

# **RECENT SHELLS FROM JAVA**

**PART I. — GASTROPODA**

**BY**

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*178d84*



## INTRODUCTION.

This paper deals with the first part of a collection of chiefly marine shells from the isle of Java, which is kept in the Geological Museum of the Agricultural University at Wageningen (Holland). As the exact knowledge of the recent molluscan fauna of Java is of much importance for the study of the upper tertiary fauna of that island, I have thought it useful to deal with it rather in detail.

By far the greater part of the collection was made by Prof. J. VAN BAREN, Wageningen and by Dr. J. M. GEERTS and Mrs. S. J. GEERTS—RONNER at Surabaya. During his stay in Java in 1916 Prof. VAN BAREN collected in the western and central part of Java, chiefly on the coast, whilst the collection of Dr. GEERTS was made on the coasts of East-Java, thus completing the collection of Prof. VAN BAREN. Some non-marine mollusca were collected by Mr. L. G. E. KALSHOVEN. We are particularly grateful for the permission to retain the specimens collected by Dr. GEERTS, Mrs. GEERTS and Mr. KALSHOVEN and I avail myself of this opportunity to express my thanks to Prof. VAN BAREN, who travelled in Java to make agrogeological researches, for the pains he has taken besides in collecting shells at my request.

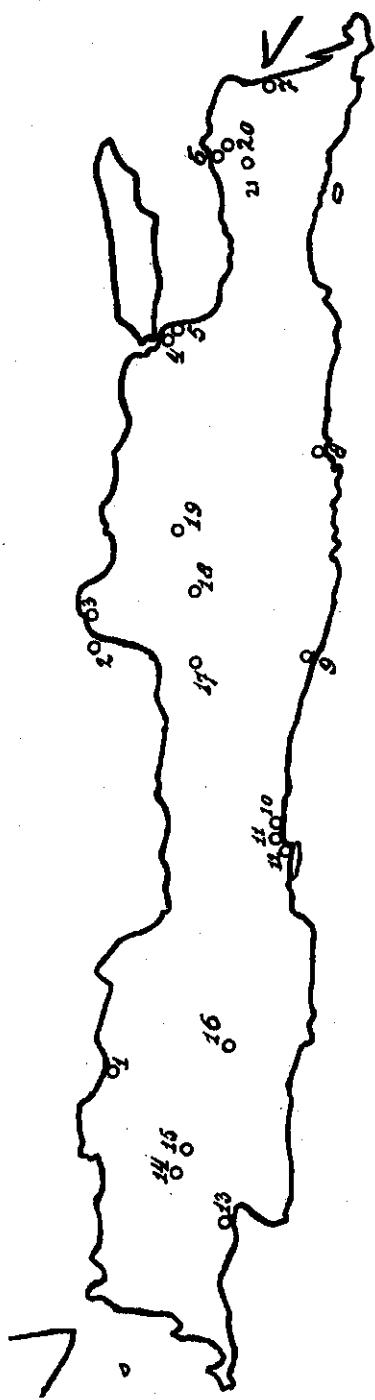
Several specimens collected by Prof. VAN BAREN have been identified by the late M. M. SCHEPMAN and I am also indebted to Dr. ED. LAMY in Paris and to Dr. B. PRASHAD of Calcutta for information and intelligence. During my sojourn in Frankfurt-on-Main I was able to avail myself of the rich library in the Senckenberg Museum, owing to the courtesy of Dr. Fr. HAAS, to whom I tender cordial thanks.

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## THE LOCALITIES.

The localities from which the shells that form the subject of this paper were collected have been indicated on the appended sketch-map under their respective numbers.

1. Coast near mouth of river Tji Lamaja; Residency Batavia, Krawang-Division. Mud-flat exposed at low tide. Among the shells collected here by Prof. VAN BAREN are several freshwater shells, carried here by the river.
2. Coral-island Pulu Pandjang near Japara; Residency Semarang, Japara-Division (VAN BAREN).
3. Coast near Government Rubber Estate Balong, N. E. of Japara; Resid. Semarang, Japara-Division (VAN BAREN). Sandy coast.
4. Surabaya, Harbour, mud-flat, exposed at low tide (Dr. GEERTS and Mrs. GEERTS).
5. Shore of Bandjaran, east of Surabaya-city (GEERTS). The shells have been collected on a small sandy beach, which is situated amidst mangrove-swamps etc..
6. Shore west of Panarukan; Residency Besuki, Panarukan-Division (GEERTS).
7. Shore of Bali-strait, north of Banjuwangi; Resid. Besuki, Banjuwangi-Division (GEERTS).
8. Bay of Popoh; Residency Kediri, Tulungagung-Division (GEERTS).
9. Mantjingan; Residency Jokjakarta, Mataram-Division, district Kretek (Prof. VAN BAREN and Mr. KALSHOVEN). The shells have been collected on a small sandy beach before the rocky coast.
10. Shore east of Gunung Selok; Residency Banjumas, Tjilatjap-Division, district Adiredja (VAN BAREN). Sandy coast.
11. Schildpadden-bay, east of Tjilatjap; Resid. Banjumas, Tjilatjap-Division, district Tjilatjap. Some bivalves have been collected on the sandy beach by Dr. J. JESWIET.
12. Shore near Tjilatjap (VAN BAREN). Sandy coast.
13. Tji Solok, Wijnkoopsbay; Residency Preanger Regent-



schappen, Sukabumi-Division, district Palabuhan (VAN BAREN).

Sandy beach amidst cliffs.

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14. Buitenzorg, Botanical Gardens; Residency Batavia, Buitenzorg-Division (VAN BAREN).
  15. Forest near Mountain Gardens of Tjibodas (S. E. of Buitenzorg); Residency Preanger Regentschappen, Tjiandjur-Division (KALSHOVEN).
  16. Forest on the northwestern slope of the Malabar, S. of Bandjaran; Residency Preanger Regentschappen, Bandung-Division (VAN BAREN).
  17. Penawangan; Residency Semarang, Semarang-Division. The locality Penawangan is situated E. of Ungaran and S. of Mranggen (**not** Penawangan near Poerwodadi!). Mr. KALSHOVEN collected here in the teakwoods and in the sawah's (rice-fields).
  18. Goendih, south of Poerwodadi; Residency Semarang, Grobogan-Division, district Poerwodadi (VAN BAREN).
  19. Teakwood S. W. of Bandjarredjo (S. W. of Blora); Residency Rembang, Blora-Division, district Karangdjati. Some land-snails collected by Dr. J. BEUMÉE.
  20. River Kali Sampean, Situbondo; Residency Besuki, Panarukan-Division. Some *Melaniidae* from the collection of Dr. KEYZER.
  21. Sawah's (rice-fields) near Pradjekan, south of Situbondo; Residency Besuki, Panarukan-Division, district Pradjekan. Some *Melaniidae* from the collection of Dr. KEYZER.

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Besides the shells with exact locality there are some marine shells, collected by Dr. GEERTS and Mrs. GEERTS on the coasts of Java, of which no precise locality is known.

## PROSOBRANCHIA.

### FAM. ACMAEIDAE.

#### 1. *Acmaea striata* Quoy et Gaimard sp..

- 1834 *Patelloïda striata*. QUOY et GAIMARD, Voyage de l'Astrolabe (96<sup>1</sup>), vol. III, p. 353, pl. 71, figs. 8—11.
- 1836 *Patelloïda* — Quoy. DESHAYES in LAMARCK, An. s. vert. (53), vol. VII, p. 552, nr. 11.
- 1854 *Patella* — Quoy. REEVE (97), vol. VIII, Patella, pl. XXIII, figs. 58 a, b (*not* pl. XXXIII, fig. 99).
- 1855 — *Borneensis*. REEVE, ibid., pl. XXXVI, figs. 113 a, b.
- 1891 *Acmaea striata* and var. *borneensis*. PILSBRY, Manual (109), vol. XIII, pp. 47, 48, pl. 19, figs. 37, 38; pl. 35, figs. 25—29.
- 1908 — — — — — HORST et SCHEPMAN, Catalogue syst. Mus. des Pays-Bas (31), pp. 500, 501.
- 1908 — — — var. *borneensis*. SCHEPMAN, Siboga expedition (104), p. 95.

Shore of Bali-strait, north of Banjuwangi, 2 specimens. The shells are rather distinctly striated, they are externally coloured blackish brown all over. Inside sky-blue with black margin and brown central area. I think they belong to the typical form.

Measurements of shells (in millimetres):

	Length	Breadth	Altitude
A	32 <sup>1</sup> / <sub>2</sub>	29	11 <sup>1</sup> / <sub>2</sub>
B	28 <sup>1</sup> / <sub>2</sub>	24	8

1) The numbers in parenthesis refer to the list of consulted works and papers at the end.

## Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Pulu Weh N. of Sumatra, N. coast of Borneo, Northern Celebes, Sangir-(Sangi-)islands N. of Celebes, Flores, Solor Is., Amboina, Misol, New Guinea.

— Philippine Is..

2. *Acmaea saccharina* Linné sp..

- 1705 *Lepas sive Patella*. RUMPHIUS (100), p. 121, pl. XL, fig. B.  
 1758 *Patella saccharina*. LINNÉ, Systema Naturae, edit. X, p. 781, nr. 660.  
 1767 — — LINNÉ, Systema Naturae, edit. XII, p. 1258.  
 1819 — — LAMARCK, An. s. vert. (52), vol. VI, 1st part, p. 326, nr. 7.  
 1836 — — Linn.. LAMARCK, An. s. vert. (53), vol. VII, pp. 527—528.  
 1855 — — Linn.. REEVE (97), vol. VIII, Patella, pl. XXVIII, figs. 72 a, b, c.  
 — — *lanx*. REEVE, ibid., pl. XXX, figs. 82 a, b.  
 1869 — — *saccharina*. LISCHKE, Japan. Meereseconch. (59), vol. I, p. 113.  
 1891 *Acmaea saccharina*. PILSBRY, Manual (109), vol XIII, pp. 49—50, pl. 36, figs. 60—62, 78; pl. 18, figs. 31, 32; pl. 24, figs. 12, 13.  
 1902 — — VON MARTENS, Rumphius Gedenkboek (71), p. 124.  
 1908 — — and var. *lanx* Reeve. HORST et SCHEPMAN, Catalogue (31), p. 501.  
 1908 — — SCHEPMAN, Siboga expedition (104), p. 96.

Shore of Bali-strait, north of Banjuwangi, 1 worn specimen.

Distribution: East Indian Archipelago, chiefly in the eastern part: Northern Celebes, Togean Is. near Celebes, Siau-island and Sangir-(Sangi-)islands N. of Celebes, Talaut Is. N. E. of Celebes, Kangeang-island E. of Madura, Flores, Timor, Banda, Amboina, Waigeu-island.

— Philippines, Japan. — Viti Is..

## FAM. PATELLIDAE.

3. *Patella (Scutellastra) pica* Reeve.

- 1854 *Patella pica*. REEVE, Conch. Icon. (97), vol. VIII, Patella, pl. XIX, figs. 45 a—c; pl. XXVI, figs. 68a, b.
- 1854 *Patella Chitonoides*. REEVE, ibid., pl. XXI, figs. 52 a, b.
- 1891 — (*Scutellastra*) *pica*. PILSBRY (109), vol. XIII, pp. 97—98, pl. 22, figs. 9, 10, 13, 14; pl. 59, figs. 47—49; pl. 26, figs. 28, 29.
- 1906 — *chitonoides* Reeve. DAUTZENBERG et H. FISCHER, Indo-Chine (18), pp. 448—449.
- 1908 — (*Scutellastra*) *pica*. HORST et SCHEPMAN, Catalogue (31), p. 506.

Tji Solo k, Wijnkoopsbay, 5 specimens.

Tjilatjap (Leyden Museum).

Distribution: Cochin China. — Mauritius, Réunion, Madagascar.

4. *Helcioniscus testudinarius* Linné sp..

- 1705 *Lepas sive Patella*. RUMPHIUS (100), p. 121, pl. XL, fig. A.
- 1758 *Patella testudinaria*. LINNÉ, Systema Naturae, edit. X, p. 783, nr. 674.
- 1767 — — LINNÉ, Systema Naturae, edit. XII, p. 1260.
- 1819 — — LAMARCK, An. s. vert. (52), vol. VI, 1st part, p. 329, nr. 21.
- ?1834 *Lottia* — SOWERBY, Genera (105), Lottia, fig. 2.
- 1836 *Patella* — Lin.. LAMARCK, An. s. vert. (53), vol. VII, p. 532.
- 1854 — — REEVE (97), vol. VIII, Patella, pl. IV, figs. 6 a, b.
- 1855 — — HANLEY, Ipsa Linnaei Conchylia, p. 427.
- 1866 — *insignis*. DUNKER in: Verhandl. d. Zoologisch-Botanischen Gesellschaft in Wien, 1866, p. 941.
- 1891 *Helcioniscus testudinaria*. PILSBRY (109), vol. XIII, pp. 128—129, pl. 25, figs. 16—19.

- 1902 *Patella testudinaria*. VON MARTENS, Rumphius Gedenkboek (71), p. 124.  
 1908 *Helcioniscus testudinarius*. HORST et SCHEPMAN, Catalogue (31), p. 510.  
 1908 — — — SCHEPMAN, Siboga exp. (104), p. 98.

Tji Solok, Wijnkoopsbay, 1 specimen.

Palabuan, Wijnkoopsbay (VON MARTENS). Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Flores, Flores Sea, Amboina, Obi, Bachan, Halmahera, Morotai, Northern Celebes, Waigeu, Misol, New Guinea.

— Singapore, Philippines. — Cape of Good Hope.

#### 5. *Helcioniscus eucosmius* Pilsbry.

- 1854 *Patella variegata*. REEVE (97), vol. VIII, Patella, species 36, pl. XVI, figs. 36 a—c.  
 1891 *Helcioniscus eucosmia*. PILSBRY (109), vol. XIII, pp. 148—149, pl. 71, figs. 61—64.  
 1906 *Patella eucosmia*. DAUTZENBERG et H. FISCHER, Indochine (18), p. 448.  
 1908 *Helcioniscus eucosmius*. HORST et SCHEPMAN, Catalogue (31), p. 512.

Not *P. variegata* of DE BLAINVILLE (1825), nor of REEVE, Conchologia Systematica (1842).

Tji Solok, Wijnkoopsbay, 1 specimen.  
 Tjilatjap (Leyden Museum).

Distribution: Timor. — Gulf of Siam, Japan. — Red Sea, Gulf of Suez, Gulf of Akabah.  
 — Cape of Good Hope.

#### 6. *Helcioniscus enneagonus* Reeve sp..

- 1854 *Patella enneagona*. REEVE (97), vol. VIII, Patella, pl. XVIII, figs. 44 a, b.  
 1891 *Helcioniscus enneagona*. PILSBRY (109), vol. XIII, p. 152, pl. 28, figs. 35, 36.  
 1908 — — — *enneagonus*. HORST et SCHEPMAN (31), p. 512.  
 1908 — — — SCHEPMAN (104), p. 98.

Tji Solok, Wijnkoopsbay, 1 specimen.

Tjilatjap (Leyden Museum).

Distribution: Eastern part of the Malay Archipelago: Flores, Timor, Waigeu-island.

### FAM. FISSURELLIDAE.

#### 7. *Subemarginula (Clypidina) notata* Linné sp..

- 1767 *Patella notata*. LINNÉ, Systema Naturae, edit. XII, p. 1261.  
 1819 — — LAMARCK, An. s. vert. (52), vol. VI, 1st part, p. 332, nr. 32.  
 1836 — — LAMARCK, An. s. vert. (53), vol. VII, p. 536.  
 1866 *Emarginula notata*. A. ADAMS and G. B. SOWERBY in: SOWERBY, Thesaurus (106), vol. III, p. 220, figs. 86—88.  
 1873 — — SOWERBY in REEVE (97), vol. XIX, Emarginula, pl. VI, figs. 42 a, b.  
 1890 *Subemarginula (Clypidina) notata*. PILSBRY (109), vol. XII, p. 282, pl. 64, figs. 34, 35.  
 1908 — — *notata*. HORST et SCHEPMAN (31), p. 495.

Tji Solok, Wijnkoopsbay, 3 specimens.

Tjilatjap (Leyden Museum).

Distribution: Cape of Good Hope.

The habitat „West Indies”, given by LAMARCK and also by ADAMS was doubted by PILSBRY, who thought it to belong rather to the East Indian type. Our specimens and those in the Leyden Museum prove that PILSBRY’s supposition was exact.

### FAM. TURBINIDAE.

#### 8. *Turbo (Senectus) ticaonicus* REEVE.

- 1842 *Turbo Ticaonicus*. REEVE in: Proceedings of the Zoological Society of London, 1842, p. 185.  
 1848 — — REEVE (97), vol. IV, Turbo, fig. 23.  
 1873 — (*Senectus*) *Ticaonicus*. PAUL FISCHER in KIENER (32), vol. X, Turbo, pp. 87, 124, pl. 32, fig. 2.  
 1888 — — *ticaonicus*. PILSBRY (109), vol. X, p. 202, pl. 47, fig. 22; pl. 43, fig. 51.  
 1902 — *Ticaonicus* Reeve. VON MARTENS, Rumphius Gedenkboek (71), p. 113.

- 1908 *Turbo (Senectus) ticaonicus*. HORST et SCHEPMAN (31), p. 441.
- 1908 — — — SCHEPMAN (104), p. 24.
- 1911 — — — H. MARTIN-ICKE (76), p. 47.
- 1920 — — — TESCH, Timor (108), II, p. 78, pl. CXXXIII, fig. 219.

Shore of Bali-strait, north of Banjuwangi, 1 specimen.

Near reef of Batjulmati, East coast (Siboga expedition).

Distribution: East Indian Archipelago: Banka, Kangeang-island (eastward of Madura), Lombok, Paternoster-islands, Flores, Solor Is., Rotti, Timor, Amboina, Togean Is., Halma-hera, Misol, New Guinea, Talaut-islands (north of Celebes).

— Philippines (a. o. the island of Ticao, after which the species has been named), Singapore, Andamans, Seychelles, Madagascar. — New Caledonia.

Fossil in the Pliocene (Sondé beds) near Trinil (Resid. Madiun), Java. Upper Pliocene or Lower Pleistocene of Timor.

Our specimen from Banjuwangi shows a very small umbilical slit, as do some specimens of the Siboga expedition.

#### FAM. TROCHIDAE.

##### 9. *Trochus* (s. str.) *niloticus* Linné.

- 1767 *Trochus niloticus*. LINNÉ, Systema Naturae, edit. XII, p. 1227.
- 1822 — — — LAMARCK, An. s. vert. (52), vol. VII, p. 17, nr. 25.
- 1843 — — — LAMARCK, An. s. vert. (53), vol. IX, p. 132.
- 1847-'48 — — — PHILIPPI, Trochus in Conch.-Cab. (92), p. 32, pl. 7, fig. 1; pl. 8, fig. 1.
- 1867 — — — VON MARTENS (63).
- 1869 — — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 91.
- 1875 *Trochus Niloticus*. PAUL FISCHER in KIENER (32), vol. XI, Trochus, p. 66, pl. 10.
- 1879 *Trochus* (s. str.) *Niloticus*. P. FISCHER, ibid., p. 414.
- 1886 *Trochus niloticus*. BOOG WATSON, Challenger Gasterop. (8), p. 50.
- 1887 — — — VON MARTENS, Mergui (67), p. 196.

- 1889 *Trochus (s. str.) niloticus*. PILSBRY (109), vol. XI, p. 17,  
pl. 1, figs. 5—8.
- 1902 *Trochus Niloticus* L.. von MARTENS, Rumphius Gedenk-  
boek (71), p. 114.
- 1908 *Trochus (s. str.) niloticus*. HORST et SCHEPMAN (31), p. 448.
- 1908 — — — SCHEPMAN (104), p. 37.
- 1909 *Trochus niloticus*. LAMY, Java (56), p. 467.
- Not Trochus niloticus* Reeve (= *maximus* Koch).

Shore of Bali-strait north of Banjuwangi, 3  
specimens.

Bay of Popoh, South coast of Residency Kediri, 1  
specimen.

Tjilatjap (Leyden Museum). Madura (Leyden Mus.).

Distribution: East-Indian Archipelago: Mentawai-islands  
near Sumatra, Pulu-tikus near Benkulen (Sumatra), Banka,  
Borneo-bank, Sumbawa, Flores, Sumba, Dana-island, Timor,  
Lucipara-island, Amboina, Celebes, Waigeu, Misol, New Guinea.  
— New Ireland, New Caledonia, Viti Is., Samoa, North  
Australia.

— Japan. — Singapore, Mergui Archipelago, Nicobars, Co-  
romandel Coast, Ceylon.

#### 10. *Trochus (s. str.) maximus* Koch.

- 1844 *Trochus maximus*. KOCH in PHILIPPI, Abbildungen (86),  
vol. I, p. 138, *Trochus*, pl. IV, fig. 3.
- 1849 — — — PHILIPPI, *Trochus* in Conch. -Cab. (92),  
p. 115, pl. 19, fig. 4.
- 1862 *Trochus niloticus* (not of LINNÉ). REEVE (97), vol. XIII,  
*Trochus*, species 3, pl. I,  
figs. 3 a, b.
- 1867 *Trochus maximus*, Koch. von MARTENS (63).
- 1875 — — — PAUL FISCHER in KIENER (32), vol. XI,  
*Trochus*, p. 67, pl. 11 (*Tr. marmoratus*  
on the plate).
- 1879 *Trochus (s. str.) maximus*. P. FISCHER, ibid., p. 414.
- 1889 *Trochus (s. str.) niloticus* L., var. *maximus* Koch. PILSBRY  
(109), vol. XI, p. 18, pl. 1, fig. 9.
- 1908 *Trochus (s. str.) maximus*. HORST et SCHEPMAN (31), p. 448.

Coral-island Pulu Pandjang, a young specimen.  
Distribution: Billiton. — Singapore, Cochin China, Viti Is..

The specimen from Pulu Pandjang measures 31 m.m. by 31 m.m.. Though young, it could be distinguished from specimens of *Tr. niloticus* of the same age by the somewhat smaller apical angle and principally by the persistence of the sculpture on the last whorl.

11. *Trochus (Tectus) fenestratus* Gmelin.

- 1788-'90 *Trochus fenestratus*. GMELIN, Syst. Nat. (27), p. 3582, nr. 100.  
 1843 — — — DESHAYES in LAMARCK, An. s. vert. (53), vol. IX, p. 156, nr. 76.  
 1849 *Trochus caperatus*. PHILIPPI, Trochus in Conch.-Cab. (92), p. 107, pl. 17, fig. 7.  
 — — — *exaltatus*. PHILIPPI, ibid., p. 108, pl. 17, fig. 8.  
 1852 *Trochus circumsutus*. GOULD, Mollusca and Shells in: U. S. Explor. Expedition 1838-'42, vol. 12, pl. 13, fig. 220.  
 1861 *Trochus exaltatus* Philippi. REEVE (97), vol. XIII, Trochus, spec. 16, pl. IV, fig. 16.  
 — — — *crenulatus* (not of Lamarck). REEVE, ibid., spec. 17, pl. IV, fig. 17.  
 — — — *fenestratus* Gmelin. REEVE, ibid., spec. 18, pl. IV, fig. 18.  
 1876 *Trochus fenestratus*. PAUL FISCHER in KIENER (32), vol. XI, Trochus, p. 117, pl. 38, fig. 3.  
 1879 *Trochus (Tectus) fenestratus*. P. FISCHER, ibid., p. 414.  
 1889 — — — — PILSBRY (109), vol. XI, p. 22, pl. 4, figs. 28, 29.  
 1899 — — — — MELVILLE and STANDEN, Torres Straits (77), p. 175.  
 1908 — — — — HORST et SCHEPMAN (31), p. 449.  
 1908 — (*s. str.*) — — SCHEPMAN (104), p. 37.

Coral-island Pulu Pandjang, 1 specimen.  
 Shore of Bali-strait, north of Banjuwangi, 1 specimen.

Tjilatjap (Leyden Museum). Madura (Leyden Mus.).  
 Distribution: East Indian Archipelago: Borneo-bank (Strait of Makassar), Kangeang-island (east of Madura), Flores, Timor, Lucipara-island, Banda, Amboina, Obi, Sula-islands, Waigeu, Aru Is., New Guinea.

— Torres Straits, New Caledonia, Viti Is., Samoa. — Sulu-archipelago, Philippines.

12. *Trochus (Lamprostoma) maculatus* Linné.

- 1705 *Trochus secundus*. RUMPHIUS (100), p. 74, pl. XXI, figs. C, 5.
- 1758 *Trochus maculatus*. LINNÉ, Systema Naturae, edit. X, p. 756, nr. 502 (in part).
- 1822 — — — LAMARCK, An. s. vert. (52), vol. VII, p. 19, nr. 31.
- — — *granosus*. LAMARCK, ibid., p. 20, nr. 32.
- 1843 — — — *maculatus*. LAMARCK, An. s. vert. (53), vol. IX, p. 136.
- — — *granosus*. LAMARCK, ibid., p. 137.
- 1846 — — — *Gmelini*. JONAS in: Zeitschrift für Malakozoolo-  
gie, p. 123.
- 1848 — — — *rugulosus*. KOCH in: Zeitschr. f. Malakoz., p. 128.
- 1849 — — — *calliococcus*. PHILIPPI in: Zeitschr. f. Malakoz., p. 150.
- 1849 — — — *acutangulus* (*not* of Chemnitz). MENKE in PHILIPPI,  
*Trochus* in Conch.-  
Cab. (92), p. 101,  
pl. 16, fig. 12.
- 1851 *Polydonta gibberula*. A. ADAMS in: Proceedings Zoological  
Society of London, p. 155.
- 1855 *Trochus Jonasi*. PHILIPPI, *Trochus* in Conch.-Cab. (92)  
p. 260, pl. 38, figs. 9, 10.
- 1861 *Trochus altus* (*not* of Philippi). REEVE (97), vol. XIII,  
*Trochus*, pl. III, fig. 13.
- — — *smaragdus*. REEVE, ibid., pl. XII, fig. 66.
- — — *gibberulus* Adams. REEVE, ibid., pl. XII, fig. 67.
- 1862 — — — *maculatus*. REEVE, ibid., species 4, pl. I, fig. 4;  
pl. XII, figs. 4 b, 4 c.
- 1876 — — — P. FISCHER in KIENER (32), vol. XI,  
*Trochus*, p. 101, pl. 29, figs. 1, 1a.
- — — *granosus*. P. FISCHER, ibid., p. 107, pl. 34, fig. 1.
- 1879 *Trochus (Polydonta) maculatus*. P. FISCHER, ibid., p. 415.
- — — — *granosus*. P. FISCHER, ibid., p. 415.
- 1887 — — — — *maculatus*. VON MARTENS, Mergui  
(67), p. 196.
- 1889 *Trochus (Lamprostoma) maculatus* Linné and var. *granosus*  
Lam.. PILSBRY (109),  
vol. XI, pp. 24—25, 26,  
pl. 9, figs. 94, 95, 100,  
1—4; pl. 6, figs. 51, 60.
- 1895 — — *maculatus* Linné. SCHEPMAN, Borneo (102), p. 162.
- 1899 — — (*Lamprostoma*) *maculatus*. MELVILLE and STANDEN,  
Torres Straits (77), p. 175.

- 1902 *Trochus maculatus* L.. von MARTENS, Rumphius Gedenk-boek (71), p. 114.
- 1903 *Trochus (Infundibulum) maculatus* L.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 264, 280—281.
- 1908 *Trochus (Lamprostoma) maculatus* L. and var. *granosa* Lam.. HORST et SCHEPMAN (31), pp. 450, 451.
- 1908 — — — — — and var. *granosus* Lam.. SCHEPMAN (104), p. 38.
- 1911 — — — — — Lam. H. MARTIN-ICKE, Trinil (76), p. 49.
- 1919 — *maculatus* Lamk.. K. MARTIN (75), p. 102.

Coral-island Pulu Pandjang, 2 specimens. One belongs to the form *granosus* Lamk., the other is nearly intermediate between this form and the typical *maculatus*, the last whorl being but slightly constricted around the upper portion.

Shore of Bali-strait, north of Banjuwangi, 1 specimen of the form *granosus*.

Tjilatjap (Leyden Museum). Madura (var. *granosa*) (Leyden Mus.).

Measurements of shells (in millimetres):

	Alt.:	Maximum diameter:
Pulu Pandjang ( <i>granosus</i> )	34	33½
Pulu Pandjang (intermediate form)	37	39
Bali-strait	41½	43

Distribution: East Indian Archipelago: Mentawai-islands west of Sumatra, Sumatra, Banka, Billiton, Sambas (Borneo), Northern Celebes, Talaut-islands N. E. of Celebes, Lombok, Sumbawa, Flores, Timor, Lucipara-islands, Amboina, Sula Is., Bachan, Waigeu, Kei Is..

— Torres Straits, Port Essington (Northern Australia), New Caledonia, Viti Is., Kingsmill- or Gilbert-islands, Philippines, Japan. — Singapore, Mergui Archipelago, Ceylon. — Red Sea and Gulf of Akabah, Mozambique.

Fossil in the Pliocene of Java (Resid. Madiun).

13. *Trochus (Infundibulum) radiatus* Gmelin.

- 1788-'90 *Trochus radiatus*. GMELIN, Syst. Nat. (27), p. 3572,  
nr. 33.
- 1848 *Trochus eucosmus*. PHILIPPI in: Zeitschrift für Malako-  
zoologie, 1848, p. 104.
- 1848 *Trochus radiatus*. PHILIPPI, Trochus in Conch.-Cab. (92),  
p. 46, pl. 10, figs. 6—8.
- 1849 — *festivus*. PHILIPPI, ibid., p. 116, pl. 19, fig. 5.
- 1855 — *eucosmus*. PHILIPPI, ibid., p. 260, pl. 38, fig. 11.
- 1861 *Trochus vividus*. REEVE (97), vol. XIII, Trochus, species  
72, pl. XIII, fig. 72.
- — *radiatus*. REEVE, ibid., species 80, pl. XIV, fig. 80.
- — *sugillatus*. REEVE, ibid., species 85, pl. XIV, fig. 85.
- 1878 *Trochus radiatus*. P. FISCHER in KIENER (32), vol. XI,  
Trochus, p. 304, pl. 97, fig. 1.
- 1879 *Trochus (Infundibulum) radiatus*. P. FISCHER, ibid., p. 415.
- 1887 — (*Polydonta*) *radiatus*. VON MARTENS, Mergui (67),  
p. 196.
- 1889 — (*Infundibulum*) *radiatus*. PILSBRY (109), vol. XI,  
p. 37, pl. 8, figs. 86, 88—  
93; pl. 42, fig. 8; pl. 43,  
figs. 9, 10.
- 1899 *Infundibulum radiatum*. DAUTZENBERG, Sumatra (15), p. 4.
- 1908 *Trochus (Infundibulum) radiatus*. HORST et SCHEPMAN (31)  
p. 452.
- 1919 *Trochus radiatus*. K. MARTIN (75), pp. 102, 151.

Tji Solo k, Wijnkoopsbay, many specimens.

Java (without exact locality), 2 specimens.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Olehleh (Achin,  
Northern Sumatra) (Museum Wageningen), between Padang  
and Indrapura (West coast of Sumatra), Banka, Timor.

— Singapore, Mergui Archipelago, Ceylon, Red Sea, Ma-  
dagascar. — Philippines.

Fossil in the Upper Miocene of Java.

14. *Monodonta* (s. str.) *labio* Linné sp..

- 1705 *Trochus quartus* (Diklip, Labeo). RUMPHIUS (100), p. 75,  
pl. XXI, fig. E.
- 1758 *Trochus Labio*. LINNÉ, Systema Naturae, edit. X, p. 759.
- 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1230.

- 1780 *Trochus Labio*. IGN. DE BORN, Testacea musei caes. Vindobonensis, p. 335, pl. 12, figs. 7, 8.
- 1781 *Trochus Labeo* etc.. CHEMNITZ, Conchylien-Cabinet, vol. V, p. 60, pl. 166, figs. 1579—1580.
- 1788-'90 *Trochus Labio* L.. GMELIN, Syst. Nat. (27), p. 3578, nr. 76.
- 1815 *Trochus (Monodonta) Labio*. S. BROOKES, Introduction to the study of Conchology, p. 123, pl. 7, fig. 95.
- 1817 *Trochus labeo*. DILLWYN, A descriptive Catalogue of recent shells, vol. II, p. 792, nr. 80.
- 1822 *Monodonta labio*. LAMARCK, An. s. vert. (52), vol. VII, p. 34, nr. 10.
- 1825 *Turbo labio*. BLAINVILLE, Manuel de Malacologie et de Conchyliologie, p. 428, pl. 33, figs. 4, 4a.
- 1825 *Trochus Lubeo*. W. WOOD, Index Testaceologicus; or a Catalogue of Shells, p. 138, pl. 29, fig. 80.
- 1832 *Trochus Labeo*. SOWERBY, Genera (105), Trochus, fig. 5.
- 1832 *Trochus labio*. DESHAYES, Encyclopédie méthodique; Vers, vol III, p. 1080, nr. 30.
- 1843 *Monodonta labio*. LAMARCK, An. s. vert. (53). vol. IX, p. 176—177, nr. 10.
- 1851-'55 *Trochus labio*. PHILIPPI, Trochus in Conch.-Cab. (92), pp. 166, 306, pl. 27, figs. 1—3; pl. 44, fig. 8.
- 1859 *Monodonta labio*. CHENU, Manuel (11), vol. I, p. 358, fig. 2652.
- 1869 *Trochus labio*. LISCHKE, Japan. Meeresconch. (59), vol. I, p. 95.
- 1877 — — — P. FISCHER in KIENER (32), vol. XI, Trochus, p. 223, pl. 73, fig. 1; pl. 74, fig. 4.
- 1879 *Trochus (Labio) labio*. P. FISCHER, ibid., p. 421.
- 1886 *Trochus (Monodonta) labio*. BOOG WATSON, Challenger Gasterop. (8), p. 53.
- 1889 *Monodonta labio*. L. MORLET in: Journal de Conchyliologie, vol. XXXVII, p. 159.
- — — CROSSE et FISCHER in: Journ. de Conchyl., vol. XXXVII, p. 290.
- 1889 — — — PILSBRY (109), vol. XI, p. 86, pl. 19, figs. 95, 96.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 204 (120).
- 1895 — — — LINNÉ. SCHEPMAN, Borneo (102), p. 162.
- 1902 *Trochus (Labio) labio*. VON MARTENS, Rumphius Gedenk-boek (71), p. 114.

- 1905 *Monodonta labio*. DAUTZENBERG et H. FISCHER, Tonkin (17), pp. 187—189.  
 1908 *Monodonta (s. str.) labio*. HORST et SCHEPMAN (31), p. 455.  
 1908 — — — SCHEPMAN (104), p. 40.  
 1912 — — — K. MARTIN, Vorläuf. Bericht (74) p. 169.  
 1919 *Monodonta labio*. K. MARTIN (75), pp. 102, 133.

Coral-island Pulu Pandjang, 2 specimens.

Both specimens are small: Alt. 17, diameter 16 mill..

Tjilatjap (Leyden Museum). Madura (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Billiton, Sambas (Borneo), Celebes, Talaut Is. N. E. of Celebes, Lombok, Sumbawa, Flores, Tanah-Djampeah (Flores Sea), Dammer-island (N. E. of Timor), Amboina, Halmahera, New Guinea.

— Cape York (North Australia). — Sulu Sea (N. E. of Borneo).

— Japan, China, Indo-China, Singapore, Further India, Nicobars, Madras, Ceylon, East African coasts, Natal.

Fossil in the Pliocene of Java.

### 15. *Chrysostoma paradoxum* Born sp..

- 1780 *Helix paradoxa*. IGN. DE BORN, Testacea musei caes. Vindobonensis, p. 394, pl. 13, figs. 16, 17.  
 1781 *Chrysostomus Nicobaricus*. CHEMNITZ, Conchylien-Cabinet, vol. V, p. 216, pl. 182, figs. 1822—1825.  
 1788-’90 *Turbo Nicobaricus*. GMELIN, Syst. Nat. (27), p. 3596, nr. 33.  
 1822 *Turbo nicobaricus*. LAMARCK, An. s. vert. (52), vol. VII, p. 48, nr. 26.  
 1843 — — — LAMARCK, An. s. vert. (53), vol. IX, p. 214.  
 1847 — — — PHILIPPI, Turbo in Conch.-Cab. (91), p. 34, pl. 8, figs. 14—17.  
 1848 — *Nicobaricus*. REEVE (97), vol IV, Turbo, pl. XI, fig. 48.  
 1859 *Chrysostoma nicobarica*. CHENU, Manuel (11), vol. I, p. 354, fig. 2618.  
 1873 *Trochus Nicobaricus*. P. FISCHER in KIENER (32), vol. X, Turbo, p. 68, pl. 36, fig. 5 (*Turbo Nicobaricus* on the plate!).

- 1879 *Trochus (Chrysostoma) Nicobaricus*. P. FISCHER, *ibid.*, vol. XI, *Trochus*, p. 423.
- 1886 *Trochus (Chrysostoma) paradoxus*. BOOG WATSON, Challenger Gasterop. (8), p. 92.
- 1887 *Chrysostoma nicobaricum*. VON MARTENS, *Mergui* (67), p. 197.
- 1889 — *paradoxum* Born. PILSBRY (109), vol. XI, p. 466; vol. X, pl. 45, figs. 91, 92.
- 1899 — — — — MELVILLE and STANDEN, Torres Straits (77), p. 175.
- 1908 — — — — HORST et SCHEPMAN (31), p. 478.
- 1908 — — — — SCHEPMAN (104), p. 41.

Shore of Bali-strait, north of Banjuwangi, 1 specimen.

Distribution: East Indian Archipelago: Banka, Billiton, Borneo-bank (Strait of Makassar), Celebes, Saleyer, Paternoster Is. (Flores Sea), Flores, Timor, Banda, Kei Is., New Guinea. — Torres Straits, Admiralty Is. north of New Guinea, New Caledonia. — Cocos Is. (Indian Ocean, southwest of Java). — Philippines. — Singapore, Mergui Archipelago, Nicobars.

#### FAM. NERITOPSIDAE.

##### 16. *Neritopsis radula* Linné sp..

- 1705 *Valvata granulata*. RUMPHIUS (100), p. 78, pl. XXII, fig. M.
- 1758 *Nerita radula*. LINNÉ, *Systema Naturae*, edit. X, p. 777.
- 1767 *Nerita radula*. LINNÉ, *Syst. Naturae*, edit. XII, p. 1252.
- (?1834) *Neritopsis cancellata*. SOWERBY, *Genera* (105), *Neritopsis*, fig. 1.
- 1839 *Neritopsis granosa*. SOWERBY, *A Conchological Manual*, p. 71, pl. 15, fig. 331.
- 1839 *Neritopsis radula*. GRAY, *Zoology of Beechey's voyage*, p. 138.
- 1859 — — — — CHENU, *Manuel* (11), vol. I, p. 332, fig. 2407.
- 1875 — — — — SOWERBY in REEVE (97), vol. XX, Vanikoro and *Neritopsis*, pl. III.
- 1888 — — — — Linn. TRYON (109), vol. X, p. 82, pl. 29, fig. 68.

- 1889 *Neritopsis radula*. VON MARTENS, Nerita u. Neritopsis (66), pp. 131—134, pl. A, figs. 15—20.  
 1902 — — L. VON MARTENS, Rumphius Gedenkboek (71), p. 115.  
 1907 — — COUTURIER, Tahiti, etc. (13), p. 168.  
 1908 — — HORST et SCHEPMAN (31), p. 436.

Coral-island Pulu Pandjang, 2 young specimens.  
 Bantam (FAVANNE, 1780). Madura (Leyden Museum).  
 Distribution: Timor, Moluccas.

- New Caledonia, Paumotu. — Singapore, Nicobars, Coromandel Coast, Ceylon, Mauritius, Réunion.

#### FAM. NERITIDAE.

##### 17. *Nerita (Theliostyla) albicilla* Linné.

- 1705 *Valvata compressa*. RUMPHIUS (100), p. 78.  
 — een rechte wydmond. SCHYNVOET in RUMPHIUS (100), p. 79, pl. XXII, fig. 8.  
 1758 *Nerita albicilla*. LINNÉ, Systema Naturae, edit. X, p. 778.  
 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1254.  
 1788-'90 — — GMELIN, Syst. Nat. (27), p. 3681.  
 1822 — — LAMARCK, An. s. vert. (52), vol. VI, 2nd part, p. 192, nr. 8.  
 1834 — — QUOY et GAIMARD, Voyage de découvertes de l'Astrolabe (96), vol. III, p. 182, pl. 65, figs. 17, 18.  
 1838 — — LAMARCK, An. s. vert. (53), vol. VIII, p. 605, nr. 8.  
 1844 *Nerita venusta*. DUNKER in PHILIPPI, Abbildungen (86), vol. I, p. 86; Nerita, pl. I, fig. 11.  
 1855 *Nerita albicilla*. REEVE (97), vol. IX, Nerita, species 64, pl. XV, figs. 64 a—d.  
 1869 — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 85 (exclusive of var. b).  
 1871 — — LISCHKE, ibid., vol. II, p. 81.  
 1874 — — LISCHKE, ibid., vol. III, p. 60.  
 1883 — — SOWERBY, Thesaurus (106), vol. V, p. 112, Nerita, pl. II, figs. 26—28; pl. VI, fig. 113.  
 — — *ustulata*. SOWERBY, ibid., pl. VI, fig. 122.  
 1887 *Nerita albicilla*. VON MARTENS, Mergui (67), p. 194.

- 1887, 1889 *Nerita (Theliostyla) albicilla*. VON MARTENS, *Nerita u. Neritopsis* (66), pp. 25, 124, pl. 8, figs. 1—2; pl. 3, figs. 1—4, 6—9.
- 1888 *Nerita (s. str.) albicilla* Linn.. TRYON (109), vol. X, p. 19, pl. 2, figs. 21—24.
- 1890 *Nerita albicilla*. O. BOETTGER (5), p. 169.
- 1891 — — O. BOETTGER (6), p. 309.
- 1895 — — Linné. SCHEPMAN, Borneo (102), p. 162.
- 1899 *Nerita (Thelicostyla) albicilla*. MELVILL and STANDEN, Torres Straits (77), p. 174.
- 1901 *Nerita albicilla* Linné. H. FISCHER, Djibouti, etc. (22a), p. 121.
- 1902 — — L. von MARTENS, Rumphius Gedenkboek (71), p. 115.
- 1908 *Nerita (Theliostyla) albicilla* and var. *venusta* Philippi. HORST et SCHEPMAN (31), p. 404.
- 1908 — — — SCHEPMAN (104), p. 3.

Shore of Bali-strait, north of Banjuwangi, 3 specimens.

Anjer, coast of Sunda-strait (VON MARTENS). Pulu lang, Thousand Is., north of Batavia (Strubell). Reef Vader Smit, roadstead of Batavia (Strubell). Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Sumatra, Billiton, Borneo, Borneo-bank, Celebes and adjacent islands, Kangeang-island east of Madura, Lombok, Sumbawa, Flores, Sumba, Rotti, Timor, Lucipara-island, Banda, Amboina, Sula Is., Obi, Bachan, Waigeu, Aru Is., New Guinea.

— Torres Straits, Western Australia, North east coast of Australia, New Ireland, Solomon Is., New Caledonia, Viti Is., Tonga, Samoa, Tahiti. — Philippines, Formosa, Southern Japan, Hong-kong, Singapore, Mergui-archipelago, Nicobars, Ceylon, Kathiawar (West coast of India), Persian Gulf, Aden, Jibuti (Somaliland), Perim-island (Museum Wageningen), Sokotra, East African coasts and islands, Natal.

According to VON MARTENS this species does not occur in the Red Sea. Our specimen from Perim, collected by Mr. Kalshoven, is quite typical, consequently the species occurs at least in Bab-el-Mandeb Strait.

18. *Nerita (Theliostyla) reticulata* Karsten.

- 1789 *Nerita reticulata*. KARSTEN, Museum Leskeanum, vol. I,  
p. 296, nr. 1236, pl. 2, fig. 8.
- 1822 *Nerita signata*. MACLEAY in LAMARCK, An. s. vert. (52),  
vol. VI, 2nd part, p. 195, nr. 17.
- 1828 *Nerita rudis*. W. WOOD, Supplement to the Index Testa-  
ceologicus, pl. 8, fig. 13.
- 1838 *Nerita signata*. LAMARCK, An. s. vert. (53), vol. VIII,  
p. 610, nr. 17.
- — *reticulata* Karst.. DESHAYES in LAMARCK, ibid., p.  
610, nr. 18.
- 1850 — — RECLUZ in: Journal de Conchyliologie,  
vol I, p. 285.
- 1852 *Nerita (Theliostyla) petechialis* (Meuschen). MÖRCH,  
Catalogus Yoldi, p.  
167.
- 1855 *Nerita signata* Macleay. REEVE (97), vol. IX, Nerita, pl.  
X, figs. 44 a, b.
- 1867 — — MITCHELL, Catalogue of the Mollusca in  
the collection of the Government Central  
Museum, Madras, p. 30.
- 1887, 1889 *Nerita (Theliostyla) reticulata*. VON MARTENS, Nerita  
u. Neritopsis (66), pp.  
22, 124, pl. 5, figs. 1-4.
- 1888 *Nerita (s. str.) reticulata* Karsten. TRYON (109), vol. X, p.  
21, pl. 3, fig. 49.
- 1899 *Nerita signata* Macleay. MELVILL and STANDEN, Torres  
Straits (77), p. 174.
- 1908 *Nerita (Theliostyla) reticulata*. HORST et SCHEPMAN (31),  
p. 405.
- 1908 — — — — SCHEPMAN (104), p. 4.

Coral-island Pulu Pandjang, 2 specimens.

Shore of Bali-strait, north of Banjuwangi, 2  
specimens.

Anjer, coast of Sunda-strait (VON MARTENS).

Distribution: East Indian Archipelago: Flores, Timor,  
Amboina, Ceram.

— Philippine Is. — Jaluit (Marshall Is.), Gilbert Is., Solo-  
mon Is., Torres Straits, Western Australia.

The specimens are easily recognizable by the blood-red  
stain on the columellar area.

19. *Nerita (Theliostyla) chamaeleon* Linné.

- 1705 *Valvata tertia undulata*. RUMPHIUS (100), p. 77, pl. XXII,  
fig. L.  
— SCHYNVOET in RUMPHIUS (100), p. 78, pl. XXII, figs. 5, 6.
- 1758 *Nerita Chamaelon*. LINNÉ, Systema Naturae, edit. X, p.  
779, nr. 644.
- 1767 — LINNÉ, Syst. Nat., edit. XII, p. 1255.
- 1781 *Nerita Chamaeleon Linnaei*. CHEMNITZ, Conchylien-Cabinet,  
vol. V, p. 310, pl. 192, figs.  
1988—1991.
- 1788-'90 *Nerita Chamaeleon*. GMELIN, Syst. Nat. (27), p. 3682,  
nr. 49.
- 1795 *Nerita Stella*. CHEMNITZ, Conchylien-Cabinet, vol. XI, p.  
174, pl. 197, figs. 1907, 1908.
- 1817 *Nerita chamaeleon*. DILLWYN, A descriptive Catalogue of  
recent shells, vol. II, p. 1003, nr. 57.
- 1822 — — LAMARCK, An. s. vert. (52), vol. VI, 2nd  
part, pp. 192—193, nr. 9.
- 1838 — — LAMARCK, An. s. vert. (53), vol. VIII,  
p. 606, nr. 9.  
— — *stella* Chemn.. DESHAYES in LAMARCK, ibid., p. 610,  
nr. 19.
- 1841 — — *squamulata*. LE GUILLOU in: Revue Zoologique, par  
la Société Cuvierienne, p. 344.
- 1841 — — *modesta*. HOMBRON et JACQUINOT, Voyage au Pôle  
Sud, pl. 16, figs. 5, 6.
- 1848 — — *scabrella*. PHILIPPI in: Zeitschrift für Malakozoolo-  
gie, p. 14.
- 1850 — — *chamaeleon*. RECLUZ in: Journal de Conchyliologie,  
vol. I, p. 286.
- 1854 — — var.. ROUSSEAU in HOMBRON et JACQUI-  
NOT, Voyage au Pôle Sud, p. 61.
- 1855 — — HANLEY, Ipsa Linnaei Conchylia, p.  
407, pl. 4, fig. 8.
- 1855 — — *stella* Chemn.. REEVE (97), vol. IX, Nerita, pl. XIII,  
figs. 60 a, b, c, d.
- — *squamulata* Le Guill.. REEVE, ibid., pl. XV, figs.  
63 a, b, c.
- — *annulata*. REEVE, ibid., pl. XVIII, figs. 78 a, b.
- 1878 *Nerita (Theliostyla) stella* Chemn.. TROSCHEL, Das Gebiss  
der Schnecken, II, p.  
195, pl. XVIII, fig. 2  
(radula).

- 1883 *Nerita chamaeleon*. SOWERBY, Thesaurus (106), vol. V, p. 111, *Nerita*, pl. V, figs. 95—97.
- — *squamulata*. SOWERBY, ibid., p. 111, pl. II, figs. 24, 25; pl. VI, figs. 101, 102.
- — *annulata* Reeve. SOWERBY, ibid., p. 112, pl. IV, fig. 75.
- 1887 *Nerita chamaeleo* L.. von MARTENS, Mergui (67), p. 194.
- 1887, 1889 *Nerita (Theliostyla) chamaeleon*. von MARTENS, *Nerita* u. *Neritopsis* (66), pp. 19—22, 108, 124, pl. 2, figs. 13—16; pl. 5, figs. 5—15.
- 1888 *Nerita (s. str.) chamaeleon* L.. TRYON (109), vol. X, p. 20, pl. 2, figs. 31—36; pl. 3, figs. 37, 39; pl. 6, fig. 4.
- 1889 *Nerita chamaeleon*. L. MORLET in: Journal de Conchyliologie, vol XXXVII, p. 157.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 198 (reprint, p. 114).
- — *stella*. P. FISCHER, ibid., p. 198 (114).
- 1895 — — *chamaeleo* Linné. SCHEPMAN, Borneo (102), p. 162.
- — *squamulata* Le Guillou. SCHEPMAN, ibid., p. 162.
- 1902 *Nerita chamaeleo* L.. von MARTENS, Rumphius Gedenkboek (71), p. 115.
- 1905 *Nerita chamaeleon*. DAUTZENBERG et H. FISCHER, Tonkin (17), pp. 177—179.
- 1905 *Nerita (Theliostyla) chamaeleon* L., var. *squamulata* Le Guill.. K. MARTIN, Foss. von Java (73), p. 272, pl. XL, figs. 654, 655.
- 1908 — — — — and vars. *squamulata* Recluz and *annulata* Reeve. HORST et SCHEPMAN (31), pp. 405—406.
- 1908 — — — — and var. *squamulata* Guillou. SCHEPMAN (104), p. 4.
- 1911 — — — — H. MARTIN—ICKE, Trinil (76), pp. 47, 48.
- 1919 *Nerita chamaeleon* Linn., var. *squamulata* Le Guill.. K. MARTIN (75), pp. 101, 142.
- 1920 — — — L.. TESCH, Timor (108), II, p. 73, pl. CXXXIII, figs. 213 a, b.

Shore of Bali-strait, north of Banjuwangi, 2 specimens.

One specimen belongs to the typical form, the other to the form *squamulata* Le Guillou.

Tjilatjap (Leyden Museum). Palabuan, Wijnkoopsbay (VON MARTENS).

Distribution: East Indian Archipelago: Sumatra, Riouw, Sambas (Borneo), Celebes, Talaut-islands N. E. of Celebes, Sumbawa, Flores, Timor, Amboina, Ternate, Halmahera, Aru Is., New Guinea.

— Northern Australia, Port Denison (Queensland), Solomon Is., Viti Is., Samoa. — Philippines, Hongkong, Tongking, Gulf of Siam, Singapore, Mergui-archipelago, Nicobars, Vizagapatam (East coast of India).

Fossil in the Pliocene of Java and Timor.

Though this species is very variable, specimens are always characterized by the concave columellar area.

## 20. *Nerita (Cymostyla) undata* Linné.

- 1758 *Nerita undata*. LINNÉ, Systema Naturae, edit. X, p. 779.  
 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1255.  
 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.  
 1838 *Nerita undata* Lin.. DESHAYES in LAMARCK, An. s. vert. (53), vol. VIII, p. 616, nr. 27.  
 1841 *Nerita Papuana*. RECLUZ in: Revue Zoologique, par la Société Cuvierienne, p. 105.  
 1841 *Nerita marmorata*. HOMBRON et JACQUINOT, Voyage au Pôle Sud; Moll., pl. 16, figs. 14—17.  
 1842 *Nerita Le-Guillouana*, RECLUZ in: Revue Zoologique, par la Société Cuvierienne, p. 178.  
 1850 *Nerita undata*. RECLUZ in: Journal de Conchyliologie, vol. I, p. 283.  
 — — *Le-Guillouana*. RECLUZ, ibid., p. 284.  
 — — *Novae-Guineae*. RECLUZ, ibid., p. 283.  
 1855 *Nerita Le-Guillouana* Recluz. REEVE (97), vol. IX, Nerita, pl. IV, fig. 15 a.  
 — — *Savieana* (Recluz M. S.). REEVE, ibid., pl. VIII, figs. 37 a, b.  
 — — *Novae-Guineae* Lesson. REEVE, ibid., pl. XIII, figs. 59 a, b.

- 1855 *Nerita undata*. HANLEY, Ipsa Linnaei Conchylia, p. 407.  
 1883 — — Gmelin. SOWERBY, Thesaurus (106), vol. V,  
     p. 115, species 61, *Nerita*, pl. I,  
     fig. 5.  
 — — *Novae-Guineae* Lesson. SOWERBY, ibid., p. 108, spec.  
     20, *Nerita*, pl. IV, fig. 78.  
 1887, 1889 *Nerita (Cymostyla) undata*. VON MARTENS (66), pp.  
     34—37, 110—111, 124,  
     pl. 6, figs. 10—14, 16.  
 1888 *Nerita (Pila) undata* Linn.. TRYON (109), vol. X, p. 28,  
     pl. 5, figs. 87, 88, 90.  
 1895 *Nerita striata*. SCHEPMAN, Borneo (102), p. 162.  
 1899 *Nerita undata*. MELVILLE and STANDEN, Torres Straits (77),  
     p. 174.  
 1901 — — L. H. FISCHER, Djibouti, etc. (22a), p. 121.  
 1908 *Nerita (Cymostyla) undata*. HORST et SCHEPMAN (31), p.  
     408.  
 1908 — — — SCHEPMAN (104), p. 5.  
 1919 *Nerita undata*. K. MARTIN (75), p. 101.

Coral-island Pulu Pandjang, 1 young specimen,  
 greyish mottled with black.

Shore of Bali-strait, north of Banjwangi, 1  
 specimen, blackish waved with grey (as REEVE's  
 figure of *N. Savieana*).

Distribution: East Indian Archipelago: Banka, Billiton,  
 Sambas (Borneo), Celebes, Lombok, Flores, Tanah-Djampeah  
 (Flores Sea), Timor, Banda, Amboina, Ternate, Misol, New  
 Guinea.

— Torres Straits, New Britain, New Ireland, Solomon Is., Viti Is..  
 — Philippines, Japan, Hongkong, Gulf of Siam. — Jibuti (Somaliland). — Nossi Faly near Madagascar.

Fossil in the Upper Miocene of Java (Preanger).

#### Forma *striata* Burrow.

- 1815 *Nerita striata*. BURROW, Elements of Conchology, p. 172,  
     pl. 20, fig. 8.  
 1841 — *Tongaensis*. HOMBROU et JACQUINOT, Voyage au  
     Pôle Sud; Moll., pl. 16, fig. 18.  
 1841 — *chrysostoma*. RECLUZ in: Revue Zoologique, par la  
     Société Cuvierienne, p. 104 (in part).  
 1842 — *aurantia*. RECLUZ in: Revue Zool., p. 1. Soc. Cuv.,  
     p. 43.

- 1844 *Nerita costulata*. VON DEM BUSCH in: PHILIPPI, Abbild. (86), vol. I, p. 86, *Nerita*, pl. I, fig. 8.
- 1850 — *aurantia*. RECLUZ in: Journal de Conchyliologie, vol. I, p. 283, pl. 11, fig. 11.
- 1855 — *chrysostoma* Recluz. REEVE (97), vol. IX, *Nerita*, pl. IV, figs. 18 a, b.
- — *aurantia* Recluz. REEVE, ibid., pl. XI, figs. 49 a, b.
- — *grisea*. REEVE, ibid., species 23, pl. V, figs. 19 a, b.
- 1871 — *undata* L. var.. VON MARTENS und LANGKAVEL, *Donum Bismarckianum*, p. 43.
- 1883 — *chrysostoma* Recluz. SOWERBY, Thesaurus (106), vol. V, p. 116, species 63, *Nerita*, pl. II, fig. 35.
- 1887, 1889 *Nerita (Cymostyla) striata* Burrow. VON MARTENS, *Nerita* u. *Neritopsis* (66), pp. 37—39, 43, 111, 124, pl. 7, figs. 1—5.
- 1888 *Nerita (Pila) undata* L., var. *striata* Burrow. TRYON (109), vol. X, p. 28, pl. 5, figs. 91—93.
- 1908 *Nerita (Cymostyla) striata*. HORST et SCHEPMAN (31), p. 408.
- 1908 — — — — SCHEPMAN (104), p. 6.

Shore of Bali-strait, north of Banjuwangi, 1 young specimen. The black spots and waves are predominating, so as almost to obscure the greyish ground-colour.

Distribution: East Indian Archipelago: Banka, Timor, Banda, Amboina, Celebes, Talaut-islands N. E. of Celebes, New Guinea.

- Philippines, Singapore, Ceylon, Bombay, Mauritius.
- Viti Is., Tonga, Samoa, Tahiti.

Though VON MARTENS (66) deals with *Nerita striata* as a distinct species, he declares (l.c., p. 42): „*Nerita undata*, *striata*, *Spengleriana* und *quadricolor* sind nicht nur unter sich recht ähnlich, sondern auch durch einzelne Zwischenformen fast untrennbar verbunden, so dass man strenggenommen sie als Varietäten einer Art betrachten müsste; ich habe das nur deshalb nicht gethan, weil die Mehrzahl der Exemplare, auch mit Rücksicht auf die Fundorte, sich noch deutlich auseinander halten lässt.”

It is evident, that under these circumstances *Nerita striata* cannot stand as a species. As there does not seem to be any difference in the geographical distribution of *N. undata* and *N. striata*, I cannot regard *N. striata* even as a subspecies, so I am compelled to consider it merely as a form of *Nerita undata*.

21. *Nerita (Pila) plicata* Linné.

- 1758 *Nerita plicata*. LINNÉ, Systema Naturae, edit. X, p. 779.  
 1767 — — LINNÉ, Systema Naturae, edit. XII, p. 1255.  
 1771 *Nerita lactaria*. LINNÉ, Mantissa plantarum altera, p. 551.  
 1788-'90 *Nerita plicata*. GMELIN, Syst. Nat. (27), p. 3681, nr. 47.  
 1822 — — LAMARCK, An. s. vert. (52), vol. VI, 2nd part, p. 194, nr. 15.  
 1830 *Nerita Otaitensis*. LESSON, Voyage autour du monde, exécuté sur la corvette de S. M. la Coquille, pendant les années 1822—'25; Zoologie, vol. II, 1, p. 370.  
 1834 *Nerita versicolor*. QUOY et GAIMARD, Voyage de découvertes de l'Astrolabe (96), vol. III, p. 186, pl. 65, figs. 23—26.  
 1838 *Nerita plicata*. LAMARCK, An. s. vert. (53), vol. VIII, p. 609, nr. 15.  
 1855 — — REEVE (97), vol. IX, Nerita, pl. IX, figs. 42 a, b, c, d.  
 1855 — — HANLEY, Ipsa Linnaei Conchylia, p. 406.  
 1887, 1889 *Nerita (Pila) plicata*. VON MARTENS, Nerita u. Nericopsis (66), pp. 63—67, 112, 124, pl. 10, figs. 6—12.  
 1888 — — Linn. TRYON (109), vol. X, p. 27, pl. 5, figs. 81, 82.  
 1899 *Nerita (Peleronta) plicata*. MELVILL and STANDEN, Torres Straits (77), p. 174.  
 1902 *Nerita plicata* L.. VON MARTENS, Rumphius Gedenkboek (71), p. 115.  
 1907 — — COUTURIER, Tahiti, etc. (13), p. 168.  
 1908 *Nerita (Pila) plicata*. HORST et SCHEPMAN (31), p. 409.  
 1908 — — SCHEPMAN (104), p. 6.  
 1919 *Nerita plicata*. K. MARTIN (75), p. 101.

Tji Solok, Wijnkoopsbay. The only specimen is whitish without spots. The interstices of the ribs are pinkish white, becoming more pink towards the end of the last whorl; the ribs are white.

Palabuan, Wijnkoopsbay (von MARTENS).

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Kangeang-island (east of Madura), Lombok, Tanah-Djampeah (Flores Sea), Flores, Adonara, Rotti, Timor, Roma, Banda, Amboina, Ceram, Tawali near Bachan, Tidore, Ternate, Northern Celebes and islands N. E. of Celebes, Morotai, Misol, Aru Is., New Guinea.

— North Western Australia, Torres Straits, New Caledonia, Viti Is., Samoa, Tahiti, Paumotu, Marshall Is., Caroline Is., Marianne Is., Philippines, Formosa, Japan, Hongkong, Nicobars, Coromandel Coast, Ceylon, East African coasts and islands, Natal.

Fossil in the Upper Miocene of Java (Preanger).

This species lives on reefs and shores at low-water level and somewhat higher.

## 22. *Nerita* (s. str.) *polita* Linné.

- 1705 *Valvata striata prima sive alpina*. RUMPHIUS (100), p. 77, pl. XXII, fig. I.
- — *secunda sive fasciata*. RUMPHIUS, ibid., fig. K.
- SCHYNVOET in RUMPHIUS, ibid., pl. XXII, figs. 2, 7.
- 1758 *Nerita polita*. LINNÉ, Systema Naturae, edit. X, p. 778.
- 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1254.
- 1781 *Nerita pennata*. CHEMNITZ, Conchylien-Cabinet, vol. V, p. 320, pl. 193, figs. 2011, 2012.
- — *nigra duplii fascia* etc.. CHEMNITZ, ibid., p. 321, pl. 193, fig. 2015.
- — *larva*. CHEMNITZ, ibid., p. 322, pl. 193, fig. 2017.
- — *hieroglyphica*. CHEMNITZ, ibid., p. 322, pl. 193, figs. 2016, 2018.
- 1789 — *florescens*. CHEMNITZ, Conchylien-Cabinet, vol. X, pp. 303, 304, 424, pl. 165, figs. 1594, 1595.
- 1788-'90 *Nerita bifasciata*. GMELIN, Syst. Nat. (27), p. 3685, nr. 26.
- — *larva*. GMELIN, ibid., p. 3679.
- — *litterata*. GMELIN, ibid., p. 3685.
- — *bidens* var.  $\beta$ . GMELIN, ibid., p. 3679.
- 1822 *Nerita polita*. Lamarck, An. s. vert. (52), vol. VI, 2nd part, p. 192, nr. 7.
- 1834 *Nerita polita*. QUOY et GAIMARD, Voyage de l'Astrolabe (96), vol. III, p. 189, pl. 65, fig. 31.

- 1834 *Nerita doreyana*. QUOY et GAIMARD, *ibid.*, p. 190, pl. 65,  
figs. 43, 44.
- 1838 *Nerita polita*. LAMARCK, *An. s. vert.* (53), vol. VIII, pp.  
604—605, nr. 7.
- 1841 *Nerita polita*. HOMBRON et JACQUINOT, *Voyage au Pôle  
Sud; Moll.*, pl. 16, figs. 21, 22.
- — *Vitiensis*. HOMBRON et JACQUINOT, *ibid.*, pl. 17,  
figs. 3—5.
- 1841 — *Orbignyana*. RECLUZ in: *Revue Zoologique, par la  
Société Cuvierienne*, 1841, p. 108.
- — *Rumphii*. RECLUZ, *ibid.*, p. 147.
- 1850 — *polita*. RECLUZ in: *Journal de Conchyliologie*, vol.  
I, p. 282.
- — *Orbignyana*. RECLUZ, *ibid.*, p. 282.
- 1852 *Nerita nigra*. MÖRCH, *Catalogus Yoldi*, p. 168.
- — *hieroglyphica*. MÖRCH, *ibid.*, p. 168.
- — *flavescens*. MÖRCH, *ibid.*, p. 168.
- — *flava* (Meuschen). MÖRCH, *ibid.*, p. 168.
- 1855 *Nerita polita*. REEVE (97), vol. IX, *Nerita, species 2*, pl. I,  
figs. 2 a—d.
- — *Orbignyana*. REEVE, *ibid.*, spec. 58, pl. XIII, figs.  
58 a, b.
- — *Rumphii*. REEVE, *ibid.*, spec. 62, pl. XIV, figs.  
62 a—k.
- 1855 *Nerita polita*. HANLEY, *Ipsa Linnaei Conchylia*, p. 403.
- 1858 *Nerita lineolata*. GRAY in: *Annals and Magazine of Natural  
History*, p. 66.
- 1858 — — GRAY in: *Proceedings Zoological Society*,  
p. 94.
- 1883 *Nerita polita*. SOWERBY, *Thesaurus* (106), vol. V, p. 105,  
species 1, *Nerita*, pl. I, figs. 2, 3.
- — *Orbignyana*. SOWERBY, *ibid.*, p. 106, spec. 6, pl.  
III, figs. 48, 49.
- — *Rumphii* and var. *argus* Recl.. SOWERBY, *ibid.*, p.  
106, spec. 5, pl. I,  
figs. 8—11, pl. VI,  
fig. 103.
- 1887 *Nerita polita*. VON MARTENS, *Mergui* (67), p. 194.
- 1888 *Nerita (Odontostoma) polita* and var. *Rumphii*. TRYON  
(109), vol. X, pp. 30, 31, pl. 6,  
figs. 7—11; pl. 7, figs. 12—16,  
19—20, 23.
- 1888, 1889 *Nerita (s. str.) polita* and var. *Rumphii*. VON MAR-  
TENS, *Nerita u. Neritopsis* (66),

- pp. 72—81, 124, pl. 3, figs. 5,  
10—15; pl. 14, figs. 1—13.
- 1890 *Nerita polita*. O. BOETTGER (5), pp. 169—170.  
 1891 — — O. BOETTGER (6), p. 310.  
 1899 — — MELVILL and STANDEN, Torres Straits (77),  
p. 173.  
 1899 — — DAUTZENBERG, Sumatra (15), p. 4.  
 1901 *Nerita rumphii* Recluz. H. FISCHER, Djibouti, etc. (22a),  
p. 121.  
 1903 *Nerita (Odontostoma) polita* L. var. *rumphii* Recl.. STURANY,  
Gastropoden des Rothen  
Meeres (107a), pp. 264, 280  
—281.  
 1907 *Nerita polita* L.. COUTURIER, Tahiti, etc. (13), p. 168.  
 1908 *Nerita (Tenare) polita*; variété intermédiaire de l'espèce et  
de la variété *Rumphii* and var.  
*Rumphii*. HORST et SCHEPMAN (31),  
pp. 410—411.  
 1908 *Nerita polita* and var. *Rumphii*. SCHEPMAN (104), p. 7.  
 1909 *Nerita polita*, var. *Rumphii*. LAMY, Java (56), p. 467.  
 1911 *Nerita (Tenare) polita*. H. MARTIN-ICKE, Trinil (76), p. 47.  
 1919 *Nerita polita*, var. *Rumphii*. K. MARTIN (75), p. 101.  
 1923 *Nerita (Odontostoma) polita* L. var. *rumphii* Recl.. HENRICH,  
Meeresmoll. Sinai (28a), p. 73.

Coral-island Pulu Pandjang, 1 specimen. Pinkish grey with 3 darker bands formed by small black spots, in general appearance somewhat like fig. 2 c of REEVE, the dark bands however not being reddish as in REEVE's figure.

The specimen may be assigned to the form *rumphii*, but it is not a typical representative of this form, the spiral striae being distinct on the earlier whorls only. For the rest the existence of many transitional forms between *N. polita* and *N. rumphii* proves the very small systematic value of the latter.

Other Javanese localities: Pulu lang, Thousand Is. north of Batavia (Strubell). Anjer, coast of Sunda-strait (VON MARTENS). Tjilatjap (Leyden Museum).

Distribution of *Nerita polita* (inclusive of *N. rumphii*): East Indian Archipelago: Sumatra, Banka, Billiton, Palos-bay (Celebes), Lombok, Sumbawa, Flores, Adonara, Timor, Roma, Lucipara-island, Banda, Amboina, Ceram, Bachan, Ternate, Halmahera, Waigeu, Aru Is., New Guinea.

— Torres Straits, New Ireland, Solomon Is., Viti Is., Tonga, Samoa, Paumotu, Hawaii. — Northern Queensland, Western Australia, South coast of Australia. — Philippines, Southern China: near Canton and Hongkong, South China Sea, Gulf of Siam, Singapore, Salang, Mergui Archipelago, Nicobars, Andamans, Madras, Ceylon, Persian Gulf, South coast of Arabia, Jibuti (Somaliland), Red Sea, Gulf of Suez, Gulf of Akabah, East African coasts and islands, Natal, Table Bay (Cape of Good Hope).

Fossil in the Miocene and Pliocene of Java.

*Nerita polita* lives on rocks, that are covered by the sea only for a short time at high tide.

### 23. *Nerita (Amphinerita) insculpta* Recluz.

- 1841 *Nerita insculpta*. RECLUZ in: Revue Zoologique, par la Société Cuvierienne, p. 152.  
 — — — *Listeri*. RECLUZ, ibid., p. 177.  
 — — — *georgina*. RECLUZ, ibid., p. 180.
- 1841 *Nerita arcta*. HOMBRON et JACQUINOT, Voyage au Pôle Sud; Moll., pl. 16, figs. 12, 13.
- 1850 *Nerita insculpta*. RECLUZ in: Journal de Conchyliologie, vol. I, p. 282.  
 — — — *georgina*. RECLUZ, ibid., p. 282, pl. 11, fig. 10.  
 — — — *Pacifica*. RECLUZ, ibid., p. 283 (no figure!).
- 1852 *Nerita georgina*. SOULEYET, Voyage de la Bonite (20), vol. II, p. 566, pl. 34, fig. 5.
- 1854 *Nerita arcta*. ROUSSEAU in HOMBRON et JACQUINOT, Voyage au Pôle Sud; Moll., p. 62.
- 1855 *Nerita Georgina* Recluz. REEVE (97), vol. IX, Nerita, pl. XVII, figs. 74 a, b.
- 1874 *Nerita Birmanica* (Phil.) var. *minor*. DUNKER, Catalog d. Mus. Godeffroy, V, p. 144; VI, p. 90.  
 — — — *Hilleana*. DUNKER, ibid., V, p. 145.
- 1888 *Nerita (Odontostoma) Georgina* Recl. TRYON (109), vol. X, p. 33, pl. 7, fig. 31.  
 — — — — *arcta* Hombr. and Jacq.. TRYON, ibid., p. 34, pl. 9, figs. 64, 65.
- 1888, 1889 *Nerita (Amphinerita) insculpta* Recl.. von MARTENS, Nerita u. Neritopsis (66), pp. 88—91, 124, pl. 11, figs. 1—4.

- 1891 *Nerita insculpta* Recl.. P. FISCHER, Catal. Indo-Chine (22),  
p. 199 (reprint, p. 115).
- 1899 *Nerita Georgina* Recluz. DAUTZENBERG, Sumatra (15), p. 4.
- 1905 *Nerita insculpta* Recl.. DAUTZENBERG et H. FISCHER, Ton-  
kin (17), pp. 176—177.
- 1908 *Nerita (Amphinerita) insculpta* Recluz and vars. *arcta*  
Hombr. et Jacq. and *paci-  
fica* Recl.. HORST et SCHEP-  
MAN (31), p. 412.
- 1908 *Nerita insculpta* Recl. var. *arcta* Hombr. et Jacq.. SCHEP-  
MAN (104), p. 8.

Not *Nerita Listeri* (not of Recluz) REEVE, figs. 36 a, b.

Tji Solok, Wijnkoopsbay, 1 specimen, belonging to the form *arcta* Hombr. et Jacq.. It agrees fairly well with the description of a specimen from Misol by SCHEPMAN. The colour is somewhat darker than in the figures of von MARTENS, but there are only very slight indications of teeth on the columellar margin. There are also some intermediate ribs on the basal zone of the last whorl, the total number of ribs at the outer margin amounts to 35.

Height: 12½, maximum diameter: 14 millimetres.

Mantjangan, south coast of Resid. Jokjakarta, 1 specimen. As it is rather dark coloured and the columellar margin has more distinct teeth, it may be assigned to the form *pacifica* Recluz, though the last whorl is much deflected in front and consequently the shell is higher than usual.

Height: 15, maximum diameter: 14 millimetres.

At the outer margin the number of ribs amounts to about 36.

Distribution: East Indian Archipelago: Between Padang and Indrapura (West Coast of Sumatra), Flores, Timor, Amboina, Ceram, Ternate, Halmahera, Morotai, Misol, Aru Is., — Malacca, Annam, Tongking (in brackish water), Philippines.

— King George Sound (south coast of Western Australia), Port Denison (Queensland), Samoa.

#### 24. *Neritina (Dostia) crepidularia* Lamarck.

- 1822 *Neritina crepidularia*. LAMARCK, An. s. vert. (52), vol. VI,  
2nd part, p. 186, nr. 10.

- 1836 *Neritina cornucopia*. BENSON in: Journal of the Asiatic Society of Bengal, V, p. 748.  
 — — — *depressa*. BENSON, ibid., p. 748.
- 1837 *Neritina melanostoma*. TROSCHEL in: Archiv für Naturgeschichte, Jahrg. III, p. 179.
- 1838 *Neritina crepidularia*. LAMARCK, An. s. vert. (53), vol. VIII, p. 572, nr. 10.  
 — — — *violacea*. DESHAYES in LAMARCK, ibid., p. 580, nr. 25.
- 1842 *Nerita Indica*. SOULEYET in: Revue Zoologique, p. 269.  
 — — — *Touranensis*. SOULEYET, ibid., p. 269.
- 1843 *Neritina Siquijorensis*. RECLUZ in: Proceedings Zoological Society London, p. 198.
- 1843 *Neritina melanostoma* Tr.. PHILIPPI, Abbild. (86), vol. I, Neritina, pl. I, fig. 11.
- 1849 *Neritina crepidularia* Lamarck. SOWERBY, Thesaurus (106), vol. II, p. 509, nr. 9, pl. CXIII, figs. 139—144.  
 — — — *depressa* Benson. SOWERBY, ibid., p. 510, nr. 11, pl. CXIII, figs. 147—148.  
 — — — *Siquijorensis* Recluz. SOWERBY, ibid., p. 510, nr. 12, pl. CXIII, figs. 145—146.
- 1850 *Neritina crepidularia* Lk.. RECLUZ in: Journal de Conchyliologie, vol. I, pp. 60, 69.  
 — — — *violacea* Gm.. RECLUZ, ibid., p. 67.  
 — — — *melanostoma* Tr.. RECLUZ, ibid., p. 70.  
 — — — *touranensis*. RECLUZ, ibid., p. 71.  
 — — — *exaltata*. RECLUZ, ibid., p. 65, pl. III, fig. 3.  
 — — — *pileolus*. RECLUZ, ibid., p. 66.
- 1851 *Neritina crepidularia* Lk.. METCALFE in: Proceedings Zoological Society of London, p. 72.
- 1852 *Nerita Tourannensis*. SOULEYET, Voyage de la Bonite (20), vol. II, p. 570, pl. 34, figs. 28—31.  
 — — — *melanostoma* Tr.. SOULEYET, ibid., p. 571, pl. 34, figs. 32—35. („Nérite indienne” on the plate!).
- 1853 *Neritina crepidularia*. METCALFE in: Annals and Magazine of Natural History, 2nd series, vol. XI, p. 69.
- 1855 *Neritina Crepidularia*. REEVE (97), vol. IX, Neritina, pl. VIII, figs. 38 a, b.  
 — — — *depressa* Benson. REEVE, ibid., pl. XVIII, figs. 86 a, b.
- 1856 — — — *Siquijorensis* Recluz. REEVE, ibid., pl. XXVII, figs. 119 a, b.

- 1867 *Neritina (Dostia) depressa* Bens.. BLANFORD in: Journal of the Asiatic Society of Bengal, vol. XXXVI, part 2, p. 60, pl. XII, figs. 17—19.
- — — *cornucopia* Bens.. BLANFORD, ibid., p. 60, pl. XII, figs. 23—25.
- — — *crepidularia*. BLANFORD, ibid., p. 60, pl. XII, figs. 20—22.
- 1872 *Neritina cornucopia*. MORELET in: Journal de Conchyliologie, vol. XX, p. 137.
- — *violacea* Gm.. MORELET, ibid., pp. 133, 137.
- 1874 *Neritina (Mitrula) Schläflii*. MOUSSON in: Journ. d. Conch., vol. XXII, p. 49.
- 1874 *Neritina (Dostia) crepidularia* Lk.. ISSEL, Molluschi Borneensi, pp. 106, 108.
- — — *cornucopiae* Bens.. ISSEL, ibid., p. 108.
- 1875 *Neritina violacea* Gm.. MORELET, Séries Conchyliologiques, livrals. IV, pp. 322—327.
- — *cornucopia* Bens.. MORELET, ibid., p. 325.
- 1875, 1879 *Neritina (Neritaea) crepidularia* Lam.. VON MARTENS, Neritina (64), pp. 37—45, 276—277, pl. 7, figs. 1—14.
- 1882 *Neritina crepidularia* Lam.. E. A. SMITH, Freshw. shells of Australia (104ter), p. 297.
- 1887 *Neritina (Dostia) crepidularia* Lam.. VON MARTENS, Mergui (67), p. 171.
- 1888 — — — — TRYON (109), vol. X, p. 77, pl. 23, figs. 95—99.
- 1889 *Neritina violacea* Gmel.. L. MORLET in: Journ. de Conch., vol. XXXVII, p. 157.
- — *cornucopiae* Bens.. L. MORLET, ibid., p. 158.
- 1890 *Neritina (Dostia) crepidularia*. O. BOETTGER (5), p. 162.
- 1891 — — *violacea* Gm.. P. FISCHER, Catal. Indo-Chine (22), p. 200 (reprint, p. 116).
- — — *depressa* Bens.. P. FISCHER, ibid., p. 200 (116).
- — — *cornucopia* Bens.. P. FISCHER, ibid., p. 200 (116).
- 1897 — *crepidularia*. VON MARTENS (69), pp. 218, 306.
- 1898 — — *P. u. F. SARASIN*, Süssw.-Moll. Celebes (101), p. 70.

- 1903 *Neritina (Dostia) crepidularia*, Lam.. DAUTZENBERG, Sam-  
bas (16a), p. 7.
- 1904 — *violacea* Gm.. H. FISCHER et DAUTZENBERG,  
Catal. Indo-Chine in: Mission  
Pavie; Etudes diverses, III, p.  
434 (p. 45 of reprint).
- — *(Dostia) depressa* Bens.. H. FISCHER et DAUT-  
ZENBERG, ibid., p. 434  
(45).
- — — *cornucopia* Bens.. H. FISCHER et DAUT-  
ZENBERG, ibid., p.  
434 (45).
- 1905 — *(Dostia) violacea* Gmelin. DAUTZENBERG et H.  
FISCHER, Tonkin (17),  
pp. 182—186.
- 1906 — — — — and var. *melanostoma*  
Troschel. DAUTZEN-  
BERG et H. FISCHER,  
Indo-Chine (18), pp.  
447, 448.
- 1908 — *(Neritaea) crepidularia* and vars. *cornucopiae*  
Benson and *exaltata* Re-  
cluz. HORST et SCHEP-  
MAN (31), p. 415.
- — — — *siquijorensis* Recluz. HORST et SCHEP-  
MAN, ibid., p. 416.
- 1908 — — — *crepidularia*, var. *exaltata* Recl.. SCHEP-  
MAN (104), p. 9.
- 1914 — *crepidularia*. LESCHKE, Java und Celebes (58),  
p. 263.
- 1919 *Dostia cornucopia* (Benson). ANNANDALE and PRASHAD,  
Gangetic Delta (2), p. 242, pl.  
XX, fig. 2 a.
- — *depressa* (Benson). ANNANDALE and PRASHAD, ibid.,  
pp. 243, 244, pl. XX, fig. 2 b.
- 1921 *Neritina (Dostia) crepidularia*, var. *melanostoma* (Tr.) and  
*exaltata* (Recl.). PRASHAD,  
Sumatra (95), pp. 498, 499.

Surabaya, shore of Bandjaran, 2 specimens. One specimen belongs to the form *exaltata* Recl., it has 12 teeth on the columellar margin and a reticulated colour-pattern, unfortunately the peristome is bleached. The other specimen is in no better condition, it

seems to be somewhat intermediate between the forms *exaltata* and *cornucopia* Bens. as distinguished by VON MARTENS, the number of teeth is about 9. Coast near mouth of river Tji Lamaja, 1 specimen of the form *exaltata* with red-coloured peristome.

Maximum diameter: 19; height of the aperture: 13 $\frac{1}{2}$  millimetres.

Tandjong Priok near Batavia (Strubell). River Kali Mas near Surabaya (Leyden Museum). Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Sumatra: Palembang, mangrove-swamps at Belawan (Deli); Banka; Borneo; Makassar (Celebes); Bali; Timor; Mac Cluer Gulf, New Guinea; not recorded from the Moluccas.

— Port Essington (Northern Australia); Swan River, Western Australia; Northern Queensland.

— Philippines; Yokohama, Japan. — Tongking, in brackish water in the Delta-region; Annam; river Mekong in Lower Cochin-China; Cambodia; Bangkok, also in fresh water; Patani river on the east coast of the Malay Peninsula; Singapore; Mergui-archipelago, on mud-flats and sand-flats; Irrawady Delta (Burma); Gangetic Delta; Coromandel Coast; Ceylon; Calicut (Malabar Coast), in swampy pools; Persian Gulf. — ? Natal (S. Africa).

*Neritina crepidularia* occurs chiefly in brackish water, but it lives also in fresh or almost fresh water near the upper limits of tidal influence.

### 25. *Septaria suborbicularis* Sowerby sp..

1705 *Nootedoppen*. RUMPHIUS (100), p. 123, pl. XL, fig. O.

1825 *Navicella suborbicularis*. SOWERBY, Catalogue of the shells of Earl Tankerville; appendix, p. X.

1855 — — — SOWERBY, Thesaurus (106), vol. II, p. 551, pl. 108, figs. 30, 31.

1856 — — *orbicularis* (Sowerby). REEVE (97), vol. IX, Navicella, pl. II, figs. 5 a, b, c.

1881 — *suborbicularis*. VON MARTENS, Navicella (65), pp. 31—34, pl. 6, figs. 5—14.

1888 *Navicella (Elara) suborbicularis*. TRYON (109), vol. X, p. 81, pl. 29, figs. 44—46.

- 1897 *Septaria suborbicularis*. VON MARTENS (69), pp. 84—85, 307.  
 1898 — — — P. und F. SARASIN, Süsswassermoll.  
     Celebes (101), p. 72.  
 1902 *Septaria (Navicella) suborbicularis*. VON MARTENS, Rum-  
     phius Gedenkboek (71),  
     p. 124.  
 1908 *Septaria suborbicularis*. HORST et SCHEPMAN (31), p. 435.  
 1908 — — — SCHEPMAN (104), p. 14.  
 1912 — — — SCHEPMAN (103), p. 238.  
 1914 — — — LESCHKE, Java und Celebes (58),  
     pp. 265—266.

Tji Solok, Wijnkoopsbay, 1 specimen, rather worn,  
 belonging to the typical form.

Near Palabuan at the Wijnkoopsbay. (von MARTENS).  
 Nusa Kambangan (Jacobson). River Bomo (Kali Bämä),  
 southward of Banjuwangi, East-Java (Zollinger).

Distribution: East Indian Archipelago: Sumatra, Lombok  
 (in rivers), Flores (in rivers), Adonara, Solor Is., Sumba, Timor,  
 brook at Amboina, Ceram, Pulu Kelang west of Ceram, Ter-  
 nate, Northern Celebes, Togean Is. near Celebes, New Guinea.  
 — New Hanover near New Guinea. — Philippines (in rivers  
 and rivulets), Singapore, Nicobars, Andaman Is., Ceylon.  
 The locality „Iles Marquises” (specimens from the Cuming  
 collection in the Leyden Museum) is at least very doubtful.

According to von MARTENS this species is confined to fresh  
 water; it was never found in brackish water by that author.

#### FAM. TURRITELLIDAE.

##### 26. *Turritella* (s. str.) *terebra* Linné sp..

- 1705 *Strombus tympanorum*, *Tympanotonos*. RUMPHIUS (100), p.  
     100, pl. XXX, fig.  
     M.
- 1767 *Turbo terebra*. LINNÉ, Systema Naturae, edit. XII, p.  
     1239 (not of Fauna Suecica).
- 1817 *Turritella Archimedes*. DILLWYN, A descriptive Catalogue  
     of recent shells, vol. II, p. 871,  
     nr. 135.
- 1843 *Turritella terebra*. LAMARCK, An. s. / vert. (53), vol. IX,  
     p. 252.
- 1843-'44 — — — KIENER (32), vol. X, Turritella, p. 4,  
     pl. 3, fig. 1.

- 1849 *Turritella terebra*. REEVE (97), vol. V, Turritella, pl. I, fig. 3.
- 1884 — — K. MARTIN, Tiefbohr. Java (72), p. 171.
- 1886 — — TRYON (109), vol. VIII, p. 195, pl. 59, fig. 32.
- 1897 *Turritella (s. str.) terebra*. KOBELT, Turritella (36), p. 29, pl. 7, fig. 2.
- 1899 — — — HOERST et SCHEPMAN (31), p. 242.
- 1902 *Turritella terebra* L.. von MARTENS, Rumphius Gedenkboek (71), p. 120.
- 1905 *Turritella terebra*, var.. K. MARTIN, Foss. v. Java (73), p. 232, pl. XXXV, fig. 548.
- 1907 — — L.. SCHEPMAN, Posttertiär Celebes (102a), p. 190.
- 1909 *Turritella (s. str.) terebra*. SCHEPMAN (104), p. 186.
- 1919 *Turritella terebra*, var.. K. MARTIN (75), pp. 96, 124, 134, 145.

Coast near mouth of river Tji Lamaja, 1 specimen.  
Surabaya, Harbour, mud, 3 specimens.

Near „Zwaantjes-droogte”, Madura-strait (Siboga expedition).

Distribution: Indrapura, West coast of Sumatra (Museum Wageningen), Riouw-archipelago, West coast of Borneo, Amboina, Ceram.

— Singapore, Philippines, China. — Indian Ocean.

Fossil in quaternary deposits at Batavia and Semarang and in the Minahassa (Northern Celebes). A somewhat deviating form in the Upper Miocene of East-Java.

### 27. *Turritella (s. str.) cingulifera* Sowerby.

- 1825 *Turritella cingulifera*. SOWERBY, A Catalogue of the shells contained in the collection of the late Earl of Tankerville; Appendix, p. XIV.
- 1843-'44 *Turritella fragilis*. KIENER (32), vol. X, Turritella, p. 34, pl. 8, fig. 3.
- 1849 *Turritella cingulifera*. REEVE (97), vol. V, Turritella, pl. XI, fig. 64.
- 1877 *Torcula parva*. ANGAS in: Zoolog. Proceedings, p. 174, pl. 26, fig. 17.
- 1884 *Turritella vulgaris*. K. MARTIN, Tiefbohr. Java (72), pp. 172—173, 308, pl. 9, fig. 167.

- 1886 *Turritella cingulifera*. TRYON (109), vol. VIII, p. 198,  
pl. 59, figs. 38, 39, 41.
- 1887 — VON MARTENS, Mergui (67), p. 192.
- 1897 *Turritella (Haustator) cingulifera*. KOBELT, Turritella (36),  
p. 23, pl. 5, fig. 11.
- 1897 *Turritella (s. str.) fragilis*. KOBELT, ibid., p. 33, pl. 8,  
figs. 7, 8.
- 1903 *Turritella cingulifera* Sow. STURANY, Gastropoden des  
Rothen Meeres (107a), pp. 257,  
278—279.
- 1905 — K. MARTIN, Foss. v. Java (73), p. 233.
- 1909 *Turritella (s. str.) cingulifera*. SCHEPMAN (104), p. 187.
- 1911 *Turritella cingulifera*. H. MARTIN-ICKE, Trinil (76), p. 47.
- 1919 — K. MARTIN (75), pp. 96, 124, 125,  
138.
- 1920 — TESCH, Timor (108), II, p. 61, pl.  
CXXXII, fig. 193.

Coast near mouth of river Tji Lamaja, many specimens.

Near reef of Batjulmati, East coast (Siboga expedition). Madura-strait (Siboga exp.).

Distribution: Widely spread throughout the eastern part of the Indian Archipelago: Borneo-bank (Strait of Makassar), Celebes and adjacent isles, Talaut Is. (N. E. of Celebes), Sumbawa, Flores, Flores Sea, Adonara, Sumba, Savu, Timor, Roma-island, Amboina, Obi, Kei-islands.

— Mergui-archipelago (Further India). — Southern Red Sea. — North Australia.

Fossil in the Upper-Miocene and in the Pliocene of Java and in the Pliocene of Timor.

#### FAM. VERMETIDAE.

##### 28. *Tenagodes (Agathireses) cumingi* Mörch.

Figure 1.

- 1860 *Siliquaria Cumingii*. MÖRCH in: Proceedings Zoological Society, London, 1860, p. 403.
- 1878 — SOWERBY in REEVE (97), vol. XX,  
*Siliquaria*, pl. I, figs. 2, 3 (2 b).
- 1886 — SOWERBY, Thesaurus (106), vol. V,  
p. 164, pl. 480, fig. 6.

- 1886 *Siliquaria (Agathirses) Cumingii*. TRYON (109), vol. VIII,  
p. 190, pl. 57, fig. 19;  
pl. 58, fig. 21.
- 1899 *Siliquaria Cumingii*. MELVILL and STANDEN, Torres Straits  
(77), p. 170.
- 1909 *Tenagodus (Agathirses) Cumingi*. SCHEPMAN (104), p. 184.

Surabaya, Harbour, mud, 1 specimen (figure 1). The specimen is characterized by the granular lirae below. In this respect it agrees very well with the specimens from the Siboga-expedition assigned to *Tenagodes cumingi* by SCHEPMAN. It is somewhat more regularly wound than the latter specimens, but this characteristic is of course of no importance in the genus.

Distribution: Eastern part of the Malay Archipelago: Sumbawa, Sumba, Buton near Celebes, Waigeu-island, Halmahera Sea near New Guinea.

— Torres Straits. — Philippines, Japan.

#### FAM. MELANIIDAE.

For the classification of *Melaniidae* I have followed ANNANDALE (1) and PEASHAD (95). *Melanoides* Olivier and *Acrostoma* Brot (= *Brotia* in VON MARTENS (69)) are considered by ANNANDALE as distinct genera as well as *Melania* Lamarck. The javanese group of *Melania testudinaria* and *sulcospira* is not dealt with by ANNANDALE, they seem to me to belong to none of the genera accepted by that author, so I have adopted provisionally *Sulcospira* (Troschel, 1857) as a distinct genus. The name *Pachychilus* (Lea, 1850), originally used for Central American species, has been applied by BROT and others to members of this group, but there does not seem to be a close relationship between the javanese and the american species.

#### Genus *Sulcospira*, Troschel.

##### 29. *Sulcospira testudinaria* von dem Busch sp..

- 1842 *Melania testudinaria*. VON DEM BUSCH in PHILIPPI, Abbildungen (86), vol. I, p. 3, *Melania*, pl. I, fig. 14.

- 1849 *Melania testudinaria*. MOUSSON, Java (79), p. 66, pl. XI, figs. 1—3.
- 1860 — — — REEVE (97), vol. XII, *Melania*, pl. XXI, fig. 154.
- 1875 *Melania (Pachychilus) testudinaria*. BROT, Melaniaceen (9), p. 49, pl. 6, fig. 3 a.
- 1890 *Melania (Sulcospira) testudinaria*. O. BOETTGER (5), p. 151.
- 1891 — — — — O. BOETTGER (6), pp. 245, 278.
- 1897 — — — — VON MARTENS (69), pp. 31—32, 303.
- 1899 *Melania (Pachychilus) testudinaria*. HORST et SCHEPMAN (31), p. 248.
- 1905 — — — — K. MARTIN, Foss. von Java (73), p. 236, pl. XXXVI, figs. 558—561.
- 1911 — — — — H. MARTIN-ICKE, Trinil (76), p. 50.
- 1912 *Melania testudinaria*. SCHEPMAN (103), p. 236.
- 1914 *Melania (Sulcospira) testudinaria*. LESCHKE, Java und Celebes (58), pp. 217, 251—252.
- 1919 *Melania testudinaria*. K. MARTIN (75), pp. 96, 141.  
Compare also: COSSMANN (12), vol. VIII, 1909, p. 126.

Penawangan, Resid. Semarang, 2 specimens.  
Sawah's (rice-fields) near Pradjeikan, S. of Situbondo, Resid. Besuki, 3 specimens.

Tandjong Priok near Batavia (Strubell). Buitenzorg (Strubell, VON MARTENS), Residency Preanger: Tjiandjur (VON MARTENS); Lake Situ-Bagendit near Garut; Malangbong (F. Jagor). Resid. Semarang: Semarang (VON MARTENS); Tuntang River (Jacobson). Central Java: In the river of Surakarta (Solo) and near Jokjakarta (VON MARTENS). East Java: Near Surabaya and Pasuruan (VON MARTENS); Rogodjampi, southward of Banjuwangi (Collect. Mousson).

This species seems to be confined to Java; Strubell's locality Amboina is at least very doubtful.

Fossil occurrence: Pliocene of Sondé and Pleistocene of Trinil (Resid. Madiun, East Java).

Genus **Melanoides**, Olivier, 1804.

As has been pointed out by ANNANDALE and PRASHAD ((3), p. 28), the groups *Plotia* and *Striatella* as defined by BROTH (9) fade imperceptibly into one another. Within the genus *Melanoides* PRASHAD (95) has therefore united these two groups into one subgenus, for which he adopts the older name *Plotia* = *Melanoides s. str.*. I think the latter name will be preferable.

30. ***Melanoides* (s. str.) *crepidinata*** Reeve sp..

- 1859 *Melania crepidinata*. REEVE (97), vol. XII, *Melania*, pl. XVII, fig. 120.
- 1877 *Melania (Striatella) crepidinata* Rve.. BROTH, *Melaniaceen* (9), p. 238, pl. 25, figs. 13, 13a.
- 1897 *Melania (Melanoides) crepidinata*. VON MARTENS (69), pp. 56, 305.
- 1899 *Melania (Striatella) crepidinata*. HORST et SCHEPMAN (31), p. 258.
- 1914 *Melania (Melanoides) crepidinata*. LESCHKE, *Java und Celebes* (58), p. 254.

Sawah's (rice-fields) at Penawangan, Resid. Semarang, 7 specimens.

The largest specimen measures 24 mm. by 9 mm., the mouth measures 8 mm. (height) by 5 mm..

In REEVE's description of the species the habitat Java is given with much doubt („supposed to be from Java”). VON MARTENS mentions Java only on the authority of REEVE; in the Leyden Museum there are however specimens from Java, collected by Junghuhn, but without exact locality.

Distribution: Sumatra (rivulet near Singkarah, N. E. of Padang). Borneo. Palawan (Philippines, N. of Borneo).

This species has also been mentioned from Celebes, but wrongly according to P. and F. SARASIN ((101), p. 56).

31. ***Melanoides* (s. str.) *tuberculata*** O. Fr. Müller sp..

- 1774 *Nerita tuberculata*. O. FR. MÜLLEER, *Vermium terrestrium et fluviatilium seu animalium infusoriorum, helminthicorum, et testaceorum, non marinorum, Succincta Historia*, vol. II, p. 191.

- 1779 *Strombus costatus etc.*. SCHRÖTER, Geschichte der Fluss-konchylien, p. 373, nr. 171, pl. VIII, fig. 14.
- 1786 *Nerita tuberculata etc.*. CHEMNITZ, Neues systematisches Conchylien-Cabinet, vol. IX, p. 183, pl. 136, fig. 1262.
- 1788-'90 *Helix acicula*. GMELIN, Syst. Nat., edit. XIII (27), p. 3668.
- 1789 *Bulimus tuberculatus*. BRUGUIÈRE, Encycl. méthodique (10), vol. I, part 1, p. 330.
- 1804 *Melanoides fasciolata*. OLIVIER, Voyage dans l'empire Ottoman, l'Egypte et la Perse, II, p. 40, pl. 31, fig. 7.
- 1822 *Melania fasciolata*. LAMARCK, An. s. vert. (52), vol. VI, 2nd part, p. 167, nr. 16.
- — *truncatula*. LAMARCK, ibid., p. 167, nr. 15.
- 1823 — *fasciolata*. CAILLAUD, Voyage à Meroé, IV, p. 264, pl. LX, fig. 8.
- 1830 *Melania mauriciae*. LESSON, Voyage autour du monde, exécuté sur la corvette de S. M. la Coquille, pendant les années 1822-'25; Zoologie, vol. II, p. 354.
- 1834 — *virgulata* Fér.. QUOY et GAIMARD, Voyage de découvertes de l'Astrolabe (96), vol. III, p. 141, pl. 56, figs. 1—4.
- — *Truncatula*. QUOY et GAIMARD, ibid., p. 143, pl. 56, figs. 5—7.
- 1838 — *fasciolata*. POTIEZ et MICHAUD, Galerie des Mollusques, ou Catalogue méthodique, descriptif et raisonné des mollusques et coquilles du Muséum de Douai, p. 260, pl. 27, figs. 17, 18.
- — *punctata* (not of Lamarck). POTIEZ et MICHAUD, ibid., p. 262, pl. 27, figs. 15, 16.
- — *truncatula* Lk.. POTIEZ et MICHAUD, ibid., pl. 27, figs. 21, 22.
- 1838 — *truncatula* Lk.. LAMARCK, An. s. vert. (53), vol. VIII, pp. 433—434.
- — *fasciolata* Oliv.. LAMARCK, ibid., p. 434.
- — *tuberculata*. DESHAYES in LAMARCK, ibid., p. 434, note 1.
- — *virgulata* Fér.. DESHAYES in LAMARCK, ibid., p. 437.

- 1841 *Melania truncatula* Lk. B. DELESSERT, Recueil des Coquilles décrites par Lamarck dans son Histoire des Anim. sans Vertèbres, et non encore figurées, pl. 30, figs. 17a, 17a.
- 1842 *Melania tuberculata* Müll.. PHILIPPI, Abbild. (86), vol. I, pp. 4—6; *Melania*, pl. I, fig. 19.
- 1847 *Melania suturalis*. PHILIPPI, Abbild. (86), vol. II, p. 173; *Melania*, pl. IV, fig. 17.
- — *pyramis*. VON DEM BUSCH in PHILIPPI, ibid., p. 172, *Melania*, pl. IV, fig. 16.
- 1849 *Melania tuberculata* Müll.. MOUSSON, Java (79), p. 73, pl. XI, figs. 6, 7.
- 1854 *Melanoides tuberculata* Müll.. H. and A. ADAMS, The Genera of recent Mollusca arranged according to their organization, vol. I, p. 297.
- 1858 *Melania Layardi*. DOHRN in: Proceedings of the Zoological Society, p. 135.
- 1859 *Melania tuberculata* Müller. REEVE (97), vol. XII, *Melania*, species 87, pl. XIII, fig. 87; pl. XVI, fig. 110.
- — *Layardi* Dohrn. REEVE, ibid., spec. 104, pl. XV, fig. 104.
- — *virgulata* FéruSSAC. REEVE, ibid., spec. 109, pl. XVI, fig. 109a.
- — *punctulata* Grateloup. REEVE, ibid., pl. XV, fig. 100.
- — *gemmulata*. REEVE, ibid., spec. 86, pl. XIII, fig. 86.
- 1860 *Melania beryllina*. BROTH in: Revue et Magasin de Zoologie, p. 262, pl. 17, fig. 18.
- 1861 *Melania Rothiana*. MOUSSON, Coquilles rec. par Roth en Palestine, p. 61.
- 1864 *Melania tuberculata* Müll.. BOURGUIGNAT, Malacologie de l'Algérie, vol. II, p. 251, pl. 15, figs. 1—11.
- 1865 *Melania rubropunctata*. TRISTRAM in: Proceedings Zoological Society, p. 541.
- 1871 *Melania tuberculata* Müll.. BROTH, Catal. Melanidae in: American Journal of Conchology, VI, p. 294.
- 1872 *Melania fasciolata* Olivier. BROTH, Matériaux pour servir à l'étude de la famille des Mélanidiens, III, p. 22, pl. 1, fig. 7.

- 1872 *Melania truncatula* Lk.. BROT, ibid., p. 22, pl. 1, fig. 13.
- 1876 — *Layardi* Dohrn. HANLEY and THEOBALD, Conchologia Indica, p. 31, pl. 73, figs. 8, 9.
- — *tuberculata*. HANLEY and THEOBALD, ibid., p. 32, pl. 74, figs. 1—4.
- 1877 *Melania (Striatella) tuberculata* Müller. BROT, Melaniaceen (9), p. 247, pl. 26, figs. 11, 11 a—h.
- 1882 *Melania tuberculata* Müller. E. A. SMITH, Freshw. shells of Australia (104 ter), p. 259.
- 1884 — — — Müll.. K. MARTIN, Tiefbohr. Java (72), pp. 157—158.
- 1886 *Melania (Striatella) tuberculata* Müll.. WESTERLUND, Fauna der in der paläarctischen Region lebenden Binnen-conchylien, VI, pp. 103—104.
- 1891 *Melania tuberculata* Müll.. L. MOBLET in: Journal de Conchyliologie, vol. XXXIX, p. 234.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 169 (85).
- 1891 *Melania virgulata* Fér. var.. P. FISCHER, ibid., p. 169 (85).
- 1897 *Melania (Melanoides) tuberculata* Müll.. VON MARTENS (69), pp. 56—59, 305.
- 1898 *Melania tuberculata* Müll. var. *virgulata* Fér.. P. u. F. SARASIN, Süßwassermollusken Celebes (101), p. 45, pl. IV, figs. 43, 44.
- 1899 *Melania (Striatella) tuberculata* Müller and var. *mauriciae* Lesson. HORST et SCHEPMAN (31), pp. 258, 259.
- 1901 *Melania tuberculata* Müller sp.. H. FISCHER, Djibouti, etc. (22a), p. 113.
- 1905 *Melania (Striatella) tuberculata*. K. MARTIN, Foss. v. Java (73), p. 238.
- 1905 *Melania tuberculata* Müller. DAUTZENBERG et H. FISCHER (17), pp. 141—146.
- 1906 — — — DAUTZENBERG et H. FISCHER (18), p. 413.
- 1909 *Melania (Melanoïdes) tuberculata* Müller and var. *fasciolata* Olivier. PALLARY, Catal. faune malac. d'Égypte (79a), p. 67, pl. IV, figs. 23—25.

- 1911 *Melania (Striatella) tuberculata*. H. MARTIN-ICKE, Trinil (76), p. 50.
- 1914 — (*Melanoides*) — LESCHKE, Java u. Celebes (58), pp. 218, 254—255.
- 1918 *Melania tuberculata*. ANNANDALE in: Records of the Indian Museum, vol. XIV, pp. 114, 156, fig. 6, pl. XII, figs. 1, 2.
- 1919 *Melanoides tuberculata* (Müller). ANNANDALE and PRASHAD, Moll. of Baluchistan (3), pp. 31—32, pl. IV, fig. 1.
- 1919 *Melania tuberculata*. K. MARTIN (75), pp. 96, 134, 141, 143.
- 1921 *Melanoides tuberculata*. PRASHAD, Lower Mesopotamia (94), p. 224.
- 1921 *Melanoides (Plotia) tuberculata*. PRASHAD, Sumatra (95), pp. 491—492.

Coast near mouth of river Tji Lamaja, 28 specimens. It is evident, that the shells have been carried here by the river. The specimens are of a light yellowish colour, painted with chestnut flames; they have all a conspicuous basal band.

There are but a few shells, that are transversely ribbed and these have the ribs only on the first whorls. In consequence the shells may be assigned to the form *virgulata* (Férussac) Quoy et Gaimard (MOUSSON, Java, pl. XI, fig. 6; BROT, Melaniaceen, figs. 11 c—d), with transitions however to the form *plicifera* Mousson (MOUSSON, Java, pl. XI, fig. 7; BROT, l. c., figs. 11, 11 a). From the descriptions by VON MARTEENS it results, that the above-cited „varieties” are not at all sharply definite, as has been also pointed out before by K. MARTIN (72).

*Melania tuberculata* is a common species in Java, especially in rice-fields and brooks, besides it has been recorded from nearly all islands in the East Indian Archipelago: Sumatra, Borneo, Celebes, Togean-islands, Saleyer, Flores, Adonara, Rotti, Timor, Amboina, Ceram, Bachan.

Distribution: This species has an extremely wide range, from the Mediterranean, Somaliland and Madagascar to China and Queensland. Although it occurs in India and in Lower Mesopotamia, it has not yet been found in Baluchistan or Southern Persia.

Fossil: Upper Miocene, Pliocene and Pleistocene of Java.

**32. *Melanoides (Tarebia) asperula* Brot sp..**

- ? [1849 *Melania semigranosa* (*non* von dem Busch). MOUSSON, Java (79), p. 74, pl. X, fig. 7].
- 1877 *Melania (Tarebia) asperula*. BROT, Melaniaceen (9), p. 327, pl. 33, figs. 11, 11a.
- 1890 — — — O. BOETTGER (5), p. 153.
- 1897 — — — VON MAERTENS (69), p. 305.
- 1914 — — — LESCHKE, Java und Celebes (58), p. 257.

River Kali Sampean, Situbondo, Resid. Besuki,  
2 specimens.

Both specimens have the 3 longitudinal brown bands (most distinctly visible within the mouth) of *Mel. asperula*, not the dark lines of *M. lineata*. The longitudinal grooves are crispated.

One specimen has 3 conspicuous rows of granules and is a very typical specimen of *Mel. asperula*; in the other specimen only the upper row of granules is distinct, the other rows being very faintly developed.

Specimens from Pasuruan (collected by H. Fruhstorfer) in the Senckenberg Museum in Frankfort show also 3 conspicuous rows of granules, whereas specimens from the Banjuwangi-division, Resid. Besuki (Museum Amsterdam) have only one conspicuous row of granules. *Melania asperula* seems to be confined to Java. In West-Java it was collected in the rivulet Tji Liwung near Buitenzorg by Strubell.

**FAM. LITTORINIDAE.**

**33. *Littorina (Littorinopsis) melanostoma* Gray.**

Figure 2.

- 1839 *Littorina melanostoma*. GRAY, Zoology of Beechey's voyage, p. 140.
- 1847 *Litorina melanostoma*. PHILIPPI, Abbildungen (86), vol. II, p. 224, Litorina, pl. V, fig. 16.
- 1857 *Littorina melanostoma*. REEVE (97), vol. X, Littorina, pl. IX, figs. 45 a, b.
- 1882 *Litorina melanostoma*. WEINKAUFF, Litorina (50), p. 41, pl. 4, fig. 19.

- 1887 *Littorina (Melaraphe) melanostoma*. TRYON (109), vol. IX,  
p. 245, pl. 43, figs.  
42, 43.
- 1887 — *melanostoma*. VON MARTENS, Mergui (67), p. 170.
- 1897 — *(Littorinopsis) melanostoma*. VON MARTENS (69),  
p. 199.
- 1899 — *melanostoma*. HORST et SCHEPMAN (31), p. 283.
- 1905 — *(Melaraphe) melanostoma*. DAUTZENBERG et H.  
FISCHER (17), pp. 148,  
149.
- 1909 — *melanostoma*. LAMY, Java (56), p. 467.
- 1919 — — ANNANDALE and PRASHAD (2),  
p. 245.

Coast near mouth of river Tji Lamaja, 1 somewhat  
worn specimen.

Coral-island Pulu Pandjang, 1 specimen (figure 2).  
VON MARTENS did not know this species from the Dutch  
East Indies; LAMY mentions it from Java, but without  
distinct locality.

Distribution: Sarawak (Borneo), Amoy in China, Tongking  
(on mud), Singapore, Mergui Archipelago („in grass and on  
mangrove-trees at spring-tide level“), Burma (in estuaries),  
Gangetic Delta („in large numbers on grass and bushes ex-  
posed at low tide, but submerged when the tide rises“), Ceylon  
(mangrove-swamps).

#### 34. *Tectarius (Nodilittorina) vilis* (Menke) Philippi sp..

Figures 3 a, b, c.

- 1846 *Litorina vilis* (Menke in litt.). R. A. PHILIPPI, Abbildungen  
(86), vol. II, p. 145, Litori-  
na, pl. 2, fig. 21.
- 1857 *Littorina vilis*. REEVE (97), vol. X, Littorina, spec. 12,  
pl. II, fig. 12.
- 1882 *Litorina vilis*. WEINKAUFF, Litorina (50), p. 93, pl. 13,  
figs. 9, 12.
- 1887 *Tectarius nodulosus* Gmelin, pars. TRYON (109), vol. IX,  
p. 258, pl. 47, fig. 64.
- 1897 *Littorina (Nodilittorina) vilis* Menke. VON MARTENS (69),  
pp. 204, 205.
- 1899 *Tectarius vilis* Philippi. HORST et SCHEPMAN (31), p. 285.

Mantjangan, south coast, 4 specimens (some of them with the soft parts), (figures 3 a—c).

Distribution: In the Dutch East Indies this species was hitherto known from Java and Banka only. In Banka it was found by von MARTENS on rocks above the sea-level.

— Singapore, Mergui Archipelago, Ceylon, Natal. — Gulf of Siam, Hongkong, Swatow and Amoy (China), Formosa, Luzon (Philippines).

— ? New Britain near New Guinea, ? Marquesas Is.. — ? New Zealand.

#### FAM. SOLARIIDAE.

##### 35. *Solarium perspectivum* Linné sp..

- 1758 *Trochus perspectivus*. LINNÉ, Systema Naturae, edit. X, p. 757.
- 1844 *Solarium formosum*. HINDS in: Proceedings Zoological Society, London, 1844, p. 22.
- 1849 *Solarium incisum*. PHILIPPI, Centuria tertia test. nov. (88), p. 169, species 45.
- — — *zonatum*. PHILIPPI, ibid., p. 173, spec. 54.
- 1853 *Solarium incisum*. PHILIPPI, Solarium (93), p. 27, pl. 4, fig. 6.
- 1864 *Solarium perspectivum* Linn.. REEVE (97), vol. XV, Solarium, spec. 11, pl. II, figs. 11 a, b.
- 1866 *Solarium (Architectonica) perspectivum* Linn.. HANLEY in SOWERBY, Thesaurus (106), vol. III, p. 228, pl. 253, figs. 36, 37, 38.
- 1886 — — — — — Boog WATSON, Challenger Gasterop. (8), p. 135.
- 1887 *Solarium perspectivum* Linn.. MARSHALL in TRYON (109), vol. IX, p. 8, pl. 2, figs. 18, 19.
- 1887 — — — — — von MARTENS, Mergui (67), p. 193.
- 1899 — — — — — HORST et SCHERFMAN (31), p. 287.
- 1903 — — — — — STURANY, Gastropoden des Rothen Meeres (107a), pp. 212, 215, 233, 259, 278—279.

- 1905 *Solarium (s. str.) perspectivum* Linn.. K. MARTIN, Foss. v.  
Java (73), pp. 246,  
247, pl. XXXVII,  
figs. 594—597.
- 1909 *Solarium perspectivum* Linn.. SCHEPMAN (104), p. 218.
- 1911 *Solarium (s. str.) perspectivum*. H. MARTIN-ICKE, Trinil  
(76), p. 47.
- 1911-12 *Solarium perspectivum*. K. MARTIN, Vorläuf. Bericht  
(74), pp. 21, 47, 159.
- 1919 — — — K. MARTIN (75), pp. 97, 127,  
128, 132, 133, 142.
- 1920 — — — TESCH, Timor (108), II, p. 65,  
pl. CXXXII, fig. 200.

Surabaya, Harbour, mud, 1 specimen.

Coast of Residency Besuki, East-Java (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Billiton, Lombok, Sumbawa, Timor, Buton-strait (S. E. of Celebes), Amboina, Bachan, East coast of Halmahera (Museum Wageningen), Waigeu, Misol.

— Philippines, Singapore, Salang-island, Mergui Archipelago, Gulf of Aden, Red Sea and Gulf of Akabah, Zanzibar, Madagascar.

Fossil in the Lower and Upper Miocene and in the Pliocene of Java. Pliocene and Pleistocene of Timor.

### 36. *Solarium modestum* Philippi.

#### Figure 4.

- 1849 *Solarium modestum*. PHILIPPI, Centuria tertia test. nov.  
(88), p. 171.
- 1853 — — — PHILIPPI, Solarium (93), p. 15, pl. 3,  
fig. 1.
- 1864 — — — REEVE (97), vol. XV, Solarium, species  
12, pl. II, fig. 12.
- 1866 *Solarium (Architectonica) modestum*. HANLEY in SOWERBY,  
Thesaurus (106), vol.  
III, p. 229, pl. 250,  
figs. 11, 12; pl. 252,  
figs. 27, 28.
- 1887 *Solarium modestum*. MARSHALL in TRYON (109), vol. IX,  
p. 9, pl. 2, figs. 22, 23.
- 1899 — — — HORST et SCHEPMAN (31), p. 287.

1909 *Solarium modestum*. SCHEPMAN (104), p. 219.

Shore of Bali-strait, north of Banjuwangi, 1 specimen (figure 4).

The only specimen, though not adult, is quite typical and agrees very well with HANLEY's figures 11 and 12. Djangkar, North coast of Resid. Besuki (Siboga exped.). Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Lombok, Sumbawa, Flores, Savu, Timor, Amboina.

— China. — Society Isles.

MARSHALL's remark, that *Solarium modestum* differs from *S. perspectivum* in the colouring only, is not right, as *S. modestum* is bisulcate below the suture ("Anfractus superne bis longitudinaliter sulcati", HANLEY). In sculpture it agrees therefore more with *Sol. pictum* and *Sol. maximum* (as remarks Prof. K. MARTIN). I cannot agree with Dr. TESCH ((108), II, p. 66) in considering it more allied in sculpture to *S. perspectivum*.

### 37. *Solarium perdix* Hinds.

1844 *Solarium perdix*. HINDS in: Proceedings Zoological Society of London, 1844, p. 22.

1864 — — REEVE (97), vol. XV, Solarium, species 1, pl. I, fig. 1.

1866 *Solarium (Architeconica) perdix* Hinds. HANLEY in SOWERBY, Thesaurus (106), vol. III, p. 233, pl. 251, figs. 17, 18.

1887 *Solarium perdix* Hinds. MARSHALL in TRYON (109), vol. IX, p. 9, pl. 2, figs. 24, 25.

Coast near mouth of river Tji Lamaja, 6 specimens.

Coast near Government Rubber Estate Balong, N. E. of Japara (Resid. Semarang), 1 specimen.

Distribution: Malacca, Ceylon, North-West Australia.

Some of my specimens from Java are somewhat bleached, but the colour-pattern is still conspicuous. They agree very well with HANLEY's figures (in the Thesaurus), except one specimen being more elevated conical, hence the depressed conical form of the shell, mentioned in HANLEY's diagnosis, proves to be no constant character.

*Solarium dunkeri* Hanley from the "Indian Archipelago"

differs from our species chiefly in colour, as the difference in shape does not stand.

From *Sol. perspectivum* our species is easily distinguished, not only by the different colour-pattern, but also by the smaller pearl-like crenulations of the rib around the umbilicus.

#### FAM. HYDROBIIDAE.

##### 38. *Bithynia truncata* Souleyet sp..

- 1852 *Paludina truncata*. SOULEYET, Voyage de la Bonite (20), vol. II, p. 548, pl. 31, figs. 22—24.  
 1865 *Bythinia truncata*. VON FRAUENFELD, Verzeichniss Paludina (24), p. 656.  
 1897 *Bithynia truncata* Eyd. Soul.. VON MARTENS (69), pp. 25, 26, 302, pl. IX, figs. 11, 11 b.  
 1899 *Bithinia* — Eydoux et Souleyet. HORST et SCHEPMAN (31), p. 310.  
 1909 *Bithynia* — — — — SCHEPMAN (104), p. 196.  
 1911 — — Eyd. und Sow.. H. MARTIN-ICKE, Trinil (76), p. 50.  
 1914 — — LESCHKE, Java und Celebes (58), p. 261.  
 1919 — — Eyd. et Sow.. K. MARTIN (75), pp. 97, 143.  
 1921 — — Eyd. and Soul.. PRASHAD, Sumatra (95), p. 484.

Penawangan, Resid. Semarang, 1 specimen.

Swamp near Batavia (Leyden Museum). Malang (Resid. Pasuruan) (VON MARTENS). Lake of Grati near Pasuruan (VON MARTENS). Rivulet near Djangkar, N. coast of Resid. Besuki (Siboga expedition).

Distribution: Deli, Sumatra (fresh-water areas); Southern Celebes.

— Bangkok (Siam), Burma, Ganges (SOULEYET!).

Fossil in the quaternary river-deposits at Trinil, Resid. Madiun, Java.

#### FAM. VIVIPARIDAE.

##### 39. *Viviparus javanicus* von dem Busch sp..

- 1844 *Paludina javanica*. VON DEM BUSCH in PHILIPPI, Abbildungen (86), vol. I, p. 114, Paludina, pl. I, figs. 11, 12.

- 1849 *Paludina javanica*. v. d. Busch. MOUSSON, Java (79), p. 61,  
pl. VIII, figs. 3, 4.
- 1852 — — KÜSTER (47a), p. 24, pl. 5, figs. 7—10.
- 1863 — *Javanica*. REEVE (97), vol. XIV, Paludina, fig. 52.
- 1865 *Vivipara javanica*. VON FRAUENFELD, Verzeichniss Palu-  
dina (24), p. 615.
- 1890 *Paludina javanica*. O. BOETTGER (5), p. 155.
- 1891 — — O. BOETTGER (6), p. 249.
- 1897 *Vivipara Javanica* Busch. VON MARTENS (69), pp. 21—22,  
302.
- 1898 — *javanica*. P. und F. SARASIN, Süsswassermoll.  
Celebes (101), p. 64.
- 1899 *Paludina javanica*. HORST et SCHEPMAN (31), p. 314.
- 1905 *Paludina (s. str.) javanica* v. d. Busch var.. K. MARTIN,  
Foss. v. Java (73), pp. 249—250,  
pl. XXXVII, figs. 601—603.
- 1908 *Vivipara javanica*. KOBELT (47a), p. 251, pl. 52, figs.  
1—7.
- 1909 — — SCHEPMAN, Siboga exped. (104), p. 197.
- 1911 *Paludina* — H. MARTIN-ICKE, Trinil (76), p. 50.
- 1914 *Vivipara* — LESCHKE, Java u. Celebes (58), pp. 220,  
260—261.
- 1919 *Paludina* — v. d. Busch var.. K. MARTIN (75), pp.  
98, 139, 143.
- 1921 *Vivipara* — (v. d. Busch). PRASHAD, Sumatra (95),  
p. 480.

The typical form is represented in the collection from the following localities:

Sawah's (rice-fields) at Penawangan, Resid. Semarang, 1 specimen.

Coast near mouth of river Tji Lamaja, 18 specimens;  
most of the shells are worn.

Shore of Bali-strait, north of Banuwangi, 1  
worn specimen.

The shells collected on the sea-shore must have been  
carried there by rivers.

The typical form of *Viviparus javanicus* is widely distributed in Java, inhabiting rivers, pools and rice-fields from Bantam in the western part to Pasuruan in the East. It occurs as well in the mountainous districts of the Preanger as in the coastal plain. Besides from Java it has been recorded from Madura, Bali, Palembang (Southern Sumatra), Borneo and from a brook at Amboina.

From Java *Viviparus javanicus* is recorded as a fossil in the Pleistocene.

**Forma moussoni** von Martens.

- 1849 *Paludina angularis* (not of Müller). MOUSSON, Java (79), p. 62, pl. VIII, fig. 5.
- 1897 *Vivipara Javanica* var. *Moussoni*. VON MARTENS (69), pp. 22—23.
- 1899 *Paludina javanica*, var. *Moussoni* v. Martens. HORST et SCHEPMAN (31), p. 314.
- 1908 *Vivipara javanica moussoni*. KOBELT (47a), p. 256, pl. 52, figs. 10—11.
- 1914 *Vivipara javanica* v. *moussoni*. LESCHKE, Java und Celebes (58), p. 261.
- 1921 *Vivipara javanica* var. *moussoni*. PRASHAD, Sumatra (95), pp. 481—482.

Coast near mouth of river Tji Lamaja, 2 specimens.  
Hitherto recorded from West-Java (Resid. Bantam; near Batavia and Buitenzorg; Resid. Preanger) and from Sumatra (Medan).

This has a more distinct spiral sculpture than the typical *javanicus*. I think it will prove to be merely a form of that species and not a distinct subspecies as KOBELT considered it to be.

One of the fossil shells from Kali Tjemoro, Surakarta (?Pleistocene), figured by K. MARTIN ((73), fig. 604), probably belongs to the form under consideration, though it has the spiral sculpture still more marked.

**FAM. AMPULLARIIDAE.**

**40. *Pachylabrum conicum* Gray sp..**

- 1828 *Ampullaria conica*. GRAY in WOOD, Supplement to the Index Testaceologicus, pl. VII, fig. 22.
- 1849 — *orientalis*. PHILIPPI (88), p. 192.
- 1849 — *scutata*. MOUSSON (79), p. 60, pl. VIII, fig. 2.
- 1851 — — PHILIPPI (89), p. 9, pl. I, figs. 4, 5.
- 1854 — *conica*. HANLEY, Conchol. Miscellan., pl. III, fig. 13.
- 1856 — --- Wood. REEVE (97), vol. X, Ampullaria, pl. II, fig. 10.

- 1856 *Ampullaria Javanica*. REEVE (97), vol. X, Ampullaria,  
pl. XX, fig. 96.
- 1857 *Ampullaria scutata*. VON MARTENS in: Malakozoologische  
Blätter, p. 186.
- 1877 *Ampullaria conica* near *type form*, var. *orientalis* and ?  
*boreensis*. NEVILLE, Catal.  
of Mollusca in the Indian  
Museum; Fasc. E, pp.  
7—10.
- 1885 *Ampullaria conica typical form*, vars. *orientalis* and ?  
*boreensis*. NEVILLE, Hand-  
List Moll. Ind. Museum,  
vol. II, p. 5.
- 1890 *Ampullaria conica* Gray var. *javanica* Rve.. O. BOETTGER  
(5), p. 156.
- 1897 *Ampullaria scutata*. VON MARTENS (69), pp. 18—19.
- 1898 — P. und F. SARASIN (101), p. 69.
- 1899 *Ampullaria (Pachylabra) scutata*. HORST et SCHEPMAN (31)  
p. 319.
- 1910 *Ampullaria conica*, and vars. *boreensis*, *Javanica*, *ori-  
entalis* and *scutata*. G. B. SOWERBY (107),  
pp. 57, 58.
- 1911 *Ampullaria (Pachylabra) scutata*. H. MARTIN-ICKE (76),  
p. 50.
- 1912 *Pachylabra conica*. KOBELT (34), p. 93, pl. 40, figs. 1—5,  
8, 9.
- — *javanica*. KOBELT (34), p. 83, pl. 35, fig. 6.
- 1912 *Ampullaria scutata*. SCHEPMAN (103), p. 236.
- 1914 *Ampullaria (Pachylabra) scutata*. LESCHKE (58), pp. 221,  
262, 283.
- 1915 *Pila conica* and var. *orientalis*. PRESTON, Faun. Brit. Ind.,  
Freshwater-Moll., pp. 100,  
101.
- 1920 *Pachylabra conica*. ANNANDALE in: Journal of the Natural  
History Society of Siam, vol. IV, pp.  
9, 10, pl. I, fig. 3; pl. II, fig. 2.
- 1921 — — PRASHAD, Sumatra (95), p. 477.
- 1922 *Ampullaria scutata*. PARAVICINI (80), p. 27, fig. 5.

Buitenzorg, Botanical Gardens, 1 specimen.  
Penawangan (Residency Semarang), in sawah's  
(rice-fields), 6 specimens.  
Coast near mouth of river Tji Lamaja, 19 specimens,  
most are somewhat worn.

Surabaya, shore of Bandjaran, 1 bleached specimen.

Pardana (Perdana), Residency Bantam (Zollinger). Djocja (Jacobson). Malang, Resid. Pasuruan (Leyden Museum). Tjilatjap, south coast (Leyden Museum).

Distribution: Sumatra, Banka, Borneo, Celebes, Bali.

— Singapore, Malacca, Pulu Penang, Tenasserim, Cambodia to southern China.

According to PARAVICINI this species is very common in the rice-fields of Java and is eaten by the Javanese.

My specimens from the shore near Tjilamaja and Surabaya are empty shells, that must have been brought there by rivers.

Fossil in the quaternary river deposits at Trinil.

#### 41. *Pachylabra polita* Deshayes sp..

- 1830 *Ampullaria polita*. DESHAYES, Encyclopédie méthodique; Vets, vol. II, p. 31, nr. 8.
- 1838 — — DESHAYES in LAMARCK, An. s. vert. (53), vol. VIII, p. 544.
- 1852 — — PHILIPPI (89), p. 29, pl. 8, fig. 1.
- 1856 — — REEVE (97), vol. X, Ampullaria, pl. VII, fig. 35.
- 1891 — — P. FISCHER, Indo-Chine (22), p. 181 (97).
- 1897 — — VON MARTENS (69), p. 302.
- 1899 *Ampullaria (Pachylabra) polita*. HORST et SCHEPMAN (31), p. 319.
- 1905 *Ampullaria polita*. DAUTZENBERG et H. FISCHER (17), p. 161.
- 1906 — — DAUTZENBERG et H. FISCHER (18), p. 426.
- 1912 *Pachylabra polita*. KOBELT (34), p. 82, pl. 38, figs. 1—5.
- 1914 *Ampullaria polita*. LESCHKE, Java und Celebes (58), p. 262.

Surabaya, shore of Bandjaran, 1 empty shell.  
Tjilatjap (Leyden Museum).

Distribution: ? Borneo. — Cambodia; Cochin China, river Mekong; Tongking (rice-fields, pool near Luc-Nam, Hanoi).

According to KOBELT *P. polita* is a characteristic species for the eastern part of Further India. He questions its occurrence at Java, the species not being recorded from that island since it was mentioned by PHILIPPI (after WINTER's collections from Java). He has however overlooked the locality Tjilatjap

in the catalogue of the Leyden-Museum. My specimen from the shore near Surabaya is a very typical one and agrees in all respects with specimens in the Senckenberg Museum.

The locality Port Jackson in New South Wales (REEVE) is without doubt incorrect.

### FAM. TRUNCATELLIDAE.

#### 42. *Truncatella valida* Pfeiffer.

Figures 5 a, b, c.

- 1846 *Truncatella valida*. PFEIFFER (82), p. 182.  
 1855 — — KÜSTER (41), p. 11, pl. 2, figs. 19—21,  
 23.  
 1856 — — PFEIFFER, Monogr. Auricul. (83), p. 184.  
 1867 — — VON MARTENS (62), p. 162.  
 1891 — — O. BOETTGER (6), p. 298.  
 1900 — — Pfeiffer. E. A. SMITH, Christmas Island  
 (104d), p. 59, pl. VIII, figs.  
 21, 22.

Mantjangan, south coast, 6 specimens (figures 5 a—c).

Long. of the largest specimen: 10 mm.

Distribution: East Indian Archipelago: Timor, near Kupang on a piece of rock on the shore, washed but not submerged by the waves; Amboina, on the shore; Tawalli-island north of Bachan (Moluccas).

— Singapore, Malay Peninsula, Philippines. — New Caledonia, Samoa. — Christmas Island south of Java.

### FAM. CYCLOPHORIDAE.

#### 43. *Cyclophorus (Glossostylus) rafflesii* Broderip et Sowerby sp..

- 1834 *Cyclostoma Rafflesii*. BRODERIP and SOWERBY in: Zoological Journal, V, p. 50.  
 1847 *Cyclostoma oculus-capri* Wood. SOWERBY, Thesaurus (106),  
 vol. I, p. 115, pl. XXV,  
 fig. 96.  
 1847 *Cyclostoma oculus capri*. PFEIFFER (85), p. 26, pl. 3, figs.  
 5, 6.

- 1849 *Cyclostoma oculus capri*. MOUSSON (79), p. 52, pl. VI,  
figs. 1, 2.
- 1861 *Cyclophorus oculus-capri*. REEVE (97), vol. XIII, Cyclo-  
phorus, figs. 8 a, b.
- 1867 *Cyclophorus Rafflesii* Brod.. von MARTENS (62), p. 132.
- 1890 — *rafflesi* and var. *decarinata* Mouss.. O. BOETT-  
GER (5), p. 161.
- 1899 *Cyclophorus (Glossostylus) Rafflesi*. HORST et SCHEPMAN  
(31), p. 330.
- 1914 — — — *rafflesi*. LESCHKE, Java und  
Celebes (58), p. 243.

Forest near Mountain Gardens of Tjibodas, 2  
specimens.

Forest on the northwestern slope of the Malabar,  
south of Bandung, 1 specimen.

Buitenzorg, Botanical Gardens (Strubell). Gunung Salak,  
south of Buitenzorg (Van Hasselt; Strubell). Sindanglaja  
near Tjibodas, between Buitenzorg and Tjiandjur, Resid.  
Preanger (von MARTENS). Palabuan near coast of Wijn-  
koopsbay (von MARTENS). Between Bandjar and Kaliputjang  
in the south-east of the Resid. Preanger (Jagor).  
Distribution: The occurrence in Sumatra is doubtful.

#### 44. *Cyclophorus (Salpingophorus) perdix* Broderip et Sowerby sp..

- 1834 *Cyclostoma perdix*. BRODERIP and SOWERBY in: Zoological  
Journal, V, p. 50.
- 1847 — — — SOWERBY, Thesaurus (106), vol. I, p.  
122, pl. XXVII, fig. 127.
- 1849 — — — MOUSSON (79), p. 54, pl. VIII, fig. 1.
- 1867 *Cyclophorus perdix*. von MARTENS (62), pp. 136—138.
- 1890 — — — O. BOETTGER (5), p. 160.
- 1891 — — — von MARTENS (68), p. 216.
- 1899 *Cyclophorus (Salpingophorus) perdix*. HORST et SCHEPMAN  
(31), p. 331.
- 1914 — — — — — LESCHKE, Java und  
Celebes (58), pp. 243  
—244.

Teakwood at Penawangan, Resid. Semarang, 1  
specimen.

Goendih, south of Poerwodadi, Resid. Semarang,  
1 specimen.

Near Buitenzorg, Sindanglaja and Tjibodas (VON MARTENS). Gunung Salak and Gunung Gedeh south of Buitenzorg (Strubell). Palabuan near Wijnkoopsbay (VON MARTENS). Tjilatjap, South Coast (Leyden Museum). Pulu Rakata (Krakatau-island) in Sunda-strait (Collect. Mousson, fide VON MARTENS, 1867).

Distribution: Besides in Java, this species occurs in Sumatra.

**45. Cyclophorus (Salpingophorus) zollingeri Mousson sp..**

- 1849 *Cyclostoma Zollingeri*. MOUSSON (79), p. 55, pl. VII, fig. 2.  
 1867 *Cyclophorus perdix* Brod. et Sow. sp., var. *Zollingeri*. VON MARTENS (62), p. 137.  
 1891 *Cyclophorus perdix* (Brod. et Sow.) var. *zollingeri*. O. BOETTERGER (6), p. 250.  
 1899 *Cyclophorus (Salpingophorus) perdix*, var. *Zollingeri*. HORST et SCHEPMAN (31), p. 331.  
 1908 *Cyclophorus (Salpingophorus) zollingeri*. KOBELT, Cyclophoridae (85), p. 694, pl. 103, figs. 9—13.  
 1914 — — — — LESCHKE, Java und Celebes (58), p. 244.  
 1922 *Cyclophorus Zollingeri*. VAN HEURN en PARAVICINI, Conch. der Gajo-landen (29), p. 28, fig. 3.

Forest on the northwestern slope of the Malabar, south of Bandung (Resid. Preanger), 1 specimen.

Alt. 20 $\frac{1}{2}$ , diam. max. 31, diam. min. 22 $\frac{1}{2}$ , alt. apert. (incluso perist.) 14, lat. apert. 16 mm.

Common in West-Java: Depok and Buitenzorg (Resid. Batavia) and Tjibodas between Buitenzorg and Tjiandjur (Resid. Preanger) (VAN HEURN and PARAVICINI). Tengger Mountains, East-Java (Fruhstorfer). Pulu Rakata (Krakatau-island) in Sunda-strait (Collect. Mousson, fide VON MARTENS, 1867).

Distribution: This species is widely distributed in Sumatra from the South coast (Lampung Districts) to the Gajo-lands in the northern part, besides it has been recorded from Banka.

KOBELT and VAN HEURN and PARAVICINI consider this as a distinct species rather than as a variety of *C. perdix* as there are not found intermediate forms between them. The specific characters, though differing but very little, seem to be quite constant.

46. *Leptopoma* (s. str.) *vitreum* Lesson sp..

- 1830 *Cyclostoma vitrea*. LESSON, Voyage autour du monde, exécuté sur la corvette de S. M. la Coquille, pendant les années 1822—'25; Zoologie, vol. II, p. 346, pl. 13, fig. 6.
- 1832 *Cyclostoma lutea*. QUOY et GAIMARD, Voyage de découvertes de l'Astrolabe (96), vol. II, p. 180, pl. 12, figs. 11—14.
- 1838 — *vitreum* Less.. DESHAYES in LAMARCK, An. s. vert. (53), vol. VIII, p. 367.
- 1842 — *nitidum* Sow.. REEVE, Conchologia Systematica, pl. 183, fig. 2 (bad).
- 1843 — — SOWERBY in: Proceedings Zoolog. Society, 1843, p. 60.
- 1847 — — SOWERBY, Thesaurus (106), vol. I, p. 133, pl. XXIX, figs. 225—227.
- 1847 *Leptopoma vitrea* Less.. PFEIFFER in: Zeitschrift für Malakozoologie, p. 108.
- — *nitidum* Sow.. PFEIFFER, ibid., p. 108.
- 1848 *Cyclostoma nitidum* Sow.. PFEIFFER, Cyclost. (85), p. 96, pl. 16, fig. 10.
- 1849 — *vitreum*. PFEIFFER, ibid., p. 158, pl. 28, figs. 16—18.
- 1849 *Cyclostoma vitreum*. MOUSSON (79), p. 57, pl. VI, fig. 4.
- 1852 *Leptopoma vitreum*. PFEIFFER, Monographia Pneumonoporum viventium, p. 101.
- 1852 *Cyclophorus vitreus*. MÖRCH, Catalogus Yoldi, p. 42.
- 1858 *Dermatocera vitrea* Less.. H. and A. ADAMS, Genera of recent Mollusca, vol. II, p. 282, pl. LXXXV, figs. 7—7 c.
- 1858 — — — PFEIFFER, Monogr. Pneum., Suppl. I, p. 78.
- 1862 *Leptopoma vitreum*. REEVE (97), vol. XIII, Leptopoma, species 15, pl. III, figs. 15 a, b; pl. VI, fig. 32.
- 1865 *Dermatocera vitrea* Less.. PFEIFFER, Monogr. Pneum., Suppl. II, p. 85.

- 1867 *Leptopoma vitreum* Less. sp.. von MARTENS (62), pp. 66, 143  
—147, pl. 4, figs. 2 a, b, c.
- 1872 *Leptopoma fragile* Sow.. MÖRCH in: Journal de Conchyliologie, p. 317.
- 1876 *Leptopoma vitreum* Less.. PFEIFFER, Monogr. Pneum., Suppl. III, p. 127.
- 1889 — — — L. MORLET in: Journal de Conchyliologie, vol. XXXVII, p. 152.
- 1891 — — — P. FISCHER, Catal. Indo-Chine (22), p. 190 (reprint, p. 106).
- 1891 — — (Less.). von MARTENS (68), p. 217.
- 1899 *Leptopoma (s. str.) vitreum* Lesson. HORST et SCHEPMAN (31), p. 323.
- 1902 — — — KOBELT, Cyclophoridae (85), p. 406.
- 1906 *Leptopoma vitreum* Lesson, var. *nitida* Sowerby. DAUTZENBERG et H. FISCHER (18), pp. 437—439.
- 1914 *Leptopoma vitreum*. LESCHKE, Java u. Celebes (58), p. 241.

Teakwood at Penawangan, Res. Semarang, 2 specimens. The specimens belong to the normal form of von MARTENS and are uniformly white.

Measurements of shells (in millimetres):

	A	B
Maximum diameter	15	15
Minimum diameter	$11\frac{1}{2}$	$11\frac{1}{2}$
Height	15	15
Diameter of aperture (inclusive of peristome)	9	(damaged)

East-Java: Wonosari and Banjuwangi (Zollinger).

Distribution: Flores, Celebes, Amboina, Bachan, Ternate, Halmahera, Misol, New Guinea. — New Ireland.

— Sulu-archipelago, Philippines, South Formosa. —? Siam, Cochin China.

#### FAM. CAPULIDAE.

##### 47. *Crucibulum (Bicatillus) renovatum* Crosse et Fischer.

- 1825 *Calyptraea extinktorium* (not of Lamarck). BLAINVILLE, Manuel de Malacol., p. 506, pl. 48, fig. 8.

- 1859 *Crucibulum extlectorium* (not of Lamarck). REEVE (97), vol. XI, Crucibulum, pl. V, figs. 14 a, b.
- — — *morbidum*. REEVE, ibid., pl. VII, figs. 24 a, b.
- 1859 *Calyptraea laevigata* (not of Lamarck). CHENU, Manuel (11), vol. I, fig. 2327.
- 1883 *Crucibulum extlectorium* (not of Lamarck). SOWERBY, Thesaurus (106), vol. V, p. 61, pl. 449, figs. 55, 56, 58.
- 1886 *Crucibulum (Bicatillus) extlectorium* (not of Lam.). TRYON (109), vol. VIII, p. 119, pl. 33, figs. 46-49.
- 1887 *Trochita extlectorium* (not of Lam.). VON MARTENS, Mergui (67), p. 193.
- 1889 *Crucibulum extlectorium* (not of Lam.). L. MORLET in: Journal de Conchyliologie, vol. XXXVII, p. 155.
- 1889 *Crucibulum renovatum*. H. CROSSE et P. FISCHER (14), p. 288.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 193 (reprint, p. 109).
- 1900 *Bicatillus extlectorium* (not of Lamarck). DAUTZENBERG, Sumatra (15), p. 4.
- 1905 *Crucibulum (Bicatillus) extlectorium* (not of Lamarck). K. MARTIN, Foss. von Java (73), pp. 250-251, pl. XLI, figs. 674, 675.
- 1906 *Crucibulum (Bicatillus) renovatum* Cr. et F.. DAUTZENBERG et H. FISCHER (18), p. 445.
- 1908 *Crucibulum (Bicatillus) extlectorium* (not of Lamarck). HORST et SCHEPMAN (31), p. 366.
- 1919 *Crucibulum extlectorium* (not of Lam.). K. MARTIN (75), pp. 98, 122, 123.

Coast near mouth of river Tji Lamaja, 6 specimens of the typical form and three, belonging to the higher form, called *morbidum* by REEVE.

Distribution: Between Padang and Indrapura (West Coast of Sumatra), Billiton.

— Singapore, Malacca, Mergui Archipelago, Cochin China, Annam, China, Japan. — Ceylon. — Mauritius.

Fossil in the Pliocene of Java (Resid. Bantam).

According to CROSSE and FISCHER *Crucibulum extinctorium* of authors is not the species meant by LAMARCK, in consequence they have renamed it.

### FAM. NATICIDAE.

#### 48. *Natica (s. str.) maculosa* Lamarck.

Figure 6.

- 1781 *Pellis tigrina*. CHEMNITZ, Conchylien-Cabinet, vol. V, p. 265, pl. 187, figs. 1892, 1893.
- 1791 *Nerita canrena*, var.  $\omega$ . GMELIN (not Linné), Syst. Nat., edit. XIII (27), p. 3670.
- 1817 *Nerita canrena*, var.. DILLWYN (not Linné), A descriptive Catalogue of recent shells, vol. II, p. 977.
- 1822 *Natica maculosa*. LAMARCK, An. s. vert. (52), vol. VI, 2nd part, p. 202, nr. 22.
- — *Javanica*. LAMARCK, ibid., p. 204, nr. 30.
- 1838 *Natica maculosa*. LAMARCK, An. s. vert. (53), vol. VIII, p. 641.
- — *Javanica*. LAMARCK, ibid., p. 644.
- 1841 *Natica maculosa*. B. DELESSERT, Recueil des Coquilles décrites par Lamarck dans son Histoire des Anim. sans Vertèbres, et non encore figurées, pl. 32, figs. 14 a, 14 b.
- — *Javanica*. B. DELESSERT, ibid., pl. 32, figs. 16 a, 16 b.
- 1850 *Natica pellis tigrina*. PHILIPPI, Natica u. Amaura (90), p. 20, pl. 2, figs. 19, 20; pl. 15, figs. 1, 2.
- 1855 *Natica maculosa*. REEVE (97), vol. IX, Natica, pl. XIII, fig. 57.
- 1860 — — Lamk.. von MARTENS in: Proceedings Zoological Society of London, p. 17.
- 1871 *Natica pellis tigrina* Chemnitz. LISCHKE, Japan. Meeres-conch. (59), vol. II, p. 75.
- 1883 *Natica maculosa*. SOWERBY, Thesaurus (106), vol. V, p. 81, pl. 455, fig. 13 (rather bad).
- 1886 *Natica (s. str.) maculosa*. TRYON (109), vol. VIII, p. 16, pl. 3, fig. 35.
- 1887 *Natica maculosa*. VON MARTENS, Mergui (67), p. 188.
- 1889 — — L. MORLET in: Journal de Conchyliologie, vol. XXXVII, p. 155.
- 1889 — — CROSSE et FISCHER in: Journ. de Conch., vol. XXXVII, p. 289.

- 1891 *Natica maculosa*. P. FISCHER, Indo-Chine (22), p. 194 (110).  
 1905 — — — DAUTZENBERG et H. FISCHER, Tonkin (17), pp. 173—174.  
 1905 *Natica (s. str.) pellis tigrina* CHEM. K. MARTIN, Foss. v. Java (73), p. 255.  
 1908 *Natica (s. str.) maculosa*. HORST et SCHEPMAN (31), p. 372.  
 1909 *Natica maculosa*. LAMY, Java (56), p. 467.  
 1911 *Natica pellis tigrina* CHEM. K. MARTIN, Vorläuf. Bericht (74), p. 47.  
 1919 — — — — K. MARTIN (75), pp. 98, 128, 146.  
 (Not *Natica pellis-tigrina* of REEVE (figs. 55 a, b) and SWERBY (Thesaurus, fig. 83)).

Coast near mouth of river Tji Lamaja, 10 specimens (figure 6).

Surabaya, Harbour, mud, 2 specimens.

Surabaya (without particular locality), 4 specimens.

Distribution: Recorded several times from Java. As far as I know, the only locality in the Dutch East Indies from which the species has been mentioned besides are the Aru-islands. — Philippines, Southern Japan, Amoy, Hongkong, Tongking, Siam, Singapore (in sandy mud), Salang-island, Mergui and its archipelago (mud- and sand-flats), Ceylon.

Fossil in the Upper Miocene (Tjilanang-beds) and in pleistocene deposits of Java.

In accordance with DAUTZENBERG and FISCHER I have adopted LAMARCK's name *maculosa* for this species, the name *Pellis tigrina* of CHEMNITZ being not binominal.

#### 49. *Natica (Neverita) didyma* Bolten sp..

##### Figure 7.

- 1798 *Albula didyma* Bolten. Museum Boltenianum, p. 20.  
 1845 *Natica papyracea*. VON DEM BUSCH in: PHILIPPI, Abbildungen (86), vol. II, p. 45, Natica, pl. II, fig. 14 (junior).  
 1849 *Natica ampla*. PHILIPPI (88), 5. Jahrg., p. 156.  
 1849 — *didyma* Bolten. PHILIPPI (90), p. 6, pl. 1, figs. 1—4.  
 1852 — *ampla*. PHILIPPI, ibid., p. 41, pl. 6, fig. 2.  
 — — *papyracea*. PHILIPPI, ibid., p. 43, pl. 5, fig. 4; pl. 13, fig. 4.

- 1855 *Natica Lamarckiana* (Recluz M S.). REEVE (97), vol. IX,  
Natica, pl. II, figs.  
6 a, b.
- — *Chemnitzii* (Recluz M S.). REEVE, ibid., pl. II, figs.  
7 a, b.
- — *Petiveriana* (Recluz M S.). REEVE, ibid., pl. V, figs.  
17 a, b.
- 1860 — *robusta*. DUNKER in: Malakozoologische Blätter,  
vol. 6, p. 232.
- 1861 — — DUNKER, Mollusca Japonica, p. 13, pl. 2,  
fig. 24.
- 1867 — *bicolor* (not of Philippi). L. VON SCHRENCK, Die Mol-  
lusken des Amur-Landes-  
und des Nord-japanischen  
Meeres, p. 378.
- 1869, 1871 *Natica Lamarckiana*. LISCHKE, Japan. Meeresconch.  
(59), vol. I, p. 80; vol. II, p. 74.
- 1881 — — — D. BRAUNS, Geology of the  
Environs of Tokio (Memoirs of  
the Science Department, Uni-  
versity of Tokio, nr. 4), p. 30.
- 1883 *Natica didyma* Bolten. SOWERBY, Thesaurus (106), vol. V,  
p. 77, pl. 454, fig. 4; pl. 455, fig. 14.
- 1884 *Natica (Neverita) didyma* Bolten. K. MARTIN (72), p. 165.
- 1886 — — *ampla*. TRYON (109), vol. VIII, p. 32,  
pl. 10, figs. 81—83, 85, 86; pl. 11, figs.  
91—95; pl. 12, fig. 6.
- 1886 — — *didyma* Bolten. BOOG WATSON, Challen-  
ger Gasterop. (8), p. 450.
- 1887 — — *Chemnitzii* Récluz. VON MARTEENS, Mer-  
gui (67), p. 188.
- 1895 *Polinices (Neverita) ampla*. PILSBRY, Catalogue of the  
marine mollusks of Japan,  
p. 72.
- 1905 *Natica (Neverita) ampla* Philippi. K. MARTIN, Foss. v.  
Java (73), p. 262, pl. XXXIX,  
figs. 628, 629.
- 1906 — *ampla*. TOKUNAGA, Fossils from the Environs of  
Tokyo (Journal of the College of Science,  
Imperial University of Tokyo, vol. XXI,  
Art. 2), p. 18, pl. I, fig. 32.
- — *papyracea*. TOKUNAGA, ibid., p. 19, pl. I, fig. 33.
- 1908 — *(Neverita) ampla* and vars. *Chemnitzii* and *petiveri-  
ana*. HORST et SCHEPMAN (31), p. 376.

- 1911 *Natica (Neverita) ampla*. H. MARTIN—JCKE, Trinil (76), p. 47.
- 1919 *Natica ampla*. K. MARTIN (75), pp. 99, 125, 126, 132.
- 1920 *Polinices (Neverita) ampla*. YOKOYAMA (115), p. 77, pl. V, figs. 5, 6.
- 1922 — — — YOKOYAMA (116), p. 84.

Surabaya, Harbour, mud, 1 bleached specimen (figure 7).

Tjilatjap (Leyden Museum).

Distribution: New Guinea, Waigeu and Misol.

— Sydney (New South Wales). — Philippines; Japan, also Yezo, Northern Japan; China; Further India and Malacca; Nicobar Is., Bay of Bengal, Coromandel Coast, Ceylon; Persian Gulf; Madagascar.

Fossil in the Upper Miocene and Pliocene of Java, also in the Pliocene of Japan.

My specimen from Surabaya belongs to the flatter form, called *petiveriana* by REEVE.

#### 50. *Natica (Polinices) mamilla* Linné sp..

- 1705 *Valvata septima sive albula*. RUMPHIUS (100), p. 76, pl. XXII, fig. F.
- 1758 *Nerita mamilla*. LINNÉ, Systema Naturae, edit. X, p. 776.
- 1767 — — LINNÉ, Syst. Nat., edit XII, p. 1252.
- 1822 *Natica mamilla*. LAMARCK, An. s. vert. (52), vol. VI, 2nd part, p. 197, nr. 4.
- 1823 *Natica mammilla*. SOWERBY, Genera (105), Natica, fig. 2.
- 1838 *Natica mamilla*. LAMARCK, An. s. vert. (53), vol. VIII, p. 630.
- 1843 — *pyriformis*. RECLUZ in: Proceedings Zoological Society, London, 1843, p. 211.
- 1851 — *albula*. RECLUZ in: Journal de Conchyliologie, vol. II, p. 194.
- 1852 — *mamilla*. PHILIPPI, Natica u. Amaura (90), p. 31, pl. 4, figs. 7, 8.
- — *pyriformis*. PHILIPPI, ibid., p. 60, pl. 9, fig. 8.
- 1855 — *pyriformis* Recl.. REEVE (97), vol. IX, Natica, pl. V, fig. 16.
- — *albula* Recl.. REEVE, ibid., pl. VI, figs. 23 a, b.
- — *mamilla* Lam.. REEVE, ibid., pl. VII, figs. 27 a, b.
- 1871 — *pyriformis* Recl.. LISCHKE, Japan. Meeresconch. (59), vol. II, p. 169.

- 1874 *Natica pyriformis* Recl., LISCHKE, ibid., vol. III, p. 53.  
 1883 — *mamilla*. SOWERBY, Thesaurus (106), vol. V, p. 85,  
     pl. 456, figs. 28—30.  
 1886 — (*Mamma*) *mamilla*. BOOG WATSON, Challenger Ga-  
     sterop. (8), p. 452.  
 1886 — — — TRYON (109), vol. VIII, p. 49,  
     pl. 16, fig. 46.  
 1887 — (*Polinices*) *mammilla*. VON MARTENS, Mergui (67),  
     p. 188.  
 1897 — *mamilla*. VON MARTENS (69), p. 291.  
 1899 — — DAUTZENBERG, Sumatra (15), p. 4.  
 1901 — — L. sp.. H. FISCHER, Djibouti, etc. (22a),  
     p. 120.  
 1902 — (*Polinices*) *mammilla*. VON MARTENS, Rumphius  
     Gedenkboek (71), p. 114.  
 1903 — (*Mamma*) *mamilla* Lm.. STURANY, Gastropoden des  
     Rothen Meeres (107a), pp.  
     256, 276—277.  
 1905 — (*Polinices*) *mamilla*. K. MARTIN, Foss. v. Java (73),  
     p. 263.  
 1908 — (*Pollinices*) *mamilla*. HORST et SCHEPMAN (31),  
     p. 379.  
 1909 — (*Mamma*) — SCHEPMAN (104), p. 215.  
 1909 — *mamilla*. LAMY, Java (56), p. 467.  
 1911 — — K. MARTIN, Vorläuf. Bericht (74), p. 47.  
 1911 — (*Polinices*) *mamilla* Lam.. H. MARTIN—ICKE, Tri-  
     nil (76), p. 47.  
 1919 — *mamilla* Linn.. K. MARTIN (75), pp. 99, 122, 123,  
     128, 132, 142, 146.  
 1920 — — L. TESCH, Timor (108), II, p. 71, pl.  
     CXXXIII, figs. 209, 210.  
 1923 — (*Mama*) *mamilla* L.. HENRICH, Meeresmoll. Sinai  
     (28a), p. 73.

Coral-island Pulu Pandjang, 2 worn specimens.  
 North coast of Residency Besuki, East Java (Leyden  
 Museum).

Tjilatjap (Leyden Museum).

Anjer, coast of Sunda-strait (VON MARTENS (71)).

Distribution: East Indian Archipelago: Padang (Sumatra),  
 Banka, Celebes, Sumbawa, Flores, Adonara, Timor, Wetter,  
 Amboina, Ceram, Bachan, East coast of Halmahera (Museum  
 Wageningen), Misol, Kei Is..

— Torres Straits, Australia. — Philippines, Japan, Hong-

kong. — Singapore, Mergui Archipelago. — Nicobars, Andamans, Ceylon and the whole Indian Ocean to the Red Sea and the African Coast, southward to Natal.

Fossil in the Upper Miocene, Pliocene and Pleistocene of Java and the Pliocene of Timor.

**51. *Natica (Mammilla) melanostomoides* Quoy et Gaimard.**

Figure 8.

- 1832 *Natica melanostomoïde*. QUOY et GAIMARD, Voyage de l'ASTROLABE (96), vol. II, pp. 229—230, pl. 66, figs. 4—8.
- 1838 — *melanostomoides* Quoy. DESHAYES in LAMARCK (53), vol. VIII, p. 652.
- 1852 — — PHILIPPI, *Natica u. Amaura* (90), p. 58, pl. 9, fig. 5.
- 1855 — — REEVE (97), vol. IX, *Natica*, pl. XXII, fig. 101.
- 1883 — — Quoy. SOWERBY, *Thesaurus* (106), vol. V, p. 97, pl. 459, fig. 78.
- 1886 — (*Mamilla*) *melanostoma* Gmel., var. *melanostomoides*. TRYON (109), vol. VIII, p. 50, pl. 22, fig. 21.
- 1908 — — — — — var. *melanostomoides*. HORST et SCHEPMAN (31), p. 381.
- 1909 — — — — — *melanostomoides*. SCHEPMAN (104), p. 216.

Shore of Bali-strait, north of Banjuwangi, 1 specimen (figure 8).

Distribution: Malay Archipelago and Melanesia: Banka, Sumbawa, Flores, Makassar, Talaut Is. (N. E. of Celebes), New Guinea, New Ireland.

**FAM. CERITHIIDAE.**

**52. *Cerithium concisum* Hombron et Jacquinot.**

Figures 9, 10.

- 1822 *Cerithium morus*. LAMARCK (*non* Bruguière), An. s. vert. (52), vol. VII, p. 75, nr. 29.

- 1834 *Cerithium morus* Lk.. QUOY et GAIMARD, Voyage de découvertes de l'Astrolabe (96), vol. III, p. 118, pl. 54, figs. 13—15.
- 1838 — — — POTIEZ et MICHAUD, Galerie des Mollusques, ou Catalogue méthodique, descriptif et raisonné des mollusques et coquilles du Muséum de Douai, I, p. 366, pl. 31, figs. 25—26.
- 1841 *Cerithium concisum*. HOMBRON et JACQUINOT, Voyage au Pôle Sud, pl. 24, figs. 1, 2.
- 1841-'42 *Cerithium morus*. KIENER (32), vol. V, Cerithium, p. 52, pl. 15, fig. 1.
- 1843 *Cerithium morus*. LAMARCK, An. s. vert. (53), vol. IX, p. 302.
- 1854 *Cerithium obscurum*. ROUSSEAU in HOMBRON et JACQUINOT, Voyage au Pôle Sud, p. 102.
- 1855 *Cerithium morus* Lk.. SOWERBY, Thesaurus (106), vol. II, p. 870, pl. 182, figs. 159—161.
- 1865 — — — REEVE (97), vol. XV, Cerithium, species 42, pl. VII, fig. 42.
- 1887 — — — TRYON (109), vol. IX, p. 133, pl. 24, figs. 32, 33.
- 1887 *Cerithium morum* Lam.. von MARTENS, Mergui (67), p. 191.
- 1890 *Cerithium morus* Lam.. KOEBELT, Cerithium (35), p. 80, pl. 15, figs. 6, 7.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 161 (reprint, p. 77).
- 1897 *Cerithium morum*. von MARTENS (69), p. 172.
- 1899 *Cerithium morus* Lam.. MELVILL and STANDEN, Torres Straits (77), p. 167.
- 1899 — — — HORST et SCHEPMAN (31), p. 228.
- 1900 — — — DAUTZENBERG, Sumatra (15), p. 4.
- 1903 — — — STURANY, Gastropoden des Rothen Meeres (107a), pp. 261, 278—279.
- 1905 *Cerithium concisum* Hombr. et Jacq.. DAUTZENBERG et H. FISCHER, Tonkin (17), pp. 124, 125, 132.
- 1906 — — — — — DAUTZENBERG et H. FISCHER (18), p. 408.
- 1907 — — — — — COUTURIER, Tahiti, etc. (13), p. 155.
- 1909 *Cerithium morum* Lam.. SCHEPMAN (104), p. 160.
- 1923 — *morus* Lam.. HENRICH, Meeresmoll. Sinai (28a), p. 72.

Coral-island Pulu Pandjang, 1 specimen (figure 9).

Shore of Bali-strait, north of Banjuwangi, 1 specimen (figure 10).

Anjer, coast of Sunda-strait (VON MARTENS). Island Enkhuizen near Batavia (Museum Amsterdam).

Distribution: East Indian Archipelago: Sumatra (Padang, Benkulen), Banka, Lombok, Sumbawa, Paternoster and Postillon-islands, Rotti, Timor, Amboina, Ceram, Bachan, Togean Is. near Celebes.

— Philippines, South Japan, Hongkong, Pulo Kondor, Siam, Singapore, Mergui Archipelago, Bengal, Bombay, Persian Gulf, Red Sea, Seychelles, Mauritius, Madagascar. — Torres Straits, New Britian, Solomon Is., Vanikoro, Paumotu.

According to DUFO<sup>1)</sup> this species lives in groups in sandy mud between high and low-water level.

52a. *Cerithium concisum moniliferum* (Dufresne) Kiener.

- |          |  |  |   |
|----------|--|--|---|
| 1841-'42 | <i>Cerithium moniliferum</i>           | Dufresne.  | KIENER (32), vol. V,<br>Cerithium, p. 49, pl.<br>16, fig. 3.                      |
| 1843     | —                                      | —  | Kiener. DESHAYES in LAMARCK<br>(53), vol. IX, p. 319.                             |
| 1855     | —                                      | —  | Kiener. SOWERBY, Thesaurus<br>(106), vol. II, p. 870, pl.<br>182, figs. 163, 165. |
| 1865     | —                                      | —  | REEVE (97), vol. XV, Cerithium,<br>species 20, pl. IV, fig. 20.                   |
| 1887     | <i>Cerithium morus</i>                 | Lam., pars.  | TRYON (109), vol. IX, p. 134,<br>pl. 24, fig. 35.                                 |
| 1890     | <i>Cerithium moniliferum</i>           | Kien.. O. BOETTGER (5), p. 166.                        |   |
| 1893     | <i>Cerithium (s. str.) moniliferum</i> | Kiener. KOBELT (35), p.<br>126, pl. 24, figs.<br>2, 3. |   |
| 1895     | <i>Cerithium morus</i>                 | Lam., var.   | SCHEPMAN (102), p. 162.   |
| 1899     | <i>Cerithium morus</i> , var.          | <i>moniliferum</i>                                     | Dufresne. HORST et<br>SCHEPMAN (31), p. 228.                                      |

1) H. DUFO, Observations sur les mollusques marins, terrestres et fluviaitiles des îles Sèchelles et des Amirantes (Annales des Sciences Naturelles, 2e série, vol. 14, Zoologie; Paris, 1840), p. 61.

- 1899 *Cerithium moniliferum* Dufresne, in KIENER. DAUTZENBERG,  
Sumatra (15), p. 4.
- 1903 — Dufr.. STURANY, Gastropoden des  
Rothen Meeres (107a), pp.  
261, 279.
- 1909 *Cerithium morum*, var. *monilifera* Kiener. SCHEPMAN (104),  
p. 161.

Coral-island Pulu Pandjang, 4 specimens.

Thousand Is., north of Batavia (Strubell). Sunda-strait  
(Leyden Museum). Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Padang (Sumatra), Coast of Sambas (Borneo), Lombok, Flores, Timor.  
— Philippines, Japan. — Red Sea, Nossi-Bé near Madagascar.  
— Samoa.

### 53. *Potamides (Tympanotonos) cingulatus* Gmelin sp..

#### Figure 11.

- 1780 *Turbo granulatus minor* etc.. MARTINI, Conchylien-Cabinet,  
vol. IV, p. 328, pl. 157, fig.  
1492.
- 1791 *Murex cingulatus*. GMELIN, Syst. Nat. (27), p. 3561.
- 1798 *Strombus Picta*. BOLTEN, Museum Boltenianum, p. 97.
- 1838 *Cerithium fluvatile*. POTIEZ et MICHAUD, Galerie des Mollusques, ou Catalogue méthodique, descriptif et raisonné des mollusques et coquilles du Muséum de Douai, I, p. 363, pl. 31, figs. 19, 20.
- 1841 — *incisum*. HOMBRON et JACQUINOT, Voyage au Pôle Sud, pl. 23, figs. 8, 9.
- 1841-'42 *Cerithium fluvatile*. KIENER (32), vol. V, Cerithium, p. 92, pl. 29, fig. 3.
- 1843 — — DESHAYES in LAMARCK (53), vol. IX, p. 320.
- 1852 — *cingulatum* Gm.. MÖRCH, Catalogus Yoldi, p. 57.
- 1854 — *incisum*. ROUSSEAU in HOMBRON et JACQUINOT, Voyage au Pôle Sud, p. 97.
- 1855 — *fluvatile*. SOWERBY, Thesaurus (106), vol. II, p. 891, pl. CLXXXVI, figs. 296, 298.
- 1866 *Tympanotonos fluvialis*. REEVE (97), vol. XV, Tympanotonos, pl. II, figs. 9 a, b.

- 1869, 1871 *Potamides fluviatilis*. LISCHKE, Japan. Meeresconch. (59), vol. I, p. 76; vol. II, p. 69.
- 1887 *Potamides (Tympanotonos) fluviatilis*. TRYON (109), vol. IX, p. 159, pl. 31, fig. 38.
- 1887 — *(Cerithidea) fluviatilis*. VON MARTENS, Mergui (67), p. 169.
- 1891 — *fluviatilis* P. et M.. P. FISCHER, Indo-Chine (22), p. 163 (reprint, p. 79).
- 1897 — *(Tympanotonos) cingulatus* Gm.. VON MARTENS (69), p. 183.
- 1899 — *(Cerithidea) fluviatilis*. HORST et SCHEPMAN (31), p. 235.
- 1905 *Tympanotomus cingulatus* Gmel.. DAUTZENBERG et H. FISCHER (17), pp. 132—134.
- 1906 — — — DAUTZENBERG et H. FISCHER (18), p. 410.
- 1909 *Potamides (Tympanotonos) fluviatilis*. SCHEPMAN (104), p. 168.
- 1909 *Potamides fluviatilis*. LAMY, Java (56), p. 467.
- 1914 — *cingulatus*. LESCHKE, Java und Celebes (58), p. 259.
- 1920 *Potamides (Tympanotonos) fluviatilis*. YOKOYAMA (115), p. 68, pl. IV, fig. 14.
- 1921 — — *cingulatus*. PRASHAD, Sumatra (95), p. 494.
- 1922 — — *fluviatilis*. YOKOYAMA (116), p. 71.

Coast near mouth of river Tji Lamaja, 2 specimens (figure 11).

Near Surabaya (VON MARTENS). Near reef of Batjulmati, East coast (Siboga exp.). Near Banjuwangi (VON MARTENS).

Distribution: Widely spread throughout the Indian Archipelago: Sumatra, Banka, Borneo, Celebes, Lombok, Sumbawa, Ceram.

— Philippines, Nagasaki (Japan), Amoy, Hongkong and Macao, Tongking, Annam, Cochin China, Siam, Singapore, Salang-island (Malacca), Mergui Archipelago, Nicobars, Ganges Delta, Coromandel Coast, Ceylon, Malabar Coast. — North West Coast of Australia.

Fossil in the Pliocene (Musashino) of Japan.

*Potamides cingulatus* is essentially a form of brackish water, it occurs in mangrove-swamps, lagoons and estuaries. An-

derson found it in the Mergui-Archipelago on trunks of mangrove-trees and on sand below them, immediately below high-water mark.

54. *Potamides (Telescopium) telescopium* Linné sp..

- 1758 *Trochus telescopium*. LINNÉ, Systema Naturae, edit. X,  
p. 760.
- 1767 — — LINNÉ, Systema Naturae, edit. XII,  
p. 1231.
- 1792 *Cerithium telescopium*. BRUGUIÈRE, Encycl. (10), vol. I, part  
2, p. 485, nr. 17.
- 1810 *Telescopium indicator*. MONTFORT, Conchyliologie systé-  
matique, vol. II, p. 438.
- 1817 *Telescopium fuscum*. SCHUMACHER, Essai d'un nouveau  
Système des habitations des Vers  
testacés (104a), p. 233.
- 1822 *Cerithium telescopium*. LAMARCK, An. s. vert. (52), vol. VII,  
p. 67, nr. 4.
- 1834 — — QUOY et GAIMARD, Voyage de  
découvertes de l'Astrolabe (96), vol.  
III, p. 125, pl. 55, figs. 4—6.
- 1841-'42 *Cerithium telescopium*. KIENER (32), vol. V, Cerithium,  
p. 88, pl. 28, fig. 1.
- 1843 — — LAMARCK, An. s. vert. (53), vol.  
IX, p. 286.
- 1855 — — SOWERBY, Thesaurus (106), vol.  
II, p. 890, pl. CLXXXV, fig. 269.
- 1859 *Cerithium (Telescopium) telescopium* Brug.. CHENU (11),  
vol. I, p. 286, fig.  
1930.
- 1865 *Telescopium fuscum* Schumacher. REEVE (97), vol. XV,  
Telescopium, species 1.
- 1884 *Potamides (Telescopium) telescopium* Brug.. K. MARTIN  
(72), p. 145.
- 1887 — — TRYON (109), vol. IX,  
p. 161, pl. 33, fig. 56.
- 1890 *Telescopium fuscum* (Schum.). O. BOETTGER (5), p. 167.
- 1890 *Cerithium (Telescopium) telescopium*. KOBELT (35), p. 57,  
pl. 12, fig. 1.
- 1897 *Potamides (Telescopium) telescopium* L. von MARTENS (69),  
p. 180.
- 1899 *Telescopium telescopium*. K. MARTIN (73), p. 220, pl.  
XXXIII, fig. 509.

- 1899 *Potamides (Telescopium) telescopium*. HORST et SCHEPMAN (31), p. 234.
- 1914 — *telescopium*. LESCHKE, Java und Celebes (58), p. 259.
- 1919 *Telescopium telescopium*. K. MARTIN (75), pp. 94, 128, 137, 147.
- 1920 — — TESCH, Timor (108), II, p. 58, pl. CXXXII, fig. 191.
- 1921 *Potamides (Telescopium) telescopium*. PRASHAD, Sumatra (95), p. 493.

Surabaya, Harbour, mud, 4 specimens.

One specimen is covered with *Ostrea*.

Mangrove-swamps at Tandjong Priok near Batavia (Strubell).

Distribution: East Indian Archipelago: Mangrove-swamps in Sumatra (Deli and Serdang) and Borneo, Timor, Amboina, Ceram (mangrove-swamps), Buru, New Guinea.

— North Western Australia. — Philippines, Singapore (in brackish ditches), Salang-island (Malacca), Burma in estuaries, Nicobars, India (Gangetic Delta; lagoon near Madras), Ceylon, Réunion, Madagascar.

Fossil: Miocene of Java; Pliocene of Nias near Sumatra; Pliocene and Pleistocene of Timor; Pleistocene of Madura, Celebes and New Guinea.

### 55. *Potamides (Cerithidea) obtusus* Lamarck sp..

#### Figure 12.

- 1822 *Cerithium obtusum*. LAMARCK, An. s. vert. (52), vol. VII, p. 71, nr. 17.
- 1828 *Strombus obtusus*. W. WOOD, Supplement to the Index Testaceologicus, pl. 4, fig. 8.
- (? 1834) *Cerithium decollatum* (not of Bruguière). SOWERBY, Genera (105), Cerithium, fig. 2.
- 1841-'42 *Cerithium obtusum* Lam.. KIENER (32), vol. V, Cerithium, p. 95, pl. 29, fig. 1.
- 1843 — — — LAMARCK, An. s. vert. (53), vol. IX, p. 294.
- 1855 — — — Lam.. SOWERBY, Thesaurus (106), vol. II, p. 885, pl. 186, fig. 271.
- 1866 *Cerithidea obtusa* Wood. REEVE (97), vol. XV, Cerithidea, sp. 4, pl. I, figs. 4 a, b.

- 1887 *Potamides (Cerithidea) obtusa* Lam.. TRYON (109), vol. IX,  
p. 161, pl. 33, figs.  
59, 60.
- 1887 — — — *obtusus* Sow.. von MARTENS, Mergui (67), p. 168.
- 1890 *Cerithium (Cerithidea) obtusum* Wood. KOBELT, Cerithium  
(35), pp. 42, 43, pl.  
9, figs. 3—5.
- 1897 *Potamides (Cerithidea) obtusus* Lam.. von MARTENS (69),  
p. 186, pl. IX, figs.  
22, 22b.
- 1899 *Potamides (Cerithidea) obtusus* Wood. HORST et SCHEPMAN  
(31), p. 234.
- 1903 *Cerithidea obtusa*, Lam.. DAUTZENBERG, Sambas (16a),  
p. 6.
- 1921 *Potamides (Cerithidea) obtusum* (Lam.). PRASHAD, Sumatra  
(95), p. 495.  
Coast near mouth of river Tji La maja, 3 specimens  
(figure 12).

Distribution: Malay Archipelago: Deli and Serdang (Sumatra) in mangrove-swamps and mouth of river, Borneo (Sambas-river and Pleihari), Celebes, Timor.

— Cochin China, Siam, Singapore (mud-flat exposed at low tide), Malacca, Pulu Penang (in brackish puddles), Salang-island, Mergui Archipelago (on mangroves), Calcutta. — Madagascar.

#### FAM. STROMBIDAE.

##### 56. *Pterocera lambis* Linné sp..

- 1705 *Cornuta*. RUMPHIUS (100), p. 110, pl. XXXV, figs. E, F;  
pl. XXXVI, fig. G.
- 1758 *Strombus lambis*. LINNÉ, Systema Naturae, edit. X, p. 743.
- 1767 — — LINNÉ, Syst. Naturae, edit. XII, p. 1208.
- 1789 *Strombus camelus*. CHEMNITZ, Conchylien-Cabinet, vol. X,  
pl. 155, fig. 1478.
- 1791 *Strombus lambis*. GMELIN, Syst. Nat. (27), p. 3508, nr. 5.
- 1822 *Pterocera lambis*. LAMARCK, An. s. vert. (52), vol. VII,  
p. 196, nr. 2.
- 1834 *Strombus Lambis* (Linné). QUOY et GAIMARD, Voyage de  
l'Astrolabe (96), vol. III, pp. 61—63,  
pl. 50, fig. 6.
- 1842 *Pteroceras Lambis* Lin.. SOWERBY, Thesaurus (106), vol. I,  
p. 41, pl. XI, figs. 5—7.

- 1843 *Pterocera lambis*. LAMARCK, An. s. vert. (53), vol. IX, pp. 672—673, nr. 2.
- 1843-'44 — *Lambis* Lam.. KIENER (32), vol. IV, Pterocera, p. 7, pl. 3; pl. 9, fig. 2; pl. 4, fig. 1.
- 1846 — *lambis*. KÜSTER (44), p. 82, pl. 10, fig. 7; pl. 16, figs. 3, 4; pl. 17, fig. 3; pl. 18, figs. 5, 6.
- 1851 — — Linnaeus. REEVE (97), vol. VI, Pterocera, species 8, pl. V, fig. 8.
- 1885 *Pterocera (Heptadactylus) lambis*. TRYON (109), vol. VII, p. 124, pl. 8, figs. 1—3.
- 1887 *Pterocera lambis* L.. von MARTENS, Mergui (67), p. 190.
- 1899 *Pterocera (Heptadactylus) lambis* L.. MELVILLE and STAN-DEN, Torres Straits (77), p. 166.
- 1899 *Pterocera lambis* L.. HORST et SCHEPMAN (31), p. 220.
- 1902 — — — von MARTENS, Rumphius Gedenkboek (71), p. 122.
- 1907 — — — COUTURIER, Tahiti, etc. (13), p. 154.
- 1909 — — — SCHEPMAN (104), p. 153.

Shore of Bali-strait, north of Banjuwangi, fragments.

Bay of Popoh, South coast, Residency Kediri, 1 worn specimen.

Near reef of Batjulmati, East coast (Siboga expedition).

Distribution: East Indian Archipelago: Sumatra, Banka, Billiton, Borneo-bank, Celebes, Kangeang (east of Madura), Flores, Roma-island near Timor, Timor, Amboina, Nusa-Laut-island near Amboina, Obi, Halmahera (Museum Wageningen), Wai-geu, Kei-islands, New Guinea, Torres Straits.

— Philippines, Singapore, Mergui Archipelago, Nicobars, Ceylon, Red Sea, Zanzibar, Madagascar. — Vanikoro (Melanesia), Tonga, Society Is., Paumotu.

### 57. *Pterocera (Millepes) scorpio* Linné sp..

- 1705 *Cornuta nodosa*. RUMPHIUS (100), pl. XXXVI, fig. K.
- 1758 *Strombus scorpius*. LINNÉ, Systema Naturae, edit. X, p. 743.
- 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1208.
- 1822 *Pterocera scorpio*. LAMARCK, An. s. vert. (52), vol. VII, p. 197, nr. 5.
- 1842 *Pteroceras* — SOWERBY, Thesaurus (106), vol. I, p. 43, pl. XI, fig. 1.

- 1843 *Pterocera scorpio*. LAMARCK, An. s. vert. (53), vol. IX, pp. 674—675, nr. 5.
- 1843-'44 — — KIENER (32), vol. IV, *Pterocera*, p. 13, pl. 6.
- 1846 — *Scorpio*. KÜSTER (44), p. 87, pl. 14, fig. 7.
- 1851 — *scorpius*. REEVE (97), vol. VI, *Pterocera*, species 3, pl. III, fig. 3.
- 1885 *Pterocera (Millipes) scorpio*. TRYON (109), vol. VII, p. 125, pl. 9, fig. 6.
- 1899 — (*s. str.*) *scorpio* L.. HORST et SCHEPMAN (31), p. 221.
- 1902 — *scorpius* L.. VON MARTENS, Rumphius Gedenkboek (71), p. 122.

Coral-island Pulu Pandjang, 1 worn specimen.

Distribution: Eastern part of the Archipelago: Timor, Rotti, Amboina, Haruku, Saparua and Nusa-Laut near Amboina, Ceram, Obi, Waigeu.  
— Philippines. — Madagascar.

### 58. *Pterocera (Harpago) chiragra* LINNÉ sp..

- 1705 *Harpago*. RUMPHIUS (100), p. 109, pl. XXXV, figs. A—D.
- 1758 *Strombus chiragra*. LINNÉ, Systema Naturae, edit. X, p. 742.
- 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1207.
- 1822 *Pterocera chiragra*. LAMARCK, An. s. vert. (52), vol. VII, p. 198, nr. 7.
- 1842 *Pteroceras Chiragra*. SOWERBY, Thesaurus (106), vol. I, p. 42, pl. XI, fig. 12.
- 1843 *Pterocera chiragra*. LAMARCK, An. s. vert. (53), vol. IX, pp. 675—677, nr. 7.
- 1843-'44 — — Lam.. KIENER (32), vol. IV, *Pterocera*, p. 5, pl. 5; pl. 10, fig. 2.
- 1846 — — Linné. KÜSTER (44), pp. 91—92, pl. 16, figs. 1, 2; pl. 17, figs. 1, 2; pl. 18, figs. 3, 4, 7, 8.
- 1851 — — REEVE (97), vol. VI, *Pterocera*, species 2, pl. II, fig. 2.
- 1885 *Pterocera (Harpago) chiragra* L.. TRYON (109), vol. VII, p. 126, pl. 10, fig. 13.
- 1899 — — — — HORST et SCHEPMAN (31), p. 221.

- 1902 *Pterocera chiragra* L.. VON MARTENS, Rumphius Gedenk-boek (71), p. 122.  
 1909 — — — SCHEPMAN (104), p. 154.  
 1909 — — — LAMY, Java (56), p. 467.

Bay of Popoh, South coast, Resid. Kediri, 2 specimens.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Billiton, Timor, Banda, Amboina, Nusa-Laut-island near Amboina, Ceram, Bonoa and Manipa between Ceram and Buru, Morotai, Waigeu, Kei-islands.

— Philippines, New Caledonia, Polynesia.

### 59. *Strombus canarium* Linné.

- 1705 *Epidromis gibbosa*. RUMPHIUS (100), p. 110, pl. XXXVI, fig. N.  
 1758 *Strombus canarium*. LINNÉ, Systema Naturae, edit. X, p. 745.  
 1767 — — — LINNÉ, Syst. Nat., edit XII., p. 1211.  
 1791 — — — GMELIN, Syst. Nat., edit. XIII (27), p. 3517, nr. 24.  
 1822 — — — LAMARCK, An. s. vert. (52), vol. VII, pp. 206—207, nr. 17.  
 — — — *Isabella*. LAMARCK, ibid., vol. VII, p. 207, nr. 18.  
 1832 — — — *canarium*. DESHAYES, Encyclopédie méthodique; Vers, vol. III, p. 990.  
 1834 — — — *Canarium*. QUOY et GAIMARD, Voyage de l'Astrolabe (96), vol. III, p. 72, pl. 51, figs. 10—11.  
 — — — *vanikorensis*. QUOY et GAIMARD, ibid., pp. 73—74, pl. 51, figs. 7—9.  
 — — — *taeniatus*. QUOY et GAIMARD, ibid., pp. 75—76, pl. 51, figs. 14—15.  
 1842 — — — *canarium*. SOWERBY, Thesaurus (106), vol. I, p. 33, pl. VIII, figs. 69, 70.  
 — — — *isabella*. SOWERBY, ibid., p. 33, pl. VIII, figs. 68, 71.  
 1843 — — — *isabella*. KIENER (32), vol. IV, Strombus, p. 32, pl. 25, fig. 2.  
 — — — *canarium*. KIENER, ibid., p. 33, pl. 29, figs. 1, 1a.  
 1843 — — — LAMARCK, An. s. vert. (53), vol. IX, p. 699.

- 1843 *Strombus Isabella*. LAMARCK, *ibid.*, p. 700.  
 1845 — — *Küster*, *Strombea* (44), p. 41, pl. 7,  
fig. 3.  
 — — *Canarium*. KÜSTER, *ibid.*, p. 43, pl. 7, fig. 4.  
 1851 — — *canarium*. REEVE (97), vol. VI, *Strombus*, pl.  
XVIII, figs. 46 a, b.  
 — — *Isabella*. REEVE, *ibid.*, pl. XVIII, fig. 51.  
 1874 — — LISCHKE, *Japan. Meeresconch.* (59),  
vol. III, p. 19.  
 1885 *Strombus canarium* and var. *Isabella*. TRYON (109), vol. VII,  
p. 110, pl. 2, figs. 18  
—20; pl. 3, fig. 21.  
 1886 *Strombus (Gallinula) canarium*. BOOG WATSON (8), p.  
418.  
 1887 — *canarium*. VON MARTENS, *Mergui* (67), p. 189.  
 1889 — *Isabella*. L. MORLET in: *Journal de Conchyliologie*, vol. XXXVII, p. 142.  
 1890 — — CROSSE et FISCHER in: *Journ. de Conch.*,  
vol. XXXVIII, p. 15.  
 1891 — — PAUL FISCHER, *Indo-Chine* (22), p. 258  
(reprint, p. 174).  
 1897 — *canarium*. VON MARTENS (69), p. 291.  
 1899 — *(Gallinula) canarium*. MELVILL and STANDEN,  
Torres Straits (77), p. 165.  
 — — *isabella*. MELVILL and STANDEN,  
*ibid.*, p. 165.  
 1899 — (*s. str.*) *canarium* and var. *vanikorensis*. HORST  
et SCHEPMAN (31), p. 213.  
 — — *isabella* and var. *taeniatus*. HORST et  
SCHEPMAN, *ibid.*, p. 213.  
 1899 — — *isabella*. K. MARTIN, *Foss. v. Java* (73),  
p. 184.  
 1902 — *canarium* L.. VON MARTENS, *Rumphius Gedenkboek* (71), p. 122.  
 1905 — *Isabella* Lam.. DAUTZENBERG et H. FISCHER,  
Tonkin (17), pp. 123—124.  
 1907 — *isabella* Lam.. SCHEPMAN, *Posttertiär Celebes*  
(102a), p. 185.  
 1908 — (*Strombus*) *canarium* L.. O. BOETTGER (6 a), pp.  
668, 669.  
 1909 — *canarium*. SCHEPMAN (104), p. 146.  
 — — *isabella*. SCHEPMAN, *ibid.*, p. 146.  
 1919 — — K. MARTIN, *Palaeoz. Kenntn. Java* (75),  
p. 147.

- 1920 *Strombus isabella* (not of Lamarck). TESCH, Timor (108), II,  
p. 48, pl. CXXIX, fig.  
165.

Shore near Panarukan, north coast of Resid.  
Besuki, 2 worn specimens (typical *canarium*).  
Djangkar, north coast of Besuki (*isabella*) (Siboga expe-  
dition).

Tjilatjap (*isabella*) (Leyden Museum).

Distribution: East Indian Archipelago: Benkulen (Suma-  
tra), Banka, Borneo, Saleyer, Celebes, Lombok, Flores, Timor,  
Amboina, Bachan, Halmahera (Museum Wageningen), Misol,  
New Guinea, Torres Straits.

— Vanikoro (Melanesia).

— Philippines, Southern Japan, Cochin China, Singapore, An-  
damans, Ceylon, Red Sea.

Fossil in the Pleistocene of Madura, Billiton and Northern  
Celebes (Minahassa) and in the Pliocene of Nias near Sumatra  
and Timor.

The pliocene fossils from Timor, figured by Dr. TESCH  
under the name of *Strombus isabella*, surely belong to the typical  
*canarium*, not to *Str. isabella* of LAMARCK. Comparing the latter  
with *Str. canarium*, LAMARCK says: „il s'en distingue d'ailleurs  
par sa spire, dont tous les tours sont très convexes. Il est, en  
outre, dépourvu des lignes colorées et flexueuses que l'on ob-  
serve dans l'autre.” The figured fossils from Timor show no-  
thing like these convex whorls, moreover, according to Dr.  
TESCH, many specimens are showing still traces of the cha-  
racteristic flexuous brown lines on the last whorl.

For the rest a series of specimens before me shows the  
gradual transition from the typical *canarium* to the typical  
*isabella*, both in colour and form. In consequence I agree with  
the opinion of TRYON, MELVILLE and STANDEN and TESCH,  
that *Strombus isabella* is merely a form of *canarium*.

#### 60. *Strombus (Gallinula) minimus* Linné.

- 1705 *Epidromis minima*. RUMPHIUS (100), pl. XXXVI, fig. P.  
1771 *Strombus minimus*. LINNÉ, Mantissa, p. 549.  
1822 *Strombus troglodytes*. LAMARCK, An. s. vert. (52), vol. VII,  
p. 209, no. 23.  
1842 *Strombus minimus*. SOWERBY, Thesaurus (106), vol. I, p.  
28, no. 11, pl. VI, figs. 4, 5.

- 1843 *Strombus troglodytes* Lamarck. KIENER (32), vol. IV, Strombus, p. 52, pl. 31, fig. 2.
- 1843 — — — LAMARCK, An. s. vert. (53), vol. IX, pp. 703—704.
- *Strombus minimus*. DESHAYES in LAMARCK, An. s. vert. (53), vol. IX, p. 703 (note 2).
- 1846 — — — KÜSTER (44), p. 58, pl. 12, figs. 5, 6.
- 1851 — — — REEVE (97), vol. VI, Strombus, species 47, pl. XVIII, fig. 47.
- 1885 — (*Gallinula*) *minimus*. TRYON (109), vol. VII, p. 117, pl. 6, fig. 62.
- 1899 *Strombus (s. str.) minimus*. HORST et SCHEPMAN (31), p. 214.
- 1899 — — — K. MARTIN, Foss. v. Java (73), p. 182, pl. XXIX, fig. 421.
- 1902 *Strombus minimus* L. (*troglodytes* Lam.). VON MARTENS, Rumphius Gedenkboek (71), p. 122.
- 1919 *Strombus minimus*. K. MARTIN (75), pp. 91, 141.

Shore of Bali-strait, north of Banjuwangi, 1 specimen.

Distribution: Riouw-archipelago, Banka, Northern Celebes, Flores, Timor, Amboina.

— Philippines. — Viti Is..

Fossil in the Pliocene of Sondé (Resid. Madiun), Java.

#### 61. *Strombus (Canarium) muricatus* Martini.

- 1777 *Canarium muricatum*. MARTINI, Conchylien-Cabinet, vol. III, pp. 85, 98, 165; pl. 78, figs. 803—806.
- 1817 *Canarium ustulatum*. SCHUMACHER, Essai d'un nouveau système des habitations des vers testacés (104a), p. 219.
- 1822 *Strombus urceus* (not of Linné). LAMARCK, An. s. vert. (52), vol. VII, p. 210, no. 25.
- 1842 — — — SOWERBY, Thesaurus (106), vol. I, p. 30, pl. VII, figs. 34—36 (not 37, 41, 42).
- 1843 — — — KIENER (32), vol. IV, Strombus, p. 60, pl. 15, fig. 2; pl. 30, figs. 2, 3.
- 1843 — — — LAMARCK, An. s. vert. (53), vol. IX, p. 705.
- 1846 — — — KÜSTER (44), pp. 51—53, pl. 9, figs. 4—6 (not 7); pl. 14, fig. 9.

- 1850 *Strombus urceus*. REEVE (97), vol. VI, *Strombus*, sp. 24, pl. XI, figs. 24 a, b, c.
- 1859 — — — CHENU, Manuel (11), vol. I, p. 257, fig. 1606.
- 1869 — — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 30.
- 1871 — — — LISCHKE, ibid., vol. II, p. 23.
- 1885 *Strombus (Canarium) urceus*. TRYON (109), vol. VII, p. 118, pl. 6, figs. 65—67.
- 1886 *Strombus (Canarium) muricatus*. BOOG WATSON, Challenger Gasterop. (8), p. 417.
- 1899 — — — — HORST et SCHEPMAN (31), p. 218.
- 1906 — *urceus (not of Linné)*. DAUTZENBERG et H. FISCHER (18), pp. 405—407.
- 1907 — *muricatus* Martini. SCHEPMAN, Posttertiär Celebes (102a), p. 186.
- 1909 — *(Canarium) muricatus*. SCHEPMAN (104), p. 151.
- 1920 *Strombus urceus*. TESCH, Timor (108), II, p. 49, pl. CXXX, fig. 168.

Coral-island Pulu Pandjang, 2 worn specimens.  
Shore of Bali-strait, north of Banjuwangi, 1 worn specimen.

North coast of Resid. Besuki (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Kangeang-island eastward of Madura, Sumbawa, Flores, Timor, Pulu Barang near Makassar, Amboina, Obi, East coast of Halmahera (Museum Wageningen), West coast of New Guinea.

— Torres Straits, New Caledonia, Australia. — Philippines, Nagasaki (Japan), China, Cochin China, Singapore, Ceylon and the Indian Ocean to the Red Sea and the east coast of Africa.

Fossil in the Pliocene of Timor and Nias near Sumatra and in the Pleistocene of Billiton, Makassar and Northern Celebes (Minahassa).

I think *Strombus muricatus* and *Str. dentatus* Linné will prove to be but one species. If this should be right, the species must bear the Linnean name of *Strombus dentatus*.

## 62. *Strombus (Conomurex) luhuanus* Linné.

- 1705 *Luhuana*. RUMPHIUS (100), p. 111, pl. XXXVII, fig. S.
- 1758 *Strombus luhuanus*. LINNÉ, Systema Naturae, edit. X, p. 744.

- 1767 *Strombus luhuanus*. LINNÉ, Syst. Nat., edit. XII, p. 1209.
- 1822 — — LAMARCK, An. s. vert. (52), vol. VII, p. 206, nr. 15.
- 1842 — — SOWERBY, Thesaurus (106), vol. I, p. 29, pl. VII, fig. 54.
- 1843 — — KIENER (32), vol. IV, Strombus, p. 39, pl. 27, fig. 1.
- 1843 — — LAMARCK, An. s. vert. (53), vol. IX, p. 698.
- 1846 — — KÜSTER (44), p. 46, pl. 8, figs. 1, 2, 10.
- 1850 — — *Luhuanus*. REEVE (97), vol. VI, Strombus, species 19, pl. IX, fig. 19.
- 1869 — — *luhuanus*. LISCHKE, Japan. Meeresconch. (59), vol. I, p. 31.
- 1871 — — LISCHKE, ibid., vol. II, p. 24.
- 1885 *Strombus (Conomurex) Luhuanus*. TRYON (109), vol. VII, p. 122, pl. 8, figs. 91, 92.
- 1899 — — *luhuanus*. MELVILL and STANDEN, Torres Straits (77), p. 166.
- 1899 — — — HORST et SCHEPMAN (31), p. 219.
- 1902 *Strombus Luhuanus*. VON MARTENS, Rumphius Gedenkboek (71), p. 122.
- 1909 *Strombus (Conomurex) luhuanus*. SCHEPMAN (104), p. 153.
- 1909 *Strombus luhuanus*. LAMY, Java (56), p. 466.
- 1920 — — TESCH, Timor (108), II, p. 49, pl. CXXX, fig. 167.

Shore near Panarukan, Resid. Besuki, 8 worn specimens.

Shore of Bali-strait, north of Banjwangi, 2 worn specimens.

Tjilatjap (Leyden Museum). Batavia (Winter).

Distribution: East Indian Archipelago: Banka, Borneo-bank, Northern Celebes, Sumbawa, Paternoster-islands, Saleyer, Flores, Rotti, Timor, Lucipara-island, Banda, Amboina, Luhu (Ceram), after which the species has been named; Obi, Bachan, Mareh near Tidore, East coast of Halmahera (Museum Wageningen), Waigeu, Misol, Kei Is., New Guinea. — Torres Straits, Western Australia, Queensland, New South Wales, New Caledonia, Viti Is., Tahiti. — Sulu Archipelago, Philippines, Nagasaki (Japan), Hongkong, Singapore. — Seychelles, Amirante Is., Réunion.

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

## FAM. CYPRAEIDAE.

Most species of *Cypraea* found on the Javanese coasts are distributed throughout the whole Indo-Pacific Subregion, ranging from Natal to Southern Japan and Polynesia. Some of them are living also beyond the Indo-Pacific Region, for instance in New Zealand.

63. *Cypraea carneola* Linné.

- 1705 *Carneola*. RUMPHIUS (100), p. 115, pl. XXXVIII, fig. K.  
 1758 *Cypraea carneola*. LINNÉ, Systema Naturae, edit. X, p. 719.  
 1764 — — LINNÉ, Museum Ludovicæ Ulricæ, p. 568.  
 1767 — — LINNÉ, Systema Naturae, edit. XII, p. 1174.  
 1791 — — GMELIN, Syst. Nat. (27), p. 3400, nr. 7.  
 — — *crassa*. GMELIN, ibid., p. 3421, nr. 108.  
 1822 — — *carneola*. LAMARCK, An. s. vert. (52), vol. VII, p. 384, nr. 18.  
 1837 — — L.. SOWERBY, Conchological Illustrations, figs. 165, 165.  
 1839 — — *Sowerbyi*. ANTON, Verzeichniss der Konchylien, welche sich in seiner Sammlung befinden (Halle), p. 97.  
 1844 — — *carneola* L.. LAMARCK, An. s. vert. (53), vol. X, pp. 505—506.  
 1845 — — KIENER (32), vol. I, Cypraea, p. 83, pl. 37, fig. 3.  
 1845 — — L.. REEVE (97), vol. III, Cypraea, species 19, pl. VI, fig. 19, pl. XXVII, fig. 9 b.  
 1850 — — — BERGE, Conchylienbuch (3a), p. 243, pl. 43, fig. 4.  
 1855 — — HANLEY, Ipsa Linnaei Conchylia, p. 183.  
 1869 — — L.. CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conch., vol. XVII), p. 38.  
 1870 — — — SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 12, pl. III, figs. 11—13, pl. XXX, fig. 322.  
 1877 — — — WEINKAUFF (112), p. 14, pl. 3, figs. 8—9.

- 1879 *Cypraea propinqua*. GARRETT, Annotated catalogue of the species of Cypraeidae collected in the South sea islands (Journal of Conchology, vol. II), p. 116.
- 1885 — *carneola* L.. ROBERTS in TRYON (109), vol. VII, p. 166, pl. 3, figs. 26—28.
- 1899 — (*Aricia*) *carneola* L.. HORST et SCHEPMAN (31), p. 194.
- 1902 — *carneola* L.. VON MARTENS, Rumphius Gedenkboek (71), p. 122.
- 1903 — — — DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 299—301.
- 1903 — — — STURANY, Gastropoden des Rothen Meeres (107a), pp. 254, 276—277.
- 1906-'07 — *Carneola* L.. HIDALGO (30), pp. 190, 293—296.
- 1907 — *carneola* L.. COUTURIER, Tahiti, etc. (13), p. 149.
- 1907 — — — SCHEPMAN, Posttertiär Celebes (102a), p. 183.
- 1909 — — — SCHEPMAN, Siboga exp. (104), pp. 126, 231.
- 1909 — — — LAMY, Java (56), p. 466.
- 1923 — — — HENRICH, Meeresmoll. Sinai (28a), p. 73.

Tji Solok, Wijnkoopsbay, 2 specimens of the typical form.

This species has already been recorded from Java by LAMY, but without distinct locality.

Distribution: East Indian Archipelago: Banka, Northern Celebes, Flores, Sumba, Timor, Banda Sea, Amboina, New Guinea.

— Philippines, China, Japan. — Cochin China, Andaman Is., Ceylon, Laccadives, Maldives, Chagos, Persian Gulf, Aden, Red Sea, Gulf of Suez, Gulf of Akabah, East African coasts and islands, South Africa (Durban, Port Elizabeth).

— New Caledonia, Loyalty Is., Micronesia, Polynesia (Sandwich Is., Viti, Tonga, Samoa, Cook Is., Tahiti, Marquesas, Paumotu, Gambier Is.). — North Australia, Queensland, New South Wales.

Fossil in the Pleistocene of Northern Celebes (Minahassa).

#### 64. *Cypraea interrupta* Gray.

- 1824 *Cypraea interrupta*. GRAY, Monogr. Cypr. (28), vol. I, p. 376.

- 1832 *Cypraea interrupta* Gray. SOWERBY, Conchological Illustrations, p. 6, figs. 15, 15.
- 1844 — — — Gray. DESHAYES in LAMARCK (53), vol. X, p. 564.
- 1845 — — — KIENER (32), vol. I, Cypraea, p. 94, pl. 43, fig. 2.
- 1846 — — — Gray. REEVE (97), vol. III, Cypraea, species 103, pl. XIX, fig. 103.
- 1865 — *rhinoceros*. SOUVERBIE, Description d'espèces nouvelles de l'Archipel Caledonien (Journ. de Conchyliologie, vol. XIII), p. 156, pl. 5, fig. 1.
- 1869 — — — Souv. CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conch., vol. XVII), p. 45.
- 1870 — *interrupta* Gray. SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 7, pl. XXVII, figs. 271—274, pl. XXXVII, fig. 535.
- 1880 — — — WEINKAUFF (112), p. 22, pl. 7, figs. 1, 4.
- 1885 — — — ROBERTS in TRYON (109), vol. VII, p. 167, pl. 3, figs. 36, 37; pl. 4, figs. 38, 39.
- 1899 — — — HORST et SCHEPMAN (31), p. 192.
- 1903 — — — DAUTZENBERG, Revis. Cypr. Nouv.-Caléd. (16), pp. 302—303.
- 1906-'07 — — — HIDALGO (30), pp. 139, 204, 386—387.

Tji Solok, Wijnkoopsbay, 2 specimens of the typical form.

Tjilatjap (Leyden Museum).

Distribution: Borneo. — Philippines. — Ceylon. — Solomon Is., New Caledonia, Viti Is., Samoa. — North East Australia.

#### 65. *Cypraea quadrimaculata* Gray.

- 1824 *Cypraea quadrimaculata*. GRAY, Monogr. Cypr. (28), vol. I, p. 376.
- 1845 — — — KIENER (32), vol. I, Cypraea, p. 90, pl. 3, fig. 3.

- 1846 *Cypraea quadrimaculata* Gray. REEVE (97), vol. III, Cypraea, species 107, pl. XIX, fig. 107.
- 1847 Porcelaine quadrimaculée. CHENU, Leçons élément. (10a), pl. 11, figs. 15, 16.
- 1870 *Cypraea quadrimaculata* Gray. SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 8, pl. XXVII, figs. 275—277.
- 1880 — — — — WEINKAUFF (112), pp. 30—31, pl. 9, figs. 1, 4.
- 1885 — — — — ROBERTS in TRYON (109), vol. VII, p. 167, pl. 4, figs. 40—42.
- 1899 — — — — HORST et SCHEPMAN (31), p. 193.
- 1906-'07 — — — — HIDALGO (30), pp. 141, 219, 493—494.
- 1907 — — — — SCHEPMAN, Posttertiär Celebes (102a), p. 183.
- 1909 — — — — SCHEPMAN, Siboga exp.(104), p. 128.

Coral-island Pulu Pandjang, 4 specimens.

The specimens are worn at the dorsal side, but the brown spots on the extremities are still present.

Distribution: East Indian Archipelago: Borneo, Saleyer, Moluccas.

— Philippines, Cochin China, Singapore, Coromandel Coast, Aden, Mauritius. — Micronesia, Viti Is., Torres Straits, North East Australia.

Fossil in the Pleistocene of Northern Celebes (Minahassa).

#### 66. *Cypraea melvilli* Hidalgo.

- 1845 *Cypraea ursellus* (not of Gmelin). KIENER (32), vol. I, Cypraea, p. 99, pl. 33, figs. 4—4a.
- 1869 — — (not of Gmelin). CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conch., vol. XVII), p. 38.
- 1870 — — *felina* Gmel., var. SOWERBY, Thesaurus (106), vol. IV, Cypraea, pl. XXXII, fig. 393.

- 1880 *Cypraea felina* Gmel., var.. WEINKAUFF (112), pp. 42—43,  
pl. 3, figs. 2—3; pl. 12, figs. 1, 4.  
 1885 — — — var. *a.* ROBERTS in TRYON (109), vol.  
VII, p. 169, pl. 4, figs. 54—55.  
 1899 — — — , var. *ursellus* (*not* of Gmelin). HORST et  
SCHEPMAN (31), p. 193.  
 1903 *Cypraea ursellus* (*not* of Gmelin). DAUTZENBERG, Revis. Cypr.  
Nouv. Caléd. (16), p. 307.  
 1906-'07 — *Melvilli.* HIDALGO (30), pp. 179, 209, 425—426.  
 1909 — *ursellus* (*not* of Gmelin). SCHEPMAN, Siboga exp.  
(104), p. 128.

Tji Solok, Wijnkoopsbay, 1 specimen.

Tjilatjap (Leyden Museum).

Distribution: Saleyer (near Celebes).

— Philippines, Nicobar Is., Ceylon, Seychelles, Mauritius,  
Réunion. — New Caledonia, Caroline Is., Kingsmill, Viti  
Is., Tonga, Samoa. — New South Wales.

#### 67. *Cypraea stolida* Linné.

- 1758 *Cypraea stolida*. LINNÉ, Systema Naturae, edit. X, p. 724.  
 1764 — — — LINNÉ, Museum Ludovicæ Ulricæ, p. 580.  
 1767 — — — LINNÉ, Systema Naturae, edit. XII, p.  
1180, nr. 360.  
 1791 — *rubiginosa.* GMELIN, Syst. Nat. (27), p. 3420, nr.  
105.  
 1822 — *stolida.* LAMARCK, An. s. vert. (52), vol. VII,  
pp. 392—393, nr. 38.  
 1824 — — — GRAY, Monogr. (28), vol. I, p. 378, nr. 41.  
 1836 — — — L.. SOWERBY, Conchological Illustrati-  
ons, p. 6, figs. 91, 91, 92.  
 1844 — — — L.. LAMARCK, An. s. vert. (53), vol. X,  
pp. 521—522, nr. 38.  
 1845 — — — KIENER (32), vol. I, Cypraea, p. 23, pl.  
31, figs. 1, 1a.  
 1845 — — — L.. REEVE (97), vol. III, Cypraea, species  
67, pl. XIV, figs. 67 a, b.  
 1855 — — — HANLEY, Ipsa Linnaei Conchylia, p. 194.  
 1869 — *Crossei.* MARIE, Note sur quelques coquilles de la  
Nouvelle Calédonie (Journ. de Conchyliologie, vol. XVII), p. 16, pl. 1, fig. 3.  
 1869 — *stolida* L.. CROSSE, Catalogue des Cypraea de la  
Nouvelle Calédonie (Journ. de Conch.,  
vol. XVII), p. 47.

- 1869 *Cypraea Crossei* Marie. CROSSE, *ibid.*, p. 47.  
 1870 — *stolidia* L.. SOWERBY, *Thesaurus* (106), vol. IV, *Cypraea*, p. 11, pl. XXX, figs. 327—329.  
 1877 — — — WEINKAUFF (112), pp. 5—6 (excl. of *C. erythraeensis*), pl. 1, figs. 7—8.  
 1880 — — — WEINKAUFF, *ibid.*, pp. 36—37 (excl. of *C. brevidentata*), pl. 11, figs. 1—4.  
 — — — *Crossei* Marie. WEINKAUFF, *ibid.*, pp. 43—44, pl. 13, figs. 2, 3.  
 1885 — *stolidia* L.. ROBERTS in TRYON (109), vol. VII, p. 171 (excl. of *C. brevidentata*), pl. 5, figs. 91, 92; pl. 6, fig. 7.  
 1903 — — — and var. *Crossei* Marie. DAUTZENBERG, *Revis. Cypr. Nouv. Caléd.* (16), pp. 318—320.  
 1906-'07 — — — HIDALGO (30), pp. 142, 223, 522—525.  
 1907 — — — SCHEPMAN, *Posttertiär Celebes* (102a), p. 183.

Coral-island Pulu Pandjang, the only specimen is much worn and entirely bleached; in shape it agrees with the typical form.

Distribution: East Indian Archipelago: Borneo, Amboina.

— Philippines, China, Ceylon, Mauritius, Madagascar, Natal, Cape of Good Hope. — New Caledonia, Viti Is., Samoa, Sandwich Is.. — Western Australia.

Fossil in the Pleistocene of Northern Celebes (Minahassa).

#### 68. *Cypraea (Aricia) caput-serpentis* Linné.

- 1705 Kleine Slangekoppen. RUMPHIUS (100), p. 114, pl. XXXVIII, fig. F.  
 1758 *Cypraea caput serpentis*. LINNÉ, *Systema Naturae*, edit. X, p. 720.  
 1764 — — — LINNÉ, *Museum Ludovicæ Ulricæ*, p. 571.  
 1767 — — — LINNÉ, *Systema Naturae*, edit. XII, p. 1175.  
 1791 — — — GMELIN, *Syst. Nat.* (27), p. 3406, nr. 39.  
 — — — *Reticulum*. GMELIN, *ibid.*, p. 3407, nr. 40.  
 1822 — *caput serpentis*. LAMARCK, *An. s. vert.* (52), vol. VII, pp. 385—386, nr. 21.

- 1825 *Cypraea caput serpentis*. GRAY, Monogr. (28), vol. I, p. 495.
- 1834 — — — QUOY et GAIMARD, Voyage de l' Astrolabe (96), vol. III, p. 33, pl. 47, figs. 14, 15.
- 1837 — — — L.. SOWERBY, Conchological Illustrations, p. 6, figs. 131, 131.
- 1844 — — — L.. LAMARCK, An. s. vert. (53), vol. X, p. 508—509, nr. 21.
- 1845 — — — KIENER, (32), vol. I, Cypraea, p. 112, pl. 49, figs. 1, 1a, 1b.
- 1845 — *caput-serpentis* L.. REEVE (97), vol. III, Cypraea, species 44, pl. XI, fig. 44.
- 1849 — *caput anguis*. PHILIPPI, Cent. tert. test. nov. (88), VI, p. 24.
- 1850 — *caput serpentis* L.. BERGE, Conchylienbuch (3a), p. 244, pl. 43, fig. 8.
- 1869 — — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 70.
- 1869 -- — — CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conch., vol. XVII), p. 40.
- 1870 — — — — SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 16, pl. XII, figs. 72, 73; pl. XXXVII, fig. 539.
- 1871 — — — LISCHKE, Japan. Meeresconch. (59), vol. II, p. 64.
- 1880 — — — L.. WEINKAUFF (112), pp. 21—22, pl. 5, figs. 20, 21.
- 1885 — *(Aricia) caput-serpentis* L.. ROBERTS in TRYON (109), vol. VII, p. 173, pl. 6, figs. 98—100; pl. 23, fig. 59.
- — — *caput-anguis* Phil.. ROBERTS in TRYON, ibid., p. 206.
- 1899 — — — *(Aricia) caput-serpentis* L.. HORST et SCHEPMAN (31), p. 198.
- 1902 — *caput-serpentis* L.. von MARTENS, Rumphius Gedankboek (71), p. 122.
- 1903 — *(Aricia) caput-serpentis* L.. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 322—324.
- 1906-'07 — *Caput serpentis* L.. HIDALGO (30), pp. 136, 189, 289—293.

- 1907 *Cypraea caput-serpentis* L.. COUTURIER, Tahiti, etc. (13),  
p. 151.  
 1909 — (*Aricia*) *caput serpentis* L.. SCHEPMAN, Siboga exp.  
(104), p. 129.  
 1909 — *caput-serpentis* L.. LAMY (56), p. 466.

Tji Solok, Wijnkoopsbay, 2 specimens.  
Java (without exact locality), 4 specimens.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Padang (Sumatra), Banka, Borneo, Northern Celebes, Flores, Rotti, Timor, Amboina, Ceram, Obi, Waigeu, Kei Is., Aru Is..

— Philippines, Formosa, Loo-Choo, Japan (also Yezo, Northern Japan), China, Pulo Condor (near Lower Cochin China), Siam, Singapore, Salang, Nicobars, Andamans, Madras, Ceylon, Chagos, Laccadives, Red Sea, East African coasts and islands, Natal, Port Elizabeth (Cape of Good Hope). — New Hebrides, New Caledonia, Micronesia, Sandwich Is., Ellice Is., Viti Is., Tonga, Samoa, Cook Is., Society Is., Marquesas, Pau-motu, Gambier-islands. — Queensland, New South Wales, Auckland (New Zealand).

#### 69. *Cypraea (Aricia) arabica* Linné.

- 1705 *Porcellana Litterata sive Arabica*. RUMPHIUS (100), p. 115,  
pl. XXXVIII, fig. M.  
 1758 *Cypraea arabica*. LINNÉ, Systema Naturae, edit. X, p. 718.  
 — — *fragilis*. LINNÉ, ibid., p. 720.  
 — — *amethystea*. LINNÉ, ibid., p. 720.  
 1764 — *arabica*. LINNÉ, Museum Ludoviciae Ulricae, p.  
566.  
 — — *fragilis*. LINNÉ, ibid., p. 570.  
 1767 — *arabica*. LINNÉ, Systema Naturae, edit. XII, p.  
1173.  
 — — *fragilis*. LINNÉ, ibid., p. 1175, nr. 338.  
 1822 — *arabica*. LAMARCK, An. s. vert. (52), vol. VII, pp.  
378—379, nr. 7.  
 1824 — — GRAY, Monogr. (28), vol. I, p. 76 (excl.  
of var.).  
 1834 — — QUOY et GAIMARD, Voyage de l'Astrolabe  
(96), vol. III, p. 37, pl. 48, fig. 5.  
 1836 — — L.. SOWERBY, Conchological Illustrati-  
ons, p. 1, figs. 85, 85.

- 1844 *Cypraea arabica* Linn.. LAMARCK, An. s. vert. (53), vol. X, pp. 495—496.
- 1845 — — KIENER (32), vol. I, Cypraea, p. 105, pl. 17, fig. 1.
- 1845 — — *Arabica* L.. REEVE (97), vol. III, Cypraea, species 2, pl. I, fig. 2.
- 1866 — — *arabica* — MABILLE et LE MESLE, Observations sur la faune malac. de la Cochinchine et du Cambodge (Journal de Conchyliologie, vol. XIV), p. 120.
- 1869 — — — CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conch., vol. XVII), p. 39.
- 1869 — — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 69.
- 1870 — — *Arabica*. SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 15, pl. X, figs. 60—61.
- 1871 — — *arabica*. LISCHKE, Japan. Meeresconch. (59), vol. II, p. 64.
- 1880 — — — L.. WEINKAUFF (112), p. 51, pl. 16, figs. 3, 4, 6.
- 1885 — — (*Aricia*) *Arabica* L.. ROBERTS in TRYON (109), vol. VII, p. 174, pl. 8, figs. 18, 19.
- 1889 — — *arabica* L.. L. MORLET, Catalogue des coquilles rec. par M. Pavie dans le Cambodge et le royaume de Siam (Journ. de Conchyliologie, vol. XXXVII), p. 139.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 154 (reprint, p. 70).
- 1897 — — — VON MARTENS (69), p. 290.
- 1899 — — (*Aricia*) *arabica* L.. MELVILL and STANDEN, Torres Straits (77), p. 164.
- 1899 — — — — — HORST et SCHEPMAN (31), pp. 196—197.
- 1899 — — *arabica* L.. DAUTZENBERG, Sumatra (15), p. 4.
- 1902 — — *Arabica* L.. VON MARTENS, Rumphius Gedenkboek (71), p. 122.
- 1903 — — (*Aricia*) *arabica* L.. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 325—327.
- 1903 — — *arabica* L.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 254, 276—277.
- 1906 — — (*Aricia*) *arabica* L.. DAUTZENBERG et H. FISCHER (18), pp. 396—397.

- 1906-'07 *Cypraea Arabica* L.. HIDALGO (30), pp. 136, 185, 260—  
262.
- 1909 — (*Aricia*) *arabica* L.. SCHEPMAN, Siboga exp. (104),  
p. 129.
- 1909 — *arabica* L.. LAMY, Java (56), p. 466.
- 1923 — — — HENRICH, Meeresmoll. Sinai (28a), p.  
73.

Coral-island Pulu Pandjang, 4 specimens (much worn), the largest specimen has a length of 70 mm. Java (without exact locality), 4 specimens.

Tjilatjap (Leyden Museum). Island Enkhuizen near Batavia (M. Weber).

Distribution: East Indian Archipelago: Between Padang and Indrapura (Sumatra), Banka, Billiton, Kangeang, Lombok, Paternoster-islands, Flores, Sumba, Savu, Timor, Lucipara-island, Amboina, Ceram, Obi, Halmahera, Celebes, Talaut-islands north of Celebes, Kei Is., Aru Is., Jobi, New Guinea.

— Widely spread throughout Melanesia, Micronesia and Polynesia, as far eastward as Sandwich Is. and Paumotu. — Western Australia, Queensland, New South Wales, New Zealand. — Sulu Is., Philippines, Formosa, Loo-Choo, Japan, Hongkong, Cochin China, Pulo Kondor, Siam, Singapore, Pulu Penang, Mergui, Nicobars, Andaman Is., Ceylon and other islands of southern Asia, India, Persian Gulf, Aden, Red Sea, Gulf of Suez, Gulf of Akabah, East African coasts and islands, Natal, Port Elizabeth.

#### 70. *Cypraea (Aricia) annulus* Linné.

- 1705 *Thoracium quartum*, schlechte Cauris. RUMPHIUS (100), p.  
117, pl. XXXIX, fig.  
D.
- 1758 *Cypraea annulus*. LINNÉ, Systema Naturae, edit. X, p. 723.
- 1764 — — LINNÉ, Museum Ludovicæ Ulricæ, p.  
578.
- 1767 — — LINNÉ, Systema Naturae, edit. XII, p.  
1179.
- 1822 — — LAMARCK, An. s. vert. (52), vol. VII,  
p. 402, nr. 61.
- 1825 — — GRAY, Monogr. (28), vol. I, p. 494.
- 1834 — — QUOY et GAIMARD, Voyage de l'Astro-labe (96), vol. III, p. 45, pl. 48, figs.  
14—16.

- 1837 *Cypraea annulus* L.. SOWERBY, Conchological Illustrations, p. 6, pl. 20, figs. 115, 115.
- 1844 — — — LAMARCK, An. s. vert. (53), vol. X, pp. 539—540, nr. 61.
- 1845 — — — KIENER (32), vol. I, Cypraea, p. 124, pl. 34, fig. 2.
- 1845 — — — L.. REEVE (97), vol. III, Cypraea, species 71, pl. XV, fig. 71.
- 1850 — — — BERGE, Conchylienbuch (3a), p. 244, pl. 43, fig. 5.
- 1869 — — — *noumeensis*. MARIE, Note sur quelques coquilles de la Nouvelle Calédonie (Journ. de Conchyliologie, vol. XVII), p. 18, pl. 2, fig. 6.
- 1869 — — — *annulus* L.. CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conch., vol. XVII), p. 40.
- — — *noumeensis* Marie. CROSSE, ibid., p. 40.
- 1870 — — — *annulus* L.. SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 18, pl. XXVI, figs. 252, 253.
- 1871 — — — LISCHE, Japan. Meerestisch. (59), vol. II, p. 65.
- 1874 — — — LISCHE, ibid., vol. III, p. 47.
- 1880 — — — L.. WEINKAUFF, Cypraea (112), p. 69, pl. 20, figs. 9—12.
- 1884 — — — K. MARTIN, Tiefbohr. Java (72), p. 140.
- 1884 *Monetaria camelorum*. ROCHEBRUNE, Monographie des formes appartenant au genre Monetaria (Bulletin d. l. Soc. Malac. de France, vol. I), p. 86, pl. 1, fig. 7.
- — — *annulus*. ROCHEBRUNE, ibid., p. 89, pl. 2, fig. 5.
- — — *Harmandiana*. ROCHEBRUNE, ibid., p. 90, pl. 2, fig. 4.
- — — *Noumeensis*. ROCHEBRUNE, ibid..
- — — *Perrieri*. ROCHEBRUNE, ibid., p. 92, pl. 2, fig. 6.
- 1885 *Cypraea (Aricia) annulus* L.. ROBERTS in TRYON (109), vol. VII, p. 178, pl. 11, figs. 59—61.
- 1899 — — — — MELVILL and STANDEN, Torres Straits (77), p. 164.
- 1899 — — — *(Aricia) annulus* L.. HORST et SCHEPMAN (31), p. 199.
- 1899 — — — *annulus* L.. DAUTZENBERG, Sumatra (15), p. 4.

- 1901 *Cypraea annulus* L.. H. FISCHER, Djibouti, etc. (22a), p. 106.  
 1902 — — — von MARTENS, Rumphius Gedenkboek (71), p. 123.  
 1903 — (*Aricia*) *annulus* L. and monstr. *noumeensis* Marie. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 336—340.  
 1903 — *annulus* L.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 255, 276—277.  
 1906-'07 — *Annulus* L.. HIDALGO (30), pp. 136, 184, 257—260.  
 1907 — *annulus* L.. COUTURIER, Tahiti, etc. (13), p. 152.  
 1907 — — — SCHEPMAN, Posttertiär Celebes (102a), p. 183.  
 1909 — — — SCHEPMAN, Siboga exp. (104), p. 130.  
 1909 — — — LAMY, Java (56), p. 466.  
 1919 — — — K. MARTIN (75), pp. 90, 137.  
 1920 — (*Aricia*) *annula* L.. TESCH, Timor (108), II, p. 46, pl. CXXIX, fig. 162.

Coral-island Pulu Pandjang, 12 specimens, all much worn.

Shore of Bali-strait, north of Banjwangi, 1 specimen.

All the specimens agree in shape with the typical form.

Near reef of Batjulmati, East coast (Siboga expedition). Enkhuizen-island near Batavia (Museum Amsterdam).

Tjilatjap (Leyden Museum).

Palabuan, Wijndoopsbay (von MARTENS).

Distribution: Widely spread throughout the Malay Archipelago, especially on reefs: Sumatra (Benkulen; between Padang and Indrapura; Olehleh, Achin (Museum Wageningen)), Banka, Billiton, Borneo and Celebes and adjacent isles, Lombok, Sumbawa, Paternoster-islands, Flores, Timor, Lucipara-island, Amboina, Ceram, Sula Is., Bachan, East coast of Halmahera (Museum Wageningen), Kei Is., Aru Is., New Guinea.

*Cypr. annulus* occurs throughout the whole Indo-Pacific Sub-region and beyond it in Victoria (Australia) and New Zealand.

Fossil in the Miocene of Ngembak, Java, in neogene deposits of Timor (Lower Pliocene or Upper Miocene) and in the Pleistocene of Northern Celebes (Minahassa).

71. *Cypraea (Luponia) lynx* LINNÉ.

- 1705 *Porcellana lentiginosa*. RUMPHIUS (100), p. 115, pl. XXXVIII, fig. N.
- 1758 *Cypraea lynx*. LINNÉ, Systema Naturae, edit. X, p. 721.  
— — *Vanelli*. LINNÉ, ibid., p. 720.
- 1764 — *lynx*. LINNÉ, Museum Ludovicæ Ulricæ, p. 573.  
— — *Vanelli*. LINNÉ, ibid., p. 569, nr. 186.
- 1767 — *lynx*. LINNÉ, Systema Naturae, edit. XII, p. 1176.  
— — *Vanelli*. LINNÉ, ibid., p. 1175, nr. 336.
- 1791 — *Venelli*. GMELIN, Syst. Nat. (27), p. 3402, nr. 12.  
— — *Lynx*. GMELIN, ibid., p. 3409, nr. 48.  
— — *squalina*. GMELIN, ibid., p. 3420, nr. 101.
- 1822 — *lynx*. LAMARCK, An. s. vert. (52), vol. VII, pp. 388—389, nr. 29.
- 1824 — — GRAY, Monogr. (28), vol. I, p. 151.
- 1836 — — L.. SOWERBY, Conchological Illustrations, p. 2, figs. 107, 107.
- 1844 — — — LAMARCK, An. s. vert. (53), vol. X, pp. 513—514.
- 1845 — — — KIENER (32), vol. I, Cypraea, p. 10, pl. 25, fig. 2; pl. 38, fig. 2.
- 1845 — — — L.. REEVE (97), vol. III, Cypraea, species 33, pl. IX, fig. 33.
- 1850 — — — BERGE, Conchylienbuch (3a), p. 246.
- 1866 — — — MABILLE et LE MESLE, Observations sur la faune malac. de la Cochinchine et du Cambodge (Journ. de Conchyl., vol. XIV), p. 120.
- 1869 — — — CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conchylologie, vol. XVII), p. 41.
- 1869 — — *caledonica*. CROSSE, ibid., p. 41, pl. 1, fig. 1.
- 1869 — — *lynx* L.. LISCHKE, Japan. Meeresconch. (59), vol. I, p. 70.
- 1870 — — — SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 21, pl. XV, figs. 85\*, 86\*, 87\*, 88\*.
- 1871 — — — LISCHKE, Japan. Meeresconch. (59), vol. II, p. 66.
- 1874 — — — LISCHKE, ibid., vol. III, p. 47.
- 1880 — — — L.. WEINKAUFF, Cypraea (112), pp. 79—80, pl. 23, figs. 6, 7.
- 1881 — — *Caledonica* Crosse. WEINKAUFF, ibid., pp. 84—85, pl. 24, figs. 6, 7.

- 1885 *Cypraea (Luponia) lynx* L.. ROBERTS in TRYON (109), vol. VII, p. 183, pl. 14, figs. 86, 87, 98.
- 1888 — *lynx*, var. *Williamsi*. MELVILL in: Memoirs and Proceedings of the Manchester Literary and Philosophical Society, p. 203.
- 1889 — — L.. L. MORLET, Catalogue des coquilles rec. par M. Pavie dans le Cambodge et le royaume de Siam (Journ. de Conchyliologie, vol. XXXVII), p. 141.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 155 (reprint, p. 71).
- 1897 — — — VON MARTENS (69), p. 290.
- 1899 — — — (*Luponia*) *lynx* L.. MELVILL and STANDEN, Torres Straits (77), p. 164.
- 1899 — — — — HORST et SCHEPMAN (31), pp. 200—201.
- 1902 — *lynx* L.. VON MARTENS, Rumphius Gedenkboek (71), p. 123.
- 1903 — (*Luponia*) *lynx* L. and var. *Williamsi* Melvill and monstr. *caledonica* Crosse. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 344—347.
- 1903 — *lynx* L.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 255, 276—277.
- 1906 — (*Luponia*) *lynx* L.. DAUTZENBERG et H. FISCHER (18), pp. 401—402.
- 1906-'07 *Cypraea Lynx* L.. HIDALGO (30), pp. 139, 207, 408—410.
- 1907 — *lynx* L.. COUTURIER, Tahiti, etc. (13), p. 150.
- 1907 — *lynx* L.. SCHEPMAN, Posttertiär Celebes (102a), pp. 183—184.
- 1909 — (*Luponia*) *lynx* L.. SCHEPMAN, Siboga exp. (104), pp. 131, 231.
- 1909 — *lynx* L.. LAMY, Java (56), p. 466.
- 1920 — (*Luponia*) *lynx* L.. TESCH, Timor (108), II, p. 46, pl. CXXIX, fig. 161.

Coral-island Pulu Pandjang, 1 worn specimen.  
Shore of Bali-strait, north of Banjuwangi, 1 worn specimen.

The specimens agree in shape with the typical form.  
Tjilatjap (Leyden Museum).

Distribution: Padang (Sumatra), Banka, Billiton, Borneo,  
Northern Celebes, Sunda-strait, Lombok, Sumbawa, Flores,

Adonara, Timor, Lucipara-island, Amboina, Nusa-Laut-island, Sula Is., Talaut Is. (N. E. of Celebes), East coast of Halmahera (Museum Wageningen), Jobi and Waigeu near New Guinea, Kei Is., Aru Is.. Especially on reefs!

This species occupies the whole Indo-Pacific Sub-region from Capeland to Japan, Hawaii, the Marquesas and Pau-motu, besides it occurs in New Zealand.

Fossil in the Pleistocene of Northern Celebes (Minahassa) and in the island of Timor in deposits, belonging to the Upper Pliocene or to the Lower Pleistocene.

## 72. *Cypraea (Luponia) errores* Linné.

- 1758 *Cypraea errores*. LINNÉ, Systema Naturae, edit. X, p. 723, nr. 311.
- 1764 — — LINNÉ, Museum Ludovicæ Ulricæ, p. 577, nr. 202.
- 1767 — — LINNÉ, Systema Naturae, edit. XII, p. 1178, nr. 352.
- 1780 — *spurca* (not of Linné). BORN, Testacea musei caes. Vindobonensis, p. 190, pl. 8, fig. 14.
- 1791 — *erronea*. GMELIN, Syst. Nat., edit. XIII (27), p. 3411, nr. 57.
- — *Ovum*. GMELIN, ibid., p. 3412, nr. 65.
- — *oblonga*. GMELIN, ibid., p. 3416, nr. 88.
- — *cruenta*. GMELIN, ibid., p. 3420, nr. 103.
- 1795 — *succincta* (not of Linné). CHEMNITZ, Conchylien-Cabinet, vol. XI, p. 38, pl. 180, figs. 1741, 1742.
- 1822 — *olivacea*. LAMARCK, An. s. vert. (52), vol. VII, p. 392, nr. 37.
- 1824 — *errores*. GRAY, Monogr. (28), vol. I, p. 385.
- 1825 — *subflava* (not of Gmelin). WOOD, Index Testaceo-logicus, pl. 17, fig. 32.
- 1834 — *olivacea*. QUOY et GAIMARD, Voyage de l'Astrolabe (96), vol. III, pp. 42—43, pl. 48, fig. 13.
- 1837 — *errores* L.. SOWERBY, Conchological Illustrations, p. 9, figs. 124, 128.
- 1844 — *olivacea*. LAMARCK, An. s. vert. (53), vol. X, pp. 520—521.
- 1845 — *ovum*. KIENER (32), vol. I, Cypraea, p. 56, pl. 29, fig. 4.

- 1845 *Cypraea errones* L.. REEVE (97), vol. III, Cypraea, species 56, pl. XIII, fig. 56.
- 1855 — — — HANLEY, Ipsa Linnaei Conchylia, p. 191.
- 1869 — — — L.. CROSSE, Catalogue des Cypraea de la Nouvelle Calédonie (Journ. de Conch., vol. XVII), p. 46.
- 1870 — — — SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 21, pl. XX, figs. 156—158.
- 1874 — — — LISCHKE, Japan. Meerestconch. (59), vol. III, p. 48.
- 1877 — — — *Sophiae*. BRAZIER in: Proceedings Linnean Society New South Wales (Sydney), vol. I, p. 7.
- 1880 — — — *errones* L.. WEINKAUFF, Cypraea (112), p. 20, pl. 4, figs. 10—11.
- 1885 — — — (*Luponia*) *errones* L.. ROBERTS in TRYON (109), vol. VII, pp. 183—184, pl. 14, figs. 7, 88, 89.
- — — — — *Sophiae* (not of Brazier). ROBERTS in TRYON, ibid., p. 184, pl. 14, figs. 3, 4.
- 1895 — — — *errones* LINNÉ. SCHEPMAN, Borneo (102), p. 162.
- 1899 — — — (*Luponia*) *errones* L.. MELVILLE and STANDEN, Torres Straits (77), p. 164.
- 1899 — — — — — HORST et SCHEPMAN (31), p. 201.
- 1902 — — — *erronea* L.. VON MAETENS, Rumphius Gedenkboek (71), p. 123.
- 1903 — — — (*Luponia*) *errones* L.. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 347—349.
- 1906-'07 — — — *errones* L.. HIDALGO (30), pp. 138, 197, 340—343.
- 1909 — — — (*Luponia*) *errones* L.. and var. *ovum* Gmel.. SCHEPMAN, Siboga exp. (104), p. 132.
- 1909 — — — *errones* L.. LAMY, Java (56), p. 466.
- 1911 — — — (*Luponia*) *errones* L.. H. MARTIN-ICKE, Trinil (76), p. 47.

Coral-island Pulu Pandjang, 2 worn specimens, one belonging to the form *ovum* Gmelin.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Padang (Sumatra), Banka, Billiton, Borneo, Celebes, Saleyer, Lombok, Flores,

Savu, Timor, Lucipara-island, Amboina, Nusa-Laut-island, Kei Is., Aru Is., New Guinea.

— Melanesia; Micronesia; Polynesia to Hawaii and Paumotu; Torres Straits, Queensland, New South Wales.

— Sulu-archipelago, Philippines, Loo-Choo, Japan, China, Siam, Singapore, Andaman Is., Madras, Ceylon, Chagos, Mauritius, Madagascar, Red Sea.

Fossil in the Pliocene of Sondé (Resid. Madiun), Java.

### 73. *Cypraea (Luponia) miliaris* Gmelin.

- 1791 *Cypraea miliaris*. GMELIN, Syst. Nat., edit. XIII (27), p. 3420, nr. 106.
- 1832 — *Lamarcki* (not of Gray) var.. SOWERBY, Conchological Illustrations, p. 6, fig. 12\*.
- 1845 — *Lamarckii* (not of Gray). KIENER (32), vol. I, Cypraea, p. 59, pl. 8, fig. 2.
- 1845 — *miliaris* Gmel.. REEVE (97), vol. III, Cypraea, species 36, pl. X, fig. 36.
- 1869 — — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 71.
- 1870 — — — SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 36, pl. XVII, fig. 109.
- 1871 — — — LISCHKE, Japan. Meeresconch. (59), vol. II, p. 167.
- 1874 — — — LISCHKE, ibid., vol. III, p. 48.
- 1881 — — — WEINKAUFF, Cypraea (112), p. 110, pl. 33, figs. 9, 12.
- 1885 — (*Luponia*) *miliaris* Gmel.. ROBERTS in TRYON (109), vol. VII, p. 192, pl. 17, fig. 80.
- 1899 — (*Ocellaria*) *miliaris* Gmel.. HORST et SCHEPMAN (31), p. 204.
- 1903 — (*Luponia*) *Lamarcki* Gray, var. *miliaris* Gmel.. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 363—364.
- 1906-'07 *Cypraea miliaris* Gmel.. HIDALGO (30), pp. 210, 428.
- 1909 *Cypraea (Luponia) miliaris* Gmel.. SCHEPMAN (104), p. 134.
- Not** *Cypraea miliaris* of LAMARCK (Annales du Muséum, XVI and An. s. vertèbres).

Coast near Government Rubber Estate Balong, N. E.  
of Japara (Resid. Semarang), 1 worn specimen.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Billiton, Sumbawa,  
Amboina, Moluccas, West coast of New Guinea.  
— Torres Straits, New South Wales, New Caledonia. —  
Philippines, Formosa, Loo-Choo, Japan, Amoy (China), Siam.  
— Madagascar, Mozambique, Natal, Capeland.

#### 74. *Cypraea (Luponia) erosa* Linné.

- 1705 *Thoracium oculatum*. RUMPHIUS (100), p. 117, pl. XXXIX,  
fig. A.
- 1758 *Cypraea erosa*. LINNÉ, Systema Naturae, edit. X, p. 723.
- 1764 — — LINNÉ, Museum Ludovicæ Ulricæ, p. 579.
- 1767 — — LINNÉ, Systema Naturae, edit. XII, p. 1179.
- 1791 — — *ferruginosa*. GMELIN, Syst. Nat., edit. XIII (27), p.  
3403, nr. 19.
- — *erosa*. GMELIN, ibid., pp. 3415—3416, nr. 84.
- — *similis*. GMELIN, ibid., p. 3421, nr. 111.
- 1811 — — *stellata*. PERRY, Conchology, pl. 22, fig. 2.
- — *fasciata*. PERRY, ibid., pl. 22, fig. 9.
- 1822 — — *erosa*. LAMARCK, An. s. vert. (52), vol. VII, p.  
389, nr. 31.
- 1834 — — QUOY et GAIMARD, Voyage de l'Astrolabe  
(96), vol. III, pp. 31—32, pl. 47, figs. 12, 13.
- 1837 — — L. SOWERBY, Conchological Illustrations,  
p. 6, figs. 119, 119.
- 1844 — — L. DESHAYES in LAMARCK, An. s. vert. (53),  
vol. X, pp. 515—516 (exclusive of syn.  
*C. miliaris* Gmel.).
- 1845 — — — KIENER (32), vol. I, Cypraea, p. 53, pl.  
9, figs. 2, 3.
- 1845 — — — REEVE (97), vol. III, Cypraea, species  
43, pl. XI, fig. 43.
- 1866 — — — MABILLE et LE MESLE, Observations sur  
la faune malac. de la Cochinchine et du  
Cambodge (Journ. de Conchyl., vol.  
XIV), p. 120.
- 1869 — — — CROSSE, Catalogue des Cypraea de la  
Nouvelle Calédonie (Journ. de Conchyl.,  
vol. XVII), p. 45.
- 1869 — — — LISCHKE, Japan. Meeresconch. (59), vol.  
I, p. 72.

- 1870 *Cypraea erosa* L.. SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 37, pl. XVIII, figs. 110—115.
- 1871 — — — LISCHKE, Japan. Meeresconch. (59), vol. II, p. 66.
- 1874 — — — LISCHKE, ibid., vol. III, p. 47.
- 1879 — — — Linn.. WOODWARD, Fossil shells from Sumatra (114a), p. 498, pl. XIII, figs. 10 a, b.
- 1881 — — — L.. WEINKAUFF, Cypraea (112), p. 107, pl. 33, figs. 1—4.
- 1885 — — (*Luponia*) *erosa* L.. ROBERTS in TRYON (109), vol. VII, p. 192, pl. 18, figs. 90, 100, 1.
- 1889 — — *erosa* L.. L. MORLET, Catalogue des coquilles rec. par M. Pavie dans le Cambodge et le royaume de Siam (Journ. de Conchyl., vol. XXXVII), p. 140.
- 1891 — — — P. FISCHER, Indo-Chine (22), p. 157 (reprint, p. 73).
- 1895 — — — SCHEPMAN, Borneo (102), p. 162.
- 1899 — — (*Ocellaria*) *erosa* L.. HORST et SCHEPMAN (31), p. 205.
- 1899 — — — — K. MARTIN, Foss. v. Java (73), pp. 174—175, pl. XXVIII, fig. 406.
- 1902 — — *erosa* L.. VON MARTENS, Rumphius Gedenkboek (71), p. 123.
- 1903 — — (*Luponia*) *erosa* L.. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 366—367.
- 1903 — — *erosa* L.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 255, 276—277.
- 1906 — — (*Luponia*) *erosa* L.. DAUTZENBERG et H. FISCHER (18), pp. 399—400.
- 1906-'07 — — *erosa* L.. HIDALGO (30), pp. 138, 196, 336—339.
- 1907 — — — COUTURIER, Tahiti, etc. (13), p. 150.
- 1907 — — — SCHEPMAN, Posttertiär Celebes (102a), p. 185.
- 1909 — — (*Luponia*) *erosa* L.. SCHEPMAN, Siboga exp. (104), p. 134.
- 1909 — — *erosa* L.. LAMY, Java (56), p. 466.
- 1911 — — (*Ocellaria*) *erosa* L.. H. MARTIN-ICKE, Trinil (76), p. 47.
- 1911 — — *erosa* L.. K. MARTIN, Vorläuf. Bericht (74), p. 46.

Tji Solok, Wijnkoopsbay, 2 specimens, resembling figs. 2—3 of WEINKAUFF (var. *chlorizans* Melvill; var. 2 of HIDALGO).

## Near Palabuan, Wijnkoopsbay (von MARTENS).

### Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Sumatra, Banka, Borneo, Saleyer (S. of Celebes), Talaut Is. (N. E. of Celebes), Sumbawa, Postillon-islands, Timor, Amboina, Nusa-Laut-island, Bachan, Jobi-island near New Guinea, Kei Is., Aru Is..

Distributed throughout the whole Indo-Pacific Sub-region, besides in New Zealand, Capeland and perhaps also in the South Atlantic (Ascension-island, Annobon and Cape Verde).

Fossil in the Lower and Upper Miocene and in the Pliocene of Java, in the Miocene of the island of Nias near Sumatra, in pliocene deposits in the isle of Timor and in the Pleistocene of Northern Celebes (Minahassa). Also in the Pleistocene of Obock (Somaliland, E. Africa).

75. **Cypraea (Luponia) gangrenosa** (Solander) Dillwyn.

- 1817 *Cypraea gangraenosa* Solander. DILLWYN, A descriptive Catalogue of recent shells, vol. I, p. 465.

1832 — *gangrenosa* Sol.. SOWERBY, Conchological Illustrations, p. 5, figs. 8, 8, 8\*.

1844 — *gangrenosa* Dilw.. DESHAYES in LAMARCK, An. s. vert. (53), vol. X, pp. 561—562, nr. 90.

1845 — — KIENER (32), vol. I, Cypraea, p. 50, pl. 50, fig. 2.

1846 — *flaveola* (not of Linné). REEVE (97), vol. III, Cypraea, species 95, pl. XVIII, fig. 95.

— — *gangrenosa*. REEVE, ibid., spec. 96, pl. XVIII, figs. 96 a, b.

1852 — *Reentsii*. DUNKER in: Zeitschrift für Malakozologie, 1852, p. 189.

- 1869 *Cypraea Helena*. ROBERTS, Descriptions of two new species of Cypraea (American Journal of Conchology, vol. IV), p. 250, pl. 15, figs. 7—10.
- 1870 — *gangrenosa* Soland.. SOWERBY, Thesaurus (106), vol. IV, Cypraea, p. 38, pl. XXV, figs. 230—235; pl. XXXVII, fig. 531.
- 1881 — *gangrenosa* (Soland.) Dillw.. WEINKAUFF, Cypraea (112), pp. 121—122, pl. 36, figs. 2, 3.
- 1885 — *(Luponia) gangrenosa* Soland.. ROBERTS in TRYON (109), vol. VII, pp. 195—196 (excl. of var. *Boivini*), pl. 19, figs. 18, 19, 27, 28.
- — — *flaveola* (not of Linné). ROBERTS, ibid., p. 195, pl. 19, figs. 20, 21, 22.
- 1899 — *(Ocellaria) gangrenosa* Soland. and var. *flaveola* Rve.. HORST et SCHEPMAN (31), p. 206.
- 1903 — *(Luponia) gangrenosa* (Solander) Dillwyn. DAUTZENBERG, Revis. Cypr. Nouv. Caléd. (16), pp. 371—372.
- 1906-'07 — *gangrenosa* Solander. HIDALGO (30), pp. 138, 200, 363—366.
- 1907 — — Sol., var. *flaveola* Rve. (non Lin.). SCHEPMAN, Posttertiär Celebes (102a), p. 185.
- 1909 — *(Luponia) gangrenosa* Soland.. SCHEPMAN, Siboga exp. (104), p. 136.
- — — *flaveola* (not of Linné). SCHEPMAN, ibid., p. 135.

Tji Solok, Wijnkoopsbay, 1 specimen belonging to the typical form (like fig. 96a of REEVE).

Tjilatjap (Leyden Museum).

Distribution: Eastern part of the Malay Archipelago: Lombok, Sumbawa, Postillon-islands, Flores, Rotti, Timor, Ceram, Watubela Is. (S. E. of Ceram).

— Torres Straits, Queensland, New South Wales, New Caledonia and Loyalty Is.. — Sulu-archipelago, Philippines, Japan, China. — Andaman Is., Ceylon, Laccadive Is., Maldive Is., Aden, Zanzibar, Mauritius, Mozambique.

Fossil in the Pleistocene of Northern Celebes (Minahassa).

## FAM. CASSIDIDAE.

Genus **Cassis** (Rumphius, 1705) Martini, 1773.

76. **Cassis cornuta** Linné sp..

- 1705 *Cassis tuberosa prima sive cornuta*. RUMPHIUS (100), pl. XXIII, figs. A, 1.
- 1758 *Buccinum cornutum*. LINNÉ, Systema Naturae, edit. X, p. 735.
- 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1198.
- 1822 *Cassis cornuta*. LAMARCK, An. s. vert. (52), vol. VII, pp. 219—220, nr. 2.
- 1844 — — LAMARCK, An. s. vert. (53), vol. X, pp. 20—21.
- 1848 — — REEVE (97), vol. V, Cassis, pl. I, fig. 2.
- 1857 — — KÜSTER (43), p. 11, pl. 38, fig. 3; pl. 40; pl. 41.
- 1869 — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 62.
- 1885 — — TRYON (109), vol. VII, p. 270, pl. 2, fig. 49; pl. 1, figs. 45, 46.
- 1894 — — HORST et SCHEPMAN (31), p. 176.
- 1902 — — VON MARTENS, Rumphius Gedenkboek (71), pp. 115, 116.
- 1919 — — K. MARTIN (75), p. 88.

**Coral-island Pulu Pandjang.**

The only specimen has a height of  $21\frac{1}{2}$  cm., maximum diameter  $17\frac{1}{2}$  cm., length of outer lip  $22\frac{1}{2}$  cm.. It is rather worn and covered with tubes of *Serpula*.

Distribution: East Indian Archipelago: Billiton, Borneo, Timor, Amboina, Moluccas, New Guinea.  
 — Philippines, Nagasaki (Southern Japan). — Pacific Islands.  
 — Tranquebar (Coromandel Coast). — Mauritius, Réunion, Madagascar.

According to TRYON the species occurs also in the West Indies.

Fossil in the Upper Miocene of Java.

77. **Cassis (Bezoardica) decussata** Linné sp..

- 1758 *Buccinum decussatum*. LINNÉ, Syst. Naturae, edit. X, p. 736.

- 1767 *Buccinum decussatum*. LINNÉ, Syst. Nat., edit. XII, p. 1199.
- 1822 *Cassis decussata*. LAMARCK, An. s. vert. (52), vol. VII, p. 223, nr. 11 (in part).
- 1844 — — — DESHAYES in LAMARCK, An. s. vert. (53), vol. X, pp. 29—30.
- 1848 — — — REEVE (97), vol. V, Cassis, pl. II, figs. 4 a, b, c, d.
- 1885 *Cassis (Bezoardica) decussata* Lam.. TRYON (109), vol. VII, p. 277, pl. 7, figs. 87, 88.
- 1899 — — — — Linné. HORST et SCHEPMAN (31), p. 180.

Surabaya, Harbour, mud, 1 bleached specimen.  
Tjilatjap (Leyden Museum).  
Distribution: Timor (Leyden Museum).  
TRYON did not yet know the habitat of this species.

#### FAM. DOLIIDAE.

##### 78. *Pirula reticulata* Lamarck.

- 1822 *Pyrula reticulata*. LAMARCK, An. s. vert. (52), vol. VII, p. 141, nr. 9.
- — — *ficoides*. LAMARCK, ibid., p. 142, nr. 11.
- 1840 *Pyrula reticulata*. KIENER (32), vol. VI, Pyrula, p. 28, pl. 12, fig. 1.
- — — *ficoides*. KIENER, ibid., p. 29, pl. 13, fig. 2.
- 1843 *Pyrula reticulata*. LAMARCK, An. s. vert., 2e édit. (53), vol. IX, p. 510.
- — — *ficoides*. LAMARCK, ibid., pp. 511—512.
- 1847 *Ficula reticulata*. REEVE (97), vol. IV, Ficula, pl. I, fig. I.
- 1869 — — — LISCHKE, Japan. Meeresconch. (59), vol. I, p. 40.
- 1871 — — — LISCHKE, ibid., vol. II, p. 28.
- 1874 — — — KOEBELT, Pyrula u. Fusus (39), p. 7, pl. 1, figs. 4, 5; pl. 19, figs. 5, 6.
- 1885 *Pyrula reticulata* Lam.. TRYON (109), vol. VII, p. 265, pl. 5, fig. 28.
- 1899 *Pirula reticulata* and var. *ficoides*. HORST et SCHEPMAN (31), p. 187.
- 1902 — — — *ficoides* Lam.. von MARTENS, Rumphius Gedenkboek (71), p. 117.

- 1909 *Pirula reticulata* Lk.. LAMY, Java (56), p. 466.  
 1919 — *ficooides* Lamk.. K. MARTIN (75), p. 89.

Surabaya, Harbour, mud, 1 specimen, damaged and bleached.

Distribution: East Indian Archipelago: West coast of Borneo, Southern Celebes, Flores, Amboina.

— Sulu Sea N. of Borneo, Hongkong, Southern Japan. — Coromandel Coast, Ceylon, Zanzibar, Coast of Mozambique.

Fossil in the Miocene of Java.

#### FAM. TRITONIDAE.

##### 79. *Cymatium pyrum* Linné sp..

- 1705 Gedroogde peer. RUMPHIUS (100), pl. XXVI, fig. E.  
 1758 *Murex pyrum*. LINNÉ, Systema Naturae, edit. X, p. 749.  
 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1218.  
 1822 *Triton pyrum*. LAMARCK, An. s. vert. (52), vol. VII, p. 183, nr. 12.  
 1842 *Triton pirum* Lam.. KIENER (32), vol. VII, Triton, p. 7, pl. 11, fig. 1 (*pyrum* on the plate).  
 1843 *Triton pyrum*. LAMARCK, An. s. vert. (53), vol. IX, p. 633, nr. 12.  
 1844 — — REEVE (97), vol. II, Triton, pl. X, fig. 33.  
 1881 *Triton (Cymatium) pyrum*. TRYON (109), vol. III, p. 19, pl. 10, fig. 74.  
 1894 *Triton (Ranularia) pyrum*. HORST et SCHEPMAN (31), p. 169.  
 1902 *Tritonium pyrum*. VON MARTENS, Rumphius Gedenkboek (71), p. 116.

Java (without exact locality), 1 specimen.

Distribution: West coast of Borneo, Timor, Amboina, Bachan.  
 — Philippines. — Indian Ocean.

#### FAM. PYRAMIDELLIDAE.

##### 80. *Actaeopyramis* sp..

The only specimen of *Actaeopyramis* is not adult and probably bleached (the colour is bluish grey); the interior of the aperture is not specially coloured. It may belong to *A. striata*

Gray<sup>1</sup>), of which it has the general appearance and grooves, but I am not quite certain.

Coast near mouth of river Tji Lamaja, 1 specimen.

### FAM. COLUMBELLIDAE.

#### 81. *Columbella (Anachis) terpsichore* (Leathes M.S.) Sowerby.

- 1822 *Columbella Terpsichore* (Leathes M. S.). SOWERBY, Genera (105), Columbella, fig. 6.
- 1841 — *lineolata*. KIENER (32), vol. IX, Columbella, p. 57, pl. 13, fig. 3.
- 1844 — *Terpsichore*, Leathes. SOWERBY, Thesaurus (106), vol. I, p. 126 (bis), pl. XXXVIII, figs. 98, 99.
- 1844 — *terpsichore* Sowerby. DESHAYES in LAMARCK, An. s. vert. (53), vol. X, pp. 285—286.
- 1858 — *Terpsichore* Sow.. REEVE (97), vol. XI, Columbella, spec. 59, pl. XII, fig. 58 b.
- 1883 *Columbella (Anachis) Terpsichore*. TRYON (109), vol. V, p. 154, pl. 54, figs. 44, 45.
- 1887 — — — — VON MARTENS, Mergui (67), p. 183.
- 1892 — — — — *terpsichore*. KOBELT, Columbelliden (38), p. 60, pl. 8, figs. 5, 6.
- 1894 — — — — and var. *lineolata* Kie- ner. HORST et SCHEP- MAN (31), p. 129.
- 1911 — — — — *Terpsichore* Sow. var. *lineolata* Kie- ner. SCHEPMAN (104), p. 336.

Tji Solok, Wijnkoopsbay, 1 specimen.  
Tjilatjap (Leyden Museum).

<sup>1</sup>) 1855 *Monoptygma striata* Gray. A. ADAMS in SOWERBY, Thesaurus (106), vol. II, p. 816, pl. 172, fig. 18.

1885 *Pyramidella (Actaeopyramis) striata* Gray. P. FISCHER, Manuel (21), p. 787.

1886 — — — — TRYON (109), vol. VIII, p. 313, pl. 74, fig. 39.

Distribution: East Indian Archipelago: Sumatra, Timor, Amboina.

— Mergui-archipelago (Tenasserim), Ceylon. — Japan.

This species was originally described from Nevis in the West-Indies. I don't know whether it really occurs there. My specimen from Tji Solok agrees quite well with SOWERBY's description and figures in the Thesaurus.

As has been pointed out by H. FISCHER (23) the shell from the Red Sea described and figured as *Columbella terpsichore* by R. STURANY<sup>1)</sup> does not belong to SOWERBY's species, but to *Columbella fauroti* Jousseaume sp..

### FAM. MURICIDAE.

#### 82. *Murex (Tribulus) martinianus* Reeve.

- 1845 *Murex Martinianus*. REEVE (97), vol. III, Murex, spec. 72, pl. XVIII, fig. 72.  
 1868 — — — KOBELT in Conch.-Cab. (48), p. 59, pl. 9, fig. 3; pl. 122, figs. 7, 8.  
 1880 *Murex rarispina*. SOWERBY, Thesaurus (106), vol. IV, Murex, p. 3, pl. I, fig. 2.  
 1880 *Murex (Tribulus) ternispina*, pars. TRYON (109), vol. II, p. 78, pl. 11, fig. 118.  
 1894 *Murex (s. str.) martinianus*. HORST et SCHEPMAN (31), p. 135.  
 1902 *Murex Martinianus* Reeve. VON MARTENS, Rumphius Gedenkboek (71), p. 116.  
 1911 *Murex (Tribulus) martinianus*. SCHEPMAN (104), p. 343.

Coast near mouth of river Tji Lamaja, 5 specimens.

Coast near Government Rubber Estate Balong, N. E. of Japara, Resid. Semarang, 1 specimen.

Surabaya, 4 specimens.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Mentawai-islands near Sumatra, Banka, Borneo-bank (Strait of Makassar), Southern Celebes, Saleyer, Lombok, Obi.

— Amoy (China). — Madagascar.

1) Gastropoden des Rothen Meeres; Expeditionen S. M. Schiff „Pola“ in das Rothe Meer, XXIII (107a), pp. 248, 274—275, pl. V, figs. 4 a—b.

83. *Murex (Chicoreus) torrefactus* Sowerby.

- 1840 *Murex torrefactus*. SOWERBY in: Proceedings Zoological Society, 1840.
- 1845 — — REEVE (97), vol. III, Murex, species 41, pl. X, fig. 41.
- 1880 — — SOWERBY, Thesaurus (106), vol. IV, Murex, p. 15, pl. V, fig. 47.
- 1880 *Murex (Chicoreus) torrefactus*. TRYON (109), vol. II, p. 89, pl. 14, fig. 145.
- 1894 — — — HORST et SCHEPMAN (31), p. 138.
- 1907 — — — COUTURIER, Tahiti, etc. (13), p. 142.

Tji Solok, Wijnkoopsbay, 1 damaged specimen.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Flores, Amboina.  
— China. — Paumotu. — Mauritius, Madagascar.

84. *Purpura persica* Linné sp..

- 1758 *Buccinum persicum*. LINNÉ, Systema Naturae, edit. X, p. 738.
- 1767 — — LINNÉ, Syst. Nat., edit. XIII, p. 1202.
- 1822 *Purpura persica*. LAMARCK, An. s. vert. (52), vol. VII, p. 235, nr. 1.
- 1835-'36 — — KIENER (32), vol. VIII, Purpura, p. 93, pl. 25, fig. 67.
- 1844 — — LAMARCK, An. s. vert. (53), vol. X, p. 59.
- 1846 — — REEVE (97), vol. III, Purpura, pl. II, fig. 8.
- 1859 — — KÜSTER in Conch.-Cab. (42), p. 110, pl. 20, fig. 2.
- 1880 — — TRYON (109), vol. II, p. 160, pl. 43, figs. 23, 24.
- 1887 — — VON MARTENS, Mergui (67), p. 178.
- 1894 *Purpura (s. str.) persica*. HORST et SCHEPMAN (31), p. 147.
- 1899 *Purpura persica*. MELVILL and STANDEN, Torres Straits (77), p. 162.
- 1909 — — LAMY, Java (56), p. 465.

Java (without exact locality), 1 specimen.  
Tjilatjap (Leyden Museum).

Distribution: Torres Straits, Western Australia. — Marquesas Is.. — Philippines. — Mergui archipelago (Further India). — Mauritius, Réunion, Natal.

### 85. *Cuma javanica* Philippi sp..

#### Figure 13.

- 1836 *Purpura undata* var. (*not* of Lamarck). KIENER (32), vol. VIII, *Purpura*, pl. 35, figs. 84, 84.
- 1848 *Purpura javanica*. PHILIPPI, *Testac. nov. centuria* (87), p. 27.
- 1859 — — PHILIPPI. KÜSTER in *Conch.-Cab.* (42), p. 171, pl. 28, figs. 10, 11.
- 1880 — — Phil.. TRYON (109), vol. II, p. 239, pl. 63, fig. 331.
- 1902 — *Javanica* Phil.. VON MARTENS, *Rumphius Gedenkboek* (71), p. 116.
- 1905 *Cuma javanica* Philippi. DAUTZENBERG et H. FISCHER, Tonkin (17), p. 122.
- 1909 *Purpura javanica* Phil.. LAMY, Java (56), p. 465.

Coast near Government Rubber Estate Balong, N. E. of Japara (Resid. Semarang), 1 young specimen (figure 13).

The species has been recorded from Java by PHILIPPI and LAMY, but, as far as I know, this is the first exact locality.

Distribution: East Indian Archipelago: Mampawa (West coast of Borneo), Larantuка (Flores).

— Tongking (Along Bay), on rocks; numerous specimens collected at low tide (17).

### FAM. NASSIDAE.

#### 86. *Nassa (Hima) stolata* Gmelin sp..

#### Figure 14.

- 1791 *Buccinum stolatum*. GMELIN, *Syst. Nat.* (27), p. 3496, nr. 121.
- 1834 *Buccinum ornatum*. KIENER (32), vol. IX, *Buccinum*, p. 80, nr. 79, pl. 21, fig. 83.

- 1844 *Buccinum stolatum* Gmel.. DESHAYES in LAMARCK, An. s. vert. (53), vol. X, pp. 199—200.
- 1853 *Nassa ornata* Kiener. REEVE (97), vol. VIII, Nassa, spec. 33, pl. V, fig. 33.
- 1882 *Nassa (Hima) stolata*. TRYON (109), vol. IV, p. 45, pl. 14, fig. 225.
- 1887 *Nassa stolata*. VON MARTENS, Mergui (67), p. 180.
- 1894 *Nassa (Hima) stolata*. HORST et SCHEPMAN (31), p. 119.
- 1895 — — — K. MARTIN, Foss. v. Java (73), p. 116, pl. XVIII, figs. 262, 262 a.
- 1909 *Nassa stolata*. LAMY, Java (56), p. 465.
- 1919 — — — K. MARTIN (75), pp. 84, 146.

Coast near mouth of river Tji Lamaja, 3 specimens (figure 14).

Surabaya, shore of Bandjaran, 1 bleached specimen.

Surabaya (without particular locality), 4 specimens.

Distribution: Borneo.

- Singapore, Mergui-archipelago, Ceylon, Red Sea. — Japan.  
Fossil in the upper quaternary deposits near Grissee, Java.

#### FAM. BUCCINIDAE.

##### 87. *Tritonidea (Cantharus) tranquebarica* Gmelin sp..

- 1791 *Buccinum tranquebaricum*.. GMELIN, Syst. Nat. (27), p. 3491, nr. 86.
- 1822 — *tranquebaricum*. LAMARCK, An. s. vert. (52), vol. VII, p. 268, nr. 15.
- 1825 — *Tranquebaricum*. SOWERBY, Genera (105), Buccinum, fig. 6.
- 1834 — — — KIENER (32), vol. IX, Buccinum, p. 36, nr. 37, pl. 23, fig. 92.
- 1844 — *tranquebaricum*. DESHAYES in LAMARCK, An. s. vert. (53), vol. X, p. 163.
- 1846 — *Tranquebaricum*. REEVE (97), vol. III, Buccinum, spec. 17, pl. III, fig. 17.
- 1881 *Cantharus Tranquebaricus*. TRYON (109), vol. III, p. 154, pl. 73, fig. 244.
- 1887 *Pollia tranquebarica*. VON MARTENS, Mergui (67), p. 180.

1894 *Tritonidea (Cantharus) tranquebarica*. HORST et SCHEPMAN (31), p. 107.

Shore near Tjilatjap, 1 specimen.

Tjilatjap (Leyden Museum).

Distribution: Ceram.

— Mergui-archipelago, Tranquebar (Coromandel Coast).

88. *Latrunculus canaliculatus* Schumacher sp..

1705 SCHYNVOET in RUMPHIUS (100), pl. XLIX, fig. D.

1817 *Nassa canaliculata*. SCHUMACHER, Essai d'un nouv. syst. (104a), p. 224.

1822 *Eburna spirata*. LAMARCK (*non* Linné), An. s. vert. (52), vol. VII, pp. 281—282, nr. 3.

1835 — — KIENER (32), vol. IX, Eburna, p. 7, pl. 1, fig. 1.

1844 — — LAMARCK (*non* Linné), An. s. vert. (53), vol. X, pp. 233—234.

1849 — — Lamarck (*not of* Linné). REEVE (97), vol. V, Eburna, pl. I, fig. 7.

1857 — — (*not of* Linné). KÜSTER in Conch.-Cab. (43), pp. 80—82, pl. 65, fig. 3.

1860 *Eburna canaliculata* Schum.. SOWERBY, Thesaurus (106), vol. III, p. 69, pl. 215, fig. 2.

1881 *Eburna spirata* Lam.. TRYON (109), vol. III, p. 212, pl. 82, figs. 466—468.

1887 *Eburna canaliculata*, Schumacher. von MARTENS, Mergui (67), p. 180.

1894 *Dipsaccus canaliculatus* Schumacher. HORST et SCHEPMAN (31), p. 110.

1895 *Dipsaccus canaliculatus* Schum.. K. MARTIN, Foss. v. Java (73), p. 101, pl. XVI, figs. 224—227.

1919 — — — — K. MARTIN (75), pp. 83, 125, 128, 132.

Surabaya, Harbour, mud, 1 specimen.

Shore near Tjilatjap, 1 specimen.

Distribution: Philippines, Mergui-archipelago, Ceylon.

Fossil: Upper Miocene (Tjilanang-beds) and Pliocene of Java.

89. *Siphonalia (Pseudoneptunea) varicosa* Chemnitz sp..

Figures 15 a, b.

- 1789 *Murex varicosus*. CHEMNITZ, Conchylien-Cabinet, vol. X, p. 256, pl. 162, figs. 1546, 1547.
- 1840 *Fusus varicosus*. KIENER (32), vol. V, Fusus, p. 41, nr. 33, pl. 10, fig. 2.
- 1843 — — — Kiener. DESHAYES in LAMARCK, An. s. vert. (53), vol. IX, p. 477.
- 1846 *Buccinum varicosum*. REEVE (97), vol. III, Buccinum, species 10, pl. II, fig. 10.
- 1880 *Fusus varicosus*. KOBELT, Pyrula u. Fusus (39), p. 144, pl. 46, figs. 4, 5.
- 1881 *Siphonalia varicosa* Kiener. TRYON (109), vol. III, p. 137, pl. 54, fig. 353.
- 1884 *Fusus (Neptunea) varicosus* Chemn.. K. MARTIN, Tiefbohr. Java (72), p. 101.
- 1919 *Siphonalia varicosa*. K. MARTIN (75), pp. 82, 124.

Surabaya, Harbour, mud, 2 specimens (figures 15 a, b).

Measurements of the larger specimen: Height: 42 mm., maximum diameter: 24 mm..

The greater shell has some obsolete teeth on the inner side of the outer lip. This character was already pointed out by DESHAYES in his description of the species. The specimens are in an excellent condition, much better than those figured by CHEMNITZ and KIENER. They agree fairly well with REEVE's figure. The colour is however not dull brown as in REEVE's specimen, but pale grayish roseate as indicated by KIENER („d'un rosé pâle, quelquefois mêlé de grisâtre“). I think they may be somewhat bleached. Within the aperture my specimens are coloured roseate as in REEVE's figure.

Distribution: REEVE did not know the habitat of this species, KOBELT presumes it might be from the West-Indies, TRYON records „habitat unknown“.

The specimens from Surabaya confirm the eastern habitat given by KIENER („habite les côtes de l'Océanie, celles de l'île Timor“). On the other hand the habitat Peru given by DESHAYES is probably not correct.

*Siphonalia varicosa* is recorded as a fossil in quaternary

deposits at Batavia and with some restriction from the Pliocene of Timor (TESCH (108), I, p. 53, pl. LXXX, fig. 114).

### FAM. TURBINELLIDAE.

#### 90. *Melongena (Pugilina) pugilina* Born sp..

- 1780 *Murex pugilinus*. IGN. DE BORN, Testacea musei caes. Vindobonensis, quae jussu Mariae Thereseiae Augustae disposuit et descriptis etc., p. 314.
- 1791 *Murex Vespertilio*. GMELIN, Syst. Nat. (27), p. 3553, nr. 100.
- 1822 *Pyrula vespertilio*. LAMARCK, An. s. vert. (52), vol. VII, p. 140, nr. 7.
- 1840 — — Lam.. KIENER (32), vol. VI, Pyrula, p. 6, pl. 5, fig. 1.
- 1843 — — LAMARCK, An. s. vert. (53), vol. IX, p. 508, nr. 7.
- *Pyrula pugilina*. DESHAYES in LAMARCK, An. s. vert. (53), vol. IX, p. 508, note 1.
- 1847 — — REEVE (97), vol. IV, Pyrula, pl. I, fig. 1 b.
- 1875 — — Born sp.. KOBELT, Pyrula u. Fusus (39), p. 33, pl. 15, figs. 1, 2.
- 1880 — — SOWERBY, Thesaurus (106), vol. IV, p. 101, Pyrula, pl. II, figs. 11, 12.
- 1881 *Melongena pugilina*. TRYON (109), vol. III, p. 110, pl. 43, figs. 220, 222.
- 1884 *Fusus (Pugilina) vespertilio* Lam.. K. MARTIN, Tiefbohr. Java (72), p. 99.
- 1887 *Hemifusus (Pugilina) pugilinus*. VON MARTENS, Mergui (67), p. 180.
- 1894 *Melongena (Pugilina) pugilina*. HORST et SCHEPMAN (31), p. 97.
- 1909 *Melongena pugilina*. LAMY, Java (56), p. 465.
- 1912 *Pyrula (Melongena) pugilina* Born. K. MARTIN, Vorläuf. Bericht (74), p. 164.
- 1919 *Melongena pugilina* Born. K. MARTIN (75), pp. 82, 133, 146.

Surabaya, Harbour, mud, 2 specimens.

Surabaya, shore of Bandjaran, 1 specimen.

North coast of Resid. Besuki (Leyden Museum). Tjilatjap (Leyden Mus.).

Distribution: Sumatra, Borneo.

— Philippines, Cochin China, Singapore, Mergui-archipelago  
(on a sand-flat), Coromandel Coast, Ceylon.  
Fossil in the Pliocene and Pleistocene of Java.

91. **Semifusus ternatanus** Gmelin sp..

- 1791 *Murex ternatanus*. GMELIN, Syst. Nat. (27), p. 3554, nr. 107.
- 1822 *Pyrula ternatana*. LAMARCK, An. s. vert. (52), vol. VII, p. 143, nr. 15.
- 1840 *Fusus ternatanus* Martini. KIENER (32), vol. V, Fusus, p. 52, nr. 43, pl. 27.
- 1843 *Pyrula ternatana*. LAMARCK, An. s. vert. (53), vol. IX, pp. 513—514.
- 1847 — *Ternatana*. REEVE (97), vol. IV, Pyrula, pl. II, fig. 6.
- 1875 — *ternatana* Gmelin sp.. KOBELT, Pyrula u. Fusus (39), p. 42, pl. 5, figs. 4, 5; pl. 33, figs. 1, 2.
- 1880 — — — — SOWERBY, Thesaurus (106), vol. IV, p. 102, Pyrula, pl. I, fig. 7.
- 1881 *Hemifusus ternatanus* Gmel.. TRYON (109), vol. III, p. 112, pl. 44, fig. 233.
- 1884 *Fusus ternatanus* Martini. K. MARTIN, Tiefbohr. Java (72), pp. 99—100.
- 1885 *Pyrula ternatana*. BOOG WATSON, Challenger Gasterop. (8), p. 212.
- 1887 *Hemifusus Ternatanus*. von MARTENS, Mergui (67), p. 180.
- 1894 *Semifusus ternatanus* Gmel.. HORST et SCHEPMAN (31), p. 99.
- 1907 — — — — SCHEPMAN, Celebes (102a), p. 172.
- 1919 — — — — K. MARTIN (75), pp. 82, 124, 146.

**Surabaya, Harbour, mud, 2 specimens.**

Distribution: Ternate, Moluccas.

— Philippines (on mud banks), Singapore, Mergui-archipelago.

Fossil in the Pliocene and Pleistocene of Java and in the Pleistocene of Northern Celebes (Minahassa).

## FAM. FUSIDAE.

92. *Fasciolaria trapezium* Linné sp..

- 1705 *Pseudo-Purpura*, Bastard Purper-Slek. RUMPHIUS (100), p. 95, pl. XXIX, fig. E.  
 — SCHYNVOET in RUMPHIUS (100), pl. XLIX, fig. K.
- 1758 *Murex trapezium*. LINNÉ, Systema Naturae, edit. X, p. 755, nr. 493.
- 1767 — — LINNÉ, Systema Naturae, edit. XII, p. 1224.
- 1791 — *Trapezium*. GMELIN, Syst. Nat. (27), p. 3552, nr. 99.
- 1822 *Fasciolaria trapezium*. LAMARCK, An. s. vert. (52), vol. VII, p. 119, nr. 3.
- 1840 — — KIENER (32), vol. VI, Fasciolaria, p. 8, nr. 3, pl. 6.
- 1843 — — LAMARCK, An. s. vert. (53), vol. IX, pp. 433—434.
- 1847 — — REEVE (97), vol. IV, Fasciolaria, species 16, pl. VII, fig. 15.
- 1876 — — KOBELT, Turbinella u. Fasciolaria (49), p. 131, pl. 10, figs. 1, 2.
- 1881 — — TRYON (109), vol. III, p. 77, pl. 61, fig. 26.
- 1887 — — SOWERBY, Thesaurus (106), vol. V, p. 11, Fasciolaria, pl. III, fig. 22.
- 1894 — — L. HORST et SCHEPMAN (31), p. 90.
- 1902 — — — VON MARTENS, Rumphius Gedenkboek (71), pp. 118, 129.
- 1903 — — — STURANY, Gastropoden des Roten Meeres (107a), pp. 241, 270—271.
- 1911 — — — SCHEPMAN (104), p. 294.

Bay of Popoh, South coast, Resid. Kediri, 1 specimen.

Tjilatjap (Leyden Museum).

Distribution: Eastern part of the Archipelago: Amboina, Nusa-Laut-island near Amboina, Kelang west of Ceram, Waigeu.

— Philippine Is., China. — Red Sea and Gulf of Akabah, Perim-island in Strait of Bab-el-Mandeb (Museum Wageningen), Gulf of Aden, Zanzibar, Madagascar, Mauritius.

## FAM. MITRIDAE.

93. *Turridula* (s. str.) *caffra* Linné sp..

- 1758 *Voluta caffra*. LINNÉ, Systema Naturae, edit. X, p. 732.  
 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1192.  
 1791 — — GMELIN, Syst. Nat. (27), p. 3451, nr. 51.  
 1811 *Mitra caffra*. LAMARCK, Détermination des Mollusques; genres Volute, Mitre (Annales du Muséum, vol. XVII), p. 208, nr. 30.  
 1822 — — LAMARCK, An. s. vert. (52), vol. VII, p. 310, nr. 30.  
 1839 — — KIENER (32), vol. III, Mitra, p. 78, pl. 21, fig. 66.  
 1839 — — KÜSTER, Volutacea (45), p. 56, pl. 10, figs. 6, 7.  
 1844 — — LAMARCK, An. s. vert. (53), vol. X, pp. 318 —319.  
 1844 — — REEVE (97), vol. II, Mitra, pl. III, fig. 20.  
 1874 — — SOWERBY, Thesaurus (106), vol. IV, Mitra, pl. II, figs. 20, 21.  
 1882 *Turridula caffra*. TRYON (109), vol. IV, p. 167, pl. 49, fig. 409.  
 1894 *Turridula (Vulpecula) caffra*. HORST et SCHEPMAN (31), p. 79.  
 1902 *Mitra (Turridula) Caffra*. VON MARTENS, Rumphius Gedankboek (71), p. 119.  
 1915 *Turridula (Vulpecula) caffra*. TESCH, Timor (108), I, p. 47, pl. LXXX, fig. 101.

Shore of Bali-strait, north of Banjuwangi, 1 specimen.

Distribution: Eastern part of the Archipelago: Southern Celebes, Amboina, Buru.

— Singapore, Philippine Is..

Fossil in lower pleistocene or upper pliocene deposits of Timor.

## FAM. VOLUTIDAE.

94. *Melo tessellata* Lamarck sp..

- 1811 *Voluta tessellata*. LAMARCK, Détermination des Mollusques; genres Volute, Mitre (Annales du Muséum, vol. XVII), p. 58, nr. 4.

- 1822 *Voluta tessellata*. LAMARCK, An. s. vert. (52), vol. VII, pp. 330—331, nr. 5.
- 1844 — — — LAMARCK, An. s. vert. (53), vol. X, p. 377.
- 1847 *Melo tessellatus*. BRODERIP in SOWERBY, Thesaurus (106), vol. I, p. 413, pl. LXXXI, figs. 6—8.
- 1861 *Cymbium tessellatum*. REEVE (97), vol. XIII, Cymbium, species 10, pl. XVIII, figs. 10 a, b, c.
- 1882 *Melo tessellata*. TRYON (109), vol. IV, p. 80, pl. 23, figs. 15, 16.
- 1894 *Yetus (Melo) tessellatus*. HORST et SCHEPMAN (31), p. 66.

Bay of Popoh, South coast, Resid. Kediri, one large specimen measuring 16 cm..

Distribution: „Indian Ocean” (109). I could not find any definite locality.

### 95. *Voluta (Vespertilio) vespertilio* Linné.

- 1705 *Vespertilio*, Vleermuis. RUMPHIUS (100), p. 103, pl. XXXII, figs. H, I.
- 1758 *Voluta vespertilio*. LINNÉ, Systema Naturae, edit. X, p. 733, nr. 371.
- 1767 — — — LINNÉ, Syst. Nat., edit. XII, p. 1494.
- 1791 — — *Vespertilio*. GMELIN, Syst. Nat. (27), p. 3461, nr. 97.
- 1811 — — *vespertilio*. LAMARCK, Détermination des Mollusques; genres Volute, Mitre (Annales du Muséum, vol. XVII), p. 63, nr. 16.
- — — *pellis serpentis*. LAMARCK, ibid., p. 63, nr. 15.
- — — *mitis*. LAMARCK, ibid., p. 64, nr. 17.
- — — *serpentina*. LAMARCK, ibid., p. 65, nr. 19.
- 1822 — — *vespertilio*. LAMARCK, An. s. vert. (52), vol. VII, pp. 336—337, nr. 17.
- — — *pellis serpentis*. LAMARCK, ibid., p. 336, nr. 16.
- — — *mitis*. LAMARCK, ibid., p. 337, nr. 18.
- — — *serpentina*. LAMARCK, ibid., p. 338, nr. 20.
- 1832 — — *vespertilio*. QUOY et GAIMARD, Voyage de l'Astrolabe (96), vol. II, pp. 629—632, pl. 44, figs. 3—5.
- 1839 — — *vespertilio*. KIENER (32), vol. III, Voluta, pp. 21, 22, nr. 16, pl. 20; pl. 22, fig. 1.
- — — *pellis serpentis*. KIENER, ibid., p. 22, nr. 17, pl. 23.
- — — *mitis*. KIENER, ibid., p. 24, nr. 18, pl. 24, figs. 1, 2.
- 1841 — — — Lam. KÜSTER, Volutacea (45), pp. 190—191, nr. 38, pl. 22, fig. 4; pl. 33, figs. 3, 4.

- 1841 *Voluta pellis serpentis* Lam.. KÜSTER, ibid., pp. 192—193,  
nr. 39, pl. 36, fig. 3.
- — *serpentina* Lam.. KÜSTER, ibid., pp. 193—194, nr.  
40, pl. 36, figs. 1, 2.
- — *Vespertilio* L.. KÜSTER, ibid., pp. 197—200, nr. 44,  
pl. 20, fig. 5; pl. 22, figs. 1—3; pl.  
28, figs. 7—8; pl. 34, figs. 1—4, 9, 10.
- 1844 — *vespertilio* Lin.. DESHAYES in LAMARCK, An. s. vert.  
(53), vol. X, p. 387, note 1.
- 1846 — *Vespertilio*. SOWERBY, Thesaurus (106), vol. I, pp.  
201—202, pl. XLVII, figs. 15—23;  
pl. LI, fig. 67.
- 1849 — *vespertilio* Linn.. REEVE (97), vol. VI, Voluta, pl.  
V, figs. 11 a, b, c, d.
- 1882 *Voluta (Vespertilio) vespertilio*. TRYON (109), vol. IV, p.  
86, pl. 25, figs. 43—46, 48.
- 1894 *Voluta (Vespertilio) vespertilio* L. and vars. *pellis serpentis*  
Lam., *mitis* Lam. and  
*serpentina* Lam.. HORST  
et SCHEPMAN (31), pp.  
66—68.
- 1902 *Voluta vespertilio* L., *pellis-serpentis* Lam. and var. *serpen-*  
*tina* Lam.. VON MARTENS, Rumphius  
Gedenkboek (71), p. 121.
- 1907 *Voluta vespertilio* L., var. *pellis serpentis* Lam.. SCHEPMAN,  
Celebes (102a), p. 165.
- 1909 — — — — LAMY, Java (56), p. 465.
- 1911 — — — — and var. *pellis serpentis* Lam.. SCHEP-  
MAN (104), p. 262.
- 1911 — — — — var. *pellis serpentis* Lam.. K. MARTIN,  
Vorläuf. Bericht (74), pp. 19, 45.
- 1919 — — — — K. MARTIN (75), pp. 79, 126, 128.

Shore of Bali-strait, north of Banjuwangi, 1  
specimen of the typical form.

Shore near Panarukan, Resid. Besuki, 1 specimen,  
resembling in form *V. serpentina* of LAMARCK, but  
in painting more like the typical *vespertilio*.

Distribution: East Indian Archipelago (especially on reefs):  
Banka, Borneo-bank (Strait of Makassar), Saleyer, Lombok,  
Flores, Timor, Roma-island N. of Timor, Banda, Amboina,  
Nusa-Laut-island near Amboina, Buru, Sula Is., Obi, Bachan,  
Halmahera, Waigeu, Misol, Kei Is., New Guinea.  
— Sulu-archipelago, Philippines, Singapore. — Madagascar.

Fossil in the Lower and Upper Miocene of Java (Resid. Preanger) and in the Pleistocene of Northern Celebes (Minahassa).

### FAM. MARGINELLIDAE.

#### 96. *Marginella (Cryptospira) quinqueplicata* Lamarck.

- 1822 *Marginella quinqueplicata*. LAMARCK, An. s. vert. (52), vol. VII, pp. 356—357, nr. 5.  
 1834 — — — KIENER (32), vol. III, Marginella, p. 13, pl. 2, fig. 5.  
 1844 — — — LAMARCK, An. s. vert. (53), vol. X, pp. 437—438.  
 1846 — — — SOWERBY, Thesaurus (106), vol. I, p. 385, pl. LXXVII, figs. 145, 146.  
 1851 — — — *quinque plicata*. PETIT DE LA SAUSSAYE (81), p. 53.  
 1864 — — — *quinqueplicata*. REEVE (97), vol. XV, Marginella, species 40, pl. X, figs. 40 a, b, 41 a, b.  
 1878-'79 *Marginella (Cryptospira) quinqueplicata*. WEINKAUFF, Marginella u. Erato (113), pp. 3, 34, 141, pl. 1, fig. 1; pl. 5, figs. 10, 11.  
 1883 — — — TRYON (109), vol. V, p. 30, pl. 9, figs. 63, 64.  
 1887 — — — VON MARTENS, Mergui (67), p. 184.  
 1894 — — — HORST et SCHERMAN (31), p. 63.  
 1909 *Marginella quinqueplicata*. LAMY, Java (56), p. 465.  
 1912 *Marginella (Cryptospira) quinqueplicata*. K. MARTIN, Vorläuf. Bericht (74), p. 164.  
 1919 *Marginella quinqueplicata*. K. MARTIN (75), p. 78.

Coast near mouth of river Tji Lamaja, 2 specimens.  
 Surabaya, Harbour, mud, 19 specimens.

Distribution: East Indian Archipelago: Moluccas, Sumatra.

— Singapore, Malacca, Penang, Mergui-archipelago, Bay of Bengal.

Fossil in the Pliocene of Tjandi near Semarang, Java.

97. **Marginella (Cryptospira) dactylus Lamarck.**

- 1822 *Marginella dactylus*. LAMARCK, An. s. vert. (52), vol. VII, p. 360, nr. 18.  
 1834 — — — KIENER (32), vol. III, Marginella, p. 28, pl. 4, fig. 16.  
 1844 — — — LAMARCK, An. s. vert. (53), vol. X, p. 442.  
 1846 — — — SOWERBY, Thesaurus (106), vol. I, p. 401, pl. LXXVIII, fig. 187.  
 1851 — — — PETIT DE LA SAUSSAYE (81), p. 55.  
 1864 — — — REEVE (97), vol. XV, Marginella, species 42, pl. X, figs. 42 a, b.  
 1879 *Marginella (Volutella) dactylus*. WEINKAUFF, Marginella u. Erato (113), pp. 48, 141; pl. 8, figs. 13, 16.  
 1883 — — — — TRYON (109), vol. V, p. 36, pl. 10, fig. 7.  
 1884 *Marginella velata*. K. MARTIN, Tiefbohr. Java (72), pp. 94—95, pl. V, fig. 95.  
 1895 *Marginella (Volutella) dactylus*. K. MARTIN, Foss. v. Java (73), p. 71, pl. X, fig. 161.  
 1911 — — — — H. MARTIN-ICKE, Trinil (76), p. 47.  
 1911 *Marginella (Cryptospira) dactylus*. SCHEPMAN (104), p. 261.  
 1919 *Marginella dactylus*. K. MARTIN (75), pp. 78, 124, 132, 145.

Surabaya, Harbour, mud, 3 specimens.  
 Madura-strait (Siboga expedition).  
 Distribution: Hongkong.  
 Fossil in the Upper Miocene and Pliocene of Java.

**FAM. OLIVIDAE.**

98. **Oliva elegans Lamarck.**

- 1810 *Oliva elegans*. LAMARCK, Détermination des genres Farrière, Ancillaire et Olive, in: Annales du Muséum, vol. XVI, p. 312, nr. 11.

- 1822 *Oliva elegans*. LAMARCK, An. s. vert. (52), vol. VII, p. 422, nr. 11.
- 1836-'39 — — DUCLOS, Monographie des Olives, pl. 21, figs. 1—6; pl. 32, figs. 1—2.
- 1844 — — LAMARCK, An. s. vert. (53), vol. X, p. 611.
- 1842-'58 — — DUCLOS in CHENU, Illustrations conchyliologiques, pl. 23, figs. 1—6; pl. 34, figs. 1—2; pl. 35, fig. 11.
- 1850 — — REEVE (97), vol. VI, Oliva, pl. XII, figs. 20 a, b, c.
- 1857 — — DUCROS DE ST. GERMAIN, Revue critique Oliva (19), p. 44.
- 1871 — — MARRAT in SOWERBY, Thesaurus (106), vol. IV, Oliva, p. 15, pl. XI, figs. 158—160.
- 1871 — — LISCHKE, Japan. Meeresconch. (59), vol. II, p. 61.
- 1877 — — WEINKAUFF, Oliva (111), pp. 97—98, pl. 26, figs. 1—3, 5, 6.
- 1883 — — TRYON (109), vol. V, p. 76, pl. 20, figs. 81, 82.
- 1894 — — HORST et SCHEPMAN (31), p. 47.
- 1902 — — VON MARTENS, Rumphius Gedenkboek (71), p. 123.
- 1909 — — LAMY, Java (56), p. 465.
- 1911 — — SCHEPMAN (104), p. 250.

Bay of Popoh, South coast, Resid. Kediri. The only specimen belongs to a colour-variety with the waved streaks brownish red.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Flores, Savu, Rotti, Timor, Amboina, Ceram, Buru, Obi, Gorontalo (Celebes), Misol, New Guinea.

— North Western Australia, New Caledonia, Viti Is., Paumotu, Auckland (New Zealand). — Philippines, China, Nagasaki (Japan). — Singapore, Madras, Ceylon, Red Sea.

### 99. *Oliva funebralis* Lamarck.

- 1810 *Oliva funebralis*. LAMARCK, Détermination des genres Farrière, Ancillaire et Olive, in: Annales du Muséum, vol. XVI, p. 317, nr. 26.
- 1822 — — LAMARCK, An. s. vert. (52), vol. VII, p. 427, nr. 26.
- 1836-'39 *Oliva leucostoma*. DUCLOS, Monographie des Olives, pl. 27, figs. 14—16.

- 1844 *Oliva funebralis*. LAMARCK, An. s. vert. (53), vol. X, p. 617.
- 1842-'58 *Oliva leucostoma*. DUCLOS in CHENU, Illustrations conchyliologiques, pl. 29, figs. 14—20.
- 1850 *Oliva Maura* Lam., var. *funebralis*. REEVE (97), vol. VI, Oliva, pl. VII, fig. 10 a.
- 1857 *Oliva funebralis*. DUCROS DE ST. GERMAIN, Revue critique Oliva (19), p. 41.
- 1871 *Oliva propinqua*. MARRAT in SOWERBY, Thesaurus (106), vol. IV, Oliva, p. 14, pl. XI, fig. 142.
- — *leucostoma* Duclos. MARRAT, ibid., p. 14, pl. XI, figs. 143—145.
- — *Labradorensis* Bolten. MARRAT, ibid., p. 14, pl. XI, figs. 146—148.
- 1876 *Oliva funebralis*. WEINKAUFF, Oliva (111), pp. 30—31, pl. 1, figs. 9, 10; pl. 9, figs. 4, 7, 8, 10.
- 1883 — — TRYON (109), vol. V, p. 77, pl. 21, figs. 97—99; pl. 22, figs. 100, 1, 2.
- 1894 — — HORST et SCHEPMAN (31), p. 48.
- 1895 — — K. MARTIN, Foss. v. Java (73), pp. 52, 53, pl. VIII, figs. 118, 119.
- 1909 — — LAMY, Java (56), p. 465.
- 1911 — — SCHEPMAN (104), p. 250.
- 1915 — — TESCH, Timor (108), I, p. 40, pl. LXXIX, fig. 85.
- 1919 — — K. MARTIN (75), pp. 76, 125, 131.

Shore near Panarukan, north coast of Resid. Besuki, 1 specimen.

North coast of Resid. Besuki (Leyden Museum). Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Southern Celebes, Amboina, Ceram, Misol, Aru-islands, New Guinea.

— Viti Islands. — Philippines, Singapore, Ceylon.

Fossil in the Upper Miocene of Java (Preanger) and in the Pliocene of Java and Timor.

#### 100. *Oliva mustelina* Lamarck.

- 1810 *Oliva mustelina*. LAMARCK, Détermination des genres Farrière, Ancillaire et Olive, in: Annales du Muséum, vol. XVI, p. 316, nr. 24.
- 1822 — — LAMARCK, An. s. vert. (52), vol. VII, p. 426, nr. 24.

- 1836-'39 *Oliva mustelina*. DUCLOS, Monographie des Olives, pl. 20, figs. 1, 2.
- 1844 — — LAMARCK, An. s. vert. (53), vol. X, p. 616.
- 1842-'58 — — DUCLOS in CHENU, Illustrations conchyliologiques, pl. 22, figs. 1, 2.
- 1850 — — REEVE (97), vol. VI, Oliva, pl. XIII, fig. 23.
- 1857 *Oliva mustellina*. DUCROS DE ST. GERMAIN, Revue critique Oliva (19), p. 57.
- 1869 *Oliva mustelina*. LISCHKE, Japan. Meeresconch. (59), vol. I, p. 69.
- 1871 — — LISCHKE, ibid., vol. II, p. 61.
- 1871 — — MARRAT in SOWERBY, Thesaurus (106), vol. IV, Oliva, p. 22, pl. XVII, figs. 272, 273.
- 1877 *Oliva mustellina*. WEINKAUFF, Oliva (111), pp. 92—93, pl. 24, figs. 10, 11.
- 1883 — — TRYON (109), vol. V, p. 78, pl. 22, fig. 6.
- 1894 *Oliva mustelina*. HORST et SCHEPPMAN (31), p. 48.

Coast near mouth of river Tji Lamaja, 2 specimens.  
 Distribution: Singapore, Philippines (114a), Hongkong, Amoy, Formosa, Nagasaki (Southern Japan).

#### FAM. PLEUROTOMIDAE.

##### 101. *Surcula javana* Linné sp..

- 1767 *Murex javanus*. LINNÉ, Systema Naturae, edit. XII, p. 1221, nr. 550.
- 1822 *Pleurotoma nodifera*. LAMARCK, An. s. vert. (52), vol. VII, p. 96, nr. 23.
- (?1832) — — SOWERBY, Genera (105), Pleurotoma, fig. 1.
- 1839-'40 — — KIENER (32), vol. V, Pleurotoma, p. 22, pl. 12, fig. 1.
- 1843 — — REEVE (97), vol. I, Pleurotoma, pl. IV, fig. 28.
- 1843 — — LAMARCK, An. s. vert. (53), vol. IX, pp. 353—355; nr. 23.
- 1875 *Pleurotoma (Surgula) javana* Linné. WEINKAUFF, Pleurotomidae (114), p. 39, pl. 8, fig. 5.
- 1884 *Surcula Javana*. TRYON (109), vol. VI, p. 237, pl. 5, fig. 63.

- 1884 *Pleurotoma (Surcula) nodifera* Lam.. K. MARTIN, Tiefbohr.  
Java (72), pp. 61, 62,  
pl. IV, fig. 61.
- 1894 *Surcula javana*. HORST et SCHEPMAN (31), p. 37.
- 1895 *Pleurotoma (Surcula) nodifera* Lam. var.. K. MARTIN, Foss.  
von Java (73), p. 27, pl. IV,  
figs. 67—69.
- 1909 *Surcula javana*. LAMY, Java (56), p. 465.
- 1915 *Pleurotoma (Surcula) nodifera* Lam.. TESCH, Timor (108), I,  
p. 28, pl. LXXVIII,  
figs. 57, 58.
- 1919 *Surcula nodifera* Lamk., var.. K. MARTIN (75), pp. 73, 124,  
125.

**Not** *Pleurotoma Javana* Reeve; Kiener.

Coast near mouth of river Tji Lamaja, 6 specimens.

Distribution: Singkep (N. of Banka).

— Singapore, Straits of Malacca, Japan.

Fossil in the Upper Miocene, Pliocene and Pleistocene of  
Java and in the Pliocene of Timor.

#### FAM. CONIDAE.

In arranging the *Conidae* I have chiefly followed COSSMANN  
(12), II, pp. 142—163), but I cannot agree with that author  
in considering *Hermes* to be a distinct genus merely on  
conchological characters.

#### 102. *Conus* (s. str.) *roseus* Lamarck.

- 1810 *Conus roseus*. LAMARCK, Description des espèces du genre  
Cône (Annales du Muséum, vol. XV), p. 37,  
nr. 32.
- 1822 — — LAMARCK, An. s. vert. (52), vol. VII, p. 458,  
nr. 32.
- 1843 — — REEVE (97), vol. I, Conus, species 186, pl.  
XXXIII, fig. 186.
- 1845 — — LAMARCK, An. s. vert. (53), vol. XI, p. 32,  
nr. 32.
- 1846 — — KIENER (32), vol. II, Conus, p. 22, pl. 9,  
fig. 3.
- 1858 — — SOWERBY, Thesaurus (106), vol. III, p. 8,  
pl. 5, figs. 94, 95.

- 1873 *Conus roseus*. WEINKAUFF, Conus (51), p. 130, pl. 25, fig. 8; pl. 29, figs. 3, 4.
- 1884 *Conus (Mures) mus* Hwass, var. *roseus* Lam.. TRYON (109), vol. VI, p. 20, pl. 5, fig. 73.
- 1894 — — — *roseus* Lamarck. HORST et SCHEPMAN (31), p. 14.
- 1913 — — — SCHEPMAN (104), p. 380.

Tji Solok, Wijnkoopsbay, 5 specimens.  
Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Borneo, Roti-island near Timor, Amboina.

Our specimens from Tji Solok confirm once more the eastern habitat of this species, pointed out already by SCHEPMAN, though LAMARCK, REEVE, SOWERBY and WEINKAUFF give as habitat „West-Indies”.

### 103. *Conus (s. str.) coronatus* Dillwyn.

- 1817 *Conus coronatus*. DILLWYN, A descriptive Catalogue of recent shells, arranged according to the Linnaean method, vol. I, p. 403, nr. 91.
- 1843 *Conus minimus*. REEVE (97), vol. I, Conus, pl. XXVI, fig. 143 a.
- 1873 *Conus coronatus*. WEINKAUFF, Conus (51), p. 131, pl. 28, figs. 5, 6.
- 1884 *Conus (Mures) miliaris* Hwass, pars. TRYON (109), vol. VI, p. 21, pl. 5, fig. 88; pl. 27, fig. 12.
- 1894 *Conus (Mures) coronatus* Dillwyn. HORST et SCHEPMAN (31), p. 15.
- 1897 *Conus coronatus* Dillw.. VON MARTENS (69), p. 290.

Shore near Panarukan, north coast of Resid. Besuki, 1 specimen.

Tjilatjap (Leyden Museum).

Distribution: Sumatra: near Padang (coralreef); Olehleh, Achin, N. Sumatra (Museum Wageningen). Timor.

— Cochin-China, Philippines, New Caledonia, Paumotu, Hawaii, Galapagos Is.. — Ceylon, Aden.

The specimen from Panarukan agrees with the quoted figures. I have not cited SCHEPMAN (104), as he quotes also plate 5, fig. 84 of TRYON, representing *Conus miliaris* Hwass.

TRYON made *C. coronatus* a synonym of *C. miliaris*. In the latter species the spire is however much less high.

104. ***Conus (Lithoconus) virgo*** Linné.

- 1705 *Cereola*. RUMPHIUS (100), pl. XXXI, fig. E.  
 1758 *Conus virgo*. LINNÉ, Systema Naturae, edit. X, p. 713.  
 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1166.  
 1791 — *Virgo*. GMELIN, Syst. Nat. (27), p. 3376, nr. 5.  
 1822 — *virgo*. LAMARCK, An. s. vert. (52), vol. VII, p. 468,  
                  nr. 58.  
 1843 — — REEVE (97), vol. I, Conus, species 119, pl.  
                  XXI, fig. 119.  
 1845 — — LAMARCK, An. s. vert. (53), vol. XI, p. 46,  
                  nr. 58.  
 1847 — — KIENER (32), vol. II, Conus, p. 95, pl. 36,  
                  fig. 1.  
 1858 — — SOWERBY, Thesaurus (106), vol. III, p. 23,  
                  pl. 8, fig. 167.  
 (1838) 1874 *Conus virgo*. KÜSTER—WEINKAUFF, Conus (51), pp.  
                  110, 268, pl. 45, fig. 5.  
 1884 *Conus (Virgines) Virgo* Linn.. TRYON (109), vol. VI, p. 43,  
                  pl. 13, fig. 45.  
 1894 — — *virgo* — HORST et SCHEPMAN (31), p. 21.  
 1902 *Conus virgo*. VON MARTENS, Rumphius Gedenkboek (71),  
                  p. 120.  
 1903 — — L.. STURANY, Gastropoden des Rothen Meeres  
                  (107a), pp. 249, 274—275.  
 1919 — — K. MARTIN (75), p. 72.

Shore near Panarukan, Resid. Besuki, 1 specimen.  
 Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Flores,  
 Timor, Amboina, Ceram, Northern Celebes.

— Philippine Is.. — New Caledonia, Viti Is., Samoa.  
 — Ceylon, Gulf of Aden, Red Sea and Gulf of Suez, Seychelles,  
 Mauritius, Réunion, Nossi-Bé near Madagascar, Zanzibar,  
 Mozambique.

Fossil in the Upper Miocene of Java.

105. ***Conus (Chelyconus) magus*** Linné.

- 1758 *Conus magus*. LINNÉ, Systema Naturae, edit. X, p. 716,  
                  nr. 276.

- 1789 *Conus indicus*. CHEMNITZ, Conchylien-Cabinet, vol. X, p. 36, pl. 140, fig. 1295.
- — *clandestinus*. CHEMNITZ, ibid., p. 37, pl. 140, fig. 1296.
- 1792 — *raphanus*. HWASS in BRUGUIÈRE, Encycl. (10), vol. I, part 2, p. 722, nr. 118, pl. 341, fig. 2.
- — *magus*. HWASS, ibid., p. 723, nr. 119, pl. 341, fig. 8.
- 1795 *Conus Circae*. CHEMNITZ, Conchylien-Cabinet, vol. XI, pl. 183, figs. 1778—1779.
- 1822 — *raphanus*. LAMARCK, An. s. vert. (52), vol. VII, p. 508, nr. 147.
- — *magus*. LAMARCK, ibid., p. 509, nr. 148.
- 1834 — *raphanus*. QUOY et GAIMARD, Voyage de l'Astrolabe (96), vol. III, p. 85, pl. 52, fig. 1.
- 1837 — — Hwass. KÜSTER, Conus (51), pp. 13—14, pl. 2, fig. 3.
- 1838 — *magus* L.. KÜSTER, ibid., pp. 36—37, pl. 6, figs. 1, 3; pl. 15, figs. 3, 4; pl. 19, figs. 5, 6.
- 1843 — — — REEVE (97), vol. I, Conus, pl. XXXV, figs. 190 a—e.
- 1844 — *epistomium*. REEVE, ibid., pl. XLIII, figs. 227 a, b.
- 1845 — *magus* L.. DESHAYES in LAMARCK, An. s. vert. (53), vol. XI, p. 103, note 1.
- 1849 — *striolatus*. KIENER (32), vol. II, Conus, pl. 105, fig. 1.
- 1849 — — Kiener. REEVE (97), Conus, Suppl. plate VI, fig. 262.
- 1849-'50 — *magus* L.. KIENER (32), vol. II, Conus, p. 283, pl. 67, figs. 1, 1 a—c.
- 1853 — *assimilis*. A. ADAMS in: Proceedings Zoolog. Society, p. 118.
- 1858 — *magus* L.. SOWERBY, Thesaurus (106), vol. III, p. 38, pl. 21, figs. 508—512.
- — *raphanus* Brug.. SOWERBY, ibid., p. 36, pl. 20, fig. 494.
- — *circae*. SOWERBY, ibid., p. 39, pl. 21, figs. 513—514; pl. 22, fig. 525.
- — *epistomium* Rve.. SOWERBY, ibid., p. 39, pl. 21, fig. 515.
- — *assimilis* A. Ad.. SOWERBY, ibid., p. 38, pl. 21, fig. 505.
- 1864 — *Consul*. BOIVIN in: Journal de Conchyliologie, vol. XII, p. 33, pl. 1, figs. 5, 6.
- 1865 — *Frauenfeldi*. CROSSE in: Journ. de Conchyl., vol. XIII, p. 311, pl. 10, figs. 1, 1 a.

- 1866 *Conus Tasmaniae*. SOWERBY, Thesaurus (106), vol. III,  
p. 328, pl. XXVII, fig. 636.
- — *Borneensis* Sowb. (*not* of A. Adams and Reeve).  
SOWERBY, ibid., p. 329, pl.  
XXVIII, fig. 648.
- — *consul* Boivin. SOWERBY, ibid., p. 330, pl. 21, fig.  
509 (as *magus*).
- — *Frauenfeldi* Crosse. SOWERBY, ibid., p. 330, pl. 21, fig.  
514; pl. 22, fig. 525 (as *circae*).
- — *striolatus* Rve.. SOWERBY, ibid., p. 330, pl. 14, figs.  
327, 328 (as *ustulatus*).
- 1873-'75 — *magus* L.. WEINKAUFF, Conus (51), pp. 141, 146, 316,  
pl. 57, figs. 8—11.
- 1876 — — — E. A. SMITH, A list of Marine Shells,  
chiefly from the Solomon Islands  
(104bis) pp. 535—536.
- 1884 — — (*Magi*) *magus* L. and vars. *Frauenfeldi* Crosse and  
*epistomium* Rve.. TRYON (109),  
vol. VI, pp. 53—54, pl. 15, figs.  
3—9; pl. 16, figs. 12, 13.
- 1894 — — — — and vars. *raphanus* Brug., *frauens-  
feldi* Crosse, *circae* Chemn. and  
*indicus* Chemn.. HORST et SCHEP-  
MAN (31), pp. 23—24.
- 1907 — *magus* L.. SCHEPMAN, Celebes (102a), pp. 155—156.
- 1909 — — — LAMY, Java (56), p. 464.
- 1913 — (*Magi*) *magus* L. and var. *raphanus* Hwass. SCHEP-  
MAN, Siboga exp. (104), p. 388.

Shore of Bali-strait, north of Banjuwangi, 1 specimen, belonging to the form without longitudinal flames (KÜSTER, pl. 2, fig. 3; REEVE, fig. 190 e; KIENER, fig. 1 c; SOWERBY, Thesaurus, fig. 494). This is the *Conus raphanus* of authors, but perhaps not the form meant by HWASS.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Billiton, Borneo, Flores, Timor, Amboina, Nusa-Laut-island near Amboina, Ceram, Gisser east of Ceram, Waigeu, New Guinea.

— North Australia, Vanikoro (Santa Cruz islands, Melanesia), New Caledonia, Paumotu, Caroline Islands, Philippine Is., Singapore.

— Mauritius, Madagascar.

Fossil in the Pleistocene of Northern Celebes (Minahassa).

Probably *C. consors* Sow. is also only a form of *Conus magus*, as the distinguishing characters (broader spire, contraction in the centre and the absence of the encircling chocolate interrupted lines) do not seem to be constant.

106. *Conus (Chelyconus) achatinus* Chemnitz.

- 1705 Achaat-hoorn. SCHYNVOET in RUMPHIUS (100), pl. XXXIV, fig. L.
- 1789 *Conus achatinus maximus*. CHEMNITZ, Neues systematisches Conchylien-Cabinet, vol. X, pl. 142, fig. 1317.
- 1822 *Conus achatinus*. LAMARCK, An. s. vert. (52), vol. VII, p. 480, nr. 79.
- 1843 — — REEVE (97), vol. I, Conus, pl. XXXV, figs. 191 a, b.
- 1845 — — Chemn.. LAMARCK, An. s. vert. (53), vol. XI, p. 62, nr. 79.
- 1848 — — KIENER (32), vol. II, Conus, p. 188, pl. 40, fig. 1.
- 1858 — — SOWERBY, Thesaurus (106), vol. III, p. 38, pl. 15, figs. 335, 336.
- (1838) 1873 *Conus achatinus* Hwass. KÜSTER-WEINKAUFF, Conus (51), pp. 32, 145, pl. 5, figs. 3, 9.
- 1884 *Conus (Achatini) achatinus* (Chemn.), Auct.. TRYON (109), vol. VI, p. 64, pl. 20, figs. 11, 12.
- 1894 — — — HORST et SCHEPMAN (31), p. 27.
- 1902 — *achatinus* Chemn.. VON MARTENS, Rumphius Gedankboek (71), p. 121.
- 1907 — — — SCHEPMAN, Celebes (102a), p. 156.
- 1909 — — — LAMY, Java (56), p. 464.

Tji Solok, Wijnkoopsbay, 2 specimens.

Tjilatjap (Leyden Museum).

Distribution: Amboina.

- Singapore; India; China. — Australia; Solomon Is..  
Fossil in the Pleistocene of Northern Celebes (Minahassa).

107. *Conus (Leptoconus) vexillum* Martini.

- 1773 *Conus vexillum*. MARTINI, Neues systematisches Conchylien-Cabinet, vol. II, pl. 57, fig. 629.

- 1791 *Conus Vexillum*. GMELIN, Syst. Nat. (27), p. 3397, nr. 68.  
 1822 — *vexillum*. LAMARCK, An. s. vert. (52), vol. VII, pp. 471—472, nr. 65 (exclusive of var. b).  
 1843 — — Martini. REEVE (97), vol. I, Conus, pl. I, fig. 3.  
 1845 — — — LAMARCK, An. s. vert. (53), vol. XI, p. 51, nr. 65 (exclusive of var. b).  
 1847 — — — KIENER (32), vol. II, Conus, p. 79, pl. 34, fig. 1.  
 1858 — — — SOWERBY, Thesaurus (106), vol. III, p. 27, pl. 7, fig. 163.  
 1859 — — — CHENU, Manuel (11), vol. I, p. 250, fig. 1538.  
 (1838) 1873 *Conus vexillum* Gmelin. KÜSTER—WEINKAUFF, Conus (51), pp. 83, 163, pl. 17, fig. 13.  
 1884 *Conus (Capitanei) vexillum* Gmelin. TRYON (109), vol. VI, p. 39, pl. 11, fig. 12 a.  
 1894 — — — — HORST et SCHEPMAN (31), p. 20.  
 1907 *Conus vexillum* Gmelin. COUTURIER, Tahiti, etc. (13), p. 128.  
 1909 — — — Martini. LAMY, Java (56), p. 464.  
 1913 — *(Capitanei) vexillum* Gmel.. SCHEPMAN (104), p. 384.

Java (without exact locality), 1 specimen.

Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Borneo-bank (Strait of Makassar), Timor, Amboina, Ceram.

— New Caledonia, Samoa, Society Is., Paumotu.— Philippine Is., Cochin China, Ceylon, Malabar Coast, Madagascar, E. Africa.

### 108. *Conus (Hermes) nussatella* Linné.

- 1705 *Terebellum granulatum*. RUMPHIUS (100), pl. XXXIII, fig. EE.  
 1758 *Conus nussatella*. LINNÉ, Systema Naturae, edit. X, p. 716.  
 1767 — — LINNÉ, Syst. Nat., edit. XII, p. 1170, nr. 314.  
 1789 *Conus terebra*. CHEMNITZ, Neues systematisches Conchylien-Cabinet, vol. X, p. 81, pl. 143, fig. 1329.  
 1822 *Conus nussatella*. LAMARCK, An. s. vert. (52), vol. VII, p. 515, nr. 162.

- 1823 *Conus Nussatella*. SOWERBY, Genera (105), Conus, fig. 7.
- 1843 — — REEVE (97), vol. I, Conus, pl. XI, fig. 56.
- 1845 — *nussatella*. LAMARCK, An. s. vert. (53), vol. XI, pp. 113—114, nr. 162.
- 1849-'50 — — KIENER (32), vol. II, Conus, p. 299, pl. 53, fig. 2.
- 1858 *Conus nussatella*. SOWERBY, Thesaurus (106), vol. III, p. 45, pl. 23, figs. 553, 554.
- 1859 — — — CHENU, Manuel (11), vol. I, p. 252, fig. 1561.
- (1838) 1873 — — KÜSTER—WEINKAUFF, Conus (51), pp. 43, 151, pl. 7, fig. 3.
- 1884 *Conus (Terebri) nussatella* Linn. TRYON (109), vol. VI, p. 80, pl. 25, fig. 35.
- 1894 — — — — HORST et SCHEPMAN (31), p. 30.
- 1899 — (*Hermes*) — — MELVILLE and STANDEN, Torres Straits (77), p. 156.
- 1902 *Conus Nussatella*. VON MARTENS, Rumphius Gedenkboek (71), p. 121.
- 1903 — *nussatella* L.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 250, 274—275.
- 1907 — — — COUTURIER, Tahiti, etc. (13), p. 129.
- 1913 — (*Terebri*) *nussatella*. SCHEPMAN (104), p. 394.

Coral-island Pulu Pandjang, 1 specimen.  
Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Nussatella-islands (3 Brothers or Nusa-telu) near the west coast of Amboina, after which the species has been named; Nusa-Laut-island near Amboina; Banka; New Guinea.

— Torres Straits, Northern Australia, New Caledonia, Paumotu.

— Philippine Is., China. — Ceylon, Gulf of Aden, Red Sea, Gulf of Suez and Gulf of Akabah, E. Africa.

#### 109. *Conus (Hermes) scabriusculus* Chemnitz.

1795 *Conus scabriusculus*. CHEMNITZ, Neues systematisches Conchylien-Cabinet, vol. XI, p. 56, pl. 182, figs. 1768, 1769.

1832-'42 *Conus fabula*. SOWERBY, Conchological Illustrations, pl. I, fig. 5.

- 1843 *Conus fabula* Sowerby. REEVE (97), vol. I, Conus, pl. XXVI, figs. 147 a, b.
- 1845 — — — Sow.. DESHAYES in LAMARCK, An. s. vert. (53), vol. XI, pp. 147—148.
- 1848 — — — KIENER (32), vol. II, Conus, p. 201, pl. 78, figs. 2, 2 a.
- 1858 *Conus scabriuscules*. SOWERBY, Thesaurus (106), vol. III, p. 46, pl. 22, figs. 542, 543.
- 1873, 1875 *Conus scabriuscules*. WEINKAUFF, Conus (51), pp. 138, 320, pl. 26, figs. 14, 15; pl. 58, fig. 9.
- 1884 *Conus (Terebri) scabriuscules* Chemn.. TRYON (109), vol. VI, p. 80, pl. 25, fig. 29.
- 1894 — — — — — HORST et SCHEPMAN (31), p. 30.

Tji Solok, Wijnkoopsbay, 1 specimen.

Tjilatjap (Leyden Museum).

Distribution: Amboina.

— Philippine Is., Japan, Caroline Is., New Caledonia, Australia.

#### 110. *Conus (Cylindrus) canonicus* Hwass.

- 1792 *Conus canonicus*. HWASS in BRUGUIÈRE, Encyclopédie méthodique (10), vol. I, part 2, p. 749, pl. 345, fig. 1.
- 1822 — — — LAMARCK, An. s. vert. (52), vol. VII, p. 522, nr. 174.
- 1843 — — — Hwass. REEVE (97), vol. I, Conus, pl. XXIX, figs. 165 a, b.
- 1845 — — — Brug.. LAMARCK, An. s. vert. (53), vol. XI, p. 121, nr. 174.
- 1849-'50— — — KIENER (32), vol. II, Conus, p. 335, pl. 95, fig. 1.
- 1858 — — — Brug.. SOWERBY, Thesaurus (106), vol. III, p. 42, nr. 360, pl. 23, fig. 568.
- 1874 — — *Canonicus*. WEINKAUFF, Conus (51), p. 299, pl. 53, figs. 7—9.
- 1884 *Conus (Texti) textile* L., var. *archiepiscopus* Hwass, pars. TRYON (109), vol. VI, p. 90, pl. 30, fig. 2.

- 1894 *Conus (Texti) canonicus* Brug.. HORST et SCHEPMAN (31),  
p. 34.
- 1899 — *(Textile) canonicus* Hwass. MELVILL and STANDEN,  
Torres Straits (77), p. 156.
- 1902 — *canonicus* Hwass. von MARTENS, Rumphius Gedenkboek (71), p. 121.
- 1913 — *(Texti) canonicus* Hwass. SCHEPMAN (104), p. 397.
- 1919 — *canonicus* Brug.. K. MARTIN (75), p. 73.

Tji Solok, Wijnkoopsbay, 1 young specimen.  
Tjilatjap (Leyden Museum).

Distribution: East Indian Archipelago: Banka, Amboina, Nusa-Laut-island near Amboina, Ceram, Bachan, Talaut-islands N. E. of Celebes.

— Torres Straits, Australia, Pacific. — Philippines, Ceylon.  
Fossil in the Miocene of Java.

### 111. *Conus (Cylindrus) abbas* Hwass.

- 1792 *Conus abbas*. HWASS in BRUGUIÈRE, Encycl. méth. (10), vol. I, part 2, p. 750, pl. 345, fig. 3.
- 1822 — — LAMARCK, An. s. vert. (52), vol. VII, p. 523, nr. 176.
- 1843 — — Hwass. REEVE (97), vol. I, Conus, species 162, pl. XXVIII, fig. 162; pl. XXXII, fig. 162 b.
- 1845 — — Brug.. LAMARCK, An. s. vert. (53), vol. XI, pp. 122—123, nr. 176.
- 1858 — — — SOWERBY, Thesaurus (106), vol. III, p. 42, pl. 23, fig. 575.
- (1838) 1873 *Conus abbas*. KÜSTER—WEINKAUFF, Conus (51), pp. 47, 152.
- 1884 *Conus (Texti) abbas* Hwass. TRYON (109), vol. VI, p. 92, pl. 30, fig. 12.
- 1894 — — — Brug.. HORST et SCHEPMAN (31), p. 34.

Tji Solok, Wijnkoopsbay, 1 specimen.  
Distribution: Amboina.

— New Caledonia. — Philippines, Ceylon, Madagascar, E. Africa.

## OPISTHOBRANCHIA.

### FAM. BULLIDAE.

#### 112. *Bulla ampulla* Linné.

- 1705 *Bulla*. RUMPHIUS (100), p. 91, pl. XXVII, fig. G.  
1767 *Bulla ampulla*. LINNÉ, Systema Naturae, edit. XIII, p. 1183.  
1822 — — LAMARCK, An. s. vert. (52), vol. VI, 2nd part, p. 33, nr. 2.  
(?1833) *Bulla Ampulla*. SOWERBY, Genera (105), Bulla, fig. 4.  
1836 *Bulla ampulla* Lin.. LAMARCK, An. s. vert. (53), vol. VII, p. 668, nr. 2.  
1850 — — A. ADAMS in SOWERBY, Thesaurus (106), vol. II, p. 575, pl. CXXIII, figs. 59—62.  
1854 — *columellaris* and var. *bifasciata*. MENKE in: Malacozoologische Blätter, I, pp. 26, 43.  
1868 — *ampulla* L.. SOWERBY in REEVE (97), vol. XVI, Bulla, pl. I, figs. 3 a, b, c.  
— — *trifasciata*. SOWERBY, ibid., pl. I, fig. 1.  
1887 — *ampulla*. VON MARTENS, Mergui (67), p. 199.  
1893 *Bulla ampulla* L. and vars. *bifasciata* Menke and *trifasciata* Sowb.. PILSBRY (109), vol. XV, pp. 343—345, pl. 34, figs. 1—5.  
1895 *Bulla (s. str.) ampulla* Linn.. K. MARTIN, Foss. v. Java (73), p. 8, pl. I, figs. 2, 2a, 3.  
1896 *Bulla ampulla* L.. KOEBELT, Bullidae (33), pp. 72—73, pl. 1, figs. 5—7.  
1897 — — — VON MARTENS, Süss- u. Brackw. Moll. Ind. Arch. (69), p. 291.  
1902 — — — VON MARTENS, Rumphius Gedenkboek (71), p. 117.  
1903 — — — STURANY, Gastropoden des Rothen Meeres (107a), pp. 268, 282—283.  
1907 — — — COUTURIER, Tahiti, etc. (13), p. 173.  
1911 — — — H. MARTIN-ICKE, Trinil (76), p. 46.  
1911 — — — K. MARTIN, Vorläuf. Bericht (74), p. 44.  
1913 — — — SCHEPMAN (104), p. 473.  
1919 — — — K. MARTIN (75), pp. 70, 128, 131, 141.

Shore of Bali-strait, north of Banjuwangi, 1 specimen without bands and 1 shell with two darker bands (form *bifasciata* Menke).

Surabaya, shore of Bandjaran, 1 specimen of the form *bifasciata*.

Djangkar, north coast of Resid. Besuki (Siboga expedition).

Distribution: East Indian Archipelago: East coast of Borneo, Saleyer, Gorontalo (Celebes), Lombok, Flores, Rotti-island, Timor, Lucipara Is., Amboina, Ceram, Sula Is., Bachan.

— Philippines. — New South Wales, Viti Is., Paumotu. — Singapore, Salang-island, Mergui-archipelago, Ceylon, Gulf of Aden, Red Sea, Gulf of Suez and Gulf of Akabah, Seychelles, Amirantes, Mauritius, Réunion, Madagascar, Natal.

Fossil in the Upper Miocene and in the Pliocene of Java.

### 113. *Bulla adamsi* (?Menke) Brazier.

1850 *Bulla australis* (nec Quoy et Gaimard). A. ADAMS in SOWERBY, Thesaurus (106), vol. II, p. 576, pl. CXXII, figs. 64—66.

?[1850 *Bulla adamsii*. MENKE in: Zeitschrift für Malakozoologie, 1850, p. 162].

?[1854 — — — MENKE in: Malacozoologische Blätter, I, p. 43].

1868 *Bulla australis* (nec Quoy et Gaimard). SOWERBY in REEVE (97), vol. XVI, Bulla, pl. IV, figs. 12 a, b, c.

1885 *Bulla adamsi*. BRAZIER in: Proceedings of the Linnean Society of New South Wales, vol. X, p. 92.

1893 — — — Menke. PILSBRY (109), vol. XV, pp. 345—346 (cfr. p. 342), pl. 35, figs. 15, 16, 19, 20.

1896 — *adamsii* — — KOBELT, Bullidae (33), pp. 75—76, pl. 8, figs. 3, 4.

1899 — *Adamsi* — — MELVILLE and STANDEN, Torres Straits (77), p. 155.

1909 — — — — LAMY, Java (56), p. 467.

Shore near Panarukan, Resid. Besuki, 1 specimen. The shell agrees rather well with figure 65 in SOWERBY's Thesaurus. Among the four bands the third is rather indistinct.

Distribution: Islands in Torres Straits and off N. E. Australia, Tonga Is., Tahiti (on the reefs).

## FAM. SCAPHANDRIDAE.

114. *Atys (s. str.) naucum* Linné sp..

- 1705 *Bulla*. RUMPHIUS (100), p. 91, pl. XXVII, fig. H.  
 1758 *Bulla naucum*. LINNÉ, Systema Naturae, edit. X, p. 726.  
 1850 *Bulla (Atys) naucum* L.. A. ADAMS in SOWERBY, Thesaurus (106), vol. II, p. 584, pl. CXXIV, figs. 107—109.  
 1869 *Atys Naucum* L.. SOWERBY in REEVÉ (97), vol. XVII, Atys, pl. I, figs. 1 a, b, c.  
 1893 — (*s. str.*) *naucum* L.. PILSBRY (109), vol. XV, pp. 263—264, pl. 28, figs. 11—13.  
 1895 — *naucum* L.. KOBELT, Bullidae (33), pp. 13—15, pl. 2, figs. 13, 14.  
 1902 *Bulla (Atys) naucum* L.. von MARTENS, Rumphius Gedenkboek (71), p. 117.  
 1903 *Atys naucum* L.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 267, 282—283.  
 1906 — — — K. MARTIN, Foss. v. Java (73), p. 283, pl. XLII, fig. 677.  
 1909 — — — LAMY, Java (56), p. 467.  
 1911 — — — H. MARTIN-ICKE, Trinil (76), p. 46.  
 1913 — — — SCHEPMAN (104), p. 467.  
 1919 — — — K. MARTIN (75), pp. 70, 131.

Shore near Panarukan, Resid. Besuki, 1 specimen.

Distribution: East Indian Archipelago: Borneo (on muddy sand-banks), Sumbawa, Flores, Banda, E. coast of Halmahera (Museum Wageningen).

— Torres Straits, eastward to Viti Is.. — Philippines, Singapore.

— Indian Ocean, westward to Mauritius, Réunion, Madagascar, the Gulf of Aden and the Red Sea (with the Gulf of Suez and the Gulf of Akabah).

Fossil in the Pliocene of Java.

115. *Atys (Alicula) cylindrica* Helbling sp..

- 1779 *Bulla cylindrica*. HELBLING, Beiträge zur Kenntniß neuer Conchylien, in: Abhandlungen einer Privatgesellschaft in Böhmen, zur Aufnahme der Mathematik, der Vaterl. Geschichte und der Naturgeschichte, Band IV, p. 122, nr. 18, pl. II, figs. 30, 31.

- 1789 *Bulla cylindrica*. CHEMNITZ, Neues systematisches Conchylien-Cabinet, vol. X, pp. 113, 121, pl. 146, figs. 1356, 1357.
- 1850 *Bulla (Atys) cylindrica* Helblings. A. ADAMS in SOWERBY, Thesaurus(106), vol. II, p. 585, pl. CXXV, fig. 114.
- — — *elongata*. A. ADAMS, ibid., p. 587, pl. CXXV, fig. 121.
- 1869 *Atys cylindrica* Heblings. SOWERBY in REEVE (97), vol. XVII, Atys, pl. II, figs. 7 a, b.
- — *elongata* A. Adams. SOWERBY, ibid., pl. II, figs. 8 a, b.
- 1893 *Atys (Alicula) cylindrica* Helbling. PILSBRY (109), vol. XV, pp. 265—266, pl. 33, figs. 60—62.
- 1895 *Atys cylindrica* Helbling. KOBELT, Bullidae (33), pp. 16—17, pl. 2, figs. 15, 16.
- 1895 *Bulla (Atys) cylindrica* Hebl.. K. MARTIN, Foss. v. Java (73), p. 8, pl. I, fig. 1.
- 1899 *Atys (Alicula) cylindrica* Helbling. MELVILLE and STANDEN, Torres Straits (77), p. 155.
- 1901 *Atys cylindrica* Helbling sp.. H. FISCHER, Djibouti, etc. (22a), p. 98.
- 1903 — — Helbl.. STURANY, Gastropoden des Rothen Meeres (107a), pp. 268, 282—283.
- 1907 — — Helbling. COUTURIER, Tahiti, etc. (13), p. 174.
- 1911 — — Hebl.. H. MARTIN—ICKE, Trinil (76), p. 46.
- 1913 — *(Alicula) cylindrica* Helbling and var. *elongata* A. Ads.. SCHEPMAN (104), p. 469.
- 1919 *Roxania (Alicula) cylindrica* Hebl.. K. MARTIN (75), pp. 70, 141.

Shore near Panarukan, Resid. Besuki, 1 specimen of the typical form. Alt. 26, diameter 13 mill..

Near reef of Batjulmati, East coast (Siboga expedition).

Distribution: East Indian Archipelago: Sumbawa, Pater-noster-islands, Savu, Rotti-island, Roma-island, Banda, Manipa-island between Ceram and Buru, Talaut Is. N. E. of Celebes.— Philippines (in sandy mud). — Torres Straits, Viti Is., Paumotu.— Andamans, Ceylon, Gulf of Aden, Jibuti (Somaliland), Red Sea, Gulf of Suez and Gulf of Akabah, Seychelles, Mauritius.

Fossil in the Pliocene of Java.

## PULMONATA.

### FAM. AURICULIDAE.

#### 116. *Pythia plicata* Férußac sp..

- 1819-?'30 *Scarabus plicatus*. FÉRUSSAC, Prodrome, p. 101, nr. 2.  
1830 — — LESSON, Voyage de la Coquille, Zoologie, vol. II, p. 335.  
1838 *Auricula plicata* Desh.. DESHAYES in LAMARCK, An. s. vert. (53), vol. VIII, pp. 339—340, nr. 30.  
1860 *Scarabus plicatus* Férußac. REEVE (97), vol. XII, Scarabus, pl. III, fig. 28.  
1897 *Pythia plicata* Fer.. VON MARTENS, Süss- u. Brackw. Moll. Ind. Arch. (69), pp. 131—133.  
1914 — — LESCHKE, Java u. Celebes (58), p. 247.  
1921 — — (Fer.). PRASHAD, Sumatra (95), p. 467.

Coral-island Pulu Pandjang, 3 specimens.

Surabaya, shore of Bandjaran, 1 specimen.

Surabaya (VON MARTENS).

Distribution: East Indian Archipelago: Belawan (Deli, Sumatra), in mangrove-swamps; N. W. coast of Borneo.

— Bangkok (Siam); Pulo Penang; Moulmein and Rangoon (Burma); Irrawady Delta; Bengal; Coromandel Coast; Ceylon (in saline marshes).

#### 117. *Pythia pantherina* A. Adams sp..

- 1849 *Scarabus pyramidatus* (not of Reeve), var. *javanica*. MOUSSON, Java (79), p. 49, pl. V, fig. 10.  
1850 *Scarabus pantherinus*. A. ADAMS in: Proceedings Zoological Society, London, 1850, p. 152.  
1856 *Pythia pantherina* (A. Ad.). PFEIFFER, Monogr. Auricul. (83), p. 94.  
1891 *Scarabus pantherinus* (A. Ad.). O. BOETTGER (6), pp. 275 —276.

- 1897 *Pythia pantherina* (A. Ad.). von MARTENS (69), pp. 136—138.  
 1908 — — — C. R. BOETTGER, Amboina (4), p. 184.  
 1914 — — LESCHKE, Java u. Celebes (58), p. 247.

Mantjingan, south coast (Resid. Djocjakarta), 8 specimens.

Anjer, coast of Sunda-strait (VON MARTENS). South coast of Residency Bantam, W. Java (van Hasselt). Nusa-Barung-island near south coast of E. Java (Zollinger).

Distribution: East Indian Archipelago: Sumatra (Benkulen, Tiku north of Padang), Borneo, Celebes, Amboina, Haruku and Saparua near Amboina, Ceram, New Guinea.

— Philippines. — Nicobars, Ceylon.

### 118. *Cassidula auris-felis* Bruguière sp..

- 1786 *Voluta Coffea Linnaei*. CHEMNITZ (not of Linné), Conchylien-Cabinet, vol. IX, 2, p. 45, pl. 121, figs. 1043—1044.  
 1789 *Bulimus auris felis*. BRUGUIÈRE, Encycl. méth. (10), vol I, part 1, p. 343, pl. 460, figs. 5 a, b.  
 1822 *Auricula felis*. LAMARCK, An. s. vert. (52), vol. VI, 2<sup>nd</sup> part, pp. 138—139, nr. 5.  
 1838 — — Lamk.. DESHAYES in LAMARCK, An. s. vert. (53), vol. VIII, p. 326, nr. 5.  
 1838 — — Lk.. POTIEZ et MICHAUD, Galerie des Mollusques, ou Catalogue méthodique, descriptif et raisonné des mollusques et coquilles du Muséum de Douai, I, p. 201.  
 1841 *Auricula fusca*. HOMBROON et JACQUINOT, Voyage au Pôle Sud, pl. 9, figs. 7—9.  
 1841 — *Felis*. KÜSTER, Auriculacea (47), p. 16, pl. 3, fig. 3.  
 1847 *Cassidula auris felis* Br.. GRAY in: Proceedings Zoological Society, London, p. 179.  
 1852 *Auricula felis* Lk.. SOULEYET, Voyage de la Bonite (20), vol. II, p. 516, pl. 29, figs. 21—23.  
 1854 — *fusca*. ROUSSEAU in HOMBROON et JACQUINOT, Voyage au Pôle Sud, p. 34.  
 1856 *Cassidula auris felis* Br.. PFEIFFER, Monogr. Auricul. (83), p. 117.

- 1876 *Cassidula auris felis* Br.. PFEIFFER, Monographia Pneumonopomorum viventium; Suppl. III, p. 354.
- 1878 *Auricula felis* Lk.. SOWERBY in REEVE (97), vol. XX, Auricula, pl. IV, fig. 25.
- 1887 *Cassidula auris-felis* Brug.. VON MARTENS, Mergui (67), p. 166.
- 1890 — — — O. BOETTGER (5), p. 165.
- 1891 — *auris-felis* Br.. P. FISCHER, Indo-Chine (22), p. 123 (reprint, p. 39).
- 1897 — *auris-felis* Brug.. VON MARTENS (69), p. 141, pl. VIII, figs. 12—14.
- 1905 — — — DAUTZENBERG et H. FISCHER, Tonkin (17), pp. 108—110.
- 1906 — — — DAUTZENBERG et H. FISCHER, Indo-Chine (18), p. 377.
- 1914 — — — LESCHKE, Java u. Celebes (58), p. 247.
- 1921 — — — Brug.. PRASHAD, Sumatra (95), p. 467.

Coast near mouth of river Tji Lamaja, 2 specimens in excellent condition.

Coral-island Pulu Pandjang, 1 worn specimen.

Mangrove-swamps at Tandjong Priok near Batavia (Strubell). Near Surabaya (VON MARTENS).

Distribution: Sumatra: Benkulen; Deli, in mangrove-swamps and Serdang in mouth of river. Banka. Borneo.

— Philippines, Tongking, Cambodia, Bangkok (Siam), Singapore, Mergui Archipelago (on mud-flats and in mangrove-swamps), Arakan (Burma).

### 119. *Auricula auris-judae* Linné sp..

- 1758 *Bulla Auris Judae*. LINNÉ, Systema Naturae, edit. X, p. 728.
- 1767 *Voluta* — LINNÉ, Syst. Nat., edit. XII, p. 1187.
- 1773 *Auris Midae tridentata*. MARTINI, Conchylien-Cabinet, vol. II, pp. 119, 128, pl. XLIV, figs. 449—451.
- 1774 *Helix auris Jüdae*. O. FR. MÜLLER, Vermium terrestrium et fluviatilium seu animalium infusoriorum, helminthicorum, et testaceorum, non marinorum, Succincta Historia, vol. II, p. 109.

- 1789 *Bulimus auris Judae*. BRUGUIÈRE, Encycl. méth. (10), vol. I, part 1, p. 344.
- 1791 *Voluta Auris Judae*. GMELIN, Syst. Nat. (27), p. 3437, nr. 10.
- 1822 *Auricula Judae*. LAMARCK, An. s. vert. (52), vol. VI, 2<sup>nd</sup> part, pp. 137—138, nr. 2.
- 1830 — — LESSON, Voyage autour du monde, exécuté sur la corvette de S. M. la Coquille; Zoologie, vol. II, p. 339.
- 1838 — — LAMARCK, An. s. vert. (53), vol. VIII, pp. 324—325.
- 1838 — — L.. POTIEZ et MICHAUD, Galérie des Moll., I, p. 204.
- 1841 — — Lk.. KÜSTER, Auriculacea (47), p. 15, pl. 3, figs. 1, 2.
- 1852 — — SOULEYET, Voyage de la Bonite (20), vol. II, p. 515, pl. 29, figs. 19, 20.
- 1856 — *auris Judae* L.. PFEIFFER, Monogr. Auricul. (83), p. 130.
- 1876 — — — PFEIFFER, Monogr. Pneum. viv.; Suppl. III, p. 357.
- 1878 — *Judae* Linn.. SOWERBY in REeve (97), vol. XX, Auricula, pl. III, figs. 16 a, b.
- 1887 — — — VON MARTENS, Mergui (67), p. 166.
- 1889 — *dactylus* (not of Pfeiffer). L. MORLET in: Journal de Conchyliologie, vol. XXXVII, p. 129.
- 1891 — *auris Judae*. P. FISCHER, Indo-Chine (22), p. 123 (reprint, p. 39).
- — *dactylus* (not of Pfeiffer). P. FISCHER, ibid..
- 1891 — *aurisjudaе* (L.). O. BOETTGER (6), p. 244.
- 1897 — *Judae* L.. VON MARTENS (69), pp. 154—157, pl. VIII, figs. 6—11.
- 1902 — — — VON MARTENS, Rumphius Gedenkb. (71), p. 123.
- 1906 — *auris Judae* Linné. DAUTZENBERG et H. FISCHER, Indo-Chine (18), pp. 374—377.
- 1913 — *Judae* Linné. SCHEPMAN (104), p. 458.
- 1914 — *auris-judae*. LESCHKE, Java u. Celebes (58), p. 248.
- 1915 — *Judae* Lin.. STAUB, Sangkulirangbai (107bis), pp. 124, 128.
- 1921 — *judaе* (Linn.). PRASHAD, Sumatra (95), pp. 467—468.

Coast near mouth of river Tji Lamaja, 1 young specimen (worn).

Surabaya, shore of Bandjaran, 4 specimens.

Tandjong Priok near Batavia, in brackish water (Strubell).

Sumenep, isle of Madura (Collection Mousson).

Distribution: East Indian Archipelago (in brackish water, in mangrove-swamps, etc.): Sumatra (Palembang, Deli, Serdang), Riouw-archipelago, Banka, West coast of Borneo, Sangkulirangbay (E. Borneo), Southern Celebes, Togean Is. near Celebes, Lombok, Flores (in a brook near the coast), Timor, Amboina, Ceram, Buru, Bachan, Waigeu, Salawatti, Aru Is., New Guinea.

— N. W. coast of Western Australia, Northern Queensland.

— Philippines.

— Cochin-China, Siam, Singapore, Malacca, Pulo Penang, Salang-island, Mergui Archipelago, Irrawady Delta and Arakan (Burma), Andamans, Gangetic Delta, Vizagapatam (E. coast of India), Bombay.

Fossil in the Pliocene of E. Borneo (Sangkulirangbay).

#### 120. *Melampus fasciatus* Deshayes sp..

- 1830 *Auricula fasciata*. DESHAYES, Encyclopédie méthodique; Vers, vol. II, p. 90, nr. 8.
- 1832 — *monile* (not of Lamarck). QUOY et GAIMARD, Voyage de l'Astrolabe (96), pp. 166—168, pl. 13, figs. 28—33.
- 1838 — *fasciata*. DESHAYES in LAMARCK, An. s. vert. (53), vol. VIII, p. 337, nr. 25.
- 1841 — *soricina*. HOMBRON et JACQUINOT, Voyage au Pôle Sud; Moll., pl. 9, figs. 23—26.
- 1844 — *fasciata*. KÜSTER, Auriculacea (47), p. 33, pl. 5, figs. 9—11.
- 1849 — — Desh.. MOUSSON, Java (79), pp. 46—47, pl. V, fig. 7.
- 1856 *Melampus fasciatus*. PFEIFFER, Monogr. Auricul. (83), p. 38.
- 1891 — — — Desh.. O. BOETTGER (6), p. 278.
- 1897 — — — VON MARTENS (69), pp. 161—163, pl. VIII, fig. 4.
- 1899 — — — DAUTZENBERG, Sumatra (15), p. 8.
- 1900 — — — E. A. SMITH, Christmas Island (104d), p. 58, pl. VIII, fig. 17.

1907 *Melampus fasciatus* Pfeiffer. COUTURIER, Tahiti, etc. (13), p. 176.

1913 — — Desh.. SCHEPMAN (104), p. 458.

1914 — — LESCHKE, Java u. Celebes (58), pp. 248—249.

Mantjangan, south coast (Resid. Djocjakarta), 1 specimen, ground-colour yellowish with 5 chestnut bands. Tjaringin (Resid. Bantam), coast of Sunda-strait (Zollinger).

Anjer, coast of Sunda-strait (VON MARTENS).

Distribution: East Indian Archipelago: Near Indrapura (Sumatra), Flores, Timor (in a brackish lagoon), Amboina, Ceram, Tawalli-island N. of Bachan, Kei Is., New Guinea.

— New Ireland, Port Curtis (Queensland), New Caledonia, New Hebrides, Viti Is., Ellice Is., Samoa, Tahiti, Paumotu, Pitcairn-island, Jaluit (Marshall Is.), Pelew Is., Philippines, Lower Cochin-China, Salang-island (near Malay Peninsula), Nicobars, Andamans, Arakan (Burma), Bengal, Ceylon. — Christmas-island south of Java.

— Seychelles, Mauritius, Réunion, Mayotta (Comoro Is.).

#### FAM. ZONITIDAE.

121. *Dyakia rumpfii* von dem Busch sp..

1842 *Helix Rumphii*. VON DEM BUSCH in PHILIPPI, Abbildungen (86), vol. I, p. 9, Helix, pl. I, fig. 2.

1849 *Nanina Rumphii* v. d. Busch. MOUSSON, Java (79), p. 18, pl. I, fig. 2.

1852 *Helix* — REEVE (97), vol. VII, Helix, pl. LXXXVIII, fig. 480.

1867 *Nanina* — Busch sp.. VON MARTENS, Ostasien Land-schnecken (62), p. 220.

1886 *Nanina (Ariophanta) Rumphii*. TRYON (110), vol. II, p. 20, pl. 3, fig. 38.

1890 *Hemiplecta rumpfii* (v. d. Busch). O. BOETTGER (5), p. 140.

1891 *Nanina (Hemiplecta) rumpfi* (Busch). VON MARTENS, Landschn. Ind. Arch. (68), pp. 229—230.

1912 *Dyakia Rumphii*, v. d. Busch. SCHEPMAN, Java (103), p. 231.

1914 — *rumpfii*. LESCHKE, Java u. Celebes (58), p. 228.

Forest on the northwestern slope of the Malabar,  
south of Bandung (Resid. Preanger), 1 specimen.

This species is confined to Java: West Java (in forests):  
Near Buitenzorg (Zollinger, Teysmann), Gunung Salak  
(Strubell), Gunung Gedeh (Strubell, Jacobson), Tjibodas,  
S. E. of Buitenzorg (Weber), Sindanglaya near Tjibodas  
(VON MARTENS), Gunung Megamendung N. of Gunung  
Gedeh (VAN HASSELT), Gunung Papandajan (VON MARTENS).

Central Java: Gunung Ungaran, S. of Semarang (Jacobson).

### 122. *Hemiplecta umbilicaria* Le Guillou sp..

- 1842 *Helix umbilicaria*. LE GUILLOU in: Revue Zoologique, p.  
137.
- 1849 *Nanina javanica* (not of Féruccac). MOUSSON, Java (79), p.  
15, pl. I, fig. 3.
- 1852 *Helix Javanica*. REEVE (97), vol. VII, Helix, pl. LXXVI,  
fig. 396.
- 1867 *Nanina umbilicaria* Guillou sp.. VON MARTENS, Ostasien  
Landschn. (62), pp. 214—  
215.
- 1886 *Nanina (Xesta) umbilicaria* Le Guillou. TRYON (110), vol.  
II, p. 79, pl. 22, fig. 39.
- 1914 *Hemiplecta umbilicaria*. LESCHKE, Java u. Celebes (58), p.  
227.

Teakwood at Penawangan, Resid. Semarang, 20  
specimens.

Goendih, south of Poerwodadi, Resid. Semarang,  
2 specimens.

Tjikoya, Resid. Bantam (Zollinger). Between Kediri and  
Modjokerto (VON MARTENS). Wanasaki, Tengger Mountains (Zollinger). Rogodjampi near Banjuwangi, E. Java  
(Zollinger). Pulu Rakata (Krakatau-island) in Sunda-  
strait (Zollinger).

Distribution: Sumatra, Banka.

### 123. *Hemiplecta densa* A. Adams et Reeve sp..

- 1850 *Helix densa*. A. ADAMS and REEVE, Zoology of the Voyage  
of the Samarang in the Eastern Seas; Mollusca,  
p. 62, pl. 16, fig. 8.

- 1850 *Helix Schumacheriana*. PFEIFFER in: Zeitschrift für Malakozoologie, 1850, p. 70.
- 1852 — *densa*. REEVE (97), vol. VII, pl. LXXIII, fig. 375.
- — *Schumacheriana*. REEVE, ibid., fig. 379.
- 1857 *Nanina corrosa*. MOUSSON in: Journal de Conchyliologie, vol. VI, p. 156.
- 1859 — *Herklotsiana*. DOHREN in: Malacozoologische Blätter, VI, p. 206.
- 1867 — *densa* Adams sp.. VON MARTENS, Ostasien Landschn. (62), pp. 230—233, pl. 10, figs. 1, 2.
- 1886 *Nanina (Hemiplecta) Herklotiana* Dohrn. TRYON (110), vol. II, p. 37, pl. 12, fig. 59.
- — — *densa*. TRYON, ibid., p. 42, pl. 14, figs. 91, 93.
- — — *Schumacheriana*. TRYON, ibid., p. 43, pl. 14, fig. 94.
- 1891 — *densa*. VON MARTENS, Landschn. Ind. Arch. (68), p. 261.
- 1895 *Hemiplecta densa* Adams & Reeve. SCHEPMAN, Borneo-exped. (102), p. 150.
- 1900 *Nanina (Hemiplecta) densa* A. Ad. var. *atrofusca* Alb.. VON MARTENS, Sumatra (70), p. 7.
- 1914 *Hemiplecta densa*. LESCHKE, Java u. Celebes (58), p. 226.

Forest on the northwestern slope of the Malabar, south of Bandung (Resid. Preanger), 1 specimen.

The specimen is chestnut-coloured above and has one chestnut band below the obtuse carina.

Diam. maj. 47, diam. min. 37, altitude 27; apert., alt. 20, lat. 25 millimetres.

Buitenzorg (Zollinger). Near Adjibarang, Resid. Banjumas (F. Jagor).

Distribution: Sumatra, Borneo (in forests), Labuan-island near Borneo.

#### 124. *Hemiplecta humphreysiana* Lea sp..

- 1841 *Helix Humphreysiana*. LEA in: Transactions of the American philosophical society of Philadelphia, VII, p. 463, pl. 12, fig. 16.

- 1852 *Helix gemina* (*non* v. d. Busch). REEVE (97), vol. VII,  
Helix, pl. LXXIII, fig. 374.
- — *nobilis*. REEVE, ibid., pl. LXXIV, fig. 381.
- — *Humphreysiana* Lea. REEVE, ibid., pl. LXXIV, fig.  
387.
- 1867 *Nanina* — Lea sp.. VON MARTENS, Ostasiatische  
Landschn. (62), pp. 233—  
235, pl. 10, figs. 3, 4, 6.
- 1886 — (*Hemiplecta*) *Humphreysiana*. TRYON (110), vol. II,  
p. 36, pl. 11, figs. 52,  
53; pl. 12, fig. 54.
- 1890 *Hemiplecta humphreysiana* (Lea) var. *gemina* (*non* v. d.  
Busch). O. BOETTGER (5),  
pp. 139—140.
- 1891 — — — var. *complanata* Mts.. O.  
BOETTGER (6), p. 242.
- 1891 *Nanina humphreysiana*. VON MARTENS, Landschn. Ind.  
Arch. (68), p. 261.
- 1900 — (*Hemiplecta*) *Humphreysiana* Lea. VON MARTENS,  
Sumatra (70), p. 7.
- 1912 *Hemiplecta Humphreysiana*, Lea, var.. SCHEPMAN, Java  
(103), pp. 230—231.
- 1914 — *humphreysiana*. LESCHKE, Java u. Celebes (58),  
p. 226.

Goendih, south of Poerwodadi, Resid. Semarang,  
1 specimen. As the shell is rather bleached, it is not  
possible to assign it with certainty to one of the forms  
distinguished by VON MARTENS. In shape it agrees  
with var. *bifasciata* and var. *turbinata* of VON MARTENS.  
Diam. maj.  $39\frac{1}{2}$ , diam. min. 33, altitude 28 millimetres.

Buitenzorg, Botanical Gardens (Teysmann). Gunung Salak  
(Strubell). Sindanglaya, S. E. of Buitenzorg (VON MARTENS). Near Adjibarang, Resid. Banjumas (F. Jagor). Nusa-Kambangan-island near south coast (Jacobson).

Distribution: Sumatra, Batu Is. W. of Sumatra, Singapore,  
Johore (Malay Peninsula).

#### FAM. HELICIDAE.

##### 125. *Plectotropis ciliocincta* von Möllendorff.

- 1897 *Plectotropis ciliocincta*. VON MÖLLENDORFF, Neue Landschn. v. Java (78), pp. 67—68.

1914 *Plectotropis ciliocincta*. LESCHKE, Java u. Celebes (58), p. 235.

Goendih, south of Poerwodadi, Resid. Semarang,  
20 specimens.

I owe the identification of the specimens to Miss W. S. S. VAN BENTHEM JUTTING of the Zoological Museum at Amsterdam.

### 126. *Trochomorpha bicolor* von Martens.

1864 *Trochomorpha bicolor*. VON MARTENS in: Monatsberichte der Königl. Akademie der Wissenschaften zu Berlin, p. 267.

1867 — — — VON MARTENS, Ostasien Landschn. (62), pp. 252—253, pl. 13, fig. 2.

1887 *Helix (Videna) bicolor* Martens. TRYON (110), vol. III, p. 82, pl. 16, figs. 83—85.

1895 *Trochomorpha bicolor* Martens. SCHEPMAN, Borneo-exped. (102), p. 155.

1914 — — — LESCHKE, Java u. Celebes (58), p. 230.

Not *Trochomorpha bicolor* L. MORLET (Journ. de Conchyl., vol. XXXIII, p. 259, 1886); MABILLE (Bull. Soc. Mal. Fr., 1887, p. 98); P. FISCHER (Indo-Chine (22), p. 108 (reprint, p. 24)) = *Tr. sapeca* Heude sp..

Penawangan, Resid. Semarang, 5 specimens.  
Wanasari, Tengger Mountains, E. Java (Zollinger).  
Distribution: Sumatra, Borneo.

### 127. *Amphidromus palaceus* (von dem Busch M. S.) Mousson sp..

1849 *Bulimus palaceus* v. d. Busch. MOUSSON, Java (79), pp. 28, 108, pl. III, fig. 1.

1867 *Bulimus (Amphidromus) palaceus* Busch. VON MARTENS, Ostasien Landschn. (62), p. 352 (exclusive of synon. *Bulimus mundus*).

1900 *Amphidromus palaceus*. PILSBRY (110), vol. XIII, p. 134, pl. 47, figs. 1, 2, 4—6.

1912 — — — SCHEPMAN, Land- a. freshw. Moll. Java (103), p. 234.

1914 *Amphidromus palaceus*. LESCHKE, Java u. Celebes (58), p. 233.

Coast near Government Rubber Estate Balong, N.E. of Japara (Resid. Semarang), 1 bleached specimen (sinister).

This species is confined to Java: Pardana (Perdana) and Tjikoya in the Residency Bantam in coffee plantations (Zollinger). Palabuan at the Wijnkoopsbay (von Martens). Babakan (? near Tjiandjur, Preanger) (Jacobson).

### 128. *Amphidromus winteri* Pfeiffer sp..

1849 *Bulimus Winteri*. PFEIFFER in: Zeitschrift für Malakozoologie, 1849, p. 135.

1867 *Bulimus (Amphidromus) Winteri* Pfr.. von MARTENS, Ostasien Landschn.(62), pp. 353—355.

1900 *Amphidromus Winteri*. PILSBRY (110), vol. XIII, p. 137, pl. 48, figs. 13, 14, 15.

1914 — *winteri*. LESCHKE, Java u. Celebes (58), p. 234.

Goendih, south of Poerwodadi, Resid. Semarang, 1 specimen.

Teakwood near Bandjarredjo, Resid. Rembang, 1 specimen.

The specimen from Goendih is pale rufous, that from Bandjarredjo is entirely bleached. Both shells are dextral.

This species is confined to Java: Tjisurupan, Preanger, in coffee plantations (von Martens). Bandjar, Resid. Banjumas (F. Jagor).

#### Forma robusta Fulton.

1867 *Bulimus Winteri*, gebändertes Exemplar. von MARTENS, Ostasien Landschn. (62), p. 354, pl. 20, fig. 4.

1896 *Amphidromus robustus*. FULTON, List of species of Amphidromus (26), p. 73.

1900 — *heerianus* (Mousson) Pfr., var. *robustus* Fulton. PILSBRY (110), vol. XIII, p. 139, pl. 46, fig. 21.

1914 *Amphidromus heerianus*, v. *robustus*. LESCHKE, Java u. Celebes (58), p. 232.

Forest on the northwestern slope of the Malabar, south of Bandung (Resid. Preanger), 1 specimen.

The specimen differs from FULTON's description in being dextral and perforate. The reddish spiral bands are not upon a white, but upon a pale yellowish ground.

Height: 53 mill.; maximum diameter: 30 millimetres.

This form was hitherto only recorded from Bandjar, Residency Banjumas (von MARTENS).

129. ***Amphidromus alticola* (Boettger M.S.S.) Fulton.**

1896 *Amphidromus alticola* (Boettger M.S.S.). FULTON, List of Amphidromus (26), p. 70, pl. 6, figs. 5, 5 a.

1900 — — PILSBRY (110), vol. XIII, p. 147, pl. 53, figs. 75, 76.

\*1914 — *albicola*. LESCHKE, Java u. Celebes (58), p. 231.

Forest on the northwestern slope of the Malabar, south of Bandung (Resid. Preanger), 1 specimen.

Confined to Java.

130. ***Amphidromus perversus rufocinctus* Fruhstorfer.**

1905 *Amphidromus perversus rufocinctus*. H. FRUHSTORFER, Bawean und Engano (25), pp. 199—200.

There are 3 specimens of this characteristic subspecies, described from Bawean by FRUHSTORFER. Unfortunately their exact locality is not known, it may be either Bawean-island, or the Karimon-Djawa-islands, both north of Java in the Java Sea.

131. ***Amphidromus (Syndromus) porcellanus* Mousson sp..**

1849 *Bulimus porcellanus*. MOUSSON, Java (79), pp. 33—34, 110—111, pl. III, fig. 4.

- 1867 *Bulimus (Amphidromus) porcellanus* Mouss.. VON MARTENS, Ostasien Landschn. (62), pp. 365—366.
- 1890 *Amphidromus porcellanus* (Mouss.). O. BOETTGER (5), p. 146.
- 1891 — — — VON MARTENS, Landschn. Ind. Arch. (68), p. 241.
- 1900 — — — (*Syndromus*) *porcellanus*. PILSBRY (110), vol. XIII, p. 201, pl. 64, figs. 5—7.
- 1914 — — — LESCHKE, Java u. Celebes (58), pp. 213, 233—234.

Forest on the northwestern slope of the Malabar, south of Bandung (Resid. Preanger), 2 specimens.  
 Buitenzorg, Botanical Gardens (Strubell; Kraepelin).  
 Distribution: Deli, Sumatra.

**132. *Amphidromus (Syndromus) furcillatus* Mousson sp..**

- 1848 *Bulimus laevus* (in part). REEVE (97), vol. V, *Bulimus*, pl. XXXVII, fig. 216 a.
- 1849 — *elegans* (non Pfeiffer). MOUSSON, Java (79), pp. 32—33, 110, pl. III, fig. 3.
- — *furcillatus*. MOUSSON, ibid., p. 115.
- 1867 — (*Amphidromus*) *furcillatus* Mouss.. VON MARTENS, Ostasien Landschn. (62), pp. 357—358, pl. 21, fig. 3.
- 1896 *Amphidromus furcillatus*. FULTON, *Amphidromus* (26), p. 76.
- 1900 *Amphidromus (Syndromus) furcillatus*. PILSBRY (110), vol. XIII, p. 216, pl. 66, figs. 38—40.
- 1912 — *furcillatus*, Mousson. SCHEPMAN, Java (103), p. 234.
- 1914 — — — LESCHKE, Java u. Celebes (58), p. 232.

Goendih, south of Poerwodadi, Resid. Semarang, 6 specimens.

Teakwood at Penawangan, Resid. Semarang, 4 specimens.

One specimen has the flammules but rarely bifurcated.

Another shell from Penawangan has a somewhat deviating appearance, the flammules being very regularly interrupted on the periphery. On the upper half of the whorl there are often more than three branches corresponding to one square spot or flame on the lower half of the whorl. The fine specimen has a pink margin below the suture and two basal spiral bands. The buff ground colour of the last whorl is marked with numerous grass-green lines<sup>1)</sup>.

Nongkodjadjar, Tengger Mountains (Jacobson). Gunung Lamongan, Resid. Pasuruan (F. Jagor). Balung, S. W. of Djember, Resid. Besuki (Semmelink). Litjin and Rogodjampi near Banjuwangi (Zollinger).

Distribution: Bali.

#### FAM. BULIMINIDAE.

##### 133. *Buliminus (Coccoderma) glandula* Mousson sp..

1849 *Bulimus glandula*. MOUSSON, Java (79), pp. 34—35, pl. IV, fig. 3.

1867 *Buliminus (Napaeus) glandula* MOUSS. sp.. VON MARTENS, Ostasien Landschn. (62), p. 370.

1891 — — — VON MARTENS, Landschn. Ind. Arch. (68), p. 255.

1914 — (*Coccoderma*) — LESCHKE, Java u. Celebes (58), p. 236.

Penawangan, Resid. Semarang, 1 specimen.

Altitude 18, diam. maj.  $7\frac{1}{2}$  millimetres.

Southern Java, on shrubs (Zollinger). Sumenep, isle of Madura (Zollinger).

The species seems to be confined to Java and Madura.

1) Possibly this deviating specimen does not belong to *Amphidromus furcillatus*, but to a new species.

## FAM. LYMNAEIDAE.

134. *Lymnaea javanica* Mousson.

- 1849 *Limnaeus succineus* var. *javanica*. MOUSSON, Java (79), pp. 42—43, pl. V, fig. 1.
- 1872 *Limnaea Javanica*. SOWERBY in REEVE (97), vol. XVIII, Limnaea, pl. VIII, fig. 50.
- 1897 — *javanica* Mouss.. VON MARTENS, Süss- u. Brackw. Moll. Ind. Arch. (69), pp. 3—6, pl. 1, figs. 3—7.
- 1898 — — — P. u. F. SARASIN, Süssw. moll. Celebes (101), pp. 88—89.
- 1913 — — — SCHERMAN, Siboga exp. (104), p. 459.
- 1921 — — — (Mouss.). PRASHAD, Sumatra (95), pp. 469—471.
- 1922 *Lymnaea* — Mouss.. VAN HEURNEN PARAVICINI, Gajolanden (29), p. 29, fig. 6.

This variable species is represented in the collection by only one form:

Forma *obesa* von Martens.

- 1867 *Limnaeus javanicus* Hasselt, var. *obesus*. VON MARTENS, Ostasiat. Limnaeaceen (61), p. 223.
- 1881 *Limnaea Javanica* Hasselt, var. *obesa*. VON MARTENS in: Conchologische Mittheilungen als Fortsetzung der Novitates conchologicae, vol. I, p. 87, pl. 16, fig. 1.
- 1914 *Lymnaea javanica*, v. *obesa*. LESCHKE, Java u. Celebes (58), p. 250.

Coast near mouth of river Tji Lamaja, 7 specimens.  
The form *obesa* was originally mentioned from Telaga Patengan, S. W. of Bandung (Resid. Preanger).

Distribution of *Lymnaea javanica*: East Indian Archipelago: Sumatra, Banka, Borneo, Celebes, Java, Bali to Flores, Sumba, Rotti, Timor.

## SCAPHOPODA.

### FAM. DENTALIIDAE.

#### 135. *Dentalium (Laevidentalium) eburneum* Linné.

- 1767 *Dentalium eburneum*. LINNÉ, Systema Naturae, edit. XII,  
p. 1264.  
1818 — — — LAMARCK, An. s. vert. (52), vol. V,  
p. 346.  
1838 — — — LAMARCK, An. s. vert. (53), vol. V,  
p. 598.  
1860 — — — SOWERBY, Thesaurus (106), vol. III,  
p. 98, pl. 225, fig. 53.  
— — — *Philippinarum*. SOWERBY, ibid., fig. 54.  
1872 — — — *eburneum*. SOWERBY in REEVE (97), vol. XVIII,  
Dentalium, pl. III, fig. 16.  
— — — *Philippinarum*. SOWERBY, ibid., fig. 18.  
1897 — — — *eburneum*. PILSBRY & SHARP (109), vol. XVII,  
p. 115, pl. 20, figs. 33, 34.  
1906 — — — (*Laevidentalium*) *eburneum*. BOISSEVAIN (7), p.  
52, pl. II, fig. 31;  
pl. IV, figs. 10, 11.  
1920 — — — — — TESCH, Timor (108),  
II, p. 85, pl.  
CXXXIV, fig. 232.

Coast near mouth of river Tji Lamaja, 1 specimen.  
Off Djangkar, N. coast of Resid. Besuki, E. Java (Siboga  
exped.).

Distribution: East Indian Archipelago: Timor, Timor Sea,  
Ceram.

— Philippines, Siam, Singapore.

Fossil in the Pliocene of Timor.

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Besides the only specimen of *Dent. eburneum* there are 5  
specimens of longitudinally ribbed Dentaliidae belonging to the  
subgenus *Dentalium s. str.* from the same locality (Tji Lamaja).  
The specimens are eight- and nine-ribbed. I could not determine  
them with certainty.

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## **ADDENDA ET CORRIGENDA.**

**Page 8**, line 15 from top, for Linn., read Lin..

### **2. Acmaea saccharina L. sp..**

Add to Synonymy:

1855 *Patella saccharina*. HANLEY, Ipsa Linnaei Conchylia, pp. 418, 545.

1885 — — (Linne). BOOG WATSON, Challenger Gasterop. (8), pp. 29—30.

**Page 12:**

### **8. Turbo (Senectus) ticaonicus Rve..**

Add to Synonymy:

1915 *Turbo Ficaonicus* (p. err.) Rve.. STAUB, Sangkulirangbai (107bis), p. 126.

Add to Distribution: Sangkulirang-bay (E. Borneo).

Page 12, line 3 from bottom, for 1886 read 1885.

**Page 13:**

### **9. Trochus (s. str.) niloticus L..**

Add to Synonymy:

1915 *Trochus niloticus* Lin.. STAUB, Sangkulirangbai (107bis), pp. 124, 130.

Add to Distribution: Sangkulirang-bay (E. Borneo).

**Page 14**, line 7 from top, for 1788-'90 read 1791.

**Page 17**, line 2 from top, for 1788-'90 read 1791;  
erase line 1 from bottom.

**Page 18**, line 5 from top, for 1788-'90 read 1791; delete L.  
after the word *Labio*;  
line 12 from bottom, for 1886 read 1885.

**Page 19**, line 15 from bottom, for 1788-'90 *Turbo Nicobaricus*  
read 1791 *Turbo nicobaricus*.

**15. Chrysostoma paradoxum Born sp..**

Add to Synonymy:

1854 *Chrysostoma paradoxum*. H. and A. ADAMS, The Genera of Recent Mollusca arranged according to their organization, vol. I, p. 410, pl. XLVI, fig. 4.

**Page 20**, line 3 from top, for 1886 read 1885.

**Page 21**, line 19 from top, for 1788-'90 *Nerita albicilla* read 1791 *Nerita Albicilla*, and after p. 3681, add nr. 45. Line 20 from top, read *albicilla*.

**17. Nerita (Theliostyla) albicilla L..**

Add to Synonymy:

1886 *Nerita albicilla*, Linne. BOOG WATSON, Challenger Gasterop. (8), pp. 678—679.

**Page 24**, line 11 from top, for 1788-'90 read 1791.

**Page 25:**

**19. Nerita (Theliostyla) chamaeleon L..**

Add to Synonymy:

1886 *Nerita chamaeleon*, Linne. BOOG WATSON, Challenger Gasterop. (8), p. 679.

**Page 29**, line 10 from top, for 1788-'90 read 1791.

**Page 30**, lines 9 and 8 from bottom, for 1788-'90 read 1791, and for nr. 26 read nr. 66.

Line 7 from bottom, for *larva* read *Larva*, and after p. 3679, add nr. 38.

Line 6 from bottom, after p. 3685, add nr. 67.

**Page 40:**

**26. Turritella (s. str.) terebra L. sp..**

Add to Synonymy:

1915 *Turritella terebra* Lin.. STAUB, Sangkulirangbai (107bis), p. 126.

Add to Distribution: Sangkulirang-bay (E. Borneo), empty shells abundant on the shore.

**Page 45**, lines 7 and 8 from top, for 1788-'90 *Helix acicula* read 1791 *Helix Acicula*, and after p. 3668, add nr. 222.

**Page 51**, line 12 from bottom, for 1886 read 1885.

## Page 66:

48. *Natica* (s. str.) *maculosa* Lamarck.

## Add to Synonymy:

1915 *Natica maculata* (sic!) Lk. oder *javanica* Lk.. STAUB, Sangkulirangbai (107bis), p. 125.

Add to Distribution: Sangkulirang-bay (E. Borneo), on mud-flats; Balikpapan (E. Borneo).

Page 67, line 17 from bottom, for 1886 read 1885.

Page 69, line 4 from top, for 1886 read 1885.

50. *Natica* (Polinices) *mamilla* L. sp..

## Add to Synonymy:

1915 *Natica mamilla* Lin.. STAUB, Sangkulirangbai (107bis), p. 125.

— *pyriformis* Recl.. STAUB, ibid., p. 125.

Add to Distribution: Sangkulirang-bay (E. Borneo).

## Page 76:

54. *Potamides* (*Telescopium*) *telescopium* L. sp..

## Add to Synonymy:

1915 *Telescopium telescopium* Brug.. STAUB (107bis), pp. 124, 128.

Add to Distribution: Numerous in the estuaries of East Borneo.

Fossil in the Pliocene of E. Borneo (Sangkulirang-bay).

Page 77, line 8 from bottom, for *lambis* read *Lambis*.

## Page 78:

56. *Pterocera lambis* L. sp..

## Add to Synonymy:

1915 *Pterocera lambis* Lin.. STAUB (107bis), p. 133.

Add to Distribution: On coralreefs near the Sangkulirang-bay (E. Borneo).

## Page 80:

58. *Pterocera* (*Harpago*) *chiragra* L. sp..

## Add to Synonymy:

1915 *Pterocera Chiragra* Lin.. STAUB (107bis), p. 133.

Add to Distribution: On coralreefs near the Sangkulirang-bay (E. Borneo).

Page 80, line 19 from top, for *canarium* read *Canarium*.

Line 21 from top, read *canarium*.

Page 81, line 13 from top, for 1886 read 1885.

### 59. *Strombus canarium* L..

Add to Synonymy:

1915 *Strombus isabella* Lk.. STAUB (107bis), pp. 126, 133.

Add to Distribution: East Borneo: Balikpapan; near the Sangkulirang-bay (on coralreefs).

### Pages 83—84:

#### 61. *Strombus (Canarium) muricatus* Martini.

Add to Synonymy:

1825 *Strombus urceus* (not of Linné). WOOD, Index Testaceologicus, pl. 25, fig. 32.

1832 — — (not of Linné). DESHAYES, Encyclopédie Méthodique, vol. III, p. 993, sp. 15.

1907 — — (not of Linné). COUTURIER, Tahiti, etc. (13), p. 153.

Add to Distribution: Paumotu.

Page 84, line 10 from top, for 1886 read 1885.

Page 86, line 14 from top, for *carneola* read *Carneola*.

Page 91, line 5 from bottom, for *caput serpentis* read *Caput serpentis*.

Page 94, line 1 from top, for Linn.. read Lin..

Page 98, line 6 from top, after p. 573, add nr. 194.

### Page 99:

#### 71. *Cypraea (Luponia) lynx* L..

Add to Synonymy:

1885 *Cypraea lynx*, Linne. BOOG WATSON, Challenger Gasterop. (8), p. 423.

1915 — *Lynx* Lin.. STAUB, Sangkulirangbai (107bis), p. 133.

Add to Distribution: On coralreefs near the Sangkulirang-bay (E. Borneo).

## Page 105:

74. *Cypraea (Luponia) erosa* L..

Add to Synonymy:

1915 *Cypraea erosa* Lin.. STAUB (107bis), p. 133.

Add to Distribution: On coralreefs near the Sangkulirang-bay (E. Borneo).

## Page 107:

76. *Cassis cornuta* L. sp..

Add to Synonymy:

1791 *Buccinum cornutum*. GMELIN, Syst. Nat. (27), pp. 3472—3473, nr. 11.1795 *Cassis labiata*. CHEMNITZ, Neues systematisches Conchylien-Cabinet, vol. XI, p. 71, pls. 184, 185.1832 *Cassis cornuta*. QUOY et GAIMARD, Voyage de l'Astrolabe (96), vol. II, pp. 590—592, pl. 43, figs. 1—6.

1835 — — KIENER (32), vol. VIII, Cassis, p. 9, nr. 4, pl. 2, fig. 3.

1915 — — Lin.. STAUB, Sangkulirangbai (107bis), pp. 125, 132.

Add to Distribution: On coralreefs in the Sangkulirang-bay (E. Borneo).

## Page 108:

77. *Cassis (Bezoardica) decussata* L. sp..

Add to Synonymy:

1857 *Cassis decussata* LINNÉ. KÜSTER (43), pp. 9—10, pl. 38, figs. 1, 2, 8, 9.Page 111, line 20 from top, for *Murex (Tribulus) ternispina* read *Murex (s.str.) ternispina*, pars.82. *Murex martinianus* Rve..

Add to Synonymy:

1915 *Murex Martinianus* RVE.. STAUB, Sangkulirangbai (107bis), pp. 125, 130.

Add to Distribution: E. Borneo: Shore of Klandasan near Balikpapan; near mouth of river Sambodja; Sangkulirang-bay (on a sandy beach, numerous on mud-flats).

## Page 119:

92. *Fasciolaria trapezium* L. sp..

Add to Synonymy:

- 1832 *Fusus trapezium*. QUOY et GAIMARD, Voyage de l'Astrolabe (96), vol. II, pp. 511—512.
- 1855 *Murex trapezium*. HANLEY, Ipsa Linnaei Conchylia, pp. 306, 525.
- 1885 *Fasciolaria trapezium* (Linne). Boog WATSON, Challenger Gasterop. (8), pp. 241—242.
- 1915 *Fasciolum* (p. err.) *trapezium* Lin.. STAUB, Sangkulirangbai (107bis), p. 133.

Add to Distribution: On coralreefs near the Sangkulirang-bay (E. Borneo).

— Nicobars, Ceylon.

Page 119, line 19 from bottom, for fig. 26 read figs. 24—26.

Line 17 from bottom, for fig. 22 read figs. 21—23.

Page 121, line 20 from top, for p. 1494 read p. 1194, nr. 428.

## Page 122:

95. *Voluta (Vespertilio) vespertilio* L..

Add to Synonymy:

- 1885 *Voluta (Vespertilio) vespertilio*, Linne, var. *pellis serpentis*, Lamarck. Boog WATSON, Challenger Gasterop. (8), p. 254.

1915 *Voluta vespertilio* Lin.. STAUB, Sangkulirangbai (107bis), p. 126.

Add to Distribution: Sangkulirang-bay (E. Borneo), on mud-flats exposed at low tide.

## Page 138:

112. *Bulla ampulla* L..

Add to Synonymy:

- 1886 *Bulla ampulla*, Linne. Boog WATSON, Challenger Gasterop. (8), p. 637.
- 1915 — — Lin.. STAUB, Sangkulirangbai (107bis), p. 125.

Add to Distribution: Sangkulirang-bay (E. Borneo), on mud-flats.

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(This bibliography contains also some works and papers consulted exclusively in the preparation of the second part (Lamellibranchiata)).

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- 3a. **Berge, F.**: Conchylienbuch oder allgemeine und besondere Naturgeschichte der Muscheln und Schnecken. Stuttgart, 1850.
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6. \_\_\_\_\_: Ad. Strubell's Konchylien aus Java II und von den Molukken. Bericht über die Senckenb. naturf. Ges. zu Frankfurt a. M., 1891, pp. 241—318.
- 6a. \_\_\_\_\_: „Liste der tertiären und jüngeren Versteinerungen“ in: R. D. M. VERBEEK, Molukken-verslag. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië, 37e jaargang, 1908; Wetenschappelijk gedeelte, pp. 668—675. Batavia, 1908.
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1) For the communication of the exact dates of the different parts of KÜSTER—KOEBELT's Conchylien-Cabinet I am indebted to Dr. B. PRASHAD, who investigated the matter during his stay in London.

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**EXPLANATION OF FIGURES.**

## EXPLANATION OF FIGURES.

Except when otherwise marked, the figures are of natural size.

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Fig. 1



Fig. 2



Fig. 3a ( $\times 2\frac{1}{2}$ )



3b ( $\times 2\frac{1}{2}$ )



3c ( $\times 2\frac{1}{2}$ )



Fig. 4



Fig. 5a ( $\times 2\frac{1}{2}$ )



5b ( $\times 2\frac{1}{2}$ )



5c ( $\times 2\frac{1}{2}$ )



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10

Fig. 11



Fig. 12



Fig. 13



Fig. 14

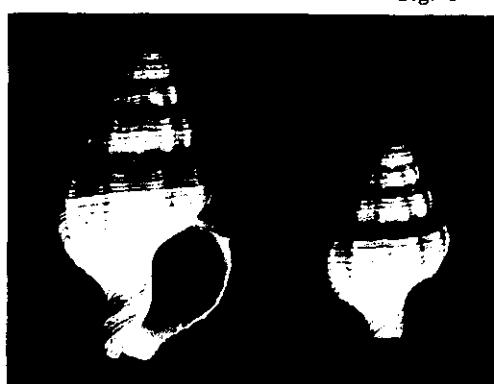


Fig. 15a



15b