton Bay, Queensland (BRAZIER); Sydney, New South Wales (Novara); Victoria (BRAZIER); Tasmania; Lord Howe Island (ETHERIDGE). — New Zealand.

Christmas Island, Indian Ocean (E. A. SMITH). — Sulu-archipelago and Philippines (HIDALGO); Loo-Choo (O. BOETTGER); Nagasaki, Southern Japan (DUNKER); Tizard-bank, South China Sea (SMITH); Pulo Kondor near Lower Cochin China (ROCHEBRUNE); Gulf of Siam (MORLET); North-island (Magenta); Salang-island near Malacca (VON MARTENS); Nicobar Is. (Novara); Andaman Is. (Leyden Mus.); Madras (MELVILL and STANDEN); Ceylon; Chagos (LIÉNARD); Maldives and Laccadives (E. A. SMITH); Bombay (MELVILL and ABERCROMBIE); Maskat, Oman (MELVILL and STANDEN).

Aden (SHOPLAND); Red Sea (ISSEL); Gulf of Akabah; Gulf of Suez, shore (M'ANDREW); Jibuti (de Gennes); Zanzibar (Leyden Mus.); Seychelles (DUFO, Möbius, DAUTZENBERG); Amirantes (DUFO); Mauritius (LIÉNARD, Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Nossi-Bé and Nossi-Fali near Nossi-Bé (Pollen and van Dam); Mayotta, Comoro Is. (Pollen and van Dam); Querimba Is. and Mozambique (VON MARTENS); Natal; Port Elizabeth, Cape Province (SOWERBY).

Fossil in the raised beaches of the Red Sea (ISSEL, BULLEN NEWTON).

110. *Cypraea (Monetaria) caput-serpentis* Linné.

1899 *Cypraea (Arícia) caput-serpentis* Linné. HORST et SCHEPMAN, Cat. (63), p. 198.

1920 *Cypraea (Monetaria) caput-serpentis* Linné. VREDENBURG, *Cypraeidae* (180), p. 108, nr. 182.

Obi Is. (Bernstein, Leyden Museum).

For synonymy and distribution see: „Recent shells from Java” (129), pp. 91.—93, 161.

Subgenus *Erosaria* Troschel, 1863

(= *Nuclearia* Jousseaume, 1884;

Staphylaea Jousseaume, 1884):

111. *Cypraea* (*Erosaria*) *erosa* Linné.

1899 *Cypraea* (*Ocellaria*) *erosa* Linné. HORST et SCHEPMAN, Cat. (63), p. 205.

Bachan (Bernstein, Leyden Museum).

For synonymy and distribution see: „Recent shells from Java” (129), pp. 103—105, 162.

112. *Cypraea* (*Erosaria*) *staphylaea* Linné.

1758 *Cypraea staphylaea*. LINNÉ, Syst. Nat. X (94), p. 725, nr. 324.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 583, nr. 213.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1181, nr. 366.

1769 *Porcellana exigua in utroque latere fimbriata, dorso fusco sulcato per longitudinem & punctis albis granulato, etc.* MARTINI, Conch.-Cab. (122), vol. I, p. 384, pl. XXIX, figs. 313—314.

1791 *Cypraea staphylaea*. GMELIN (56), p. 3419, nr. 97.

1798 *Cypraea* LAMARCK, Tableau encycl. (49 a), pl. 356, figs. 9 a, b (*Cypraea staphylaea* in the Explanation of plates by BORY DE ST.-VINCENT, p. 164; 1827).

1810 *Cypraea staphylaea*. LAMARCK, *Cypraea* (84 a), vol. XVI, pp. 100—101, nr. 55.

1817 — *staphylea*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 469, nr. 67.

1822 — *staphylaea*. LAMARCK, An. s. vert. (85), vol. VII, p. 399, nr. 55.

1825 — — GRAY, Monograph (57), vol. I, pp. 512—513, nr. 84 (exclusive of var. β).

1828 *Cypraea granulata* Humph. (as = *C. Staphylaea*). GRAY, Monograph (57), vol. IV, p. 86, nr. 84.

1832 *Cypraea staphylaea*. DESHAYES, Encycl. méth. (49), vol. III, pp. 832—833, nr. 43.

1844 — — Lin. DESHAYES—LAMARCK (86), vol. X, pp. 534—535, nr. 55.

- 1845 *Cypraea staphylaea*, Lin., KIENER (71), vol. I, *Cypraea*, pp. 48—49, pl. 36, figs. 2, 2, 2 a, 2 a.
- 1845 — — REEVE (145), vol. III, *Cypraea*, species 82 (in part!), pl. XVI, fig. 82 b.
- 1855 — *staphylea*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 198, 500.
- 1869 *Pustularia staphylea* L., VON FRAUENFELD, *Nicobaren* (55), p. 864.
- 1870 *Cypraea staphylaea*, Linn., SOWERBY, *Thesaurus* (167), vol. IV, *Cypraea*, p. 40, nr. 138 (in part), pl. XXV, figs. 228, 229.
- 1879 *Trivia consobrina*. GARRETT, *Annotated catalogue of the species of Cypraeidae collected in the South sea islands* (*Journal of Conchology*, vol. II), p. 122.
- — *staphylaea*. GARRETT, *ibid.*, p. 126.
- 1880 *Cypraea (Pustularia) staphylaea* L., VON MARTENS, *Mauritius* (105), p. 273.
- 1881 *Cypraea staphylaea* L., WEINKAUFF, *Cypraea* (184), pp. 117—118 (in part), pl. 35, figs. 6, 7.
- 1881 *Pustularia staphylaea* L., ROSSITER, *List of the Cypraeidae found on the coast of New Caledonia and Loyalty islands* (*Proceedings Linnean Society of New South Wales*), p. 830.
- 1885 *Cypraea (Pustularia) staphylaea*, Linn., ROBERTS in TRYON (177), vol. VII, pp. 196—197 (in part!), pl. 20, figs. 39, 40.
- 1899 *Trivia staphylaea* L., MELVILL and STANDEN, *Torres Straits* (123), p. 165, nr. 113.
- 1899 *Cypraea (Pustularia) staphylaea* Linné. HORST et SCHEPMAN, *Cat.* (63), p. 207.
- 1903 — (—) — — DAUTZENBERG, *Revis. Cypr. Nouv.-Calédonie* (36), pp. 373—374.

- 1906 *Cypraea staphylaea* Linné. DAUTZENBERG, Ambodifoutra (37).
- 1906—'07 *Cypraea staphylaea* L.. HIDALGO (62), pp. 142, 223, 518—520.
- 1907 *Cypraea staphylaea*, Lin.. SCHEPMAN, Posttertiär Celebes (154), p. 185.
- 1908 — — , Lin.. NOBRE, Timor (128), p. 220.
- 1909 *Cypraea (Pustularia) staphylea* Linné. SCHEPMAN, Siboga (155), p. 136.
- 1920 *Cypraea (Erosaria) staphylaea* Linn.. VREDENBURG, Cypraeidae (180), p. 113.

Obi Major, 1 specimen.

Distribution: East Indian Archipelago (on coral, Lithothamnion, etc.): Timor (Leyden Museum, NOBRE, Siboga); Flores (Leyden Mus.); Flores Sea, Saleyer and Postillon-islands (Siboga); Tjilatjap, South coast of Java and Banka (Leyden Mus.).

Melanesia: New Britain; New Ireland; Solomon Is.; New Caledonia (ROSSITER); Loyalty Is. (ROSSITER); Viti Is. (GARRETT). — Micronesia: Caroline Is. (GARRETT); Mariana Is. (HIDALGO); Gilbert Is. (GARRETT). — Polynesia: Hawaii, Tonga, Samoa, Cook Is., Society Is. and Paumotu (GARRETT). — Torres Straits (MELVILL and STANDEN); Port Jackson, New South Wales (ANGAS); Lord Howe Island (ETHERIDGE).

Philippines (Cuming); Japan (LISCHKE); Gulf of Siam (MORLET); Nicobars (Novara); Andaman Is.; Ceylon; Chagos (LIÉNARD); Maldives; Laccadives.

Aden (SHOPLAND); Red Sea; Seychelles (LIÉNARD, Möbius); Rodriguez and Mauritius (LIÉNARD); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Natal.

Fossil in the Pleistocene of Northern Celebes (Minahassa) (SCHEPMAN).

According to H. O. N. SHAW (159) and several other authors *C. limacina* Lamarck is simply a variety of the present species, as it is connected with it by specimens which conchologically are intermediate. However, SCHEPMAN (Siboga exp.) pointed out that there are differences of much importance between the radulae of *C. limacina* and *staphylaea*.

Genus *Pustularia* Swainson, 1840
(= *Epona* H. and A. Adams, 1854).

113. *Pustularia cicercula* (Linné).

- 1758 *Cypraea Cicercula*. LINNÉ, *Systema Naturae*, edit. X (94), p. 725.
1846 *Cypraea cicercula*. REEVE (145), vol. III, *Cypraea*, pl. XXI, figs. 116, 116b.
1870 — — —, Linn., SOWERBY, *Thesaurus* (167), vol. IV, *Cypraea*, p. 41, nr. 142, pl. XXXI, figs. 344, 343.
1899 *Cypraea (Epona) cicercula* Linné. HORST et SCHEPMAN, *Cat.* (63), p. 208.
1906-'07 *Cypraea Cicercula* Linné. HIDALGO, *Cypraea* (62), pp. 137, 193, 310—313, nr. 47.
1920 *Pustularia cicercula* Linné. VREDENBURG, *Cypraeidae* (180), p. 114, nr. 1.

Halmahera (Bernstein, Leyden Museum).

Distribution: Throughout the Indo-Pacific region.

Genus *Trivia* Gray, 1837.

114. *Trivia oryza* (Lamarck).

- 1810 *Cypraea oryza*. LAMARCK, *Cypraea* (84 a), vol. XVI, p. 104, nr. 65.
1828 *Cypraea scabriuscula*. GRAY, *Monograph* (57), vol. III, p. 364.
1846 *Cypraea oryza*. REEVE (145), vol. III, *Cypraea*, pl. XXIV, fig. 140.
1870 *Cypraea (Trivia) oryza*, Lamk., SOWERBY, *Thesaurus* (167), vol. IV, *Cypraea*, p. 46, nr. 162, pl. XXXV, figs. 474—476.
— — (—) *scabriuscula*, Gray. SOWERBY, *ibid.*, p. 46, nr. 163, pl. XXXV, figs. 472, 473; pl. XXXVII, fig. 525.
1906-'07 *Cypraea intermedia* Kiener. HIDALGO, *Cypraea* (62), pp. 204, 386, nr. 100.
— — *Oryza* Lamarck. HIDALGO, *ibid.*, pp. 140, 213—214, 454—455, nr. 140.
— — *scabriuscula* Gray. HIDALGO, *ibid.*, pp. 221, 508—509, nr. 181.
1909 *Trivia oryza* Lamarck and var. *scabriuscula* Gray. SCHEPMAN, *Siboga* (155), pp. 137—138, nr. 1.
1909 *Trivia oryza*, Lamarck. SHAW, *Cypraea and Trivia* (159), p. 308.
1920 *Trivia (Trivia) oryza* Lamk., VREDENBURG, *Cypraeidae* (180), p. 134, nr. 46.
— — (—) *scabriuscula* Gray. VREDENBURG, *ibid.*, p. 134, nr. 47.
— — (—) *intermedia* Kien., VREDENBURG, *ibid.*, p. 134, nr. 49.
North of Salomakiëe-island, 45 M., coral bottom (Siboga), 1 specimen of the form *scabriuscula* Gray.

According to SCHEPMAN *Tr. scabriuscula* is connected with *Tr. oryza* by intermediate specimens. H. O. N. SHAW has added *C. intermedia* Kiener to the synonymy.

Distribution: Throughout the Indo-Pacific region.

FAM. CASSIDIDAE.

Genus *Cassis* Scopoli, 1777(= *Cassida* Brünnich, 1772 (*non* Linné, 1758, *Coleoptera*)).Subgenus *Cassis* s. str.,115. *Cassis* (*Cassis*) *cornuta* (Linné).

- 1705 *Cassis tuberosa prima sive Cornuta*. RUMPHIUS (151), pp. 79-80, pl. XXIII, fig. A.
 — Stormhoed. SCHYNVOET in RUMPHIUS (151), p. 81, pl. XXIII, fig. 1.
- 1758 *Buccinum cornutum*. LINNÉ, *Systema Naturae*, edit. X (94), p. 735.
- 1764 — — LINNÉ, *Mus. Lud. Uir.* (95), p. 602, nr. 249.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1198, nr. 445.
- 1773 *Cassis nodosa, caelata*. MARTINI, *Conch.—Cab.* (122), vol. II, pp. 31—34, pl. XXXIII, figs. 348, 349.
 — *Cassis cornuta maxima*. MARTINI, *ibid.*, pp. 46—48, pl. XXXV, fig. 362.
- 1791 *Buccinum cornutum*. GMELIN (56), pp. 3472—3473, nr. 11 and vars. β and γ .
- 1792 *Cassidea cornuta*. BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 434—436, nr. 17.
- 1795 *Cassis labiata*. CHEMNITZ, *Conch.—Cab.* (122), vol. XI, pp. 71—75, pls. 184, 185.
- 1822 *Cassis cornuta*. LAMARCK, *An. s. vert.* (85), vol. VII, pp. 219—220, nr. 2.
- 1832 — — QUOY et GAIMARD, *Astrolabe* (140), vol. II, pp. 590—592, pl. 43, figs. 1—6.
- 1835 — — Brug.. KIENER (71), vol. VIII, *Cassis*, pp. 9—10, nr. 4, pl. 2, figs. 3, 3.
- 1844 — — Lamk.. DESHAYES-LAMARCK, *An. s. vert.* (86), vol. X, pp. 20—21, nr. 2.
- 1848 — — REEVE (145), vol. V, *Cassis*, pl. I, fig. 2.
- 1855 *Buccinum cornutum*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 242, 510.

- 1857 *Cassis cornuta* Linné. KÜSTER, *Cassis*, etc. (76), pp. 11—12, pl. 38, fig. 3; pl. 40; pl. 41 (pls. 40, 41 = CHEMNITZ, pls. 184, 185).
- 1869 *Cassis cornuta* L.. LISCHKE, *Japan. Meeresconch.* (98), vol. I, p. 62.
- 1879 — — Linn.. K. MARTIN, *Tertiärsch. Java* (112), p. 45, pl. VIII, figs. 5, 5 a.
- 1880 — — L.. VON MARTENS, *Mauritius* (105), p. 263.
- 1882 — — Lin. (*Buccinum*). DUNKER, *Index Moll. maris Japon.* (48), p. 64.
- 1885 *Cassis (s. str.) cornuta*, Linn.. TRYON (177), vol. VII, pp. 270—271, pl. 2, fig. 49; pl. 1, figs. 45, 46.
- 1894-'99 *Cassis (Cassis) cornuta* Linné. HORST et SCHEP-MAN, *Cat.* (63), pp. 176—177.
- 1902 *Cassis cornuta* L.. VON MARTENS, *Rumphius Gedenkb.* (110), pp. 115, 116.
- 1908 *Cassis cornuta*, Lin.. NOBRE, *Timor* (128), p. 221.
- 1915 — — Lin.. STAUB, *Sangkulirangbai* (169), pp. 125, 132.
- 1919 — — Linn.. K. MARTIN, *Palaeozool. Kenntnis v. Java* (119), p. 88.
- 1923 — — Linné sp.. OOSTINGH, *Java* (129), pp. 107, 162.

Obi Major, 1 specimen.

Distribution: East Indian Archipelago (on coralreefs): Amboina (Leyden Mus.); Haruku-island near Amboina (RUMPHIUS); Doreh, New Guinea (Astrolabe); Timor (Leyden Mus., NOBRE); Coral-island Pulu Pandjang near Japara, N. coast of Java (van Baren); Borneo (Leyden Mus.); Sangkulirang-bay, E. Borneo (STAUB); Billiton (Leyden Mus.).

Pacific Islands (REEVE). — Philippines (Leyden Mus.); Manila (LISCHKE); Nagasaki, Southern Japan (LISCHKE). — Tranquebar, Coromandel Coast (CHEMNITZ).

Seychelles, Cargados and Rodriguez (LIÉNARD); Mauritius (LIÉNARD, Möbius); Réunion (DESHAYES); Nossi-Bé near Madagascar (Pollen and van Dam).

[? West Indies (TRYON)].

Fossil in the Upper Miocene of Java (Residency Preanger).

Subgenus *Phalium* Link, 1807(= *Bezoardica* Schumacher, 1817).Type: *Cassis glauca* (L.).116. *Cassis (Phalium) glauca* (Linné).

- 1705 *Cassis Cinerea laevis*. RUMPHIUS (151), pp. 83—84, pl. XXV, fig. A.
- 1758 *Buccinum glaucum*. LINNÉ, Systema Naturae, edit. X (94), p. 737, nr. 391.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 606, nr. 256.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1200, nr. 453.
- 1773 *Cassis cinerea, laevis*. MARTINI, Conch.-Cab. (122), vol. II, pp. 23—26, pl. XXXII, figs. 342, 343.
- 1791 *Buccinum glaucum*. GMELIN (56), pp. 3478—3479, nr. 35.
- 1792 *Cassidea glauca*. BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 419—420, nr. 3.
- 1817 *Bezoardica vulgaris*. SCHUMACHER, Nouv. syst. (158), p. 248.
- 1822 *Cassis glauca*. LAMARCK, An. s. vert. (85), vol. VII, p. 221, nr. 6.
- 1824 *Cassis glauca*. SOWERBY, Genera (168), *Cassis*, fig. 1.
- 1832 *Cassis glauca*. QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 593—596, pl. 43, figs. 9—13.
- 1835 *Cassis glauca*, Brug.. KIENER (71), vol. VIII, *Cassis*, pp. 27—29, nr. 17, pl. 5, figs. 9, 9.
- 1844 *Cassis glauca* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 24—25, nr. 6.
- 1848 *Cassis glauca*. REEVE (145), vol. V, *Cassis*, pl. XII, fig. 33.
- 1855 *Buccinum glaucum*. HANLEY, Ipsa Linn. Conch. (58), pp. 247, 511.
- 1857 *Cassis glauca* Linné. KÜSTER, *Cassis*, etc. (76), pp. 7—8, pl. 37, figs. 1, 2 (= MARTINI, figs. 342, 343).
- 1869 *Phalium glaucum* L.. VON FRAUENFELD, Nicobaren (55), p. 862.

- 1881 *Cassis glauca* Lam.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 12.
- 1885 *Cassis (Bezoardica) glauca*, Linn.. TRYON (177), vol. VII, p. 276, pl. 6, figs. 79, 80.
- 1888 *Phalium glaucum*. JOUSSEAUME, Mer Rouge (68), p. 190, nr. 76.
- 1891 *Cassis glauca* (Linn.). E. A. SMITH, Aden (162), p. 411.
- 1899 *Cassis (Bezoardica) glauca* Linné. HORST et SCHEPMAN, Cat. (63), p. 179.
- 1902 *Cassis glauca* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 116.
- 1908 *Cassis glauca*, Lin.. NOBRE, Timor (128), p. 222.
- 1909 *Cassis (Bezoardica) glauca* Linné. SCHEPMAN, Siboga (155), p. 122, nr. 3.

East coast of H a l m a h e r a, 1 specimen.

Distribution: East Indian Archipelago (on reefs): Amboina (RUMPHIUS, Astrolabe, Leyden Museum, Siboga); Timor (Leyden Mus.); Dilly, Timor (NOBRE); Java (Novara); Menado and Gulf of Gorontalo, Northern Celebes (Leyden Mus.); Billiton (Leyden Mus.).

Philippines (Cuming); Singapore; Andaman Is.; Ceylon (Novara); Aden (E. A. SMITH); Kamaran-island, southern Red Sea (Faurot).

Fossil in the Pleistocene of Billiton (K. MARTIN).

117. *Cassis (Phalium) areola* (Linné).

- 1705 *Areola*. RUMPHIUS (151), p. 84, pl. XXV, fig. B.
- 1758 *Buccinum Areola*. LINNÉ, Systema Naturae, edit. X (94), p. 736, nr. 389.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 605, nr. 254 (*in part*).
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1199, nr. 451 (*in part*).
- 1773 *Cassis maculosa, laevis, Areola*. MARTINI, Conch.-Cab. (122), vol. II, pp. 39—41, pl. XXXIV, figs. 355, 356.
- 1791 *Buccinum Areola*. GMELIN (56), p. 3475, nr. 17 (*in part*).
- 1792 *Cassidea areola*. BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 423—425, nr. 8 (exclusive of var. B).

- 1816 *Cassis areola*. LAMARCK, Tableau encycl. (49 a), pl. 407, figs. 3 a, b; Liste des objets repr., p. 3; (Explanation of plates by BORY DE ST.-VINCENT (1827), p. 170).
- 1817 *Bezoardica areolata*. SCHUMACHER, Nouv. syst. (158), p. 248.
- 1822 *Cassis areola*. LAMARCK, An. s. vert. (85), vol. VII, pp. 222—223, nr. 9.
- 1835 *Cassis areola*, Brug.. KIENER (71), vol. VIII, Cassis, pp. 24—25, nr. 14, pl. 10, figs. 19, 19.
- 1844 *Cassis areola* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 27—28, nr. 9.
- 1848 *Cassis areola*. REEVE (145), vol. V, Cassis, pl. IX, fig. 24.
- 1855 *Buccinum areola*. HANLEY, Ipsa Linn. Conch. (58), pp. 245—246, 511.
- 1857 *Cassis areola*, Linné KÜSTER, Cassis, etc. (76), pp. 33—34, pl. 50, figs. 1, 2.
- 1869 *Phalium areola* L.. VON FRAUENFELD, Nicobaren (55), p. 862.
- 1885 *Cassis (Bezoardica) areola*, Linn.. TRYON (177), vol. VII, p. 276, pl. 6, fig. 84.
- 1899 *Cassis (Bezoardica) areola* Linné. HORST et SCHEPMAN, Cat. (63), p. 180.
- 1902 *Cassis areola*. VON MARTENS, Rumphius Gedenkb. (110), p. 116.
- 1909 *Cassis areola* L.. LAMY, Java (89), p. 466.
- 1910 *Cassis areola* Linné. DAUTZENBERG, Halmahera (38), p. 3.
- Not *Cassis areola*. VON MARTENS, Mauritius (105), p. 263 (= *C. decussata* (Linné)).

Obi Major, 1 specimen.

East coast of Halmahera, 1 specimen.

Previously recorded from Halmahera by DAUTZENBERG.

VON MARTENS collected specimens at Bachan.

Distribution: East Indian Archipelago: Amboina (Leyden Museum); Misol and Timor (Leyden Mus.); Java (Novara, LAMY); Tjilatjap, S. coast of Java (Leyden Mus.).

New South Wales. — Philippines (Cuming).

Subgenus *Cypræacassis* Stutchbury, 1837
 (= *Cassidea* Link, 1807;
Cypræacassis Cossmann, 1903).

118. *Cassis* (*Cypræacassis*) *rufa* (Linné).

1902 *Cassis rufa* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 115.
 Bachan (VON MARTENS).

Subgenus *Cassidea* Bruguière, 1789.

Type: *Cassis vibex* (L.), indicated by SWAINSON, 1840.

119. *Cassis* (*Cassidea*) *vibex* (Linné).

1705 *Fimbriata laevis*. RUMPHIUS (151), p. 84, pl. XXV, figs.
 E, 6, 7, 9.

1758 *Buccinum Erinaceus*. LINNÉ, Systema Naturae, edit. X
 (94), p. 736, nr. 390.

— — *Vibex*. LINNÉ, *ibid.*, p. 737, nr. 392.

1764 *Buccinum Erinaceus*. LINNÉ, Mus. Lud. Ulr. (95), p. 605,
 nr. 255.

— — *Vibex*. LINNÉ, *ibid.*, p. 606, nr. 257.

1767 *Buccinum Erinaceus*. LINNÉ, Syst. Nat. XII (96), p. 1199,
 nr. 452 (exclusive of the reference to
 SEBA, fig. 11, = *Cassis nodulosa*
 (Gmelin), = *C. torquata* (Reeve)).

— — *Vibex*. LINNÉ, *ibid.*, p. 1200, nr. 454.

1773 *Cochlis volutata achatina, etc.. Cassis fimbriata, laevis,*
undulata. MARTINI, Conch.-Cab. (122), vol. II, pp. 51—
 53, pl. XXXV, figs. 364, 365.

— *Cochlis volutata laevis, etc.. Cassis fimbriata, laevis, dorsi-*
gera. MARTINI, *ibid.*, pp. 55—56, pl. XXXV, fig. 366.

1791 *Buccinum Erinaceus*. GMELIN (56), p. 3478, nr. 34.

— — *Vibex*. GMELIN, *ibid.*, p. 3479, nr. 36.

1792 *Cassidea vibex*. BRUGUIÈRE, Encycl. méth. (49), vol. I,
 pp. 417—418, nr. 1.

1822 *Cassis vibex*. LAMARCK, An. s. vert. (85), vol. VII, p.
 228, nr. 24.

— — *erinaceus*. LAMARCK, *ibid.*, p. 229, nr. 25 (exclu-
 sive of synonyms *Cassidea erinaceus*
 Brug., and *Buccinum nodulosum* Gmelin).

1835 *Cassis vibex*, Brug.. KIENER (71), vol. VIII, *Cassis*, pp.
 22—23, nr. 12, pl. 11, figs. 20, 20, 20 a.

- 1844 *Cassis vibex* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. X, p. 38, nr. 24.
- — *erinaceus* Lamk.. DESHAYES—LAMARCK, *ibid.*, pp. 38—39, nr. 25 (exclusive of synonyms: *Cassidea erinaceus* Brug., *Buccinum nodulosum* Gmel., and *Buccinum biarmatum* Dillwyn, and of the reference to KIENER).
- 1848 *Cassis vibex*. REEVE (145), vol. V, *Cassis*, pl. VII, figs. 15 a, b, c, d.
- 1855 *Buccinum erinaceus*. HANLEY, *Ipsa* Linn. Conch. (58), pp. 246—247, 511.
- — *vibex*. HANLEY, *ibid.*, pp. 247, 511.
- 1857 *Cassis vibex* Linné. KÜSTER, *Cassis*, etc. (76), pp. 12—14, pl. 38, figs. 5, 6, 7; p. 29, pl. 47, figs. 3, 4; p. 35, pl. 50, fig. 7; p. 38, pl. 51, figs. 5, 6.
- 1869 *Casmaria vibex* L.. VON FRAUENFELD, *Nicobaren* (55), p. 862.
- 1869 *Cassis erinaceus*, L. sp.. VON MARTENS, v. d. Decken's *Reisen* (103), p. 63.
- 1870 *Semicassis (Casmaria) vibex*, Linn.. M'ANDREW, *Test. Gulf of Suez* (100), p. 437.
- 1880 *Cassis vibex* L. incl. *erinaceus* L.. VON MARTENS, *Mauritius* (105), p. 263.
- 1882 *Cassis vibex* Lin. (*Buccinum*). DUNKER, *Index Moll. maris Japon.* (48), p. 65.
- 1885 *Cassis (Casmaria) vibex*, Linn. and var. *erinacea*, Linn.. TRYON (177), vol. VII, p. 277, pl. 7, figs. 89, 90 (= REEVE, figs. 15 b, d).
- 1885 *Semicassis vibex*, L.. COOKE, *Test. moll. Gulf of Suez* (21), part I, p. 334.
- 1886 *Cassis vibex*, L.. COOKE, *Gulf of Suez in relation to other seas* (22), p. 382.
- 1893 *Cassis (Casmaria) vibex* Linné. DAUTZENBERG, *Séchelles* (32), p. 82.
- 1899 *Cassis (Casmaria) vibex*, L.. MELVILL and STANDEN, *Torres Straits* (123), p. 164, nr. 99.
- 1899 *Cassis (Casmaria) vibex* Linné and var. *erinacea* Linné. HORST et SCHEPMAN, *Cat.* (63), pp. 180—181.

- 1902 *Cassis vibex* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 116.
 — — *erinaceus* L.. VON MARTENS, *ibid.*, p. 116.
 1907 *Cassis vibex* Linné. COUTURIER, Tahiti, etc. (25), p. 148.
 1907 *Cassis vibex* Lin.. SCHEPMAN, Posttertiär Celebes (154), p. 182.
 1908 *Cassis erinaceus*, Lin.. NOBRE, Timor (128), p. 222.
 1909 — — L.. LAMY, Java (89), p. 466.
 1909 *Cassis (Casmaria) vibex* Linné and var. *erinacea* Linné. SCHEPMAN, Siboga (155), pp. 122—123, 230, nr. 4.
 1910 *Cassis vibex* Linné. DAUTZENBERG, Halmahera (38), p. 3.

Not: 1792 *Cassidea erinaceus*. BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 418—419, nr. 2 (= *Buccinum biarmatum* Dillwyn, probably plaited form of *Cassis torquata* Reeve = *Cassis nodulosa* (Gmelin)).

Not: 1835 *Cassis erinaceus*, Brug.. KIENER (71), vol. VIII, *Cassis*, pp. 23—24, nr. 13, pl. 11, figs. 21, 21, 21 a, 21 a (= *C. nodulosa* (Gmelin)).

Not: 1857 *Cassis vibex*, var.. KÜSTER, *Cassis*, etc. (76), pl. 49, figs. 5, 6 (= *C. nodulosa* (Gmelin)).

O b i M a j o r, 1 specimen of the form *erinaceus* Linné. The species has been recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago (on reefs): Amboina (Leyden Museum); Nusa-Laut-island near Amboina (Siboga); Misol (Leyden Mus.); Timor (Leyden Mus., Berlin Mus.); Dilly, Timor (NOBRE); Savu and Sumba (Siboga); Tanah-Djampeah, south of Saleyer (Siboga); Java (Novara, Berlin Mus., LAMY, Zool. Mus. Amsterdam); Sula Is. (Siboga); Borneo and Banka (Leyden Mus.).

Torres Straits (MELVILL and STANDEN). — Tonga (Leyden Mus.); Society Is.; Paumotu and Gambier Is. (COUTURIER). — Philippines (Cuming); Japan (DUNKER). — S. coast of Sinai-peninsula (M'ANDREW); Zanzibar (v. d. Decken); Seychelles (LIÉNARD, Möbius, DAUTZENBERG); Cargados (LIÉNARD); Rodri-

guez (LIÉNARD); Mauritius (KIENER, LIÉNARD, Möbius); Réunion (DESHAYES); Mayotta, Comoro Is. (Pollen and van Dam).

Fossil in the Pleistocene of the Minahassa, Northern Celebes (SCHEPMAN).

FAM. TONNIDAE.

Genus *Tonna* Brünnich, 1772

(= *Cadus* Bolten, 1798;

Dolium Lamarck, 1801).

Subgenus *Tonna* s. str.

(*Perdix* Montfort, 1810; non Brisson, 1760, *Aves*).

120. *Tonna* (*Tonna*) *canaliculata* (Linné).

- 1705 *Cochlea pennata altera*. RUMPHIUS (151), p. 91, pl. XXVII, fig. D.
- 1758 *Bulla canaliculata*. LINNÉ, *Systema Naturae*, X (94), p. 727, nr. 339 (from types, fide HANLEY; fry).
- 1764 — — LINNÉ, *Mus. Lud. Utr.* (95), p. 588, nr. 224 (fry).
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1185, nr. 384.
- 1777 *Cochlis volutata pertenuis, etc.. Dolium Ceba*. MARTINI, *Conch.-Cab.* (122), vol. III, pp. 401—403, pl. CXVII, figs. 1076, 1077.
- 1788 *Dolium marmoreum*. SCHRÖTER, *Namenregister Conch.-Cab.* (157).
- 1789 *Buccinum olearium*; [not of] Linné, BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 243—244, nr. 1.
- 1791 *Bulla canaliculata*. GMELIN (56), p. 3427, nr. 16 (fry).
- 1798 *Cadus cepa* Bolten. *Museum Boltenianum*, p. 150, nr. 1884 (for MARTINI, fig. 1076).
- 1816 *Dolium olearium*. LAMARCK, *Tableau encycl.* (49 a), pl. 403, fig. 1; *Liste des objets repr.*, p. 3; (Explanation of plates by BORY DE ST.-VINCENT, p. 170; 1827).
- 1822 *Dolium olearium*. LAMARCK, *An. s. vert.* (85), vol. VII, pp. 259—260, nr. 2.
- 1832 — — QUOY et GAIMARD, *Astrolabe* (140), vol. II, pp. 600—601, pl. 41, fig. 9.

- 1835 *Dolium olearium*, Lam.. KIENER (71), vol. VIII, *Dolium*, pp. 6—7, nr. 2, pl. 1, figs. 1, 1, 1 a.
- 1844 — — — DESHAYES—LAMARCK, An. s. vert. (86), vol. X, p. 140, nr. 2 (exclusive of the references to LINNÉ and CROUCH).
- 1849 — — — REEVE (145), vol. V, *Dolium*, pl. VIII, fig. 14.
- 1855 *Bulla canaliculata*. HANLEY, Ipsa Linn. Conch. (58), pp. 207, 503.
- 1857 *Dolium olearium* Bruguière. KÜSTER, Cassis, etc. (76), pp. 68—69, pl. 61, fig. 1.
- 1859 *Dolium cepa*, Martini. HANLEY, System. list *Dolium* (59), pp. 489—490.
- 1869 *Dolium olearium* [not of] L.. VON FRAUENFELD, Nicobaren (55), p. 860.
- 1880 — — — Brug.. VON MARTENS, Mauritius (105), p. 264.
- 1885 — — — Brug.. TRYON (177), vol. VII, p. 262, pl. 2, fig. 8.
- 1893 — — — Bruguière. DAUTZENBERG, Séchelles (32), p. 82.
- 1899 *Dolium (Dolium) olearium* Bruguière. HORST et SCHEP-MAN, Cat. (63), p. 184.
- 1902 *Dolium olearium* Brug.. VON MARTENS, Rumphius Gedenkb. (110), p. 117.
- 1908 — — — Bruguière. NOBRE, Timor (128), p. 221.
- 1909 — — — Brug.. LAMY, Java (89), p. 466.
- 1909 — — — Bruguière. SCHEPMAN, Siboga (155), pp. 125, 230, nr. 1.
- 1910 — — — Bruguière. DAUTZENBERG, Halma-hera (38), p. 3.

Not: *Buccinum olearium*. LINNÉ, Systema Naturae.

Not: *Dolium olearium*. SOWERBY, Genera (168), and REEVE, Conchologia systematica, pl. 264, fig. 1 (= *D. deshayesii* Reeve).

Not: *Dolium olearium*. CROUCH, Illustr. Lamarck Conch., pl. 19, fig. 2 (= *D. zonatum* Green).

Obi Major, 4 specimens.

The Siboga expedition collected a specimen on a reef at Laiwui, north coast of Obi Major.

The species was recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago (on reefs): Amboina and Misol (Leyden Museum); Roma-island (Siboga); Timor (NOBRE); Samau near Timor (Leyden Mus.); Rotti-island (Leyden Mus., Siboga); Flores (Leyden Mus.); Larentuka, Flores (VON MARTENS); Lombok (Siboga); Java (Novara, LAMY); Sula Is. (Siboga).

Vanikoro, Melanesia (Astrolabe). — Philippines (TRYON); Japan (Leyden Mus.); Ceylon (REEVE).

Red Sea (VON MARTENS, Leyden Mus.); Jeddah (Leyden Mus.); Zanzibar (Leyden Mus.); Mahé, Seychelles (DAUTZENBERG); Mauritius (LIÉNARD, VON MARTENS); Madagascar (SGANZIN); Nossi-Fali near Nossi-Bé (Pollen and van Dam).

As the *B. olearium* of BRUGUIÈRE is not identical with the *B. olearium* of LINNÉ, it is obvious that the species described by BRUGUIÈRE ought to bear another name.

HANLEY proposed for BRUGUIÈRE's species the name of *Dolium cepa* Martini, but, as MARTINI is not a binomial author, this name dates only from 1798 (BOLTEN). HANLEY himself¹⁾, however, states that the *Bulla canaliculata* of LINNÉ is the fry of the present species, but he did not adopt the Linnean name, „as the identity could not possibly have been discovered without an examination of the author's cabinet". As this frequently occurs with several generally adopted Linnean species, and the *Bulla canaliculata* has been published with a short diagnosis, I think the present species should bear the specific name of *canaliculata*.

121. *Tonna (Tonna) costata* (Menke).

1777 *Dolium lactescens late sulcatum*. MARTINI, Conch.-Cab. (122), vol. III, p. 390.

— *Cochlis volutata tenuis, striata umbilicata, sulcis latioribus, etc.. Dolium late sulcatum*. MARTINI, *ibid.*, pp. 396—397, pl. CXVI, fig. 1072; pl. CXVIII, fig. 1082.

¹⁾ Systematic list of the species of *Dolium*, p. 489. In 1855 (Ipsa Linnaei Conchylia) HANLEY did not yet recognize the *Bulla canaliculata* of LINNÉ.

- 1788 *Dolium lactescens*. SCHRÖTER, Namenregister Conch.-Cab. (157), p. 30 (abridged from *D. lactescens late sulcatum*, MARTINI, vol. III).
- 1789 *Buccinum dolium* (in partl. BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 246—247, nr. 4.
- 1817 *Buccinum dolium*, var. B (as *B. allium* of Solander). DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 585.
- 1830 *Dolium costatum*. MENKE, Synopsis methodica Molluscorum, Editio altera, Appendix.
- 1835 *Dolium fasciatum*, Lam., v a r . . KIENER (71), vol. VIII, *Dolium*, p. 12, pl. 4, figs. 6, 6.
- 1844 *Dolium costatum* Desh.. DESHAYES in DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 144—145, nr. 8.
- 1849 — — REEVE (145), vol. V, *Dolium*, pl. V, fig. 8.
- 1857 — — Menke. KÜSTER, Cassis, etc. (76), pp. 61—62, pl. 56, fig. 3; pl. 57, fig. 3.
- 1859 *Dolium latesulcatum*, Martini. HANLEY, Syst. list *Dolium* (59), p. 489.
- 1880 *Dolium costatum* Menke. VON MARTENS, Mauritius (105), p. 264.
- 1885 — — , Menke. TRYON (177), vol. VII, pp. 263—264, pl. 4, figs. 19, 20.
- 1893 — — Menke. DAUTZENBERG, Séchelles (32), p. 82.
- 1899 *Dolium lactescens* Martyn (sic). HORST et SCHEPMAN, Cat. (63), p. 185.
- 1899 *Dolium (s. str.) costatum* Desh.. K. MARTIN, Foss. v. Java (120), p. 161, pl. XXV, figs. 371 a, b, 372, 373.
- 1907 *Dolium costatum* Desh.. SCHEPMAN, Posttertiär Celebes (154), p. 182.
- 1908 *Dolium costatum*, Menke. NOBRE, Timor (128), p. 221.
- 1909 — — Menke. SCHEPMAN, Siboga (155), p. 125, nr. 2.
- 1910 — — Deshayes. DAUTZENBERG, Halmahe-ra (38), p. 3.

- 1911 *Dolium* (s. str.) *costatum* Desh.. H. MARTIN—ICKE, Trinil (121), p. 47.
- 1915 *Dolium costatum* Desh.. STAUB, Sangkulirangbai (169), p. 125.
- 1919 *Dolium costatum* Desh.. K. MARTIN, Palaeozool. Kenntn. v. Java (119), pp. 89, 123, 132, 141.
- 1920 *Dolium costatum* Menke. TESCH, Timor (175), II, p. 45, nr. 120, pl. CXXIX, fig. 159.

Obi Major, 1 specimen.

This species has been recorded from Halmahera by DAUTZENBERG; a specimen from Bachan, collected by Dr. Bernstein, is in the Leyden Museum.

Distribution: East Indian Archipelago: Amboina and Misol (Leyden Mus.); Timor (Leyden Mus., NOBRE); Sumbawa (Siboga); Badjoa, Southern Celebes (Leyden Mus.); Talaut Is., N. E. of Celebes (Siboga); Sangkulirang-bay (not rare on a muddy shore) and north of mouth of river Sambodja, E. Borneo (STAUB); Banka and Sumatra (Leyden Mus.).

Philippines (Cuming); Japan (von Siebold). — East African coasts (VON MARTENS); Mahé, Seychelles (DAUTZENBERG); Mauritius (Robillard).

Fossil in the Pliocene of Timor and of Java (Sondé, Residency Madiun; Waled, Resid. Cheribon; Tji Mantjeurih, Resid. Bantam). Pleistocene of Northern Celebes (Minahassa) (SCHEPMAN).

TRYON unites with the present species: *D. maculatum* Lam., *D. fimbriatum* Sow. (= *Tonna tessellata* (Lamarck)), and *D. lischkeanum* Küster. Though he may be right, the limited material at my disposal does not allow me at present to follow his views. I could always distinguish without any difficulty adult specimens of *Tonna tessellata* (= *fimbriata*) from those of *T. costata*.

122. *Tonna* (*Tonna*) *tessellata* (Lamarck).

- 1705 *Cochlea striata sive olearia*, Bia minjac. RUMPHIUS (151), p. 90, pl. XXVII, fig. A.
- 1764 *Buccinum dolium*. LINNÉ, Mus. Lud. Ulr. (95), p. 601 [fide HANLEY, 1859; not of *Systema Naturae*].
- 1798 *Cadus cassis* Bolten. Museum Boltenianum, p. 150, nr. 1885 [teste MÖRCH (wholly undefined)].

- 1816 *Dolium tessellatum*. LAMARCK, Tableau encycl. (49 a), pl. 403, figs. 3 a, b; Liste des objets repr., p. 3; (*Dolium tessellatum*. *D. maculatum* Lamk. in the Explanation of plates by BORY DE ST.-VINCENT, p. 170; 1827).
- 1823 *Buccinum dolium*. MAWE, The Linnæan system of Conchology, pl. 24, fig. 3.
- 1827 *Dolium fimbriatum*. SOWERBY, Genera (168), *Dolium*, fig. 2.
- 1842 — — REEVE, Conchologia systematica, vol. II, p. 229, pl. 264, fig. 2.
- 1844 *Dolium minjac*. DESHAYES in DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 145—146, nr. 9.
- 1848 *Dolium fimbriatum*. REEVE (145), vol. V, *Dolium*, pl. III, fig. 3 b [not 3 a = *Dolium reevei* Hanley].
- 1857 *Dolium fimbriatum* Sowerby. KÜSTER, Cassis, etc. (76), pp. 72—73, pl. 62, fig. 2.
- 1859 *Dolium fimbriatum*, Sowerby. HANLEY, Syst. list *Dolium* (59), pp. 491—492.
- 1869 *Dolium fimbriatum* Sow.. VON FRAUENFELD, Nicobarren (55), pp. 860, 892.
- 1882 *Dolium tessellatum* Lamarck. DUNKER, Index Moll. maris Japon. (48), p. 57.
- 1885 *Dolium costatum*, Menke, var. *fimbriatum*, Sowerby. TRYON (177), vol. VII, p. 264, pl. 4, fig. 22 (= REEVE, Conch. Icon., fig. 3 b).
- 1899 *Dolium tessellatum* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 185.
- 1902 *Dolium fimbriatum* Sow.. VON MARTENS, Rumphius Gedenkb. (110), p. 117.
- 1908 *Dolium fimbriatum*, Sowerby. NOBRE, Timor (128), pp. 220—221.
- 1909 — — Sow.. LAMY, Java (89), p. 466.
- 1910 — — Sowerby. DAUTZENBERG, Halmahera (38), p. 3.

Obi Major, 2 specimens.

East coast of Halmahera, 4 specimens.

One of the shells from Obi Major is very young and not quite typical, as it approaches *T. costata* owing to the greater distance between the first and second rib, for the rest, however, it agrees sufficiently with adult specimens of *T. tessellata* (= *fimbriata*). The species has been previously recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago: Amboina and Misol (Leyden Mus.); Dilly, Timor (NOBRE); Java (Junghuhn, Novara, LAMY); Palabuan, Wijnkoopsbay, Java (VON MARTENS).

Philippines (Cuming); Japan (DUNKER).

In 1822, in his „Animaux sans vertèbres”, LAMARCK united the present species with his *Dolium maculatum*. In 1816, however, he had applied the name of *Dolium tessellatum* to the figures 3 a, b on plate 403 of the Encyclopédie Méthodique which clearly represent our present species.

In accordance with the present international rules *D. tessellatum* Lamarck, published with a very good figure, though without description, will take precedence of SOWERBY's name *fimbriatum*.

123. *Tonna (Tonna) perdis* (Linné).

1685 *Buccinum ampullaceum, brevirostrum, striatum, fuscum, etc.* LISTER, Historia Conchyliorum, [pl. 984], fig. 43.

1705 *Cochlea pennata*, Patryzen. RÜMPHIUS (151), p. 90, pl. XXVII, fig. C.

1757 Le Tesan. ADANSON, Histoire naturelle du Sénégal, Coquillages, p. 107, pl. 7, fig. 5.

1758 *Buccinum Perdis*. LINNÉ, Systema Naturae, X (94), p. 734, nr. 378.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 600, nr. 244.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1197, nr. 440.

1777 *Cochlis volutata tenuis, globosa, etc.. Dolium Perdis*. MARTINI, Conch.-Cab. (122), vol. III, pp. 403—406, pl. CXVII, figs. 1079, 1078.

1789 *Buccinum perdis*; Linné. BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 245—246, nr. 3.

- 1791 *Buccinum Perdix*. GMELIN (56), p. 3470, nr. 3.
- 1798 *Cadus perdix* Bolten. Museum Boltenianum, p. 150, nr. 1880.
- — *meleagris* Bolten. Mus. Bolt., p. 150, nr. 1882.
- — *coturnix* Bolten. Mus. Bolt., p. 150, nr. 1883.
- 1810 *Perdix reticulatus*. MONTFORT, Conchyliologie systématique, vol. II, p. 447.
- 1817 *Dolium Perdix*. SCHUMACHER, Nouv. syst. (158), p. 209.
- 1817 *Buccinum perdix*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 583, nr. 3.
- 1818 — — WOOD, Index Testaceologicus, p. 110, pl. XXII, fig. 3.
- 1822 *Dolium perdix*. LAMARCK, An. s. vert. (85), vol. VII, pp. 261—262, nr. 7.
- 1829 *Dolium perdix*. DE BLAINVILLE in Dict. d. Sciences nat. (45), vol. LIV, pp. 502—503.
- — *rufum*. DE BLAINVILLE, ibid., p. 503.
- 1832 *Dolium perdix*. QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 598—600, pl. 41, figs. 1—8.
- 1835 *Dolium perdix*, Lamk., KIENER (71), vol. VIII, Dolium, pp. 4—5, nr. 1, pl. 5, figs. 9, 9.
- 1836-'44 *Dolium perdix*. D'ORBIGNY, Mollusques, . . . recueil-
lis aux Îles Canaries in: WEBB et
BERTHELOT, Histoire naturelle des
Îles Canaries, vol. II, part 2, Zoologie,
p. 89, nr. 132.
- 1844 *Dolium perdix* Lamk., DESHAYES—LAMARCK, An. s.
vert. (86), vol. X, p. 144, nr. 7.
- 1849 *Dolium perdix*. REEVE (145), vol. V, Dolium, pl. VI, fig. 9.
- 1852 *Dolium pennatum* Mart., MÖRCH, Yoldi Cat. (125), I, p.
110 (for MARTINI, fig. 1078).
- 1855 *Buccinum perdix*. HANLEY, Ipsa Linn. Conch. (58), pp.
240, 510.
- 1857 *Dolium perdix* Linné. KÜSTER, Cassis, etc. (76), pp. 69—
71, pl. 61, fig. 2.
- 1859 *Dolium perdix*, Linnaeus. HANLEY, Syst. list Dolium (59),
p. 492.

- 1859 *Dolium pennatum*, Mörch. HANLEY, *ibid.*, p. 493.
- 1869 *Dolium perdix* L.. VON FRAUENFELD, Nicobaren (55), pp. 861, 892.
- 1876 *Dolium perdix*, Lamk.. BOOG WATSON, Webb's shells from the Canaries (181), p. 519.
- 1880 *Dolium perdix* L.. VON MARTENS, Mauritius (105), p. 264.
- 1882 — — Lin. (*Buccinum*). DUNKER, Index Moll. maris Japon. (48), p. 58.
- 1885 *Dolium perdix* (Linne). BOOG WATSON, Challenger Gasterop. (182), p. 412.
- 1885 — — Linn.. TRYON (177), vol. VII, pp. 264—265, pl. 3, fig. 15; pl. 4, figs. 23—25.
- 1893 *Dolium (Perdix) perdix* Linné, et var. *concolor*. DAUTZENBERG, Séchelles(32), p. 82.
- 1899 *Dolium perdix*, L.. MELVILL and STANDEN, Torres Straits (123), p. 164, nr. 101.
- 1899 *Dolium (Perdix) perdix* Linné, HORST et SCHEPMAN, Cat. (63), p. 186.
- 1900 *Dolium (Perdix) perdix*, Linnaeus. BULLEN NEWTON, Raised beaches Red Sea (127), p. 510.
- 1902 *Dolium perdix* L.. VON MARTENS, Rumphius Gedenk. (110), p. 117.
- 1903 — — — STURANY, Gastr. d. Rothen Meeres (171), pp. 255, 276—277.
- 1907 — — Linné. COUTURIER, Tahiti, etc. (25), p. 149.
- 1908 *Dolium perdix* (sic), Lin.. NOBRE, Timor (128), p. 221.
- 1909 *Dolium perdix* L.. LAMY, Java (89), p. 466.
- 1909 — — Linné. SCHEPMAN, Siboga (155), p. 230, nr. 3 a.
- 1916 *Dolium perdix* L.. CAES. BOETTGER, Hanseatische Südsee-Expedition (11), p. 302.

Obi Major, 1 specimen.

East coast of Halmahera, 1 specimen.

Distribution: East Indian Archipelago (on reefs): Amboina (Leyden Museum); Lucipara-island (Siboga); Waigeu (Leyden Mus.);

Timor (Leyden Mus., NOBRE); Rotti-island (Leyden Mus.); Java (LAMY); Sula Is. (Siboga); Banka (Leyden Mus.).

Torres Straits (MELVILL and STANDEN); Melanesia: Admiralty Is. (Challenger), Nissan, Solomon Is. and Santa Cruz Is. (Hanseatic Pacific exped.), Vanikoro (Astrolabe); Polynesia: Paumotu and Gambier Is. (COUTURIER). — Japan (von Siebold).

Gulf of Aden; Red Sea and Gulf of Akabah (Pola); East African coasts (VON MARTENS); Seychelles (DAUTZENBERG); Cargados (LIÉNARD); Rodriguez (Robillard); Mauritius (LIÉNARD, Möbius); Réunion (DESHAYES); Madagascar (SGANZIN).

Senegal (ADANSON); Canaries (D'ORBIGNY).

West Indies: Jamaica (LISTER); Haiti, St. Thomas, Aruba-island and Curaçao (Leyden Museum). — Brazil.

The habitat Chile (VON FRAUENFELD) is without doubt incorrect.

Fossil: Beach deposits on the western shores of the Red Sea (GRAY & FREMBLEY), and on the western shore of the Gulf of Akabah (BULLEN NEWTON).

Subgenus *Malea* Valenciennes, 1833

(= *Cadium* H. and A. Adams, 1853).

124. *Tonna (Malea) pomum* (Linné).

1705 *Cochlea striata altera*. RUMPHIUS (151), p. 90, pl. XXVII, fig. B (figure not characteristic).

— SCHYNVOET in RUMPHIUS (151), p. 81, pl. XXIII, fig. 4.

1757 *Tonne*. D'ARGENVILLE (4), part 1, pl. 17, fig. L.

1758 *Buccinum Pomum*. LINNÉ, *Systema Naturae*, edit. X (94), p. 735, nr. 379.

1764 — — LINNÉ, *Mus. Lud. Utr.* (95), p. 600, nr. 245.

1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1197, nr. 441.

1773 *Cochlis volutata, ventricosa, etc.. Cassis labrosa, costis maculatis*. MARTINI, *Conch.-Cab.* (122), vol. II, pp. 58—61, pl. XXXVI, figs. 370—371.

1789 *Buccinum pomum*; Linné. BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 247—248, nr. 6.

1791 *Buccinum Pomum*. GMELIN (56), p. 3470, nr. 4 and var. β .

1798 *Cadus pomum* Bolten. *Museum Boltenianum*, p. 151, nr. 1894.

- 1816 *Dolium pomum*. LAMARCK, Tableau encycl. (49 a), pl. 403, figs. 2 a, b; Liste des objets repr., p. 3; (Explanation of plates by BORY DE ST.-VINCENT, p. 170; 1827).
- 1822 *Dolium pomum*. LAMARCK, An. s. vert. (85), vol. VII, p. 261, nr. 5.
- 1832 — , — QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 601—602, pl. 41, figs. 10, 11.
- 1835 — — , Lam., KIENER (71), vol. VIII, *Dolium*, pp. 12—13, nr. 7, pl. 5, figs. 8, 8.
- 1844 — — DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 142—143, nr. 5.
- 1848 — — REEVE (145), vol. V, *Dolium*, pl. IV, figs. 6 a, b.
- 1855 *Buccinum pomum*. HANLEY, Ipsa Linn. Conch. (58), pp. 240, 510.
- 1857 *Dolium pomum* Linné, KÜSTER, Cassis, etc. (76), pp. 63—64, pl. 56, figs. 5, 6.
- 1859 *Malea pomum*, Linné, CHENU, Manuel (19), vol. I, p. 211, fig. 1146.
- 1869 *Cadium pomum* L., VON FRAUENFELD, Nicobaren (55), pp. 861, 893.
- 1870 — — , Linn., M'ANDREW, Test. Gulf of Suez (100), p. 437.
- 1880 *Dolium (Malea) pomum* L., VON MARTENS, Mauritius (105), p. 264.
- 1882 — (*Cadium*) *pomum* Lin. (*Buccinum*). DUNKER, Index Moll. maris Japon. (48), p. 58.
- 1884 — (*Malea*) *pomum*, Linné, E. A. SMITH, Alert (160), p. 499, nr. 57.
- 1885 — (—) — , Linn., TRYON (177), vol. VII, p. 265, pl. 5, fig. 26.
- 1885 *Cadium (Malea) pomum*, L., COOKE, Test. moll. Gulf of Suez (21), part. I, p. 333.
- 1893 *Dolium (Malea) pomum* Linné, DAUTZENBERG, Séchelles (32), p. 82.

- 1899 *Dolium (Malea) pomum*, L.. MELVILL and STANDEN, Torres Straits (123), p. 164, nr. 103.
- 1899 — (—) — Linné. HORST et SCHEPMAN, Cat. (63), p. 186.
- 1902 — (—) — L.. VON MARTENS, Rumphius Gedenkb. (110), pp. 117, 116.
- 1903 — (—) — L.. STURANY, Gastr. d. Rothen Meeres (171), pp. 255, 276—277.
- 1907 *Malea pomum* Linné. COUTURIER, Tahiti, etc. (25), p. 149.
- 1908 *Dolium (Malea) pomum* L.. O. BOETTGER, Liste tert. u. jüng. Verstein. (14), p. 671, nr. 46.
- 1908 *Malea pomum*, (Lin.). NOBRE, Timor (128), p. 221.
- 1909 *Dolium (Malea) pomum* L.. LAMY, Java (89), p. 466.
- 1909 — (—) — Linné. SCHEPMAN, Siboga (155), pp. 125—126, 230, nr. 4.
- 1910 *Malea pomum* Linné. DAUTZENBERG, Halmahera (38), p. 3.

Obi Major, 1 specimen.

A specimen from Laiwui at the North coast of Obi Major was collected by the Siboga expedition. The species has been recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago (on reefs): Amboina (Leyden Museum); Soweik near New Guinea and Misol (Leyden Mus.); Timor (Leyden Mus., NOBRE); Java (LINNÉ, Novara, LAMY); Talaut Is. and Sula Is. near Celebes (Siboga).

Torres Straits (MELVILL and STANDEN). — Polynesia: Tonga (Astrolabe), Society Is. (Cuming), Oeno-island east of Gambier Is. (COUTURIER).

Philippines (Cuming); Manila (Novara); Japan (DUNKER); Singapore (Leyden Mus.); Nicobar Is. (Novara); Ceylon (KIENER, Novara).

Red Sea (Leyden Mus., STURANY); Gulf of Akabah and Gulf of Suez (STURANY); Ras Mahommed, Sinai-peninsula (M'ANDREW); East African coasts (VON MARTENS); Mahé, Seychelles (DAUTZENBERG); Cargados (LIÉNARD); Mauritius (LIÉNARD); Réunion (DESHAYES); Madagascar (SGANZIN); Glorioso Is., on reefs (Alert).

Fossil in the Pleistocene of Timor (O. BOETTGER).

Genus *Ficus* Bolten, 1798
 (= *Pyrula* Lamarck, 1799;
Pirula Montfort, 1810;
Ficula Swainson, 1840).
 Type: *Bulla ficus* Linné.

125. *Ficus ficus* (Linné).

- 1758 *Murex Ficus*. LINNÉ, Syst. Nat. X (94), p. 752.
 1767 *Bulla Ficus*. LINNÉ, Syst. Nat. XII (96), p. 1184.
 1791 — — GMELIN, Syst. Nat. XIII (56), p. 3426, nr. 14.
 1840 *Pyrula ficus*, Lam., KIENER (71), vol. VI, *Pyrula*, pp. 30—31, nr. 21,
 pl. 13, figs. 1, 1.
 1847 *Ficula laevigata*. REEVE (145), vol. IV, *Ficula*, pl. I, fig. 4.
 1874 *Ficula ficus* Linné, KOBELT, *Pyrula* u. *Fusus* (73), pp. 8—9, nr. 2,
 pl. 1, figs. 2, 3; pl. 24, figs. 6, 7.
 1899 *Pirula ficus* Linné. HORST et SCHEPMAN, Cat. (63), p. 187.

Obi Is. (Bernstein, Leyden Mus.).

Distribution: East Indian Archipelago: Amboina; Celebes; Banka; Sumatra.

FAM. CYMATIDAE.

Genus *Septa* Perry, 1811

(= *Triton* Montfort, 1810; not of Linné, 1758;

Tritonium Link, 1807; not of Müller, 1776;

Eutritonium Cossmann, 1904).

Type: *S. rubicunda* Perry (= *Triton nodifer* Lamarck).

126. *Septa tritonis* (Linné).

- 1767 *Murex Tritonis*. LINNÉ, Syst. Nat. XII (96), p. 1222.
 1844 *Triton variegatus*. REEVE (145), vol. II, *Triton*, pl. II, fig. 3 b.
 1910 *Cymatium Tritonis* Linné (= *variegatum* Lamarck). DAUTZENBERG,
 Halmahera (38), p. 2.
 Halmahera (recorded by DAUTZENBERG).

127. *Septa nodifera* (Lamarck).

- 1822 *Triton nodiferum*. LAMARCK, An. s. vert. (85), vol. VII, p. 179, nr. 2.
 1844 *Triton nodiferus*. REEVE (145), vol. II, *Triton*, pl. III, fig. 9.
 — — *Sauliae*. REEVE, *ibid.*, pl. V, figs. 17 a, b.
 1871 *Triton Sauliae* Reeve. KOBELT, *Murex*, *Tritonium*, etc. (80), pp. 171—
 172, nr. 13.
 — — *nodiferus* Lamarck. KOBELT, *ibid.*, pp. 177—178, nr. 17, pl. 51.
 1894 *Triton (Triton) nodiferus* Lamarck and var. *sauliae* Reeve. HORST et
 SCHEPMAN, Cat. (63), p. 164.

Bachan [Leyden Museum].

Distribution: Philippines; Southern Japan; Mauritius; Natal. — Senegal
 to Brittany; Mediterranean.

Genus *Cymatium* Bolten, 1798
 (= *Lotorium* Montfort, 1810;
Currus Lesson, 1842;
Luterium Herrmannsen, 1847).

128. *Cymatium pyrum* (Linné).

- 1876 *Triton pyrum* Linné. KOBELT, *Murex, Tritonium, etc.* (80), pp. 211—212, nr. 52, pl. 59, figs. 4, 5.
 1902 *Tritonium pyrum* L.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 116.
 1923 *Cymatium pyrum* Linné sp.. OOSTINGH, *Java* (129), p. 109, nr. 79
 (with synonymy and distribution).
 Bachan (collected by VON MARTENS).

129. *Cymatium (Lampusia) aquatile* (Reeve.)

- 1844 *Triton aquatilis*. REEVE (145), vol. II, *Triton*, pl. VII, fig. 24.
 1871 — — Reeve. KOBELT, *Murex, Tritonium, etc.* (80), p. 162,
 nr. 3, pl. 42, figs. 7, 8.
 1894 *Triton (Simpulum) aquatilis* Reeve. HORST et SCHEPMAN, *Cat.* (63),
 p. 166.

Northern Halmahera (Bernstein, Leyden Museum).

130. *Cymatium (Lampusia) rubecula* (Linné).

- 1871 *Triton rubecula* Linné. KOBELT, *Murex, Tritonium, etc.* (80), pp. 159—161, nr. 1, pl. 41, figs. 3—11.
 1910 *Cymatium rubecula* Linné. DAUTZENBERG, *Halmahera* (38), p. 2.
 Halmahera (recorded by DAUTZENBERG).

Genus *Distorsio* Bolten, 1798

(= *Distortrix* Link, 1807; *Persona* Montfort, 1810;
Distorta Schumacher, 1817).

Type: *Murex anus* Linné.

131. *Distorsio anus* (Linné).

- 1705 *Haairige ooren*. RUMPHIUS (151), p. 82, pl. XXIV, fig. F.
 1757 *La grimace*. D'ARGENVILLE (4), part I, p. 224, pl. 9,
 fig. H.
 1758 *Murex Anus*. LINNÉ, *Systema Naturae*, edit. X (94), p.
 750, nr. 463.
 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 632, nr. 304.
 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1218, nr. 539.
 1773 *Cochlis volutata gibba, etc.. Cassis vera. Distorsio fasciata*.
 MARTINI, *Conch.-Cab.* (122), vol. II, pp. 81—84, pl. XLI,
 figs. 403—404.

- 1791 *Murex Anus*. GMELIN (56), p. 3536, nr. 38 (exclusive of var. β).
- 1798 *Distorsio anus* Bolten. Museum Boltenianum, p. 133, nr. 1673.
- 1816 *Triton anus*. LAMARCK, Tableau encycl. (49 a), pl. 413, figs. 3 a, b; Liste des objets repr., p. 4; (Explanation of plates by BORY DE ST.-VINCENT, p. 171; 1827).
- 1817 *Distorta rugosa*. SCHUMACHER, Nouv. syst. (158), p. 249.
- 1822 *Triton anus*. LAMARCK, An. s. vert. (85), vol. VII, p. 186, nr. 21.
- 1828 *Triton Anus*. SOWERBY, Genera (168), Triton, fig. 2.
- 1832 *Triton anus*. DESHAYES, Encycl. méth. (49), vol. III, p. 1060, nr. 14.
- 1832 — — QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 544—546, pl. 40, figs. 6—10.
- 1842 — — REEVE, Conchologia systematica, vol. II, p. 198, pl. 44, fig. 2.
- 1842 — — Lamk. KIENER (71), vol. VII, Triton, pp. 22—23, nr. 17, pl. 15, figs. 1, 1.
- 1843 — — Lamk. DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, pp. 636—637, nr. 21.
- 1844 — — REEVE (145), vol. II, Triton, pl. XII, fig. 44.
- 1855 *Murex anus*. HANLEY, Ipsa Linn. Conch. (58), pp. 292, 522.
- 1859 *Persona anus*, Lamarck. CHENU, Manuel (19), vol. I, p. 154, fig. 708 (on p. 155).
- 1869 *Distorsio anus* L. VON FRAUENFELD, Nicobaren (55), p. 855.
- 1870 *Distortio* (sic!) *anus*, Linn. M'ANDREW, Test. Gulf of Suez (100), p. 434.
- 1872 *Triton anus* Linné. KOBELT, Murex, etc. in Conch.-Cab. (80), pp. 198—200, nr. 39, pl. 57, figs. 1, 2.
- 1880 *Tritonium (Persona) anus* L. VON MARTENS, Mauritius (105), p. 267.
- 1881 *Distorsio anus*, Linn. TRYON (177), vol. III, p. 35, pl. 17, figs. 173, 174; pl. 15, fig. 153 (= QUOY et GAIMARD, Astrolabe, figs. 6, 8, 7).

- 1885 *Distortio* (sic!) *anus*, L.. COOKE, Test. moll. Gulf of Suez (21), part I, p. 333.
- 1893 *Persona anus* Linné. DAUTZENBERG, Séchelles (32), p. 81.
- 1894 *Persona anus* Linné. HORST et SCHEPMAN, Cat. (63), p. 171.
- 1902 *Tritonium* (*Persona*) *anus* L., VON MARTENS, Rumphius Gedenkb. (110), p. 116.
- 1903 *Distorsio anus* L.. STURANY, Gastr. d. Rothen Meeres (171), pp. 240, 270.
- 1907 *Eutriton* (*Persona*) *anus* Linné. COUTURIER, Tahiti, etc. (25), p. 147.
- 1908 *Distorsio anus*, (Lin.). NOBRE, Timor (128), p. 208.
- 1909 *Distortrix anus* Linné. SCHEPMAN, Siboga (155), p. 113.
- 1910 *Distorsio anus* Linné. DAUTZENBERG, Halmahera (38), p. 3.
- 1923 *Distorsio anus* L.. HENRICH, Sinaihalbinsel (60), p. 73.

Obi Major, 1 specimen.

Recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago: Ceram (Leyden Museum); Amboina (RUMPHIUS, Leyden Mus., VON MARTENS); Nusa-Laut-island near Amboina (Siboga); Banda (Siboga); Misol (Leyden Mus.); Doreh, New Guinea (Astrolabe); Timor (Leyden Mus., NOBRE); Larentuka, Flores (Leyden Mus., VON MARTENS); Java (Novara); Tjilatjap, S. coast of Java (Leyden Mus.); Gorontalo, Northern Celebes (Leyden Mus.); Banka (Leyden Mus.).

Society Is. (Cuming); Paumotu, on a reef (COUTURIER). — Philippines (Cuming); Pulo Kondor near Cochin China (PETIVER); Nicobar Is. (Novara); Ceylon (REEVE).

Red Sea (Leyden Mus.); Gulf of Akabah; Ras Mohammed (HENRICH); Gulf of Suez (M'ANDREW); East African coasts (VON MARTENS); Seychelles (LIÉNARD, Möbius, DAUTZENBERG); Mauritius (LIÉNARD); Réunion (DESHAYES); Madagascar (SGANZIN).

I cannot follow Dr. DALL (28) in applying the name *Distortrix* Link, 1807, to this group, instead of *Distorsio* Bolten, 1798. BOLTEN's genus *Distorsio* embraces two groups: 1°. *Caudatae*, containing *Murex anus* Gmelin, and allied species; and, 2°. *Truncatae*, including *Nassas* of the group of *N. arcularia*. In 1799

LAMARCK established his genus *Nassa* (type: *Buccinum mutabile* L.); in 1801 he indicated *Buccinum arcularia* L. as the type. At all events the second group of *Distorsio* Bolten is included by LAMARCK in his genus *Nassa*, thus leaving *Murex anus* and its allies to bear BOLTEN's name of *Distorsio*. Consequently I have indicated *Murex anus* Linné as the type of *Distorsio* Bolten. *Distortrix* Link, 1807 (type: *Murex anus* L.) is a posterior synonym of *Distorsio* Bolten (*pars*).

Genus *Gyrineum* Link, 1807

(= *Apollon* Montfort, 1810;

Apollo P. Fischer, 1884).

Type: *Murex gyrinus* Linné.

132. *Gyrineum pusillum* (Broderip).

1844 *Ranella pusilla*. REEVE (145), vol. II, *Ranella*, pl. VIII, figs. 44 a, b.

1909 *Gyrineum pusillum* Broderip. SCHEPMAN, *Siboga* (155), p. 115, nr. 4.

North of Salomakiëe-island, coral bottom and Lithothamnion (Siboga exp.).

Distribution: East Indian Archipelago: Near Waigeu and Salawatti; Kei Is.; Timor; Paternoster-islands; Sumbawa; Lombok; Java; Buton.

Torres Straits; Polynesia. — Philippines.

Genus *Bursa* Bolten, 1798.

Section *Ranella* Lamarck, 1816 (Tableau encyclop.).

133. *Bursa (Ranella) tuberosissima* (Reeve).

1844 *Ranella tuberosissima*. REEVE (145), vol. II, *Ranella*, pl. VII, fig. 39.

1871 — — — — — Reeve. KOBELT, *Murex, Ranella*, etc. (80), p. 157, nr. 37, pl. 47, figs. 1, 2.

1909 *Bursa (Ranella) tuberosissima* Reeve. SCHEPMAN, *Siboga* (155), pp. 118—119, nr. 8.

Salomakiëe-island, 45 M., coral-bottom and Lithothamnion (Siboga exp.).

Section *Colubrellina* P. Fischer, 1884

(= *Colubraria* Jousseaume, 1881; *non* Schumacher, 1817).

134. *Bursa (Colubrellina) granifera* (Lamarck).

1894 *Ranella (Ranella) granifera* Lamarck. HORST et SCHEPMAN, *Cat.* (63), p. 173.

Bachan (Bernstein, Leyden Museum).

Subgenus *Bufonaria* Schumacher, 1817

(= *Lampas* Schumacher, 1817; *non* Montfort, 1808;

Tutufa Jousseaume, 1881).

135. *Bursa (Bufonaria) lampas* (Linné).

1758 *Murex Lampas*. LINNÉ, *Syst. Nat.* X (94), p. 748, nr. 454.

1871 *Triton lampas* Linné. KOBELT, *Murex, Ranella, Tritonium*, etc. (80), pp. 175—177, nr. 16, pl. 47, figs. 3, 4; pl. 40, figs. 7, 8.

1894 *Ranella (Lampas) lampas* Linné. HORST et SCHEPMAN, Cat. (63), p. 175.

Northern Halmahera (Bernstein, Leyden Mus.).

FAM. EULIMIDAE.

136. *Mucronalia eburnea* (Deshayes).

1897 *Mucronalia eburnea* Deshayes. W. KÜKENTHAL, Parasit. Schnecken (193), pp. 1—5, pl. I, figs. 1—3.

Ternate, parasitic on *Acroladia (Echinoidea)* (collected by KÜKENTHAL).

FAM. COLUMBELLIDAE.

137. *Columbella versicolor* G. B. Sowerby I.

1894 *Columbella (Columbella) versicolor* Sowerby. HORST et SCHEPMAN, Cat. (63), p. 126.

Halmahera (Bernstein, Leyden Museum).

138. *Pyrene (?) perplexa* (Schepman).

1911 *Columbella (Mitrella) ligula* Duclos. SCHEPMAN, Siboga (155), p. 331, 337—338, nr. 22, pl. XX, figs. 12 a, b.

North of Salomakiëe-island, 45 M., coral-bottom and Lithothamnion (Siboga exp.).

The systematic position of this species is uncertain.

139. *Pyrene (Mitrella) ligula* (Duclos).

1911 *Columbella (Mitrella) ligula* Duclos. SCHEPMAN, Siboga (155), p. 331, nr. 7.

North of Salomakiëe-island, reef (Siboga exp.).

140. *Pyrene (Atilia) conspersa* (Gaskoin).

1911 *Columbella (Atilia) conspersa* Gaskoin, vars. *nodosa* n. var., and *puella* Reeve. SCHEPMAN, Siboga (155), pp. 334—335, nr. 14, pl. XX, figs. 10 a, b (var. *nodosa*).

North of Salomakiëe-island, 45 M., coral-bottom and Lithothamnion; var. *nodosa* Schepm. (Siboga exp.).

Laiwui, Obi Major, 23 M., mud; var. *puella* Reeve (Siboga exp.).

FAM. MURICIDAE.

Genus *Murex* Linné, 1758.

Subgenus *Murex* s. str..

141. *Murex (Murex) haustellum* Linné.

1856 *Murex haustellum* Linné. KÜSTER, *Murex*, *Tritonium*, etc. (80), pp. 35—36, nr. 28, pl. 14, fig. 3.

1910 — — Linné. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

142. *Murex (Murex) tenuispina* Lamarck.

- 1856 *Murex tenuispina* Lamarck. KÜSTER, *Murex, Tritonium, etc.* (80), pp. 27—28, nr. 19, pl. 11, fig. 3; pl. 20, fig. 3.
 1910 — — — DAUTZENBERG, *Halmahera* (38), p. 2.
Halmahera (recorded by DAUTZENBERG).

143. *Murex (Murex) ternispina* Lamarck.

- 1822 *Murex ternispina*. LAMARCK, *An. s. vert.* (85), vol. VII, p. 158, nr. 6.
 1832 *Murex tenuispina* [not of Lamarck]. QUOY et GAIMARD, *Astrolabe* (140), vol. II, pp. 528—529, pl. 36, figs. 3, 4.
 1841 *Murex ternispina*. SOWERBY, *The Conchological Illustrations*, nr. 2, fig. 110.
 1843 *Murex ternispina* Lamk. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. IX, p. 567, nr. 6 (exclusive of the reference to KIENER).
 1845 — — REEVE (145), vol. III, *Murex*, species 76, pl. XVIII, fig. 73; pl. XIX, fig. 76.
 1868 — — Lamarck. KOBELT, *Murex, etc. in Conch.-Cab.* (80), pp. 57—58, nr. 52, [?pl. 22, fig. 3].
 1869 — — Lk. VON FRAUENFELD, *Nicobaren* (55), pp. 854, 888.
 1869 — — Lamarck, ISSEL, *Mar Rosso* (65), p. 137, nr. 299.
 1874 — — Lamarck. TAPPARONE—CANEFRI, *Magenta* (173), pp. 115—116.
 1877 *Murex (Tribulus) ternispina*. KOBELT in: *Jahrbuch der deutschen malakozoologischen Gesellschaft*, vol. IV, p. 145.
 1879 *Murex ternispina*, Lamarck. SOWERBY, *Thesaurus* (167), vol. IV, *Murex*, p. 4, nr. 11, pl. I, fig. 1.
 1880 *Murex (s. str.) ternispina*, Lam. (pars). TRYON (177), vol. II, p. 78, pl. 9, fig. 110; pl. 11, fig. 117 (exclusive of synonyms: *M. Martinianus*, Reeve, *M. aduncospinosus*, Beck, and *M. Trotscheli*, Lischke).

- 1885 *Murex (Tribulus) ternispina*, Lam.. BOOG WATSON, Challenger Gasterop. (182), p. 149, nr. 5.
- 1887 *Murex ternispina*, Lam.. VON MARTENS, Mergui (107), p. 177, nr. 91.
- 1894 *Murex (Murex) ternispina* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 134.
- 1900 *Murex ternispina*, Lamarck. BULLEN NEWTON, Raised beaches Red Sea (127), pp. 511—512.
- 1901 *Murex ternispina* Lam.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 397.
- 1909 — — L.. LAMY, Java (89), p. 465.
- 1911 *Murex (Tribulus) ternispina* Lamarck and var. *rufolirata* n. var.. SCHEPMAN, Siboga (155), pp. 341—342, nr. 3, pl. XXIV, fig. 8 (radula).
- Not:** *Murex ternispina*, [not of] Lam.. KIENER (71), vol. VII, Murex, pp. 6—7, nr. 3, pl. 8, fig. 1; pl. 9, fig. 1 (= *Murex crassispina* Lamarck).

East coast of H a l m a h e r a, 1 specimen.

Specimens from Bachan and from the Obi Is., collected by Dr. Bernstein, are in the Leyden Museum.

Distribution: East Indian Archipelago (on muddy and sandy bottom): Ceram (Leyden Museum); Amboina (Astrolabe, Leyden Mus.); Misol (Leyden Mus.); Kei Is. and Timor Sea (Siboga); Timor (Leyden Mus., Siboga); Savu Sea, Sumba, W. coast of Flores, Sumbawa and Lombok (Siboga); Madura-strait (Siboga); Java (LAMY); Djangkar, N. coast of Resid. Besuki, Java (Siboga); Tjilatjap, S. coast of Java (Leyden Mus.); Talaut Is. north of Celebes, Northern Celebes, Buton-island S. E. of Celebes and Saleyer S. of Celebes (Siboga); Padang, Sumatra (Leyden Mus.).

Torres Straits (BRAZIER); Viti Is. (Challenger). — Philippines (Cuming, Magenta); Japan (E. A. SMITH); Hongkong (Novara); Singapore; Nicobar Is. (Novara); Salang-island; Mergui-archipelago, on mud-banks (Anderson); Madras and Ceylon (Novara); Jask, Persian Gulf (MELVILL and STANDEN); Red Sea (ISSEL).

Fossil: Raised beaches of the Gulf of Suez (BULLEN NEWTON).

I did not cite *Murex ternispina*, K. MARTIN, Tiefbohr. auf Java (115), p. 97, as he quotes both KIENER's and REEVE's figures, the former certainly not belonging to the species under consideration.

144. *Murex (Murex) martinianus* Reeve.

1894 *Murex (Murex) martinianus* Reeve. HORST et SCHEPMAN, Cat. (63), p. 135.

Obi Is. (Bernstein, Leyden Museum).

Synonymy and distribution in: „Recent shells from Java” (129), pp. 111, 162.

Subgenus *Chicoreus* Montfort, 1810.

Type: *Murex ramosus* Linné.

145. *Murex (Chicoreus) ramosus* Linné.

1705 *Murex ramosus*. RUMPHIUS (151), p. 85, pl. XXVI, fig. A.

1758 *Murex ramosus*. LINNÉ, Systema Naturae, edit. X (94), p. 747, nr. 448 (in part).

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 628, nr. 295 (in part).

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1215, nr. 523 (in part).

1777 *Cochlis volutata muricata, triplici ordine laciniarum frondescentium armata, etc.. Purpura Eques trisicus, simplex*. MARTINI, Conch.-Cab. (122), vol. III, pp. 308—311, pl. CII, fig. 980; pl. CIII, fig. 981.

1791 *Murex ramosus*. GMELIN (56), pp. 3528—3529, nr. 13 (in part, and exclusive of varieties).

1822 *Murex inflatus*. LAMARCK, An. s. vert. (85), vol. VII, p. 160, nr. 11.

1832 — — QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 526—527, pl. 36, figs. 1, 2.

1843 — — Lam.. KIENER (71), vol. VII, Murex, pp. 21—22, nr. 14, pl. 1.

1843 — — Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, pp. 570—571, nr. 11 (*Murex ramosus* Linné in the note of DESHAYES).

1843 — — Lamarck. KÜSTER, Murex, etc. in Conch.-Cab. (80), pp. 5—7, nr. 1 (exclusive of var. *macrophylla*), pl. A; pl. 1; pl. 2, fig. 1.

1845 *Murex ramosus*. REEVE (145), vol. III, Murex, pl. I, fig. 3.

1855 — — HANLEY, Ipsa Linn. Conch. (58), pp. 282—283, 520.

- 1869 *Chicoreus ramosus* L.. VON FRAUENFELD, Nicobaren (55), p. 854.
- 1870 *Murex (Chicoreus) ramosus*, Lam.. M'ANDREW, Test. Gulf of Suez (100), p. 433.
- 1879 *Murex ramosus*, Linnaeus. SOWERBY, Thesaurus (167), vol. IV, Murex, p. 11, nr. 49, pl. VIII, fig. 69.
- 1880 *Murex (Chicoreus) inflatus* Lam. *ramosus* L. part. VON MARTENS, Mauritius (105), pp. 231—232.
- 1880 *Murex (Chicoreus) ramosus*, Linn.. TRYON (177), vol. II, p. 95, pl. 1, figs. 1, 2 (fig. 1 = REEVE, Conch. Ic., fig. 3; fig. 2 = KIENER, pl. 1).
- 1893 *Murex (Chicoreus) ramosus* Linné. DAUTZENBERG, Séchelles (32), p. 81.
- 1894 *Murex (Chicoreus) inflatus* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 137.
- 1899 *Murex (Chicoreus) ramosus*, L.. MELVILL and STANDEN, Torres Straits (123), p. 162, nr. 77.
- 1902 *Murex inflatus* Lam.. VON MARTENS, Rumphius Gedenkb. (110), pp. 116, 117.
- 1903 *Murex (Chicoreus) ramosus* L.. STURANY, Gastr. d. Rothen Meeres (171), pp. 238, 270—271.
- 1906 *Murex ramosus* Linné. DAUTZENBERG, Ambodifoutra (37).
- 1908 *Murex inflatus*, Lamk.. NOBRE, Timor (128), p. 206.
- 1911 *Murex (Chicoreus) ramosus* Linné. SCHEPMAN, Siboga (155), p. 348, nr. 20.

O b i M a j o r, 1 specimen.

The species was collected at Bachan by VON MARTENS.

Distribution: East Indian Archipelago: Ceram (Leyden Museum); Amboina (RUMPHIUS, Leyden Mus.); Nusa-Laut-island near Amboina, reef (Siboga); New Guinea and Aru Is. (RUMPHIUS); Timor (NOBRE); Batavia, Java (MARTINI); Borneo and Billiton (Leyden Mus.).

Torres Straits (MELVILL and STANDEN). — Tonga (Astrolabe). — Japan (von Siebold); Hongkong (Novara); Ceylon (SOWERBY).

Gulf of Aden; Red Sea (Leyden Mus., STURANY); Gulf of Akabah; Gulf of Suez, shore and shallow water (M'ANDREW); East African coasts (VON MARTENS); Seychelles (Möbius, DAUTZENBERG); Seychelles and Amirantes, on muddy bottom (DUFO); Mauritius (LIÉNARD); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Madagascar (SGANZIN, Pollen and van Dam); Nossi-Bé and Nossi-Fali near Nossi-Bé (Pollen and van Dam).

146. *Murex (Chicoreus) adustus* Lamarck.

1856 *Murex adustus* Lamarck. KÜSTER, *Murex, Tritonium, etc.* (80), pp. 31—32, nr. 23, pl. 13, fig. 5; pl. 16, figs. 5, 6.

1902 — — Lam., VON MARTENS, *Rumphius Gedenkb.* (110), p. 116.

Bachan (collected by VON MARTENS).

Genus *Tritonalia* Fleming, 1828

(= *Ocenebra* (Leach M. S.) Gray, 1847;

Ocenebra H. and A. Adams, 1853).

147. *Tritonalia pumila* (A. Adams).

1911 *Ocenebra pumila* A. Adams. SCHEPMAN, *Siboga* (155), p. 350, nr. 4. North of Salomakiëe-island, 45 M., coral-bottom and Lithothamnion (Siboga exp.).

Genus *Rapana* Schumacher, 1817.

Type: *Buccinum bezoar* Linné.

148. *Rapana volema* (Bolten).

1685 *Buccinum ambullaceum rostro sinuoso, etc.* LISTER, *Historia Conchyliorum*, [pl. 894], fig. 14.

1777 *Cochlis volutata patula, subrostrata, testa crassa, umbilicata. Rapa crassa, custoso-squamosa, vel muricata.* MARTINI, *Conch.-Cab.* (122), vol. III, pp. 34—36, pl. LXVIII, figs. 750—753.

1780 *Murex rapiformis, a.* BORN, *Testacea* (16), pp. 307—308.

1791 *Murex Rapa.* GMELIN (56), p. 3545, nr. 68 [not *Murex Rapa*, LINNÉ, *Syst. Nat.*, edit. X].

1798 *Rapa volema* Bolten. *Museum Boltenianum*, p. 149, nr. 1860.

- 1816 *Pyrula rapa*. LAMARCK, Tableau encycl. (49 a), pl. 434, figs. 1 a, b; Liste des objets repr., p. 8.
- 1817 *Buccinum bulbosum* Solander. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 631, nr. 104.
- 1818 — — WOOD, Index Testaceologicus, p. 117, pl. XXIII, fig. 105.
- 1822 *Pyrula rapa*. LAMARCK, An. s. vert. (85), vol. VII, p. 144, nr. 17.
- 1829 *Pyrula Rapa*. WAGNER, Conch.-Cab. (122), vol. XII, 1, p. 97, pl. 226, figs. 4016—4017.
- 1832 *Pyrula rapa*. DESHAYES, Encycl. méth. (49), vol. III, p. 868, nr. 10.
- 1840 — — Lam.. KIENER (71), vol. VI, *Pyrula*, pp. 23—24, nr. 15, pl. 7, figs. 1, 1.
- 1842 *Pyrula bulbosa*. REEVE, Conchologia systematica, vol. II, p. 190, pl. 236, fig. 3.
- 1843 *Pyrula rapa* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, pp. 515—516, nr. 17 (*Rapiformis* Born in the note of DESHAYES).
- 1847 *Pyrula bulbosa*. REEVE (145), vol. IV, *Pyrula*, pl. IV, fig. 14.
- 1869 *Rapana bulbosa* Sol.. VON FRAUENFELD, Nicobaren (55), pp. 858, 891.
- 1870 — — Solander. M'ANDREW, Test. Gulf of Suez (100), p. 436.
- 1880 — — Sol.. TRYON (177), vol. II, p. 203, pl. 63, fig. 336.
- 1882 — — Solander (*Buccinum*). DUNKER, Index Moll. maris Japon. (48), p. 42.
- 1885 — — Solander. BOOG WATSON, Challenger Gasterop. (182), p. 173.
- 1885 — — Sol.. COOKE, Test. moll. Gulf of Suez (21), part I, p. 332.
- 1886 — — Sol.. COOKE, Gulf of Suez in relation to other seas (22), p. 382.
- 1894 *Rapana (Rapana) bulbosa* Solander. HORST et SCHEP-MAN, Cat. (63), p. 146.

- 1899 *Rapana bulbosa* Sol. (?). K. MARTIN, Foss. v. Java (120), p. 133, pl. XXI, figs. 307, 307 a.
- 1901 *Rapana bulbosa* Soland.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 399.
- 1903 — — (Sol.). STURANY, Gastr. d. Roth. Meeres (171), pp. 239, 270—271.
- 1908 *Rapana bulbosa*, Solander. NOBRE, Timor (128), p. 207.
- 1919 *Rapana bulbosa* Sol. (?). K. MARTIN, Palaeozool. Kenntnis v. Java (119), p. 86.

Obi Major, 1 specimen.

Distribution: East Indian Archipelago: Amboina and Misol (Leyden Museum); Timor (NOBRE); Tjilatjap, S. coast of Java (Leyden Mus.); Billiton (Leyden Mus.).

Philippines, on mud (Challenger); Japan (DUNKER); China; Nicobar Is.; Madras (Novara); Tranquebar, Coromandel Coast (MARTINI); Ceylon (Novara); Persian Gulf, 10—35 fathoms (MELVILL and STANDEN).

Gulf of Aden; Red Sea (Leyden Mus., STURANY); Gulf of Suez (M'ANDREW); Zanzibar Coast (Leyden Mus.).

Fossil occurrence: The species is recorded with some restriction as a fossil of unknown age from the Residency Surabaya, Java, by K. MARTIN.

Some confusion has existed as to the correct nomenclature of the present species. DESHAYES, while rejecting the Lamarckian name *Pyrula rapa* for the species under consideration, remarks: „On pourrait bien restituer à l'espèce son premier nom de *Rapiformis* donné par BORN, ce qui serait préférable au nom de *Bulbosum* adopté par Dillwyn d'après les manuscrits de Solander.”

The *Murex rapiformis* of BORN, however, embraces both the present species (BORN's form *a*, *subspinosa*, *albida*, with references to LISTER, fig. 14, and MARTINI, fig. 750), and the *Buccinum bezoar* of LINNÉ = *Rapana bezoar* (BORN's form *β*, *foliaceo-spinosa*, *fusca*, with reference to MARTINI, fig. 755). As BORN did not indicate one of his two forms as the typical one, his *Murex rapiformis* should be considered as a synonym of *Buccinum bezoar* Linné¹⁾ and cannot be applied to the present species.

In my opinion we ought to accept BOLTEN's name *Rapa volema*

¹⁾ The name *Buccinum bezoar* was erroneously applied by BORN to figs. 398—399 of MARTINI (*Pyrula myristica* (= *galeodes*) of LAMARCK).

(with reference to KNORR, V, pl. 21, fig. 2) for the species under consideration, as it has priority over SOLANDER's name *Buccinum bulbosum*, published by DILLWYN.

Genus *Thais* Bolten, 1798

(= *Purpura* Lamarck, 1799; non Martyn, 1784).

Section *Mancinella* Link, 1807.

149. *Thais* (*Mancinella*) *hippocastanum* (Linné).

1894 *Purpura* (*Thalessa*) *hippocastanum* Linné. HORST et SCHEPMAN, Cat. (63), p. 148.

Obi Is. (Bernstein, Leyden Museum).

Subgenus *Nassa* Bolten, 1798 (non Lamarck, 1799)

(= *Iopas* H. and A. Adams, 1853).

150. *Thais* (*Nassa*) *sertum* (Bruguère).

1894 *Purpura* (*Jopas*) *sertum* Bruguère. HORST et SCHEPMAN, Cat. (63), pp. 154—155.

Bachan (Bernstein, Leyden Mus.).

Genus *Drupa* Bolten, 1798

(= *Ricinula* Lamarck, 1816;

Ricinella Schumacher, 1817;

Pentadactylus (Klein) Adams).

151. *Drupa* (*Drupa*) *morum* Bolten.

1894 *Pentadactylus* (*Pentadactylus*) *horridus* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 157.

Obi Is. (Bernstein, Leyden Mus.).

152. *Drupa* (*Morula*) *marginatra* (de Blainville).

1911 *Sistrum* (*Morula*) *marginatrum* Blainville. SCHEPMAN, Siboga (155), p. 356, nr. 7.

Laiwui, Obi Major, reef (Siboga exp.).

153. *Drupa* (*Morula*) *undata* (Lamarck).

1894 *Pentadactylus* (*Morula*) *undatus* Chemnitz. HORST et SCHEPMAN, Cat. (63), p. 158.

Halmahera (Bernstein, Leyden Mus.).

FAM. CORALLIOPHILIDAE.

Genus *Coralliophila* H. and A. Adams, 1853.

154. *Coralliophila* *abbreviata* (Lamarck).

1911 *Coralliophila* *galea* Chemnitz. SCHEPMAN, Siboga (155), p. 361, nr. 2. North of Salomakiëe-island, reef (Siboga exp.).

Genus *Rapa* Bolten, 1798

(= *Bulbus* Museum Calonianum, 1797 (cannot be accepted!);
Rapella Swainson, 1840).

Type: *Bulla rapa* Linné, indicated by HERRMANNSEN, 1848.

155. *Rapa rapa* (Linné).

- 1758 *Murex rapa*. LINNÉ, Syst. Nat. X (94), p. 752, nr. 476.
 1767 *Bulla rapa*. LINNÉ, Syst. Nat. XII, (96), p. 1184.
 1798 *Rapa globosa* Bolten. Museum Boltenianum, p. 148, nr. 1854.
 — — *raphanus* Bolten. Mus. Bolt., p. 148, nr. 1855.
 — — *striata* Bolten. Mus. Bolt., p. 148, nr. 1856.
 — — *pellucida* Bolten. Mus. Bolt., p. 148, nr. 1858.
 1816 *Pyrula papyracea* et Var. *caudata*. LAMARCK, Tableau encycl. (49 a),
 pl. 436, figs. 1 a, b, c; Liste des objets repr., p. 8.
 1840 — — , Lam., KIENER [71], vol. VI, *Pyrula*, pp. 31—32,
 nr. 22, pl. 14, figs. 1, 1, 2, 3.
 1843 — — Lamk., DESHAYES—LAMARCK, An. s. vert. (86),
 vol. IX, p. 516, nr. 18.
 1847 — *rapa*. REEVE (145), vol. IV, *Pyrula*, pl. VII, fig. 21.
 1874 *Bulbus rapa* Linné sp.. KOBELT, *Pyrula* u. *Fusus* (73), p. 14, nr. 1,
 pl. 24, figs. 4, 5.
 1902 *Rapana (Rapella) rapa* L., VON MARTENS, Rumphius Gedenkb. (110),
 p. 117.
 Ternate (collected by VON MARTENS).

FAM. NASSIDAE.

Genus *Nassa* Lamarck, 1799¹⁾.156. *Nassa (Nassa) coronata* (Bruguière).

- 1894 *Nassa (Nassa) coronata* Bruguière. HORST et SCHEPMAN, Cat. (63),
 pp. 111—112.
 Obi Is. (Bernstein, Leyden Museum).

157. *Nassa (Nassa) arcularia* (Linné).

- 1705 *Arcularia major*. RUMPHIUS (151), pp. 91—92, pl. XXVII,
 fig. M.
 1758 *Buccinum Arcularia*. LINNÉ, Systema Naturae, edit. X
 (94), p. 737, nr. 395.

¹⁾ Although the name *Nassa* is not available for the present genus, as it has already been used generically by BOLTEN, 1798, for *Iopas*, etc., I shall not attempt to review the nomenclature of the Nassas at this time. I have adopted the names in common use, as not all the literature on the subject is at my disposal. The family under consideration has been named *Alectrioni-dae* by W. H. DALL (216).

- 1764 *Buccinum Arcularia*. LINNÉ, Mus. Lud. Ulr. (95), p. 608, nr. 260.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1200, nr. 457.
- 1773 *Cochlis volutata parva, crassa, etc.. Galeodes, Arcularia major*. MARTINI, Conch.-Cab. (122), vol. II, pp. 89—92, pl. XLI, figs. 409—412.
- 1789 *Buccinum pullus*; [not of] Linn.. BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 276—277, nr. 45 (exclusive of the references to RUMPHIUS and LINNÉ).
- — *arcularia*; Linn.. BRUGUIÈRE, *ibid.*, pp. 278—279, nr. 47.
- 1791 *Buccinum Arcularia*. GMELIN (56), p. 3480, nr. 42 (exclusive of var. β).
- 1798 *Distorsio arcularia* Bolten. Museum Boltenianum, p. 133, nr. 1677.
- — *plicata* Bolten. Mus. Bolt., p. 134, nr. 1678.
- 1816 *Nassa arcularia*. LAMARCK, Tableau encycl. (49 a), pl. 394, figs. 1 a, b, 2; Liste des objets repr., p. 1; (*Nassa arcularia*, α and β in the Explanation of plates by BORY DE ST.-VINCENT, p. 169; 1827).
- 1817 *Buccinum arcularia*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 603, nr. 39 (exclusive of var.).
- 1818 — — WOOD, Index Testaceologicus, pl. 22, fig. 40.
- 1822 *Buccinum arcularia*. LAMARCK, An. s. vert. (85), vol. VII, p. 276, nr. 50.
- — *pullus*. LAMARCK, *ibid.*, pp. 277—278, nr. 54.
- 1832 *Buccinum arcularia*. QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 438—439, pl. 32, figs. 1—4.
- 1834 *Buccinum arcularia*, Linn., Gmel.. KIENER (71), vol. IX, Buccinum, pp. 94—96, nr. 94, pl. 28, figs. 115, 115.
- — *pullus*, [not of] Linn., Gmel.. KIENER, *ibid.*, pp. 96—97, nr. 95, pl. 28, figs. 114, 114 (considered by KIENER to be a variety of *B. arcularia*).

- 1844 *Buccinum arcularia* Lin.. DESHAYES—LAMARCK, An.
s. vert. (86), vol. X, pp. 178—180,
nr. 50.
- — *Rumphii*. DESHAYES in DESHAYES—LA-
MARCK, *ibid.*, pp. 178—179, note
(for RUMPHIUS, pl. XXVII, fig. M).
- — *pullus* Lamk.. DESHAYES—LAMARCK, *ibid.*,
p. 182, nr. 54.
- 1853 *Nassa arcularia*. REEVE (145), vol. VIII, *Nassa*, pl. IV,
figs. 25 a, b.
- — *pulla*. REEVE, *ibid.*, pl. IV, figs. 22 a, b.
- 1855 *Buccinum arcularia*. HANLEY, *Ipsa Linn. Conch.* (58), pp.
248—249, 512.
- 1858 *Buccinum arcularia* Linné. KÜSTER, *Buccinum*, etc. (75),
pp. 18—19, pl. 4, figs. 19—21.
- — *pullus* [not of] Linné. KÜSTER, *ibid.*, pp. 37—
38, pl. 8, figs. 6, 7.
- 1869 *Nassa pulla* [not of] L.. VON FRAUENFELD, *Nicobaren*
(55), p. 856.
- 1869 *Nassa arcularia*, (L.) Lam. var. *plicata*. VON MARTENS,
v. d. Decken's *Reisen* (103), p. 62.
- 1870 *Nassa pullus*, [not of] Linné. M'ANDREW, *Test. Gulf of*
Suez (100), p. 435.
- 1880 *Nassa (Nassa) arcularia* L. incl. *Rumphii* Desh. und *pul-*
lus Lam., Kien.. VON MARTENS, *Mauritius* (105), p. 242.
- 1882 *Nassa (s. str.) arcularia*, Linné. TRYON (177), vol. IV, p.
24, pl. 7, figs. 9, 10.
- — (—) *pulla*, [auctorum, non] Linné. TRYON,
ibid., p. 24, pl. 7, fig. 12.
- 1884 *Nassa arcularia*, Linné. E. A. SMITH, *Alert* (160), p. 496,
nr. 33.
- 1885 *Nassa pullus*, [not of] L.. COOKE, *Test. Gulf of Suez* (21),
part I, vol. XV, p. 326.
- 1893 *Nassa arcularia* Linné. DAUTZENBERG, *Séchelles* (32),
p. 81.
- 1894 *Nassa (Nassa) arcularia* Linné and vars. *rumphii* Deshayes
and *pullus* Lamarck. HORST et SCHEPMAN, *Cat.* (63),
p. 111.
- 1900 *Nassa pulla*, [auct., non] Linnaeus. BULLEN NEWTON,
Raised beaches Red Sea (127), p. 511.

- 1901 *Nassa pullus* [auct., non] Linné sp.. H. FISCHER, Djibouti (54), pp. 100—101, nr. 9.
- 1901 *Nassa arcularia* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 409.
- — *pulla* [not of] L.. MELVILL and STANDEN, *ibid.*, p. 409.
- 1901 *Nassa pulla*, [not of] Linn.. ASHINGTON BULLEN, Raised beaches of Perim Island (204), p. 254.
- 1902 *Nassa arcularia* L. var. *Rumphii* Desh.. VON MARTENS, Rumphius Gedenkb. (110), p. 118.
- 1903 *Nassa pullus* [not of] L.. STURANY, Gastr. d. Roth. Meeres (171), pp. 243, 272—273.
- 1908 *Nassa arcularia*, Lamk.. NOBRE, Timor (128), p. 209.
- 1911 *Nassa arcularia* Linné. SCHEPMAN, Siboga (155), p. 311, nr. 1.
- — *pulla* [not of] Linné var.? SCHEPMAN, *ibid.*, p. 312, nr. 2.
- 1915 *Nassa (Nassa) arcularia* L.. CAES. BOETTGER, Wassermoll. Aru- u. Kei-Inseln (10), p. 130.
- Not:** *Buccinum Pullus* Linné (= probably *Nassa thersites* Brug., according to HANLEY, *Ipsa* Linn. Conch.).
- Not:** *Buccinum Pullus*. GMELIN, Syst. Nat. (56).

Obi Major, 1 specimen, wholly white, not adult (without columellar callus), belonging to the typical *arcularia*.

Specimens from the Obi Is. (collected by Dr. Bernstein) are also in the Leyden Museum. The species was collected at Bachan by VON MARTENS.

Distribution: East Indian Archipelago (on reefs and sandy bottom): Amboina (Leyden Mus., Siboga); Waigeu and Misol (Leyden Mus.); West coast of New Guinea, reef (Siboga); Kei Is. (Siboga); Aru Is., on the shore (Merton); Dammer-island, N. of Timor, sand (Siboga); Timor (Leyden Mus., NOBRE); Sumba and Larentuka, Flores (Leyden Mus.); Paternoster Is., coral (Siboga); Kangeang, E. of Madura (Siboga); Java (LINNÉ); Badjoa, Southern Celebes (Leyden Mus.); Borneo (Leyden Mus.); Pulu Kaniungan ketjil near Cape Mangkalihat, E. Borneo, reef (Siboga); Banka (Leyden Mus.).

Viti Is.; Tonga (Astrolabe). — Philippines (Cuming); Manila (Novara). — Karachi (MELVILL and STANDEN); coast of Baluchistan, at from 10—20 fathoms, mostly muddy sand-bottom (MELVILL and STANDEN); Charbar Point, S. E. Persia, at low tide (MELVILL and STANDEN); Persian Gulf, 24 fathoms, muddy and sand-bottom (MELVILL and STANDEN); Maskat, Oman (MELVILL and STANDEN).

Gulf of Aden; Perim-island; Red Sea (Leyden Mus.); Gulf of Akabah; Gulf of Suez, shore to 5 fathoms (M'ANDREW); Jibuti (de Gennes); Zanzibar (von der Decken, Leyden Mus.); Seychelles and Amirantes, on sand or sandy mud between tide-marks (DUFO); Seychelles (LIÉNARD, Möbius, DAUTZENBERG); Mauritius (LIÉNARD); Réunion (DESHAYES); Madagascar, on stones (SGANZIN); Nossi-Bé; Mozambique, between tide-marks (Alert). — Natal bay (Leyden Mus.).

Fossil in the pleistocene raised beach deposits of Perim Island (ASHINGTON BULLEN), of the Red Sea near Kosseir and of the Gulf of Suez (BULLEN NEWTON).

158. *Nassa* (*Arcularia*) *bimaculosa* A. Adams.

1894 *Nassa* (*Eione*) *bimaculosa* A. Adams. HORST et SCHEPMAN, Cat. (63), p. 118.

1902 *Nassa bimaculosa* A. Ad.. VON MARTENS, Rumphius Gedenkb. (110), p. 118.

Obi Is. (Bernstein, Leyden Museum).

Ternate and Bachan (VON MARTENS).

Probably only a form of *Nassa thersites* (Bruguère).

159. *Nassa* (*Alectrion*) *glans* (Linné).

1910 *Nassa glans* Linné. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

160. *Nassa* (*Alectrion*) *monilis* (Kiener).

1894 *Nassa* (*Alectryon*) *monilis* Quoy. HORST et SCHEPMAN, Cat. (63), p. 113.

Halmahera (Bernstein, Leyden Mus.).

161. *Nassa* (*Zeuxis*) *olivacea* (Bruguère).

1789 *Buccinum olivaceum*. BRUGUIÈRE, Encycl. méth. (49), vol. I, nr. 38.

1791 — *Taenia*. GMELIN (56), p. 3493, nr. 98.

1897 *Nassa olivacea* Brug., var. *approximata* Pease. VON MARTENS, Süss-u. Brackw.-Moll. d. Ind. Arch. (109), p. 217.

Bachan (collected by VON MARTENS).

162. *Nassa* (*Niotha*) *albescens* (Dunker).

1911 *Nassa* (*Niotha*) *albescens* Dunker. SCHEPMAN, Siboga (155), p. 326, nr. 42.

Salomakiëe-island, reef (Siboga exp.).

FAM. BUCCINIDAE.

Genus *Cantharus* Bolten, 1798(*Tritonidea* Swainson, 1840).Type: *Buccinum tranquebaricum* Gmelin.163. *Cantharus undosus* (Linné).

- 1910 *Cantharus undosus* Linné. DAUTZENBERG, Halmahera (38), p. 2.
Halmahera (recorded by DAUTZENBERG).

164. *Cantharus fumosus* (Dillwyn).

- 1911 *Tritonidea fumosa* Dillwyn. SCHEPMAN, Siboga (155), p. 303, nr. 2.
Laiwui, Obi Major, reef (Siboga exp.).

Genus *Phos* Montfort, 1810.165. *Phos (Phos) senticosus* (Linné).

- 1894 *Phos (Phos) senticosus* Linné. HORST et SCHEPMAN, Cat. (63), p. 109.
Obi Is. (Bernstein, Leyden Museum).

Genus *Engina* Gray, 1839.166. *Engina astricta* (Reeve).

- 1911 *Engina astricta* Reeve. SCHEPMAN, Siboga (155), p. 307, nr. 1.
North of Salomakiëe-island, 45 M., coral-bottom and Lithothamnion (Siboga exp.).

167. *Engina lineata* (Reeve).

- 1911 *Engina lineata* Reeve. SCHEPMAN, Siboga (155), p. 308, nr. 5.
Laiwui, Obi Major, reef (Siboga exp.).

168. *Engina mendicaria* (Linné).

- 1911 *Engina (Pusiosstoma) mendicaria* Linné. SCHEPMAN, Siboga (155), pp.
309—310, nr. 9, pl. XXIV, fig. 3 (teeth
of radula).
Laiwui, Obi Major, reef (Siboga exp.).

Genus *Colubraria* Schumacher, 1817(= *Epidromus* Mörch, 1852; H. and A. Adams, 1853).Type: *Murex maculosus* Gmelin.169. *Colubraria nitidula* (Sowerby).

- 1844 *Triton nitidulus*. REEVE (145), vol. II, Triton, pl. XVII, fig. 70.
1878 — — Sowerby. KOBELT, Murex, Tritonium, etc. (80), p.
241, nr. 88, pl. 66, fig. 8.
1910 *Colubraria nitidula* Sowerby. DAUTZENBERG, Halmahera (38), p. 2.
Halmahera (recorded by DAUTZENBERG).

FAM. XANCIDAE

(= *Turbinellidae*).

As the generic name *Turbinella* Lamarck, 1799, ought to be replaced by *Xancus* Bolten, 1798, the family name of *Xancidae* is substituted for *Turbinellidae*.

Genus *Vasum* Bolten, 1798(= *Cynodonta* Schumacher ((158), p. 73), 1817;*Cynodona* Schumacher ((158), p. 141), 1817).170. *Vasum turbinellus* (Linné).1758 *Murex Turbinellus*. LINNÉ, Syst. Nat. X (94), p. 750, nr. 466.1840-'41 *Turbinella cornigera*. KIENER (71), vol. VI, *Turbinella*, pp. 12—13, nr. 7, pl. I.1843 *Turbinella cornigera* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, p. 380, nr. 7.1844 — — —, Lamarck and var. *fasciata*. KÜSTER, *Turbinella* u. *Fasciolaria* (81), pp. 6—7, nr. 2, pl. 1, fig. 4; pl. 2, figs. 3, 4.1847 — — — REEVE (145), vol. IV, *Turbinella*, pl. VIII, fig. 40.1894 *Cynodonta cornigera* Lamarck. HORST et SCHEPMAN, Cat. (63), pp. 95—96.

Obi Is., Halmahera and Morotai (Bernstein, Leyden Mus.).

Distribution: Throughout the East Indian Archipelago. — Society Is.. — Philippines; Nicobars. — Red Sea; Zanzibar; Seychelles; Amirantes; Mauritius; Réunion; Madagascar; Mozambique.

Fossil: Pleistocene of the Minahassa, Northern Celebes (SCHEPMAN). Pleistocene (or Pliocene) of Rendjuwa-island near Savu (O. BOETTGER). Raised beaches of the Red Sea (Perim Island; Kosseir).

Genus *Melongena* Schumacher, 1817(= *Galeodes* Bolten, 1798; non Olivier, 1791 (*Arachnida*)).Type: *Murex melongena* Linné.171. *Melongena myristica* (Bolten).1705 *Cassis aspera*. RUMPHIUS (151), p. 81, pl. XXIII, fig. D.1773 *Cochlis volutata umbilicata, pyriformis, etc.* *Galeodes aspera, vel fusca, vel albida*. MARTINI, Conch.-Cab. (122), vol. II, pp. 78—81, pl. XL, figs. 398—401.— *Cochlis volutata pyriformis, umbilicata, etc.* *Galeodes albida, transversim striata*. MARTINI, *ibid.*, p. 81, pl. XL, fig. 402.1780 *Buccinum bezoar* [not of Linné]. BORN, Testacea (16), p. 259 (with reference to MARTINI, figs. 398, 399).

- 1780 *Murex hippocastanum* [not of Linné]. BORN, *ibid.*, pp. 304—305 (with reference to MARTINI, fig. 398).
- 1798 *Volema myristica* Bolten. *Museum Boltenianum*, p. 57, nr. 718.
- — *aromatica* Bolten. *Mus. Bolten.*, p. 57, nr. 719.
- — *nux-moschata* Bolten. *Mus. Bolten.*, p. 57, nr. 721.
- 1816 *Pyrula myristica*. LAMARCK, *Tableau encycl.* (49 a), pl. 432, figs. 3 a, b, *Liste des objets repr.*, p. 7 (*Pyrula Myristica*. *Pyrula squamosa* Lamk. in the *Explanation of plates* by BORY DE ST.-VINCENT, p. 174; 1827).
- — *hippocastanum*. LAMARCK, *ibid.*, pl. 432, fig. 4, *Liste*, p. 7 (*Pyrula Hippocastanum*. *Pyrula galeodes* Lamk. in the *Expl. of pl.* by B. DE ST.-V., p. 174; 1827).
- — *lineata*. LAMARCK, *ibid.*, pl. 432, fig. 5, *Liste*, p. 7 (*Pyrula lineata*. *Pyrula angulata* Lamk. in the *Expl. of pl.* by B. DE ST.-V., p. 174; 1827).
- 1817 *Murex calcaratus*. DILLWYN, *A descriptive Catalogue of recent shells*, vol. II, p. 710.
- 1822 *Pyrula galeodes*. LAMARCK, *An. s. vert.* (85), vol. VII, pp. 144—145, nr. 19.
- — *angulata*. LAMARCK, *ibid.*, p. 145, nr. 20.
- — *squamosa*. LAMARCK, *ibid.*, p. 145, nr. 21.
- 1832 *Pyrula squamosa*. DESHAYES, *Encycl. méth.* (49), vol. III, p. 870, nr. 14.
- 1840 *Pyrula squamosa*, Lam.. KIENER (71), vol. VI, *Pyrula*, pp. 19—20, nr. 12, pl. 4, figs. 2, 2.
- — *angulata*, Lam.. KIENER, *ibid.*, pp. 20—21, nr. 13, pl. 7, figs. 2, 2.
- — *galeodes*, Lam.. KIENER, *ibid.*, pp. 21—22, nr. 14, pl. 5, figs. 2, 2.
- 1843 *Pyrula galeodes* Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. IX, p. 517, nr. 19.

- 1843 *Pyrula angulata* Lamk., DESHAYES—LAMARCK, *ibid.*, pp. 517—518, nr. 20.
- — *squamosa* Lamk., DESHAYES—LAMARCK, *ibid.*, p. 518, nr. 21.
- 1847 *Pyrula galeodes*. REEVE (145), vol. IV, *Pyrula*, pl. VII, figs. 22, 23.
- 1852 *Cassidulus asper* Martini. MÖRCH, *Cat. Yoldi*(125), fasc. I.
- 1874 *Pyrula galeodes* Lamarck. KOBELT, *Pyrula u. Fusus*(73), pp. 27—29, nr. 5 (vars. a, b, c), pl. 6, figs. 2, 3; pl. 21, figs. 1—5 (= MARTINI, figs. 398—402).
- 1880 *Pyrula galeodes*, Lamarck. SOWERBY, *Thesaurus* (167), vol. IV, *Murex*, etc., p. 100, nr. 4, pl. 419, figs. 18, 20.
- — *angulata*, Lamk., SOWERBY, *ibid.*, p. 100, nr. 5, pl. 419, fig. 19.
- 1881 *Melongena galeodes*, Lam., TRYON (177), vol. III, pp. 108—109, pl. 42, figs. 204—208 (fig. 204 = KIENER, pl. 5, fig. 2; fig. 207 = KIENER, pl. 4, fig. 2; fig. 208 = KIENER, pl. 7, fig. 2; fig. 205 = REEVE, fig. 23; fig. 206 = *Voyage Astrol. et Zel.*, pl. 22, fig. 40).
- 1894 *Melongena (Myristica) galeodes* Lamarck and vars. *squamosa* Lamarck and *angulata* Lamarck. HORST et SCHEPMAN, *Cat.* (63), p. 99.
- 1902 *Semifusus galeodes* Lam., VON MARTENS, *Rumphius Gedenkb.* (110), p. 115.
- 1909 *Melongena galeodes* Lk., LAMY, *Java* (89), p. 465.

O b i M a j o r, 1 young specimen without the lower row of spinous tubercles (resembling KIENER's figures of *Pyrula squamosa*).

Distribution: East Indian Archipelago: S. coast of Ceram (RUMPHIUS); Amboina (RUMPHIUS, Leyden Museum); Java (LAMY); Batavia (Mus. Berlin); Tukang Besi Is. east of Buton near Celebes (RUMPHIUS); Billiton (Leyden Mus.); Sumatra (Mus. Berlin); W. coast of Sumatra (RUMPHIUS).

Philippines, at roots of Mango trees (Cuming); China (KIENER); Singapore (KIENER). — Red Sea (KIENER, Leyden Mus.).

At present *Pyrula galeodes*, *P. angulata* and *P. squamosa*,

described and named by LAMARCK in his „Histoire naturelle des animaux sans vertèbres”, are generally considered to form but one species, which is commonly called *Melongena galeodes*. The specific name *galeodes*, however, cannot be retained for it, as the three Lamarckian species had been previously named by LAMARCK himself *Pyrula hippocastanum*, *P. lineata* and *P. myristica* in 1816 (in the „Liste des objets représentés”, which accompanied the plates of the Encyclopédie Méthodique, issued in that year). Among these names of 1816 *Pyrula hippocastanum* must be rejected at all events, as the name *Murex hippocastanum* had been wrongly applied to our species by BORN.

There are, however, also three names of BOLTEN for the present species, which have, of course, priority over the Lamarckian names. I have adopted the first of BOLTEN's names: *myristica*, being at the same time one of the names, applied to our species by LAMARCK.

Genus *Hemifusus* Swainson, 1840
(= *Semifusus* Agassiz, 1847).

172. *Hemifusus ternatanus* (Gmelin).

For synonymy and distribution see: „Recent shells from Java” (129), p. 118, and the following additional reference:

1816 *Fusus pyrulaceus*. LAMARCK, Tableau encycl. (49 a), pl. 429, fig. 6;
Liste des objets repr., p. 7.

Ternate (Leyden Museum).

FAM. FASCIOLARIIDAE.

Genus *Fasciolaria* Lamarck, 1799.

Type: *Murex tulipa* Linné.

Subgenus *Pleuroploca* P. Fischer, 1884.

Type: *Fasciolaria trapezium* (Linné).

173. *Fasciolaria (Pleuroploca) trapezium* (Linné).

For the synonymy see: „Recent shells from Java” (129), pp. 119, 163, nr. 92, and the following additions:

1780 *Vestis persica*. CHEMNITZ, Conch.-Cab. (122), vol. IV, p. 134, pl. CXXXIX, figs. 1298, 1299.

1809 SAVIGNY, Description de l'Égypte; Histoire Naturelle, Mollusques, pl. IV, fig. 17.

1817 *Murex trapezium*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 735, nr. 109.

1818 — — WOOD, Index Testaceologicus, p. 134, pl. 27, fig. 112.

- 1830 *Fasciolaria trapezium*. DESHAYES, Encycl. méth. (49), vol. II, part 2, p. 125, nr. 2, pl. 431, figs. 3 a, b.
- 1846 *Fasciolaria Audouini*, Jonas. JONAS, Moll. der Descript. de l'Égypte (196), p. 63 (for SAVIGNY, pl. IV, fig. 17).
- 1850 — — Jonas. PHILIPPI, Abbild. u. Beschr. (134), vol. III, p. 121, *Fasciolaria*, pl. III, fig. 1.
- 1863 *Fasciolaria trapezium*. DESHAYES, Réunion (44), p. 112, nr. 342.
- 1863 *Fasciolaria Lischkeana* Dkr.. DUNKER, Novitates Conchologicae; Mollusca Marina (207), p. 44, nr. 43, pl. XIV.
- 1867 — *Audouini* Jonas var.. DUNKER, *ibid.*, pp. 95—96, nr. 108, pl. XXXII, figs. 3, 4.
- 1869 *Fasciolaria trapezium*, (L.) Lam.. VON MARTENS, v. d. Decken's Reisen (103), p. 61.
- 1869 — — ISSEL, Mar Rosso (65), p. 139, nr. 308.
- 1869 — — L. VON FRAUENFELD, Nicobaren (55), p. 859.
- 1869 *Fasciolaria audouini*. LISCHKE, Japan. Meeresconch. (98), vol. I, p. 40.
- 1870 *Fasciolaria Audouini*. M'ANDREW, Test. Gulf of Suez (100), p. 436.
- 1871 *Fasciolaria audouini*. LISCHKE, Japan. Meeresconch. (98), vol. II, p. 28.
- 1876 *Fasciolaria trapezium* L. and vars. *Audouini* Jonas and *Lischkeana* Dunker. KOBELT, Turbinella u. Fasciolaria (81), pp. 131—135, nr. 4, pl. 10, figs. 1, 2 (*typica*); pl. 12, fig. 2 (*Audouini*); pl. 12, fig. 1 (*Lischkeana*).
- 1880 *Fasciolaria trapezium* L.. VON MARTENS, Mauritius (105), p. 245.
- 1881 — — , Linn. TRYON, Manual (177), vol. III, p. 77, pl. 61, figs. 24—26; pl. 62, fig. 27 [fig. 24 = PHILIPPI, Abbild., III, pl. III, fig. 1; fig. 25 = DUNKER, Novitates, pl. 32, fig. 3; fig. 26 = KIENER, pl. 6; fig. 27 = DUNKER, Novitates, pl. 14).
- 1882 *Fasciolaria Audouini* Jonas. DUNKER, Index Moll. mar. Japon. (48), p. 48.
- 1882 *Fasciolaria trapezium*, Linnaeus [inclusive of *Audouinii* Jonas]. SOWERBY, Thesaurus (167), vol. V, p. 11, nr. 7, pl. 426, figs. 22, 23.
- 1885 *Fasciolaria Audouini* [Jonas] [*trapezium* L.]. COOKE, Test. moll. Gulf of Suez (21), part I, p. 326.
- 1886 *Fasciolaria trapezium*, L.. COOKE, Gulf of Suez in relation to other seas (22), pp. 382, 383, 384.
- 1888 *Pleuroploca trapezium*. JOUSSEAUME, Mer Rouge (68), pp. 182—183, nr. 62.
- 1893 *Fasciolaria (Pleuroploca) trapezium* Linné. DAUTZENBERG, Séchelles (32), p. 81.

1901 *Fasciolaria trapezium* Lam.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 418.

1910 *Fasciolaria trapezium* Linné. DAUTZENBERG, Halmahera (38), p. 2.
Halmahera (recorded by DAUTZENBERG).
Morotai (Bernstein, Leyden Museum).

Distribution: East Indian Archipelago; Kelang W. of Ceram, and Amboina (Leyden Mus.); Nusa-Laut-island near Amboina (Siboga); Waigeu (Leyden Mus.); Java (Novara); Popoh, S. coast of Java (Museum Wageningen); Tjilatjap, S. coast of Java (Leyden Mus.); Sangkulirang-bay, E. Borneo (STAUB); Billiton (Leyden Mus.).

New Caledonia. — Philippines (Cuming); Nagasaki, Southern Japan (DUNKER); China; Nicobars (Novara); Ceylon (Mus. Berlin); Ratnagiri, S. of Bombay (ABERCROMBIE).

Perim-island, Strait of Bab-el-Mandeb (Mus. Wageningen); Southern Red Sea (Jickeli); Gulf of Akabah; Ras Mahommed (M'ANDREW, Löbbecke); Obock, Somaliland (Faurot); Zanzibar (von der Decken); Seychelles (DUFO, LIÉNARD, DAUTZENBERG); Amirantes (DUFO); Mauritius (Astrolabe, LIÉNARD, Möbius); Réunion (DESHAYES); Madagascar (SGANZIN); Nossi-Bé (Pollen and van Dam); Querimba Is. (Mus. Berlin); Natal.

174. *Fasciolaria (Pleuroploca) filamentosa* (Bolten).

1757. *Buccinum clavacula in longum erecta, ore in caudam desinente*. D'ARGENVILLE (4), part I, pp. 219, 226, pl. 10, fig. H.

1780 *Fusus filamentosus etc.* CHEMNITZ, Conch.-Cab. (122), vol. IV, pp. 158—159, pl. CXL, figs. 1310, 1311.

1798 *Fusus filamentosus* Bolten. Museum Boltenianum, p. 118, nr. 1524.

1816 *Fasciolaria filamentosa*. LAMARCK, Tableau encycl. (49 a), pl. 424, fig. 5; Liste des objets repr., p. 6; (Explanation of plates by BORY DE ST.-VINCENT, p. 172; 1827).

1822 *Fasciolaria filamentosa*. LAMARCK, An. s. vert. (85), vol. VII, p. 120, nr. 5.

— — *ferruginea*. LAMARCK, *ibid.*, nr. 7.

1830 *Fasciolaria filamentosa* Lamk.. DESHAYES, Encycl. méth. (49), vol. II, part 2, p. 126, nr. 5.

1832 *Fusus filamentosus*. QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 508—509, pl. 35, figs. 1—3.

1840 *Fasciolaria filamentosa*, Lam.. KIENER (71), vol. VI, *Fasciolaria*, pp. 11—12, pl. 8, figs. 1, 1; pl. 9, figs. 2, 2.

- 1843 *Fasciolaria filamentosa* Lamk. DESHAYES—LAMARCK, An. s. vert. (86), vol. IX, pp. 434—435, nr. 5.
- — *ferruginea* Lamk. DESHAYES—LAMARCK, *ibid.*, p. 435, nr. 7.
- 1846 *Fasciolaria inermis*, Jonas. JONAS, Moll. der Descript. de l'Egypte (196), p. 63.
- 1847 *Fasciolaria filamentosa*. REEVE (145), vol. IV, Fasciolaria, pl. II, figs. 4 a, b.
- 1850 *Fasciolaria inermis* Jonas. PHILIPPI, Abbild. u. Beschreib. (134), vol. III, p. 122, Fasciolaria, pl. III, fig. 3.
- 1859 *Fasciolaria filamentosa*, Lamarck. CHENU, Manuel (19), vol. I, p. 180, fig. 896 (on p. 179).
- 1869 — — Chemn. VON FRAUENFELD, Nicobaren (55), p. 859.
- 1869 — — Lam. VON MARTENS, v. d. Decken's Reisen (103), p. 61.
- 1876 — — Martini. KOBELT, Turbinella u. Fasciolaria in Conch.-Cab. (81), pp. 136—138, nr. 6, pl. 24, fig. 1; (and *F. inermis* Jonas) pl. 25, fig. 1.
- 1880 — — Lam. VON MARTENS, Mauritius (105), p. 245.
- 1881 — — Lam. TRYON (177), vol. III, pp. 75—76, pl. 59, figs. 8—10; pl. 60, figs. 12, 13 (fig. 8 = REEVE, fig. 4 a; figs. 9, 12 = KIENER, pl. 8, fig. 1; pl. 9, fig. 2; fig. 10 = QUOY et GAIMARD, pl. 35, fig. 2; fig. 13 = PHILIPPI, Abbild., pl. III, fig. 3).
- 1882 — — Chemn. (*Fusus*). DUNKER, Index Moll. maris Japon. (48), p. 48.
- 1884 — — Lamarck. E. A. SMITH, Alert (160), p. 497, nr. 44.
- 1887 — — Lam. VON MARTENS, Mergui (107), p. 183, nr. 134.
- 1893 *Fasciolaria (Pleuroploca) filamentosa* Lamarck. DAUTZENBERG, Séchelles (32), p. 81.

- 1894 *Fasciolaria filamentosa* Lamarck and var. *ferruginea* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 91.
- 1899 *Fasciolaria filamentosa*, Lam., MELVILL and STANDEN, Torres Straits (123), p. 158, nr. 47.
- 1903 *Fasciolaria inermis* Jonas (= *filamentosa*). STURANY, Gastr. d. Roth. Meeres (171), pp. 241, 270—271.
- 1911 *Fasciolaria filamentosa* Lamarck. SCHEPMAN, Siboga (155), p. 294, nr. 2.

Obi Major, 1 specimen, belonging to the typical form with tubercled shoulder.

Distribution: East Indian Archipelago (on reefs and on sandy bottom): Amboina (Leyden Museum); Nusa-Laut-island near Amboina (Siboga); Misol (Leyden Mus.); Kur-island near Kei Is. (Siboga); Rotti-island and Savu-island (Siboga); Tjilatjap, S. coast of Java (Leyden Mus.).

Vanikoro and Tikopia, Melanesia (Astrolabe); New Caledonia. — Torres Straits (MELVILL and STANDEN); Australia (LAMARCK).

Philippines (Cuming); Japan (DUNKER). — Mergui-archipelago (Anderson); Nicobars (Novara); Andamans; Ceylon (KIENER).

Gulf of Aden; Red Sea, especially the form *inermis* (KIENER, PHILIPPI, STURANY); Zanzibar (von der Decken); Seychelles (DUFO, DAUTZENBERG); Amirantes (Alert); Mauritius (LIÉ-NARD); Réunion (DESHAYES); Madagascar (SGANZIN); Sakatia near Nossi-Bé (Pollen and van Dam); Mozambique (VON MARTENS).

Genus *Latirus* Montfort, 1810

(= *Lathyrus* Latreille, 1825;

Polygona Schumacher, 1817).

175. *Latirus craticulatus* (Linné).

- 1758 *Murex craticulatus*. LINNÉ, Syst. Nat. X (94), p. 755, nr. 495.
- 1844 *Turbinella craticulata*. Gmelin. KÜSTER, Turbinella u. Fasciolaria (81), pp. 21—22, nr. 16, pl. 6, fig. 8.
- 1847 — — REEVE (145), vol. IV, Turbinella, pl. II, fig. 7.
- 1876 — — Gmelin. KOBELT, Turbinella u. Fasciolaria (81), p. 118, nr. 124, pl. 31, figs. 6, 7.
- 1910 *Latirus craticulatus* Linné. DAUTZENBERG, Halmahera (38), p. 2. Halmahera (recorded by DAUTZENBERG).

Genus *Fusinus* Rafinesque, 1815¹⁾

(= *Fusus* Lamarck, 1799; (non *Fusus* Helbling, 1779, = *Cumia* Bivona, 1838);

= *Colus* Museum Calonianum, 1797 (not valid)).

W. H. DALL (29) has pointed out that the generic name *Fusus* cannot be retained for *Murex colus* L. and its allies to which it has been applied by LAMARCK, as the name *Fusus* has already been used in subgeneric form by HELBLING for other Mollusca.

176. *Fusinus (Fusinus) colus* (Linné).

1758 *Murex colus*. LINNÉ, Syst. Nat. X (94), p. 753, nr. 480.

1880 *Fusus colus* Linné sp., KOBELT, Pyrula u. Fusus (73), pp. 146—147, nr. 4, pl. 30, fig. 3; pl. 47, fig. 1.

1910 *Fusus colus* Linné. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

FAM. MITRIDAE.

Genus *Mitra* Martyn, 1784.

177. *Mitra (Mitra) episcopalis* (Linné).

1705 *Mitra Episcopi*. RUMPHIUS (151), p. 97, pl. XXIX, fig. K.

1757 *Buccinum Mitra Episcopalis, seu penna*. Mitre, à fond blanc, tacheté régulièrement de rouge. D'ARGENVILLE (4), part I, pp. 219, 224, pl. 9, fig. C.

1758 *Voluta Mitra episcopalis*. LINNÉ, Systema Naturae, X (94), p. 732, nr. 368.

1767 — — — LINNÉ, Syst. Nat. XII (96), p. 1193, nr. 425.

1780 *Mitra Episcopalis*. CHEMNITZ, Conch.-Cab. (122), vol. IV, pp. 205—209, pl. CXLVII, figs. 1360, 1360 a.

1791 *Voluta episcopalis*. GMELIN (56), p. 3459, nr. 94.

1798 *Mitra* LAMARCK, Tableau encycl. (49 a), pl. 369, figs. 2, 4 (*Mitra episcopalis* in the Explanation of plates by BORY DE ST.-VINCENT, p. 166; 1827).

1811 *Mitra episcopalis*. LAMARCK, Mitra (84 e), p. 197, nr. 1 and var. B.

1822 — — — LAMARCK, An. s. vert. (85), vol. VII, p. 299, nr. 1.

1828 — — — SOWERBY, Genera (168), Mitra, fig. 1.

¹⁾ See: IREDALE (197), p. 262 (RAFINESQUE's Analyse de la Nature, 1815).

- 1832 *Mitra episcopalis*. DESHAYES, *Encycl. méth.* (49), vol. II, part 3, p. 449, nr. 4.
- 1832 — — QUOY et GAIMARD, *Astrolabe* (140), vol. II, pp. 634—638, pl. 45, figs. 1—7.
- 1839 — — Linné. KÜSTER, *Volutacea* (78), pp. 34—36, pl. A, fig. 2; pl. 7, figs. 9, 10.
- 1839 — — Lam.. KIENER (71), vol. III, *Mitra*, pp. 3—4, nr. 1, pl. 1, figs. 1, 1.
- 1842 — — REEVE, *Conchologia systematica*, vol. II, p. 252, pl. 279, fig. 1.
- 1844 — — Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. X, pp. 297—299, nr. 1.
- 1844 — — REEVE (145), vol. II, *Mitra*, pl. I, fig. 5.
- 1855 *Voluta mitra* (pars). HANLEY, *Ipsa Linn. Conch.* (58), pp. 231—232, 508.
- 1859 *Mitra episcopalis*, Linné. CHENU, *Manuel* (19), vol. I, pp. 192—193, fig. 996.
- 1869 *Mitra episcopalis* L.. VON FRAUENFELD, *Nicobaren* (55), p. 859.
- 1869 *Mitra episcopalis*, (L.) Lam.. VON MARTENS, v. d. *Decken's Reisen* (103), p. 61.
- 1874 — — Linnaeus. SOWERBY, *Thesaurus* (167), vol. IV, *Mitra*, p. 2, nr. 1, pl. I, fig. 3.
- 1880 — — L.. VON MARTENS, *Mauritius* (105), p. 249.
- 1882 *Mitra (s. str.) episcopalis*, Linné. TRYON (177), vol. IV, p. 111, pl. 32, fig. 1.
- 1884 *Mitra episcopalis*, Linné. E. A. SMITH, *Alert* (160), p. 498, nr. 48.
- 1894 *Mitra (Mitra) episcopalis* Linné. HORST et SCHEPMAN, *Cat.* (63), p. 71.
- 1899 *Mitra episcopalis*, L.. MELVILL and STANDEN, *Torres Straits* (123), p. 157, nr. 39.
- 1902 — — L.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 119.
- 1908 *Mitra episcopalis*, Lin.. NOBRE, *Timor* (128), p. 210.
- 1910 — — Linné. DAUTZENBERG, *Halmahera* (38), p. 2.

1911 *Mitra episcopalis* Linné. SCHEPMAN, Siboga (155), p. 266, nr. 1.

Obi Major, 1 specimen.

Recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago (on reefs); Ceram (Leyden Museum); S. coast of Ceram (RUMPHIUS); Amboina (Leyden Mus.); Nusa-Laut-island near Amboina, reef, and Lucipara-island, reef (Siboga); Waigeu and Misol (Leyden Mus.); Timor (Leyden Mus., VON MARTENS, NOBRE); Larentuka, Flores (Leyden Mus.); Java (Novara, Berlin Museum); Banka (Leyden Mus.).

Torres Straits (MELVILL and STANDEN). — Tonga (Astrolabe); Tahiti, on the reefs (Cuming). — Philippines, on the reefs (Cuming); Singapore (Leyden Mus.); Ceylon (REEVE).

Seychelles and Amirantes, on muddy sand (DUFO); Agalega Is. (Robillard); Mauritius (LIÉNARD, Möbius); Réunion (DES-HAYES); Madagascar (SGANZIN); Mozambique (Alert).

178. *Mitra (Mitra) papalis* (Linné).

1758 *Voluta Mitra papalis*. LINNÉ, Systema Naturae, X (94), pp. 732—733, nr. 369.

1839 *Mitra papalis* Linné. KÜSTER, Volutacea (78), pp. 36—38, nr. 2, pl. 7, figs. 1, 2.

1844 *Mitra papalis* REEVE (145), vol. II, Mitra, pl. II, fig. 9.

1911 *Mitra papalis* Linné. SCHEPMAN, Siboga (155), p. 266, nr. 3.

Laiwui, Obi Major, at 23 M., mud (Siboga exp.).

Distribution: East Indian Archipelago: Amboina; Nusa-Laut-island near Amboina; Misol; Timor.

Paumotu; Gilbert Is.; Caroline Is..

Seychelles; Cargados; Mauritius; Madagascar; East African coasts.

179. *Mitra (Mitra) xerampelina* Melvill.

1911 *Mitra xerampelina* Melvill. SCHEPMAN, Siboga (155), p. 268, nr. 9

North of Salomakiëe-island, at 45 M., coral-bottom and Lithothamnion (Siboga exp.).

Distribution: Sulu-archipelago. — Aden.

180. *Mitra (Cancilla) hilaris* (Linné).

1771 *Voluta hilaris*. LINNÉ, Mantissa (97), p. 548.

1780 — *filosa*. BORN, Mus. Caes. Vind. (16), p. 225, pl. 9, figs. 9, 10.

1791 — — GMELIN (56), p. 3465, nr. 111.

1839 *Mitra filosa* Gmelin. KÜSTER, Volutacea (78), p. 47, nr. 15, pl. 9, figs. 3, 4; pl. 13, figs. 7, 8.

1844 — — Lamk.. DESHAYES—LAMARCK (86), vol. X, pp. 321—322, nr. 33.

1844 — — REEVE (145), vol. II, Mitra, pl. XI, figs. 81 a, b.

1902 *Mitra filaris* L. VON MARTENS, Rumphius Gedenkb. (110), p. 119.

Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago: Amboina; Waigeu; Dammer-island; Timor; Rotti; Flores; Java.

Sulu-archipelago; Philippines. — Tahiti. — Andaman Is.. — Mauritius; Réunion.

181. *Mitra (Cancilla) interlirata* Reeve.

1844 *Mitra interlirata*. REEVE in: Proceedings of the Zoological Society of London, 1844, p. 173.

1844 — — REEVE (145), vol. II, Mitra, pl. X, fig. 70.

1911 *Mitra (Cancilla) interlirata* Reeve. SCHEPMAN, Siboga (155), p. 273, nr. 24.

Laiwui, Obi Major, at 23 M., mud (Siboga exp.).

Distribution: East Indian Archipelago: Salawatti; Kei Is.; Sumbawa; Postilion-islands; Lombok; Java; Northern Celebes; Makassar; Saleyer; Banka.

Viti Is.; Samoa; Hawaii. — Philippines; Mergui-archipelago. — Mauritius.

182. *Mitra (Chrysame) ferruginea* Lamarck.

1811 *Mitra ferruginea*. LAMARCK, Mitra (84 e), p. 200, nr. 10.

1839 — — Lamarck. KÜSTER, Volutacea (78), pp. 68—69, nr. 42, pl. 13, figs. 1, 2.

1844 — — REEVE (145), vol. II, Mitra, pl. IV, fig. 28.

1910 *Mitra (Chrysame) ferruginea* Lamarck. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Distribution: East Indian Archipelago: Amboina; Tjilatjap, S. coast of Java. Paumotu; Tahiti. — Philippines; Japan. — Mauritius; Réunion.

183. *Mitra (Chrysame) adusta* Lamarck.

1811 *Mitra adusta*. LAMARCK, Mitra (84 e), p. 201, nr. 12.

1839 — — Lamarck. KÜSTER, Volutacea (78), pp. 40—41, nr. 5, pl. 7, fig. 5.

1844 — — REEVE (145), vol. II, Mitra, pl. IV, fig. 25.

1894 *Mitra (Nebularia) adusta* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 74.

1910 *Mitra (Chrysame) adusta* Lamarck. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Bachan (Bernstein, Leyden Museum).

Distribution: East Indian Archipelago: Ceram; Amboina; Nusa-Laut-island near Amboina; Waigeu; New Guinea; Kur-island; Timor; Adonara; Flores; Bawean-island; Celebes; Talaut Is.; Mentawai Is..

Paumotu. — Philippines; Mergui-archipelago.

Genus *Vexillum* Bolten, 1798

(= *Vulpecula* Blainville, 1824;

Turris Montfort, 1810; non Bolten, 1798;

Tiara Swainson, 1840; non *Tiara* Swainson, 1831;
nec *Thiara* Bolten, 1798;

Turricula (Klein) Adams; non Hermann, 1783; nec
Schumacher, 1817; nec Beck, 1837 (*Helicidae*)).

The section *Callithea* Swainson, 1840, has been united to
Vexillum s. str. by COSSMANN (23).

184. *Vexillum (Vexillum) vulpecula* (Linné).

- 1705 *Turricula*. RUMPHIUS (151), p. 98, pl. XXIX, fig. R.
- 1758 *Voluta Vulpecula*. LINNÉ, *Systema Naturae*, edit. X (94),
p. 732, nr. 365.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1193, nr.
422 (exclusive of the references to
D'ARGENVILLE, pl. 12, fig. V; and
PETIVER, *Gaz.*, pl. 56, fig. 1).
- 1780 — — BORN, *Testacea musei caes. Vindob.*
(16), p. 227.
- 1780 *Turricula. Vulpecula*. CHEMNITZ (122), vol. IV, pp. 213—
215, pl. CXLVIII, fig. 1366.
- 1791 *Voluta Vulpecula*. GMELIN (56), p. 3451, nr. 54.
- 1798 *Mitra* LAMARCK, *Tableau encycl.* (49 a), pl. 373,
fig. 2 (*Mitra vulpecula* in the Explanation of
plates by BORY DE ST.-VINCENT, p. 166;
1827).
- 1811 *Mitra vulpecula*. LAMARCK, *Mitra* (84 e), pp. 207—208,
nr. 29 (exclusive of var. B).
- 1817 *Voluta Vulpecula*. DILLWYN, *A descriptive Catalogue of*
recent shells, vol. I, p. 547, nr. 112.
- 1818 — — WOOD, *Index Testaceologicus*, p. 97,
pl. 20, fig. 109.
- 1822 *Mitra vulpecula*. LAMARCK, *An. s. vert.* (85), vol. VII,
pp. 309—310, nr. 29.
- 1824 *Vulpecula vulpecula*. DE BLAINVILLE in: *Dict. d. sc.*
nat. (45), vol. 31, p. 107.
- 1832 *Mitra vulpecula*. DESHAYES, *Encycl. méth.* (49), vol. II,
pp. 454—455, nr. 20.

- 1839 *Mitra vittata* [? not of Swainson]. KIENER (71), vol. III, Mitra, pp. 67—68, nr. 66, pl. 20, figs. 61, 61.
- — *vulpecula*, Lam.. KIENER, *ibid.*, pp. 76—77, nr. 74, pl. 21, figs. 64, 64.
- — *melongena* [not of Lamarck]. KIENER, *ibid.*, pp. 77—78, nr. 75, pl. 21, figs. 65, 65.
- 1839 *Mitra melongena* [not of] Lamarck. KÜSTER, *Volutacea* (78), p. 57, nr. 27, pl. 10, figs. 8, 9.
- — *vulpecula*, Linné Gmelin. KÜSTER, *ibid.*, pp. 58—60, nr. 29, pl. 10, figs. 12, 13; pl. 11, figs. 1—3.
- 1844 *Mitra vulpecula*. Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. X, p. 318, nr. 29.
- 1844 — — REEVE, (145), vol. II, *Mitra*, pl. VIII, figs. 55 a—c.
- 1855 *Voluta vulpecula*. HANLEY, *Ipsa* Linn. *Conch.* (58), pp. 229—230, 507.
- 1859 *Mitra (Turricula) vulpecula*, Linné. CHENU, *Manuel* (19), vol. I, p. 194, fig. 1026 (on p. 196).
- 1864 *Mitra vulpecula* L.. CROSSE et FISCHER in: *Journal de Conchyliologie*, vol. XII, p. 337.
- 1869 *Turricula vulpecula* L.. VON FRAUENFELD, *Nicobaren* (55), p. 860.
- 1874 *Mitra vulpecula*, Linnaeus. SOWERBY, *Thesaurus* (167), vol. IV, *Mitra*, p. 30, nr. 403, pl. II, figs. 10—14.
- 1882 *Turricula (s. str.) vulpecula*, Linn.. TRYON (177), vol. IV, p. 167, pl. 49, figs. 410—413.
- 1891 *Mitra (Turricula) vulpecula* L.. P. FISCHER, *Indo-Chine* (53), p. 138 (reprint, p. 54).
- 1894 *Turricula (Vulpecula) vulpecula* Linné. HORST et SCHEP-MAN, *Cat.* (63), p. 78.
- 1902 *Turricula vulpecula* L.. VON MARTENS, *Rumphius* *Genckb.* (110), p. 119.
- 1906 *Mitra (Turricula) vulpecula* Linné. DAUTZENBERG et H. FISCHER, *Indo-Chine et Yunnan* (41), pp. 387—388.
- 1908 *Turricula vulpecula*, (Lin.). NOBRE, *Timor* (128), p. 211.

- 1909 *Turricula vulpecula* L.. LAMY, Java (89), p. 465.
 1911 — — Linné. SCHEPMAN, Siboga (155),
 pp. 279—280, nr. 1, pl. XXIII, fig. 6
 (radula).
 1915 *Turricula (Vulpecula) vulpecula* L.. TESCH, Timor (175),
 I, pp. 45—46, nr. 61, pl.
 LXXIX, figs. 97 a, b.

East coast of H a l m a h e r a, 1 specimen.

Distribution: East Indian Archipelago: Amboina (Leyden Museum, VON MARTENS); Timor (Leyden Mus., VON MARTENS, NOBRE); Dilly, Timor (NOBRE); Flores (VON MARTENS); Larentuka, Flores (Leyden Mus.); Sumbawa (Siboga); Java (Novara, Museum Heidelberg, LAMY); Gorontalo, Northern Celebes and Badjoa, Southern Celebes (Leyden Mus.).

Tahiti (Novara). — Philippines, „under stones and on mud-banks at low water” (Cuming); Pulo Kondor near Lower Cochin-China (Mansuy). — Mauritius (Leyden Mus.).

Fossil in the Pliocene of Timor and in deposits in that island, that may be Upper Pliocene or Lower Pleistocene.

185. *Vexillum (Vexillum) regina* (G. B. Sowerby I).

- 1828 *Mitra Regina*. Sowerby, Genera (168), part 31, Mitra, fig. 4.
 1839 *Mitra regina* Sowerby. KUSTER, Volutacea (78), p. 43, nr. 9, pl. 8, figs. 5, 6.
 1844 — — Swain., DESHAYES in DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 345—346, nr. 87.
 1844 — — REEVE (145), vol. II, Mitra, pl. VII, fig. 48.
 1910 *Mitra (Turricula) regina* Sowerby. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Distribution: China. — Madagascar.

186. *Vexillum (Vexillum) sanguisuga* (Linné).

- 1758 *Voluta Sanguisuga*. LINNÉ, Syst. Nat. X (94), p. 732, nr. 364.
 1839 *Mitra stigmataria* Lamarck. KUSTER, Volutacea (78), pp. 48—49, nr. 17, pl. 9, figs. 5, 6; pl. 10, figs. 4, 5.
 1844 — — REEVE (145), vol. II, Mitra, pl. III, fig. 15.
 1894 *Turricula (Callithea) stigmataria* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 81.

Obi Is. (Bernstein, Leyden Museum).

Distribution: East Indian Archipelago: Amboina; Kei Is.; Aru Is.; Sumbawa; Saleyer.

Philippines; Pulo Kondor near Lower Cochin China. — Seychelles; Amirantes; Mauritius.

187. *Vexillum (Costellaria) collinsoni* (A. Adams).

1874 *Mitra Collinsoni*, A. Adams. SOWERBY, Thesaurus (167), vol. IV, Mitra, p. 35, nr. 482, pl. XXVII, fig. 622.

1911 *Turricula (Costellaria) Collinsoni* A. Adams, var., SCHEPMAN, Siboga (155), p. 282, nr. 13.

Laiwui, Obi Major, at 23 M., mud (Siboga exp.).

Distribution: East Indian Archipelago: Java; Makassar.
Corea Strait.

188. *Vexillum (Costellaria) amandum* (Reeve).

1845 *Mitra amanda*. REEVE in: Proceedings of the Zoological Society of London, 1845, p. 59.

1845 — — REEVE (145), vol. II, Mitra, pl. XXXVIII, fig. 318.

1911 *Turricula (Costellaria) amanda* Reeve. SCHEPMAN, Siboga (155), p. 286, nr. 26.

Laiwui, Obi Major, at 23 M., mud (Siboga exp.).

Distribution: East Indian Archipelago: Waigeu; Salawatti; Kei Is.; Timor Sea; Sumbawa; Lombok; Madura-strait; Java; Buton-strait; Makassar.
Polynesia. — Philippines.

189. *Vexillum (Costellaria) exasperatum* (Gmelin).

1791 *Voluta exasperata*. GMELIN (56), p. 3453, nr. 135.

1839 *Mitra exasperata* Chemnitz. KÜSTER, Volutacea (78), p. 45, nr. 12, pl. 8, figs. 13, 14.

1844 — — REEVE (145), vol. II, Mitra, pl. XXI, fig. 162.

1894 *Turricula (Costellaria) exasperata* Chemnitz. HORST et SCHEPMAN, Cat. (63), p. 82.

Obi Is. (Bernstein, Leyden Museum).

Distribution: East Indian Archipelago: Timor; Flores; Java; Sangir Is.
Polynesia. — Philippines; Andaman Is.. — Red Sea; Seychelles; Mauritius; Madagascar; Querimba Is..

FAM. VOLUTIDAE.

Genus *Voluta* Linné, 1758.190. *Voluta vespertilio* Linné.

For synonymy and distribution see my paper on Java Gastropoda (129), pp. 121—123, 163, with the following additions:

1777 *Cochlis volutata muricata, etc.. Murex vespertilio*. MARTINI, Conch.-Cab. (122), vol. III, pp. 245—248, pl. XCVII, fig. 936; pl. XCVIII, fig. 937.

— *Cochlis volutata muricata, corpore porrectiore, etc.. Vespertilio attenuata*. MARTINI *ibid.*, pp. 248—251, pl. XCVIII, figs. 938—940.

- 1786 *Voluta Vespertilio sinistrorsa*. CHEMNITZ, Conch.-Cab. (122), vol. IX, part 1, pp. 53—54, pl. 104, figs. 888—889.
- 1788 *Voluta Vespertilio*, *fascia latissima alba diaphana transversim redimita*. CHEMNITZ (122), vol. X, pp. 148—149, pl. 149, figs. 1399—1400.
- 1795 *Voluta Vespertilio fasciatus*. CHEMNITZ (122), vol. XI, p. 14, pl. 176, figs. 1699—1700.
- 1798 *Plejona vespertilio* Bolten. Museum Boltenianum, p. 60, nr. 755.
- — *cylindracea* Bolten. Mus. Bolt., nr. 758.
- — *murina* Bolten. Mus. Bolt., p. 60, nr. 759.
- — *suilla* Bolten. Mus. Bolt., p. 61, nr. 763.
- — *arachnoidea* Bolten. Mus. Bolt., p. 61, nr. 765.
- — *variegata* Bolten. Mus. Bolt., p. 61, nr. 767.
- 1798 *Voluta* LAMARCK, Tableau encycl. (49 a), pl. 378, figs. 1 a, b (*Voluta Pellis-Serpentis* in the Explanation of plates by BORY DE ST.-VINCENT, p. 167; 1827).
- *Voluta* LAMARCK, *ibid.*, pl. 378, figs. 2 a, b (*Voluta Vespertilio*, a in the Explan. of plates by BORY DE ST.-VINCENT, p. 167; 1827).
- 1817 *Voluta Vespertilio* Lin.. SCHUMACHER, Nouv. syst. (158), pp. 237—238.
- 1818 *Voluta vespertilio*. WOOD, Index Testaceologicus, p. 107, pl. XXI, fig. 151.
- 1832 *Voluta pellis serpentis* Lamk.. DESHAYES, Encycl. méth. (49), vol. III, pp. 1139—1140, nr. 12.
- 1839 *Voluta vespertilio*, Lin.. KIENER (71), vol. III, *Voluta*, pp. 21—22, nr. 16, pl. 20; pl. 22, figs. 1, 1; pl. 21, figs. 1, 1, 2, 2:
- — *pellis-serpentis*, Lam.. KIENER, *ibid.*, pp. 22—23, nr. 17, pl. 23.
- — *mitis*, Lam.. KIENER, *ibid.*, p. 24, nr. 18, pl. 24, figs. 1, 1 and (sinistrous specimen) figs. 2, 2.
- 1841 *Voluta lineolata* mihi. KÜSTER, Volutacea (78), pp. 194—195, nr. 41, pl. 38, fig. 6.

- 1855 *Voluta vespertilio*. HANLEY, Ipsa Linn. Conch. (58), pp. 232—233, 508.
- 1869 *Aulica vespertilio* L.. VON FRAUENFELD, Nicobaren (55), p. 859.
- 1871 *Voluta vespertilio*. CROSSE, Cat. Voluta, in: Journal de Conchyliologie, 1871, vol. XIX, p. 277, sp. 8.
- 1877 *Voluta (Vespertilio) vespertilio*. KOBELT, Catalog Voluta (Jahrbuch deutsch. malak. Gesellschaft, 1877), p. 303, sp. 7.
- 1882 *Voluta (Vespertilio) vespertilio*, Linn.. TRYON (177), vol. IV, p. 86, pl. 25, figs. 43—49, 52.
- 1882 *Voluta vespertilio* Lin.. DUNKER, Index Moll. maris Japon. (48), p. 50.
- 1910 *Voluta vespertilio* Linné. DAUTZENBERG, Halmahera (38), p. 2.
- 1916 *Voluta (Vespertilio) vespertilio* L.. CAES. BOETTGER, Hanseatische Südsee-Expedition (11), p. 299.

Obi Major, 13 specimens showing all intermediate stages from the typical form to the form described as *Voluta serpentina* by LAMARCK.

Specimens from the Obi Is. and from Halmahera, collected by Dr. Bernstein, are in the Leyden Museum.

The species was also recorded from Halmahera by DAUTZENBERG and it was collected at Bachan by VON MARTENS.

Add to distribution: Malay Archipelago: Buton, S. E. of Celebes (RUMPHIUS). — Melanesia: Solomon Is. (Hanseatic Pacific exped.). — Japan (DUNKER).

Genus *Cymbium* Bolten, 1798; Montfort, 1810
(= *Melo* (Museum Calonnianum, 1797)
Broderip, 1826 (in SOWERBY's Genera)).

191. *Cymbium aethiopicum* (Linné).

- 1758 *Voluta aethiopica*. LINNÉ, Systema Naturae, edit. X (94), p. 733, nr. 373 (in part).

- 1764 *Voluta aethiopica*. LINNÉ, Mus. Lud. Ulr. (95), p. 598, nr. 241.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1195, nr. 435 (in part).
- 1777 *Cymbium coronatum fuscum vel rufum, maximum, corona triplici, muricibus rectis, validis* (in part). MARTINI, Conch.-Cab. (122), vol. III, pp. 62—63, pl. LXXV, fig. 784 (tantum).
- *Cymbium clavícula coronata obscure fasciatum & maculatum. Corona aethiopica*. MARTINI, *ibid.*, pp. 57—59, pl. LXXIII, figs. [? 777], 778, 779.
- *Cymbium coronatum fuscum, zonis continuis nigrescentibus fasciatum*. MARTINI, *ibid.*, pp. 60—62, pl. LXXIV, fig. 782.
- 1798 *Cymbium aethiopicum* Bolten. Museum Boltenianum, p. 151, nr. 1895.
- 1798 *Voluta* LAMARCK, Tableau encycl. (49 a), pl. 387, fig. 1; pl. 388, fig. 3 (*Voluta aethiopica*, α and δ in the Explanation of plates by BORY DE ST.-VINCENT, p. 168; 1827).
- 1811 *Voluta aethiopica*. LAMARCK, *Voluta* (84 d), pp. 58—59, nr. 5 and vars. B and C.
- 1817 *Cymbium aethiopicum*. SCHUMACHER, Nouv. syst. (158), p. 237.
- 1822 *Voluta aethiopica*. LAMARCK, An s. vert. (85), vol. VII, p. 331, nr. 6 and vars. b and c.
- 1832 — — Lin.. DESHAYES, Encycl. méth. (49), vol. III, p. 1136, nr. 3 and vars. b, c.
- 1839 — — , Lin.. KIENER (71), vol. III, *Voluta*, pp. 6—7, nr. 3, pl. 5.
- 1841 *Cymbium aethiopicum* Linné. KÜSTER, *Volutacea* (78), pp. 208—210, and vars. A—C, pl. 39, figs. 3—5 (var. A); pl. 41, fig. 4 (var. C).
- 1844 *Voluta aethiopica* Lin.. DESHAYES—LAMARCK, An s. vert. (86), vol. X, pp. 377—379, nr. 6.
- 1847 *Melo Aethiopica*. BRODERIP in SOWERBY, Thesaurus (167), vol. I, p. 413, nr. 3, pl. LXXXI, fig. 9; pl. LXXXII, figs. 13, 14, 19.

- 1855 *Voluta Aethiopica*. HANLEY, *Ipsa* Linn. Conch. (58), pp. 236—237, 509.
- 1860 *Cymbium Aethiopicum*. REEVE (145), vol. XIII, *Cymbium*, species 1, pl. I, fig. 1 a; pl. II, figs. 1 b, c; pl. IV, fig. 1 d.
- 1864 *Melo Aethiopicus*. SOWERBY, *Thesaurus* (167), vol. III, p. 272, nr. 3, pl. 262, fig. 33.
- 1880 *Cymbium Aethiopicum* L.. VON MARTENS, *Mauritius* (105), p. 259.
- 1882 *Melo Aethiopica*, Linn.. TRYON (177), vol. IV, p. 81, pl. 23, fig. 17 (= *Thesaurus*, pl. 262, fig. 33).
- 1894 *Yetus (Melo) aethiopicus* Linné. HORST et SCHEPMAN, *Cat.* (63), p. 66.
- 1902 *Cymbium aethiopicum* L.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 120.
- 1908 *Melo ethiopica*, (Lin.). NOBRE, *Timor* (128), p. 210.
- 1911 *Cymbium aethiopicum* Linné. SCHEPMAN, *Siboga* (155), p. 262.
- 1915 *Melo aethiopica* L.. CAES. BOETTGER, *Wassermoll. Aru-u. Kei-Inseln* (10), p. 131.

East coast of H a l m a h e r a, 1 specimen, uniformly brown with but a slight indication of a light-coloured central band.

The species has been collected at Bachan by Dr. Bernstein (Leyden Museum) and by VON MARTENS.

Distribution: East Indian Archipelago: Buru (*Voyage de la Coquille*); Ceram and Kelang and Manipa between Buru and Ceram (Leyden Museum); Amboina („Coquille"); Misol (Leyden Museum); Aru Is. (C. BOETTGER); Timor (NOBRE); Billiton (Leyden Mus.).

Sulu-archipelago, reef (Siboga).

[? Madagascar (PERRY)].

The habitat „Persian Gulf", given by BONANNI, has been quoted by MARTINI, LAMARCK and KÜSTER, but, as the species has not been recorded by MELVILL and STANDEN in their „Mollusca of the Persian Gulf", its occurring in that region is at least very doubtful.

FAM. HARPIDAE.

Genus *Harpa* Bolten, 1798.192. *Harpa conoidalis* Lamarck.

- 1777 *Cochlis volutata tenuis, ventricosa, etc.. Dolium Nablium vel Nablum*. MARTINI, Conch.-Cab. (122), vol. III, p. 417, pl. CXIX, fig. 1092.
- 1818 *Buccinum costatum*. WOOD, Index Testaceologicus, pl. XXII, fig. 51.
- 1822 *Harpa conoidalis*. LAMARCK, An. s. vert. (85), vol. VII, pp. 255—256, nr. 3.
- 1832 *Harpa ventricosa* Lamk., var. D. DESHAYES, Encycl. méth. (49), vol. II, part 3, p. 186.
- 1835 *Harpa ventricosa*, Lam., var. *Conoïdale*. KIENER (71), vol. VIII, Harpa, pp. 5, 6—8, pl. 3, figs. 4, 4.
- 1843 *Harpa conoidalis*. REEVE (145), vol. I, Harpa, pl. III, figs. 7 a—e.
- 1844 *Harpa conoidalis* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. X, p. 131, nr. 3.
- 1853 *Harpa striatula*. A. ADAMS in: Proceedings Zoolog. Society, London, p. 173, pl. XX, figs. 7, 8.
- 1857 *Harpa conoidalis* Lamarck. KÜSTER, Cassis, etc. (76), pp. 92—93, pl. 68, figs. 1—3.
- 1860 *Harpa nablium*, Mart.. SOWERBY, Thesaurus (167), vol. III, p. 170, nr. 4, pl. 232, figs. 14—17; pl. 233, fig. 24.
- 1869 *Harpa conoidalis* Lk.. VON FRAUENFELD, Nicobaren (55), pp. 858, 892.
- 1874 *Harpa conoidalis* Lamarck. TAPPARONE—CANEFRI, Magenta (173), p. 130.
- 1877 *Harpa ligata* (Menke) Sutor. SUTOR, Harpa (214), pp. 107—110, nr. 5, pl. 5, fig. 2.
- — *conoidalis*, Lamarck. SUTOR, *ibid.*, pp. 110—112, nr. 6.
- 1880 *Harpa conoidalis* Lam.. VON MARTENS, Mauritius (105), p. 262.
- 1882 — — Lam.. DUNKER, Index Moll. maris Japon. (48), p. 45.
- 1883 *Harpa conoidalis*, Lam.. TRYON (177), vol. V, p. 98 (exclusive of synonym *H. articularis*, Lam.). pl. 40, figs. 61, 63, 64.

- 1894 *Harpa conoidalis* Lamarck and vars. *legata* Menke and *nablium* (Martini) Sutor. HORST et SCHEPMAN, Cat. (63), pp. 58—59.
- 1901 *Harpa conoidalis* Lam.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 424.
- 1909 *Harpa conoidalis* Lk.. LAMY, Java (89), p. 465.

Obi Major, 2 specimens.

Distribution: East Indian Archipelago: Ceram, Manipa between Ceram and Buru, Amboina and Waigeu (Leyden Museum); Timor (Leyden Mus.); Java (LAMY); Banka (Leyden Mus.).

Melanesia: Duke of York Is. (SUTOR). — Polynesia: Tonga (Leyden Mus.). — Philippines (SOWERBY, Magenta); Manila and Hongkong (Novara); Japan (DUNKER); Coromandel Coast (MARTINI); Madras (Novara); Ceylon (REEVE); Bombay (MELVILL and STANDEN).

Mauritius (LIÉNARD, Robillard); Sakatia near Nossi-Bé (Pol-len and van Dam).

193. *Harpa amouretta* Bolten.

- 1798 *Harpa amouretta* Bolten. Museum Boltinianum, p. 150, nr. 1877.
- 1817 *Harpa oblonga*. SCHUMACHER, Nouv. syst. (158), p. 208.
- 1822 *Harpa minor*. LAMARCK, An. s. vert. (85), vol. VII, p. 257, nr. 7.
- 1910 — — Lamarck. DAUTZENBERG, Halmahera (38), p. 2.
Halmahera (recorded by DAUTZENBERG).

FAM. OLIVIDAE.

Genus *Oliva* Martyn, 1786

(= *Porphyria* Bolten, 1798;

Ispidula Gray, 1847;

Dactylus (Klein) P. Fischer, 1883).

194. *Oliva amethystina* (Bolten).

- 1798 *Porphyria amethystina* Bolten. Museum Boltinianum, p. 35, nr. 440.
- 1810 *Oliva guttata*. LAMARCK, Terebellum, Ancillaria, *Oliva* (84 c), p. 313, nr. 14.
- 1840 — — , Lamarck. KÜSTER, *Oliva* (183), pp. 14—15, nr. 7, pl. 6, figs. 12, 13.
- 1850 — *cruenta*. REEVE (145), vol. VI, *Oliva*, pl. XIV, figs. 30 a—d.
- 1870-'71 *Oliva emicator*, Meuschen. MARRAT in SOWERBY, Thesaurus (167), vol. IV, *Oliva*, p. 8, nr. 31, pl. V, figs. 57—60.
- 1876 *Oliva guttata* Lamarck. WEINKAUFF, *Oliva* (183), p. 26, nr. 7, pl. 9, figs. 1—3.
- 1911 — — — SCHEPMAN, Siboga (155), pp. 249—250, nr. 2.
Laiwui, Obi Major, at 23 M., mud (Siboga exp.).

Distribution: East Indian Archipelago: Ceram, Amboina; Nusa-Laut-island; Waigeu; Flores; Tanah Djampeah; Sumbawa; Paternoster-islands; Java; Sula Is.; Celebes; Buton; Saleyer; Borneo; Banka.

Viti Is.; Society Is. — Philippines; China. — Zanzibar; Seychelles; Amirantes; Mauritius; Madagascar.

195. *Oliva elegans* Lamarck.

- 1705 *Cylinder septimus*, Kamelotjes. RUMPHIUS (151), p. 120, pl. XXXIX, fig. 5.
- 1773 *Cylinder ventricosus ex coeruleo et luteo maculatus, zonis viridibus cinctus, vulgaris. Oliva guttula, undulata et fasciata*. MARTINI, Conch.-Cab. (122), vol. II, pp. 168—169, pl. XLVIII, figs. 511, 511 a.
- 1798 *Oliva* LAMARCK, Tableau encycl. (49 a), pl. 367, figs. 3 a, b (*Oliva elegans*, a in the Explanation of plates by BORY DE ST.-VINCENT, p. 166; 1827).
- *Oliva* LAMARCK, *ibid.*, pl. 365, figs. 4 a, b (*Oliva tricolor* in the Expl. of plates by B. DE ST.-VINCENT, p. 165; 1827).
- 1810 *Oliva elegans*. LAMARCK, Terebellum, Ancillaria, *Oliva* (84 c), pp. 312—313, nr. 11.
- — *tricolor*. LAMARCK, *ibid.*, p. 316, nr. 22.
- 1822 *Oliva elegans*. LAMARCK, An. s. vert. (85), vol. VII, p. 422, nr. 11.
- — *tricolor*. LAMARCK, *ibid.*, pp. 425—426, nr. 22.
- 1832 *Oliva tricolor*. DESHAYES, Encycl. méth. (49), vol. III, p. 652, nr. 17.
- 1834 *Oliva elegans*. QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 10—11, nr. 2, pl. 46, figs. 2—4.
- 1835 *Oliva tringa*. DUCLOS, Monographie des Olives, pl. 8, figs. 5, 6.
- 1835-'40 *Oliva tricolor*. DUCLOS, *ibid.*, pl. 20, figs. 9—13.
- — *elegans*. DUCLOS, *ibid.*, pl. 21, figs. 1—6; pl. 32, figs. 1—2.
- 1844 *Oliva elegans* Lamk. DESHAYES—LAMARCK, An. s. vert. (86), vol. X, p. 611, nr. 11.
- — *tricolor* Lamk. DESHAYES—LAMARCK, *ibid.*, p. 615, nr. 22.
- 1845 *Oliva tringa*. DUCLOS in CHENU, Illustr. conchyl. (17), *Oliva*, pl. 9, figs. 5, 6.
- — *tricolor*. DUCLOS, *ibid.*, pl. 22, figs. 9—13.

- 1845 *Oliva elegans*. DUCLOS, *ibid.*, pl. 23, figs. 1—6; pl. 34, figs. 1—2; pl. 35, fig. 11.
- 1850 *Oliva elegans*. REEVE (145), vol. VI, *Oliva*, pl. XII, figs. 20 a, b, c.
- — *tricolor*. REEVE, *ibid.*, pl. XII, figs. 22 a, b.
- 1857 *Oliva tricolor*, Lamarck. DUCROS DE ST. GERMAIN, *Revue crit. Oliva* (46), p. 37, nr. 10.
- — *elegans*, Lamarck. DUCROS DE ST. GERMAIN, *ibid.*, pp. 44—45, nr. 19.
- 1869 *Porphyria elegans* Lk.. VON FRAUENFELD, *Nicobaren* (55), p. 858.
- — *tricolor* Lk.. VON FRAUENFELD, *ibid.*, p. 859.
- 1870-'71 *Oliva elegans*, Lamk.. MARRAT in SOWERBY, *Thesaurus* (167), vol. IV, *Oliva*, p. 15, nr. 72, pl. XI, figs. 158—160.
- — *flava*, Marrat. MARRAT, *ibid.*, pp. 15—16, nr. 73, pl. XI, figs. 156—157.
- — *infrenata*, Marrat. MARRAT, *ibid.*, p. 16, nr. 74, pl. XII, fig. 161.
- — *guttula*, Martini. MARRAT, *ibid.*, p. 16, nr. 76, pl. XII, figs. 165—168.
- 1871 *Oliva elegans* Lam.. LISCHKE, *Japan. Meeresconch.* (98), vol. II, p. 61.
- 1874 *Oliva elegans* Lamarck. TAPPARONE—CANEFRI, *Magenta* (173), p. 126.
- 1877 *Oliva elegans* Lamarck. WEINKAUFF, *Oliva* (183), pp. 97—98, nr. 67, pl. 26, figs. 1—3, 5, 6.
- — *tricolor* Lamarck. WEINKAUFF, *ibid.*, pp. 101—102, nr. 71, pl. 27, figs. 1—3.
- 1880 *Oliva elegans* Lam.. VON MARTENS, *Mauritius* (105), p. 260.
- — *tricolor* Lam.. VON MARTENS, *ibid.*, p. 260.
- 1882 *Oliva elegans* Lam.. DUNKER, *Index Moll. maris Japon.* (48), p. 46.
- 1883 *Oliva (s. str.) elegans*, Lam. and var. *tricolor*, Lam.. TRYON (177), vol. V, p. 76, pl. 20, figs. 81—83; pl. 21, figs. 84, 86—88 (figs. 83, 84 = *Thesaurus*, figs. 156, 161; fig. 88 = DUCLOS, *Monographie*, pl. 8, fig. 6).

- 1894 *Oliva elegans* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 47.
 — — *tricolor* Lamarck. HORST et SCHEPMAN, *ibid.*, p. 49.
 1902 *Oliva elegans* Lam., VON MARTENS, Rumphius Gedenkb. (110), p. 123.
 — — *tricolor* Lam., VON MARTENS, *ibid.*, p. 123.
 1908 *Oliva elegans*, Lamk., NOBRE, Timor (128), p. 212.
 1909 *Oliva elegans* Lk. and var. *tricolor* Lk., LAMY, Java (89), p. 465.
 1910 *Oliva tricolor* Lamarck. DAUTZENBERG, Halmahera (38), p. 2.
 1911 *Oliva elegans* Lamarck. SCHEPMAN, Siboga (155), p. 250, nr. 4.
 1923 *Oliva elegans* Lamarck. OOSTINGH, Java (129), pp. 124—125.

Obi Major, 2 specimens. One specimen of the brownish red colour-variety, resembling the specimen previously recorded by me from the Bay of Popoh, S. coast of Java; the other specimen belongs to the form *tricolor*, it resembles fig. 1 of plate 27 of WEINKAUFF's monograph.

Specimens of the typical *Ol. elegans* and of the form *tricolor* from the Obi Is. are also in the Leyden Museum (coll. Dr. Bernstein). The form *tricolor* has been recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago (on reefs and sandy bottom): Buru (VON MARTENS); Ceram (Leyden Mus.); Amboina (Leyden Mus., VON MARTENS); Doreh, New Guinea (Astrolabe); Misol (Leyden Mus.); Timor (LAMARCK, Leyden Mus., VON MARTENS, NOBRE); Rotti-island and Savu (Siboga); Adonara (VON MARTENS); Larentuka, Flores (Leyden Mus., VON MARTENS); Java (LAMARCK, Novara, LAMY); Bay of Popoh, S. coast of Java (OOSTINGH); Tjilatjap, S. coast of Java (Leyden Mus.); Gorontalo, Northern Celebes (Riedel); Banka (Leyden Mus.).
 N. W. coast of Australia. — New Caledonia; Viti Is. (REEVE); Lord Hood's Island, Paumotu (MARRAT).

Philippines (Magenta); Nagasaki, Southern Japan (LISCHKE); China; Singapore (Leyden Mus.); Calcutta (MARRAT); Madras (Novara); Ceylon (JAY, Novara).

Red Sea (Leyden Mus.); Annesley Bay, S. of Massaua, Eritrea (MARRAT); East African coasts (VON MARTENS); Seychelles (Möbius); Mauritius (REEVE, Robillard).

There can be but little doubt, that *Oliva elegans* and *O. tricolor* are but one species, though they are considered distinct by most authors. The typical *O. tricolor* has two or three greenish bands. There are however also specimens with rather indistinct bands, showing at the same time some indication of an arrangement of the spots in longitudinal zigzag lines. Such forms gradually pass into the typical *elegans*.

196. *Oliva bulbiformis* Duclos.

- 1835-'40 *Oliva bulbiformis*. DUCLOS, Monographie des Olives, pl. 27, figs. 10—13.
- — *dactyliola* (in part). DUCLOS, *ibid.*, pl. 27, fig. 9.
- 1845 *Oliva bulbiformis*. DUCLOS in CHENU, *Illustr. conchyl.* (17), *Oliva*, pl. 27, figs. 21—24; pl. 29, figs. 10—13.
- — *dactyliola* (in part). DUCLOS in CHENU, *ibid.*, pl. 29, fig. 9.
- 1850 *Oliva bulbiformis*. REEVE (145), vol. VI, *Oliva*, pl. XIII, figs. 26 a, b, c.
- 1857 *Oliva bulbiformis*, Duclos. DUCROS DE ST. GERMAIN, *Revue critique Oliva* (46), pp. 46—47, nr. 21.
- 1870-'71 *Oliva bulbiformis*, Duclos. MARRAT in SOWERBY, *Thesaurus* (167), vol. IV, *Oliva*, p. 18, nr. 87, pl. XIV, figs. 201—204.
- — *dactyliola*, Duclos (in part). MARRAT in SOWERBY, *ibid.*, p. 19, nr. 92, pl. XIV, fig. 211.
- 1877 *Oliva bulbiformis* Duclos. WEINKAUFF, *Oliva* (183), pp. 98—99, nr. 68, pl. 26, figs. 4, 7.
- 1883 *Oliva bulbiformis*, Duclos. TRYON (177), vol. V, p. 77, pl. 21, figs. 94—96 (fig. 94 = *Thesaurus*, fig. 201; figs. 95, 96 = REEVE, figs. 26 b, c).
- 1894 *Oliva bulbiformis* Duclos. HORST et SCHEPMAN, *Cat.* (63), p. 47.

- 1895 *Oliva bulbiformis* Duclos. K. MARTIN, Foss. v. Java (120), pp. 53—54, pl. VIII, figs. 120, 121.
 1919 *Oliva bulbiformis* Duclos. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 76, 131.

Obi Major, 1 specimen.

Distribution: East Indian Archipelago: „Moluccas” (REEVE, Leyden Museum); Waigeu (Leyden Mus.); Tjilatjap, S. coast of Java (Leyden Mus.); Banka (Leyden Mus.).

Melanesia: Solomon Is. (DUCLOS).

Fossil in the Pliocene of Waled, Residency Cheribon, Java (K. MARTIN).

197. *Oliva funebris* Lamarck.

For synonymy and distribution (recent and fossil) see my paper on Gastropoda from Java (129), pp. 125—126, and besides the following references:

- 1773 *Cylinder ventricosus, sepultura Principis appellatus* (in part). MARTINI, Conch.-Cab. (122), vol. II, pp. 155—157, pl. XLV, figs. 480—481.
 1832 *Oliva funebris*. DESHAYES, Encycl. méth. (49), vol. III, p. 653, nr. 19.
 1880 *Oliva funebris* Lam.. VON MARTENS, Mauritius (105), p. 260.
 1910 *Oliva funebris* Lamarck. DAUTZENBERG, Halmahera (38), p. 2.

Obi Major, 1 specimen.

The species has been recorded from Halmahera by DAUTZENBERG.

Add to Distribution: Seychelles and Amirantes (DUFO).

198. *Oliva dactyliola* Duclos.

- 1835-'40 *Oliva dactyliola*. DUCLOS, Monographie des Olives, pl. 27, figs. 5—8 (non 9).
 1845 *Oliva Valentina*. DUCLOS in CHENU, Illustr. conchyl. (17), *Oliva*, pl. 28, figs. 23, 24.
 1870-'71 *Oliva dactyliola*, Duclos, MARRAT in SOWERBY, Thesaurus (167), vol. IV, *Oliva*, p. 19, nr. 92, pl. XIV, figs. 208—210 (not 211).
 1877 *Oliva dactyliola* Duclos. WEINKAUFF, *Oliva* (183), pp. 99—100, nr. 69, pl. 26, figs. 8, 11.
 1894 *Oliva dactyliola* Duclos. HORST et SCHEPMAN, Cat. (63), pp. 47—48.

Obi Is. (Bernstein, Leyden Museum).

Distribution: East Indian Archipelago: Amboina; New Guinea; Timor; Banka.

199. *Oliva vidua* (Bolten).

- 1798 *Porphyria vidua* Bolten. Museum Boltenianum, p. 34, nr. 412.
 1810 *Oliva maura*. LAMARCK, Terebellum, Ancillaria, *Oliva* (84 c), p. 311, nr. 7.
 1840 — — Lamarck. KÜSTER, *Oliva* (183), pp. 7—9, nr. 2, pl. 1, figs. 2—4; pl. 2, figs. 3, 4, 8, 9; pl. 5, fig. 17.
 1850 *Oliva Maura*. REEVE (145), vol. VI, *Oliva*, pl. VII, figs. 10 b—g (not fig. 10 a).
 1870-'71 *Oliva Maurittiana*, Martini. MARRAT in SOWERBY, Thesaurus (167), vol. IV, *Oliva*, p. 14, nr. 63, pl. X, figs. 133—140.
 1876 *Oliva maura* Lamarck. WEINKAUFF, *Oliva* (183), pp. 21—22, nr. 2.
 1902 *Oliva maura* Lam., VON MARTENS, Rumphius Gedenkb. (110), p. 123.
 1910 — — Lamarck. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago: Ceram; Amboina; Misol; Timor; Solor-island; Lombok; Java; Talaut Is.; Buton; Borneo; Banka.

New Guinea; New Caledonia. — Cape York, N. Australia. — Philippines; Formosa; Mergui-archipelago; Andamans; Ceylon. — Red Sea; Seychelles; Mauritius.

200. *Oliva reticulata* (Bolten).

- 1773 *Cylinder ventricosus viridescens reticulatus, ex nigro teselatum bifasciatus, columella crocea*. MARTINI, Conch.-Cab. (122), vol. II, pp. 169—170, pl. XLVIII, figs. 512—513.
 1798 *Porphyria reticulata* Bolten. Museum Boltenianum, p. 33, nr. 396.
 1810 *Oliva sanguinolenta*. LAMARCK, Terebellum, Ancillaria, *Oliva* (84 c), p. 316, nr. 23 and var. β .
 1822 — — LAMARCK, An. s. vert. (85), vol. VII, p. 426, nr. 23.
 1832 — — DESHAYES, Encycl. méth. (49), vol. III, pp. 652—653, nr. 18.
 1834 — — QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 11—12, nr. 3, pl. 46, figs. 5, 6.
 1835-'40 *Oliva sanguinolenta*. DUCLOS, Monographie des Olives, pl. 20, figs. 14—16; pl. 33, figs. 3, 4.
 — — *Evania*. DUCLOS, ibid., pl. 20, figs. 3, 4.
 — — *pintamella*. DUCLOS, ibid., pl. 33, figs. 7, 8.

- 1840 *Oliva zebra*. KÜSTER, *Oliva* (183), „Inhalt zu Heft 1“, pl. 5, figs. 5, 6.
- 1844 *Oliva sanguinolenta* Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. X, pp. 615—616, nr. 23.
- 1845 *Oliva sanguinolenta*. DUCLOS in CHENU, *Illustr. conchyl.* (17), *Oliva*, pl. 22, figs. 14—16; pl. 35, figs. 3, 4.
- — *Evania*. DUCLOS, *ibid.*, pl. 22, figs. 3, 4.
- — *pintamella*. DUCLOS, *ibid.*, pl. 35, figs. 7—10.
- 1850 *Oliva sanguinolenta*. REEVE (145), vol. VI, *Oliva*, pl. XIII, figs. 25 a, b.
- 1857 *Oliva sanguinolenta*, Lamarck. DUCROS DE ST. GERMAIN, *Revue crit. Oliva* (46), pp. 37—38, nr. 11.
- 1869 *Porphyria sanguinolenta* Lk.. VON FRAUENFELD, *Nico-baren* (55), p. 859.
- 1870-'71 *Oliva evania*, Duclos. MARAT in SOWERBY, *Thesaurus* (167), vol. IV, *Oliva*, p. 16, nr. 77, pl. XII, figs. 162, 163.
- — *viridescens*, Martini [Lamk., p. err.]. MARRAT in SOWERBY, *ibid.*, pp. 16—17, nr. 79, pl. XII, figs. 169—172.
- 1876 *Oliva sanguinolenta* Lamk.. WEINKAUFF, *Oliva* (183), pp. 37—38, nr. 15, pl. 1, figs. 7, 8; pl. 5, figs. 5, 6; pl. 10, figs. 1—4 (pls. 1 and 5 issued by KÜSTER in 1840).
- 1880 *Oliva sanguinolonta* [sic] Lam.. VON MARTENS, *Mauritius* (105), p. 260.
- 1883 *Oliva sanguinolenta*, Lam.. TRYON (177), vol. V, p. 79, pl. 23, figs. 27—29; pl. 24, fig. 33 (fig. 29 = *Thesaurus*, fig. 163; fig. 33 = CHENU, *Illustr. conch.*, pl. 35, fig. 8).
- 1894 *Oliva sanguinolenta* Lamarck and var. *zebra* Küster. HORST et SCHEPMAN, *Cat.* (63), p. 49.
- 1902 *Oliva sanguinolenta* Lam.. VON MARTENS, *Rumphius Gedenk.* (110), p. 123.

- 1908 *Oliva sanguinolenta*, Lamk. NOBRE, Timor (128), p. 212.
 1910 — — Lamarck. DAUTZENBERG, Halma-
 hera (38), p. 2.
 1911 — — Lamarck. SCHEPMAN, Siboga (155),
 p. 252, nr. 10.

Obi Major, 1 rather small specimen, rather dark coloured by the numerous waved lines (like fig. 25 b of REEVE).

East coast of Halmahera, 1 specimen of a much lighter colour with more distant lines (like fig. 2 on pl. 10 of WEINKAUFF).

The species has been previously recorded from the Obi Is. by HORST and SCHEPMAN in their Catalogue of the Leyden Museum (specimens collected by Dr. Bernstein), and from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago: Amboina, reef (Siboga); Banda (VON MARTENS); Misol (Leyden Mus.); New Guinea (DUCLOS); Timor (LAMARCK, Leyden Mus., VON MARTENS, NOBRE); Larentuka, Flores (Leyden Mus.); Lombok (Siboga); Java (Novara); Tjilatjap, S. coast of Java (Leyden Mus.); Northern Celebes (VON MARTENS); Banka (Leyden Mus.).

New Caledonia (CROSSE); Tahiti (Novara). — Philippines (Cuming); Japan (Rein); Singapore (Leyden Mus.). — Mauritius (SGANZIN); Madagascar (VON MARTENS).

201. *Oliva miniacea* (Bolten).

- 1798 *Porphyria miniacea* Bolten. Museum Boltinianum, p. 33, nr. 391.
 1810 *Oliva erythrostroma*. LAMARCK, Terebellum, Ancillaria, Oliva (84 c),
 p. 309, nr. 3.
 1840 — — , Lamarck. KÜSTER, Oliva (183), pp. 6—7, nr. 1,
 pl. 1, figs. 5, 6 (not 7, 8).
 1850 — , — REEVE (145), vol. VI, Oliva, pl. V, figs. 7 a—g.
 1870-'71 *Oliva porphyritica*, Martini. MARRAT in SOWERBY, Thesaurus
 (167), vol. IV, Oliva, p. 12, nr. 55, pl. VII, figs.
 105—110.
 1871 — *masaris*, Duclos. MARRAT in SOWERBY, ibid., p. 42, nr. 223,
 pl. XXV, fig. 475.
 1876 *Oliva erythrostroma* Lamarck. WEINKAUFF, Oliva (183), pp. 20—21,
 nr. 1, pl. 7, figs. 1—8.
 1910 — — Lamarck. DAUTZENBERG, Halmahera (38), p. 2.
 Halmahera (recorded by DAUTZENBERG).

Distribution: East Indian Archipelago: Amboina; Banda; Flores; Billiton; Banka.

New Caledonia; Tonga. — Philippines; Ceylon.

Seychelles; Mauritius; Madagascar.

202. *Oliva sericea* (Bolten).

1798 *Porphyria sericea* Bolten. Museum Boltenianum, p. 33, nr. 390.

1810 *Oliva textilina*. LAMARCK, Terebellum, Ancillaria, Oliva (84 c), p. 309, nr. 2.

1850 — — REEVE (145), vol. VI, Oliva, pl. VI, figs. 9 a—c.

1870-'71 *Oliva sericea*, Bolten. MARRAT in SOWERBY, Thesaurus (167), vol. IV, Oliva, pp. 13—14, nr. 62, pl. X, figs. 131, 132.

1876 *Oliva textilina* Lamarck. WEINKAUFF, Oliva (183), p. 23, nr. 4, pl. 8, figs. 1—3.

1910 — — Lamarck. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Distribution: East Indian Archipelago: Amboina; Timor; Java; Borneo.

New Guinea; New Holland. — Philippines. — Seychelles; Mauritius.

Fossil in the Pleistocene of Billiton (K. MARTIN).

203. *Oliva ispidula* (Linné).

1705 *Cylinder nonus*. RUMPHIUS (151), p. 120, pl. XXXIX, fig. 7.

1758 *Voluta Ispidula*. LINNÉ, Systema Naturae, edit. X (94), p. 730, nr. 351 (partly).

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1188, nr. 400 (partly).

1773 *Cylinder parvus aureus, fusco maculatus. Mica magna, lutea, maculata*. MARTINI, Conch.-Cab. (122), vol. II, pp. 175—176, pl. XLIX, figs. 522—523.

— *Cylinder parvus, Mica albida guttata, fascia ochracea cincta*. MARTINI, *ibid.*, p. 176, pl. XLIX, figs. 524—525.

— *Cylinder parvus, Mica lactea ex nigro monofasciata*. MARTINI, *ibid.*, p. 176, pl. XLIX, fig. 530.

— *Cylinder parvus, Mica vel cinerea vel olivae colorem referens, punctata, lineata, et maculata* (in part). MARTINI, *ibid.*, pp. 177—178, pl. XLIX, fig. 527.

— *Cylinder parvus, Mica litterulis rufis in albo picta*. MARTINI, *ibid.*, p. 178, pl. XLIX, fig. 531.

— *Cylinder parvus, Mica ex nigro et albo nebulata*. MARTINI, *ibid.*, pp. 179—180, pl. XLIX, fig. 538.

1798 *Porphyria ispidula* Bolten. Museum Boltenianum, p. 35, nr. 431.

- 1798 *Oliva* LAMARCK, Tableau encycl. (49 a), pl. 366, figs. 6 a, b (*Oliva hispidula*, α in the Explanation of plates by BORY DE ST.-VINCENT, p. 166; 1827).
- *Oliva* LAMARCK, *ibid.*, pl. 366, figs. 3 a, b; pl. 367, figs. 2 a, b (*Oliva Oriola*, α and β in the Explan. of plates, p. 166).
- 1810 *Oliva ispidula*. LAMARCK, Terebellum, Ancillaria, *Oliva* (84 c), p. 321, nr. 40, vars. A, B, C, D.
- — *oriola*. LAMARCK, *ibid.*, pp. 321—322, nr. 41 and var. β .
- 1822 *Oliva ispidula*. LAMARCK, An. s. vert. (85), vol. VII, p. 431, nr. 40.
- — *oriola*. LAMARCK, *ibid.*, p. 432, nr. 41.
- 1832 *Oliva ispidula*. DESHAYES, Encycl. méth. (49), vol. III, p. 655, nr. 23.
- — *oriola*. DESHAYES, *ibid.*, pp. 655—656, nr. 24.
- 1835 *Oliva ispidula*. DUCLOS, Monographie des Olives, pl. 7, figs. 1—15.
- — *flaveola*. DUCLOS, *ibid.*, pl. 6, figs. 17—20.
- — *stelleta*. DUCLOS, *ibid.*, pl. 8, figs. 11—12.
- — *tigridella*. DUCLOS, *ibid.*, pl. 8, figs. 13—16.
- — *olorinella*. DUCLOS, *ibid.*, pl. 6, figs. 15—16.
- 1844 *Oliva ispidula* Lin.. DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 621—622, nr. 40.
- — *oriola* Lamk.. DESHAYES—LAMARCK, *ibid.*, pp. 622—623, nr. 41.
- 1845 *Oliva ispidula*. DUCLOS in CHENU, Illustr. conchyl. (17), *Oliva*, pl. 8, figs. 1—18.
- — *flaveola*. DUCLOS, *ibid.*, pl. 7, figs. 17—20.
- — *stelleta*. DUCLOS, *ibid.*, pl. 9, figs. 11—12.
- — *tigridella*. DUCLOS, *ibid.*, pl. 9, figs. 13—16.
- — *olorinella*. DUCLOS, *ibid.*, pl. 7, figs. 15—16.
- — *egira*. DUCLOS, *ibid.*, pl. 5, figs. 24—25.
- 1850 *Oliva ispidula*. REEVE (145), vol. VI, *Oliva*, pl. XVII, figs. 34 a-k.
- 1855 *Voluta ispidula*. HANLEY, Ipsa Linn. Conch. (58), pp. 216, 505.

- 1857 *Oliva stelleta*, Duclos. DUCROS DE ST. GERMAIN, *Revue critique Oliva* (46), pp. 64—67, nr. 42.
- — *ispidula*, Lamarck. DUCROS DE ST. GERMAIN, *ibid.*, pp. 67—68, nr. 43.
- 1869 *Oliva ispidula*, (L.) Lam., var. *stellata*, Duclos. VON MARTENS, v. d. Decken's Reisen (103), p. 63.
- 1869 *Ispidula ispidula* L.. VON FRAUENFELD, *Nicobaren* (55), p. 859.
- 1871 *Oliva ispidula*, Linnaeus. MARRAT in SOWERBY, *Thesaurus* (167), vol. IV, *Oliva*, p. 21, nr. 104, pl. XVI, figs. 241—253.
- — *flaveola*, Duclos. MARRAT, *ibid.*, p. 21, nr. 105, pl. XVI, fig. 255.
- — *candida*, [not of] Lam.. MARRAT, *ibid.*, p. 21, nr. 107, pl. XVI, fig. 257.
- 1874 *Oliva (Ispidula) hispidula* Linneo. TAPPARONE—CANEFRI, *Magenta* (173), p. 127.
- 1876 *Oliva ispidula* Linné sp.. WEINKAUFF, *Oliva* (183), pp. 34—37, nr. 14, pl. 4, figs. 1—4, 6—10, 15, 16, 18, 19.
- 1880 *Oliva ispidula* L.. VON MARTENS, *Mauritius* (105), p. 261.
- 1883 *Oliva ispidula*, Linn.. TRYON (177), vol. V, pp. 86—87, pl. 33, figs. 34—38, 40—43, 28, 29 (figs. 34—38, 40, 41 = *Thesaurus*, figs. 247, 249—251, 253, 255, 257; figs. 42, 29, 28 = DUCLOS, *Monogr.*, pl. 8, figs. 13, 15, 16; fig. 43 = CHENU, *Illustr. conchyl.*, pl. 5, fig. 24).
- 1894 *Oliva ispidula* Linné and vars. *flaveola* Duclos and *candida* Marrat. HORST et SCHEPMAN, *Cat.* (63), pp. 52—53.
- *Oliva egira* Duclos. HORST et SCHEPMAN, *ibid.*, p. 53.
- 1895 *Oliva (Ispidula) ispidula* Linn.. K. MARTIN, *Foss. v. Java* (120), pp. 58—59, pl. VIII, figs. 134, 134 a, 135, 136.
- 1900 *Oliva (Ispidula) ispidula*, Linnaeus. BULLEN NEWTON, *Raised beaches Red Sea* (127), p. 512.
- 1901 *Oliva ispidula* L.. MELVILL and STANDEN, *Persian Gulf* (124), part I, p. 426.

- 1902 *Oliva ispidula* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 123.
- 1910 — — Linné. DAUTZENBERG, Halmahera (38), p. 2.
- 1911, 1913 *Oliva ispidula* Linné. SCHEPMAN, Siboga (155), pp. 254, 451, nr. 16.
- 1915 *Oliva ispidula* Lk.. STAUB, Sangkulirangbai (169), p. 125.
- 1915 *Oliva (Oliva) ispidula* L.. CAES. BOETTGER, Wassermoll. Aru- u. Kei-Inseln (10), p. 131.
- 1915 *Oliva (Ispidula) ispidula* L.. TESCH, Timor (175), I, p. 41, nr. 50, pl. LXXIX, figs. 86 a, b.
- 1919 *Oliva ispidula* Linn.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 77, 123, 125, 131, 141.
- Not: 1764 *Voluta Ispidula*. LINNÉ, Mus. Lud. Ulr. (95), p. 594.
- Not: *Oliva oriola* [non Lamarck]. DUCLOS, Monographie des Olives, and in CHENU, Illustr. conchyl..

Obi Major, 3 specimens.

East coast of Halmahera, 1 specimen.

Previously recorded from the Obi Is. in the Catalogue of the Leyden Museum (coll. Dr. Bernstein) and from Halmahera by DAUTZENBERG. The species was collected at Bachan by VON MARTENS.

Distribution: East Indian Archipelago (on stony bottom, shores and mud-flats): Buru (VON MARTENS); W. coast of Ceram, stony bottom (Siboga); Amboina and Misol (Leyden Mus.); Aru Is., on the shore (C. BOETTGER); Timor (VON MARTENS); Lombok (Siboga); Java (Novara); Tjilatjap, S. coast of Java (Leyden Mus.); Northern Celebes (A. B. Meyer); Badjoa, Southern Celebes (Leyden Mus.); Borneo (MARRAT); Sangkulirang-bay, E. Borneo, on mud-flats (STAUB).

Viti Is. (TRYON); Tahiti (DUCLOS); Hawaii (MARRAT). — Philippines (REEVE); Japan and China (DUCLOS); Hongkong (Magenta). — Singapore (Leyden Mus.). — Cocos Is. (MARRAT). — Madras (Novara); Ceylon; Laccadives (MARRAT); Charbar, S. E. Persia, on sandy mud (MELVILL and STANDEN).

Red Sea (Leyden Mus.); Zanzibar; Seychelles (DUFO); Mauritius (FAVANNE, SGANZIN, LIÉNARD); Réunion (DESHAYES).

Fossil in the Pliocene of Timor and Java (Sondé, Resid. Madiun and Waled, Resid. Cheribon), and in the Upper Miocene near the Wijnkoopsbay, Java.

Pleistocene raised beach of the Gulf of Suez (BULLEN NEWTON).

FAM. TEREBRIDAE.

Genus *Terebra* Bruguière, 1789.204. *Terebra subulata* (Linné).

1839 *Terebra subulata* Linné. KÜSTER, Volutacea (78), pp. 23—24, nr. 27, pl. 6, fig. 1.

1860 *Terebra subulata*. REEVE (145), vol. XII, *Terebra*, pl. VI, fig. 22.

1894 *Terebra (Myurella) subulata* Linné. HORST et SCHEPMAN, Cat. (63), p. 7.

Obi Is. (Bernstein, Leyden Museum).

205. *Terebra muscaria* Lamarck.

1822 *Terebra muscaria*. LAMARCK, An. s. vert. (85), vol. VII, p. 285, nr. 5.

1839 — — Lamarck. KÜSTER, Volutacea (78), pp. 4—5, nr. 1, pl. 2, fig. 8.

1860 — — REEVE (145), vol. XII, *Terebra*, pl. III, fig. 9.

1894 *Terebra (Subula) muscaria* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 2.

1910 *Terebra muscaria* Linné (sic). DAUTZENBERG, Halmahera (38), p. 1.

Obi Is. (Bernstein, Leyden Mus.).

Halmahera (recorded by DAUTZENBERG).

206. *Terebra dimidiata* (Linné).

1839 *Terebra dimidiata* Linné. KÜSTER, Volutacea (78), pp. 7—8, nr. 5, pl. 1, fig. 8; pl. 4, figs. 2, 3.

1860 — — REEVE (145), vol. XII, *Terebra*, pl. VII, fig. 27.

1910 — — Linné. DAUTZENBERG, Halmahera (38), p. 1.

Halmahera (recorded by DAUTZENBERG).

207. *Terebra crenulata* (Linné).

1839 *Terebra crenulata* Linné. KÜSTER, Volutacea (78), pp. 8—9, nr. 6, pl. 1, fig. 10; pl. 3, figs. 7, 8.

1860 — — REEVE (145), vol. XII, *Terebra*, pl. II, figs. 6 a, b.

1894 *Terebra (Subula) crenulata* Linné. HORST et SCHEPMAN, Cat. (63), p. 2.

Obi Is. (Bernstein, Leyden Mus.).

208. *Terebra maculata* (Linné).

1705 *Strombus primus sive subula*. RUMPHIUS (151), p. 100, pl. XXX, fig. A.

1757 *Turbo clavus, maculis coeruleis decoratus*; le cloud. D'ARGENVILLE (4), pp. 228, 232, pl. 11, fig. A.

- 1758 *Buccinum maculatum*. LINNÉ, *Systema Naturae*, edit. X (94), p. 741, nr. 415.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 613, nr. 269 (in part).
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1205, nr. 479 (exclusive of the reference to RUMPHIUS, pl. XXX, fig. D, *Strombus* 2 and 3).
- 1780 *Turbo tigerinus maximus crassissimus. Buccinum maculatum Linnaei*. CHEMNITZ, *Conch.-Cab.* (122), vol. IV, pp. 284—288, pl. CLIII, fig. 1440.
- 1791 *Buccinum maculatum*. GMELIN (56), p. 3499, nr. 130.
- 1797 *Acus columna trajana*. *Museum Calonnianum*, p. 31, nr. 865.
- 1798 *Epitonium maculatum* Bolten. *Museum Boltenianum*, p. 93, nr. 1204.
- 1816 *Terebra maculata*. LAMARCK, *Tableau encycl.* (49 a), pl. 402, figs. 1 a, b; *Liste des objets repr.*, p. 3; (Explanation of plates by BORY DE ST.-VINCENT, p. 170; 1827).
- 1817 *Subula maculata*. SCHUMACHER, *Nouv. syst.* (158), p. 233.
- 1817 *Buccinum maculatum*. DILLWYN, *A descriptive Catalogue of recent shells*, vol. II, p. 642, nr. 132.
- 1818 — — WOOD, *Index Testaceologicus*, p. 119, pl. XXIV, fig. 129.
- 1822 *Terebra maculata*. LAMARCK, *An. s. vert.* (85), vol. VII, pp. 283—284, nr. 1.
- 1824 *Subula maculata*. DE BLAINVILLE in: *Dict. d. sc. naturelles* (45), vol. 32, p. 206.
- 1829 *Terebra maculata*. DE BLAINVILLE in: *Dict. d. sc. naturelles* (45), vol. 58, p. 282.
- 1832 *Terebra maculata*. DESHAYES, *Encycl. méth.* (49), vol. III, p. 1128, nr. 1.
- 1838-'39 *Terebra maculata*, Lam., KIENER (71), vol. IX, *Terebra*, pp. 4—5, nr. 1, pl. 1, figs. 1, 1, 1 a.

- 1839 *Terebra maculata* Linné. KÜSTER, Volutacea (78), pp. 11—12, pl. A, fig. 1; pl. 2, fig. 7; pl. 3, fig. 1.
- 1844 — — Lamk. DESHAYES—LAMARCK, An. s. vert. (86), vol. X, pp. 238—239, nr. 1.
- 1845 — — HINDS in SOWERBY, Thesaurus (167), vol. I, pp. 150 bis—151 bis, nr. 1, pl. XLII, fig. 33.
- 1852 — — SOULEYET, Voyage de la Bonite (50), p. 612, pl. XLI, figs. 31—37.
- 1855 *Buccinum maculatum*. HANLEY, Ipsa Linn. Conch. (58), pp. 259, 514.
- 1859 *Terebra maculata*, Lamk. DESHAYES, Review Terebra (43), p. 280, nr. 25.
- 1860 *Terebra maculata*. REEVE (145), vol. XII, Terebra, pl. I, fig. 4.
- 1863 — — DESHAYES, Réunion (44), p. 132, nr. 444.
- 1869 *Acus maculata* L.. VON FRAUENFELD, Nicobaren (55), p. 862.
- 1869 *Terebra maculata*. ISSEL, Mar Rosso (65), p. 128, nr. 259.
- 1869 *Terebra maculata*, (L.) Lam.. VON MARTENS, v. d. Decken's Reisen (103), p. 61.
- 1870 *Acus maculata*, Lam.. M'ANDREW, Test. Gulf of Suez (100), p. 438.
- 1880 *Terebra maculata* L.. VON MARTENS, Mauritius (105), p. 229.
- 1882 *Terebra maculata* Lin.. DUNKER, Index Moll. mar. Japon. (48), p. 70.
- 1885 *Terebra maculata* Linn.. TRYON (177), vol. VII, p. 9, pl. 1, figs. 9, 10 (fig. 9 = Thesaurus, fig. 33; fig. 10 = KIENER, pl. 1, fig. 1).
- 1885 *Acus maculata*, Lam.. COOKE, Test. moll. Gulf of Suez (21), part I, p. 329.
- 1885 *Terebra maculata* (Linne). BOOG WATSON, Challenger Gasterop. (182), p. 378, nr. 4.
- 1894 *Terebra (Subula) maculata* Linné. HORST et SCHEP-MAN, Cat. (63), p. 1.

- 1900 *Terebra (Subula) maculata*, Linnaeus. BULLEN NEWTON, Raised beaches Red Sea (127), p. 514, pl. XX, fig. 7.
- 1902 *Terebra maculata* L., VON MARTENS, Rumphius Gedenkb. (110), p. 119.
- 1903 — — Lm., STURANY, Gastr. Rothen Meeres (171), pp. 252, 274.
- 1907 — — Linné. COUTURIER, Tahiti, etc. (25), p. 124.
- 1908 — — , Lin.. NOBRE, Timor (128), p. 215.
- 1909 — — L., LAMY, Java (89), p. 464.
- 1910 — — Linné. DAUTZENBERG, Halmahera (38), p. 1.
- 1913 — — Linné. SCHEPMAN, Siboga (155), p. 367, nr. 6.
- 1915 *Terebra macculata* (sic) Lk., STAUB, Sangkulirangbai (169), p. 133.

Obi Major, 4 specimens; the largest has a length of 164 mm, maximum diameter 42 mm.

The Siboga expedition collected specimens at Laiwui, Obi Major (on mud). Specimens from the Obi Is. (collect. Dr. Bernstein) and also from Ternate are in the Leyden Museum.

This species was mentioned from Halmahera by DAUTZENBERG.

Distribution (especially on sandy bottom): East Indian Archipelago: Amboina (Leyden Museum); Misol (Leyden Mus.); Soweik, New Guinea (Leyden Mus.); Timor (Leyden Mus.); Dilly, Timor (NOBRE); Flores (VON MARTENS); Java (Novara, LAMY); Borneo-bank, Strait of Makassar (Siboga); Sangkulirang-bay, E. Borneo, on coral-reefs (STAUB); Billiton (Leyden Mus.).

Torres Straits (BRAZIER); Port Essington, Northern Australia (REEVE). — Viti Is. (Challenger); Society Is. (REEVE); Tahiti (Novara); Hao, Paumotu (COUTURIER); Hawaii (Uranie et Physicienne). — Philippines (REEVE); ? Japan (DUNKER). — Madras (Novara); Persian Gulf (M'ANDREW).

Red Sea, Gulf of Akabah and Gulf of Suez (ISSEL, M'ANDREW, Leyden Mus., STURANY); Seychelles and Amirantes, in 2½—4 metres, on sandy bottom (DUFO); Mauritius (LIÉNARD, Möbius);

Réunion (DESHAYES); Nossi-Bé near Madagascar (Pollen and van Dam); Mozambique.

Fossil in the raised beaches of the Red Sea (HINDS, BULLEN NEWTON).

209. *Terebra babylonia* Lamarck.

1822 *Terebra babylonia*. LAMARCK, An. s. vert. (85), vol. VII, p. 287, nr. 9.

1839 — — Lamarck. KÜSTER, Volutacea (78), pp. 14—15, nr. 13, pl. 5, fig. 6.

1894 *Terebra (Myurella) babylonia* Lamarck. HORST et SCHEPMAN, Cat. (63), p. 6.

Obi Is. (Bernstein, Leyden Mus.).

210. *Terebra polygyrata* Deshayes.

1860 *Terebra polygyrata*. REEVE (145), vol. XII, Terebra, pl. XXVI, fig. 146.

1913 *Terebra (Strioterebrum) polygyrata* Deshayes. SCHEPMAN, Siboga (155), p. 371, nr. 17.

Laiwui, Obi Major, at 23 M., mud (Siboga exp.).

Fam. Turridae.

Genus *Turris* Bolten, 1798

(= *Pleurotoma* Lamarck, 1799).

211. *Turris babylonia* (Linné).

1843 *Pleurotoma Babylonia*. REEVE (145), vol. I, Pleurotoma, pl. I, fig. 5.

1910 — *babylonia* Linné. DAUTZENBERG, Halmahera (38), p. 2. Halmahera (recorded by DAUTZENBERG).

FAM. CONIDAE.

Genus *Conus* Linné, 1758

(= *Cucullus* Bolten, 1798).

Section *Conus s. str.*

(= *Rhombus* Montfort, 1810;

Coronaxis Swainson, 1840;

Puncticulis Swainson, 1840;

Cylindrella Swainson, 1840; non Pfeiffer, 1840;

Asprella Schaufuss, 1869;

Marmorei, *Arenati*, *Mures* and *Asperi* (pars) of (WEINKAUFF) TRYON).

212. *Conus (Conus) marmoreus* Linné.

1902 *Conus marmoreus* L.. VON MARTENS, Rumph. Gedenkb. (110), p. 121.

1910 — — Linné, DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Bachan (collected by VON MARTENS).

213. *Conus (Conus) arenatus* Hwass.

1894 *Conus (Arenati) arenatus* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 13.

Obi Is. (Bernstein, Leyden Mus.).

214. *Conus (Conus) stercus-muscarum* Linné.

1910 *Conus stercus-muscarum* Linné. DAUTZENBERG, Halmahera (38), p. 2. Halmahera (recorded by DAUTZENBERG).

215. *Conus (Conus) distans* Hwass.

1894 *Conus (Virgines) distans* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 22.

Obi Is. (Bernstein, Leyden Mus.).

216. *Conus (Conus) roseus* Lamarck.

For synonymy and distribution see: „Recent shells from Java” (129), pp. 128—129, and the following additions:

1773 *Conus parvus, etc.. Achates fasciatus* (in part). MARTINI, Conch.-Cab. (122), vol. II, p. 347, pl. LXIII, fig. 707.

1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 322, fig. 7 (*Conus roseus* in the Explanation of plates by BORY DE ST.-VINCENT, p. 158; 1827).

Obi Major, 1 young specimen.

The specimen being very young (length 15 mm), its identification is somewhat uncertain.

217. *Conus (Conus) ebraeus* Linné.

1705 *Musica rusticorum*, Boerenmuzyk. RUMPHIUS (151), p. 106, pl. XXXIII, fig. BB.

1758 *Conus ebraeus*. LINNÉ, Systema Naturae, edit. X (94), p. 715, nr. 268.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 558, nr. 167.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1169, nr. 310.

1773 *Conus brevis, etc.. Conus hebraicus*. MARTINI, Conch.-Cab. (122), vol. II, pp. 259—261, pl. LVI, fig. 617.

— *Conus parvus baseos muricatae, candidus, etc..* MARTINI, *ibid.*, pp. 343—345, pl. LXIII, figs. 699, 700.

1788 *Vitta nigra, seu conus ebraeus cingulis nigerrimis latis etc..* CHEMNITZ, Conch.-Cab. (122), vol. X, p. 94, pl. 144 A, figs. q, r.

- 1791 *Conus ebraeus*. GMELIN (56), pp. 3384—3385, nr. 22.
- 1792 *Conus ebraeus*; Linn.. HWASS in BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 619—621, nr. 15 (vars. A—F).
- 1798 *Conus* LAMARCK, *Tableau encycl.* (49 a), pl. 321, figs. 1, 2, 7, 8, 9 (figs. 2, 9 *Conus haebreus* (sic!), vars. β and α ; figs. 1, 7, 8 *Conus vermiculatus*, vars. α , β and α in the Explanation of plates by BORY DE ST.-VINCENT, p. 158; 1827).
- 1810 *Conus ebraeus*. LAMARCK, *Conus* (84), p. 34, nr. 16, and var. B.
- — *vermiculatus*. LAMARCK, *ibid.*, p. 34, nr. 17, and var. B.
- 1817 *Conus ebraeus*. DILLWYN, *A descriptive Catalogue of Recent Shells*, vol. I, p. 398, nr. 81.
- 1818 — — WOOD, *Index Testaceologicus*, pl. XV, fig. 77.
- 1822 *Conus hebraeus*. LAMARCK, *An. s. vert.* (85), vol. VII, p. 451, nr. 16, and var. b.
- — *vermiculatus*. LAMARCK, *ibid.*, pp. 451—452, nr. 17, and var. b.
- 1834 *Conus hebraeus*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, p. 91, nr. 7, pl. 52, figs. 5—51.
- — *vermiculatus*. QUOY et GAIMARD, *ibid.*, p. 92, nr. 8, pl. 52, fig. 6.
- 1838 *Conus hebraeus* L.. KÜSTER, *Conus* (83), pp. 68—69, pl. 10, figs. 10, 11; pl. 23, fig. 1.
- — *vermiculatus* Lam.. KÜSTER, *ibid.*, p. 102, pl. 19, figs. 10, 11.
- 1843 *Conus Hebraeus*. REEVE (145), vol. I, *Conus* pl. XIX, figs. 104 a, b.
- 1845 *Conus hebraeus* Lin.. DESHAYES—LAMARCK (86), vol. XI, pp. 20—22, nr. 16, and var. b.
- — *vermiculatus* Lamk.. DESHAYES—LAMARCK, *ibid.*, p. 22, nr. 17, and var. b.
- 1846 *Conus hebraeus*, Lin.. KIENER (71), vol. II, *Conus*, pp. 45—46, nr. 37, pl. 4, figs. 2, 2; pl. 8, figs. 3, 3 a.

- 1855 *Conus Ebraeus*. HANLEY, Ipsa Linn. Conch. (58), pp. 173, 494.
- 1857 *Conus Ebraeus*, Linn.. SOWERBY, Thesaurus (167), vol. III, p. 9, nr. 67, pl. 189, fig. 56.
- — *vermiculatus*, Lamk., SOWERBY, ibid., pp. 9—10, nr. 68, pl. 189, figs. 52, 53; pl. 191, fig. 112.
- 1859 *Conus (Coronaxis) hebraeus*, Linné. CHENU, Manuel (19), vol. I, p. 244, fig. 1459.
- — (—) *vermiculatus*, Lamarck. CHENU, ibid., p. 244, fig. 1457.
- 1869 *Coronaxis hebraeus* L.. VON FRAUENFELD, Nicobaren (55), p. 863.
- 1869 *Conus hebraeus*, L., v. *C. vermiculatus*, Lam.. VON MARTENS, v. d. Decken's Reisen (103), p. 61.
- 1873 *Conus hebraeus* L.. WEINKAUFF, Conus (83), pp. 159—160.
- — *vermiculatus* Lam.. WEINKAUFF, ibid., pp. 172, 173.
- 1880 *Conus (Coronaxis) Hebraeus* L. (einschliesslich *vermiculatus* Lam.). VON MARTENS, Mauritius (105), p. 219.
- 1882 *Conus ebraeus* Lin.. DUNKER, Index Moll. maris Japon. (48), p. 92.
- 1884 *Conus hebraeus*, Linn.. E. A. SMITH, Alert (160), p. 487, nr. 2.
- 1884 *Conus (Mures) Hebraeus*, Linn. and var. *vermiculatus*, Hwass. TRYON (177), vol. VI, pp. 20—21, pl. 5, figs. 75, 77; pl. 27, fig. 13.
- 1894 *Conus (Mures) hebraeus* L. and var. *vermiculatus* Brug.. HORST et SCHEPMAN, Cat. (63), pp. 14—15.
- 1895 *Conus (Coronaxis) ebraeus* Linné. DAUTZENBERG, Glorieuses (33), p. 104.
- 1901 *Conus (Coronaxis) hebraeus* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 429.
- 1902 *Conus hebraeus* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 121.
- 1907 *Conus ebraeus* Linné and var. *vermiculata* Lamarck. COU-TURIER, Tahiti, etc. (25), p. 126.

- 1908 *Conus hebraeus*, Lin. and var. *vermiculatus*, Lamk.. NOBRE, Timor (128), p. 214.
- 1909 *Conus hebraeus* L. and var. *vermiculatus* Hwass. LAMY, Java (89), p. 464.
- 1911 *Conus hebraeus*, Linn., and var. *vermiculatus*, Lamk. E. A. SMITH, Marine shells Christmas Island (165), p. 315.
- 1913 *Conus (Mures) hebraeus* Linné. SCHEPMAN, Siboga (155), p. 381, nr. 12.
- 1915 *Conus hebraeus* L., CAES BOETTGER, Wassermoll. Aru-u. Kei-Inseln (10), p. 131.
- 1916 — — L., CAES. BOETTGER, Hanseat. Südsee-Exped. (11), p. 300.

Obi Major, 1 specimen of the typical form.

This species was collected at Bachan by VON MARTENS.

Distribution: East Indian Archipelago (on coral reefs, sand and mud): Amboina (Leyden Museum); Aru Is. (C. BOETTGER); Dammer-island (Siboga); Timor (Leyden Mus., VON MARTENS); Dilly, Timor (NOBRE); Flores (VON MARTENS, Siboga); Pater-noster-islands and Lombok (Siboga); Java (LAMY); Tjilatjap, Java (Leyden Mus.); Anjer, Java (VON MARTENS); Talaut Is. and Karkaralong Is. north of Celebes (Siboga); Palos-bay, Celebes (Siboga); Borneo-bank, Strait of Makassar (Siboga); Banka (Leyden Mus.).

Melanesia: New Ireland (Astrolabe, Hanseatic Pacific exped.); Tikopia (Astrolabe); New Hebrides (Hanseatic Pacific exped.); New Caledonia (CROSSE); Viti Is. (TRYON). — Polynesia: Tongatabu (SOWERBY); Paumotu (COUTURIER, Hanseatic Pacific exped.). — Micronesia: Pelew Is. (Hanseatic Pacific exp.).

Christmas Island, Ind. Ocean (E. A. SMITH). — Philippines (Cuming); Japan (A. ADAMS, DUNKER); China; Cochin China (CROSSE); Singapore (Leyden Mus.); Nicobars (Novara); Madras (Novara); Ceylon (REEVE, HANLEY); Laccadive Is. (MELVILL and STANDEN).

Red Sea; Zanzibar (v. d. Decken); Seychelles (DUFO, Möbius); Amirantes (DUFO, Alert); Cargados (LIÉNARD); Mauritius (LISTER, Möbius); Réunion (DESHAYES); Madagascar (SGANZIN); Nossi-Bé near Madagascar (Pollen and van Dam); Glorioso Is. (DAUTZENBERG). — Cape Province (KRAUSS).

The locality Curaçao (Leyden Mus.) is undoubtedly incorrect.

Though WEINKAUFF deals with *C. vermiculatus* as a distinct species, I am compelled to regard it, in accordance with the majority of authors, as specifically identical with *C. ebraeus*, transitional forms being mentioned by several authors. There are also some intermediate specimens in the collections at my disposal.

218. *Conus (Conus) ceylanensis* Hwass.

- 1792 *Conus ceylanensis*; Hwass. HWASS in BRUGUIÈRE, Encycl. méth. (49), vol. I, p. 636.
- 1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 322, fig. 10 (*Conus ceylanensis* in the Explanation of plates by BORY DE ST.-VINCENT, p. 158; 1827).
- 1810 *Conus ceylanensis*. LAMARCK, *Conus* (84), p. 39, nr. 40.
- 1817 — — DILLWYN, A descriptive Catalogue of Recent Shells, vol. I, p. 407, nr. 100.
- 1818 — — WOOD, Index Testaceologicus, pl. XV, fig. 96.
- 1822 *Conus ceylanensis*. LAMARCK, An. s. vert. (85), vol. VII, p. 460, nr. 40.
- 1843 *Conus Ceylanensis*. REEVE (145), vol. I, *Conus*, pl. XXXVII, fig. 199.
- 1845 *Conus ceylanensis* Brug.. DESHAYES—LAMARCK, An. s. vert. (86), vol. XI, p. 35, nr. 40.
- 1846 — — Brug.. KIENER (71), vol. II, *Conus*, pp. 59—60, nr. 49, pl. 14, fig. 5.
- 1857 *Conus Ceylanensis*, Brug.. SOWERBY, Thesaurus (167), vol. III, p. 10, nr. 75, pl. 192, figs. 139—141.
- — *acutus*. SOWERBY, *ibid.*, p. 16, nr. 119, pl. 192, fig. 142.
- 1873 *Conus ceylonensis* Hwass-Brug.. WEINKAUFF, *Conus* (83), pp. 201—202, pl. 31, fig. 12.
- 1880 *Conus (Coronaxis) Ceylanensis* Hwass. VON MARTENS, Mauritius (105), p. 219.
- 1884 *Conus (Mures) Ceylonensis*, Hwass and var. *acutus*, Sowb.. TRYON (177), vol. VI, p. 23, pl. 6, figs. 94, 96.

Obi Major, 1 specimen.

Distribution: Philippines, on coral reefs (Cuming); Ceylon (HWASS, HANLEY). — Réunion (DESHAYES); Mauritius (LIÉ-NARD).

Section *Lithoconus* Mörch, 1850

(= *Litterati* and *Virgines* (pars) of (WEINKAUFF) TRYON).

219. *Conus* (*Lithoconus*) *millepunctatus* Lamarck.

1913 *Conus* (*Litterati*) *millepunctatus* Lamarck. SCHEPMAN, Siboga (155), p. 378.

Laiwui, Obi Major, 23 M., mud (Siboga exp.).

220. *Conus* (*Lithoconus*) *litteratus* Linné.

1894 *Conus* (*Litterati*) *litteratus* Linné. HORST et SCHEPMAN, Cat. (63), p. 10.

Obi Is. (Bernstein, Leyden Mus.).

221. *Conus* (*Lithoconus*) *eburneus* Hwass.

1894 *Conus* (*Litterati*) *eburneus* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 10.

Obi Is. (Bernstein, Leyden Mus.).

Section *Dendroconus* Swainson, 1840

(*Leptoconus* Swainson, 1840;

Rhizoconus, *Chelyconus*, *Pionoconus*, and *Phasmoconus* Mörch, 1852;

Figulini, *Ammirales*, *Capitanei*, *Dauci*, *Magi*, *Achatini*, and *Bulbi* of (WEINKAUFF) TRYON).

222. *Conus* (*Dendroconus*) *betulinus* Linné.

1705 *Meta Butyri*, Boterweg. RUMPHIUS (151), p. 102, pl. XXXI, fig. C.

1758 *Conus betulinus*. LINNÉ, Systema Naturae, edit. X (94), p. 715.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 557.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1169, nr. 308 (exclusive of the reference to SEBA, vol. III, pl. 45, fig. 1).

1773 *Conus baseos latae, planiusculae subluteus, etc.. Meta butyri flava*. MARTINI, Conch.-Cab. (122), vol. II, pp. 308—310, pl. LX, fig. 665.

— *Conus baseos latae, planiusculae, ex cinereo albus, maculis nigris vel rubris &c. tessellatus* (in part). MARTINI, *ibid.*, pp. 316—318, pl. LXI, fig. 673.

- 1788 *Meta Butyri. Varietas insignis Coni betulini.* CHEMNITZ, Conch.-Cab. (122), vol. X, pp. 69—71, pl. 142, fig. 1321.
- 1791 *Conus betulinus.* GMELIN (56), pp. 3383—3384, nr. 20.
- 1792 *Conus suratensis;* Hwass. HWASS in BRÜGUIÈRE, Encycl. méth. (49), vol. I, pp. 669—670, nr. 63.
- — *betulinus;* Linn.. HWASS in BRUGUIÈRE, *ibid.*, pp. 677—679, nr. 69 (vars. A—F).
- 1795 *Conus Betulinus lineatus.* CHEMNITZ, Conch.-Cab. (122), vol. XI, pp. 50—51, pl. 181, figs. 1752, 1753.
- 1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 329, fig. 4 (*Conus suratensis* in the Explanation of plates by BORY DE ST.-VINCENT, p. 160; 1827).
- *Conus* LAMARCK, *ibid.*, pl. 333, figs. 1, 2, 5, 8; pl. 334, fig. 8; pl. 335, fig. 8 (pl. 333, fig. 8 *Conus betulinus*, α ; pl. 334, fig. 8 *C. betulinus*, β ; pl. 333, figs. 5, 1, 2 *C. betulinus*, γ , δ , ϵ ; pl. 335, fig. 8 *C. betulinus*, ζ in the Explan. of plates by BORY DE ST.-VINCENT, pp. 160—161; 1827).
- 1810 *Conus suratensis.* LAMARCK, *Conus* (84), p. 271, nr. 75.
- — *betulinus.* LAMARCK, *ibid.*, pp. 275—276, nr. 88 and vars. B, C, D, E.
- 1817 *Conus suratensis.* DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 384, nr. 54.
- — *betulinus.* DILLWYN, *ibid.*, p. 392, nr. 70.
- 1818 *Conus suratensis.* WOOD, Index Testaceologicus, pl. 15, fig. 51.
- — *betulinus.* WOOD, *ibid.*, pl. 15, fig. 66.
- 1822 *Conus suratensis.* LAMARCK, An. s. vert. (85), vol. VII, p. 478, nr. 75.
- — *betulinus.* LAMARCK, *ibid.*, pp. 483—484, nr. 88 and vars. b—f.
- 1834 *Conus betulinus.* QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 83—84, nr. 1, pl. 52, fig. 2.

- 1838 *Conus betulinus* L.. KÜSTER, *Conus* (83), pp. 70—72, nr. 56, and vars. A—E, pl. 5, fig. 6; pl. 11, fig. 1; pl. 20, fig. 8.
- — *suratensis* Hwass. KÜSTER, *ibid.*, pp. 92—93, nr. 81, pl. 16, figs. 10, 11.
- 1843 *Conus Suratensis*. REEVE (145), vol. I, *Conus*, pl. IV, fig. 18.
- — *betulinus*. REEVE, *ibid.*, pl. XIII, fig. 67.
- 1845 *Conus suratensis* Brug., DESHAYES—LAMARCK, *An. s. vert.* (86), vol. XI, p. 60, nr. 75.
- — *betulinus* Lin., DESHAYES—LAMARCK, *ibid.*, pp. 67—68, nr. 88.
- 1847 *Conus betulinus*, Lin., KIENER (71), vol. II, *Conus*, pp. 74—75, nr. 61, pl. 38, figs. 1, 1 a, b.
- — *suratensis*, Brug., KIENER, *ibid.*, pp. 75—76, nr. 62, pl. 37, fig. 4.
- 1855 *Conus betulinus*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 171—172, 494.
- 1857-'58 *Conus betulinus*, Linn., SOWERBY, *Thesaurus* (167), vol. III, p. 24, nr. 194, pl. 197, fig. 244.
- — *Suratensis*, Reeve. SOWERBY, *ibid.*, p. 24, nr. 196, pl. 197, fig. 246.
- 1859 *Conus (Dendroconus) betulinus*, Linné. CHENU, *Manuel* (19), p. 244, p. 245, fig. 1466.
- *Conus suratensis*. CHENU, *ibid.*, p. 251, fig. 1544.
- 1873 *Conus betulinus* L.. WEINKAUFF, *Conus* (83), p. 160.
- — *suratensis* (sic) Hwass. WEINKAUFF, *ibid.*, p. 169.
- 1880 *Conus (Dendroconus) betulinus* L.. VON MARTENS, *Mauritius* (105), p. 218.
- 1884 *Conus (Figulini) betulinus*, Linn. and var. *Suratensis*, Hwass. TRYON (177), vol. VI, p. 16, pl. 4, figs. 54, 55.
- 1887 *Conus suratensis*, Hwass. VON MARTENS, *Mergui* (107), p. 175, nr. 73.
- 1888 *Dendroconus betulinus*. JOUSSEAUME, *Mer Rouge* (68), p. 175, nr. 35.
- 1893 *Conus (Dendroconus) betulinus* Linné. DAUTZENBERG, *Séchelles* (32), p. 80.

- 1894 *Conus (Figulini) betulinus* Linné and var. *suratensis* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 12.
- 1901 *Conus (Dendroconus) betulinus*, L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 430.
- 1902 *Conus betulinus* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 120.
- 1906 *Conus betulinus* Linné and var. *immaculata* nov. var.. DAUTZENBERG, Ambodifoutra (37).
- 1908 *Conus betulinus*, Lin.. NOBRE, Timor (128), p. 213.
- 1909 — — L.. LAMY, Java (89), p. 464.

East coast of Halmahera, 1 specimen of the form described as *C. suratensis* by HWASS.

Specimens from the Obi Is. have been collected by Dr. Bernstein according to VON MARTENS.

Distribution: East Indian Archipelago: Buru (Astrolabe, VON MARTENS); Ceram and Manipa between Buru and Ceram (Leyden Mus.); Amboina (Leyden Mus., Gust. Schneider); Dilly, Timor (NOBRE); Java (TRYON, LAMY).

Philippines, in mud in the clefts of rocks at low water (Cuming); China (LAMARCK); Mergui-archipelago (Anderson); Ceylon (REEVE, HANLEY); Jask, Gulf of Oman (MELVILL and STANDEN).

Obock, Somaliland (Faurot); East African coasts (VON MARTENS); Seychelles (DUFO, Möbius, DAUTZENBERG); Amirantes (DUFO); Mauritius (Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Madagascar (SGANZIN); Nossi-Bé and Sakatia near Nossi-Bé (Pollen and van Dam).

223. *Conus (Dendroconus) quercinus* Hwass.

- 1894 *Conus (Figulini) quercinus* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 12.

Obi Is. (Bernstein, Leyden Mus.).

224. *Conus (Dendroconus) magus* Linné.

For synonymy and distribution see: „Recent shells from Java” (129), pp. 130—133, with the following additions and corrections:

- 1764 *Conus magus*. LINNÉ, Mus. Lud. Ulr. (95), p. 560, nr. 171 (for the *description* only, exclusive of the whole synonymy!).

- 1773 *Conus teres striis transversis albo punctatis, etc.. Nubeculae parvae, in striis punctatae.* MARTINI, Conch.-Cab. (122), vol. II, pp. 230—231, pl. LII, figs. 579, 580.
- 1788 *Conus Indicus.* CHEMNITZ, Conch.-Cab. (122), vol. X, pp. 36—37, pl. 140, fig. 1295 (according to CHEMNITZ, vol. XI, p. 62 = *Conus magus* Linn.).
- — *clandestinus.* CHEMNITZ, *ibid.*, pp. 37—38, pl. 140, fig. 1296.
- 1792 *Conus raphanus;* Hwass. HWASS in BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 722—723, nr. 118 (vars. A, B).
- — *magus;* Linn.. HWASS, *ibid.*, pp. 723—725, nr. 119 (vars A-D).
- 1795 *Conus Circae, seu Sagae.* CHEMNITZ, Conch.-Cab. (122), vol. XI, pp. 61—63, pl. 183, figs. 1778, 1779.
- 1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 341, figs. 2, 1 (*Conus raphanus*, α and β in the Explanation of plates by BORY DE ST.-VINCENT, p. 162; 1827).
- — LAMARCK, *ibid.*, pl. 341, figs. 8, 4 (*Conus Magus*, α and β in the Explan. of pl. by B. DE ST.-V., p. 162; 1827).
- 1810 *Conus raphanus.* LAMARCK, *Conus* (84), p. 428, nr. 146, and var. B.
- — *magus.* LAMARCK, *ibid.*, p. 428, nr. 147, and vars. B, C, D.
- 1829 *Conus Raphanus,* Hwass. WAGNER, Conch.-Cab. (122), vol. XII, 1, pp. 31—32, pl. 220, fig. 3052.
- 1849 *Conus striolatus.* KIENER (71), vol. II, *Conus*, pp. 266—267, nr. 233, pl. 105, figs. 1, 1.
- 1849-'50 *Conus magus,* Lin.. KIENER, *ibid.*, pp. 283—284, nr. 250, pl. 67, figs. 1, 1, 1 a, 1 b, 1 c.
- 1855 *Conus magus.* HANLEY, *Ipsa Linn. Conch.* (58), pp. 175, 495.
- 1859 *Conus (Chelyconus) raphanus,* Bruguières. CHENU, Manuel (19), vol. I, p. 246, fig. 1489.

- 1859 *Conus magus*. CHENU, *ibid.*, figs. 1548—1549 (on p. 251).
 1869 *Chelyconus magus* L.. VON FRAUENFELD, *Nicobaren* (55), p. 863.
 1880 *Conus (Pionoconus) magus* L. and var. *epistomium* (non Kien.) Reeve. VON MARTENS, *Mauritius* (105), p. 223.
 — *Conus (Pionoconus) Frauenfeldi* Crosse. VON MARTENS, *ibid.*, p. 223.
 1901 *Conus (Rhizoconus) magus* L.. MELVILL and STANDEN, *Persian Gulf* (124), part I, p. 432.
 1910 *Conus magus* Linné. DAUTZENBERG, *Halmahera* (38), p. 2.

Not: *Conus magus*, LINNÉ, *Systema Naturae*, edit. X and XII.

O b i M a j o r, 4 specimens; 2 of the specimens are typical (more slender form with convex sides), the 2 other are broad-headed, one of them with somewhat concave sides and only two brownish yellow bands, resembling pl. 341, fig. 2 of the *Tableau encyclopédique* (form *raphanus* Hwass).

The species has been recorded from Halmahera by DAUTZENBERG.

Add to Distribution: Angrias Bank, S. W. of Bombay (MELVILL and STANDEN). — East African coasts (VON MARTENS).

225. *Conus (Dendroconus) augur* Hwass.

- 1705 *Voluta maculosa*, geplekte Katjes. RUMPHIUS (151), p. 105, pl. XXXII, fig. Q.
 1773 *Conus teres basi acuminata, maculosa, etc.*. MARTINI, *Conch.-Cab.* (122), vol. II, pp. 288—290, pl. LVIII, fig. 641.
 1792 *Conus augur*; Hwass. HWASS in BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 685—686, nr. 74.
 1798 *Conus* LAMARCK, *Tableau encycl.* (49 a), pl. 333, fig. 6. (*Conus Augur* in the Explanation of plates by BORY DE ST.-VINCENT, p. 160; 1827).
 1810 *Conus augur*. LAMARCK, *Conus* (84), pp. 277—278, nr. 93.
 1817 — — DILLWYN, *A descriptive Catalogue of recent shells*, vol. I, p. 421, nr. 135.

- 1818 *Conus augur*. WOOD, Index Testaceologicus, pl. 16, fig. 130.
- 1821 *Conus Augur*. SWAINSON, Zool. Illustr. (172), vol. I, pl. 65.
- 1822 *Conus augur*. LAMARCK, An. s. vert. (85), vol. VII, p. 487, nr. 93.
- 1838 *Conus Augur* Hwass. KÜSTER, Conus (83), p. 114, nr. 104, pl. 22, fig. 4.
- 1843 *Conus augur*. REEVE (145), vol. I, Conus, pl. II, fig. 7.
- 1845 — — Brug.. DESHAYES—LAMARCK, An. s. vert. (86), vol. XI, pp. 72—73, nr. 93.
- 1847 — — , Brug.. KIENER (71), vol. II, Conus, pp. 116—117, nr. 97, pl. 18, fig. 3.
- 1857-'58 *Conus augur*, Brug.. SOWERBY, Thesaurus (167), vol. III, p. 27, nr. 221, pl. 193, fig. 154.
- 1859 *Conus augur*. CHENU, Manuel (19), vol. I, p. 248, fig. 1517.
- 1873 *Conus augur* Hwass. WEINKAUFF, Conus (83), p. 178.
- 1884 *Conus (Dauci) augur*, Hwass. TRYON (177), vol. VI, p. 51, pl. 15, fig. 89.
- 1894 *Conus (Dauci) augur* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 23.
- 1902 *Conus augur* Hwass. VON MARTENS, Rumphius Gedenkb. (110), p. 121.

O b i M a j o r, 1 specimen.

As far as I know, this is the first locality within the East Indian Archipelago. Though the specimens described by RUMPHIUS hailed undoubtedly from the Moluccas, he did not mention any definite locality.

Distribution: The habitat „Ceylon“, given already by BRUGUIÈRE, has been cited by all subsequent authors (LAMARCK, KÜSTER, REEVE, KIENER and TRYON).

226. *Conus (Dendroconus) spectrum* Linné.

- 1910 *Conus spectrum* Linné. DAUTZENBERG, Halmahera (38), p. 2.
Halmahera (recorded by DAUTZENBERG).

227. *Conus (Dendroconus) cinereus* Hwass.

- 1705 *Voluta cinerea*, Asschepoesters. RUMPHIUS (151), p. 106, pl. XXXII, fig. R.

- 1773 *Conus teres ex cinereo in cyaneum vergens, etc.*. MARTINI, Conch.-Cab. (122), vol. II, pp. 229—230, pl. LII, fig. 578.
- 1788 *Monachus Franciscanus*. CHEMNITZ, Conch.-Cab. (122), vol. X, pp. 68—69 (in part), pl. 142, fig. 1319, (not 1320).
- 1792 *Conus cinereus*; Hwass. HWASS in BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 673—675, nr. 67 (vars. A, B, C, (non D)).
- 1795 *Conus lividus*. CHEMNITZ, Conch.-Cab. (122), vol. XI, pp. 60—61, pl. 183, figs. 1776, 1777.
- 1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 331, figs. 7, 4 (*Conus cinereus*, α and β in the Explanation of plates by BORY DE ST.-VINCENT, p. 160; 1827).
- 1810 *Conus cinereus*. LAMARCK, Conus (84), p. 273, nr. 80 and vars. B and C.
 — — *zebra*. LAMARCK, *ibid.*, pp. 273—274, nr. 82.
 — — *caerulescens*. LAMARCK, *ibid.*, p. 423, nr. 130.
- 1817 *Conus rusticus*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 387, nr. 60 (exclusive of vars. D and E).
- 1818 — — WOOD, Index Testaceologicus, pl. 15, fig. 56.
- 1822 *Conus cinereus*. LAMARCK, An. s. vert. (85), vol. VII, pp. 480—481, nr. 80.
 — — *zebra*. LAMARCK, *ibid.*, p. 481, nr. 82.
 — — *caerulescens*. LAMARCK, *ibid.*, p. 501, nr. 130.
- 1838 *Conus cinereus* Hwass. KÜSTER, Conus (83), pp. 34—35, nr. 22 and vars. A, B, pl. 5, fig. 5 (= var. B); pl. 15, fig. 8 (= typical form).
 — — *caerulescens* Lam.. KÜSTER, *ibid.*, p. 101, nr. 89, pl. 19, figs. 3, 4.
- 1844 *Conus cinereus*. REEVE (145), vol. I, Conus, pl. XLI, figs. 220 a, b.
- 1845 *Conus cinereus* Brug.. DESHAYES—LAMARCK, An. s. vert. (86), vol. XI, pp. 62—64, nr. 80.
 — — *zebra* Lamk.. DESHAYES—LAMARCK, *ibid.*, p. 64, nr. 82 (exclusive of the reference to REEVE).

- 1845 *Conus caeruleus* Lamk. DESHAYES—LAMARCK, *ibid.*, pp. 92—93, nr. 130 (according to DESHAYES a variety of *C. cinereus*).
- 1847 *Conus zebra*, Lam. KIENER (71), vol. II, *Conus*, pp. 171—172, nr. 145, pl. 76, figs. 2, 2.
- 1848 — *Bernardii* [nov. sp.], KIENER, *ibid.*, pp. 220—221, nr. 189, pl. 100, figs. 2, 2.
- 1849 — *cinereus*, Brug. KIENER, *ibid.*, pp. 233—234, nr. 201, pl. 46, figs. 1, 1 a—c.
- 1849 *Conus Bernardi*. REEVE (145), *Conus*, Suppl. plate V, fig. 252.
- 1849-'50 *Conus Gabriellii*, Chenu [M. S.], KIENER (71), vol. II, *Conus*, pp. 315—316, nr. 281, pl. 74, fig. 4.
- 1858 *Conus cinereus*, Rumphius. SOWERBY, *Thesaurus* (167), vol. III, p. 33, nr. 288, pl. 205, fig. 467.
- — *Gabrielli*, Kien. SOWERBY, *ibid.*, p. 33, nr. 289, pl. 205, fig. 468.
- — *Bernhardi*, Kien. SOWERBY, *ibid.*, p. 34, nr. 295 (exclusive of synonym *C. gubba*), pl. 206, fig. 474.
- 1873 *Conus cinereus* Hwass., WEINKAUFF, *Conus* (83), pp. 145—146, 172 (exclusive of synonyms *Conus nisus* Kiener, *C. Kieneri* Reeve and *C. rosaceus* Kiener), cfr. pp. 379, 392.
- — *Bernardii* Kiener. WEINKAUFF, *ibid.*, pp. 240—241 (exclusive of synonym *Conus Gubbae* Knr.), (figures bad!).
- — *Gabrieli* (Chenu) Kiener. WEINKAUFF, *ibid.*, p. 243, pl. 40, figs. 9, 10.
- 1875 — *zebra* Lamarck. WEINKAUFF, *ibid.*, pp. 336, 392 (belongs to *C. cinereus* Hw. according to WEINKAUFF).
- 1884 *Conus (Magi) cinereus*, Hwass and var. *Bernardii*, Kiener. TRYON (177), vol. VI, p. 58, pl. 18, figs. 57, 58, 60 (fig. 57 = *Thesaurus*, fig. 467; fig. 58 = KIENER, pl. 74, fig. 4).

- 1894 *Conus (Magi) cinereus* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 25.
 — — (—) *bernardii* Kiener. HORST et SCHEPMAN, *ibid.*, p. 26.
- 1895 *Conus cinereus* Hwass. K. MARTIN, Foss. v. Java (120), pp. 24—25, pl. IV, figs. 63, 63 a, 64, 65.
- 1902 *Conus cinereus* Hwass. VON MARTENS, Rumphius Gedenkb. (110), p. 121.
- 1915 *Conus cinereus* Hwass. TESCH, Timor (175), I, pp. 21—22, nr. 12, pl. LXXIV, figs. 25 a, b; pl. LXXV, figs. 26 a, b.
- 1919 *Conus cinereus* Hwass. K. MARTIN, Palaeoz. Kenntn. v. Java (119), pp. 73, 141.

Not: *Conus zebra* [not of Lamarck]. REEVE (145), vol. I, *Conus*, pl. XVI, fig. 87.

O b i M a j o r, 2 specimens of the typical form.

Distribution: East Indian Archipelago: Ceram (Leyden Museum); Amboina (Leyden Mus., Gust. Schneider); Tjilatjap, S. coast of Java (Leyden Mus.); Badjoa, Southern Celebes (Leyden Mus.).

Philippines, on mud-banks (Cuming). — Australia.

Fossil in the Pliocene of Timor and in deposits in that island, that may be Upper Pliocene or Lower Pleistocene. Pliocene of Sondé, Residency Madiun, Java.

228. *Conus (Dendroconus) achatinus* Hwass.

For synonymy and distribution see: „Recent shells from Java” (129), p. 133.

The following synonymy of the form, known as *Conus nigropunctatus* Sowerby, may be added:

- 1843 *Conus Adansoni* [not of Lamarck]. REEVE (145), vol. I, *Conus*, species 193, pl. XXXVI, fig. 190 f; pl. XLIII, fig. 193.
- 1846 *Conus unicolor* [not of Sowerby]. KIENER (71), vol. II, *Conus*, pl. 61, fig. 4.
- 1849 *Conus Adansoni*, Lamarck (*pars*). KIENER, *ibid.*, p. 246 (for pl. 61, fig. 4) and Errata.
- 1858 *Conus Adansoni*, [not of] Lamk.. SOWERBY, Thesaurus (167), vol. III, p. 38, nr. 331, pl. 199, figs. 286—289.

- 1858 *Conus nigro-punctatus*. SOWERBY, *ibid.*, p. 38, nr. 332, pl. 201, fig. 342.
- 1874 *Conus nigropunctatus* Sowerby. WEINKAUFF, *Conus* (83), pp. 250—251, pl. 34, figs. 11, 12.
- 1884 *Conus (Achatini) catus*, Hwass, var. *nigropunctatus*, Sowb.. TRYON (177), vol. VI, p. 64, pl. 20, figs. 8, 9 (= *Thesaurus*, figs. 342, 286).
- 1888 *Phasmoconus Adansoni*. JOUSSEAUME, *Mer Rouge* (68), p. 176, nr. 37.
- 1894 *Conus (Achatini) nigropunctatus* Sowerby. HORST et SCHEPMAN, *Cat.* (63), p. 27.
- 1903 *Conus catus* Hwass. var. *nigropunctatus* Sow., STURANY, *Gastr. d. Rothen Meeres* (171), pp. 250, 274—275.
- 1913 *Conus (Achatini) nigropunctatus* Sowerby. SCHEPMAN, *Siboga* (155), p. 390, nr. 40.

East coast of Halmahera, 1 specimen of the form *nigropunctatus* Sowerby.

WEINKAUFF has united the *Conus Adansoni* of REEVE and SOWERBY [not of LAMARCK] to *C. nigropunctatus* Sow., the latter being regarded by him as a distinct species, though he states that it is often difficult to distinguish it from *C. achatinus* and *C. catus*. TRYON considered *C. nigropunctatus* to be a variety of *C. catus*. In my opinion, however, there is a very close conformity and even transition between *C. nigropunctatus* and *C. achatinus*. In this respect I agree with Messrs. MELVILL and STANDEN (*Persian Gulf* (124), I, p. 433), who consider *C. nigropunctatus* Sowerby to be identical with *C. achatinus*.

C. nigropunctatus has been mainly distinguished from *C. achatinus* on account of the more depressed spire and the stouter upper part. The shape of the spire, however, is not at all constant, for instance there is a great difference in this respect between SOWERBY's figures 335 and 336 of *C. achatinus* (*Thesaurus*, pl. 201), fig. 336 almost resembling *C. nigropunctatus* in shape.

The following localities for *C. nigropunctatus* may be added to the distribution of *Conus achatinus* given in my previous paper:

East Indian Archipelago (on reefs): Tjilatjap, S. coast of Java (Leyden Museum); Sula Is. E. of Celebes and Talaut Is. N. E. of Celebes (Siboga); Borneo-bank, Straits of Makassar (Siboga); Padang, Sumatra (Leyden Mus.).

New Caledonia. — Tonga; Tahiti. — Caroline Is.. — Philippines; Ceylon; Charbar and Jask, S. E. Persia (MELVILL and STANDEN, *C. achatinus*).

Gulf of Aden; Red Sea (REEVE); Gulf of Akabah; Suez; Kosseir; Massaua; Obock (Faurot); East African coasts; Port Natal.

229. *Conus (Dendroconus) catus* Hwass.

1910 *Conus catus* Hwass. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

230. *Conus (Dendroconus) ermineus* Born.

1773 *Conus basi pyramidata rufescens, etc.. Cauda erminea*. MARTINI, Conch.-Cab. (122), vol. II, pp. 271—272, pl. LVII, figs. 630, 631.

1780 *Conus ermineus*. BORN, Testacea musei caes. Vindobonensis (16), p. 159.

1787 *Conus lithoglyphus*. MEUSCHEN, Museum Geversianum, p. 350, nr. 965.

1788 *Ammiralis Petraeus, etc..* CHEMNITZ, Conch.-Cab. (122), vol. X, pp. 39—40, pl. 140, fig. 1298.

1791 *Conus Capitaneus*, var. ζ . GMELIN (56), p. 3377.

1792 *Conus lithoglyphus*; Meuschen. HWASS in BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 692—693, nr. 81.

1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 338, fig. 8 (*Conus lithoglyphus* in the Explanation of plates by BORY DE ST.-VINCENT, p. 161; 1827).

1810 *Conus lithoglyphus*. LAMARCK, Conus (84), p. 280, nr. 101.

1817 *Conus ermineus*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 395, nr. 75.

1818 — — WOOD, Index Testaceologicus, pl. 15, fig. 71.

1822 *Conus lithoglyphus*. LAMARCK, An. s. vert. (85), vol. VII, p. 490, nr. 101.

1829 *Conus Lithoglyphus*. WAGNER, Conch.-Cab. (122), vol. XII, 1, pp. 159—160, pl. 234, fig. A (= var. b).

- 1831 *Conus lithoglyphus*. SWAINSON, Zool. Illustr. (172), 2 nd series, vol. II, pl. 65.
- 1838 *Conus lithoglyphus* Meuschen. KÜSTER, Conus (83), pp. 93—94, nr. 33, pl. 6, fig. 5; pl. 17, figs. 1, 2; var. A (= WAGNER, var. b); pl. 19, fig. 7.
- 1843 *Conus lithoglyphus*. REEVE (145), vol. I, Conus, pl. IV, fig. 20.
- 1845 *Conus lithoglyphus* Brug. DESHAYES—LAMARCK, An. s. vert. (86), vol. XI, p. 77, nr. 101.
- *Conus ermineus* Born. DESHAYES in DESHAYES—LAMARCK, *ibid.*, p. 77, note 1.
- 1847 *Conus lithoglyphus*, Brug. KIENER (71), vol. II, Conus, pp. 127—128, nr. 105, pl. 29, figs. 1, 1 a.
- 1849-'50 *Conus lacinulatus*, Nobis. KIENER, *ibid.*, pp. 312—313, nr. 278, pl. 108, figs. 2, 2.
- 1857 *Conus ermineus*, Born. SOWERBY, Thesaurus (167), vol. III, p. 23, nr. 185, pl. 195, figs. 185—187.
- 1859 *Conus lithoglyphus*. CHENU, Manuel (19), vol. I, fig. 1558 (on p. 252).
- 1873 *Conus lithoglyphus* Meuschen. WEINKAUFF, Conus (83), pp. 169—170, pl. 29, figs. 5, 6.
- 1880 *Conus (Lithoconus) lithoglyphus* Meuschen. VON MARTENS, Mauritius (105), p. 220.
- 1884 *Conus (Dauci) lithoglyphus*, Meuschen. TRYON (177), vol. VI, pp. 48—49, pl. 14, figs. 74, 75.
- 1893 *Conus (Rhizoconus) lithoglyphus* Meuschen. DAUTZENBERG, Séchelles (32), p. 80.
- 1894 *Conus (Dauci) lithoglyphus* Meuschen. HORST et SCHEPMAN, Cat. (63), p. 22.
- 1909 *Conus ermineus* Born = *C. lithoglyphus* Meusch. LAMY, Java (89), p. 464.
- 1913 *Conus (Dauci) lithoglyphus* Meuschen. SCHEPMAN, Siboga (155), p. 387, nr. 30.

Obi Major, 1 specimen.

Distribution: East Indian Archipelago: Amboina (Leyden Museum); Postillon-islands, Flores Sea, coral (Siboga); Java (LAMY); Tjilatjap, S. coast of Java (Leyden Mus.).

New Caledonia. — Philippines (Cuming); Ceylon (SOWERBY). — Seychelles (DAUTZENBERG); Amirantes (DUFO); Mauritius (FAVANNE, LIÉNARD).

231. *Conus (Dendroconus) senator* Linné.

1910 *Conus senator* Linné. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

232. *Conus (Dendroconus) generalis* Linné.

1705 *Volutae fasciatae*, 2e soort. RUMPHIUS (151), p. 106, pl. XXXIII, fig. Y.

1767 *Conus Generalis*. LINNÉ, Syst. Nat. XII (96), p. 1166, nr. 293.

1773 *Conus teres basi acuminata vel fuscus vel aurantius vel pallide luteus, etc.*. MARTINI, Conch.-Cab. (122), vol. II, pp. 291—295, pl. LVIII, figs. 645, 646, 648—652.

1791 *Conus Generalis*. GMELIN (56), pp. 3375—3376, nr. 4 (exclusive of var. β).

1792 *Conus generalis*; Linn...HWASS in BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 642—644, nr. 41 (vars. A, B, C).

— — *maldivus*; Hwass. HWASS in BRUGUIÈRE, *ibid.*, pp. 644—645, nr. 42 (vars. A, B).

1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 325, figs. 4, 2, 3, 1 (*Conus Generalis*, α , β , γ , δ , in the Explanation of plates by BORY DE ST.-VINCENT, p. 159; 1827).

— — LAMARCK, *ibid.*, pl. 325, figs. 5, 6 (*Conus maldivus*, α and β , in the Expl. of pl. by B. DE ST.-V., p. 159; 1827).

1810 *Conus generalis*. LAMARCK, *Conus* (84), pp. 263—264, nr. 49 and vars. B, C, D.

— — *maldivus*. LAMARCK, *ibid.*, p. 264, nr. 50 and var. B.

1817 *Conus generalis*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 359, nr. 11.

- 1818 *Conus generalis*. WOOD, Index Testaceologicus, pl. 14, fig. 10.
- 1822 *Conus Generalis*. SWAINSON, Zool. Illustr. (172), vol. II, pl. 118.
- — *Maldivus*. SWAINSON, *ibid.*, vol. III, pls. 127, 128.
- 1822 *Conus generalis*. LAMARCK, An. s. vert. (85), vol. VII, pp. 464—465, nr. 49.
- — *maldivus*. LAMARCK, *ibid.*, p. 465, nr. 50.
- 1838 *Conus generalis* L.. KÜSTER, *Conus* (83), pp. 118—120, nr. 108 (exclusive of var. A), pl. 22, figs. 9—12.
- 1839 *Conus generalis*. SOWERBY, Conchological Illustrations, fig. 113.
- — *Maldivus*. SOWERBY, *ibid.*, fig. 114.
- 1843 *Conus generalis*. REEVE (145), vol. I, *Conus*, pl. X, figs. 48 a, b.
- — *Maldivus*. REEVE, *ibid.*, pl. XXXIII, fig. 185.
- 1845 *Conus generalis* Lin.. DESHAYES—LAMARCK, An. s. vert. (86), vol. XI, pp. 40—41, nr. 49.
- — *maldivus* Brug.. DESHAYES—LAMARCK, *ibid.*, p. 41, nr. 50 (according to DESHAYES a variety of *C. generalis*).
- 1847 *Conus generalis*, Lin.. KIENER (71), vol. II, *Conus*, pp. 122—123, nr. 101, pl. 30, figs. 1, 1 a—c; pl. 31, figs. 2, 2 a.
- 1855 *Conus generalis*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 163, 492.
- 1857 *Conus Maldivus*, Brug.. SOWERBY, *Thesaurus* (167), vol. III, p. 17, nr. 130, pl. 194, figs. 182—184.
- — *generalis*, Linn.. SOWERBY, *ibid.*, p. 17, nr. 132, pl. 194, figs. 179, 180, 181.
- 1859 *Conus (Rhizoconus) generalis*, Linné. CHENU, *Manuel* (19), vol. I, p. 246, fig. 1483.
- 1869 *Rhizoconus generalis* L.. VON FRAUENFELD, *Nicobaren* (55), p. 863.
- 1873 *Conus generalis* L.. WEINKAUFF, *Conus* (83), pp. 179—180, and var. A: pl. 29, figs. 1, 2.
- 1875 — — L. var.. JICKELI, *Conch. d. Roth. Meeres*, *Conus* (220), pp. 49—50, nr. 5.

- 1880 *Conus (Leptoconus) generalis* L. and var. *Maldivus* Hwass. VON MARTENS, Mauritius (105), p. 221.
- 1884 *Conus (Ammirales) generalis*, Linn.. TRYON (177), vol. VI, p. 34, pl. 9, fig. 74 (= Thesaurus, fig. 180).
- — (—) *Maldivus*, Hwass. TRYON, *ibid.*, p. 34, pl. 9, fig. 75; pl. 10, fig. 76 (= Thesaurus, figs. 183, 182).
- 1894 *Conus (Ammirales) generalis* Linné, and var. *maldivus* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 18.
- 1900 *Conus generalis*, Linnaeus. BULLEN NEWTON, Raised beaches Red Sea (127), p. 545.
- 1902 *Conus generalis* L.. VON MARTENS, Rumphius Gedenk. (110), p. 121.
- 1909 *Conus generalis* L.. LAMY, Java (89), p. 464.

Obi Major, 1 specimen, resembling fig. 1 b on pl. 30 of KIENER.

Distribution: East Indian Archipelago: Ceram (Leyden Museum); Amboina (Leyden Mus., VON MARTENS); Saparua near Amboina (Leyden Mus.); Java (BRUGUIÈRE, Novara, LAMY); Tjilatjap, S. coast of Java (Leyden Mus.); Borneo (BRUGUIÈRE); Billiton and Banka (Leyden Mus.).

New Caledonia (CROSSE). — Philippines (Cuming); Cochin China (CROSSE); Singapore (Leyden Mus.); Ceylon (REEVE); Malabar Coast and Maldives (BRUGUIÈRE).

Aden; Red Sea (Leyden Mus.); Gulf of Suez (Loebbecke); Kosseir (Klunzinger); Seychelles and Amirantes (DUFO); Mauritius (SGANZIN, LIÉNARD); Réunion (DESHAYES); Madagascar (SGANZIN).

Fossil in the raised beaches of the Gulf of Suez (BULLEN NEWTON).

233. *Conus (Dendroconus) miles* Linné.

- 1685 *Rhombus cylindro-pyramidalis fasciatus et radiatus, rostro late nigricante*. LISTER, *Historia Conchyliorum*, [pl. 786], fig. 34.
- 1705 *Voluta filosa*. RUMPHIUS (151), p. 106, pl. XXXIII, fig. W.

- 1757 *Voluta Napus, seu pseudo-Architalassus*; le faux Amiral ou le navet. d'ARGENVILLE (4), part I, pp. 234, 238—239, pl. 12, fig. L.
- 1758 *Conus Miles*. LINNÉ, *Systema Naturae*, edit. X (94), p. 713, nr. 255.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1167, nr. 296.
- 1773 *Conus baseos latae, planiusculae albus fasciis transversalibus fuscis, etc.. Voluta filosa*. MARTINI, *Conch.-Cab.* (122), vol. II, pp. 306—308, pl. LIX, figs. 663, 664.
- 1791 *Conus Miles*. GMELIN (56), pp. 3377—3378, nr. 8.
- 1792 *Conus miles*; Linn.. HWASS in BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 657—658, nr. 56 (vars. A, B).
- 1798 *Conus*. LAMARCK, *Tableau encycl.* (49 a), pl. 329, fig. 7 (*Conus Miles*, a in the Explanation of plates by BORY DE ST.-VINCENT, p. 160; 1827).
- 1810 *Conus miles*. LAMARCK, *Conus* (84), p. 269, nr. 68 and var. B.
- 1817 — — DILLWYN, *A descriptive Catalogue of recent shells*, vol. I, p. 365, nr. 22.
- 1818 — — WOOD, *Index Testaceologicus*, pl. 14, fig. 19.
- 1822 — — LAMARCK, *An. s. vert.* (85), vol. VII, p. 473, nr. 68, and var. b.
- 1834 *Conus Miles*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, p. 97, nr. 12, pl. 52, figs. 11, 11¹.
- 1838 *Conus miles* L.. KÜSTER, *Conus* (83), pp. 82—83, pl. 13, figs. 11, 12.
- 1838 *Conus miles*. SOWERBY, *Conchological Illustrations*, fig. 100.
- 1843 *Conus miles*. REEVE (145), vol. I, *Conus*, pl. II, fig. 9.
- 1845 — — Lin.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. XI, pp. 52—53, nr. 68, and var. b.
- 1847 — — Lin.. KIENER (71), vol. II, *Conus*, pp. 94—95, nr. 77, pl. 38, fig. 2.
- 1855 — — HANLEY, *Ipsa Linn. Conch.* (58), pp. 165, 492.

- 1857-'58 *Conus miles*, Linn.. SOWERBY, Thesaurus (167), vol. III, p. 27, nr. 222, pl. 193, fig. 157.
- 1859 *Conus miles*. CHENU, Manuel (19), vol. I, fig. 1535 (on p. 250).
- 1869 *Rhizoconus miles* L.. VON FRAUENFELD, Nicobaren (55), p. 863.
- 1869 *Conus miles*, L.. VON MARTENS, v. d. Decken's Reisen (103), p. 61.
- 1873 *Conus miles* L.. WEINKAUFF, Conus (83), p. 163.
- 1880 *Conus (Rhizoconus) miles* L.. VON MARTENS, Mauritius (105), p. 222.
- 1882 *Conus miles* Lin.. DUNKER, Index Moll. maris Japon. (48), p. 93.
- 1884 *Conus (Capitanei) miles*, Linn.. TRYON (177), vol. VI, p. 40, pl. 11, fig. 16; pl. 27, fig. 11 (fig. 16 = Thesaurus, fig. 157; fig. 11 = GOULD, Wilkes Exped., fig. 364).
- 1894 *Conus (Capitanei) miles* Linné. HORST et SCHEPMAN, Cat. (63), p. 19.
- 1902 *Conus miles* L.. VON MARTENS, Rumphius Gedenk. (110), p. 121.
- 1907 — — Linné. COUTURIER, Tahiti, etc. (25), p. 129.
- 1908 — — Lin.. NOBRE, Timor (128), p. 214.
- 1909 — — L.. LAMY, Java (89), p. 464.
- 1910 — — Linné. DAUTZENBERG, Halmahera (38), p. 2.
- 1913 *Conus (Capitanei) miles* Linné. SCHEPMAN, Siboga (155), p. 385, nr. 24.
- 1916 *Conus miles* L.. CAES. BOETTGER, Hanseatische Südsee-Exped. (11), p. 299.

Obi Major, 2 specimens.

Previously recorded from the Obi Is. in the Catalogue of the Leyden Museum (coll. Dr. Bernstein). The species was recorded from Halmahera by DAUTZENBERG.

Distribution: East Indian Archipelago (on reefs): Amboina (Leyden Mus., VON MARTENS); Banda, reef (Siboga); Waigeu and Misol (Leyden Mus.); West coast of New Guinea, reef

(Siboga); Timor (Leyden Mus., VON MARTENS); Dilly, Timor (NOBRE); Savu, reef (Siboga); Sumba, on coralsand (Siboga); Paternoster-islands, on coral and Lithothamnion (Siboga); Java (Novara, LAMY); Tjilatjap, S. coast of Java (Leyden Mus.); Talaut Is., N. E. of Celebes, reef (Siboga).

Melanesia: Vanikoro (Astrolabe); New Caledonia. — Polynesia: Tahiti; Paumotu, on reefs (COUTURIER, Hanseatic Pacific exped.).

Philippines (Cuming); Japan (DUNKER); Ceylon (REEVE, Novara).

East African coasts (VON MARTENS); Seychelles and Amirantes (DUFO); Cargados (LIÉNARD); Mauritius (FAVANNE, REEVE, SGANZIN); Réunion (DESHAYES); Madagascar (SGANZIN).

234. *Conus (Dendroconus) capitaneus* Linné.

1902 *Conus capitaneus* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 121.

1910 — — Linné. DAUTZENBERG, Halmahera (38), p. 2.
Halmahera (recorded by DAUTZENBERG).
Bachan (collected by VON MARTENS).

Subgenus *Hermes* Montfort, 1810

(= *Theliconus* Swainson, 1840;

Terebri, and *Asperi* (pars) of (WEINKAUFF) TRYON).

235. *Conus (Hermes) aurisiacus* Linné.

1902 *Conus Aurisiacus* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 121.

Bachan (collected by VON MARTENS).

Section *Rollus* Montfort, 1810

(= *Utriculus* Schumacher, 1817;

Tuliparia Swainson, 1840; non de Blainville, 1836 (*Hydrozoa*);

Nubecula (Klein) Herrmannsen, 1847;

Tulipae of (WEINKAUFF) TRYON).

236. *Conus (Rollus) striatus* Linné.

1705 *Voluta Tigerina*, Tygers. RUMPHIUS (151), p. 103, pl. XXXI, fig. F.

1758 *Conus striatus*. LINNÉ, Systema Naturae, edit. X (94), p. 716, nr. 277.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 561, nr. 172.

- 1767 *Conus striatus*. LINNÉ, Syst. Nat. XII (96), p. 1171, nr. 318 (exclusive of the references to LISTER and ADANSON, and of SEBA, figs. 7, 10).
- 1773 *Conus basi excavata magnus, etc.*. MARTINI, Conch.-Cab. (122), vol. II, pp. 351—354, pl. LXIV, figs. 714—716.
- 1791 *Conus striatus*. GMELIN (56), p. 3393, nr. 58 (in part).
- 1792 *Conus striatus*; Linn.. HWASS in BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 725—727, nr. 120 (vars. A, B, C, D).
- 1798 *Conus* LAMARCK, Tableau encycl. (49 a), pl. 340, figs. 1, 2, 3 (*Conus striatus*, α , β and δ in the Explanation of plates by BORY DE ST.-VINCENT, p. 162; 1827).
- 1810 *Conus striatus*. LAMARCK, Conus (84), pp. 426—427, nr. 142 and vars. B, C, D (exclusive of synonym *Conus gubernator*).
- 1817 *Conus striatus* Lin.. SCHUMACHER, Nouv. syst. (158), p. 205.
- 1817 *Conus striatus*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 423, nr. 137.
- 1818 — — WOOD, Index Testaceologicus, pl. 16, fig. 132.
- 1822 — — LAMARCK, An. s. vert. (85), vol. VII, p. 506, nr. 142, and vars. b, c, d.
- 1834 — — QUOY et GAIMARD, Astrolabe (140), vol. III, pp. 89—90, nr. 6, pl. 52, figs. 10, 10'.
- 1838 — — L. KÜSTER, Conus (83), pp. 121—123, and vars. A, B, C (= vars. b, c, d of LAMARCK), pl. 23, figs. 6—8 (figs. 7, 8: typical form; fig. 6: var. A (= LAMARCK, var. b)).
- 1843 — — REEVE (145), vol. I, Conus, pl. XXXII, figs. 179 a, b.
- 1845 *Conus striatus* Lin.. DESHAYES—LAMARCK, An. s. vert. (86), vol. XI, pp. 99—100, nr. 142.
- 1849-'50 *Conus striatus*, Lin.. KIENER (71), vol. II, Conus, pp. 280—281, nr. 247, pl. 47, figs. 1, 1, 1 a.

- 1849-'50 *Conus gubernator*, Brug., var. (*C. terminus* [not of LAMARCK]). KIENER, *ibid.*, p. 282, pl. 48, fig. 1 d.
- 1855 *Conus striatus*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 176, 495.
- 1858 *Conus striatus*, Linn.. SOWERBY, *Thesaurus* (167), vol. III, pp. 39—40, nr. 345, pl. 209, fig. 557, and *Frontispiece*, fig. 558 (*C. floridus*, Sowb. on the plate).
- 1859 *Conus striatus*. CHENU, *Manuel* (19), vol. I, fig. 1540 (on p. 250).
- 1869 *Chelyconus striatus* L.. VON FRAUENFELD, *Nicobaren* (55), p. 863.
- 1873 *Conus striatus* L.. WEINKAUFF, *Conus* (83), p. 181.
- 1875 — — WEINKAUFF, *ibid.*, p. 314.
- 1875 — — L.. JICKELI, *Conch. d. Roth. Meeres*, *Conus* (220), pp. 66—67, nr. 32.
- 1880 *Conus (Nubecula) striatus* L.. VON MARTENS, *Mauritius* (105), p. 225.
- 1884 *Conus (Tulipae) striatus*, Linn.. TRYON, *Manual* (177), vol. VI, p. 85, pl. 26, fig. 67 (= *Thesaurus*, fig. 557).
- 1884 *Conus striatus*, Linn.. E. A. SMITH, *Alert* (160), p. 488, nr. 9.
- 1888 *Phasmoconus striatus*. JOUSSEAUME, *Mer Rouge* (68), p. 175, nr. 36.
- 1894 *Conus (Tulipae) striatus* Linné. HORST et SCHEPMAN, *Cat.* (63), p. 31.
- 1899 *Conus (Nubecula) striatus*, L.. MELVILL and STANDEN, *Torres Straits* (123), p. 156, nr. 18.
- 1901 *Conus striatus*, Linn.. ASHINGTON BULLEN, *Raised beaches of Perim Island* (204), p. 254.
- 1902 *Conus striatus* L.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 120.
- 1903 *Conus striatus* L.. STURANY, *Gastr. d. Rothen Meeres* (171), pp. 250, 274—275.
- 1908 *Conus striatus*, Lin.. NOBRE, *Timor* (128), p. 214.
- 1909 — — L.. LAMY, *Java* (89), p. 464.
- 1913 *Conus (Tulipae) striatus* Linné. SCHEPMAN, *Siboga* (155), p. 395, nr. 56.

Obi Major, 3 specimens.

Distribution: East Indian Archipelago (on reefs): Ceram (Leyden Museum); Amboina (RUMPHIUS, Leyden Mus.); Nusa-Laut-land near Amboina, reef (Siboga); Lucipara-island, reef (Siboga); Waigeu and Misol (Leyden Mus.); Doreh, New Guinea (Astrolabe); Timor (Leyden Mus., VON MARTENS); Dilly, Timor (NOBRE); Flores (Leyden Mus., VON MARTENS); Lombok (Siboga); Java (LAMY); Tjilatjap, S. coast of Java (Leyden Mus.).
New Caledonia (CROSSE); Viti Is.; Pelew Is.; Tahiti (Novara).
— Torres Straits (MELVILL and STANDEN); Australia.

Philippines (SOWERBY); Cochin China (CROSSE); Singapore (F. Jagor); Nicobars (MARTINI („Friedrichsinseeln“), Novara); Ceylon (REEVE); Persian Gulf (Hausknecht).

Gulf of Aden; Red Sea (Leyden Mus.); Gulf of Akabah; Kosseir (Klunzinger); Massaua and Dahlak Is. (JICKELI); Obock (Faurot); East African coasts (VON MARTENS); Seychelles (LIÉ-NARD); Amirantes, beach (Alert); Cargados and Rodriguez (LIÉ-NARD); Mauritius (FAVANNE, LIÉ-NARD); Réunion (DES-HAYES); Nossi-Bé near Madagascar (Pollen and van Dam).

Fossil in the raised-beach deposits of Perim-island (ASHINGTON BULLEN).

Section Cylinder Montfort, 1810

(= *Textilia* Swainson, 1840;

Cylindrus P. Fischer, 1883;

Texti of (WEINKAUFF) TRYON).

237. *Conus* (Cylinder) *textile* Linné.

1894 *Conus* (*Texti*) *textile* Linné. HORST et SCHEPMAN, Cat. (63), p. 33.

1910 *Conus textile* Linné. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Bachan (Bernstein, Leyden Museum).

238. *Conus* (Cylinder) *canonicus* Hwass.

1894 *Conus* (*Texti*) *canonicus* Bruguière. HORST et SCHEPMAN, Cat. (63), p. 34.

1902 — *canonicus* Hwass. VON MARTENS, Rumphius Gedenkb. (110), p. 121.

1910 — — — DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

Bachan (collected by Dr. Bernstein and by VON MARTENS).

Synonymy and distribution in: „Recent shells from Java“ (129), pp. 136—137.

239. *Conus* (Cylinder) *omaria* Hwass.

1910 *Conus omaria* Hwass. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

240. *Conus* (Cylinder) *aureus* Hwass.

1910 *Conus aureus* Hwass. DAUTZENBERG, Halmahera (38), p. 2.

Halmahera (recorded by DAUTZENBERG).

OPISTHOBRANCHIA.

FAM. BULLIDAE.

Genus *Bullus* Montfort, 1810

(= *Bulla* Linné ((94), p. 725), 1758;
non *Bulla* Linné ((94), p. 427), 1758
(*Orthoptera*);

= *Bullaria* Rafinesque, 1815).

Type: *Bulla ampulla* Linné.

241. *Bullus ampulla* (Linné).

For synonymy and distribution see: „Recent shells from Java” (129), pp. 138—139, 163, and the following additions:

1767 *Bulla Ampulla*. LINNÉ, Syst. Nat. XII (96), p. 1183, nr. 378
(exclusive of several references).

1769 *Bulla magna ventricosa, alba ex coeruleo & rufo nebulata*.
Alpes. MARTINI, Conch.-Cab. (122), vol. I, p. 279, Tab.
min. 14, fig. 1 (on p. 274).

— *Cochlis volutata subovata, ventricosa, etc.*; *Bulla perfecta maculata*; *Ovum Ibicis s. vanelli variegatum*. MARTINI, *ibid.*, pp. 280—281, pl. XXI, figs. 188, 189.

— *Cochlis volutata, subovata ventricosa, etc.*. *Ovum Ibicis bifasciatum*. MARTINI, *ibid.*, p. 282, pl. XXI, figs. 190, 191.

1792 *Bulla ampulla*; Linn.. BRUGUIÈRE, Encycl. méth. (49),
vol. I, pp. 371—372, nr. 2, vars. A, B, C.

1798 *Bulla* LAMARCK, Tableau encycl. (49 a), pl.
358, figs. 3 a, b (*Bulla Ampulla* in the
Explanation of plates by BORY DE ST.-VIN-
CENT, p. 164; 1827).

1855 *Bulla ampulla*. HANLEY, *Ipsa* Linn. Conch. (58), pp.
204—205, 502.

1869 *Bulla ampulla* L.. VON FRAUENFELD, *Nicobaren* (55),
p. 873.

1869 — — L.. ISSEL, *Mar Rosso* (65), pp. 167, 281.

1870 *Bulla ampulla*, Linn.. M'ANDREW, *Test. Gulf of Suez*
(100), p. 445.

1880 *Bulla ampulla* Linne. VON MARTENS, *Mauritius* (105),
p. 303.

- 1886 *Bulla ampulla*, L.. COOKE, Test. Gulf of Suez (21), part IV, p. 130.
- 1888 *Bulla ampulla*. JOUSSEAUME, Mer Rouge (68), p. 170, nr. 2.
- 1893 *Bulla ampulla* Linné. DAUTZENBERG, Séchelles (32), p. 80.
- 1900 *Bulla ampulla*, Linnaeus. BULLEN NEWTON, Raised beaches Red Sea (127), pp. 545—546.
- 1901 *Bulla ampulla* (Linn.). ASHINGTON BULLEN, Raised beaches Perim Island (204), p. 254.
- 1901 *Bulla ampulla* L.. MELVILL and STANDEN, Persian Gulf (124), part I, p. 456.
- 1908 *Bulla ampulla*, Lin.. NOBRE, Timor (128), p. 229.
- 1910 *Bulla ampulla* Linné. DAUTZENBERG, Halmahera (38), p. 1.
- 1915 *Bulla ampulla* L.. CAES. BOETTGER, Wassermoll. Aru u. Kei-Inseln (10), p. 128.

Obi Major, 1 young specimen.

Recorded from Halmahera by DAUTZENBERG; VON MARTENS collected the species at Bachan.

Add to Distribution: East Indian Archipelago: Aru Is., on the shore (Merton).

Karachi, India (MELVILL and STANDEN); coasts of Baluchistan and Persia from low tide to 10 fathoms, sandy mud (MELVILL and STANDEN). — Aden and Obock (Faurot).

Fossil in the raised beaches of Perim-island (ASHINGTON BULLEN), of the Red Sea and of the Gulf of Suez (ISSEL, BULLEN NEWTON).

FAM. SCAPHANDRIDAE.

Genus *Atys* Montfort, 1810.

242. *Atys (Atys) naucum* (Linné).

For synonymy and distribution see: „Recent shells from Java” (129), p. 140, with the following additions:

- 1764 *Bulla Naucum*. LINNÉ, Mus. Lud. Ulr. (95), p. 586, nr. 219.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1183, nr. 375.
- 1769 *Bulla translucens alba, etc.. Ovum Columbinum*. MARTINI, Conch.-Cab. (122), vol. I, pp. 288—290, pl. XXII, figs. 200, 201.

- 1792 *Bulla naucum*, Linn.. BRUGUIÈRE, Encycl. méth. (49), vol. I, pp. 373—374, nr. 4.
- 1798 *Bulla* LAMARCK, Tableau encycl. (49 a), pl. 359, figs. 5 a, b (*Bulla Naucum* in the Explanation of plates by BORY DE ST.-VINCENT, p. 165; 1827).
- 1836 *Bulla naucum* Lin.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, pp. 669—670, nr. 4.
- 1855 — — HANLEY, Ipsa Linn. Conch. (58), pp. 202—203, 501—502.
- 1859 *Atys naucum*, Linné. CHENU, Manuel (19), vol. I, p. 391, fig. 2959.
- 1870 — — , var., Linn.. M'ANDREW, Test. Gulf of Suez (100), p. 445.
- 1880 — — Linne. VON MARTENS, Mauritius (105), p. 303.
- 1881 *Bulla naucum* Lin.. K. MARTIN, Posttertiary fauna of Blitong (202), pp. 20, 21, nr. 26.
- 1882 *Atys naucum* Lin. (*Bulla*). DUNKER, Index Moll. maris Japon. (48), p. 166.
- 1884 — — Linn.. E. A. SMITH, Alert (160), pp. 86—87, nr. 122.
- 1886 — — , L., var.. COOKE, Test. moll. Gulf of Suez (21), part IV, p. 131.
- 1893 — — Linné. DAUTZENBERG, Séchelles (32), p. 80.
- 1908 — — , (Lin.). NOBRE, Timor (128), p. 229.

East coast of H a l m a h e r a, 1 specimen.

Add to Distribution: East Indian Archipelago: Oma or Haruku near Amboina (VALENTYN); Timor (NOBRE); Batavia, Java (MARTINI).

New Ireland, New Britain and Solomon Is. (BRAZIER). — Deshima, Southern Japan (DUNKER); Ceylon. — Seychelles (DUFO, sandy bottom, in 2—3 M.; Möbius, DAUTZENBERG).

Fossil in the Pleistocene of Billiton (K. MARTIN).

Genus *Dinia* H. and A. Adams, 1854.

243. *Dinia dentifera* (A. Adams).

1850 *Bulla (Atys) dentifera*, Adams. A. ADAMS in SOWERBY, Thesaurus (167), vol. II, p. 588, nr. 93, pl. CXXV, fig. 124.

1869 *Atys dentifera*. SOWERBY in REEVE (145), vol. XVII, Atys, pl. III, fig. 13.

1895 *Atys (Dinia) dentifera* A. Adams. KOBELT, Bullidae (198), pp. 27—28, nr. 25, pl. 8, fig. 15.

1913 *Dinia dentifera* A. Adams. SCHEPMAN, Siboga (155), p. 470, nr. 1.

North of Salomakiëe-island, at 45 M., coral-bottom and Lithothamnion (Siboga exp.).

Distribution: E. Ind. Archipelago: Postillon-islands north of Sumbawa. Paumotu; Viti Is.. — Gulf of Suez; Mauritius.

FAM. DORIDIIDAE.

244. *Doridium alboventrale* Bergh.

1897 *Doridium alboventrale* Bgh. n. sp.. BERGH, Opisthobranchiaten v. Kükenthal (191), pp. 119—123, pl. XIII, figs. 22—28.

Ternate, in 10—40 M. (collected by Kükenthal).

PULMONATA.

FAM. ELLOBIIDAE.

Genus *Ellobium* Bolten, 1798

(= *Auricula* Lamarck, 1799;

Auriculus Montfort, 1810;

Marsyas Oken, 1815;

Geovula Swainson, 1840).

Type: *Ellobium auris-midae* (Linné).

245. *Ellobium auris-midae* (Linné).

1897 *Auricula Midae* L.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 150—152, nr. 1.

1897 *Auricula midae* L.. KOBELT, Land- u. Süsswasserkonch. v. Kükenthal (192), p. 81.

Halmahera (recorded by VON MARTENS).

Halmahera and Bachan, numerous (collected by Kükenthal).

246. *Ellobium auris-judae* (Linné).

1897 *Auricula Judae* L.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 154—158, nr. 3, pl. VIII, figs. 6—11.

1897 *Auricula judae* L.. KOBELT, Land- u. Süsswasserkonch. v. Kükenthal (192), p. 81.

Bachan, in swamps (collected by VON MARTENS).

Halmahera and Bachan (collected by Kükenthal).

Synonymy and distribution in: „Recent shells from Java” (129), pp. 144—146.

Genus *Pythia* Bolten, 1798

(= *Polydonta* Fischer von Waldheim, 1807;
Scarabus Montfort, 1810;
Strigula Perry, 1811;
Scarabaea Oken, 1817;
Scarabaeus de Blainville, 1821;
Polydonta Férussac, 1829; *non* Megerle von
Mühlfeldt, 1811 (*Pelecypoda*)).

Type: *Pythia scarabaeus* (L.).

247. *Pythia scarabaeus* (Linné).

- 1692 *Cochlea compressa variegata, etc.*. LISTER, *Historia Conchyliorum*, vol. IV, [pl. 577], fig. 31.
- 1705 *Cochlea Imbrium*. RUMPHIUS (151), p. 91, pl. XXVII, fig. I.
- 1757 *Buccinum planum absque cauda, ore undique dentato*. d'ARGENVILLE (4), part I, pp. 221, 225, pl. 9, fig. T.
- 1758 *Helix Scarabaeus*. LINNÉ, *Systema Naturae*, edit. X (94), p. 768, nr. 571.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 663, nr. 361.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1241, nr. 655 (exclusive of the references to PETIVER (= *Scarabus Petiverianus* Férussac), and LISTER (fig. 32 = *Scarabus plicatus* Férussac)).
- 1774 *Helix Pythia*. O. F. MÜLLER, *Vermium Historia*, vol. II, p. 88, nr. 286.
- 1780 *Helix Scarabaeus*. BORN, *Testacea Mus. Caes. Vindobonensis* (16), p. 365, vignette on p. 364, fig. a.
- 1786 *Helix Scarabaeus Linnaei, etc.*. CHEMNITZ, *Conch.-Cab.* (122), vol. IX, part 2, pp. 179—182 (in part), pl. 136, figs. 1249, 1250 (tantum, not 1251, 1252).
- 1789 *Bulimus scarabaeus*; Nob.. BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 340—341, nr. 74 (exclusive of var. A).
- 1791 *Helix Scarabaeus*. GMELIN (56), p. 3613, nr. 1 (exclusive of some references).
- 1798 *Pythia helicina* Bolten, *Museum Bolttenianum*, p. 105, nr. 1346.

- 1810 *Scarabus imbrium*. MONTFORT, Conchyliologie systématique, vol. II, p. 307.
- 1817 *Pythia rictans*. SCHUMACHER, Nouv. syst. (158), p. 229.
- 1821 *Scarabus imbrium*. FÉRUSAC, Prodrôme, p. 101, nr. 1.
- 1822 *Auricula scarabaeus*. LAMARCK, An. s. vert. (85), vol. VI, 2nd part, p. 139, nr. 6.
- 1831 *Scarabus imbrium*. LESSON, Voyage autour du monde sur la Coquille; Zoologie, vol. II, p. 333, pl. 10, fig. 5.
- 1832 *Auricula Scarabaeus*. QUOY et GAIMARD, Astrolabe (140), vol. II, pp. 162—163, pl. 13, fig. 24.
- 1838 *Auricula scarabeus* (sic) Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VIII, pp. 327—328, nr. 6.
- 1841-'44 *Scarabus imbrium* Montfort. KÜSTER, Auriculacea (199), pp. 8—9, nr. 1, pl. 1, figs. 1, 2 (= CHEMNITZ, figs. 1249, 1250).
- 1842-'53 *Scarabus insularis*. HOMBRON et JACQUINOT, Voyage au Pôle Sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée, pendant 1837-40; Atlas, Mollusques, pl. 10, figs. 15—17.
- 1855 *Helix scarabaeus*. HANLEY, Ipsa Linn. Conch. (58), pp. 355—356, 535.
- 1856 *Pythia scarabaeus* (L.). PFEIFFER, Monogr. Auricul. (131), p. 82.
- 1860 *Scarabus scarabaeus*. REEVE (145), vol. XII, Scarabus, pl. I, fig. 5.
- 1869 *Pythia scarabaeus* L.. VON FRAUENFELD, Nicobaren (55), p. 877.
- 1891 *Scarabus scarabaeus* (L.). O. BOETTGER, Ad. Strubell's Konch., II (13), p. 276, nr. 44.
- 1893 *Pythia scarabaeus* Linn.. SCHEPMAN, Shells from the Moluccas (152 bis), p. 153, nr. 9.
- 1897 *Pythia scarabaeus* L. and var. *tripartita*. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 133—136, nr. 4.

- 1897 *Pythia scarabaeus* L.. KOBELT, Land- u. Süßwasser-
konch. v. Kükenthal (192), p. 81.
- 1900 *Pythia scarabaeus* (Linn.). E. A. SMITH, Christmas Island
(163), p. 58, pl. VIII, fig. 15.
- 1902 *Pythia scarabaeus* L.. VON MARTENS, Rumphius Ge-
denkb. (110), p. 117.
- 1908 *Scarabus scarabeus*, Lin.. NOBRE, Timor (128), p. 233.
- 1908 *Pythia scarabaeus* L.. CAES. BOETTGER, Amboina (9),
p. 184.
- 1916 *Pythia scarabaeus* L.. CAES. BOETTGER, Hanseatische
Südsee-Exped. (11), p. 296.
- 1921 *Pythia scarabeus*. PRASHAD, Sumatra (139), p. 463.

East coast of H a l m a h e r a, 1 specimen.

This species was collected by VON MARTENS near Dodinga, W. coast of Halmahera, in the brackish region, and at the islands west of Halmahera (the Moluccas proper): Ternate, Tidore, Motir, Kajoa and Bachan. It was also collected at Bachan by Dr. A. Strubell and by Prof. Kükenthal.

Distribution: Eastern part of the East Indian Archipelago: Buru (LESSON); Wahai, N. coast of Ceram (VON MARTENS); Hatusua, Ceram (K. MARTIN); Amboina (RUMPHIUS, VON MARTENS, Gazelle exp., CAES. BOETTGER); Haruku (SCHEPMAN), and Saparua (Strubell, K. Martin), near Amboina; Banda (Strubell); Doreh, New Guinea; Aru Is. (Beccari); Dilly, Timor, in the mud (NOBRE); Kupang, Timor (Wichmann); Larentuka, Flores (VON MARTENS); Northern Celebes (A. B. Meyer).

Melanesia: New Hanover (Gazelle exp.); New Ireland (LESSON, Gazelle, Hanseatic Pacific exp.); Solomon Is. (HOMBRON et JACQUINOT, Cox); New Hebrides (QUOY et GAIMARD).

Christmas Island, south of Java (E. A. SMITH).

?[Java (Novara); Sumatra; Nicobars (NEVILL)].

248. *Pythia pantherina* (A. Adams).

- 1897 *Pythia pantherina* A. Adams. KOBELT, Land- u. Süßwasserkonch. v. Kükenthal (192), p. 81.

Bachan (collected by Kükenthal).

Synonymy and distribution in: „Recent shells from Java" (129), pp. 142—143.

Genus *Cassidula* Férussac, 1821

(= *Cassidulus* Berthold, 1827; non Lamarck, 1801 (*Echin.*);
Rhodostoma Swainson, 1840;
Sidula Gray, 1840).

Type: *Cassidula auris-felis* (Brug.).

249. *Cassidula triparietalis* von Martens.

1897 *Cassidula triparietalis* n.. VON MARTENS, Süss- u. Brackw.-Moll. d.
Ind. Arch. (109), pp. 145—146, nr. 5, pl. VIII,
fig. 16.

Bachan, numerous in mangrove-swamps (collected by VON
MARTENS).

250. *Cassidula sulculosa* (Mousson).

1897 *Cassidula sulculosa* Mouss., VON MARTENS, Süss- u. Brackw.-Moll. d.
Ind. Arch. (109), pp. 146—147, nr. 6, pl. VIII,
fig. 17.

Ternate (recorded by VON MARTENS (Cuming Collection,
etc.)).

251. *Cassidula lutescens* Pfeiffer.

1897 *Cassidula lutescens* Pfr., VON MARTENS, Süss- u. Brackw.-Moll. d.
Ind. Arch. (109), pp. 147—148, nr. 8, pl. VIII,
fig. 18.

East coast of Halmahera near Dodinga, and Great Tawali
(collected by VON MARTENS).

Genus *Melampus* Montfort, 1810

(= *Conovulus* Lamarck, 1816;
Melampa Schweigger, 1820;
Conovulum Sowerby, 1842).

Type: *Melampus coniformis* (Brug.).

252. *Melampus fasciatus* (Deshayes).

1897 *Melampus fasciatus* Desh., VON MARTENS, Süss- u. Brackw.-Moll. d.
Ind. Arch. (109), pp. 161—163, nr. 1, pl. VIII,
fig. 4.

1897 — — Deshayes. KOBELT, Land- u. Süsswasserkonch. v
Kükenthal (192), p. 81.

Tawali (collected by VON MARTENS).

Halmahera and Bachan (collected by Kükenthal).

Synonymy and distribution in: „Recent shells from Java“ (129), pp.
146—147.

Genus *Auriculastra* von Martens, 1880.

Type: *Auricula subula* Quoy et Gaimard.

253. *Auriculastra subula* (Quoy et Gaimard).

1897 *Auriculastra subula* Q. G., VON MARTENS, Süss- u. Brackw.-Moll. d.
Ind. Arch. (109), pp. 158—160, nr. 1.

Dodinga, Halmahera (collected by VON MARTENS).

FAM. HELICIDAE.

Genus *Pyrochilus* Pilsbry, 1892(= *Phania* Albers, 1860; not *Phania* Meigen, 1824 (Diptera)).Type: *P. pyrostoma* (Fér.).254. *Pyrochilus pyrostoma* (Férussac).

1819—'32 *Helix pyrostoma*. FÉRUSSAC, Histoire naturelle générale et particulière des Mollusques terrestres et fluviatiles, pl. 15, figs. 3, 4.

1851 *Helix pyrostoma*. REEVE (145), vol. VII, pl. XXXIX, fig. 176.

1863 *Helix pyrostoma*. VON MARTENS, Molukken (101), p. 74.

1867 *Helix (Phania) pyrostoma* Fer.. VON MARTENS, Preuss. Exped. Ost-Asien; Landschn. (102), pp. 325—326, pl. 17, fig. 1.

1890 *Helix (Camaena (Phania)) pyrostoma* Férussac, and vars. *bucculenta* Tapparone Canefri, and *extincta* Tapparone Canefri. PILSBRY, Manual; Pulmonata (178), vol. VI, pp. 194—195, pl. 20, fig. 42.

1894 *Pyrochilus pyrostoma* Fér., and vars. *bucculenta* Tap.-Can., and *extincta* Tap.-Can.. PILSBRY, *ibid.*, vol. IX, p. 155.

1897 *Phania pyrostoma* Férussac. KOBELT, Land- u. Süsswasserkonch. v. Kükenthal (192), p. 74, nr. 4.

1910 *Helix (Phania) pyrostoma* Férussac. DAUTZENBERG, Halmahera (38), p. 4.

E. coast of H a l m a h e r a, 1 specimen of the typical form with red peristome.

Alt. 36, greater diam. 65, lesser diam. 52; width of aperture $42\frac{1}{2}$, alt. 30 millimetres, measured outside of lip and columellar callus.

The species is confined to Halmahera; according to WALLACE it lives on trees in forests.

The few other species of *Pyrochilus* all inhabit Halmahera (*P. lampas* (Müller)) or Bachan (*P. sulcocinctus* (von Martens), and *P. xanthostoma* (Herklots MS.) von Martens)).

SCAPHOPODA.

FAM. DENTALIIDAE.

Genus *Dentalium* Linné, 1758.255. *Dentalium (Dentalium) elephantinum* Linné.1906 *Dentalium (s. s.) elephantinum* Linné. BOISSEVAIN, Scaphopoda of the Siboga (190), pp. 7—8, nr. 1, pl. I, fig. 1.1910 *Dentalium elephantinum* Linné. DAUTZENBERG, Halmahera (38), p. 3.
Halmahera (recorded by DAUTZENBERG).Distribution: East Indian Archipelago: Amboina.
Philippines. — Red Sea.

PELECYPODA.

PRIONODESMACEA.

FAM. ARCIDAE.

Genus *Arca* Linné, 1758.

Type: *Arca noae* Linné.

Subgenus *Scapharca* Gray, 1847

(*Anadara* Gray, 1847; = *Anqmalocardia* H. and A. Adams, 1857; non Schumacher, 1817).

Type: *Arca inaequalvis* Bruguière.

Both W. H. DALL (27) in 1898 and ED. LAMY (88) in 1907 have united *Anadara* and *Scapharca* in one sub-generic group.

As the name *Scapharca* was already adopted by W. H. DALL for the subgenus, I cannot follow ED. LAMY in calling it *Anadara*, both names being published at the same time.

256. *Arca* (*Scarpharca*) *antiquata* Linné.

- 1685 *Pectunculus Polyleptoginglymus vulgaris margine ex altera parte productiore*. LISTER, *Historia Conchyliorum*, [pl. 230], fig. 64 a.
- 1742 *Concha rhomboidalis striis latis notata candida et veluti cuticula quadam rufa vestita*. GUALTIERI, *Index Testarum Conchyliorum*, pl. 87, fig. C.
- 1757 *L'Anadara*. ADANSON, *Histoire naturelle du Sénégal, Coquillages*, p. 248, pl. 18, fig. 7.
- 1758 *Arca antiquata*. LINNÉ, *Systema Naturae*, edit. X (94), p. 694, nr. 144.
- 1781 *Arca Scapha*. MEUSCHEN, *Zoophylacium Gronovianum*, part III, pp. 5, 274, pl. XVIII, fig. 13.
- 1784 *Arca Scapha, etc.* CHEMNITZ, *Conch.-Cab.* (122), vol. VII, pp. 201—205, pl. 55, fig. 548.

- 1789 *Arca antiquata*; Linn.. BRUGUIÈRE, Encycl. méth. (49), vol. I, p. 103, nr. 12, var. A (exclusive of the reference to RUMPHIUS, pl. 44, fig. I); [not var. B].
- 1819 *Arca scapha*, var. *b.* LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 42, nr. 25 (not the typical form of LAMARCK, only the variety!).
- 1835 *Arca scapha* Lamk., var. *b.* DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 470.
- — *antiquata*. DESHAYES in DESHAYES—LAMARCK, *ibid.*, pp. 470—471, note 1.
- 1839-'57 *Arca antiquata*. DESHAYES, *Traité élémentaire de Conchyliologie*, pl. 36, figs. 4—5.
- 1844 *Arca Hankeyana*. REEVE in: *Proceedings of the Zoological Society of London*, 1844, p. 47.
- — *maculosa*. REEVE, *ibid.*.
- — *crenata*. REEVE, *ibid.*.
- 1844 *Arca maculosa*. REEVE (145), vol. II, *Arca*, pl. IV, fig. 24.
- — *scapha*. REEVE, *ibid.*, pl. IV, fig. 25.
- — *crenata*. REEVE, *ibid.*, pl. VIII, fig. 51.
- — *antiquata*. REEVE, *ibid.*, pl. IX, fig. 60.
- — *Hankeyana*. REEVE, *ibid.*, pl. X, fig. 68.
- 1845 *Arca Lamarcki*. PHILIPPI in: *Archiv für Naturgeschichte* (Berlin), Jahrgang XI, pp. 55, 142.
- 1855 *Arca antiquata*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 93—95, 478, pl. IV, fig. 3.
- — *scapha* Meuschen. HANLEY, *ibid.*, p. 94, pl. I, fig. 4.
- 1866 *Anomalocardia subrubra* Dkr.. DUNKER, *Novitates Conchologicae; Mollusca Marina* (207), pp. 83—84, nr. 92, pl. XXVIII, figs. 1—3.
- — *rugifera* Dkr.. DUNKER, *ibid.*, p. 84, nr. 93, pl. XXVIII, figs. 7—9.
- 1869 *Arca scapha* Chemn.. ISSEL, *Mar Rosso* (65), p. 88.
- 1869 *Anomalocardia maculosa* Rv.. VON FRAUENFELD, *Nicobaren* (55), p. 886.
- — *scapha* Ch.. VON FRAUENFELD, *ibid.*, p. 886.

- 1870 *Anomalocardia Hankeyana*, Rve., M'ANDREW, Test. Gulf of Suez (100), p. 449.
- — *transversa* (sic), H. Ad., n. sp., M'ANDREW, *ibid.*, p. 449.
- 1872 *Anomalocardia transversalis*. H. ADAMS in: Proceedings Zoological Society of London, 1872, p. 11, pl. III, fig. 16.
- 1880 *Arca (Anadara) scapha* Chemn., VON MARTENS, Mauritius (105), p. 320.
- 1881 *Arca antiquata* Lin., K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 32.
- 1886 *Arca scapha*, Chemn., COOKE, Test. Gulf of Suez (21), part V, pp. 94—95.
- — *transversalis* H. Ad. [= *scapha*, Chemn., juv.]. COOKE, *ibid.*, p. 95.
- 1888 *Anomalocardia scapha*. JOUSSEAUME, Mer Rouge (68), p. 213, nr. 181.
- 1888 *Arca scapha* Chemnitz. KOBELT, *Arca* (74), pp. 12—13, nr. 5, pl. 2, fig. 3 (= CHEMNITZ, pl. 55, fig. 548).
- — *Amaliae* n. sp., KOBELT, *ibid.*, pp. 26—27, nr. 15, pl. 8, figs. 1, 2.
- 1889 — (*Anomalocardia*) *maculosa* Reeve. KOBELT, *ibid.*, pp. 84—85, nr. 61, pl. 23, figs. 3, 4.
- — (—) *subrubra* Dunker. KOBELT, *ibid.*, p. 111, nr. 83, pl. 29, figs. 4, 5.
- 1891 — (*Scapharca?*) *crenata* Reeve. KOBELT, *ibid.*, p. 179, nr. 154, pl. 44, fig. 4.
- — (*Anomalocardia*) *Hankeyana* Reeve. KOBELT, *ibid.*, p. 203, nr. 187, pl. 48, fig. 3.
- — (—) *rugifera* Dunker. KOBELT, *ibid.*, p. 229, nr. 164, pl. 46, figs. 1, 2.
- 1891 *Arca (Anadara) antiquata* L., E. A. SMITH, Aden (162), p. 431.
- — (—) *scapha* Ch., E. A. SMITH, *ibid.*, p. 431.

- 1899 *Anadara antiquata*, L.. MELVILL and STANDEN, Torres Straits (123), p. 186, nr. 315.
- 1900 — — — — —, Linnaeus. BULLEN NEWTON, Raised beaches of the Red Sea (127), p. 546, pl. XXI, fig. 6.
- 1901 *Arca Hankeyana* Reeve. H. FISCHER, Djibouti (54), pp. 128—129, nr. 60.
- 1901 *Anomalocardia scapha* (Chemn.). STURANY, Lamellibr. d. Rothen Meeres (170), pp. 290, 295, nr. 110.
- 1901 *Anadara antiquata* (Linn.). ASHINGTON BULLEN, Raised beaches of Perim Island (204), p. 255.
- 1904 *Arca scapha* Lamarck (in part). LAMY, Arches étiq. de Lamarck (87), p. 152.
- 1904 *Arca (Anadara) scapha* Ch.. LAMY, Arches Djibouti (Bulletin du Muséum d'histoire naturelle, vol. X), p. 276.
- 1907 *Arca antiquata* Lin.. SCHEPMAN, Posttertiär Celebes (154), pp. 197—198, nr. 2.
- 1907 *Arca (Anadara) antiquata* Linné and vars. *crenata* Reeve, *rugifera* Dunker, *Amaliae* Kobelt, *subrubra* Dunker, *scapha* Meuschen and *Hankeyana* Reeve. LAMY, Révision *Arca* vivants (88), pp. 199—207.
- 1908 *Arca (Anomalocardia) antiquata* L.. O. BOETTGER, Liste d. tert. u. jüing. Verstein. (14), p. 671, nr. 44; p. 674, nr. 37.
- 1909 *Arca (Anadara) subrubra*, Dunk.. LYNGE, Lamellibr. Siam (99), p. 119.
- 1910 — (—) *scapha* Chemn.. K. MARTIN, Foss. v. Java (120), pp. 369—370, pl. LII, figs. 93, 94, 94 a—c, 95, 95 a.
- — (—) *Fennemai* spec. nov.. K. MARTIN, *ibid.*, p. 371, pl. LII, figs. 96, 96 a—c.
- — (—) *Junghuhni* spec. nov.. K. MARTIN, *ibid.*, pp. 371—372, pl. LII, figs. 97, 97 a—c.
- 1915 *Arca scapha* Chemn.. STAUB, Sangkulirangbai (169), pp. 124, 130.

- 1917 *Arca (Anadara) antiquata* Linné and var. *crenata* Reeve.
LAMY, Arches d. l. Mer Rouge
(90), pp. 106—107.
- — (—) *scapha* Meuschen and var. *Hankeyana*
Reeve. LAMY, *ibid.*, p. 108.
- 1919 *Arca scapha* Chemn., K. MARTIN, Palaeozool. Kenntn. v.
Java (119), pp. 60, 141, 147.
- — *Fennemai* Mart., K. MARTIN, *ibid.*, pp. 60, 113, 141.
- — *Junghuhni* Mart., K. MARTIN, *ibid.*, pp. 60, 113, 126,
127, 141.
- 1922 *Arca (Anadara) Junghuhni* Mart., K. MARTIN, Foss. v.
Java (120), p. 483, pl. LXI,
fig. 103.
- 1923 *Anomalocardia scapha* Chemn., HENRICH, Sinaihalbinsel
(60), p. 73.
- 1923 *Arca (Anadara) antiquata* Linné. OOSTINGH, Arca-
Arten (130), pp. 109—111.

Not: *Arca antiquata*, POLI (Testacea utriusque Siciliae, 1795)
[= *A. polii* Mayer].

Arca antiquata, LAMARCK (An. s. vert. (85), 1819) [= *A. deshayesi* Hanley].

Arca antiquata, K. MARTIN (Tertiärsch. auf Java (112),
p. 117; 1879) [= *A. preangerensis* K. Mar-
tin].

Not: *Arca scapha* (typical form of LAMARCK), LAMARCK
(An. s. vert. (85), 1819) [= *A. secticostata*
Reeve].

East coast of H a l m a h e r a, 1 specimen of the
typical form (REEVE, figs. 24 and 60).

Distribution: East Indian Archipelago: Sangkulirang-bay, E.
Borneo, on mud-flats and on the shore (STAUB).

Melanesia: „Stuarts Is." [? Stewart Is.] (Novara); New Caledonia and Viti Is. (Museum Paris). — Polynesia: Tonga Is. (Quoy et Gaimard); Tahiti (Novara, Mus. Paris). — Micronesia: Jaluit, Marshall Is. (Senckenberg Museum). — Torres Straits (MELVILL and STANDEN); North coast of Australia (REEVE); Port Essington, N. Australia (COOKE).

Philippines (Mus. Paris); Manila, in sandy mud, at low water (Cumings); Japan (Mus. Paris); Koh Chuen, Gulf of Siam, at 30

fathoms (LYNGE); Singapore (Mus. Paris); Nicobars (Novara); Ceylon (MEUSCHEN).

Aden (Jousseaume); Perim-island (Mus. Paris); Red Sea (CHEMNITZ, Pola, Mus. Paris); Gulf of Akabah (Pola); Ras Mahommed, Sinai-peninsula (HENRICH); Gulf of Suez (M'ANDREW); Suakin, Massaua and Obock (Jousseaume); Jibuti, Somaliland (de Gennes, Jousseaume); Zanzibar (Mus. Paris); Seychelles (Mus. Paris); Mauritius (COOKE); St. Mary-island near Madagascar (SGANZIN); Diego Suarez, Madagascar (Mus. Paris); Nossi-Bé (Mus. Paris); Mozambique, reef (Hankey); Natal.

Mouth of river Niger, in the sand (ADANSON).

Cumana, Venezuela (Mus. Paris).

The record of LAMY concerning the locality Realejo [W. coast of Nicaragua] (Mus. Paris) for the present species is open to doubt.

Fossil occurrence: Pleistocene of Timor (O. BOETTGER), and of the Minahassa, Northern Celebes (SCHEPMAN). Miocene (?) marls of Saonek besar near Waigeu (O. BOETTGER). Pleistocene (?) of Madura (K. MARTIN).

Java (according to K. MARTIN): Pliocene of Sondé, Resid. Madiun (*scapha*, *fennemai*, *junghuhni*). Upper Miocene (Tjilang-beds) and Lower Miocene (Njalindung-beds) of Resid. Preanger (*junghuhni*).

Pleistocene of Billiton (K. MARTIN).

Raised beaches of the Red Sea at Obock, Somaliland, and Kamaran-island, Southern Red Sea (Faurot), at Perim-island (ASHINGTON BULLEN), and near Kosseir, Egypt (BULLEN NEWTON).

The number of ribs of *A. antiquata* (in my specimen from Hal-mahera about 33) is generally 30—36, in the form *subrubra* Dunker, 36—40. Under these circumstances it is evident that the fossil forms from the Javanese Neogene, described by K. MARTIN as *A. fennemai* (with 40 ribs) and *A. junghuhni* (with 36—38 ribs), which were chiefly established on account of their deviating number of ribs, cannot be maintained as distinct species *).

257. *Arca* (*Scapharca*) *uropigimelana* Bory de St.-Vincent.

1798 *Arca* LAMARCK, Tableau encycl. (49 a), pl. 307, figs. 2 a, b.

1827 *Arca uropigimelana* N. BORY DE ST.-VINCENT, Tableau encycl. (49 a), Explanation of plates, p. 156.

*) For further details see the writer's note on some fossil and recent species of *Arca* from the East Indian Archipelago (130).

- 1843 *Arca holoserica*. REEVE (145), vol. II, Arca, pl. II, fig. 11.
- 1880 *Arca (Anadara) uropygmelana* Bory, Mörch. VON MARTENS, Mauritius (105), p. 320.
- 1889 *Arca (Anomalocardia) uropygmelana* Bory. KOBELT, Arca (74), pp. 85—86, nr. 62, pl. 23, figs. 5, 6.
— *Arca planicosta* Philippi mss.. KOBELT, *ibid.*, p. 85 (as = *A. uropygmelana*).
- 1902 *Arca (Anadara) holoserica* Reeve (*uropygmelana* Bory, Mörch). VON MARTENS, Rumphius Gedenkb. (110), p. 126.
- 1906 *Anomalocardia uropygmelana* Bory. DAUTZENBERG, Ambodifoutra (37).
- 1907 *Arca (Anadara) uropygmelana* Bory de St.-Vincent. LAMY, Révision Arca vivants (88), pp. 207—209.
- 1909 *Arca (Anadara) uropygomelana*, Bory. LYNGE, Lamellibr. Siam (99), p. 120.

Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago: Togeian Is. near Celebes (A. B. Meyer); Besuki, E. Java (Sammelink).

New Caledonia (Mus. Paris); Gilbert Is..

Philippines (Cuming); Salanga-island near Malacca; Maldives. — Gulf of Aden; Red Sea and Jibuti, Somaliland (Mus. Paris); Zanzibar, Seychelles and Madagascar (Mus. Paris); St. Mary-island near Madagascar (DAUTZENBERG); Nossi-Bé near Madagascar (VON MARTENS, Mus. Paris); Querimba Is..

Fossil in the raised coral-reef at Port Sudan on the west coast of the Red Sea (HALL and STANDEN).

258. *Arca (Scapharca) granosa* Linné.

- 1685 *Pectunculus striis raris*. LISTER, Historia Conchyliorum, [pl. 234], fig. 68.
— *Pectunculus striis magnis*. LISTER, *ibid.*, [pl. 241], fig. 78.
- 1705 *Pecten granosus*. RUMPHIUS (151), p. 143, pl. XLIV, fig. K.
- 1758 *Arca granosa*. LINNÉ, Systema Naturae, edit. X (94), p. 694, nr. 146.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1142, nr. 176.
- 1784 *Arca granosa Linnaei*. CHEMNITZ, Conch.-Cab. (122), vol. VII, pp. 219—221, pl. 56, fig. 557.
— — *corbula*. CHEMNITZ, *ibid.*, p. 222, pl. 56, fig. 558.
— — *granosa minor*. CHEMNITZ, *ibid.*, p. 222, pl. 56, fig. 559.
- 1789 *Arca aculeata*. BRUGUIÈRE, Encycl. meth. (49), vol. I, p. 107, nr. 17.

- 1791 *Arca granosa*. GMELIN (56), p. 3310, nr. 18 (*in part*).
 — — *Corbicula*. GMELIN, *ibid.*, p. 3310, nr. 19 and var. β .
- 1798 *Arca* LAMARCK, *Tableau encycl.* (49 a), pl. 309, fig. 5 (*Arca corbicula* Lamk. in the Explanation of plates by BORY DE ST.-VINCENT, p. 156; 1827).
- 1819 *Arca granosa*, vars. *b* and *c* [exclusive of var. *a*]. LAMARCK, *An. s. vert.* (85), vol. VI, 1 st part, p. 43, nr. 28.
 — — *corbicula* Gmel.. LAMARCK, *ibid.*, pp. 44—45, nr. 34.
- 1835 *Arca granosa* Lin., vars. *b* and *c* [exclusive of var. *a*]. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. VI, p. 472, nr. 28.
 — — *corbicula* Gmel.. DESHAYES—LAMARCK, *ibid.*, pp. 473—474, nr. 34.
- 1844 *Arca granosa*. REEVE (145), vol. II, *Arca*, pl. III, figs. 15 a, b.
 — — *cuneata*. REEVE, *ibid.*, pl. VI, fig. 37.
- 1847 *Arca zanzibarensis*. NYST, *Tableau synoptique et synonymique des espèces des Arcacées* (*Mémoires, Acad. R. Sc. Belgique*, vol. XXII), p. 78.
- 1849 *Arca oblonga* Ph.. PHILIPPI, *Abbild. u. Beschreib.* (134), vol. III, pp. 85—86, *Arca*, pl. V, fig. 6.
- 1855 *Arca granosa*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 95—96, 478.
- 1860 *Arca nodifera*. VON MARTENS, *On the Mollusca of Siam* (*Proceedings of the Zoological Society of London*, part 28, 1860), p. 17.
- 1866 *Anomalocardia oblonga* Phil.. DUNKER, *Novitates Conchologicae; Mollusca Marina* (207), p. 85, nr. 94, pl. XXIX, figs. 7—9.
 — — *paucigranosa* Dkr.. DUNKER, *ibid.*, pp. 85—86, nr. 95, pl. XXIX, figs. 10—12.
- 1868-'70 — — *pulchella* Dkr.. DUNKER, *ibid.*, pp. 113—114, 139, nr. 127, pl. XXXVIII, figs. 6—9.
- 1869 *Anomalocardia granosa* L.. VON FRAUENFELD, *Nicobaren* (55), p. 886.

- 1869 *Arca granosa* L.. LISCHKE, Japan. Meeresconch. (98), vol. I, pp. 145—146.
- 1870 *Anomalocardia paucigranosa* Dkr.. DUNKER, Novit. Conch. (207), p. 138 (= *Arca nodifera* v. Mart., according to VON MARTENS).
- 1871 *Arca granosa*. LISCHKE, Japan. Meeresconch. (98), vol. II, p. 144.
- 1879 *Arca nodosa* nov. spec.. K. MARTIN, Tertiärsch. auf Java (112), I, pp. 116—117, pl. XVIII, figs. 12, 12 a, 13, 13 a.
- 1880 *Arca (Anadara) cuneata* Sow.. VON MARTENS, Mauritius (105), p. 320.
- 1882 *Anomalocardia granosa* Lin.. DUNKER, Index Moll. mar. Japon (48), p. 233.
- — *pulchella* Dkr.. DUNKER, *ibid.*, p. 233.
- 1883 *Arca granosa* Lin.. K. MARTIN, Nachtr. z. d. Tertiaersch. auf Java (114), p. 242.
- 1885-'87 *Arca granosa* L.. K. MARTIN, Tiefbohr. auf Java (115), p. 242, nr. 301, pp. 308, 329, 362, 364.
- — *oblonga* Phil.. K. MARTIN, *ibid.*, pp. 243—244, nr. 303, pl. XII, fig. 248 (exclusive of one valve from the boring Blakan Kebon at Semarang), pp. 313, 337.
- 1887 *Arca (Anadara) granosa*, L.. VON MARTENS, Mergui (107), p. 207, nr. 319.
- 1888 *Arca (Anomalocardia) granosa* Linné. KOBELT, *Arca* (74), pp. 38—39, nr. 24, pl. 3, fig. 7 (= CHEMNITZ, pl. 56, fig. 557).
- — (—) *nodifera* Martens. KOBELT, *ibid.*, pp. 46—47, nr. 31, pl. 13, figs. 3—4.
- 1889 — (—) *paucigranosa* Dunker. KOBELT, *ibid.*, p. 100, nr. 73, pl. 27, figs. 1—2 (= *A. nodifera* Martens, according to KOBELT).

- 1889 *Arca (Anomalocardia) oblonga* Philippi. KOBELT, *ibid.*, pp. 103—104, nr. 76, pl. 27, figs. 7, 8.
- 1889 *Anadara granosa* L.. L. MORLET, *Coq. Cambodge et Siam* (126), p. 162.
- 1890 *Arca (Anomalocardia) granosa* L.. O. BOETTGER, *Ad. Strubell's Konch. aus Java* (12), p. 170, nr. 24.
- 1891 *Arca (Anomalocardia) cuneata* Reeve. KOBELT, *Arca* (74), p. 194, nr. 176, pl. 47, fig. 1.
- 1891 *Arca (Barbatia) corbicula* Gmelin. KOBELT, *ibid.*, p. 210, nr. 196, pl. 3, figs. 8—10.
- 1891 *Arca (Anadara) granosa* L.. P. FISCHER, *Catal. Indo-Chine* (53), p. 215 (reprint, p. 131).
- — (—) *oblonga* Phil.. P. FISCHER, *ibid.*, p. 215 (reprint, p. 131):
- 1895 *Arca (Anomalocardia) granosa*. PILSBRY, *Catalogue of the marine mollusks of Japan*, p. 149.
- 1897 *Arca granosa* L.. VON MARTENS, *Süss- u. Brackw.-Moll. d. Ind. Arch.* (109), pp. 228, 291.
- — *nodifera* Marts.. VON MARTENS, *ibid.*, p. 228.
- 1902 *Arca (Anadara) granosa* L.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 126.
- 1904 *A. granosa* Linné. LAMY, *Arches étiquett. de Lamarck* (87), pp. 158—161.
- 1905 *Arca (Anomalocardia) granosa* Linné. DAUTZENBERG et H. FISCHER, *Tonkin* (40), pp. 193—194.
- 1906 *Arca (Anomalocardia) granosa* Lam.. MELVILL and STANDEN, *Persian Gulf* (124), part II, p. 796.
- 1906 *Arca granosa* Linné. TOKUNAGA, *Fossils from the Environs of Tokyo* (215), p. 59, nr. 145, pl. III, fig. 20.

- 1907 *Arca nodosa* Martin. SCHEPMAN, Posttertiär Celebes (154), p. 198, nr. 4.
- 1907 *Arca (Anadara) granosa* Lam.. ICKE en K. MARTIN Nias (64), p. 217.
- 1907 *Arca (Anadara) granosa* Linné. LAMY, Révision *Arca* vivants (88), pp. 210—214.
- 1908 *Arca (Anomalocardia) granosa* L.. O. BOETTGER, Tert. u. jüngere Verstein. (14), p. 668, nrs. 10, 12.
- 1909 *Arca (Anadara) granosa* L.. LAMY, Java (89), p. 467.
- 1909 *Arca (Anadara) granosa*, L.. LYNGE, Lamellibr. Siam(99), p. 118.
- — (—) *oblonga*, Phil.. LYNGE, ibid., pp. 118—119.
- 1910 *Arca (Anadara) granosa* Linn.. K. MARTIN, Foss. v. Java (120), p. 360.
- — (—) *oblonga* Philippi. K. MARTIN, ibid., pp. 360, 366.
- — (—) *nodosa* Mart.. K. MARTIN, ibid., pp. 360, 367, pl. LII, figs. 86, 86 a, 87.
- 1915 *Arca granosa* Lin.. STAUB, Sangkulirangbai (169), pp. 124, 128, 130.
- 1919 *Arca granosa* Linn.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 60, 132, 133, 136, 147, 155.
- — *oblonga* Phil.. K. MARTIN, ibid., pp. 60, 124, 127, 132, 133.
- — *nodosa* Mart.. K. MARTIN, ibid., pp. 60, 126, 127.
- 1920 *Arca (Anadara) granosa* L.. TESCH, Timor (175), II, pp. 92—93, nr. 203, pl. CXXXVII, figs. 248 a, b, 249 a, b, c.
- — (—) *nodosa* K. Martin. TESCH, ibid., p. 94, nr. 206, pl. CXXXVIII, figs. 252, 252 a.
- 1922 *Arca (Anomalocardia) granosa*, Linné. YOKOYAMA, Upper Musashino of Kazusa and Shimosa (189), pp. 186—187, nr. 312, pl. XV, fig. 4.

1922 *Arca (Anadara) nodosa* Mart.. K. MARTIN, Foss. v. Java (120), p. 483.

O b i M a j o r, 8 right and 3 left valves of the typical form; 1 left valve of the form *oblonga* Philippi (exactly like the figure in KOBELT's monograph in the Conchylien-Cabinet).

Distribution: East Indian Archipelago (frequently in brackish water): N. coast of Ceram (RUMPHIUS); Lucipara-island (Gazelle expedition); Aru Is.; Sorong, W. coast of New Guinea; Kupang, Timor (VON MARTENS); Dana-island, southwest of Timor (Gazelle exp.); Java (LAMY); Surabaya, Java, and Palabuan, S. W. coast of Java (VON MARTENS); coast near Batavia (Strubell); Makassar, Southern Celebes (RUMPHIUS, VON MARTENS, Max Weber); Sangkulirang-bay, E. Borneo, on mud flats, numerous, and on the shore (STAUB); Mampawa, W. coast of Borneo (VON MARTENS); Pulu Tikus near Benkulen, W. coast of Sumatra (VON MARTENS).

Polynesia: Tonga Is. (Museum Paris). — Australia (Mus. Paris).

Philippines (REEVE); Nagasaki, Southern Japan (LISCHKE); Central Japan; Chefoo, Yellow Sea (LISCHKE); Shanghai (Mus. Paris); Hongkong (Novara, Mus. Paris); Macao (Mus. Paris); Along-bay, Tongking (Blaise, Mus. Paris); Tourane, Annam (Mus. Paris); Cochin China (Mus. Paris); Cape St. Jacques, Lower Cochin China (LISCHKE); islands in the Gulf of Siam (L. MORLET; LYNGE, in 3—10 fathoms, soft clay bottom); Bangkok, Siam (VON MARTENS, P. FISCHER); Singapore, numerous (VON MARTENS); Pulu Penang (LAMY); Salanga-island, on the west coast of Malacca (VON MARTENS); Mergui (Th. Philippi; Anderson, on mud-flats); Mergui-archipelago, at high-water level (Anderson); Bassein river, Burma; Nicobars (CHEMNITZ); Madras (Novara); Tranquebar, Coromandel Coast (CHEMNITZ); Ceylon (Mus. Paris); Gulf of Manaar; Malabar Coast (Mus. Paris); Bombay, „common in this locality, but not yet recorded further north” (ABERCROMBIE, MELVILL and STANDEN, Cuming Collection, Mus. Paris).

Zanzibar (*cuneata*, REEVE); Mauritius (*cuneata*, LIÉNARD).

? ? |Cape of Good Hope (*aculeata*, BRUGUIÈRE)|.

Fossil occurrence: Timor: Pleistocene and deposits that may be Lower Pleistocene or Upper Pliocene (TESCH). Pliocene of Timor (K. MARTIN, O. BOETTGER, TESCH (*granosa* and *nodosa*)).

Pleistocene on the N. coast of New Guinea, near mouth of river Tami.

Pleistocene of Amboina and at Menado, Northern Celebes (K. MARTIN). Pleistocene of the Minahassa, Northern Celebes (*nodosa*, SCHEPMAN).

Pliocene of the Sangkulirang-bay, E. Borneo (STAUB).

Pleistocene of Madura near Java (K. MARTIN).

Java (according to K. MARTIN): Pleistocene at Demak, Resid. Semarang (*granosa*) and at Batavia (*oblonga*). Pliocene deposits of Tjandi near Semarang (*granosa*), Tji Djadjar, Res. Cheribon (*granosa* and *oblonga*), and in the underground of Batavia (*oblonga*). Upper Miocene (Tjilanang-beds) of Resid. Preanger (*oblonga* and *nodosa*). Lower Miocene (Njalindung-beds) of Sukabumi-division, Resid. Preanger (*nodosa*). Miocene (?) of Ngembak, Resid. Semarang (*granosa*). Neogene estuarine deposits of the mountains in the western part of Resid. Banjumas (*granosa*).

Pleistocene of Nias, west of Sumatra (ICKE en K. MARTIN).

Upper Musashino (? Upper Pliocene) around Tokyo, Japan (YOKOYAMA).

In the matter of synonymy I have chiefly followed LAMY, on whose authority I unite *A. oblonga* Phil. with the present species. If these two forms are considered to be conspecific, it seems to me that the fossil form named *Arca nodosa* by K. MARTIN cannot be maintained as a distinct species.

Genus *Glycymeris* Da Costa, 1778

(= *Tuceia* Bolten, 1798;

= *Pectunculus* Lamarck, 1799¹); not of Da Costa, 1778).

Type: *Arca glycymeris* Linné.

259. *Glycymeris hanleyi* (Angas).

1910 *Pectunculus Hanleyi* Angas. DAUTZENBERG, Halmahera (38), p. 3.
Halmahera (recorded by DAUTZENBERG).

¹) Much difference of opinion has existed with regard to the name which ought to be applied to this genus. Compare:

1891 BUCQUOY, DAUTZENBERG et DOLLFUS, Les mollusques marins du Roussillon, tome II, pp. 194—195.

1898 W. H. DALL, Contrib. Tertiary fauna of Florida (27), part IV, pp. 607, 571—572.

1904 DAUTZENBERG et DOLLFUS, Nomenclature *Pectunculus* et *Glycymeris* (39 bis).

1909, 1913 COSSMANN et PEYROT, Conchologie néogénique de l'Aquitaine (24), tome I, p. 121; tome II, p. 131.

1912 LAMY, Révision des *Pectunculus* vivants (89 bis), pp. 83—84.

1912 W. H. DALL, Note on the generic name *Pectunculus* (30 bis).

FAM. PINNIDAE.

Genus *Atrina* Gray, 1847.Type: *Pinna nigra* (Chemn.) Dillwyn.260. *Atrina vexillum* (Born).

- 1780 *Pinna vexillum*. BORN, Testacea musei caes. Vindobonensis (16), p. 134, pl. 7, fig. 8.
- 1785 *Gubernaculum*. *Pinna vexillum, etc.*. CHEMNITZ, Conch.-Cab. (122), vol. VIII, pp. 238—239, pl. 91, fig. 783.
- 1791 *Pinna Vexillum*. GMELIN (56), pp. 3366—3367, nr. 15.
- 1798 *Pinna gubernaculum* Bolten. Museum Boltenianum, p. 159, nr. 50.
- 1819 *Pinna vexillum*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 134, nr. 14.
- 1832 *Pinna vexillum*. DESHAYES, Encycl. méth. (49), vol. III, p. 770, nr. 7.
- 1836 *Pinna vexillum* Born. DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, p. 66, nr. 14.
- 1843 *P. Vexillum*. HANLEY, Cat. recent Biv. Shells (224), p. 254.
- 1858 *Pinna vexillum*. REEVE (145), vol. XI, *Pinna*, pl. XIX, fig. 36.
- 1869 *Pinna vexillum*, Born. VON MARTENS, v. d. Decken's Reisen (103), p. 66.
- 1879 *Pinna vexillum* Born. K. MARTIN, Tertiärsch. auf Java (112), I, p. 120, pl. XIX, figs. 5, 6.
- 1887 *Pinna (Atrina) vexillum*, Born. VON MARTENS, Mergui (107), p. 204, nr. 294.
- 1890 *Pinna vexillum* Born. CLESSIN, Malleacea (20), p. 67, nr. 12, pl. 20, fig. 3.
- 1906 *Pinna (Atrina) vexillum* Born. MELVILL and STANDEN, Persian Gulf (124), part II, p. 806.
- 1910 *Pinna vexillum* Born. K. MARTIN, Foss. v. Java (120), p. 357.

1919 *Pinna vexillum* Born. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 58, 127, 131, 132.

East coast of H a l m a h e r a, 1 specimen.

Distribution: East Indian Archipelago: Amboina (REEVE).

Philippines; Singapore; Mergui-archipelago (Anderson); Karachi, N. W. India, at 3 fathoms, in mud (MELVILL and STANDEN).

East Africa, no precise locality (von der Decken).

Fossil: Pliocene of Waled, Residency Cheribon, and Pangka, Resid. Tegal, Java. Upper Miocene (Tjilanang-beds) of Resid. Preanger, Java (K. MARTIN).

FAM. PEDALIONIDAE

(= *Pernidae*;

= *Melinidae*).

Genus *Pedalion* (Solander) Huddesford, 1770¹).

Type: *Ostrea ephippium* Linné²).

(= *Melina* Philipsson, 1788;

Perna Bruguière, 1789;

Sutura Megerle von Mühlfeldt, 1811;

Hippochaeta (Sangiovanni), teste Philippi, 1844).

Section *Pedalion* s. str..

261. *Pedalion* (*Pedalion*) *vitreum* (Reeve).

1858 *Perna vitrea*. REEVE (145), vol. XI, *Perna*, pl. II, fig. 10.

1863 *Perna* [spec.]. VON MARTENS, Landschnecken der Molukken (101bis), p. 131.

1880 *Perna vitrea* Reeve. VON MARTENS, Mauritius (105), p. 316.

1890 — — Reeve. CLESSIN, Malleacea (20), p. 36, nr. 20, pl. 12, fig. 2 (copied from REEVE).

1897 — — Rv. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 224—225.

East coast of the isthmus of Dodinga, Halmahera, and Ternate, on the shore (VON MARTENS).

Distribution: East Indian Archipelago: Amboina, on stones in the mouth of a river (VON MARTENS); Banda (VON MARTENS); Kupang, Timor, and

¹) See W. H. DALL, Note on the generic name *Pectunculus* (30 bis), p. 255.

²) COSSMANN (Conchol. néogénique de l'Aquitaine (24), tome II, p. 259), who discusses the nomenclature of *Perna* Brug., has evidently been mistaken when he says that, if *Ostrea ephippium* L. is the genotype of *Melina*, „*Melina* fait manifestement double emploi avec *Anomia*“. According to HANLEY (Ipsa Linn. Conch. (58), pp. 118—119) *Ostrea ephippium* of LINNÉ is a *Perna*; it is by no means the same shell as *Anomia ephippium* Linné.

Palabuan, Java (VON MARTENS); mouth of river Tji Udjong, W. Java (von Richthofen).

Viti Is. (Mus. Godeffroy); Ponape, Caroline Is., on roots of mangroves (O. Finsch).

Red Sea (REEVE); Seychelles (Möbius); Mozambique (Mus. Berlin).

Section *Isogonum* Bolten, 1798

(= *Isognomon* Link, 1807).

Type: *Ostrea isognomum* Linné.

262. *Pedalion (Isogonum) isognomum* (Linné).

1705 *Ἰσγνόμων [Isognomon]*, Winkelhaak. RUMPHIUS (151),
p. 158, pl. XLVII, fig. I.

1758 *Ostrea Isognomum*. LINNÉ, *Systema Naturae*, edit. X (94),
p. 699, nr. 176.

1764 *Ostrea Isognomon*. LINNÉ. *Mus. Lud. Ulr.* (95), p. 533,
nr. 120.

1767 *Ostrea Isogonum*. LINNÉ, *Syst. Nat.* XII (96), p. 1149,
nr. 214.

1784 *Species Isognomonis imperfecti, etc.*. CHEMNITZ, *Conchy-
lien-Cab.* (122), vol.
VII, pp. 253—255, pl.
59, fig. 582.

— *Species curvati et gibbosi Isognomonis, etc.*. CHEMNITZ,
ibid., pp. 256—257, pl. 59, fig. 583.

— *Norma. Gnomon. Species Isognomonis perfecti*. CHEM-
NITZ, *ibid.*, pp. 257—260, pl. 59, fig.
584.

1788 *Melina Isogonum*. PHILIPSSON, *Dissertatio historico-
naturalis nova Testaceorum genera*,
p. 23.

1791 *Ostrea Isognomum*. GMELIN (56), p. 3338, nr. 125.

1792 *Perna* BRUGUIÈRE, *Tableau encycl.* (49 a), pl.
175, figs. 4, 5 (*Perna femoralis* in the Expla-
nation of plates by BORY DE ST.-VINCENT,
p. 145; 1827).

— *Perna* BRUGUIÈRE, *ibid.*, pl. 176, fig. 1 (*Perna
isognomum* in the Expl. of pl. by B. D. ST.-V.,
p. 145; 1827).

1798 *Isogonum norma* Bolten. *Museum Boltenianum*, p. 168,
nr. 145.

- 1798 *Isogonum gnomon* Bolt. Mus. Bolt., p. 168, nr. 146.
- 1819 *Perna isognomum*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 140, nr. 3.
- — *femoralis*. LAMARCK, *ibid.*, pp. 140—141, nr. 5.
- — *canina*. LAMARCK, *ibid.*, p. 141, nr. 6.
- 1822 *Perna Isognomon*. SOWERBY, Genera (168), *Perna*, fig. 1 (*P. Isognomum* on the plate).
- 1832 *Perna isognomum*. DESHAYES, Encycl. méth. (49), vol. III, p. 736, nr. 2 and var. b.
- — *femoralis*. DESHAYES, *ibid.*, pp. 736—737, nr. 3 and var. b.
- 1836 *Perna isognomum* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, pp. 75—76, nr. 3.
- — *femoralis* Lamk.. DESHAYES—LAMARCK, *ibid.*, p. 76, nr. 5 (= *P. isognomum* according to DESHAYES).
- — *canina* Lamk.. DESHAYES—LAMARCK, *ibid.*, pp. 76—77, nr. 6 (= *P. isognomum*, juven. according to DESHAYES).
- 1843 *P. Isognomon*. HANLEY, Cat. recent Biv. Shells (224), p. 258.
- 1855 *Ostrea isognomon*. HANLEY, Ipsa Linn. Conch. (58), pp. 118, 482.
- 1858 *Perna isognomum*. REEVE (145), vol. XI, *Perna*, pl. V, fig. 24.
- 1862 *Perna femoralis*, Lamarck. CHENU, Manuel (19), vol. II, p. 161, fig. 802.
- 1880 *Perna isognomon* Linne and vars. *femoralis* Lam. and *canina* Lam.. VON MARTENS, Mauritius (105), p. 317.
- 1887 *Perna isognomon*, L.. VON MARTENS, Mergui (107), p. 203, nr. 285.
- 1890 *Perna isognomum* Linné. CLESSIN, Malleacea (20), p. 27, nr. 1, pl. 8, fig. 1 (copied from REEVE).
- 1902 *Perna isognomon* L.. VON MARTENS, Rumphius Gedenk. (110), p. 129.
- 1909 *Melina isognomum* L.. LAMY, Java (89), p. 468.
- 1909 *Perna isognomon*, L.. LYNGE, Lamellibr. Siam (99), p. 147.
- 1915 *Perna isognomum* Lk.. STAUB, Sangkulirangbai (169), p. 131.

East coast of Halmahera, 2 right valves.

The valves are less elongated than the shell figured by REEVE; they resemble the figure in SOWERBY's „Genera”.

The species was collected at Ternate by VON MARTENS.

Distribution: East Indian Archipelago: Sorong, New Guinea; Java (LAMY); Sangkulirang-bay, E. Borneo, shore with pieces of rock, not rare (STAUB).

Thursday-island, Torres Straits. — Philippines (Cuming); Pulo Kondor near Lower Cochin China; Gulf of Siam, in 9—10 fathoms (LYNGE); Singapore; Mergui-archipelago, on coral bottom (Anderson); Nicobars (CHEMNITZ); Madras; Ceylon (CHEMNITZ).

Red Sea; Mauritius (SGANZIN, LIÉNARD); St. Mary-island near Madagascar (SGANZIN); Mozambique.

FAM. PTERIIDAE.

Genus *Pteria* Scopoli, 1777

(= *Avicula* Olivi, 1792).

Type: *Mytilus hirundo* Linné.

Subgenus *Unionium* Link, 1807. '

Type: *Mytilus margaritiferus* Linné, indicated by HARRIS (205), p. 325; 1897.

(= *Margaritifera* P. Browne, 1756, 1789 (non binom.); Museum Calonnianum, 1797 (not valid); *Margaritiphora* Megerle von Mühlfeldt, 1811 (*Margaritophora* Agassiz, 1847);

Margarita Leach, 1814;

Perlamater Schumacher, 1817;

Meleagrina Lamarck, 1819).

263. *Pteria* (*Unionium*) *margaritifera* (Linné).

1758 *Mytilus margaritiferus*. LINNÉ, Systema Naturae, edit. X (94), p. 704, nr. 209.

1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 538, nr. 130.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1155, nr. 246.

1814 *Margarita sinensis*. LEACH, The Zoological Miscellany, vol. I, p. 180, pl. 48.

- 1819 *Meleagrina margaritifera* (in part!). LAMARCK, An. s. vert. (85), vol. VI, 1 st part, pp. 151—152, nr. 1 (in part, and exclusive of var. b).
- 1836 — — (in part!). DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, p. 107, nr. 1 (in part, and exclusive of var. b).
- 1855 *Mytilus margaritiferus*. HANLEY, Ipsa Linn. Conch. (58), pp. 137—138, 486.
- 1856 *Meleagrina Mazatlanica*. HANLEY, An illustr. and descriptive Catalogue of recent Bivalve Shells (224), p. 388, pl. 24, fig. 40.
- 1857 *Avicula Cumingii*. REEVE (145), vol. X, Avicula, pl. IV, fig. 6.
- — *barbata*. REEVE, *ibid.*, pl. V, fig. 9.
- — *margaritifera*. REEVE, *ibid.*, pl. VIII, fig. 21.
- 1862 *Meleagrina margaritifera*, Linné. CHENU, Manuel (19), vol. II, p. 160, fig. 794.
- 1870 *Margaritifera margaritifera*, Lam.. M'ANDREW, Test. Gulf of Suez (100), p. 448.
- 1872 *Avicula (Meleagrina) Cumingii* Reeve. DUNKER, Avicula (208), p. 22, pl. 6, fig. 3 (copied from REEVE).
- — (—) *barbata* Reeve. DUNKER, *ibid.*, p. 48, pl. 16, fig. 3 (copied from REEVE).
- 1886 *Meleagrina margaritifera*, Lam.. COOKE, Test. moll. Gulf of Suez (21), part IV, p. 136.
- 1888 *Meleagrina margaritifera*. JOUSSEAUME, Mer Rouge (68), p. 219, nr. 199.
- 1901 *Meleagrina margaritifera* (Lm.) et var.. STURANY, Lamel-libr. d. Rothen Meeres (170), pp. 289, 295, nr. 97.
- 1901 *Margaritifera margaritifera* and vars. *zanzibarensis*, *persica*, *erythraeensis* nn. vars., *cumingii* and *mazatlanica*. JAMESON, Mother-of-pearl oysters (67), pp. 373—377, species 1.

- 1906 *Margaritifera margaritifera* (L.), var. *c. persica* Jameson. MELVILL and STANDEN, Persian Gulf (124), part II, p. 803.
- 1909 *Pteria margaritifera* L. LAMY, Java (89), p. 468.
- 1915 *Margaritifera margaritifera* L. CAES. BOETTGER, Aru u. Kei-Inseln (10), p. 140.
- 1923 *Meleagrina margaritifera* L. HENRICH, Sinaihalbinsel (60), p. 73.

Obi Major, 1 right and 2 left valves.

East coast of Halmahera, 1 right valve.

Distribution (chiefly according to H. L. JAMESON): Dutch East Indies: „Throughout the Malay Archipelago” (JAMESON); Aru Is. (Merton); Java (LAMY); New Guinea and the adjacent islands.

Australia: W. coast to about 29° S.; all along N. coast; E. coast as far south as Moreton Bay. — Melanesia: New Britain; Solomon Is.; Viti Is.. — Hawaii.

China. — Andaman Is.; Ceylon; Maldives.

Persian Gulf (form *persica* Jameson): Mekran Coast of Baluchistan and Southern Persia and Persian Gulf, on most rocky patches (MELVILL and STANDEN); Charbar, S. Persia, at 8 fathoms, in muddy sand (MELVILL and STANDEN); Bahrein-island.

Red Sea (form *erythraeensis* Jameson): Aden; Perim-island, Red Sea, Gulf of Akabah and Gulf of Suez (Pola); S. coast of Sinai-peninsula (HENRICH); Suez-canal; Straits of Jubal (M'ANDREW); Obock (Faurot).

East African coasts and islands (form *zanzibarensis* Jameson): Zanzibar; Seychelles; Amirantes; Rodriguez; Mauritius; Madagascar; Bazaruto Is. south of Beira.

Eastern Polynesia (form *cumingii* Reeve): Tahiti; Lord Hood Island or Marutea, Paumotu, attached to rocks, at the depth of 10 fathoms (Cuming); Gambier Is.; Penrhyn Group.

West coast of Central America (form *mazatlanica* Hanley): Panama, under stones at low water (Cuming); Mazatlan, Mexico (HANLEY); Gulf of California.

I have not quoted several authors, who recorded *Pteria margaritifera*, as it remains uncertain, whether they had in view the species as it is understood by JAMESON, the next species having been included by most writers under LINNÉ's species. I have therefore forbore from enumerating several localities in the Moluccas

and other parts of the Dutch East Indies, from which *Pt. margaritifera* has been recorded by RUMPHIUS, VON MARTENS, DAUTZENBERG, STAUB, and SCHEPMAN.

264. *Pteria (Unionium) maxima* Jameson.

1685 *Concha margaritifera* (in part). LISTER, *Historia Conchyliorum*, fig. 222.

1696 LISTER, *Conchyl. bivalv.*, pl. 9.

1828 Malacca pearl oyster. HOME, *Lectures on Comparative Anatomy*, vol. VI, pl. 49.

1893 *Meleagrina margaritifera*, [not off L., SAVILLE-KENT, *The Great Barrier Reef* (70), Chapter V, pl. XXXVIII.

1901 *Margaritifera maxima*, n. sp.. JAMESON, *Mother-of-pearl oysters* (67), pp. 377—379, species 2.

1915 *Margaritifera maxima* James.. CAES. BOETTGER, *Aruu. Kei-Inseln* (10), p. 140.

1916 — — Jameson. CAES. BOETTGER, *Hanseatische Südsee-Exp.* (11), p. 307.

Obi Major, 1 right valve, diameter about 22 cm..

Distribution (according to H. L. JAMESON): East Indian Archipelago: Aru Is. (Merton); New Guinea; Makassar; Borneo.

Australia: W. coast as far as 25° S.; all along N. coast; E. coast as far south as Townsville, Northern Queensland.

Melanesia: D'Entrecasteaux Is.; Louisiades; New Britain; Nissan Atoll and Buka, Solomon Is. (Hanseatic Pacific exp.).

Sulu Sea and Philippines. — Mergui, Further India.

FAM. OSTREIDAE.

Genus *Ostrea* Linné, 1758.

Type: *Ostrea edulis* Linné.

Subgenus *Ostrea* s. str..

265. *Ostrea (Ostrea) mytiloides* Lamarck.

1705 *Ostreum radicum sive lignorum*, *Stok-oesters*. RUMPHIUS (151), pp. 154—155, pl. XLVI, fig. O.

1791 *Ostrea parasitica* (in part). GMELIN (56), pp. 3336—3337, nr. 115.

1819 *Ostrea mytiloides*. LAMARCK, *An. s. vert.* (85), vol. VI, 1 st part, nr. 21.

1836 — — Lamk.. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. VII, p. 227, nr. 21.

1856 *O. Mytiloides*. HANLEY, *Cat. recent Biv. Shells* (224), p. 300.

- 1869 *Ostrea arborea* [not of] Chemn.. VON FRAUENFELD, Nicobaren (55), p. 887.
 1870 *Ostrea mytiloides*. SOWERBY in REEVE (145), vol. XVIII, *Ostrea*, pl. II, fig. 3.
 1871 — *Belcheri*. SOWERBY, *ibid.*, pl. VII, fig. 11.
 1887 *Ostrea mytiloides*, Lam.. VON MARTENS, Mergui (107), p. 173, nr. 61.
 1897 — — Lam.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 220—221, nr. 1.
 1902 — — Lam.. VON MARTENS, Rumphius Gedenkb. (110), p. 128.
 1915 — — Lam.. CAES. BOETTGER, Aru- u. Kei-Inseln (10), p. 141.

Bachan, on roots of mangrove-trees (collected by VON MARTENS).

Distribution: East Indian Archipelago (on roots of mangrove-trees): Buru, and Manipa, Kelang and Bonoa between Buru and Ceram (RUMPHIUS); Amboina (VON MARTENS); Aru Is. (Merton); Adonara (Sammelink); Java (VON FRAUENFELD); Togeian Is. near Celebes (A. B. Meyer).

Australia (SOWERBY). — Mindanao, Philippines, on roots of mangrove-trees (VON MARTENS); Cebu, Philippines (HANLEY); Tongking (CROSSE); Mergui-archipelago, on stems of mangrove-trees (Anderson); Ceylon.

Subgenus *Lopha* Bolten, 1798

(= *Alectryonia* Fischer von Waldheim, 1807;

Dendrostraea Swainson, 1840;

Dendostrea G. B. Sowerby II, 1842;

Dendrostrea Herrmannsen, 1847;

Rastellum (Lhwyl, 1699) Herrmannsen, 1848).

Type: *Ostrea crista-galli* (L.).

266. *Ostrea (Lopha) cucullata* Born.

- 1705 *Ostreum Saxatile*. RUMPHIUS (151), p. 155.
 1778 *Ostrea cucullata*. BORN, Index rerum naturalium Musei Caesarei Vin-dobonensis; Testacea.
 1780 *Ostrea cucullata*. BORN, Testacea (16), p. 114, pl. 6, figs. 11, 12.
 1785 *Ostrea Forskällii*. CHEMNITZ, Conch.-Cab. (122), vol. VIII, pp. 30—31, pl. 72, figs. 671 a, b, c.
 — *Cornu copiae*. *Ostrea, testa inaequalvi, etc.*, CHEMNITZ, *ibid.*, pp. 41—44, pl. 74, figs. 679 a, b (= *Ostrea cucullata* of BORN according to CHEMNITZ!).
 1791 *Ostrea Forskällii*. GMELIN (56), p. 3336, nr. 110.
 — — *Cornu copiae*. GMELIN, *ibid.*, p. 3336, nr. 114.
 1792 *Ostrea* BRUGUIÈRE, Tableau encycl. (49 a), pl. 181, figs. 4, 5; [*Ostrea cornucopiae* in the Explanation of plates by BORY DE ST.-VINCENT, p. 146; 1827].
 — *Ostrea* BRUGUIÈRE, *ibid.*, pl. 182, figs. 1, 2 (copied from BORN); [*Ostrea cucullata* in the Expl. of pl. by B. DE ST.-V., p. 146; 1827].

- 1797 *Ostrea purpurea*. Museum Calonnianum, p. 53.
 — — *Cornucopia*. Museum Calonn., p. 53.
- 1798 *Lopha cornucopiae* Bolten. Museum Bolttenianum, p. 169, nr. 157.
- 1817 *Ostrea cucullata*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 277, nr. 69.
 — — *Forskali*. DILLWYN, *ibid.*, p. 277.
- 1819 *Ostrea cornucopiae*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 210, nr. 33.
 — — *cucullata*. LAMARCK, *ibid.*, p. 210, nr. 34.
- 1832 *Ostrea cornu copiae*. DESHAYES, Encycl. méth. (49), vol. II, part 3, p. 296, nr. 25.
 — — *cucullata*. DESHAYES, *ibid.*, pp. 296—297, nr. 26.
- 1836 *Ostrea cornucopiae* Lamk., DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, p. 230, nr. 33 (united to *O. cucullata* by DESHAYES).
 — — *cucullata* Born. DESHAYES—LAMARCK, *ibid.*, p. 230, nr. 34.
- 1847 *Ostrea Cornucopiae*. CHENU, Illustr. conch. (17), *Ostrea*, pl. 3, fig. 3.
- 1856 *Ostrea Cucullata*. HANLEY, An illustr. and descriptive Catalogue of recent Bivalve Shells (224), p. 306.
- 1862 *Alectryonia cucullata*, Born. CHENU, Manuel (19), vol. II, p. 197, figs. 1000, 1003.
- 1863 *Ostreum saxatile* Rumph. VON MARTENS, Landschnecken der Molukken (101 bis), p. 130.
- 1868 *Ostrea Forskälîi*, Chemnitz. KÜSTER, Mollusca Acephala (200), pp. 78—79, nr. 17, pl. 12, figs. 2—4.
 — — *cucullata*, Born. KÜSTER, *ibid.*, pp. 83—84, nr. 23.
- 1869 *Lopha cornucopiae* Lk.. VON FRAUENFELD, Nicobaren (55), p. 888.
 — — *cucullata* Brn.. VON FRAUENFELD, *ibid.*, p. 888.
- 1870 *Ostrea (Lopha) cucullata*, Born. M'ANDREW, Test. Gulf of Suez (100), p. 450.
 — — (—) *frons*. M'ANDREW, *ibid.*, p. 450.
- 1871 *Ostrea cucullata*. SOWERBY in REEVE (145), vol. XVIII, *Ostrea*, pl. XVI, figs. 34 a, b, c.
 — — *attenuata*. SOWERBY in REEVE, *ibid.*, pl. XXI, figs. 49 a, b (wrongly numbered 48 b).
 — — *circumsutus*. SOWERBY in REEVE, *ibid.*, pl. XXVI, figs. 64 a, b.
 — — *Barclayana*. SOWERBY in REEVE, *ibid.*, pl. XXX, figs. 77 a, b.
- 1882 *Ostrea cucullata* Born. DUNKER, Index Moll. maris Japon. (48), p. 250.
- 1883 *Ostrea pseudo-cucullata*. FUCHS, Beiträge zur Kenntniss der Miocän-fauna Aegyptens und der Libyschen Wüste (Palaeontographica, vol. XXX), p. 36 (54), pl. XIX (XIV), figs. 10—13.
- 1884 *O. cucullata*, Born (= *O. Forskali*, Chemn.). DAWSON, Geology of the Nile Valley (212), pp. 289, 291.

- 1886 *Ostrea cucullata*, Born. COOKE, Test. moll. Gulf of Suez (21), part IV, p. 134.
 — — *frons*, L. [*cucullata*, Born, juv.]. COOKE, *ibid.*, p. 134.
- 1887 *Ostrea cucullata*, Born. VON MARTENS, Mergui (107), pp. 172—173, nr. 60; pp. 177, 179, 201.
- 1891 *Ostrea Forskali* Ch.. P. FISCHER, Catal. Indo-Chine (53), p. 207 (reprint, p. 123).
- 1897 *Ostrea (Alectryonia) cucullata* Born. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 223, nr. 5.
- 1899 *Alectryonia cucullata*, Born. BULLEN NEWTON, Pliocene and post-pliocene shells from Egypt (126 bis), pp. 404—406, pl. XIX, figs. 1—5.
- 1901 *Ostrea cucullata* Born. STURANY, Lamellibr. d. Rothen Meeres (170), pp. 291, 295, nr. 126.
- 1902 *Ostrea cucullata* Born. VON MARTENS, Rumphius Gedenkb. (110), p. 128.
- 1906 *Ostrea cucullata* Born. DAUTZENBERG et H. FISCHER, Indo-Chine (41), pp. 449—450.
- 1906 *Ostrea cucullata* Born. MELVILL and STANDEN, Persian Gulf (124), part II, p. 806.
- 1909 *Ostrea circumscuta* Gould. LAMY, Java (89), p. 468.
- 1909 *Ostrea cucullata*, Born, and vars. *Barclayana*, Sowerby, and *Forskåli*, Chemnitz. LYNGE, Lamellibr. Siam (99), pp. 160—161.
- 1909 *Ostrea (s. str.) cucullata* Born. K. MARTIN, Foss. v. Java (120), p. 338, pl. XLVII, figs. 15, 15 a, 16, 16 a, 17.
- 1915 *Ostrea cucullata* Born. CAES. BOETTGER, Aru- u. Kei-Inseln (10), p. 141.
- 1916 *Ostrea cucullata*, Born. ANNANDALE and KEMP, Chilka Lake (211), pp. 332, 349.
- 1919 *Ostrea cucullata* Born. K. MARTIN, Palaeozool. Kenntn. v. Java (119), pp. 56, 146.
- 1920 *Ostrea (s. str.) cf. cucullata* Born. TESCH, Timor (175), II, p. 87, nr. 191, pl. CXXXV, figs. 238 a, b.
- 1921 *Ostrea (Alectryonia) cucullata*, Born. PRASHAD, Sumatran Molluscs (139), p. 502.
- 1923 *Ostrea cucullata* Born. HENRICH, Sinaihalbinsel (60), p. 73.

Bachan, on *Faunus ater* (collected by VON MARTENS).

Distribution: East Indian Archipelago: Amboina, on stones, shells, etc. (RUMPHIUS, VON MARTENS); Aru Is. (Merton); Timor (LAMARCK); Java (LAMY); Sumatra (HANLEY); Serdang, N. E. Sumatra, subfossil (den Doop). Viti and Samoa Is. (GOULD); New Zealand, — Torres Straits; Mast Head Reef, Queensland; Botany Bay, N. S. Wales (ANGAS).

Philippines (HANLEY); Formosa; Loo-Choo Is.; Japan (DUNKER); Hong-kong (VON MARTENS); Hong-Chon, Cochin China (Mansuy); Pulo Kondor near Lower Cochin China; Gulf of Siam, on stones at the strand (LYNGE); Bangpra, Gulf of Siam (VON MARTENS); Bangkok (Coll. Dautzenberg); Salanga-island

near Malacca (VON MARTENS); Mergui-archipelago, fixed on shells, stones, etc. (Anderson); Nicobar Is. (Novara); Manikpatna, near mouth of the Chilka Lake, Bihar and Orissa, India, attached to clumps of *Ostrea gryphoides* (Schlotheim) (ANNANDALE and KEMP); Ceylon; Bombay; Persian Gulf (MELVILL and STANDEN).

Gulf of Aden; Red Sea (Forskål, Pola); Gulf of Akabah (Pola); coast of Sinai-peninsula (HENRICH); Gulf of Suez, low water, on rocks (M'ANDREW, Pola); Suez-canal; Mauritius (SOWERBY); Querimba Is. and Coast of Mozambique, on mangroves (Peters); Natal (COOKE).

[? Ascension Island, Atlantic Ocean (CHEMNITZ)].

Fossil occurrence: Pleistocene and Pliocene of Timor (TESCH). Pleistocene of Grissee, Resid. Surabaya, Java (K. MARTIN).

Pliocene near Cairo (FUCHS), and of Moluk Hill, Wadi Natrun, Egypt (BULLEN NEWTON). Pliocene of Tunis, Calabria, the Rhône Basin and Montpellier.

FAM. PECTINIDAE.

Genus *Pecten* Müller, 1776.

Type: *Ostrea maxima* Linné.

Subgenus *Chlamys* Bolten, 1798

(= *Pecten* Schumacher, 1817).

Type: *Pecten islandicus* Müller.

Section *Chlamys* s. str..

267. *Pecten (Chlamys) cruentatus* Reeve.

1842 *Pecten sanguineus* [not of] Linn.. SOWERBY, Thesaurus (167), vol. I, p. 77, nr. 98, pl. XIX, figs. 221—222.

1853 *Pecten cruentatus*. REEVE (145), vol. VIII, *Pecten*, pl. XIX, fig. 69.

— — *lentiginosus*. REEVE, *ibid.*, pl. XX, fig. 76.

1858 *Pecten cruentatus* Reeve. H. and A. ADAMS, *Genera* (3), vol. II, p. 551.

— — *lentiginosus* Reeve. H. and A. ADAMS, *ibid.*, p. 552.

1859 *Pecten lentiginosus* Reeve. KÜSTER, *Spondylus u. Pecten* (82), p. 89, nr. 54, pl. 22, fig. 13; pl. 23, figs. 1—3.

1886 *Pecten Raffrayi*. JOUSSEAUME in: „Le Naturaliste”, VIII, pp. 221, 222 (figure).

1888 *Pecten cruentatus* Reeve. KOBELT, *Spondylus u. Pecten* (82), pp. 260—262, nr. 239, pl. 68, figs. 3, 7, 8.

1899 *Pecten lentiginosus*, Rve.. MELVILL and STANDEN, Torres Straits (123), p. 183, nr. 266.

1912 *Pecten (Chlamys) cruentatus* (Sowerby) Reeve, and var. *lentiginosa* Reeve. DAUTZENBERG et BAVAY, *Pectinidés du Siboga* (39), pp. 9—10, nr. 7.

Laiwui, Obi Major, 23 M. (Siboga exp.), 1 specimen of the form *lentiginosus*.

Distribution: East Indian Archipelago: Amboina, Banda, Rotti-island, Postillon- and Paternoster-islands (Siboga); Muaras Reef, E. Borneo (Siboga).

Torres Straits (MELVILL and STANDEN); North Australia (REEVE). — Sulu-archipelago (Siboga); Basilan Island (DAUTZENBERG et BAVAY); Ticao, Philippines (Cuming); Manila (Coll. Lischke); Andaman Is. (MELVILL and STANDEN).

Section *Aequipecten* P. Fischer, 1886.

Type: *Pecten opercularis* (L.).

268. *Pecten (Aequipecten) pallium* (Linné).

- 1705 *Pecten secundus*, Bontemantels. RUMPHIUS (151), p. 141, pl. XLIV, fig. B.
- 1757 *Pecten pallium Ducale rubrum*; manteau Ducal. D'ARGENVILLE (4), part I, pp. 300, 305, pl. 24, fig. I.
- 1758 *Ostrea Pallium*. LINNÉ, Syst. Nat. X (94), p. 697, nr. 163.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 526, nr. 107.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1145.
- 1778 *Ostrea pallium*. BORN, Index rerum naturalium Musei Caesarei Vindobonensis; Testacea, p. 84.
- 1780 — — BORN, Testacea (16), p. 101.
- 1784 *Pallium ducale*. CHEMNITZ, Conch.-Cab. (122), vol. VII, p. 302, pl. 64, fig. 607.
- 1791 *Ostrea Pallium*. GMELIN (56), p. 3322, nr. 40.
— — *regia*. GMELIN, *ibid.*, p. 3331, nr. 86.
- 1797 *Pecten* Tableau encycl. (49 a), pl. 210, figs. 1 a, b (*Pecten pallium* in the Explanation of plates by BORY DE ST.-VINCENT, p. 148; 1827).
- 1798 *Chlamys pallium* Bolten. Museum Boltinianum, p. 163, nr. 102.
- 1817 *Ostrea pallium*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 253, nr. 14.
- 1818 — — WOOD, Index Testaceologicus, p. 48, pl. 10, fig. 15.
- 1819 *Pecten pallium*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 170, nr. 28.
- 1825 *Pecten pallium*. SOWERBY, Catalogue of the shells in the collection of the Earl of Tankerville, p. 25.
- 1828 *Pecten Pallium*. SOWERBY, Genera (168), part 31, Pecten, fig. 4.
- 1832 *Pecten pallium*. DESHAYES, Encycl. méth. (49), vol. III, p. 721, nr. 18.
- 1836 — — DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, p. 140, nr. 28.
- 1840 — — DUFO, Observations sur les mollusques marins, terrestres et fluviatiles des îles Séchelles et des Amirantes (Ann. d. Sc. Nat., 2e série, vol. XIV), p. 159.
- 1841 — — REEVE, Conchologia Systematica, vol. I, p. 159, pl. CXIV, fig. 4.
- 1842 *Pecten Pallium* Lin.. SOWERBY, Thesaurus (167), vol. I, pp. 73—74, nr. 87, pl. XVII, figs. 148—150; pl. XVIII, figs. 167—168.
- 1843-'44 *Pecten pallium* Lin.. CHENU, Illustr. conch. (17), p. 7, pl. 26, figs. 1—1 c, 2—2 c, 3—3 b, 4—4 c, 5—5 c.

- 1853 *Pecten pallium*. REEVE (145), vol. VIII, Pecten, pl. XVII, figs. 63 a—c.
 — — *speciosus*. REEVE, *ibid.*, pl. XXVII, fig. 112.
- 1855 *Ostrea pallium*. HANLEY, *Ipsa Linn. Conch.* (58), p. 105.
- 1856 *Pecten Pallium*. HANLEY, *An illustr. and descriptive Catalogue of recent Bivalve Shells* (224), p. 283.
- 1858 *Pecten pallium* Linn.. H. and A. ADAMS, *Genera* (3), vol. II, p. 552.
 — — *speciosus* Reeve. H. and A. ADAMS, *ibid.*, p. 552.
- 1858 *Pecten pallium* Linn.. P. FISCHER in: *Journal de Conchyliologie*, vol. VII, p. 341.
- 1859 *Pecten pallium* Linné. KÜSTER, *Spondylus u. Pecten* (82), pp. 39—40, nr. 8, pl. 11, fig. 1; p. 103, pl. 28, figs. 7, 8; pl. 29, fig. 1.
- 1860 *Pecten pallium*. REEVE, *Elements of Conchology*, vol. II, p. 57.
 — — *speciosus*. REEVE, *ibid.*, p. 58.
- 1862 *Pecten pallium*, Linné. CHENU, *Manuel* (19), vol. II, p. 182, fig. 919 (on p. 183).
- 1879 — — Linn.. K. MARTIN, *Tertiärschichten auf Java* (112), *Palaeontol. Theil*, p. 124, pl. XX, fig. 10.
- 1880 — — L.. VON MARTENS, *Mauritius* (105), p. 314.
- 1883 — — Linn.. K. MARTIN, *Nachtr. z. d. Tertiaerschichten auf Java* (114), pp. 236—237, nr. 50.
- 1895 — — L.. COOKE, *Molluscs, Cambr. N. H.* (22 bis), p. 450, fig. 303.
- 1895-'97 *Pecten pallium* L.. MELVILL and STANDEN, *Catalogue of the Hadfield Collection of Shells from Lifu and Uvea, Loyalty Islands*, p. 127.
- 1899 *Pecten pallium*, L.. MELVILL and STANDEN, *Torres Straits* (123), p. 183, nr. 269.
- 1902 — — L.. VON MARTENS, *Rumphius Gedenkb.* (110), p. 126.
- 1905 *Pecten speciosus* Reeve (= *P. pallium* L., juv.). BAVAY, *Espèces nouv., mal connues ou faisant double emploi dans le genre Pecten* (5), pp. 28—29.
- 1908 *Pecten pallium* L.. O. BOETTGER, *Liste d. tert. u. jüng. Verstein., Molukken* (14), p. 673, nr. 59.
- 1909 *Pecten (Chlamys) pallium* Linn.. K. MARTIN, *Foss. v. Java* (120), p. 348.
- 1909 *Chlamys pallium* L.. HEDLEY, *Mar. Moll. of Queensland (Australasian Association for the Advancement of Science)*, p. 345.
- 1912 *Pecten (Aequipecten) pallium* Linné, and var. *speciosa* Reeve. DAUTZENBERG et BAVAY, *Pectinidés du Siboga* (39), pp. 19—21, nr. 24.
- 1919 *Chlamys pallium* Linn.. K. MARTIN, *Palaeozool. Kenntnis v. Java* (119), pp. 58, 127, 130.
- 1922 *Aequipecten pallium* Linné. VON TEPPNER, *Foss. Cat., Anisomyaria* (209), p. 168.

Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago: Amboina (VON MARTENS); Banda (Siboga); Adonara (VON MARTENS); Flores (Siboga); Java (Coll. Dunker).

Melanesia: New Caledonia (DAUTZENBERG et BAVAY); Lifu, Loyalty Is. (MELVILL and STANDEN). — Polynesia: Funafuti, Ellice Is. (HEDLEY); Tonga Is. (DAUTZENBERG et BAVAY); Caroline and Flint Is. (PILSBRY); Tahiti and Rairoa (DAUTZENBERG et BAVAY); Lord Hood's Island, Paumotu (Cuming). — Torres Straits (MELVILL and STANDEN); Queensland (HEDLEY).

Philippines (REEVE); Andaman Is. (MELVILL and STANDEN); Ceylon. Seychelles and Amirantes, on rocks (DUFO); Mauritius (SGANZIN).

Fossil occurrence: Pleistocene of Sumba (O. BOETTGER). Upper Miocene (Tjilang-beds, etc.) of Residency Preanger, Java (K. MARTIN)¹.

Section *Pallium* Schumacher, 1817

(= *Decatopecten* G. B. Sowerby II, 1839;

Decadopecten Swainson, 1840;

Dentipecten (Rüppell) Gray, 1847).

Type: *Pecten plica* (Linné).

269. *Pecten (Pallium) radula* (Linné).

- 1705 *Pecten primus sive vulgaris*. RUMPHIUS (151), p. 141, pl. XLIV, fig. A.
- 1757 *Pecten supina parte maculosus, prona albidus*. D'ARGENVILLE (4), part I, pp. 300, 304, pl. 24, fig. D.
- 1764 *Ostrea Radula*. LINNÉ, Mus. Lud. Ulr. (95), p. 525, nr. 105.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1145, nr. 191 (exclusive of the reference to RUMPHIUS, pl. 44, fig. B).
- 1778 — — BORN, Index rerum naturalium Musei Caes. Vindobonensis, p. 83.
- 1780 — — BORN, Testacea musei caes. Vindobonensis (16), p. 100.
- 1784 *Pera Venatoria, Ostrea Radula Linnaei, etc.*. CHEMNITZ, Conch.-Cab. (122), vol. VII, pp. 295—298, pl. 63, figs. 599—600.
- 1791 *Ostrea Radula*. GMELIN (56), p. 3318, nr. 11.
- 1797 *Pecten* Tableau encycl. (49 a), pl. 208, fig. 2 (*Pecten radula* in the Explanation of plates by BORY DE ST.-VINCENT, p. 148; 1827).
- 1817 *Pecten radula*. SCHUMACHER, Nouv. syst. (158), p. 119.

¹) In 1919 the present species has been recorded from the lower miocene Njalindung-beds of Resid. Preanger by K. MARTIN (119). It was not mentioned, however, in his monograph of the Njalindung-beds (120), issued in 1921-'22.

- 1817 *Ostrea radula*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 251, nr. 10.
- 1818 *Ostrea Radula*. WOOD, Index Testaceologicus, p. 48, pl. 10, fig. 11.
- 1819 *Pecten radula*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 166, nr. 13.
- 1825 *Pecten radula*. SOWERBY, Catalogue of the shells in the collection of the Earl of Tankerville, p. 25.
- 1832 *Pecten radula*. DESHAYES, Encycl. méth. (49), vol. III, p. 719, nr. 12.
- 1836 *Pecten radula* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, pp. 134—135, nr. 13.
- 1842 *Pecten Radula*. SOWERBY, Thesaurus (167), vol. I, p. 63, pl. XVII, figs. 154, 155.
- 1843-'44 *Pecten radula* Lin.. CHENU, Illustr. conch. (17), p. 4, pl. 15, figs. 9, 10, 10 a, 11.
- 1853 *Pecten radula*. REEVE (145), vol. VIII, Pecten, pl. XXI, fig. 83.
- — *argenteus*. REEVE, *ibid.*, pl. XXXV, fig. 168.
- 1855 *Ostrea radula*. HANLEY, Ipsa Linn. Conch. (58), pp. 104—105, 480.
- 1856 *Pecten Radula*. HANLEY, An illustr. and descriptive Catalogue of recent Bivalve Shells (224), p. 278.
- 1858 *Pecten radula* Linn.. H. and A. ADAMS, Genera (3), vol. II, p. 552.
- — (*Pseudamussium*) *argenteus* Reeve. H. and A. ADAMS, *ibid.*, p. 553.
- 1859 *Pecten radula* L.. P. FISCHER, Arch. Caléd. (232), p. 341.
- 1859 *Pecten radula* Linné. KÜSTER, Spondylus u. Pecten (82), pp. 54—55, nr. 20, pl. 15, figs. 1, 2.
- 1860 *Pecten radula*. REEVE, Elements of Conchology, vol. II, p. 58.
- — *argenteus*. REEVE, *ibid.*, p. 57.
- 1877 *Pecten radula* Lin.. LIÉNARD, Catalogue de la faune malacologique de l'Île Maurice, p. 69.
- 1880 *Pecten radula* L.. VON MARTENS, Mauritius (105), p. 315.

- 1881 *Pecten radula* Lam. K. MARTIN, Posttertiary fauna from Blitong (202), pp. 20, 22, nr. 30.
- 1886 *Pecten radula*, Gmel.. COOKE, Test. Moll. Gulf of Suez (21), part IV, p. 135.
- 1888 *Pecten argenteus* Reeve. KOBELT, Spondylus u. Pecten (82), pp. 259—260, nr. 237, pl. 67, fig. 10.
- 1891 *Chlamys radula* L.. P. FISCHER, Catalogue Indo-Chine (53), p. 125.
- 1895-'97 *Pecten radula* Linn.. MELVILL and STANDEN, Catalogue of the Hadfield Collection of Shells from Lifu and Uvea, Loyalty Islands, p. 127.
- 1899 *Pecten (Pseudamussium) argenteus*, Rve.. MELVILL and STANDEN, Torres Straits (123), p. 183, nr. 261.
- 1902 *Pecten radula* L., VON MARTENS, Rumphius Gedenkb. (110), p. 126.
- 1905 *Pecten radula* L.. BAVAY, Espèces nouv., mal connues ou faisant double emploi dans le genre *Pecten* (5), p. 28, pl. II, fig. 9 (juv.).
- — *argenteus* Reeve. BAVAY, *ibid.*, p. 28, pl. II, fig. 8 (= very young *P. radula*, according to BAVAY).
- 1908 *Pecten radula*, (Lin.). NOBRE, Timor (128), p. 232.
- 1909 *Pecten radula* L.. LAMY, Java (89), p. 468.
- 1912 *Pecten (Pallium) radula* Linné. DAUTZENBERG et BAVAY, Lamellibr. Siboga (39), pp. 24—26.
- 1915 *Pecten radula* Lin.. STAUB, Sangkulirangbai (169), p. 130.

East coast of Halmahera, 2 right valves.
One valve has 13 ribs, the other even a feebly developed fourteenth rib. According to BAVAY the species has 8—13 ribs and exceptionally 14.

This species has been collected at Bachan by VON MARTENS.

Distribution: East Indian Archipelago: Kei Is., at 90 m. (Siboga); Timor (NOBRE); Adonara (VON MARTENS); Tanah Djampeah, Flores Sea, at 32 m. (Siboga); south of Bawean, Java Sea (Siboga); Java (Museum Berlin, LAMY); Sangkulirang-bay,

E. Borneo, sandy beach, dead (STAUB); Pulu Loz near Bintang, Riouw Archipelago (Mus. Berlin).

Torres Straits (MELVILL and STANDEN). — New Caledonia (BAVAY); Loyalty Is. (MELVILL and STANDEN). — Tonga.

Philippines (Cuming); China Sea (REEVE); Indo-China; Singapore, common (VON MARTENS); Ceylon (SOWERBY). — Gulf of Suez (COOKE). — Mauritius (LIÉNARD).

Fossil in the Pleistocene of Billiton (K. MARTIN).

In the synonymy I have not quoted the 10 th edition of LINNÉ's *Systema Naturae*, as the references in that edition are not correct.

FAM. SPONDYLIDAE.

Genus *Spondylus* Linné, 1758.

Type: *Spondylus gaederopus* Linné.

270. *Spondylus ducalis* Bolten.

1705 SCHYNVOET in RUMPHIUS (151), p. 160, pl. XLVIII, fig. N^o. 2.

1784 *Spondylus ducalis*, etc.. CHEMNITZ, *Conch.-Cab.* (122), vol. VII, pp. 89—90, pl. 47, figs. 477, 478.

1791 *Spondylus Gaedaropus*, var. π . GMELIN (56), p. 3297.

1797 *Spondylus* Tableau encycl. (49 a), pl. 193, figs. 2 a, b (*Spondylus ducalis* in the Explanation of plates by BORY DE ST.-VINCENT, p. 147; 1827).

1798 *Spondylus ducalis* Bolten. *Museum Boltenianum*, p. 194, nr. 441.

1819 *Spondylus ducalis*. LAMARCK, *An. s. vert.* (85), vol. VI, 1 st part, p. 191, nr. 14.

1822 *Spondylus ducalis*. SOWERBY, *Genera* (168), *Spondylus*, fig. 4.

1836 *Spondylus ducalis* Chemnitz. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. VII, pp. 189—190, nr. 14.

1843 *Spondylus ducalis*. CHENU, *Illustr. conch.* (17), *Spondylus*, pl. 8, fig. 3.

- 1847 *Spondylus ducalis*. SOWERBY, Thesaurus (167), vol. I, p. 426, nr. 22, pl. LXXXV, fig. 16.
- 1856 *Spondylus Ducalis*. HANLEY, An illustrated and descriptive Catalogue of recent Bivalve Shells (224), pp. 291—292.
- 1856 *Spondylus ducalis*. REEVE (145), vol. IX, Spondylus, pl. VII, fig. 26.
- 1858 *Spondylus ducalis* Chemnitz. KÜSTER, Spondylus u. Pecten (82), pp. 9—10, nr. 6, pl. 3, figs. 1, 2.
- 1869 *Spondylus ducalis* Ch.. VON FRAUENFELD, Nicobaren (55), p. 887.
- 1907 *Spondylus ducalis* Chemn.. SCHEPMAN, Posttertiär Celebes (154), p. 202.

O b i M a j o r, 1 left valve.

East coast of H a l m a h e r a, 2 right and 2 left valves (one of them too much overgrown to be identified with certainty).

Distribution: Philippines (Cuming). — Tahiti (Novara).

Fossil in the Pleistocene of the Minahassa, Northern Celebes (SCHEPMAN).

FAM. ANOMIIDAE.

Genus *Placenta* Philipsson, 1788

(= *Placuna* Bruguière, 1789).

Type: *Anomia placenta* Linné.

Subgenus *Ephippium* Bolten, 1798

(= *Placunema* Stoliczka, 1870).

Type: *Anomia sella* Gmelin, indicated by W. H. DALL, 1898.

271. *Placenta (Ephippium) ephippium* Philipsson.

1705 *Ostreum placentiforme sive Ephippium*, Engelsche Zadels. RUMPHIUS (151), p. 155, pl. XLVII, fig. B.

1785 *Ephippium anglicanum maximum, etc.* CHEMNITZ, Conch.-Cab. (122), vol. VIII, pp. 111—114, pl. 79, fig. 714.

1788 *Placenta Ephippium*. PHILIPSSON, Dissertatio historico-naturalis, sistens nova Testaceorum genera, p. 16.

- 1791 *Anomia Sella*. GMELIN (56), pp. 3345—3346, nr. 27.
- 1792 *Placuna* BRUGUIÈRE, Tableau encycl. (49 a), pl. 174, figs. 1, 3 (*Placuna sella*, α and β in the Explanation of plates by BORY DE ST.-VINCENT, p. 145; 1827).
- 1798 *Ehippium polonicum* Bolten. Museum Boltenianum, p. 166, nr. 129.
- 1817 *Anomia sella*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 297, nr. 30.
- 1817 *Placenta ehippium* Retz.. SCHUMACHER, Nouv. syst. (158), p. 113.
- 1819 *Placuna sella*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 224, nr. 1.
- 1832 — — DESHAYES, Encycl. méth. (49), vol. III, p. 774, nr. 1.
- 1836 — — Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, p. 270, nr. 1.
- 1854 — — , Gm. sp.. WOODWARD, Manual (187), p. 256, pl. XVI, fig. 5.
- 1856 *Placuna Sella*. HANLEY, An illustr. and descript. Catalogue of recent Bivalve Shells (224), pp. 311—312.
- 1862 *Placuna sella*, Gmelin. CHENU, Manuel (19), vol. II, p. 194, fig. 985.
- 1868 — — , Gmelin. KÜSTER, Mollusca Acephala (200), pp. 64—65, nr. 1, pl. 5, fig. 1.
- 1871 — — SOWERBY in REEVE (145), vol. XVIII, *Placuna*, pl. I, fig. 1.
- 1881 — — Lam.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 28.
- 1885 — — Gm.. K. MARTIN, Tiefbohr. Java (115), pp. 272—273.
- 1886 *Placuna (Placunema) sella*, Gmelin. P. FISCHER, Manuel (52), p. 933, pl. XVI, fig. 5.
- 1887 *Placuna sella*, L. VON MARTENS, Mergui (107), p. 201, nr. 266.
- 1889 *Placunema sella*, Gmelin. L. MORLET, Cat. Cambodge et Siam (126), p. 161, nr. 3.

- 1891 *Placuna sella*, Gmelin. P. FISCHER, Cat. Indo-Chine (53), p. 208.
- 1902 *Placuna sella* Gmel., VON MARTENS, Rumphius Gedenkb. (110), p. 128.
- 1907 *Placuna sella* Gmel., SCHEPMAN, Posttertiär Celebes (154), p. 202.
- 1908 *Placuna sella* (Gmel.). O. BOETTGER, Liste d. tert. u. jüng. Verstein. (14), p. 673, nr. 69*.
- 1909 *Placuna (Placunema) sella*, Gmel., LYNGE, Lamell. Siam (99), pp. 108—109.
- 1909 *Placuna (Placunema) sella* Gmel.? K. MARTIN, Foss. von Java (120), p. 344.
- 1910 *Placuna sella* Gmelin. DAUTZENBERG, Halmahera (38), p. 3.
- 1919 *Placuna sella* Gmel. (?). K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 57, 124, 139.
- 1920 *Placuna (Placunema) sella* Gmel., TESCH, Timor (175), II, p. 90, nr. 198, pl. CXXXVII, figs. 247 a, b.

East coast of H a l m a h e r a, 2 right valves.

Previously recorded from Halmahera by DAUTZENBERG.

The species was collected by Dr. Bernstein at the Obi Is. (VON MARTENS).

Distribution: East Indian Archipelago: Bonoa west of Ceram, on coral-bottom (RUMPHIUS); Amboina (LESSON); Java (LAMARCK); E. coast of Celebes and Buton-strait, S. E. of Celebes (RUMPHIUS).

Pelew Is., Micronesia. — N. W. Australia (British Museum). — Philippines; China (WOODWARD); shores of the Gulf of Siam (MORLET); Singapore (VON MARTENS); Mergui-archipelago, in mud at low water at spring-tide (Anderson).

Fossil occurrence: Pleistocene of the Minahassa, Northern Celebes (SCHEPMAN) and of Billiton (K. MARTIN); in marls of probably pleistocene age at Sumba (O. BOETTGER).

Pliocene of Timor (K. MARTIN, TESCH). Somewhat doubtful fragments are recorded from neogene deposits in Java, viz. from the Pliocene in the underground of Batavia and from probably pliocene deposits on the northern slope of the Muriah.

FAM. MYTILIDAE.

Genus *Septifer* Récluz, 1848.Type: *Mytilus bilocularis* Linné.272. *Septifer bilocularis* (Linné).

- 1758 *Mytilus bilocularis*. LINNÉ, Syst. Nat. X (94), p. 705, nr. 212.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 540, nr. 133 (excl. var.).
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1156
- 1785 *Mytilus Nicobaricus obscure viridis, etc.*. CHEMNITZ, Conch.-Cab. (122), vol. VIII, pp. 155—156, pl. 82, figs. 736 a, β.
- *Varietas mytili Nicobarici viridescentis*. CHEMNITZ, *ibid.*, p. 157, pl. 82, figs. 737, nrs. 1—3 [young specimens].
- 1791 *Mytilus bilocularis*. GMELIN (56), p. 3352, nr. 8.
- 1797 *Mytilus* Tableau encycl. (49 a), pl. 218, figs. 5 a, b (*Mytilus bilocularis*, a in the Explanation of plates by BORY DE ST.-VINCENT, p. 148; 1827).
- 1798 *Mytilus nicobaricus* Bolten, Museum Boltenianum, p. 158, nr. 43.
- 1818 *Mytilus bilocularis*. WOOD, Index Testaceologicus, pl. 12, fig. 17.
- 1819 — — LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 121, nr. 7.
- 1832 — — DESHAYES, Encycl. méth. (49), vol. II, part 3, pp. 559—560, nr. 9.
- 1836 — — DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, pp. 39—40, nr. 7.
- 1837 *Tichogonia bilocularis*. WIEGMANN in: Archiv für Naturgeschichte, III, p. 48.
- 1839 — — ANTON, Verzeichniss der Conchylien in der Sammlung von H. E. Anton, p. 17.
- 1841 *Tichogonia bilocularis* Linné. KÜSTER, Mytilidae (201), p. 10, pl. 2, figs. 11—17.
- — *Wiegmannii*. KÜSTER, *ibid.*, p. 11, pl. 2, figs. 6—10.
- — *Kraussii*. KÜSTER, *ibid.*, pl. 6, figs. 1—6.
- 1843 *Mytilus Bilocularis*. HANLEY, Illustr. and descr. Catal. recent Biv. Shells (224), pp. 244—245.
- *T. Wiegmannii*. HANLEY, *ibid.*, p. 245, note.
- *T. Kraussii*. HANLEY, *ibid.*, p. 245, note.
- 1848 *Tichogonia Kraussi* Küster. KRAUSS, Die Südafrikanischen Mollusken, p. 26.
- 1848 *Septifer bilocularis*. RÉCLUZ, Description d'un nouveau genre de Coquilles bivalves nommé *Septifer* (Revue Zoologique, par la Société Cuvierienne, vol. XI), p. 278.
- 1849 *Septifer Kraussi* Küster. RÉCLUZ in: Revue et Magasin de Zoologie (2 nd ser.), vol. I, p. 117.
- — *bilocularis*. RÉCLUZ, *ibid.*, p. 125.
- — *Cumingii*. RÉCLUZ, *ibid.*, p. 132.

- 1855 *Septifer bilocularis*. DUNKER, Commentatio de Septiferis genere Mytilaceorum et de Dreissenis, p. 6.
 — — *Kraussi*. DUNKER, *ibid.*, p. 7.
- 1858 *Mytilus pilosus* [Recluz, MS.]. REEVE (145), vol. X, *Mytilus*, pl. VIII, fig. 35.
 — — *Nicobaricus*, and var.: *M. Kraussii*, Kuster. REEVE, *ibid.*, pl. IX, fig. 42, and (var. *Kraussii*) fig. 40.
 — — *Cumingianus*. REEVE, *ibid.*, pl. XI, fig. 52.
- 1862 *Septifer bilocularis*, Linné. CHENU, Manuel (19), vol. II, p. 158, fig. 783.
- 1869 — — L. VON FRAUENFELD, *Nicobaren* (55), p. 885.
- 1870 *Mytilus (Aulacomya) Cumingianus*, Rve., M'ANDREW, Test. Gulf of Suez (100), p. 448.
- 1874 *Septifer bilocularis* Linneo. TAPPARONE—CANEFRI, *Magenta* (173), pp. 249—250.
- 1880 *Septifer bilocularis* Linne. VON MARTENS, *Mauritius* (105), p. 318.
 — — *Kraussi* Küster. VON MARTENS, *ibid.*, p. 318.
- 1881 *Septifer bilocularis* L. DE ROCHEBRUNE, *Docum. sur la faune malacol. de la Cochinchine et du Cambodge* (Bull. Soc. Philomathique de Paris, 7e s., VI, 1881), p. 6.
- 1882 *Septifer bilocularis* Lin. (*Mytilus*). DUNKER, *Index Moll. maris Japon* (48), p. 227.
- 1883 *Mytilus (Septifer) bilocularis* L. K. MARTIN, *Nachtr. z. d. Tertiaerschichten auf Java* (114), p. 241, nr. 56; p. 256.
- 1885 *Septifer bilocularis*, (Linné). E. A. SMITH, *Challenger Lamellibr.* (161), p. 271.
- 1886 *Mytilus Cumingianus*, Récl. [= *Septifer bilocularis*, juv.]. COOKE, *Test. Moll. Gulf of Suez* (21), part IV, p. 140.
- 1886 *Tichogonia Kraussi* Küster. CLESSIN, *Mytilidae* (201), p. 14, pl. 12, figs. 3—4.
- 1887 *Mytilus (Septifer) bilocularis*, L. VON MARTENS, *Mergui* (107), p. 205, nr. 301.
- 1891 *Septifer bilocularis* L. P. FISCHER, *Catal. Indo-Chine* (53), p. 214 (reprint, p. 130).
- 1899 *Septifer nicobaricus*, Chemn.. MELVILL and STANDEN, *Torres Straits* (123), p. 184, nr. 288.
- 1900 *Septifer bilocularis*, Linnaeus. BULLEN NEWTON, *Raised beaches Red Sea* (127), p. 547.
- 1901 *Mytilus cumingianus* Récl. (= *Septifer bilocularis* L. juv.). STURANY, *Lamellibr. d. Rothen Meeres* (170), pp. 288, 294, nr. 86.
- 1901 *Septifer Kraussi*, Küster. H. FISCHER, *Djibouti* (54), pp. 127—128, nr. 58.
- 1902 *Septifer bilocularis* L. VON MARTENS, *Rumphius Gedenkb.* (110), p. 128.
- 1906 — — Linné. DAUTZENBERG, *Ambodifoutra* (37).
- 1906 — — Linné. DAUTZENBERG et H. FISCHER, *Indo-Chine et Yunnan* (41), pp. 450—451.

- 1906 *Septifer bilocularis*. L. MELVILL and STANDEN, Persian Gulf (124), part II, p. 799.
 1908 — — — (Linn.). NOBRE, Timor (128), p. 231.
 1909 — — — L. LYNGE, Lamellibr. Siam (99), p. 135.
 1911 — — — (Linn.). E. A. SMITH, Marine shells Christmas Island (165), p. 315.
 1919 — — — Linn.. K. MARTIN, Palaeozool. Kenntn. v. Java (119), pp. 59, 151.

Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago: Sorong, New Guinea; Aru Is.; Timor (NOBRE); Larentuka, Flores (VON MARTENS); Northern Celebes (A. B. Meyer); Benkulen, Sumatra (VON MARTENS).

Melanesia: Solomon Is.; New Caledonia; Viti Is., in 12 fathoms (Challenger). — Micronesia: Mariana Is.. — Polynesia: Annaa Island, Paumotu (Cuming). — Torres Straits (MELVILL and STANDEN); N. E. Australia.

Christmas Island, Ind. Ocean (E. A. SMITH). — Sulu Is.; Philippines; Japan (Magenta); Nagasaki, Japan; Hongkong; Along Bay, Tongking (Mansuy); Pulo Kondor (P. FISCHER); Gulf of Siam, very commonly distributed between Koh Kram and Koh Kut, 1—30 fathoms, on sand, shells, mud and gravel, and between old coral blocks (LYNGE); Singapore and Salanga-island near Malacca (VON MARTENS); Mergui-archipelago, coral-burrows (Anderson); Nicobars (CHEMNITZ, Novara); Andamans; Aracan coast, Burma; Ceylon; Mahlos Atoll, Maldive Archipelago; Persian Gulf, at 40 fathoms, and Koweit, 10 fathoms (MELVILL and STANDEN).

Red Sea (Pola); Gulf of Suez (M'ANDREW); Jibuti, Somaliland (de Genes); Zanzibar; Seychelles and Amirantes, on rocks, coral and shells (DUFO); Mauritius (LIENARD, Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar (DAUTZENBERG); Querimba Is.; Mozambique; Natal (KRAUSS).

Fossil occurrence: Neogene of Residency Preanger, Java (K. MARTIN). Pleistocene raised beaches of the Gulf of Suez (BULLEN NEWTON).

The species has been recorded by NOETLING (221) from the „Miocene" of Upper Burma, „zone" of *Mytilus nicobaricus* (approximately Chattian (Upper Oligocene) according to VREDENBURG (180bis)).

Genus *Modiolus* Lamarck, 1799

(= *Modiola* Lamarck, 1801;

= *Mytilus* Scopoli, 1777; not of Linné).

Type: *Mytilus modiolus* Linné.

Subgenus *Brachidontes* Swainson, 1840

(= *Brachydontes* Agassiz, 1846;

Brachydontes Gray, 1847;

Brachydonta Bucquoy, Dautzenberg et Dollfus, 1890;

non Schlueter, 1838;

Semimodiola Cossmann, 1887).

Type: *Modiola sulcata* Lamarck, 1819 (Tableau encycl., pl. 220, fig. 2); not of Lamarck, 1807.

273. *Modiolus* (*Brachidontes*) *subramosus* (Hanley).

1705 *Mitulus anataris*. RUMPHIUS (151), p. 151, pl. XLVI, fig. C.

1843-'56 *Modiola Subramosa* Nobis. HANLEY, An illustr. and descr. Catalogue of recent Bivalve Shells (224), p. 241, pl. 24, fig. 30.

- 1844 *Modiola subramosa*. HANLEY in: Proceedings of the Zoological Society of London, part XII, p. 14.
- 1857 — — REEVE (145), vol. X, *Modiola*, pl. VIII, fig. 43.
- 1873 *Modiola striatula* [not of] Hanl. VON MARTENS in: A. F. JAGOR, Reisen in den Philippinen, p. 191.
- 1887 *Modiola subramosa* Hanl. CLESSIN, *Mytilidae* (201), p. 121, pl. 31, fig. 11.
- 1889 — *ramosa*. CLESSIN, *ibid.*, p. 134, pl. 26, fig. 8.
- 1897 *Modiola (Brachydontes) subramosa* Hanl. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 226, nr. 1; p. 87.
- 1902 — (—) — Hanl. VON MARTENS, Rumphius Gedenkb. (110), p. 128.
- 1909 *Brachydontes (Hormomya) subramosus*, Hanl. LYNGE, Lamellibr. Siam (99), p. 134.

Ternate (Dunker Collection in the Berlin Museum, according to VON MARTENS).

Distribution: East Indian Archipelago: Bay of Amboina, on stones in mud (RUMPHIUS, VON MARTENS); Sorong, New Guinea (TAPPARONE—CANEFRI); Celebes (Pästel Collection).

New Caledonia (VON FRAUENFELD). — Mindanao, Philippines (Cuming); Samar, Philippines, mouth of river Rio Catarman, ? in freshwater (Jagor); islands Koh Chang and Koh Kahdat in the Gulf of Siam, 1 fathom, old coral blocks and sandy bottom (LYNGE).

Genus *Lithophaga* Bolten, 1798

(= *Lithophagus* Megerle von Mühlfeldt, 1811;
Lithodomus Cuvier, 1817;
Lithodoma de Blainville, 1823;
Lithotomus Nitzsch, 1825).

Type: *Mytilus lithophagus* Linné.

Section *Myoforceps* P. Fischer, 1886

(= *Mioforceps* Cossmann, 1914).

Type: *Modiola caudigera* Lamarck.

274. *Lithophaga (Myoforceps) aristata* ((Solander M S.) Dillwyn).

- 1757 Le Ropan. ADANSON, Histoire naturelle du Sénégal, Coquillages, p. 267, pl. 19, fig. 2.
- 1797 *Mytilus* Tableau encycl. (49 a), pl. 221, figs. 8 a, b (*Modiola caudigera* in the Explanation of plates by BORY DE ST.-VINCENT, p. 149; 1827).
- 1817 *Mytilus aristatus* Sol. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 303, nr. 8.
- 1819 *Modiola caudigera*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 116, nr. 23.
- 1824 *Lithodomus caudigerus*. SOWERBY, Genera (168), part 23, *Lithodomus*, fig. 4.

- 1836 *Modiola caudigera* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VII, p. 27, nr. 23.
— *Mytilus Ropan*. DESHAYES in DESHAYES—LAMARCK, *ibid.*, p. 27, note.
- 1843 *Modiola Caudigera*. HANLEY, Illustr. and descr. Catal. recent Bivalve Shells (224), p. 238.
- 1846 *Modiola caudigera* Lamk.. PHILIPPI, Abbild. u. Beschreib. (134), vol. II, pp. 149—150, nr. 6, *Modiola*, pl. I, fig. 5.
- 1857 *Lithodomus caudigerus*. REEVE (145), vol. X, *Lithodomus*, pl. III, fig. 16.
- 1867 *Lithodomus aristatus* Dillwyn. WEINKAUFF, Conch. d. Mittelmeeres (182bis), vol. I, pp. 222—223.
- 1882 *Lithophaga aristata* Solander (*Mytilus*). DUNKER, Index Moll. maris Japon. (48), p. 226.
- 1889 *Lithophagus forficatus* Ravenel. DALL, Moll. southeastern coast U. S. (26), pp. 38—39.
- 1898 *Lithophaga (Myoforceps) aristata* Dillwyn. DALL, Tertiary fauna of Florida (27), IV, pp. 800—801.
- 1902 *Lithodomus (Myoforceps) caudigera* Lam.. VON MARTENS, Rumphius Gedenkb. (110), p. 128.
- 1910 *Lithodomus aristatus* (Solander) Dillwyn. DAUTZENBERG, Afrique occidentale (38bis), p. 116.
- 1912 *Lithodomus (Myoforceps) caudigerus* Lamarck, sp. (*Modiola*). PALLARY, Moll. litt. méditerr. de l'Égypte (225), p. 157, pl. XVIII (IV), figs. 9—10.
- 1920 *Lithodomus (Myoforceps) aristatus* Pilsbry sp. (*Mytilus*). PALLARY, Malac. du Maroc (226), p. 80.

Bachan (collected by VON MARTENS).

Distribution: Japan (DUNKER). — Red Sea. — Mediterranean from Egypt (PALLARY) to Algeria (WEINKAUFF); Atlantic coast of Spain and Portugal (WEINKAUFF), and of Morocco (PALLARY); Cape Blanco, Mauretania (DAUTZENBERG, PALLARY); Senegal (ADANSON, DAUTZENBERG).

West Indies: St. Thomas (PHILIPPI); Jamaica (DALL). From West Florida and the Florida Keys north to Cape Fear, North Carolina (DALL). — Mazatlan on the Pacific coast of Mexico (CARPENTER).

Fossil in the Oligocene of Florida (DALL).

TELEODESMACEA.

FAM. CYRENIDAE.

Genus *Cyrena* Lamarck, 1818.

Type: *Cyrena bengalensis* Lamarck.

275. *Cyrena coaxans* (Gmelin).

1705 *Chama Lutaria en Coaxans*, Quakkers. RUMPHIUS (151), pp. 138—139, pl. XLIII, fig. H.

1791 *Venus coaxans*. GMELIN (56), p. 3278, nr. 41 (in part).

- 1863 *Grosse Cyrena*. VON MARTENS, Landschn. d. Molukken; Amboina-gruppe (101 bis), p. 130.
- 1893 *Cyrena coaxans* (Gmel.) Martens. SCHEPMAN, Shells from the Molucas (152bis), pp. 158—159, nr. 31.
- 1897 *Cyrena coaxans* Gm.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 98—100, nr. 10, pl. VI, figs. 1—3.
- 1902 — — Gmel.. VON MARTENS, Rumphius Gedenkb. (110), p. 125.

Bachan, in a swamp near the sea (collected by VON MARTENS).

Distribution: Ceram, in brackish water (VON MARTENS, K. Martin); Amboina, mouth of rivulet (RUMPHIUS, VON MARTENS).

? Buru (RUMPHIUS); ? Kema, Northern Celebes (VON MARTENS).

276. *Cyrena moluccensis* von Martens.

- 1877 *Cyrena cyprinoides* [not of] Q. G.. CLESSIN, Cycladeen in Conch.-Cab., IX, 3, p. 124, pl. 20, figs. 3, 4.
- 1893 *Cyrena papua* [? not of] Lesson. SCHEPMAN, Shells from the Molucas (152 bis), p. 159, nr. 32.
- 1897 *Cyrena moluccensis* n.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 96—97, nr. 8, pl. VI, fig. 4.

Bachan, in a swamp near the sea, in society with *C. coaxans* (collected by VON MARTENS).

Ternate (collected by VON MARTENS).

Distribution: Pasahari, N. coast of Ceram (K. Martin).

Genus *Batissa* Gray, 1852.

277. *Batissa violacea* (Lamarck).

- 1798 *Cyclas* LAMARCK, Tableau encycl. (49 a), pl. 301, figs. 1 a, b (*Cyprina islandica* [!]) in the Explanation of plates by BORY DE ST.-VINCENT, p. 156; 1827).
- 1818 *Cyrena violacea*. LAMARCK, An. s. vert. (85), vol. V, p. 553, nr. 7.
- 1830 *Cyrena violacea* Lamk.. DESHAYES, Encycl. méth. (49), vol. II, p. 49, nr. 9 and var. (= Tabl. encycl., pl. 301, figs. 1 a, b).
- 1835 *Cyrena violacea* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 275, nr. 7.
- 1841 *Cyrena violacea*. DELESSERT, Recueil de Coquilles décrites par Lamarck (206), pl. 7, figs. 5 a-d.

- 1897 *Batissa violacea* Lam., vars. *Celebensis*, *Macassarica*, *discoidea* and *extensa*. VON MARTENS, Süssw. Brackw.-Moll. d. Ind. Arch. (109), pp. 104—108, nr. 3, pl. V, figs. 3, 6, 7, 8, 9.
- 1898 *Batissa violacea* Lam. var. *celebensis* Martens. P. u. F. SARASIN, Süßwasser-Moll. v. Celebes (152), p. 92.
- 1900 *Batissa violacea*, Lamarck, var. *discoidea*, von Martens. DAUTZENBERG, Sumatra (34), p. 26, pl. II, fig. 12.

East coast of Halmahera, 1 left valve, agreeing with fig. 7 (var. *extensa*) of VON MARTENS.

Measurements (in millimetres):

	Halmahera.	Maros, Southern Celebes (VON MARTENS), var. <i>extensa</i>
Length	70	75
Height	54	57
Thickness	13.7 ($\frac{1}{2}$ thickness)	30
		Length : height : thickness = 70 : 53.2 : 28.

Distribution: Southern Celebes: Makassar (VON MARTENS); river of Maros, north of Makassar (Max Weber); river Tjenrana near Pampanua, Bone (Max Weber); river near Bungu, near the limits of tidal influence (P. u. F. SARASIN).

W. coast of Sumatra: River of Indrapura (Weyers).

The species probably has a far wider distribution than that stated above, but to ascertain this, further investigations will be necessary. Several so-called „species” have been established which may be nothing else but forms of the present highly variable species.

LAMARCK did not know the habitat of this species, but DESHAYES (49) has already recorded it from Celebes (and besides — but without doubt erroneously — from New Zealand).

DESHAYES was the first to make reference to the very good figures of the Encyclopédie méthodique (pl. 301, 1 a, b), which were, strangely enough, quoted by LAMARCK in the synonymy of *Cyprina islandica*. Both in the Encyclopédie and in his new edition of LAMARCK's Animaux sans vertèbres, DESHAYES, however, has omitted to cancel the figures of the Tableau encyclopédique among the references for *Cyprina islandica*.

FAM. CARDITIDAE.

Genus *Cardita* Bruguière, 1792.Subgenus *Cardita* s. str.(= *Mytilicardia* de Blainville, 1824;*Mytilicardita* Anton, 1839;*Jesonia* Gray, 1840).278. *Cardita* (*Cardita*) *variegata* Bruguière.

- 1685 *Pectunculus striatus angustior maculatus*. LISTER, *Historia Conchyliorum*, [pl. 347], fig. 184.
- 1784 *Chama calyculata Linnaei* [not of Linné]. CHEMNITZ, *Conch.-Cab.* (122), vol. VII, pp. 133—135, pl. 50, figs. 500, 501.
- 1787 *Hippopodes calyculata*. MEUSCHEN, *Museum Geversianum*, p. 428.
- 1792 *Cardita variegata*. BRUGUIÈRE, *Encycl. méth.* (49), vol. I, part 2, pp. 407—408, nr. 6.
- 1797 *Cardita* Tableau *encycl.* (49 a), pl. 233, fig. 6 (*Cardita calyculata* Lamk. in the Explanation of plates by BORY DE ST.-VINCENT, p. 149; 1827).
- 1819 *Cardita calyculata* [not of Linné]. LAMARCK, *An. s. vert.* (85), vol. VI, 1 st part, pp. 24—25, nr. 15.
- — *subaspera*. LAMARCK, *ibid.*, p. 25, nr. 16.
- 1823 *Cardita calyculatus*. SOWERBY, *Genera* (168), *Cardita*, figs. 1, 2.
- 1826 *Cardita calyculata* Lk.. CROUCH, *An illustrated Introduction to Lamarck's Conchology*, p. 14, pl. 8, fig. 4.
- 1835 *Cardita calyculata* Lamk. (not of Linné). DESHAYES—LAMARCK, *An. s. vert.* (86), vol. VI, pp. 431—432, nr. 15.
- — *subaspera* Lamk.. DESHAYES—LAMARCK, *ibid.*, pp. 432—433, nr. 16.
- 1841 *Cardita subaspera*. DELESSERT, *Recueil de Coquilles décrites par Lamarck* (206), pl. 11, figs. 9 a—c.
- 1841 *Cardita calyculata* Lk.. REEVE, *Conchologia systematica*, vol. I, p. 102, pl. LXXIX, figs. 1—2.

- 1843 *Cardita variegata*. REEVE (145), vol. I, *Cardita*, pl. I, fig. 3.
- 1843 *Cardita Variegata* Brug.. HANLEY, An illustr. and descriptive Catalogue of recent Bivalve Shells (224), p. 147.
- — *Subaspera*. HANLEY, *ibid.*, p. 147 (note 2).
- 1848 *Cardita variegata* Brug. and var. *turgida*. KRAUSS, Die Südafrikanischen Mollusken, p. 13.
- 1857 *Mytilicardia variegata* Brug.. H. and A. ADAMS, Genera (3), vol. II, p. 488.
- 1862 *Mytilicardia calyculata*, [not of] Bruguières. CHENU, Manuel (19), vol. II, p. 135, fig. 650.
- 1863 *Cardita variegata* Brug.. DESHAYES, Réunion (44), p. 21.
- 1869 *Cardita variegata* Brug.. ISSEL, Mar Rosso (65), p. 80.
- 1869 *Cardita variegata*, Brug.. VON MARTENS, v. d. Decken's Reisen (103), p. 66.
- 1870 *Actinobolus variegata* Brug.. M'ANDREW, Test. Gulf of Suez (100), p. 448.
- 1880 *Cardita (Mytilicardia) variegata* Brug.. VON MARTENS, Mauritius (105), p. 321.
- 1881 *Mytilicardia variegata* Brug.. DE ROCHEBRUNE, Docum. sur la faune malacol. de la Cochinchine et du Cambodge (Bull. Soc. Philomathique de Paris, 7^e s., VI, 1881), p. 12, nr. 32.
- 1886 *Cardita variegata*, Brug.. COOKE, Test. Moll. Gulf of Suez (21), part V, p. 101.
- 1887 *Cardita variegata*, Bruguière. VON MARTENS, Mergui (107), p. 208, nr. 326.
- 1888 *Cardita variegata*. JOUSSEAUME, Mer Rouge (68), p. 211, nr. 171.
- 1888 *Cardita variegata* Bruguière and var. *turgida* Krauss. CLESSIN, Carditaceen (20 bis), pp. 23—24, nr. 43, pl. 3, figs. 8—9; pl. 11, figs. 5—6.
- 1890 *Cardita variegata* Brug.. O. BOETTGER, Ad. Strubell's Konch. aus Java, I (12), p. 170, nr. 25.
- 1891 *Cardita variegata* Brug.. P. FISCHER, Cat. Indo-Chine (53), p. 228.

- 1892 *Cardita (Mytilicardia) variegata* Brug.. SOWERBY, Marine Shells of South Africa, p. 62.
- 1895 *Cardita variegata*. PILSBRY, Catalogue of the marine mollusks of Japan, p. 135.
- 1899 *Mytilicardia variegata*, Brug.. MELVILL and STANDEN, Torres Straits (123), p. 188, nr. 331.
- 1901 *Mytilicardia variegata* (Brug.). STURANY, Lamell. d. Rothen Meeres (170), pp. 288, 294, nr. 85.
- 1904 *Cardita variegata* Brug.. HIDALGO, Catálogo de los moluscos testáceos de las islas Filipinas (Rev. Real Academia de Ciencias, Madrid, III), p. 17.
- 1905 *Cardita variegata* Brug.. ANTHONY, Moll. Tadjourah (Bulletin du Muséum nat. d'histoire naturelle, vol. XI), p. 491.
- 1906 *Mytilicardia variegata* (Brug.). MELVILL and STANDEN, Persian Gulf (124), part II, p. 814.
- 1906 *Cardita variegata* Brug.. HEDLEY, Moll. Mast Head Reef (Proceedings Linnean Society of New South Wales, vol. XXXI), p. 465.
- 1909 *Cardita variegata* Brug.. HEDLEY, Mar. Fauna Queensland (Australasian Association for the Advancement of Science), p. 347.
- 1909 *Cardita variegata*, Brug.. LYNGE, Lamellibr. Siam (99), p. 163.
- 1915 *Cardita variegata turgida* Krauss. BARTSCH, Report on the Turton Collection of South African marine Mollusks (4bis), p. 192.
- 1915 *Cardita variegata* Brug.. CAES. BOETTGER, Wassermoll. Aru- u. Kei-Inseln (10), p. 141.
- 1916 *Cardita calyculata* Lk.. LAMY in: Bulletin du Muséum nat. d'histoire naturelle, vol. XXII, p. 116.
- — *subaspera* Lk.. LAMY, *ibid.*, p. 116.
- — *variegata* Brug.. LAMY, *ibid.*, p. 311.
- 1920 *Cardita variegata*, Bruguière. YOKOYAMA, Miura Peninsula (188), pp. 136—137, nr. 172, pl. X, figs. 16 a, b, c.

1922 *Cardita variegata* Bruguière and var. *turgida* Krauss.
LAMY, *Carditacea* (92), pp. 244—248.

O b i M a j o r, 1 left valve.

Distribution: East Indian Archipelago: Aru Is. (Merton); New Guinea (Museum Paris); Thousand Is. north of Batavia (Strubell).

Melanesia: New Caledonia (Mus. Paris); Lifu, Loyalty Is.; Viti Is., — Polynesia: Samoa; Gambier Is. (Mus. Paris). — Torres Straits (MELVILL and STANDEN); Port Essington, Northern Australia; Mast Head Reef, Queensland (HEDLEY).

Sulu-archipelago; Philippines (Mus. Paris); Yokohama; China (REEVE); Hongkong (CLESSIN); Pulo Kondor near Lower Cochin China (Mus. Paris); Siam (P. FISCHER); Singapore, in shallow water (LYNGE); Mergui-archipelago, in coral-burrows (Anderson); Nicobars (CHEMNITZ); Ceylon; Gulf of Manaar; Maldives; Ratnagiri, W. coast of India; Karachi, at half-tide among rocks (MELVILL and STANDEN).

Aden and Perim-island (Mus. Paris); Red Sea (Pola, Mus. Paris); Gulf of Akabah; Gulf of Suez (M'ANDREW); Suez and Massaua (Mus. Paris); Obock (Faurot); Tajura Bay and Jibuti (Mus. Paris); Zanzibar (von der Decken); Seychelles (Mus. Paris); Amirantes; Mauritius (Mus. Paris); Réunion (DES-HAYES); Madagascar and Nossi-Bé (Mus. Paris); Mayotta, Comoro Is. (Mus. Paris); Querimba Is.; Natal (KRAUSS); Cape of Good Hope (United States National Museum).

Fossil in the Lower Musashino (? Pliocene) near Yokohama, Japan (YOKOYAMA).

FAM. LUCINIDAE.

Genus *Lucina* (Tableau encyclopédique, 1797) Lamarck, 1799
(= *Anodontia* Link, 1807).

279. *Lucina* (*Lucina*) *edentula* (Linné).

1897 *Lucina* (*Anodontia*) *edentula* (L.). VON MARTENS, Süss- u. Brackw.-
Moll. d. Ind. Archipels (109), p. 229.

1920 *Lucina edentula* Linné. LAMY, Révis. *Lucinacea* viv. (91), pp. 78—84.
Bachan (collected by VON MARTENS).

Genus *Codakia* Scopoli, 1777.

280. *Codakia tigerina* (Linné).

1902 *Lucina* (*Codakia*) *tigerina* L., VON MARTENS, Rumphius Gedenkb.
[110], p. 126.

1921 *Codakia tigerina* Linné. LAMY, Révis. *Lucinacea* viv. (91), pp. 239—241.
Bachan and Ternate (collected by VON MARTENS).

FAM. CARDIIDAE.

Genus *Cardium* Linné, 1758.Subgenus *Trachycardium* Mörch, 1853(*Granocardium* Gabb, 1868).Type: *Cardium isocardia* Linné.281. *Cardium* (*Trachycardium*) *flavum* Linné.

- 1705 *Pectunculus vulgaris*. RUMPHIUS (151), p. 142, pl. XLIV, fig. E.
- 1758 *Cardium flavum*. LINNÉ, Syst. Nat. X (94), p. 680, nr. 71.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 490, nr. 43.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1123, nr. 87.
- 1782 *Cardium pectiniforme Bornii*. CHEMNITZ, Conch.-Cab. (122), vol. VI, p. 188, pl. 17, fig. 180 [testa junior].
- *Cardium magnum etc.*. CHEMNITZ, *ibid.*, pp. 196—197, pl. 19, fig. 191.
- 1786 *Cardium flavum*. SCHROETER, Einleitung in die Conchylien-Kenntnis, vol. III, p. 43, nr. 15, pl. 7, figs. 11 a, b.
- 1789 *Cardium pectiniforme*; Born. BRUGUIÈRE, Encycl. méth. (49), vol. I, p. 227, nr. 23.
- — *flavum*; Linné. BRUGUIÈRE, *ibid.*, pp. 232—233, nr. 31.
- 1791 *Cardium flavum*. GMELIN (56), p. 3251, nr. 17 (exclusive of some references).
- 1798 *Cardium* LAMARCK, Tableau encycl. (49 a), pl. 297, fig. 2 (*Cardium rugosum* Lamk. in the Explanation of plates by BORY DE ST.-VINCENT, p. 155; 1827).
- 1818 *Cardium flavum*. WOOD, Index Testaceologicus, p. 26, nr. 24, pl. 5, fig. 24.
- 1819 *Cardium angulatum*. LAMARCK, An. s. vert. (85), vol. VI, 1 st part, p. 9, nr. 19.
- — *rugosum*. LAMARCK, *ibid.*, p. 10, nr. 23.
- 1835 *Cardium angulatum* Lamk., DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 399, nr. 19.
- — *rugosum* Lamk., DESHAYES—LAMARCK, *ibid.*, pp. 400—401, nr. 23.
- 1843 *Cardium Rugosum* Lam., HANLEY, An illustrated and descriptive Catalogue of recent Bivalve Shells (224), p. 133.
- 1845 *Cardium Dupuchense*. REEVE (145), vol. II, *Cardium*, pl. XIV, fig. 67.
- — *rugosum*. REEVE, *ibid.*, pl. XIV, fig. 68.
- — *angulatum*. REEVE, *ibid.*, pl. XIV, fig. 70.
- 1855 *Cardium flavum*. HANLEY, Ipsa Linn. Conch. (58), p. 50.
- 1864 *Cardium subalternatum*, spec. nov., JENKINS, On some tertiary mollusca from Mount Séla, in the Island of Java (219), p. 60, nr. 18, pl. VII, figs. 7 a, b.
- 1869 *Cardium* (*Trachycardium*) *flavum* L., RÖMER, Cardiacea (148), pp. 56—58, nr. 27, pl. 7, figs. 7, 8; pl. 5, fig. 10.

- 1869 *Trachycardium dupuchense* Rv.. VON FRAUENFELD, Nicobaren (55), p. 883.
- — *rugosum* Lk.. VON FRAUENFELD, *ibid.*, pp. 883, 899.
- 1870 *Cardium (Cerastoderma) magnum*, Chemn.. M'ANDREW, Test. Gulf of Suez (100), p. 447.
- 1879 *Cardium Dupuchnesse* (sic) Reeve. K. MARTIN, Tertiärschichten auf Java (112), *Palaeontol. Theil*, p. 106, pl. XVII, figs. 8, 8 a-b.
- 1880 *Cardium (Trachycardium) rugosum* Lam.. VON MARTENS, Mauritius (105), p. 323.
- 1881 *Cardium rugosum* Lam.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 35.
- — *angulatum* Lam.. K. MARTIN, *ibid.*, p. 20, nr. 37.
- 1883 *Cardium rugosum* Lam.. K. MARTIN, Nachtraege zu d. Tertiaerschichten auf Java (114), p. 246, nr. 63.
- 1886 *Cardium magnum*, Chemn.. COOKE, Test. moll. Gulf of Suez (21), part V, p. 97.
- 1887 *Cardium (Trachycardium) rugosum*, Lam.. VON MARTENS, Mergui (107), p. 210, nr. 336.
- 1889 *Cardium Dupuchense*, Reeve. L. MORLET, Catal. coq. Cambodge (126), p. 168.
- 1891 *Cardium Dupuchense*. P. FISCHER, Catal. Indo-Chine (53), p. 229.
- 1899 *Cardium (Trachycardium) rugosum*, Lam.. MELVILL and STANDEN, Torres Straits (123), p. 191, nr. 346.
- 1901 *Cardium rugosum* Lm. (= *magnum* Chemn.). STURANY, Lamellibr. d. Rothen Meeres (170), pp. 282—283, 293, nr. 59.
- 1902 *Cardium rugosum* Lam. (*flavum* L. z. Theil). VON MARTENS, Rumphius Gedenkb. (110), p. 126.
- 1906 *Cardium (Trachycardium) rugosum* Lamk. (= *flavum* L. in pt.). MELVILL and STANDEN, Persian Gulf (124), part II, p. 837.
- 1909 *Cardium (Trachycardium) flavum* L.. LYNGE, Lamellibr. Siam (99), pp. 256—257.
- 1915 *Cardium flavum* Lin.. STAUB, Sangkulirangbai (169), p. 130.
- 1919 *Cardium rugosum* Lamk.. K. MARTIN, Palaeozool. Kenntnis von Java (119), p. 62.
- — *Dupuchnesse* (sic) Reeve. K. MARTIN, *ibid.*, pp. 62, 127.

Halmahera and Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago (the most commonly occurring species of *Cardium* in the Malay Archipelago according to VON MARTENS): Amboina and Lucipara (VON MARTENS); Adonara (VON MARTENS); Java (HANLEY); Pulu Rending, Sangkulirang-bay, E. Borneo, sandy beach (STAUB). Island of Dupuch, Torres Straits, on the reefs (REEVE); Boydong Cays, Torres Straits (MELVILL and STANDEN); Sydney (Novara).

Philippines; islands in the Gulf of Siam, 1—5 fathoms, on sand, stones and old coral-blocks (MORLET, LYNGE); Singapore and Salanga-island near Malacca (VON MARTENS); Mergui-archipelago (Anderson); Nicobars (REEVE, Novara); Tranquebar, Coromandel Coast (SCHROETER); Ceylon (HANLEY);

between Ratnagiri and Bombay (MELVILL and STANDEN); Persian Gulf, rarely (MELVILL and STANDEN).

Gulf of Aden; Red Sea (Ehrenberg); Northern Red Sea and Gulf of Akabah (Pola); Gulf of Suez (M'ANDREW); Suez Canal; Zanzibar; Rodriguez; St. Mary-island near Madagascar, on sand between coral-rocks (SGANZIN); Madagascar (REEVE); Coast of Mozambique (Peters); Natal (SOWERBY).

Fossil: Pleistocene of Billiton (K. MARTIN). Upper Miocene (Tjilanang-beds) of Residency Preanger, Java (K. MARTIN).

Subgenus *Fragum* Bolten, 1798

(= *Hemicardium* Swainson, 1840; after Cuvier, 1817, emend.;

Bucardium Gray, 1853; not of Megerle von Mühlfeldt, 1811;

Loxocardium Cossmann, 1887).

Type: *Cardium unedo* Linné.

282. *Cardium (Fragum) unedo* Linné.

- 1685 *Pectunculus striatus rhomboides, etc.*. LISTER, *Historia Conchyliorum*, [pl. 315], fig. 151.
- 1705 *Fragum*, Aardbesie. RUMPHIUS (151), p. 142, pl. XLIV, fig. F.
- 1758 *Cardium Unedo*. LINNÉ, *Systema Naturae*, edit. X (94), p. 680, nr. 68.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 488, nr. 40.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1123, nr. 84.
- 1782 *Fragum rubrum. Cardium Unedo Linnaei*. CHEMNITZ, *Conch.-Cab.* (122), vol. VI, pp. 174—176, pl. 16, figs. 168, 169.
- 1789 *Cardium unedo*; Linn., BRUGUIÈRE, *Encycl. méth.* (49), vol. I, pp. 214—215, nr. 7.
- 1791 *Cardium unedo*. GMELIN (56), p. 3250, nr. 14.
- 1798 *Fragum unedo* Bolten. *Museum Boltenianum*, p. 189, nr. 390.
- 1798 *Cardium* LAMARCK, *Tableau encycl.* (49 a), pl. 295, fig. 4 (*Cardium unedo* in the Explanation of plates by BORY DE ST.-VINCENT, p. 155; 1827).
- 1817 *Cardium unedo*. DILLWYN, *A descriptive Catalogue of recent shells*, vol. I, p. 119, nr. 19.

- 1819 *Cardium unedo*. LAMARCK, An. s. vert. (85), vol. VI, 1st part, p. 14, nr. 39.
- 1835 *Cardium unedo* Lin.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 409, nr. 39.
- 1843 *Cardium Unedo*. HANLEY, An illustr. and descr. Catal. of recent Bivalve Shells (224), p. 141.
- 1844 *Cardium unedo*. REEVE (145), vol. II, *Cardium*, pl. II, fig. 13.
- 1850 *Cardium (Hemicardia) unedo* L.. MÖRCH, Catalogus Kierulf (124bis), p. 22, nr. 542.
- 1855 *Cardium unedo*. HANLEY, Ipsa Linn. Conch. (58), pp. 49, 466.
- 1862 *Hemicardium (Fragum) unedo*, Linné. CHENU, Manuel (19), vol. II, p. 111, fig. 522 (on p. 112).
- 1869 *Cardium (Fragum) Unedo* L.. RÖMER, Cardicea (148), pp. 101—102, nr. 61, pl. 4, figs. 11, 12.
- 1869 *Fragum unedo* L.. VON FRAUENFELD, Nicobaren (55), p. 884.
- 1880 *Cardium (Hemicardium) unedo* Linne. VON MARTENS, Mauritius (105), p. 324.
- 1884 — (—) — E. A. SMITH, Alert (160), p. 103, nr. 38.
- 1887 — (—) — L.. VON MARTENS, Merqui (107), p. 210, nr. 337.
- 1889 *Hemicardia unedo*, Linné (*Cardium*). L. MORLET, Cat. coq. Cambodge et Siam (126), p. 168, nr. 58.
- 1899 *Hemicardium (Fragum) unedo*, L.. MELVILL and STANDEN, Torres Straits (123), p. 192, nr. 354.
- 1900 *Hemicardium tegulatum* Dautzenberg. DAUTZENBERG, Espèce nouv. *Hemicardium* (35), pp. 5—8, pl. I, figs. 3—6.
- 1902 *Cardium unedo* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 126.
- 1909 *Cardium (Hemicardium) unedo* L.. LAMY, Java (89), p. 468.

1909 *Hemicardium (Fragum) unedo* L.. LYNGE, Lamellibr. Siam (99), pp. 260—261.

Obi Major, 1 left valve.

Distribution: East Indian Archipelago: Bay of Amboina, common, in sand (RUMPHIUS); Banda (VON MARTENS); New Guinea; Kupang, Timor (VON MARTENS); Adonara-island and Larentuka, Flores (VON MARTENS); Java (LAMY); Palabuan, Wijnkoopsbay, S. W. coast of Java (VON MARTENS); Bintang, Riouw-archipelago (VON MARTENS).

Melanesia: Solomon Is.; Lifu, Loyalty Is.; Viti Is. — West Australia (MENKE); Torres Straits (MELVILL and STANDEN); Port Molle, Queensland, on the beach (Alert); Sydney, N. S. Wales (Novara).

Philippines, in sandy mud (Cuming); Cochin China; Pulo Kondor; Cambodja; islands in the Gulf of Siam (L. MORLET); Koh Kahdat, Gulf of Siam, 1—5 fathoms, sand (LYNGE); Singapore (VON MARTENS); Mergui-archipelago (Anderson); Nicobars (Novara); Madras (LISTER); Ceylon.

Mauritius, on sand between coral-reefs (SGANZIN, Möbius).

FAM. TRIDACNIDAE.

Genus *Tridacna* Bruguière, 1792

(= *Tridachnes* Bolten, 1798).

283. *Tridacna crocea* Lamarck.

1685 *Pectunculus striatus admodum tenuiter imbricatus*. LISTER, Historia Conchyliorum, [pl. 353], fig. 190.

1784 *Chama imbricata imbricibus undosis confertissimis depressis exasperata, novem plicis seu costis instructa, testa flavescente margine rubente*. CHEMNITZ, Conch.-Cab. (122), vol. VII, pp. 124—125, pl. 49, fig. 496.

1797 *Tridacna* Tableau encycl. (49 a), pl. 235, fig. 2 (*Tridacna crocea* in the Explanation of plates by BORY DE ST.-VINCENT, p. 150; 1827).

1817 *Chama gigas*, var. C. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 214.

1819 *Tridacna crocea*. LAMARCK, An. s. vert. (85), vol. VI, 1st part, p. 106, nr. 4.

1832 — — DESHAYES, Encycl. méth. (49), vol. III, pp. 1046—1047, nr. 4.

- 1834 *Tridacna crocea*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, pp. 488—489, nr. 3, pl. 79, figs. 2, 3.
- 1836 — — Lamk., DESHAYES—LAMARCK, *An. s. vert.* (86), vol. VII, p. 10, nr. 4.
- 1843 *Tridacna Crocea*. HANLEY, *An illustrated and descriptive Catalogue of recent Bivalve Shells* (224), p. 232.
- 1862 *Tridacna Cumingii*. REEVE (145), vol. XIV, *Tridacna*, pl. VII, figs. 7 a, b.
- — *ferruginea*. REEVE, *ibid.*, pl. VIII, figs. 8 a, b.
- — *crocea*. REEVE, *ibid.*, pl. VIII, figs. 9 a, b.
- 1868 *Tridacna crocea*, Lamarck. KÜSTER, *Tridacna u. Hippopus* (79), p. 6, nr. 4, pl. 1, fig. 6.
- 1869 *Chamaetrachea crocea* Lk., VON FRAUENFELD, *Nicobaren* (55), p. 884.
- 1880 *Tridacna crocea* Lam., VON MARTENS, *Mauritius* (105), p. 323.
- 1884 *Tridacna crocea*, Lamk., SOWERBY, *Thesaurus* (167), vol. V, p. 181, nr. 5, pl. 486, fig. 6; pl. 487, figs. 8—10.
- 1885 *Tridacna crocea*, Lamarck. E. A. SMITH, *Challenger Lamellibr.* (161), p. 170.
- 1887 *Tridacna crocea*, Lam., var. *Cumingii*, Reeve. VON MARTENS, *Mergui* (107), p. 209, nr. 335.
- 1902 *Tridacna crocea* Lam., VON MARTENS, *Rumphius Gedenkb.* (110), p. 125.
- 1906 *Tridacna crocea* Lamk., MELVILL and STANDEN, *Persian Gulf* (124), part II, p. 840.
- 1909 *Tridacna crocea*, Lam., LYNGE, *Lamellibr. Siam* (99), p. 263.
- 1916 *Tridacna crocea* Lam., CAES. BOETTGER, *Hanseatische Südsee-Expedition* (11), p. 308.

East coast of H a l m a h e r a, 1 left valve.

Distribution: East Indian Archipelago: Amboina (VON MARTENS).

Melanesia: New Ireland, reef, in coral (*Astrolabe*); Stewart-island, Solomon Is. (*Hanseatic Pacific expedition*); Lifu, Loyalty Is.. — Polynesia: Rarotonga. — Off Cape York, N. Australia, at a depth of 8 fathoms, coral mud (*Challenger*).

Philippines (Cuming); Loo Choo Is.; islands in the Gulf of Siam, 1 fathom, boring in old coral blocks (LYNGE); Singapore (VON MARTENS); Mergui-archipelago (Anderson); Nicobars (Novara); Andamans; Persian Gulf (MELVILL and STANDEN); Aden. — Madagascar (SGANZIN).

Genus *Hippopus* Lamarck, 1799.

284. *Hippopus hippopus* (Linné).

- 1685 *Pectunculus major variegatus striatus imbricatus, etc.*, LISTER, *Historia Conchyliorum*, [pl. 349], fig. 187.
- 1705 *Chama Striata*, Peerdevoetjes. RUMPHIUS (151), pp. 131—132, pl. XLIII, fig. C.
- 1757 *Cordi-forme dictum folium Brassicae, maculis rubris decoratum; la Feuille de Choux*. D'ARGENVILLE (4), part I, pp. 295, 299, pl. 23, fig. H.
- 1758 *Chama Hippopus*. LINNÉ, *Syst. Nat.* X (94), p. 691, nr. 131.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 513, nr. 82.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1137, nr. 156.
- 1780 — — BORN, *Testacea mus. caes. Vindobonensis* (16), pp. 81—82, vignette on p. 79.
- 1784 *Folium Brassicae. Pes equinus. Ungula equina. Chama Hippopus Linnæi, etc.*. CHEMNITZ, *Conch.-Cab.* (122), vol. VII, pp. 127—133, pl. 50, figs. 498, 499.
- 1791 *Chama Hippopus*. GMELIN (56), p. 3300, nr. 3.
- 1797 *Tridacna* Tableau encycl. (49 a), pl. 236, figs. 2 a, b (*Hippopus maculatus* in the Explanation of plates by BORY DE ST.-VINCENT, p. 150; 1827).
- 1798 *Tridachnes hippopus* Bolten. *Museum Boltenianum*, p. 172, nr. 196.
— — *ungula* Bolten. *Mus. Bolt.*, p. 172, nr. 197.
- 1811 *Pelvis Hippopus*. MEGERLE VON MÜHLFELDT, *Entwurf eines neuen Systems der Schalthiergehäuse*, p. 67.
- 1817 *Chama hippopus*. DILLWYN, *A descriptive Catalogue of recent shells*, vol. I, p. 215, nr. 4.
- 1817 *Hippopus brassica* Delam. SCHUMACHER, *Nouv. syst.* (158), pp. 140—141, pl. XII, figs. 2 a, b.
- 1819 *Hippopus maculatus*. LAMARCK, *An. s. vert.* (85), vol. VI, 1 st part, p. 108, nr. 1.
- 1823 — — SOWERBY, *Genera* (168), *Hippopus*, figs. 1, 1.
- 1832 — — DESHAYES, *Encycl. méth.* (49), vol. II, part 2, p. 278.
- 1834 *Tridacna maculata*. QUOY et GAIMARD, *Astrolabe* (140), vol. III, pl. 80, figs. 5, 6.
- 1836 *Hippopus maculatus*. DESHAYES—LAMARCK, *An. s. vert.* (86), vol. VII, pp. 12—13, nr. 1.
- 1843 *Hippopus Maculatus*. HANLEY, *An illustrated and descriptive Catalogue of recent Bivalve Shells* (224), p. 232.

- 1850 *Hippopus maculatus* Lam.. BERGE, Conchylienbuch (6), p. 81, pl. 2, fig. 6; pl. 10, fig. 12.
 1854 — — , Lam.. WOODWARD, Manual (187), part II, p. 290, pl. 18, fig. 16.
 1862 — — , Lamarck. CHENU, Manuel (19), vol. II, p. 118, figs. 564, 565.
 1862 — — REEVE (145), vol. XIV, Hippopus, pl. I.
 1868 — — , Lamarck. KÜSTER, Tridacna u. Hippopus (79), p. 8, nr. 1, pl. 3, figs. 1—3.
 1869 *Hippopus equinus* Msch.. VON FRAUENFELD, Nicobaren (55), p. 884.
 1880 *Hippopus maculatus* Lam.. VON MARTENS, Mauritius (105), p. 323.
 1884 — — , Meuschen. SOWERBY, Thesaurus (167), vol. V, pl. 489 (Tridacna V), lower figure.
 1887 *Hippopus maculatus*, Lamarck, P. FISCHER, Manuel (52), p. 1035, pl. XVIII, fig. 16.
 1902 — — Lam.. VON MARTENS, Rumphius Gedenkb. (110), p. 125.
 1915 *Hippopus maculatus* Quoy [sic!]. STAUB, Sangkulirangbai (169), pp. 130, 133.
 1916 *Hippopus maculatus* L., CAES. BOETTGER, Hanseatische Südsee-Exp. (11), p. 308.

Obi Is. (collected by Dr. Bernstein, according to VON MARTENS).

Distribution (on coral-reefs): East Indian Archipelago: Larentuka, Flores (VON MARTENS); Java (CHEMNITZ, Novara); Northern Celebes (A. B. Meyer); Sangkulirang-bay, E. Borneo (STAUB).

Melanesia: New Ireland; Nissan Atoll and Barahun near Nissan (Hanseatic Pacific exp.); Vanikoro. — Northern Australia (WOODWARD). — Nicobar Is. (VON FRAUENFELD).

Mauritius and St. Mary-island near Madagascar (SGANZIN).

FAM. VENERIDAE.

Genus *Meretrix* Lamarck, 1799

(= *Cytherea* (Lamarck) Roissy, 1805;

n o n Bolten, 1798;

Cytheraea DeFrance, 1818;

Nympha Mörch, 1853; n o n Fitzinger, 1826).

Type: *Venus meretrix* Linné.

285. *Meretrix meretrix* (Linné).

1705 *Chama Laevis*, gladde Gapers. RUMPHIUS (151), p. 138, pl. XLIII, fig. G.

1757 *Chama albida, radiata, cum ovali amethystino*. Came appelée Conque de Venus. D'ARGENVILLE (4), part I, pp. 282, 286, pl. 21, fig. F.

- 1758 *Venus Meretrix*. LINNÉ, *Systema Naturae*, edit. X (94), p. 686, nr. 102.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 501, nr. 60.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1132, nr. 127.
- 1778 — — BORN, *Index rerum naturalium Musei Caesarei Vindobonensis*; *Testacea*, p. 51.
- 1780 — — BORN, *Testacea* (16), p. 65.
- 1782 *Venus lusoria Japonica, seu Chinensis, etc.*. CHEMNITZ, *Conch.-Cab.* (122), vol. VI, pp. 337—340, pl. 32, fig. 340.
- *Venus Meretrix, etc.*. CHEMNITZ, *ibid.*, pp. 350—353, pl. 33, figs. 347—351.
- 1791 *Venus Meretrix*. GMELIN (56), p. 3273, nr. 18 (exclusive of var. β).
- — *Chione*, var. β . GMELIN, *ibid.*, p. 3272, nr. 16.
- 1797 *Venus* *Tableau encycl.* (49 a), pl. 268, figs. 5 b, 6 (*Cytherea petechialis* in the Explanation of plates by BORY DE ST.-VINCENT, p. 153; 1827).
- *Venus* *Tabl. encycl.*, pl. 269, figs. 1 a, b (*Cytherea impudica* in the Explan. of plates).
- *Venus* *Tabl. encycl.*, pl. 269, figs. 2 a, b (*Cytherea castanea* in the Explan. of plates).
- *Venus* *Tabl. encycl.*, pl. 270, figs. 1 a, b (*Cytherea lusoria* in the Explan. of plates).
- 1798 *Venus lusoria* Bolten. *Museum Boltinianum*, p. 180, nr. 278.
- 1802 *Venus Meretrix*. BOSCH, *Histoire naturelle des Coquilles*, vol. III, p. 48.
- 1817 *Cytherea ponderosa*. SCHUMACHER, *Nouv. système* (158), p. 150, pl. XV, fig. 1.
- 1817 *Venus lusoria*. DILLWYN, *A descriptive Catalogue of recent shells*, vol. I, p. 177, nr. 44.
- 1818 *Cytherea lusoria*. LAMARCK, *An. s. vert.* (85), vol. V, p. 561, nr. 1.
- — *petechialis*. LAMARCK, *ibid.*, p. 561, nr. 2.
- — *impudica*. LAMARCK, *ibid.*, p. 561, nr. 3.
- — *castanea*. LAMARCK, *ibid.*, p. 561, nr. 4.
- — *zonaria*. LAMARCK, *ibid.*, p. 562, nr. 5.

- 1818 *Cytherea meretrix*. LAMARCK, *ibid.*, p. 562, nr. 6.
 — — *graphica*. LAMARCK, *ibid.*, p. 562, nr. 7.
 — — *morphina*. LAMARCK, *ibid.*, p. 562, nr. 8.
- 1818 *Venus lusoria*. WOOD, *Index Testaceologicus*, p. 36, nr. 43,
 pl. 7, fig. 43.
 — — *Meretrix*. WOOD, *ibid.*, p. 36, nr. 47, pl. 7, fig. 47.
- 1829 *C. lusoria*, Chemn.. DE BLAINVILLE in: *Dict. d. sc. natu-*
relles (45), vol. 57, p. 263.
 — *C. petechialis*, de Lamk.. DE BLAINVILLE, *ibid.*, p. 263.
 — *V. impudica*. DE BLAINVILLE, *ibid.*, p. 263.
 — *C. castanea*. DE BLAINVILLE, *ibid.*, p. 263.
 — *V. zonaria*, de Lamk.. DE BLAINVILLE, *ibid.*, pp. 263—264.
 — *V. meretrix*. DE BLAINVILLE, *ibid.*, p. 264.
 — *V. graphica*, de Lamk.. DE BLAINVILLE, *ibid.*, p. 264.
 — *V. morphina*. DE BLAINVILLE, *ibid.*, p. 264.
- 1830 *Cytherea* (sic!) *lusoria* Lamk.. DESHAYES, *Encycl. méth.*
 (49), vol. II, part 2, p. 53, nr. 1.
 — *Cytherea petechialis* Lamk.. DESHAYES, *ibid.*, pp. 53—54,
 nr. 2.
 — — *impudica* Lamk.. DESHAYES, *ibid.*, p. 54, nr. 3.
 — — *graphica* Lamk.. DESHAYES, *ibid.*, p. 54, nr. 4.
- 1831 *Cytherea petechialis* Lk.. SOWERBY, *Genera* (168), *Cytherea*,
 fig. 1.
- 1835 *Cytherea lusoria* Lamk.. DESHAYES—LAMARCK, *An. s.*
vert. (86), vol. VI, pp. 297—298, nr. 1.
 — — *petechialis* Lamk.. DESHAYES—LAMARCK,
ibid., p. 299, nr. 2 (= *Venus meretrix*,
 var. according to DESHAYES).
 — — *impudica* Lamk.. DESHAYES—LAMARCK, *ibid.*,
 p. 299, nr. 3 (= *Venus meretrix*, var.
 according to DESHAYES).
 — — *castanea* Lamk.. DESHAYES—LAMARCK, *ibid.*,
 p. 299, nr. 4 (= *Venus meretrix*, var.
 according to DESHAYES).
 — — *zonaria* Lamk.. DESHAYES—LAMARCK, *ibid.*,
 pp. 299—300, nr. 5.
 — — *meretrix* Lamk.. DESHAYES—LAMARCK, *ibid.*,
 p. 300, nr. 6.

- 1835 *Cytherea graphica* Lamk. DESHAYES—LAMARCK, *ibid.*,
p. 300, nr. 7 (= *Venus meretrix*, var.
according to DESHAYES).
- — *morphina* Lamk. DESHAYES—LAMARCK, *ibid.*,
p. 300, nr. 8.
- 1839 *Venus (Cytherea) zonaria*. ANTON, Verzeichniss der Con-
chylien welche sich in der
Sammlung von H. E. Anton
befinden, p. 7.
- — (—) *morphina*. ANTON, *ibid.*, p. 8.
- 1841 *Cytherea petechialis*. REEVE, *Conchologia systematica*,
vol. I, p. 94, pl. LXIX, fig. 1; pl. LXX,
fig. 1.
- 1841 *Cytherea meretrix*. DELESSERT, Recueil de Coquilles
décrites par Lamarck, et non encore
figurées (206), pl. 8, figs. 1 a, 1 b, 1 c.
- 1843 *Cytherea Lusoria*. HANLEY, An illustrated and descriptive
Catalogue of recent Bivalve Shells (224),
p. 96.
- 1843-'44 *Cytherea Petechialis*. HANLEY, *ibid.*, p. 96, pl. 15, fig. 9.
- 1843 *Cytherea Impudica*. HANLEY, *ibid.*, p. 96, pl. 11, fig. 10.
- — *Castanea*. HANLEY, *ibid.*, p. 96.
- 1843-'44 *Cytherea Meretrix*. HANLEY, *ibid.*, p. 96, pl. 15, fig. 8.
- — *Graphica*. HANLEY, *ibid.*, p. 96, pl. 15, fig. 11.
- 1843 *Cytherea Morphina*. HANLEY, *ibid.*, p. 96.
- 1843-'44 *Cytherea Zonaria*. HANLEY, *ibid.*, pp. 96—97, pl. 15,
fig. 10.
- 1845 *Cytherea fusca* Koch. KOCH in PHILIPPI, *Abbild.* (134),
vol. I, p. 197, nr. 1, *Cytherea*, pl. III, fig. 1.
- 1847 *Cytherea impudica*. CHENU, *Illustr. conchyl.* (17), pl. 1,
figs. 6, 6 a—c.
- — *castanea*. CHENU, *ibid.*, pl. 2, figs. 1, 1 a—c.
- — *zonaria*. CHENU, *ibid.*, pl. 1, figs. 1, 1 a—c.
- — *meretrix*. CHENU, *ibid.*, pl. 2, figs. 7, 7 a—b.
- — *graphica*. CHENU, *ibid.*, pl. 2, figs. 4, 4 a—c.
- — *morphina*. CHENU, *ibid.*, pl. 2, figs. 2, 2 a—c.
- — *petechialis*. CHENU, *ibid.*, pl. 1, figs. 4, 4 a—c.
- — *lusoria*. CHENU, *ibid.*, pl. 1, fig. 5.

- 1847 *Meretrix meretrix*. GRAY in: Proceedings Zoological Society London, 1847, p. 183.
- 1850 *Cytherea (Meretrix) meretrix* L. and vars. *C. impudica* Lam., and *C. castanea* Lam. MÖRCH, Catalogus Kierulf (124bis), p. 23, nrs. 558—560.
- — (—) *ponderosa* Schum.. MÖRCH, *ibid.*, p. 23, nr. 561.
- 1851 *Cytherea meretrix*. SOWERBY, Thesaurus (167), vol. II, p. 619, nr. 24, pl. CXXIX, figs. 48—50.
- — *petechialis*. SOWERBY, *ibid.*, pp. 619—620, nr. 25, pl. CXXIX, fig. 51.
- — *lusoria*. SOWERBY, *ibid.*, p. 620, nr. 26, pl. CXXVIII, figs. 40—42.
- — *formosa*, Sowerby, jun.. SOWERBY, *ibid.*, p. 620, nr. 28, pl. CXXIX, fig. 47.
- — *zonaria*. SOWERBY, *ibid.*, pp. 620—621, nr. 29, pl. CXXIX, figs. 53, 54.
- — *impudica*. SOWERBY, *ibid.*, pl. 621, nr. 30, pl. CXXIX, figs. 55—58.
- 1853 *Meretrix Lusoria*. DESHAYES, Catalogue of the Conchifera in the British Museum (41bis), part I, pp. 35—36, nr. 3.
- — *petechialis*. DESHAYES, *ibid.*, p. 36, nr. 4.
- — *impudica*. DESHAYES, *ibid.*, p. 36, nr. 5.
- — *Morphina*. DESHAYES, *ibid.*, p. 37, nr. 6.
- — *graphica*. DESHAYES, *ibid.*, p. 37, nr. 7.
- — *fusca*. DESHAYES, *ibid.*, p. 38, nr. 9.
- — *castanea*. DESHAYES, *ibid.*, p. 38, nr. 10.
- — *zonaria*. DESHAYES, *ibid.*, pp. 38—39, nr. 11.
- — *formosa*. DESHAYES, *ibid.*, p. 40, nr. 17; p. 36 (as a synonym of *M. Lusoria*).
- 1853 *Meretrix petechialis*. MÖRCH, Catal. Yoldi (125), II, p. 28.
- — *inscripta* Martyn. MÖRCH, *ibid.*, p. 28.
- — *impudica*. MÖRCH, *ibid.*, p. 28.
- — *ponderosa* Schum.. MÖRCH, *ibid.*, p. 28.
- 1855 *Venus meretrix*. HANLEY, Ipsa Linn. Conch. (58), pp. 70, 472.

- 1857 *Venus meretrix* L.. RÖMER, Kritische Unters. Venus (146), pp. 41—43, nr. 18.
- *C. petechialis* Lam.. RÖMER, *ibid.*, p. 42.
- *V. lusoria* Chemn.. RÖMER, *ibid.*, p. 42.
- 1857 *Meretrix impudica*, Lamarck. H. and A. ADAMS, Genera (3), vol. II, pp. 423, 424, pl. CVII, figs. 6, 6 a.
- — *castanea*, Lam.. H. and A. ADAMS, *ibid.*, p. 424.
- — *formosa*, Sow.. H. and A. ADAMS, *ibid.*, p. 424.
- — *fusca*, Phil.. H. and A. ADAMS, *ibid.*, p. 424.
- — *graphica*, Lam.. H. and A. ADAMS, *ibid.*, p. 424.
- — *lusoria*, Chem.. H. and A. ADAMS, *ibid.*, p. 424.
- — *morphina*, Lam.. H. and A. ADAMS, *ibid.*, p. 424.
- — *petechialis*, Lam.. H. and A. ADAMS, *ibid.*, p. 424.
- — *zonaria*, Lam.. H. and A. ADAMS, *ibid.*, p. 424.
- 1860 *C. (Meretrix) zonaria* Lk.. VON MARTENS in: Proceedings Zoological Society London, p. 17.
- — (—) *impudica* Lk.. VON MARTENS, *ibid.*, p. 17.
- 1861 *Meretrix impudica* Lk.. DUNKER, Mollusca Japonica, p. 26.
- 1861 *Venus (Cytherea (Meretrix)) meretrix* L.. RÖMER, Kritische Übersicht der Arten aus der Cythereengruppe *Meretrix* Lam. (Malakozoologische Blätter, VIII (1861)), p. 45, nr. 1.
- — (— (—)) *petechialis*. RÖMER, *ibid.*, p. 46, nr. 2.
- — (— (—)) *lusoria*. RÖMER, *ibid.*, p. 47, nr. 3.
- 1862 *Cytherea luzoria* (sic), Lamarck. CHENU, Manuel (19), vol. II, p. 86, fig. 375 (on p. 85).
- — *zonaria*, Lamarck. CHENU, *ibid.*, p. 86, figs. 373, 374 (on p. 85).
- — *petechialis*, Lamarck. CHENU, *ibid.*, p. 86, fig. 376 (on p. 85).
- 1864 *Cytherea castanea*. REEVE (145), vol. XIV, Cytherea, pl. II, fig. 6.

- 1864 *Cytherea petechialis*. REEVE, *ibid.*, pl. II, figs. 7 a, b.
 — — *zonaria*. REEVE, *ibid.*, pl. III, figs. 9 a, b.
 — — *impudica*. REEVE, *ibid.*, pl. III, fig. 10.
 — — *morphina*. REEVE, *ibid.*, pl. IV, fig. 12.
 — — *formosa*. REEVE, *ibid.*, pl. IV, fig. 14.
 — — *lusoria*. REEVE, *ibid.*, pl. VI, fig. 20.
- 1865 *Venus (Cytherea (Meretrix)) meretrix* Linné. RÖMER, *Monographie Venus* (150), vol. I, pp. 27—29, nr. 1, pl. VIII, figs. 1, 1 a—h.
 — — (*C. (M.) petechialis* Lamarck. RÖMER, *ibid.*, pp. 29—30, nr. 2, pl. IX, figs. 1, 1 a—d.
 — — (— (—)) *lusoria* Chemnitz. RÖMER, *ibid.*, pp. 30—31, nr. 3, pl. XII, figs. 1, 1 a—c; pl. XI, figs. 2, 2 a, 1.
- 1867 *Venus (Meretrix) meretrix*. L. VON SCHRENCK, *Die Mollusken des Amur-Landes und des nord-japanischen Meeres*, p. 545.
- 1868 *Cytherea lusoria* Chemnitz. PFEIFFER, *Veneracea* (132), pp. 13—15, nr. 5, pl. 1, fig. 6.
 — — *meretrix* Linné. PFEIFFER, *ibid.*, pp. 15—17, nr. 6, pl. 3, figs. 4—6, 8, 9.
 — — *impudica* Chemnitz, Römer. PFEIFFER, *ibid.*, p. 17, nr. 7, pl. 3, fig. 7.
 — — *petechialis* Lamarck. PFEIFFER, *ibid.*, pp. 18—19, nr. 8, pl. 4, figs. 1—4.
- 1869 *Meretrix castanea* Lk.. VON FRAUENFELD, *Nicobaren* (55), p. 882.
 — — *impudica* Lk.. VON FRAUENFELD, *ibid.*, p. 882.
 — — *morphina* Lk.. VON FRAUENFELD, *ibid.*, p. 882.
 — — *petechialis* Lk.. VON FRAUENFELD, *ibid.*, p. 882.
- 1869 *Cytherea meretrix*. LISCHKE, *Japan. Meeres-Conch.* (98), vol. I, pp. 122—126.
- 1871 — — LISCHKE, *ibid.*, vol. II, p. 108.
- 1881 *Cytherea meretrix*. D. BRAUNS, *Geology of the environs of Tokio (Memoirs of the Science Department, Univers. Tokio, nr. 4)*, p. 53.

- 1882 *Cytherea (Meretrix) lusoria* Chemnitz. DUNKER, Index Moll. maris Japon. (48), pp. 198—199.
- — *meretrix* Lin. (*Venus*). DUNKER, *ibid.*, p. 199.
- 1885 *Cytherea meretrix* Lam. var.. K. MARTIN, Tiefbohr. Java (115), pp. 215—216, pl. XI, fig. 214.
- 1887 *Cytherea petechialis* Lk.. DAUTZENBERG et D'HAMONVILLE in: Journal de Conchyliologie, vol. XXXV, p. 225.
- 1889 *Meretrix petechialis*, Lamarck, (*Cytherea*). L. MORLET, Cat. coq. Cambodge et Siam (126), p. 169, nr. 60.
- 1890 *Meretrix petechialis* Lk.. CROSSE et FISCHER in: Journal de Conchyliologie, vol. XXXVIII, p. 18.
- 1891 *Meretrix petechialis*. P. FISCHER, Catalogue Indo-Chine (53), p. 232 (reprint, p. 148).
- — *lusoria*. P. FISCHER, *ibid.*
- — *zonaria*. P. FISCHER, *ibid.*, p. 232.
- — *impudica*. P. FISCHER, *ibid.*, p. 232.
- 1895 *Meretrix meretrix*. PILSBRY, Catalogue of the marine mollusks of Japan, p. 126.
- 1897 *Cytherea meretrix* (L.). VON MARTENS, Süß- u. Brackwasser-Moll. Ind. Arch. (109), p. 291.
- 1902 *Cytherea meretrix* L., inclusive of var. *castanea* Lam.. VON MARTENS, Rumphius Gedenkb. (110), p. 125.
- 1905 *Meretrix meretrix* Linné. DAUTZENBERG et H. FISCHER, Tonkin (40), pp. 216—221.
- 1906 *Meretrix meretrix* Linné. DAUTZENBERG et H. FISCHER, Indo-Chine et Yunnan (41), pp. 461—462.
- 1906 *Meretrix impudica* Chemn., vars. *castanea* Lamk. and *morphina* Lamk.. MELVILL and STANDEN, Persian Gulf (124), part II, p. 829.
- — *petechialis* Lamk.. MELVILL and STANDEN, *ibid.*, p. 829 (according to M. and ST. „most probably an extreme form of *impudica*”).

- 1906 *Meretrix zonaria* Lamk.. MELVILL and STANDEN, *ibid.*, p. 829 („also probably a variety of *impudica*”).
- 1906 *Cytherea meretrix* Linné. TOKUNAGA, Fossils from the Environs of Tokyo (215), p. 47, nr. 120, pl. III, figs. 5 a, b.
- 1908 *Meretrix impudica*, Lamk.. NOBRE, Timor (128), p. 230.
- 1909 *Meretrix lusoria* Chemn.. LAMY, Java (89), p. 468.
- 1909 *Cytherea (Meretrix) meretrix* L.. LYNGE, Lamellibr. Siam (99), pp. 226—227.
- 1915 *Cytherea merethrix* (sic!) Lin.. STAUB, Sangkulirangbai (169), p. 126.
- 1916 *Meretrix meretrix* (Lam.). ANNANDALE and KEMP, Mollusca of the Chilka Lake (211), pp. 333, 351.
- 1919 *Meretrix meretrix* Lamk. var.. K. MARTIN, Palaeozoologische Kenntnis v. Java (119), p. 63.
- 1922 *Meretrix meretrix*, (Linné). YOKOYAMA, Upper Musashino of Kazusa and Shimosa (189), p. 146, nr. 229, pl. XI, fig. 4.
- 1923 *Cytherea meretrix* Linné. VAN HEURN, Sumatra's Oostkust (227), pp. 30—31.

East coast of H a l m a h e r a, 1 right valve, belonging to the typical form.

Distribution: East Indian Archipelago: North coast of Ceram, on sandy bottom (RUMPHIUS); Amboina (RUMPHIUS); Timor Laut, Tenimber Is. (RUMPHIUS); Timor (NOBRE); Java (Novara, LAMY); Makassar, Southern Celebes (VON MARTENS); Pare-Pare, north of Makassar, on the shore (Max Weber); Sangkulirang-bay and Balikpapan, E. Borneo, numerous separate valves on the shore (STAUB); Labuan near Borneo; Deli, N. E. Sumatra, in mouths of rivers in the sand (VAN HEURN).

Philippines (Cuming, HIDALGO); Formosa; Loo-Choo (JAY); Western, Central and Northern Japan; Chefoo, Yellow Sea; Shanghai and Hongkong (Novara); mouth of Canton River or Bocca Tigris (JAY); Along-bay, Tongking (Mansuy); Do Son, Tongking, on sand and mud (Blaise); Annam; islands in the Gulf of Siam (L. MORLET, LYNGE); Siam (VON MARTENS); Singapore (Cuming); Salang-island near Malacca; Nicobars (CHEMNITZ); Andamans (DUNKER); outer channel of the Chilka Lake, Bihar and Orissa, India (ANNANDALE and KEMP); Ceylon (CHEMNITZ,

Novara); Panjim, Goa and Ratnagiri (MELVILL and STANDEN); Bombay (ABERCROMBIE); Karachi (MELVILL and STANDEN); Aden.

The locality Mazatlan, W. coast of Mexico (CARPENTER), is without doubt due to erroneous determination.

Fossil in the Upper Musashino (? Upper Pliocene) around Tokyo, Japan.

Two somewhat deviating fossil valves from Java (locality and horizon uncertain) were described by K. MARTIN.

Genus *Lioconcha* Mörch, 1853.

Type: *Venus castrensis* Linné.

286. *Lioconcha castrensis* (Linné).

- 1685 *Pectunculus undatim depictus*. LISTER, *Historia Conchyliorum*, [pl. 262], fig. 98.
- 1705 *Chama optica*, *Perspectiefjes*. RUMPHIUS (151), p. 139, pl. XLIII, fig. K.
- 1757 *Chama Optica Rumphii*. Point de Hongrie. D'ARGENVILLE (4), I, pp. 281, 287, pl. 21, fig. M.
- 1758 *Venus castrensis*. LINNÉ, *Systema Naturae*, edit. X (94), p. 687, nr. 105.
- 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 501, nr. 61.
- 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1132, nr. 129.
- 1778 — — BORN, *Index rerum naturalium Musei Caesarei Vindobonensis*, p. 53.
- 1780 — — BORN, *Testacea* (16), p. 66.
- 1782 *Venus castrensis Linnaei, etc.* (in part). CHEMNITZ, *Conch.-Cab.* (122), vol. VI, pp. 359—364, pl. 35, figs. 367—370 (tantum).
- 1788 *Venus Australis*. CHEMNITZ, *Conch.-Cab.* (122), vol. X, pp. 355—356, pl. 171, fig. 1662.
- 1791 *Venus castrensis*. GMELIN (56), pp. 3273—3274, nr. 20 (exclusive of several references!).
- — *australis*. GMELIN, *ibid.*, p. 3282, nr. 88.
- 1795 *Venus Lorenziana*. CHEMNITZ, *Conch.-Cab.* (122), vol. XI, p. 222, pl. 200, figs. 1961, 1962.

- 1797 *Venus* Tableau encycl. (49 a), pl. 273, figs. 1 a, b
(*Cytherea castrensis* in the Explanation of
plates by BORY DE ST.-VINCENT, p. 153;
1827).
- *Venus* Tableau encycl. (49 a), pl. 273, figs. 5 a, b
(*Cytherea ornata* in the Expl. of plates).
- 1798 *Venus fulminea* Bolten. Museum Boltenianum, p. 181,
nr. 295.
- 1817 *Venus castrensis*. DILLWYN, A descriptive Catalogue of
recent shells, vol. I, p. 183, nr. 58.
- — *Lorenziana*. DILLWYN, *ibid.*, p. 184, nr. 60.
- 1818 *Venus castrensis*. WOOD, Index Testaceologicus, p. 36,
nr. 57, pl. 7, fig. 57.
- 1818 *Cytherea castrensis*. LAMARCK, An. s. vert. (85), vol. V,
p. 568, nr. 31.
- — *ornata*. LAMARCK, *ibid.*, nr. 32.
- 1829 *Venus castrensis*, Linn.. DE BLAINVILLE, Dict. des sc.
naturelles (45), vol. 57, pp. 265—266.
- — *ornata*, Lamk.. DE BLAINVILLE, *ibid.*, p. 266.
- 1830 *Cytherea castrensis* Lamk.. DESHAYES, Encycl. méth.
(49), vol. II, part 2, p. 57, nr. 15.
- 1835 *Cytheraea castrensis* Lamk.. DESHAYES—LAMARCK,
An. s. vert. (86), vol. VI, pp. 308—309,
nr. 31.
- *Cytherea ornata* Lamk.. DESHAYES—LAMARCK, *ibid.*,
p. 309, nr. 32 (= *Cyth. castrensis* var.,
according to DESHAYES).
- 1838 *Circe castrensis*. J. E. GRAY, Catalogue of the species of
the genus *Cytherea* of Lamarck (The Ana-
lyst, VIII), p. 307.
- 1841 *Cytherea castrensis*. REEVE. Conchologia systematica, vol.
I, pl. 71, fig. 2.
- 1843 *Cytherea Castrensis*. HANLEY, An illustr. and descr. Ca-
talogue of recent Bivalve Shells (224),
p. 99.
- — *Ornata*. HANLEY, *ibid.*, p. 100 („probably a
variety of *Castrensis*” according to
HANLEY).
- 1846 *Cytherea castrensis*. CHENU, Illustr. conchyl. (17), pl. 8,
figs. 1—4.
- — *ornata*. CHENU, *ibid.*, pl. 8, fig. 6.

- 1851 *Cytheraea castrensis*, Linnaeus. SOWERBY, Thesaurus (167), vol. II, p. 642, nr. 103 (and vars. *Venus australis* et *Venus Lorenziana*, Chemn.), pl. CXXXIV, figs. 151—154.
- — *ornata*, Lamarck. SOWERBY, *ibid.*, p. 642, nr. 104 (exclusive of var. *C. picta*, Lamarck), pl. CXXXIV, fig. 149.
- 1853 *Circe castrensis*. DESHAYES, Catalogue of the Conchifera in the British Museum (41bis), I, pp. 93—94, nr. 30.
- 1853 *Lioconcha castrensis*. MÖRCH, Catal. Yoldi (125), Fasc. II, p. 26.
- — *fulminea* Bolt., MÖRCH, *ibid.*, p. 26.
- 1855 *Venus castrensis*. HANLEY, Ipsa Linn. Conch. (58), pp. 71, 472.
- 1857 *Venus castrensis* L.. RÖMER, Kritische Unters. Venus (146), p. 46, nr. 20.
- *C. ornata*. RÖMER, *ibid.*, p. 47.
- 1857 *Circe (Lioconcha) castrensis*, Linn., H. and A. ADAMS, Genera (3), vol. II, p. 429.
- 1862 *Circe (Lioconcha) castrensis*, Linné. CHENU, Manuel (19), vol. II, p. 89, fig. 398.
- — (—) *ornata*, Lamarck. CHENU, *ibid.*, p. 89, fig. 400.
- 1862 *Venus (Cytherea (Lioconcha)) castrensis* L., RÖMER, Kritische Übersicht sämtlicher Arten aus der Cythereengruppe *Lioconcha* Mörch (Malakozoologische Blätter, vol. IX (1862)), p. 142, nr. 11.
- 1863 *Circe ornata*. REEVE (145), vol. XIV, *Circe*, pl. VII, figs. 27 a, b.
- — *castrensis*. REEVE, *ibid.*, pl. VII, figs. 28 a, b, c, d.
- 1868 *Venus (Cytherea (Lioconcha)) castrensis* L.. RÖMER, Monographie Venus (150), vol. I, pp. 159—160, nr. 11, pl. XLIV.

- 1868 *Cytherea castrensis* Linné. PFEIFFER, Veneracea (132), pp. 37—38, nr. 24, pl. 2, fig. 3 (= CHEMNITZ, X, fig. 1662); pl. 12, figs. 3—6 (= CHEMNITZ, VI, figs. 367—370); pl. 16, figs. 9, 10 (= CHEMNITZ, XI, figs. 1961, 1962).
- 1870 *Circe (Lioconcha) castrensis*, Linn.. M'ANDREW, Test. Gulf of Suez (100), p. 447.
- 1882 *Lioconcha fulminea* Bolten. DUNKER, Index Moll. maris Japon. (48), p. 202.
- 1884 *Circe (Lioconcha) castrensis*. E. A. SMITH, Alert (160), p. 96, nr. 14.
- 1886 *Lioconcha castrensis*, L.. COOKE, Test. Moll. Gulf of Suez (21), part V, p. 101.
- 1899 *Circe castrensis*, L.. MELVILL and STANDEN, Torres Straits (123), p. 194, nr. 370.
- 1902 *Circe (Lioconcha) castrensis* L. and var. *ornata* Lam.. VON MARTENS, Rumphius Gedenkb. (110), p. 125.
- 1908 *Circe castrensis*, (Lin.). NOBRE, Timor (128), p. 230.
- 1909 *Meretrix (Lioconcha) castrensis* L. subsp. *notabilis* Hidalgo. LAMY, Java (89), p. 468.

East coast of H a l m a h e r a, 1 right valve.

Distribution: East Indian Archipelago: Timor (NOBRE); Larentuka, Flores (VON MARTENS); Java (LAMY).

Torres Straits (MELVILL and STANDEN); Port Denison, Queensland (Alert). — Philippines (Cuming); Japan (DUNKER); China Sea (RÖMER); Nicobars (CHEMNITZ). — Gulf of Suez, rare (M'ANDREW).

287. *Lioconcha ornata* (Dillwyn).

- 1782 *Venus castrensis*, var.. CHEMNITZ, Conch.-Cab. (122), vol. VI, p. 365, pl. 35, figs. 373, 379—381.
- 1797 *Venus* Tableau encycl. (49 a), pl. 273, figs. 2 a, b (*Cytherea picta* in the Explanation of plates by BORY DE ST.-VINCENT, p. 153; 1827).
- 1817 *Venus ornata*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 184, nr. 61.
- 1818 *Cytherea picta*. LAMARCK, An. s. vert. (85), vol. V, p. 569, nr. 33.
- 1830 — — DESHAYES, Encycl. méth. (49), vol. II, part 2, p. 57, nr. 16.
- 1835 — — Lamk., DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, pp. 309—310, nr. 33.

- 1843 *Cytherea Picta*. HANLEY, An illustr. and descr. Catalogue of recent Bivalve Shells (224), p. 100.
- 1846 *Cytherea picta*. CHENU, Illustr. conchyl. (17), pl. 8, figs. 7—14.
- 1851 *Cytherea ornata*, Lamarck, var. *C. picta*, Lamarck. SOWERBY, Thesaurus (167), vol. II, p. 642, nr. 104.
- 1853 *Circe picta*. DESHAYES, Cat. (41bis), I, p. 95, nr. 35.
- 1857 *C. picta*. RÖMER, Kritische Unters. Venus (146), p. 47.
- 1862 *Venus (Cytherea (Lioconcha)) picta* Lam.. RÖMER, Kritische Übersicht sämtlicher Arten aus der Cythereengruppe *Lioconcha* Mörch (Malakozoologische Blätter, vol. IX (1862)), p. 144, nr. 13.
- 1863 *Circe picta*. REEVE (145), vol. XIV, Circe, pl. IX, fig. 42 b.
- 1868 *Venus (Cytherea (Lioconcha)) picta* Lamarck. RÖMER, Monographie Venus (150), vol. I, pp. 164—165, nr. 15, pl. XLV, figs. 3, 3 a—e.
- 1868 *Cytherea picta* Lamarck. PFEIFFER, Veneracea (132), p. 39, nr. 25, pl. 12, figs. 7, 13—15.
- 1880 *Circe (Lioconcha) picta* Lam.. VON MARTENS, Mauritius (105), p. 325.
- 1881 *Cytherea picta* Lam.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 43.
- 1882 *Lioconcha ornata* Dillw.. DUNKER, Index Moll. maris Japon. (48), p. 202.
- 1899 *Lioconcha picta*, Lam.. MELVILL and STANDEN, Torres Straits (123), p. 194, nr. 368.
- 1909 *Meretrix (Lioconcha) picta* Lk.. LAMY, Java (89), p. 468.
- 1909 *Circe (Lioconcha) picta*, Lam.. LYNGE, Lamellibr. Siam (99), pp. 232—233.
- 1910 *Lioconcha picta* Lamarck. DAUTZENBERG, Halmahera (38), p. 3.
Halmahera (recorded by DAUTZENBERG).
Distribution: East Indian Archipelago: Java (LAMY).
Melanesia: Lifu, Loyalty Is.. — Polynesia: Samoa Is.; Funafuti, Ellice Is.. —
Torres Straits (MELVILL and STANDEN).
Philippines; Japan (DUNKER); China; Gulf of Siam, 1—15 fathoms, sand,
mud and gravel (LYNGE); Andamans; Ceylon; Laccadive and Maldive Archip.;
Karachi; Persian Gulf.
Red Sea; Tadjurah Bay; Rodriguez; Mauritius (LIÉNARD, Möblius). — Durban, Natal.
Fossil in the Pleistocene of Billiton (K. MARTIN).
288. *Lioconcha implexa* (Martyn).
- 1726 Landschapijens of Griekze A. Dubbletten. VALENTYN (229), p. 585, fig. 16.
- 1782 *Venus castrensis*, var.. CHEMNITZ, Conch.-Cab. (122), vol. VI, p. 365, pl. 35, figs. 374, 375.
- 1818 *Cytherea tigrina*. LAMARCK, An. s. vert. (85), vol. V, p. 569, nr. 34.
- 1835 — — Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 310, nr. 34.
- 1843-'44 *Cytherea Tigrina*. HANLEY, An illustr. and descr. Catalogue of recent Bivalve Shells (224), p. 100, pl. 15, fig. 13.

- 1851 *Cytheraea tigrina*, Lamarck. SOWERBY, Thesaurus (167), vol. II, p. 643, nr. 107, pl. CXXXV, figs. 155, 156, and ? 157.
- 1853 *Circe tigrina*. DESHAYES, Cat. (41bis), I, pp. 94—95, nr. 32.
- 1853 *Lioconcha implexa*. MÖRCH, Catal. Yoldi (125), Fasc. II, p. 26, nr. 312 (*Cardium implexum* Martyn).
- 1857 *C. tigrina*. RÖMER, Kritische Unters. Venus (146), pp. 47—48.
- 1857 *Circe (Lioconcha) implexa*. H. and A. ADAMS, Genera (3), vol. II, p. 429.
- 1862 *Venus (Cytheraea (Lioconcha)) tigrina* Lam.. RÖMER, Krit. Übers. *Lioconcha* (Malakoz. Blätter, IX (1862)), p. 145, nr. 14.
- 1863 *Circe tigrina*. REEVE (145), vol. XIV, *Circe*, pl. VIII, figs. 32 a—c.
- 1868 *Venus (Cytheraea (Lioconcha)) tigrina* Lamarck. RÖMER, Monographie Venus (150), vol. I, p. 163, nr. 14, pl. XLV, figs. 2, 2 a—b.
- 1868 *Cytheraea tigrina* Lamarck. PFEIFFER, Veneracea (132), p. 40, nr. 26, pl. 12, figs. 8, 9.
- 1869 *Lioconcha tigrina* Lk.. VON FRAUENFELD, Nicobaren (55), pp. 882, 899.
- 1910 — — Lamarck. DAUTZENBERG, Halmahera (38), p. 3.
Halmahera (recorded by DAUTZENBERG).
Distribution: East Indian Archipelago: Java (Novara).
Philippines (Cuming).

Genus *Gafarrarium* Bolten, 1798.

Type: *Venus pectinata* Linné (selected by DALL).

Section *Gafarrarium* s. str.

(= *Paphia* Oken, 1815; non Bolten, 1798;

nec Lamarck, 1801;

Crista Römer, 1857;

Circe (sp.) of many authors).

H. and A. ADAMS applied BOLTEN's name *Gafarrarium* to *Venus fimbriata* L. (type of the genus *Corbis* Cuvier) and to four other so-called species which are now admitted to be merely forms of *V. fimbriata*. In the opinion of A. J. JUKES—BROWNE (69) this species must, therefore, be the genotype of *Gafarrarium*, and *Gafarrarium* should take the place of *Corbis*. However, as the Messrs. ADAMS did not designate a type — the synonymy of a species depending on the personal views of the systematist — Dr. DALL was quite at liberty to select *Venus pectinata* L. as the type for *Gafarrarium*. Consequently I cannot agree with Mr. JUKES—BROWNE in accepting the application of BOLTEN's name *Gafarrarium* by H. and A. ADAMS in preference to that of Dr. DALL¹⁾.

¹⁾ See also: DALL, Some remarks on the nomenclature of the Veneridae (30), p. 349.

289. *Gafrarium (Gafrarium) pectinatum* (Linné).

- A-B** 1685 *Pectunculus ex rufo variegatus, striis crassiusculis dissimilibus exaratus*. LISTER, *Historia Conchyliorum*, [pl. 312], fig. 148; [pl. 313], fig. 149.
- B** 1705 *Testae*, Scherfjes. RUMPHIUS (151), p. 132, nr. IV, pl. XLIII, fig. D.
- A** — ? [*Testa pectinata*, Wilde Scherfjes. RUMPHIUS, *ibid.*, p. 132, nr. V].
- A** 1757 *Chama striis diversimode exaratis*. D' ARGENVILLE (4), part I, pp. 283, 287, pl. 21, fig. P.
- A-B** 1758 *Venus pectinata*. LINNÉ, *Systema Naturae*, edit. X (94), p. 689, nr. 120.
- A-B** 1764 — — LINNÉ, *Mus. Lud. Ulr.* (95), p. 507, nr. 72.
- A-B** 1767 — — LINNÉ, *Syst. Nat.* XII (96), p. 1135, nr. 144.
- B** 1778 *Venus pectinata*. BORN, *Index rerum naturalium Musei Caesarei Vindobonensis*, pp. 61—62.
- B** 1780 — — BORN, *Testacea musei caes. Vindobonensis* (16), p. 74.
- A-B** 1784 *Venus pectinata Linnaei etc.*. CHEMNITZ, *Conch.-Cab.* (122), vol. VII, pp. 28—31, pl. 39, figs. 415—419.
- A-B** 1791 *Venus pectinata*. GMELIN (56), pp. 3285—3286, nr. 78.
- A** 1797 *Venus* Tableau encycl. (49 a), pl. 271, figs. 1 a, b (*Cytherea pectinata* in the Explanation of plates by BORY DE ST.-VINCENT, p. 153; 1827).
- B** — *Venus* Tableau encycl. (49 a), pl. 271, figs. 4 a, b (*Cytherea gibbia* in the Expl. of pl., p. 153).
- B** 1798 *Gafrarium tumidum* Bolten. *Museum Boltenianum*, p. 176, nr. 244.
- — *angulatum* Bolten. *Mus. Bolten.*, p. 177, nr. 245.
- — *depressum* Bolten. *Mus. Bolten.*, p. 177, nr. 246.
- — *cardiodeum* Bolten. *Mus. Bolten.*, p. 177, nr. 247.

- 1798 *Gatrarium costatum* Bolten. Mus. Bolten., p. 177, nr. 248.
 — — *pectinatum*. Mus. Bolten., p. 177, nr. 249.
- A 1809 SAVIGNY, Description de l'Égypte; Histoire Naturelle, Mollusques, pl. VIII, fig. 17.
- B 1817 *Venus pectinata*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 198, nr. 92.
- A — — *discors*. DILLWYN, *ibid.*, p. 199, nr. 93 (in part).
- B 1818 *Venus pectinata*. WOOD, Index Testaceologicus, p. 39, nr. 90, pl. 8, fig. 90.
- A 1818 *Cytherea pectinata*. LAMARCK, An. s. vert. (85), vol. V, p. 577, nr. 63.
- B — — *gibbia*. LAMARCK, *ibid.*, p. 577, nr. 64.
- B — — *ranella*. LAMARCK, *ibid.*, p. 578, nr. 65.
- A 1829 *Venus pectinata*, Linn.. DE BLAINVILLE in: Dict. d. sc. naturelles (45), vol. 57, p. 272.
- B — — *gibbia*, de Lamk.. DE BLAINVILLE, *ibid.*, p. 272.
- B — — *ranella*, id.. DE BLAINVILLE, *ibid.*, p. 272.
- A 1830 *Cytherea pectinata* Lamk.. DESHAYES, Encycl. méth. (49), vol. II, part 2, p. 59, nr. 23.
- B — — *gibbia* Lamk.. DESHAYES, *ibid.*, p. 59, nr. 24.
- B 1831 *Cytherea gibbia*. SOWERBY, Genera (168), *Cytherea*, fig. 5.
- A 1835 *Cytherea pectinata* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, pp. 322—323, nr. 63.
- B — — *gibbia* Lamk.. DESHAYES—LAMARCK, *ibid.*, pp. 323—324, nr. 64.
- B — — *ranella* Lamk.. DESHAYES—LAMARCK, *ibid.*, p. 324, nr. 65.
- A 1835 *Cytherea pectinata*, var. *immaculata*. SOWERBY in: Proceedings of the Zoological Society of London, 1835, p. 47.
- A 1839 *Venus (Cytherea) pectinata*. ANTON, Verzeichniss der Conchylien welche sich in der Sammlung von H. E. Anton befinden, p. 8, nr. 276.
- B — — (—) *gibbia*. ANTON, *ibid.*, p. 8, nr. 277.

- B 1841** *Cytherea gibbia* Lk.. REEVE, *Conchologia systematica*, vol. I, p. 94, pl. LXX, fig. 5.
- A 1843** *Cytherea Pectinata*. HANLEY, *An illustr. and descr. Catalogue of recent Bivalve Shells* (224), pp. 107—108.
- B — —** *Gibbia*. HANLEY, *ibid.*, p. 108.
- B — —** *Ranella*. HANLEY, *ibid.*, p. 108.
- A 1846** *Cytherea Savignyi*, Jonas. JONAS, *Moll. der Descript. de l'Egypte* (196), pp. 65—66, (for SAVIGNY, pl. VIII, fig. 17).
- C — —** *Menkei*, Jonas. JONAS, *ibid.*, pp. 66—67.
- A 1847** *Cytherea pectinata*. CHENU, *Illustr. conchyl.* (17), pl. 12, fig. 5.
- B — —** *gibbia* Lk.. CHENU, *ibid.*, pl. 12, figs. 6, 6 a, 6 b, 7, 7 a, 7 b, 8, 8 a, 8 b.
- B — —** *ranella* Lk.. CHENU, *ibid.*, pl. 12, figs. 9, 9 a, 9 b.
- A 1848** *Cytherea Savignyi*. KRAUSS, *Die Südafrikanischen Mollusken*, p. 9.
- B 1850** *Cytherea (Circe) pectinata* L. (*C. gibbia* Lam.). MÖRCH, *Catalogus Kierulf* (124bis), p. 23, nr. 554.
- A — —** (—) *Savignyi* Jonas (*C. pectinata* Lam. non L.; *V. discors* Dilw. non Gm.). MÖRCH, *ibid.*, p. 23, nr. 555.
- A 1851** *Circe pectinata*. SOWERBY, *Thesaurus* (167), vol. II, p. 649, nr. 1, pl. CXXXVII, figs. 1—3.
- B — —** *gibbia*. SOWERBY, *ibid.*, pp. 649—650, nr. 2, pl. CXXXVII, figs. 4—7.
- A 1853** *Circe pectinata*. DESHAYES, *Catalogue of the Conchifera in the British Museum* (41bis), part I, p. 90, nr. 21.
- B — —** *Gibbia*. DESHAYES, *ibid.*, pp. 90—91, nr. 22.
- B 1853** *Circe pectinata*. MÖRCH, *Catal. Yoldi* (125), Fasc. II, p. 25.
- A — —** *Savignyi*. MÖRCH, *ibid.*, p. 26.
- A 1855** *Venus pectinata*. HANLEY, *Ipsa Linn. Conch.* (58), pp. 77—78, 473—474.

- B 1857 *Circe gibbia*. H. and A. ADAMS, Genera (3), vol. II, p. 429.
- A — — *pectinata*. H. and A. ADAMS, *ibid.*, p. 429.
- A 1857 *V. pectinata* L.. RÖMER, Krit. Unters. Venus (146), pp. 94—96, nr. 78.
- B — *Cyth. gibbia* Lam.. RÖMER, *ibid.*, p. 96.
- B — *Cyth. ranella* Lam.. RÖMER, *ibid.*, p. 97.
- A 1859 *Circe pectinata*. P. FISCHER, Arch. Calédonien (232), p. 337.
- B — — *gibbia*. P. FISCHER, *ibid.*, p. 337.
- A 1862 *Venus (Cytherea (Crista)) pectinata* L.. RÖMER, Uebersicht Crista (147), pp. 16—17, nr. 1.
- B — — (— (—)) *gibbia* Lam.. RÖMER, *ibid.*, pp. 17—18, nr. 2.
- C — — (— (—)) *Menkei* Jonas, RÖMER, *ibid.*, pp. 19—20, nr. 5.
- A 1863 *Circe pectinata*. REEVE (145), vol. XIV, *Circe*, pl. V, figs. 20 a, b, c.
- B-C 1863 *Circe gibba* (sic). REEVE, *ibid.*, pl. V, figs. 21 a, b, c, d.
- A 1865 *Cytherea pectinata*, Linné. VAILLANT, Suez (228), p. 119, nr. 69.
- A 1868 *Cytherea pectinata* Linné. PFEIFFER, Veneracea (132), pp. 50—51, nr. 35, pl. 18, figs. 10, 11.
- B — — *gibbia* Lamarck. PFEIFFER, *ibid.*, pp. 51—53, nr. 36, pl. 18, figs. 7—9.
- C 1869 — *Menkei* Jonas. PFEIFFER, *ibid.*, p. 58, nr. 41, pl. 22, fig. 3.
- A 1869 *Cytherea (Crista) Savignyi*, Jonas. ISSEL, Mar Rosso (65), p. 70, nr. 67.
- B 1869 *Circe gibba* (sic) Lk.. VON FRAUENFELD, Nicobaren (55), p. 882.
- B 1869 *Circe gibbia*, Lam. sp.. VON MARTENS, v. d. Decken's Reisen (103), p. 66.
- A 1869 *Venus (Cytherea (Crista)) pectinata* L.. RÖMER, Monogr. Venus (150), vol. I, pp. 174—176, nr. 1, pl. XLVII, figs. 1, 1 a—d.
- B — — (— (—)) *gibbia* Lamarck. RÖMER, *ibid.*, pp. 176—177, nr. 2, pl. XLVII, figs. 2, 2 a—e.

- C 1869 *Venus (Cytherea (Crista)) Menkei* Jonas. RÖMER, *ibid.*, pp. 177—178, nr. 3, pl. XLVIII, figs. 1, 1 a—b.
- A 1870 *Circe Savignyi*, Jonas, = *pectinata*, var., Lam.. M'ANDREW, *Test. Gulf of Suez* (100), p. 447.
- B 1874 *Circe gibbia* Lamarck. TAPPARONE—CANEFRI, *Magenta* (173), p. 237.
- A 1880 *Circe (Crista) pectinata* Linne. VON MARTENS, *Mauritius* (105), p. 325.
- B — — (—) *gibbia* Lam.. VON MARTENS, *ibid.*, p. 325.
- A 1884 *Circe (Crista) pectinata*, Linné. E. A. SMITH, *Alert* (160), p. 96, nr. 12; p. 506, nr. 2.
- C — — (—) *gibbia*, var.. E. A. SMITH, *ibid.*, p. 506, nr. 3.
- B 1885 *Circe gibbia* (Lamarck). E. A. SMITH, *Challenger Lamellibr.* (161), p. 143.
- B 1885 *Cytherea (Circe) gibba* (sic) Lam.. K. MARTIN, *Tiefbohr. Java* (115), p. 213, nr. 258.
- A 1886 *Circe Savignyi*, Jonas [= *pectinata*, Lam.]. COOKE, *Test. moll. Gulf of Suez* (21), part V, p. 100.
- B 1887 *Circe (Crista) gibba* (sic), Lam.. VON MARTENS, *Mergui* (107), p. 211, nr. 346.
- A 1888 *Crista pectinata* (sic). JOUSSEAUME, *Mer Rouge* (68), p. 208, nr. 149.
- B 1889 *Circe gibba*, Lamarck (*Cytherea*). L. MORLET, *Cat. coq. Cambodge et Siam* (126), p. 169, nr. 63.
- B 1890 *Circe (Crista) gibba* (sic) (Lmk.). O. BOETTGER, *Ad. Strubell's Konch. aus Java I* (12), p. 170, nr. 26.
- A 1891 — (—) *pectinata* (L.). O. BOETTGER, *Ad. Strubell's Konch. aus Java II* (13), p. 252, nr. 37.
- A 1891 *Circe (Crista) pectinata* L.. P. FISCHER, *Catal. Indo-Chine* (53), p. 231.
- B — — (—) *gibbia* Lam.. P. FISCHER, *ibid.*, p. 231.
- A 1893 *Circe (Crista) pectinata* Linné. DAUTZENBERG, *Séchelles* (32), p. 84.

- C** 1893 *Circe (Crista) Menkei* Jonas. DAUTZENBERG, *ibid.*, p. 84.
- B** 1897 *Circe gibbia* (Lam.). VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 291.
- A** 1899 *Circe pectinata*, L. MELVILL and STANDEN, Torres Straits (123), p. 194, nr. 371.
- A** 1899 *Crista pectinata*, Linné. DAUTZENBERG, Sumatra (34), p. 4.
- A** 1900 *Circe (Crista) pectinata*, Linnaeus. BULLEN NEWTON, Raised Beach Deposits Red Sea (127), p. 555, pl. XXI, fig. 3.
- A** 1901 *Crista pectinata* (L.). STURANY, Lamellibr. d. Rothen Meeres (170), pp. 280, 293, nr. 39.
- B** 1902 *Circe (Crista) gibbia* Lam.. VON MARTENS, Rumphius Gedenkb. (110), p. 125.
- A** — — (—) *pectinata* L.. VON MARTENS, *ibid.*, p. 125.
- A** 1903 *Crista pectinata*, Linné. HIDALGO, Fauna malacol. de l. Islas Filipinas, II, p. 228, nr. 335.
- B** — — *gibbia*, Lamarck. HIDALGO, *ibid.*, p. 231, nr. 336.
- B** 1905 *Crista gibbia* Lamarck. DAUTZENBERG et H. FISCHER, Tonkin (40), pp. 213—215.
- A** 1906 *Crista pectinata* (L.). MELVILL and STANDEN, Persian Gulf (124), part II, p. 831.
- A** 1908 *Circe pectinata*, (Lin.). NOBRE, Timor (128), p. 230.
- B** 1909 *Circe (Crista) gibbia*, Lam.. LYNGE, Lamellibr. Siam (99), p. 234.
- A** — — (—) *pectinata*, L.. LYNGE, *ibid.*, pp. 234—235.
- B** 1915 *Crista gibbea* (sic) Lk.. STAUB, Sangkulirangbai (169), pp. 126, 130.
- B** 1919 *Circe gibba* Lamk.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 64, 140, 141, 146.
- B** 1920 *Circe (Crista) gibba* Lam.. TESCH, Timor (175), II, p. 102, nr. 220, pl. CXXXIX, figs. 267 a, b.
- A** 1923 *Crista pectinata* L.. HENRICH, Sinaihalbinsel (60), p. 72.

N B.: References for the typical *pectinatum* are indicated by A, those for the form *gibbia* Lamarck by B, those for the form *menkei* Jonas by C.

East coast of Halmahera, 1 right valve, belonging to the form *gibbia* Lamarck.

Specimens of the form *gibbia* were collected by VON MARTENS at Halmahera and at Mareh-island near Tidore.

Distribution: East Indian Archipelago: Wahai, N. coast of Cèram (VON MARTENS); Amboina (common, RUMPHIUS; VON MARTENS); New Guinea; Timor, common (NOBRE); Adonara (VON MARTENS); Batavia, Java (Magenta); Edam-island and Pulu Puteh, north of Batavia (Strubell); Makassar, Southern Celebes (VON MARTENS); Pare-Pare, north of Makassar, on the shore (Max Weber); Sangkulirang-bay, E. Borneo, on the shore (STAUB); Benkulen, W. coast of Sumatra (VON MARTENS); between Indrapura and Padang, W. coast of Sumatra (Weyers); Padang (O. BOETTGER).

Melanesia: New Caledonia (P. FISCHER); Viti Is.. — Micronesia: Gilbert Is.; Mariana Is.. — Polynesia: Funafuti, Ellice Is.; Samoa; Flint-island north of Society Is. (PILSBRY); Paumotu; Lord Hood's Island or Marutea, Paumotu (SOWERBY). — Torres Straits (Alert, MELVILL and STANDEN); Arafura Sea, south of New Guinea, in 28 fathoms, green mud (Challenger); Port Denison, Northern Queensland.

Philippines (Cuming); Formosa; Loo Choo Is.; Japan; Shanghai and Hongkong (Novara); Along-bay, Tongking (Blaise); Pulo Kondor near Lower Cochin China; islands in the Gulf of Siam (L. MORLET; LYNGE, at 1 fathom, on old coral blocks); Singapore (VON MARTENS); Mergui-archipelago (Anderson); Nicobars (CHEMNITZ, Novara); Andamans; Madras; Tranquebar, Coromandel Coast (CHEMNITZ); Ceylon; Gulf of Manaar; Persian Gulf, generally distributed, at about 7 fathoms, rock and sand (MELVILL and STANDEN).

Aden (E. A. SMITH); Perim-island, Strait of Bab-el-Mandeb (Pola); Kamaran-island, Southern Red Sea (Faurot); Red Sea and Gulf of Akabah (Pola); Gulf of Suez (M'ANDREW, „low water”; Pola; HENRICH); Suez (VAILLANT); Suez Canal: Bitter Lake and Ismaila (Pola). — Seychelles and Amirantes, in holes in the sand and mud (DUFO); Seychelles (von der Decken, Möbius, Alert, DAUTZENBERG); Amirantes (Alert); Mauritius (CHEMNITZ, LIÉNARD); Réunion (SGANZIN); St. Mary-island near Madagascar, in the sand (SGANZIN); Querimba Is.. — Natal coast; Port Elizabeth, Cape Province; Cape of Good Hope.

Fossil occurrence: Pliocene of Timor (K. MARTIN, TESCH). — Pleistocene deposits near Grissee, Resid. Surabaya, Pliocene of Sondé, Resid. Madiun, and Lower Miocene of Resid. Rembang, Java (K. MARTIN).

Raised beaches of the Red Sea (ISSEL); pleistocene raised beaches of the Gulf of Suez (BULLEN NEWTON).

The forms distinguished as *C. pectinata* and *gibbia* by LAMARCK have already been united by some authors. *Gibbia* is a nodulous swollen-valved shell, whilst *pectinata* is much flatter and has the nodules hardly developed; with a series of specimens, however, it is possible to link up the two extremes. The following measurements may prove that *gibbia* is only a form of *pectinata*.

	Long.	Alt.	Crass.	Alt.	Crass.
	in millimetres:			in per cent. of the length:	
<i>Pectinata</i> . RÖMER, Monographie Venus:	39	29	16	74.4	41
" Banjuwangi, Java:	30.5	24	2 × 6.5	78.7	42.6
" Locality unknown:	28	22	12.5	78.6	44.6
" " "	35	28	17	80	48.6
" Island Edam near Batavia; „durch fast abnorme Bau- chigkeit ausgezeichnet“ (O. BOETTGER (13)):				79	50
<i>Gibbia</i> . Balong, Japara, Java:	25	22	2 × 6.75	88	54
" Locality unknown:	36.5	28	20	76.7	54.8
" Balong, Japara, Java:	31	28	2 × 8.75	90.3	56.5
" Halmahera:	42	32.5	2 × 12	77.4	57
" Locality unknown:	33	24	19.5	72.7	59.1
" Balong, Japara, Java:	35	30	2 × 10.5	85.7	60
" RÖMER, Monographie:	58	45	35	77.6	60.3
Young specimen (aff. form <i>pectinata</i>):	24	21.5	10.5	89.6	43.7

Young specimens of „*gibbia*“ of about the same size and proportional altitude have a crassitude varying from 54—44 per cent. of the length.

Genus *Paphia* Bolten, 1798.

Type: *Paphia ala-papilionis* Bolten.

Subgenus *Tapes* Megerle von Mühlfeldt, 1811.

Type: *Venus literata* Linné.

Section *Tapes* s. str.

(= *Parembola* Römer, 1857).

290. *Paphia (Tapes) literata* (Linné).

1685 *Tellina magna lutescens tenuiter fasciata, undatim depicta*. LISTER, *Historia Conchyliorum*, [pl. 402], fig. 246.

- 1705 *Chama litterata oblonga*. Letterschulpen. RUMPHIUS (151), p. 139, pl. XLII, fig. B.
- 1726 Strik-Dubplet. VALENTYN (229), p. 585, figs. 6, 13.
- 1757 *Chama litterata*, l'Écriture Arabique ou Chinoise. D'ARGENVILLE (4), part I, pp. 281, 286, pl. 21, fig. A.
- 1758 *Venus litterata*. LINNÉ, Syst. Nat. X (94), p. 689, nr. 124.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 508, nr. 75.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1135, nr. 147.
- 1778 — — BORN, Index rerum naturalium Musei Caes. Vindobonensis, p. 62.
- 1780 — — BORN, Testacea Mus. Caes. Vind. (16), p. 74.
- 1784 *Venus litterata Linnaei, etc.*. CHEMNITZ, Conch.-Cab. (122), vol. VII, pp. 37—41, pl. 41, figs. 432—434.
- *Venus nocturna, etc.*. CHEMNITZ, *ibid.*, pp. 41—42, pl. 41, fig. 435.
- 1791 *Venus litterata*. GMELIN (56), p. 3293, nr. 132, and var. β (*Venus litterata nebulosa*).
- 1797 *Venus* Tableau encycl. (49 a), pl. 280, figs. 4 a, b; pl. 281, fig. 1 (*Venus litterata* in the Explanation of plates by BORY DE ST.-VINCENT, p. 154; 1827).
- 1798 *Paphia litterata* Bolten. Museum Boltenianum, p. 176, nr. 239.
- — *nocturna* Bolten. Museum Bolt., p. 176, nr. 240.
- 1817 *Venus litterata*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 203, nr. 103 (exclusive of vars. C, D).
- 1818 — — WOOD, Index Testaceologicus, p. 39, nr. 101, pl. 8, fig. 101.
- 1818 *Venus litterata*. LAMARCK, An. s. vert. (85), vol. V, p. 596, nr. 40.
- 1826 *Pullastra litterata*. SOWERBY, Genera (168), part 28, Pullastra, fig. 2.
- 1832 *Venus litterata* Lamk.. DESHAYES, Encycl. méth. (49), vol. III, p. 1119, nr. 19.
- 1835 — — Lin.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, pp. 353—354, nr. 40.
- 1843 *Venus Litterata*. HANLEY, An illustrated and descr. Catalogue of recent Bivalve Shells (224), p. 121.
- 1852 *Tapes litterata*. SOWERBY, Thesaurus (167), vol. II, p. 684, nr. 18 (exclusive of var.: *Venus punctata*, Chemn., *V. punctifera*, Lamarck), pl. CXLVII, figs. 43, 45, 48.
- 1853 *Tapes litterata*. DESHAYES, Cat. (41bis), I, pp. 164—165, nr. 15.
- 1855 *Venus litterata*. HANLEY, Ipsa Linn. Conch. (58), p. 80.
- 1857 *V. litterata* L.. RÖMER, Kritische Unters. Venus (146), pp. 120—122, nr. 132.
- 1862 *Tapes litterata*, Linné. CHENU, Manuel (19), vol. II, p. 93, figs. 415—417.
- 1863 *Venus (Tapes (Parembola)) litterata* L.. RÖMER, Uebersicht Tapes (147 bis), pp. 30—31, nr. 18.
- 1864 *Tapes litterata*. REEVE (145), vol. XIV, Tapes, pl. I, figs. 2 a, 2 c.
- 1869 *Venus litterata* Linné. PFEIFFER, Veneracea (132), pp. 157—158, nr. 26, pl. 14, figs. 1—4.

- 1870 *Venus (Parembola) litterata* L., RÖMER, Monographie Venus (150), vol. II, pp. 38—40, nr. 19, pl. XII, figs. 1, 1 a—d.
- 1880 *Tapes literatus* Linne. VON MARTENS, Mauritius (105), p. 326.
- 1881 *Tapes litterata* Lin.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 44.
- 1887 *Tapes literatus*, L., var. *nocturnus*, Chemnitz. VON MARTENS, Mergui (107), p. 213, nr. 364.
- 1899 *Tapes (Parembola) litterata*, L. MELVILL and STANDEN, Torres Straits (123), p. 196, nr. 389.
- 1902 *Tapes literatus* L., and var. *nocturna* Chemn., VON MARTENS, Rumphius Gedenkb. (110), p. 125.
- 1909 *Tapes litteratus* L., and var. *nocturnus* Chemn., LAMY, Java (89), p. 468.
- 1910 *Tapes litteratus* Linné. DAUTZENBERG, Halmahera (38), p. 3.
- 1915 *Tapes litterata* Lin.. STAUB, Sangkulirangbai (169), p. 130.

Halmahera [recorded by DAUTZENBERG].

Distribution: East Indian Archipelago: Kupang, Timor (VON MARTENS); Flores (Dunker Coll.); Java (Dunker Coll., LAMY); Pulu Rending, Sangkulirang-bay, E. Borneo, sandy beach (STAUB).

New Holland; Torres Straits (MELVILL and STANDEN). — Art Island near New Caledonia (Montrouzier). — Philippines; Cochin China; Siam; Mergui-archipelago (Anderson); Nicobars (CHEMNITZ); Tranquebar, Coromandel Coast.

Mauritius (LIÉNARD).

Fossil in the Pleistocene of Billiton (K. MARTIN).

FAM. TELLINIDAE.

Genus *Tellina* Linné, 1758.

Type: *Tellina virgata* Linné, indicated by LAMARCK, 1799.

Subgenus *Tellina* s. str.

(= *Tellinella* Gray, 1852;

Eutellina P. Fischer, 1887).

291. *Tellina (Tellina) virgata* Linné.

- 1705 *Tellina virgata*, Sonnestraalen. RUMPHIUS (151), pp. 147—148, pl. XLV, fig. H.
- 1758 — — LINNÉ, Systema Naturae, edit. X (94), p. 674, nr. 35.
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 477, nr. 21.
- 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1116, nr. 46.
- 1782 *Tellina Virgata Linnaei etc.* (in part). CHEMNITZ, Conch.-Cab. (122), vol. VI, pp. 86—88, pl. 8, figs. 67, 68, 66 (tantum, not figs. 69—72).
- 1791 *Tellina virgata*. GMELIN (56), p. 3229, nr. 3 (in part).

- 1798 *Tellina* LAMARCK, Tableau encycl. (49 a), pl. 288, figs. 2, 4
 (*Tellina virgata* in the Explanation of plates by BORY
 DE ST.-VINCENT, p. 154; 1827).
- 1815 *Tellina virgata*. WOOD, General Conchology, pl. 35, figs. 2, 3; pl. 36,
 fig. 2.
- 1817 — — DILLWYN, A descriptive Catalogue of recent shells,
 vol. I, p. 74, nr. 5.
- — *marginalis*. DILLWYN, *ibid.*, p. 74.
- 1818 *Tellina virgata*. WOOD, Index Testaceologicus, p. 16, nr. 3, pl. 3, fig. 3.
- 1818 *Tellina virgata*. LAMARCK, An. s. vert. (85), vol. V, p. 521, nr. 5
 (exclusive of the reference to CHEMNITZ, figs. 69—71).
- 1828 *Tellina virgata*, Linn.. DE BLAINVILLE in Dict. d. Sciences nat. (45),
 vol. 52, p. 531.
- 1832 *Tellina virgata*. DESHAYES, Encycl. méth. (49), vol. III, pp. 1008—
 1009, nr. 4.
- 1835 *Tellina virgata* Lin.. DESHAYES—LAMARCK, An. s. vert. (86), vol.
 VI, p. 189, nr. 5.
- 1843 *Tellina Virgata*, and ? var.: *T. Marginalis*. HANLEY, An illustrated and
 descr. Catalogue of recent Bivalve Shells (224), p. 61.
- 1844 *Tellina jubar*. HANLEY in: Proceedings of the Zoological Society of
 London, 1844, p. 60.
- 1846 *Tellina virgata*. HANLEY in SOWERBY, Thesaurus (167), vol. I, p. 228,
 nr. 12, pl. LXIII, figs. 204, 212.
- — *jubar*. HANLEY, *ibid.*, p. 229, nr. 13, pl. LXIII, fig. 214.
- — *marginalis*. HANLEY, *ibid.*, p. 229, nr. 14, pl. LXIII, fig. 216.
- 1855 *Tellina virgata*. HANLEY, Ipsa Linn. Conch. (58), pp. 33, 462.
- 1866 *Tellina virgata*. SOWERBY in REEVE (145), vol. XVII, *Tellina*, pl.
 XIII, figs. 59 a, b.
- 1866-'67 *Tellina Jubar*. SOWERBY in REEVE, *ibid.*, pl. XI, fig. 48; pl. XIX,
 fig. 48 b.
- 1867 *Tellina marginalis*. SOWERBY in REEVE, *ibid.*, pl. XIX, fig. 98.
- 1869 *Tellinella virgata* L.. VON FRAUENFELD, Nicobaren (55), p. 880.
- — *jubar* Hnl.. VON FRAUENFELD, *ibid.*, pp. 880, 898.
- 1869 *Tellina virgata*, L.. VON MARTENS, v. d. Decken's Reisen (103), p. 65.
- 1870 *Tellina (Tellinella) virgata* L. and vars. α (*T. Jubar* Hanley) and β
 (*T. marginalis* Hanley). RÖMER, Tellinidae
 (149), pp. 16—19, nr. 8, pl. 2, figs. 8, 9, 7
 (= CHEMNITZ, figs. 67, 68, 66); pl. 7, figs.
 1—5 (fig. 3 = *T. jubar*; figs. 4—5 = *T. mar-*
ginalis).
- 1878 *Tellina (Tellinella) virgata*, Linné. V. BERTIN, Révis. Tellinidés (7),
 pp. 231—232, nr. 5.
- — (—) *marginalis*, Hanley. V. BERTIN, *ibid.*, p. 232, nr. 6.
- — (—) *jubar*, Hanley. V. BERTIN, *ibid.*, p. 232, nr. 7.
- 1880 *Tellina (Tellinella) virgata* Linne. VON MARTENS, Mauritius (105),
 p. 329.

- 1881 *Tellina virgata* Lin.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 46.
- 1899 *Tellina (Tellinella) virgata*, L., MELVILL and STANDEN, Torres Straits (123), p. 200, nr. 432.
- 1901 *Tellina virgata* L.. STURANY, Lamellibr. d. Rothen Meeres (170), pp. 278, 292, nr. 24.
- 1902 *Tellina virgata* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 127.
- 1906 *Tellina (Tellinella) virgata* L. var. *jubar* Hanl. (sp.). MELVILL and STANDEN, Persian Gulf (124), part II, p. 819.
- 1908 *Tellina virgata*, Lin.. NOBRE, Timor (128), p. 229.
- 1909 — — L.. LAMY, Java (89), p. 469.
- 1910 — — Linné, DAUTZENBERG, Halmahera (38), p. 3.
- 1915 — — Lin.. STAUB, Sangkulirangbai (169), p. 126.

Halmahera (recorded by DAUTZENBERG).

Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago (on the shores): Amboina and Uliasser Is., numerous on the shores (RUMPHIUS); Amboina (VON MARTENS); Timor, common (Museum Paris, NOBRE); Flores (VON MARTENS); Java (Novara, VON MARTENS, LAMY); Sangkulirang-bay, E. Borneo, on the shore (STAUB).

New Caledonia (Mus. Paris); Tahiti (Novara). — Torres Straits (MELVILL and STANDEN); Sharks Bay, Western Australia (Mus. Paris); islands St. Pierre and St. François, S. coast of Australia (Peron et Lesueur).

Singapore (Mus. Paris, F. JAGOR); Tranquebar, Coromandel Coast and Ceylon (CHÉMNITZ); Persian Gulf, at low tide (MELVILL and STANDEN).

Gulf of Aden; Assab, Southern Red Sea (CARAMAGNA); Northern Red Sea and Gulf of Akabah (Pola); Zanzibar and Seychelles (von der Decken, Mus. Paris); Mauritius (Möbius); Nossi-Bé near Madagascar (Mus. Paris).

Fossil in the Pleistocene of Billiton (K. MARTIN).

292. *Tellina (Tellina) rufa* Deshayes.

- 1854 *Tellina rufa*, Desh., DESHAYES, Descript. new shells from the collection of Cuming (42), p. 367, nr. 226.
- 1869 *Tellina rufa*. SOWERBY in REEVE (145), vol. XVII, *Tellina*, pl. LVII, fig. 337.
- 1878 *Tellina (Tellinella) rufa*, Deshayes. V. BERTIN, Révis. Tellinidés (7), p. 234, nr. 10.

Obi Major, 1 specimen, yellowish with pinkish brown rays.

My specimen agrees in all respects with a specimen without locality in the Museum d'Histoire naturelle at Paris (purchased from SOWERBY, 1878).

Measurements in mm. of the specimen from Obi Major: long.: 34, alt.: 19.1, crass.: 8.2.

Distribution: As far as I know, the habitat of this species was not known till now.

The present species, like *T. staurella* Lamarck and its variety *T. incerta* Deshayes, has a smooth area before the posterior canal in the left valve. *Tellina rufa* is, however, easily distinguished from *T. staurella* by its more elongated and much flatter form.

Subgenus *Arcopagia* Leach, 1827

(= *Cydidippe* Leach, 1852).

Type: *Tellina crassa* Pennant.

Section *Quadrans* V. Bertin, 1878.

Type: *Tellina gargadia* Linné.

293. *Tellina* (*Quadrans*) *gargadia* Linné.

- 1705 *Remies gargadja*. RUMPHIUS (151), p. 140, pl. XLII, fig. N.
 1758 *Tellina gargadia*. LINNÉ, Syst. Nat. X (94), p. 674, nr. 33.
 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 476, nr. 19.
 1767 — — LINNÉ, Syst. Nat. XII (96), p. 1116, nr. 44.
 1782 — — CHEMNITZ, Conch.-Cab. (122), vol. VI, p. 83, pl. 8, figs. 63, 64.
 1791 — — GMELIN (56), pp. 3228—3229, nr. 1.
 1798 *Tellina* LAMARCK, Tableau encycl. (49 a), pl. 287, fig. 2 [*Tellina gargadia* in the Explanation of plates by BORY DE ST.-VINCENT, p. 154; 1827].
 1817 *Tellina gargadia*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 72, nr. 1.
 1818 — — WOOD, Index Testaceologicus, pl. 3, fig. 1.
 1818 — — LAMARCK, An. s. vert. (85), vol. V, p. 530, nr. 40.
 1835 — — Lin. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 203, nr. 40.
 1843 *Tellina Gargadia*. HANLEY, An illustrated and descriptive Catalogue of recent Bivalve Shells (224), p. 69.
 1844 *Tellina inaequalis*. HANLEY in: Proceedings of the Zoological Society of London, 1844, p. 71.
 1846 *Tellina gargadia*. HANLEY in SOWERBY, Thesaurus (167), vol. I, pp. 263—264, nr. 76, pl. LXI, fig. 156; pl. LXII, fig. 181.
 — — *inaequalis*. HANLEY, *ibid.*, pp. 278—279, nr. 104, pl. LVII, fig. 44.
 1866 *Tellina gargadia*. SOWERBY in REEVE (145), vol. XVII, *Tellina*, pl. XVII, figs. 84 a, b.
 1871 *Tellina* (*Tellinella*) *Gargadia* L. RÖMER, *Tellinidae* (149), pp. 38—39, nr. 21, pl. 2, figs. 2—4; pl. 11, figs. 8—10.
 — — (*Angulus*) *inaequalis* Hanley. RÖMER, *ibid.*, p. 160.
 1878 *Tellina* (*Quadrans*) *gargadia*, Linné. V. BERTIN, *Révis. Tellinidés* (7), p. 266, nr. 87.
 — — (—) *inaequalis*, Hanley. V. BERTIN, *ibid.*, pp. 266—267, nr. 88.

- 1902 *Tellina gargadia* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 126
 1909 *Tellina (Quadrans) gargadia* L.. LYNGE, Lamellibr. Siam (99), p. 196.

Bachan (collected by VON MARTENS).

Distribution: New Caledonia; Pelew Is.. — Mast Head Reef, Queensland. Philippines (Cuming); Gulf of Siam, 1—5 fathoms, sandy bottom (LYNGE); Nicobars; Ceylon (HANLEY). Zanzibar; Seychelles.

Genus *Macoma* Leach, 1819

(= *Macroma* Gray, 1825; err. typ. for *Macoma* Leach).

Type: *Macoma tenera* Leach (= *Tellina calcarea* Gmelin).

294. *Macoma moluccensis* (von Martens).

- 1865 *Tellina Moluccensis*. VON MARTENS, Descriptions of new species of shells (213), p. 430, nr. 5.
 1872 *Tellina (Metis) Moluccensis* v. Martens. RÖMER, Tellinidae (149), pp. 213—214, nr. 129, pl. 41, figs. 4—6.
 1878 *Metis moluccensis*, Martens, sp.. V. BERTIN, Révis. Tellinidés (7), p. 332, nr. 13.
 1909 *Tellina (Macoma) Moluccensis*, Mart.. LYNGE, Lamellibr. Siam (99), p. 208.

Bachan (VON MARTENS).

Distribution: Gulf of Siam (LYNGE).

FAM. GARIDAE

(= *Psammobiidae*).

Genus *Hiatula* Modeer, 1793;

non Lacépède, 1800 (*Pisces*); nec Swainson, Zool. Illustr., 1831 (*Olividae*);

(= *Aulus* Oken, 1815, type: *S. diphos* L., indicated by DALL (27), p. 956; not of Oken, 1835;

= *Soletellina* de Blainville, 1824;

Solenotellina (emend. pro *Soletellina*) Agassiz, 1847).

Type: *Solen diphos* Linné.

Section *Hiatula* s. str..

295 *Hiatula (Hiatula) atrata* ((Deshayes MS.) Reeve).

- 1857 *Soletellina atrata*. REEVE (145), vol. X, *Soletellina*, pl. III, fig. 14.
 1880 *Hiatula atrata*, Deshayes sp.. V. BERTIN, Revis. Garidées (8), pp. 89—90, nr. 16.
 1882 *Solenotellina atrata* Desh.. DUNKER, Index Moll. maris Japon. (48), p. 188.

1897 *Soletellina atrata* Desh.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 233, nr. 3.

Bachan (collected by VON MARTENS).

Distribution: East Indian Archipelago: Amboina (Dunker Collection). Philippines (Cuming); Tokyo, Japan (DUNKER).

Genus *Psammotaea* Lamarck, 1818

(= *Capsella* Deshayes, 1854; non Gray, 1851).

296. *Psammotaea elongata* (Lamarck).

1818 *Psammobia elongata*. LAMARCK, An. s. vert. (85), vol. V, p. 514, nr. 7.

1831 *Psammobia violacea* [not of Lamarck]. SOWERBY, Genera (168), *Psammobia*, fig. 2.

1835 *Psammobia elongata* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 176, nr. 7.

1841 *Psammobia elongata*. DELESSERT, Recueil de Coquilles décrites par Lamarck et non encore figurées (206), pl. 5, figs. 4 a—c.

1843 *Psammobia Elongata*. HANLEY, An illustr. and descr. Catalogue of recent Bivalve Shells (224), p. 57, pl. 11, fig. 46.

1845 *Psammobia elongata* Lamk.. PHILIPPI, Abbild. u. Beschreib. (134), vol. I, p. 193, *Psammobia*, pl. II, figs. 2 a, b, c.

1857 *Capsella elongata*. REEVE (145), vol. X, *Capsella*, pl. I, fig. 4.

1874 *Capsella elongata* Lamarck. TAPPARONE—CANEFRI, Magenta (173), pp. 225—226, 258.

1880 *Hiatula (Psammotaea) elongata*, Lamk. sp.. V. BERTIN, Revis. Garidées (8), pp. 95—96, nr. 33.

1897 *Psammotaea elongata* Lam.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), p. 240, nr. 3.

East coast of H a l m a h e r a, 1 right and 1 left valve.

Measurements (in millimetres):

	Left valve	Right valve
Length	55	42
Height	27	22
Thickness ($1\frac{1}{2}$)	7.5	6.5
Umbones at about	$\frac{4}{9}$	$\frac{2}{5}$ of the length from the anterior end.

Distribution: East Indian Archipelago: Aru Is. (Beccari); Flores (Dunker Collection); Java (von dem Busch).

Philippines (Cuming); Hongkong (Magenta).

The habitat Red Sea given by LAMARCK and ISSEL is probably not correct. A. H. COOKE¹⁾ says: „It looks as if ISSEL had mistaken this common *rosea*, Desh. (MAC ANDREW has a large series of it), for *elongata*, Lam., and identified some other less common species with *rosea*, Desh.”

Genus *Asaphis* Modeer, 1793

(= *Capsa* Lamarck, 1801, non 1799, nec 1818;
non *Capsa* (Leach) Gray, 1847;

= *Capsula* Schumacher, 1817;

= *Sanguinolaria* Deshayes, 1835; non Lamarck, 1799;

= *Pleioritytis* and *Pliorhytis* Conrad, 1863).

Type: *Venus deflorata* Linné.

297. *Asaphis deflorata* (Linné).

1685 *Chama diffusior* etc.. LISTER, Historia Conchyliorum, [pl. 425], fig. 273.

1705 *Tellina arenosa*. RUMPHIUS (151), pp. 145—146, pl. XLV, fig. C.

1758 *Venus deflorata*. LINNÉ, Systema Naturae, edit. X (94), p. 687, nr. 108.

1767 — — LINNÉ, Syst. Nat. XII (96), p. 1133, nr. 132.

1775 *Venus violascens*. FORSKÅL, Descriptiones Animalium; quae in itinere Orientali observavit, p. XXXI, nr. 28, p.

1778 *Tellina anomala*. BORN, Index rerum naturalium Musei Caesarei Vindobonensis, p. 20.

1780 — — BORN, Testacea musei caes. Vindobonensis (16), p. 31.

1782 *Tellina anomala*, etc.. CHEMNITZ, Conch.-Cab. (122), vol. VI, pp. 93—94, pl. 9, figs. 79—82.

— *Tellina anomala Indiae orientalis*. CHEMNITZ, ibid., pp. 94—95, pl. 9, fig. 83.

¹⁾ COOKE, Test. Moll. Gulf of Suez (21), part V (1886), p. 105.

- 1784 *Venus deflorata* Linnaei. CHEMNITZ, Conch.-Cab. (122), vol. VII, p. 59 [rectified name instead of *Tellina anomala* Born in vol. VII].
- 1784 *Cardium coccineum*. MARTYN, The Universal Conchologist, nr. 136, pl. XLI, fig. 2.
- 1791 *Venus deflorata*. GMELIN (56), pp. 3274—3275, nr. 24.
 — — *versicolor*. GMELIN, *ibid.*, p. 3281, nr. 63.
 — — *purpurata*. GMELIN, *ibid.*, p. 3289, nr. 100.
- 1797 *Capsa* Tableau encycl. (49 a), pl. 231, figs. 3 a, b, 4 a, b, c (no name in the Explanation of plates!).
- 1798 *Corbula anomala* Bolten. Museum Boltenianum, p. 184, nr. 329.
 — — *rosea* Bolten. Mus. Bolt., p. 184, nr. 330.
 — — *radiata* Bolten. Mus. Bolt., p. 184, nr. 331.
 — — *violacea* Bolten. Mus. Bolt., p. 184, nr. 332.
- 1801 *Capsa rugosa*. LAMARCK, Système des animaux sans vertèbres, p. 125.
- 1817 *Capsula rugosa*. SCHUMACHER, Nouv. syst. (158), p. 131, pl. 9, fig. 1.
- 1817 *Venus deflorata*. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 186, nr. 65.
- 1818 *Sanguinolaria rugosa*. LAMARCK, An. s. vert. (85), vol. V, p. 511, nr. 4, and var. b.
- 1825 *Psammocola rugosa*. DE BLAINVILLE, Manuel de Malacologie et Conchologie, p. 564.
- 1827 *Sanguinolaria rugosa*. DE BLAINVILLE, *ibid.*, pl. LXXVII, fig. 6.
- 1831 *Psammobia rugosa*. SOWERBY, Genera (168), *Psammobia*, fig. 1.
- 1832 *Sanguinolaria rugosa*. DESHAYES, Encycl. méth. (49), vol. III, p. 925, nr. 1.
- 1835 — — Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 170, nr. 4, and var. b.
- 1839 *Sanguinolaria dichotoma*. ANTON, Verzeichniss der Conchylien welche sich in der Sammlung von H. E. Anton befinden, p. 4, nr. 123 (for CHEMNITZ, fig. 83).

- 1843 *Psammobia Rugosa*. HANLEY, An illustrated and descr. Catalogue of recent Bivalve Shells (224), p. 56.
- 1850 *Psammobia (Capsa) deflorata* L. (*V. violascens* Forsk.; *Sanguinolaria rugosa* Lam.). MÖRCH, Catalogus Kierulf (124bis), p. 25, nr. 596.
- 1853 *Capsa eflorata*. D'ORBIGNY, Mollusques (in: R. DE LA SAGRA, Histoire physique, politique et naturelle de l'Île de Cuba), vol. II, p. 258, nr. 457.
- 1853 *Asaphis deflorata* L.. MÖRCH, Yoldi Cat. (125), II, p. 9, nr. 83.
- — *dichotoma* Anton. MÖRCH, *ibid.*, p. 9.
- 1856 *Capsa deflorata*. REEVE (145), vol. X, Capsa, pl. I, figs. 1 a—f.
- 1857 *Venus deflorata* L.. RÖMER, Krit. Unters. Venus (146), pp. 52—53, nr. 24 (according to RÖMER it ought to bear the name of *Sanguinolaria deflorata* L.).
- *Sanguinolaria arenosa* Rumph.. RÖMER, *ibid.*, p. 53 (for *Sang. dichotoma* Anton).
- 1858 *Asaphis Dichotoma* Anton. MÖRCH, Capsa et Asaphis (234), p. 138, nr. 1.
- — *violascens* Forskal. MÖRCH, *ibid.*, pp. 138—139, nr. 2.
- — *deflorata* Linné. MÖRCH, *ibid.*, pp. 139—140, nr. 3.
- — *coccinea* Martyn. MÖRCH, *ibid.*, p. 140, nr. 4.
- 1859 *Capsa deflorata* L.. P. FISCHER, Arch. Calédon. (232), p. 336.
- 1862 *Asaphis rugosa* Lam.. CHENU, Manuel (19), vol. II, p. 63, fig. 256.
- 1865 *Capsa deflorata*, Linné. VAILLANT, Suez (228), p. 120, nr. 74.
- 1869 *Asaphis deflorata* L.. VON FRAUENFELD, Nicobaren (55), p. 880.
- — *dichotoma* Ant.. VON FRAUENFELD, *ibid.*, p. 880.
- 1869 *Asaphis deflorata*, (L.). VON MARTENS, v. d. Decken's Reisen (103), p. 65.

- 1870 *Asaphis violascens*, Forsk.. M'ANDREW, Test. Gulf of Suez (100), p. 446.
- 1880 *Asaphis coccinea*, Martyn, sp.. V. BERTIN, Révis. Garidées (8), p. 79, nr. 1.
- — *violascens*, Forsk. sp.. V. BERTIN, *ibid.*, p. 80, nr. 2.
- 1880 *Asaphis arenosa*, Rumph, sp.. V. BERTIN, *ibid.*, p. 80, nr. 4.
- — *deflorata*, Linné sp.. V. BERTIN, *ibid.*, pp. 80—81, nr. 5.
- 1880 *Asaphis deflorata* Linne. VON MARTENS, Mauritius (105), pp. 330—331.
- 1886 *Asaphis violascens* (sic!), Forsk. [= *deflorata*, L.]. COOKE, Test. moll. Gulf of Suez (21), part V, p. 104.
- 1887 *Asaphis deflorata*, L.. VON MARTENS, Mergui (107), p. 216, nr. 385.
- 1888 *Asaphis violascens*. JOUSSEAUME, Mer Rouge (68), p. 198, nr. 129.
- — *arenosa*. JOUSSEAUME, *ibid.*, p. 199, nr. 130.
- 1889 *Asaphis rugosa*, Lamarck (*Capsa*). L. MORLET, Cat. coq. Cambodge et Siam (126), p. 172, nr. 84.
- 1889 *Asaphis coccinea*, Martyn. HEILPRIN, Bermuda Islands (218), p. 177.
- 1889 *Asaphis deflorata* Linné. DALL, Marine Mollusks southeastern coast Un. States (26), pp. 60—61.
- 1890 *Asaphis dichotoma* (Ant.). O. BOETTGER, Ad. Strubell's Konch. aus Java (12), p. 171, nr. 27.
- — *violascens* (Forsk.). O. BOETTGER, *ibid.*, p. 171, nr. 28.
- 1891 *Asaphis rugosa* Lam.. P. FISCHER, Indo-Chine (53), p. 241.
- 1893 *Asaphis deflorata* Linné. DAUTZENBERG, Séchelles (32), p. 84.
- 1897 *Asaphis rugosa* Lam.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 252—255.
- 1899 *Asaphis deflorata*, L.. MELVILL and STANDEN, Torres Straits (123), p. 198, nr. 404.
- 1900 — — , Linnaeus. BULLEN NEWTON, Raised Beach Deposits Red Sea (127), p. 557.
- 1901 *Asaphis violascens* Forsk.. STURANY, Lamellibr. d. Rothen Meeres (170), pp. 277, 292, nr. 12.

- 1901 *Asaphis deflorata* Linné sp.. H. FISCHER, Djibouti (54), p. 130.
- 1901 *Asaphis deflorata* (Linn.). ASHINGTON BULLEN, Raised beaches of Perim Island (204), p. 255.
- 1902 *Asaphis rugosa* Lam., VON MARTENS, Rumphius Gedenkb. (110), p. 127.
- 1902 *Asaphis coccinea* Martyn. DALL and SIMPSON, The Mollusca of Porto Rico (217), p. 476.
- 1903 *Asaphis deflorata* L.. HIDALGO, Fauna malacol. de l. Isl. Filipinas, II, p. 73, nr. 149.
- — *dichotoma* Anton. HIDALGO, *ibid.*, p. 74, nr. 150.
- 1905 *Asaphis dichotoma* Anton. DAUTZENBERG et H. FISCHER, Tonkin (40), p. 233.
- 1906 *Asaphis deflorata* L.. MELVILL and STANDEN, Persian Gulf (124), part II, p. 842.
- 1908 — — (Lin.). NOBRE, Timor (128), p. 229.
- 1909 — — L.. LAMY, Java (89), p. 469.
- 1909 — — L.. LYNGE, Siam (99), pp. 209—210.
- 1916 *Asaphis deflorata* L.. CAES. BOETTGER, Hanseat. Südsee-Exped. (11), p. 307.
- 1923 *Asaphis deflorata* L.. HENRICH, Sinaihalbinsel (60), p. 73.

East coast of Halmahera, 1 right valve. As the ribs on the middle portion of the valve are dichotomous, it is somewhat intermediate between the typical form and the form *dichotoma*.

The species has been collected by VON MARTENS at Halmahera, Ternate and Bachan.

Distribution: East Indian Archipelago: Buru and Amboina (VON MARTENS); Amboina, in coarse sand with stones at high-water mark (RUMPHIUS¹); Banda (VON MARTENS); New Guinea (Museum Paris); Aru Is. (Beccari); Timor (NOBRE); Kupang, Timor (VON MARTENS); Adonara and Flores (VON MARTENS); Java (LAMY); Pulu Pandjang, Thousand Is. north of Batavia (Strubell); Anjer, W. coast of Java (VON MARTENS); Padang, Sumatra (O. BOETTGER); Mentawai Is. west of Sumatra (VON MARTENS).

¹) VON MARTENS has evidently been mistaken with regard to RUMPHIUS's description of the present species, when he says (109): „Obwohl RUMPH sie *arenosa* nennt, sagt er doch, dass sie in hartem Schlammgrund lebe“. RUMPHIUS, however, states that the species occurs „in harden zingelgrond" [on hard shingle], and adds: „Men vind ze aan den uitersten rand, alwaar het zeewater komt, in 't grof zand met steenen gemengt" [it is found at high-water mark in coarse sand with stones].

Solomon Is. (Mus. Paris); New Hebrides (Hanseatic Pacific exped.); New Caledonia (Mus. Paris). — Mariana Is. (Mus. Paris). — Tahiti (Novara); Gambier Is. (Mus. Paris); Hawaii (Mus. Paris). — Torres Straits (MELVILL and STANDEN); North and East Australia. — New Zealand (Mus. Paris).

Philippines (Berlin Museum); Loo Choo; Japan (Mus. Paris); Hongkong (Novara); Along-bay, Tongking (Blaise); Pulo Kondor (Mus. Paris); islands in the Gulf of Siam, sandy coast (MORLET, LYNGE); Singapore; Salang-island near Malacca; Mergui-archipelago (Anderson); Nicobars (Novara); Andamans; Tranquebar; Ceylon; Maldives; Bombay (ABERCROMBIE); Karachi and Jask, Persian Gulf (MELVILL and STANDEN).

Aden (E. A. SMITH); Perim-island (Pola, Museum Wageningen); Red Sea (FORSKAL, Pola); Kamaran-island, southern Red Sea (Faurot); Gulf of Akabah (on sandy shores, ISSEL; Pola); Sinai-peninsula (HENRICH); Gulf of Suez (M'ANDREW); Suez (VAILLANT); Obock (Faurot); Jibuti (de Genes); Zanzibar (von der Decken, Mus. Paris); Seychelles and Amirantes, in mud (DUFO); Seychelles (DAUTZENBERG); Mauritius (LISTER, LIÉ-NARD, Möbius); Réunion (DESHAYES); St. Mary-island near Madagascar, in sand (SGANZIN).

Bermuda Is. (HEILPRIN); W. coast of Florida and Florida Keys (DALL); Vera Cruz, Mexico; Cuba (Mus. Paris); Haiti; Porto Rico and Culebra (DALL and SIMPSON); Martinique (Mus. Paris); Barbados (LISTER); Brazil.

Fossil in the pleistocene raised beaches of the Gulf of Suez (BULLEN NEWTON), and of Perim-island (ASHINGTON BULLEN).

FAM. TEREDIDAE.

Genus *Teredo* Linné, 1758.

Type: *Teredo navalis* Linné.

Subgenus *Furcella* Lamarck, 1801

(= *Septaria* Lamarck, 1818; non Férussac, 1807;

Clossonnaria Férussac, 1821;

Clausaria Menke, 1828;

Cuphus, *Kuphus*, and *Cyphus* auct.).

Type: *Serpula polythalamia* Linné.

298. *Teredo (Furcella) polythalamia* (Linné).

1705 *Solen arenarius*, Zandpyp. RUMPHIUS (151), pp. 124—125, pl. XLI, figs. D, E.

- 1758 *Serpula arenaria*. LINNÉ, Systema Naturae, edit. X (94), p. 787, nr. 699 (in part!).
- 1764 — — LINNÉ, Mus. Lud. Ulr. (95), p. 700, nr. 432 (in part, exclusive of the reference to GUALTIERI).
- 1767 *Serpula Polythalamia*. LINNÉ, Syst. Nat. XII (96), p. 1266, nr. 802.
- 1769 *Tubulus vermicularis solitarius, testaceus, etc.* MARTINI, Conch.-Cab. (122), vol. I, pp. 40—41, pl. I, fig. 6 (copied from RUMPHIUS, fig. E).
- 1791 *Serpula polythalamia*. GMELIN (56), pp. 3742—3743, nr. 13.
- 1806 *Teredo gigantea*. HOME, On the shell of the Sea-Worm found on the Coast of Sumatra, proving it to belong to a species of *Teredo* (Philosophical Transactions, London, vol. XCVI, p. 276), pl. 12, figs. 4, 5.
- 1817 *Teredo gigantea*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 1087, nr. 1.
- 1818 *Septaria arenaria*. LAMARCK, An. s. vert. (85), vol. V, p. 437, nr. 1.
- 1830 *Septaria arenaria* Lamk.. DESHAYES, Encycl. méth. (49), vol. II, part 1, p. 247, nr. 1.
- 1835 *Septaria arenaria* Lamk.. DESHAYES—LAMARCK, An. s. vert. (86), vol. VI, p. 33, nr. 1.
- *Teredo arenarius*, Nob.. DESHAYES in DESHAYES—LAMARCK, *ibid.*, p. 39, note 1.
- 1842 *Septaria Arenaria* Lam.. HANLEY, An illustrated and descr. Catalogue of recent Bivalve Shells (224), p. 3.
- 1855 *Serpula polythalamia*. HANLEY, Ipsa Linn. Conch. (58), pp. 446, 550.
- 1862 *Septaria gigantea*. CHENU, Manuel (19), vol. II, p. 14, fig. 67.
- — *arenaria*, Lamarck. CHENU, *ibid.*, p. 14.
- 1875 *Kuphus gigantea*. SOWERBY in REEVE (145), vol. XX, Kuphus, spec. 1, figs. 1 a, b.
- — *clausa*. SOWERBY, *ibid.*, spec. 2, figs. 2 a, b, 1a.

- 1879 *Vermetus giganteus* nov. spec.. K. MARTIN, Tertiärsch. Java (112), I, p. 78, pl. XIV, figs. 15, 15 a.
- *Siliquaria bipartita* nov. spec.. K. MARTIN, *ibid.*, p. 79, pl. XIV, figs. 17, 17 a.
- *Septaria arenaria* Lam.. K. MARTIN, *ibid.*, p. 90, note (rectified identification of the fossils described as *Vermetus giganteus* and *Siliquaria bipartita*).
- 1880 *Teredo (Cuphus) arenaria*. VON MARTENS, Mauritius (105), p. 331.
- 1881 *Septaria arenaria* Lam.. K. MARTIN, Posttertiary fauna from Blitong (202), p. 20, nr. 51.
- 1881 *Septaria arenaria* Lam.. K. MARTIN, Tertiaer Ost-Java (113), p. 116, nr. 7, p. 127.
- 1882 *Septaria arenaria* Lam. (= *Teredo (Cuphus) arenaria*). BÖHM, Tertiär Madura (15), p. 361.
- 1885 *Teredo arenaria* Lam.. K. MARTIN, Tiefbohr. auf Java (115), pp. 194—195, nr. 234.
- 1893 *Kuphus gigantea* Lea (sic!). CLESSIN, Pholadea (230), pp. 79—80, nr. 1, pl. 18, figs. 1—2 (copied from SOWERBY).
- — *clausa* Sowerby. CLESSIN, *ibid.*, pp. 80—81, nr. 3, pl. 18, figs. 3, 4, 5 (copied from SOWERBY).
- 1897 *Teredo (Furcella) arenaria* L.. VON MARTENS, Süss- u. Brackw.-Moll. d. Ind. Arch. (109), pp. 284—286.
- 1900 *Teredo arenaria* Lam.. K. MARTIN, Eintheilung versteinungsfl. Sedimente v. Java (117), pp. 141, 193.
- 1902 *Teredo (Furcella, Kuphus, Septaria) arenaria* L.. VON MARTENS, Rumphius Gedenkb. (110), p. 124.
- 1919 *Teredo arenaria* Lamk.. K. MARTIN, Palaeozool. Kenntnis v. Java (119), pp. 67, 128, 129, 136, 137, 141.
- 1921 *Teredo arenaria* (Linn.). PRASHAD, Sumatra (139), pp. 506—507.

East coast of H a l m a h e r a, a fragment of the posterior (siphonal) end of the tube with longitudinal septum.

Distribution: Malay Archipelago (chiefly in mangrove-swamps); Kajeli, Buru, in sand with gravel in a mangrove-swamp (RUMPHIUS); Amahai, S. coast of Ceram, mangrove-swamp, in mud with underground of gravel (RUMPHIUS); Amboina (VON MARTENS); Belawan, Deli, N. E. Sumatra, in mangrove-swamps, a somewhat doubtful specimen (den Doop); Indrapura, W. coast of Sumatra (Museum Wageningen); Mentawai Is. west of Sumatra (Maass); Batu Is. west of Sumatra, in mud (GRIFFITHS); Singapore, in wood (VON MARTENS).

Red Sea; East African coasts; East coast of Madagascar (SGANZIN).

Fossil occurrence: The species has been recorded from various localities in the Neogene of Java and Madura by K. MARTIN and A. BÖHM. In Java it occurs in the Pliocene of Sondé, Residency Madiun, in the Miocene of Ngembak, Resid. Semarang, in the Upper Miocene of Resid. Preanger and in the Lower Miocene of the West Progo Mountains, Resid. Jogjakarta.

Pleistocene of Billiton (K. MARTIN).

Under the name of *Serpula arenaria* LINNÉ originally included both the species under consideration and the *Vermetus arenarius* of the Mediterranean. In the 12th edition of the Systema Naturae however the name was restricted to the Mediterranean Gastropod and the *Solen arenarius* of RUMPHIUS was called *Serpula Polythalamia*. Consequently our species has to bear the specific name of *polythalamia*, though it is generally known as *Teredo arenaria*.

ADDENDA ET CORRIGENDA.

Page 21: **Nerita albicilla** Linné.

 Add to Distribution: Algoa Bay, South Africa, Kaffra-
ria, S. Africa, and Port Alfred, Cape Province (United States
National Mus. (4bis)).

Page 32: Genus **Amalthea** Schumacher, 1817
 (= *Hipponix* DeFrance, 1819;
 = *Hipponyx* de Blainville, 1824).
 Type: *Amalthea conica* Schumacher.

Page 45: Genus **Clava** Martyn, 1784
 (= *Vertagus* Schumacher, 1817; not of Link, 1807;
 = *Rhinoclavis* Swainson, 1840).
 Type: *Clava rugata* Martyn (= *Murex asper* Linné),
 indicated by DALL (222), p. 366; 1907.

Page 52, line 13 from top, for *Strombus Auris Dianae* read
Strombus Auris dianaë.

Page 55, line 8 from top, for *Strombus Auris Dianae* read
Strombus Auris dianaë.

Page 56, line 11 from bottom, for *lentiginosus* read *Lentiginosus*.

Page 84, line 14 from top, for *Cypraea vitellus* read *Cypraea Vitellus*.
 Line 15 from top, read *vitellus*. REEVE

Page 90, line 5 from top, for *Cypraea talpa* read *Cypraea Talpa*.
 Line 6 from top, read *talpa*. REEVE

Page 101, line 21 from top, for *Cypraea caurica* read *Cypraea Caurica*.
 Line 22 from top, read *caurica*. REEVE

Page 136. When writing my remarks on the nomenclature of
Distorsio I was not acquainted with DALL's Report on the Alba-
tross Cruises (223), 1908. On pp. 318—319 of this paper
Dr. DALL has adopted the generic name *Distorsio* Bolten for
Murex anus, regarding *Distortrix* Link as an absolute synonym
thereof.

Page 143: Genus **Tritonalia** Fleming, 1828.
 Type: *Murex erinaceus* Linné.

Page 147, line 6 from top, for *Murex rapa* read *Murex Rapa*.

Page 161, line 10 from top, for *Murex colus* read *Murex Colus*.

Page 165, line 6 from top, for non Hermann, 1783
read non Herrmannsen, 1852 (as of J. Hermann, 1783).

Page 220: **Bullus ampulla** (Linné).

Add to Distribution: Port Alfred, Cape Province
(United States National Museum (4bis)).

Page 255, lines 8 and 9 from top, for 1858 *Pecten pallium* Lin. read
1859 *Pecten pallium*. P. FISCHER, Arch. Calédonien (232), p. 341.

Page 256: **Pecten (Acquiptecten) pallium** (Linné).

Add to Distribution: Art Island near New Caledonia (Montrouzier).

Page 266: **Modiolus (Brachidontes) subramosus** (Hanley).

Add to Synonymy:

1859 *Modiola subramosa* Hanley. P. FISCHER, Arch. Calédonien (232),
p. 340.

Add to Distribution: Art Island near New Caledonia (Montrouzier).

Page 267: **Lithophaga (Myoforceps) aristata** ((Solander Ms.) Dillwyn).

Add to Synonymy:

1865 *Lithodomus caudigerus*, Lk. sp.. P. FISCHER (233).

1871 *Lithophagus aristatus* Solander (*Mytilus*). LISCHKE, Japan. Meeres-
conch. (98), vol. II, pp. 149—152.

1883 *Lithophaga aristata* Solander (*Mytilus*). DUNKER, Lithophaga (231),
pp. 14—15, pl. 6, fig. 15.

Add to Distribution: Nagasaki, Southern Japan (LISCHKE). — Austra-
lia (King). — Red Sea (Dunker Collection).

Guinea (Tams). — Puerto Cabello, Venezuela, and Cuba (Dunker Col-
lection).

Pacific coast of Central America: Cape San Lucas, Lower California,
Mazatlan and Acapulco, Mexico (CARPENTER); Puntarenas, Costa Rica
(MÖRCH); Panama (CARPENTER).

Page 281: **Hippopus hippopus** (Linné).

Add to Synonymy:

1859 *Hippopus maculatus* Lk.. P. FISCHER, Arch. Calédonien (232), p. 339.

Add to Distribution: Art Island near New Caledonia (Montrouzier).

Page 304: **Paphia (Tapes) literata** (Linné).

Add to Synonymy:

1859 *Tapes litterata* (Venus) L.. P. FISCHER, Arch. Calédonien (232), p. 337.

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1—90	10—15, 20, 22, 24—25, 35	1858
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Vol. I.	1	<i>Helicina; Pupina; Aporrhais</i> and <i>Rostellaria; Struthiolaria; Strombus</i>	May, 1842.
	2	<i>Pteroceras; Pecten; Hinnites</i>	Nov., 1842.
	3	<i>Lima</i> <i>Cyclostoma</i> by G. B. SOWERBY I	1843.
	4	<i>Scalaria</i> <i>Columbella</i> by G. B. SOWERBY I	1844.
	5	<i>Terebra</i> by R. B. HINDS <i>Voluta</i> by G. B. SOWERBY I	1845.
	6	<i>Tellina</i> (pp. 221—238, pls. LVI—LXVII) by S. HANLEY	Jan., 1846.
	7	<i>Tellina</i> (finished) by S. HANLEY <i>Lingula; Terebratula; Orbicula, Crania,</i> <i>Hipponyx</i> and <i>Thecidium</i> by G. B. SOWERBY I	Nov., 1846.
	8	<i>Cymba; Melo</i> by W. J. BRODERIP <i>Spondylus; Plicatula; Pedum</i>	1847.
Vol. II.	9—10	<i>Cancellaria; Nautilus; Ovulum;</i> supplementary plate XXXI A of <i>Cyclostoma</i> (vol. I); <i>Pholas; Triumphalia; Xylophaga; Neritina</i>	1849.
	11	<i>Navicella</i> <i>Bullidae</i> by A. ADAMS <i>Cyclostoma</i> , pp. 157*—168* and suppl. plate XXXI B (vol. I)	1850.
	12	<i>Meroe; Cytheraea; Circe</i>	1851.
	13	<i>Artemis; Lucinopsis; Tapes; Clementia</i>	1852.

	Parts: Monographs:	Dates:
	14 <i>Venus</i> ; suppl. descriptions <i>Veneridae</i> ; Index <i>Veneridae</i>	1853.
	15 <i>Venerupis</i> ; <i>Petricola</i> ; <i>Astarte</i> ; <i>Cyprina</i> ; suppl. and second Index to <i>Veneridae</i> <i>Eulima</i> , <i>Niso</i> <i>Leiostraca</i> , <i>Obeliscus</i> , <i>Pyramidella</i> , and <i>Monoptygma</i> by A. ADAMS	1854.
	16 <i>Cerithium</i>	1855.
Vol. III.	17 <i>Conus</i> , pp. 1—24, pls. 187—195	1857.
	18 " , pp. 25—56, pls. 196—210	1858.
	19 <i>Ancillaria</i> ; <i>Eburna</i> ; <i>Pseudoliva</i> ; <i>Cyllene</i> ; <i>Terebellum</i> ; <i>Erato</i> ; <i>Nassaria</i> ; <i>Phos</i>	1859.
	20 <i>Dentalium</i> <i>Nuculidae</i> by S. HANLEY	1860.
	21 <i>Galeomma</i> ; <i>Scintilla</i> ; <i>Fissurellidae</i>	1862.
	22 <i>Cemoria</i> , <i>Cranopsis</i> , <i>Zeidora</i> , <i>Rimula</i> , <i>Emarginula</i> , <i>Scutus</i> , & <i>Tugalia</i> by A. ADAMS and G. B. SOWERBY II <i>Solarium</i> by S. HANLEY	1863.
	23 <i>Cyclostrema</i> , <i>Adeorbis</i> , and <i>Teinostoma</i> by A. ADAMS <i>Argonauta</i> ; <i>Pomatias</i> ; <i>Voluta</i> and <i>Melo</i> , completed; <i>Pupinidae</i> (plates)	1864.
	24—25 <i>Helicina</i> , 2nd monograph; <i>Carinaria</i> ; <i>Donax</i> ; <i>Typhis</i> ; <i>Trichotropis</i> ; <i>Conus</i> , appendix (pls. 286—289); <i>Cerithium</i> , suppl. plate 290; <i>Eburna</i> , continued, pl. 291	1866.
Vol. IV.	26—28 <i>Cypraea</i>	1870.
	29 <i>Oliwa</i> , pls. 328—341	1870.
	30 " , text and pls. 342—351 } by F. P. MARRAT	1871.
	31—32 <i>Mitra</i>	1874.
	33—34 <i>Murex</i>	1879.
	35—36 <i>Trophon</i> ; <i>Fusus</i> ; <i>Pyrula</i> ; <i>Ficula</i> Appendix to <i>Typhis</i> , pl. 284bis (vol. III)	1880.
Vol. V.	37—38 <i>Latiaxis</i> ; <i>Fasciolaria</i> ; <i>Haliotis</i> ; <i>Sigaretus</i> ; <i>Ianthina</i>	1882.
	39—40 <i>Calyptraeidae</i> ; <i>Natica</i> ; <i>Nerita</i>	1883.
	41—42 <i>Teredo</i> and <i>Kuphus</i> ; <i>Gastrochaena</i> ; <i>Fistulana</i> ; <i>Saxicava</i> ; <i>Rotella</i> ; <i>Pteropoda</i> ; <i>Phasiarella</i> ; <i>Delphinula</i> , <i>Liotia</i> ; <i>Stylifer</i> ; <i>Siliquaria</i> ; <i>Vanikoro</i> ; <i>Planaxis</i> ; <i>Tridacna</i> and <i>Hippopus</i> ; <i>Pleurotomaria</i> ; <i>Trigonia</i>	1884.
	43 <i>Turbo</i> by G. B. SOWERBY III	1886.
	44 <i>Conus</i> , supplement; <i>Voluta</i> , supplement by G. B. SOWERBY III	1887.

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1 <i>Etheria, Placuna, Struthiolaria, Hipponyx, Testacellus, Lingula</i>	1820
2 <i>Ovula, Turbinellus, Pandora, Corbis, Pedum</i>	
3 <i>Ancilla, Plicatula, Potamophila, Crassatella, Harpa, Oliva</i>	1821
4 <i>Planorbis, Ampullaria, Phasianella, Marginella, Astarte, Cucullaea</i>	1821
5 <i>Ianthina, Volvaria, Cancellaria, Monoceros, Cyrena, Pectunculus</i>	1821
6 <i>Ostrea, Malleus, Concholepas, Terebellum</i>	1821
7 <i>Chama, Isocardia, Iridina, Solemya, Limnaea, Physa</i>	1822
8 <i>Glycymeris, Lithotrya, Anostoma, Crenatula, Perpa</i>	"
9 <i>Spondylus, Vulsella, Columbella, Amphidesma, Succinea</i>	"
10 <i>Ungulina, Donax, Capsa, Tubicinella, Eryctna, Navicella</i>	"
11 <i>Vitrina, Gastrochaena, Bitrostrites, Conia, Scalaria, Galeolaria</i>	"
12 <i>Balanus, Crania, Planaxis, Neritina, Chiton, Turritella</i>	1823
13 <i>Ctnaras, Otton, Parmacella, Orbicula, Clavagella, Hippopus</i>	"
14 <i>Achatina, Rotella, Avicula, Ancyclus, Halliotis</i>	"
15 <i>Petricola, Terebratula, Dentalium, Dolabella, Nerita, Natica</i>	"
16 <i>Unio, Conus, Hyria, Calceola</i>	"
17 <i>Cypraea, Anodon, Lima, Nucula</i>	"
18 <i>Trigonia, Ricinula, Anomia, Creusia, Pyrgoma, Corbula</i>	"
19 <i>Eburna, Pileolus, Ranella, Stomatia, Sigaretus, Pholadomya</i>	"
20 <i>Thecidium, Cardita, Cypricardia, Strombus, Rostellaria, Pteroceras</i>	"
21 <i>Siphonaria, Fissurella, Patella, Magilus, Emarginula, Producta</i>	"
22 <i>Melania, Melanopsis, Umbrella, Serpula, Cassis</i>	1824
23 <i>Lithodomus, Cassidaria, Calyptraea, Crepidula, Pholas</i>	"
24 <i>Oniscia, Pyramidella, Pyrula, Mactra, Lutraria, Tornatella</i>	"
25 <i>Nassa, Buccinum, Coronula, Sanguinolaria, Saxicava</i>	1825
26 <i>Pinna, Mytilus, Siliquaria, Octomeris, Modiola</i>	"
27 <i>Pentelasmis, Pollicipes, Lucina, Aspergillum, Fistulana</i>	1826
28 <i>Cymba, Catophragmus, Melo, Pullastra</i>	"
29 <i>Teredina, Xylophaga, Voluta, Teredo, Mulleria, Dolium, Terebra</i>	1827
30 <i>Fasciolaria, Murex, Triton, Clausilia</i>	1828
31 <i>Tellina, Tellinides, Mitra, Pecten</i>	"

Parts:	Dates:
32 <i>Pleurotomaria, Mya, Myochama, Cleidothaerus, Cyprina, Solen</i>	1831
33 <i>Cytherea, Anatina, Nautilus, Argonauta, Clitia</i>	"
34	"
35 <i>Psammobia, Scissurella, Scalpellum, Pleurobranchus, Cyclostoma, Spirula</i>	"
36 <i>Carinaria, Elminius, Helicina, Gnathodon, Spirifer, Dicerias, Arca</i>	1831
37 <i>Tridacna, Galeomma, Trochus, Turbo, Littorina, Turrilites</i>	1832
38 <i>Cyclas, Pleurotoma, Placunanomia, Stylifer, Capulus, Solarium</i>	1832?
39 <i>Aplysia, Fusus, Delphinula, Bulla, Solenella, Pteropoda</i>	1833?
40 <i>Anatinella, Cumingia, Rissoa, Plagiostoma, Panopaea, Pulvinites, Gervillia</i>	1833?
41 <i>Bellerophon, Paludina, Limax, Venus, Valvata, Nodosaria, Pupa</i>	1834?
42 <i>Trichotropis, Purpura, Neritopsis, Lottia, Cerithium, Glauconome</i>	1834?

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- | Pages: | Plates: | Dates: |
|--------|---------|--------|
| 1—56 | 1—18 | 1872 |
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33—272	9—13	1843
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1—24	1—6	1891
25—40	7—12	1892
41—88	13—21	1893.

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—	1—3	1880
1—8	4—6	1882
9—32	—	1883.

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CONTENTS.

	Pages:
Introduction	3— 4
Sketch map of the Northern Moluccas	5
<i>Amphineura</i>	6
<i>Gastropoda, Prosobranchia</i>	7—218
<i>Opisthobranchia</i>	219—222
<i>Pulmonata</i>	222—227
<i>Scaphopoda</i>	228
<i>Pelecypoda, Prionodesmacea</i>	229—267
<i>Teleodesmacea</i>	267—319
Addenda et corrigenda	320—321
Bibliography	322—362

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