Alphabetical revision of the (sub)species in recent Conidae 7. cingulatus to cylindraceus, including Conus shikamai nomen novum

H.E.COOMANS, R.G. MOOLENBEEK & E. WILS

Zoological Museum, Amsterdam

INTRODUCTION

In the seventh issue of our *Conus* revision the remaining names of the letter c are discussed, starting with *cingulatus*. Two invalid taxa by Chemnitz, *Conus circae* and C. clandestinus, are treated because of junior homonyms being involved.

So far we have covered 410 names in recent Conidae, being about 25% of the total number.

ACKNOWLEDGMENTS

In part 3 (Basteria 44: 17) we have listed a number of colleagues and collectors who kindly donated Conidae to the Zoological Museum in Amsterdam, to further research and complete the distribution maps. To this list the following names can be added, in alphabetical order: J.P. Aillaud (New Caledonia) - Dr. R. Bieler (W. Germany) - G. Bokstijn (Amsterdam) - J. Broggi (Uruguay) - A.W. Burger (Heerhugowaard) - Dr. R.N. Burukovsky (USSR) - Mrs. C.S. Casanova (Spain) - P. Deleuze (New Caledonia) - H.H. Dijkstra (Sneek) - J. Elsen (Belgium) - M.J. Faber (Amsterdam) - M. Fainzilber (Israel) -F. Fernandez (Angola) - R.M. Filmer (England) - Dr. E.F. García (USA) - L. Gasull (Spain) - W.F. Hoffmann (Bussum) - Dr. S. Kosuge (Japan) - Mrs. M.W.L. de Lanoy-Meyer (Spain) - R. le Maître (South Africa) - J.C. Martin (Reunion) - Dr. H. Matthes (Spain) -M. Meyer (South Africa) - H.K. Mienis (Israel) - F.E. Perron (Palau) - Drs. T. Piersma (Groningen) - G. Poppe (Belgium) - J.J. Post (Amsterdam) - Mrs. G. Prince (Australia) -Ir. W. van Putten (Maassluis) - Dr. D. Röckel (W. Germany) - Dr. E. Rolán (Spain) -A. Rombouts (Australia) - C. Samson-Bouret (Australia) - J.J. Singleton (Australia) -J.K. Tucker (USA) - Dr. B. Tursch (Belgium) - Fr.F. Verberne (Aruba) - A. Verhecken (Belgium) - D.L.N. Vink (Wassenaar) - J. de Visser (Westkapelle) - A. Zorn (Belgium).

Mr. J.G. Walls, the author of "Cone Shells" (1979), has donated paratypes of 7 Conus species described by him in 1977-1979. Mr. A.J. da Motta, who is trying to set up an "International Conidae Society", also has contributed some of his paratypes and other material.

Assistance from colleagues as regards the loan of specimens, photographs, literature, advice or otherwise, is acknowledged with the species concerned. Most of the photographs were made by Mr. L. van der Laan, the maps were drawn by Mr. J. Zaagman (both ZMA).

In 1984 the Netherlands Malacological Society celebrates its 50th anniversary. The

publication of this extensive paper has been made possible by funds collected by members of the society on the occasion of this event (Jubileumfonds) and also by a grant from Shell Tankers B. V., Rotterdam.

GENUS CONUS LINNÉ, 1758

Valid names of species, subspecies, and formae are printed in heavy type in the alphabetical list. A junior synonym, homonym, nomen dubium, nomen nudum and invalid names are printed in normal type. A name misspelt in the literature is generally mentioned under its correct name.

cingulatus figs. 425, 431, 452-453

Conus cingulatus Lamarck, 1810, Annls Mus. Hist. nat. Paris 15: 274, no. 84

Type. - Lamarck mentioned one specimen (no. 104) in MNHN; the shell is considered lost (Mermod, 1947: 176). To preserve the name *Conus cingulatus*, a neotype was designated by Walls (1979: 322), viz. a specimen from the Sollier collection (fig. 452) in MHNG (no. 1107/69). This shell is figured in Kiener (1845: pl. 93 fig. 2); the dimensions are 44 x 21 mm.

Type locality. - "l'Océan asiatique". Kiener (1847: 142-143) indicated that the neotype is from the Indian Ocean. Since both are wrong, we herewith designate Santa Marta, Colombia, as corrected type locality.

Remarks. — We agree with Kohn (1981: 317) that *C. cingulatus* Lamarck (figs. 452-453) is a valid species. Its closest relatives occur in the tropical eastern Pacific, which together with the Caribbean formed a single zoogeographical province during the Miocene. *C. castaneus* Kiener (vide Basteria 47: 96, fig. 425) is a junior synonym.

Before the designation of a neotype this species was incorrectly referred to as C. lorenzianus Dillwyn, 1817, and C. largillierti Kiener, 1845 (cf. Clench, 1945: 4; Olsson & McGinty, 1958: 17).

Distribution. - C. cingulatus is known from the north coast of Venezuela and Colombia; its range seems to extend to Panama (fig. 431). Not recorded from the Netherlands Antilles.

Material studied. - Specimens from Santa Marta, Colombia (in ZMA, and coll. Wils), and from Venezuela (ZMA, IRScNB).

We are grateful to Dr. C. Vaucher for a photograph of the neotype.

cingulatus fig. 454

Conus cingulatus Sowerby I, 1825, Cat. Shells Tankerville, Appendix: xxxiv no. 2467 (non C. cingulatus Lamarck, 1810).

Type. - The holotype was originally in the Tankerville collection, parts of which are in BMNH, and in the Tomlin collection at the National Museum of Wales (Dance, 1966:

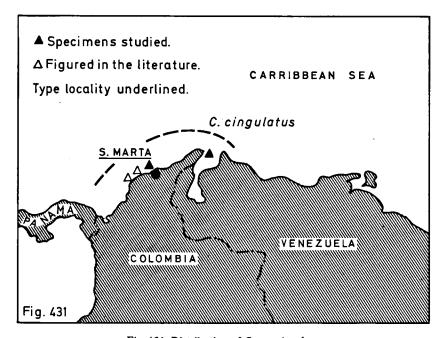


Fig. 431. Distribution of Conus cingulatus.

303). However, the type specimen of *Conus cingulatus* Sowerby is not present in these collections. According to the description, the dimensions of the shell are "2 x $1\frac{1}{10}$ unc." (= 50½ x 28 mm). The specimen is figured in Sowerby (1834: pl. 152 fig. 108), reproduced here as fig. 454; the measurements are 49 x 26 mm.

Type locality. - Not given.

Remarks. - C. cingulatus Sowerby is a junior homonym of C. cingulatus Lamarck, 1810. From the description and type figure C. cingulatus Sowerby is identified as C. adamsonii Broderip, 1836 (vide Basteria 43: 20-21, fig. 24). Sowerby (1834: 4, no. 108) also mentioned this synonymy.

Because the measurements of the holotype of *C. adamsonii* (46.1 x 26.0 mm) are close to those of *C. cingulatus*, we have compared the colour pattern of both (figs. 454-455) and concluded that they represent two separate specimens.

Distribution. - The range of *C. adamsonii* (fig. 1) was indicated to be the Central Pacific, with literature references to the Phoenix Is., Society Is. and Samoa. Some trustworthy data were found in two 19th century publications: Bampton Reef in the Coral Sea near the Chesterfield Is. (Brazier, 1871: 585), whereas Schmeltz (1876: 5-6) recorded Malden Id. (155°W 4°S) and Baker Id. (176°W 1°N) in the Central Pacific. Cernohorsky (1978: 128) reported the Line Is., Phoenix Is. and Cook Is. as reliable localities; Walls (1979: 58-61) figured shells from the New Hebrides and the Cook Is., in addition to mentioning the Tonga, Gilbert and Solomon Is., New Caledonia, and the Great Barrier Reef. Estival (1981: 92, fig. 76) recorded the Solomons, Society Is. and New Hebrides;

Richard (1982: 285) the Society and Marquesas Is. A live collected specimen from the Marquesas is figured in Hawaiian Shell News 31 (8): 5, Aug. 1983. We are grateful to Dr. P.G. Oliver and Ms. A. Trew for the loan of material.

cingulum fig. 456

Conus cingulum Gmelin, 1791, Syst. Nat. 13 ed.: 3378, no. 72

Type. - Gmelin only referred to the shell figured by Martyn (1784, vol. 1: pl. 39). This specimen is the holotype of *Conus cingulum*; the shell was in the collection of Mrs. Fordyce, but its present whereabouts are unknown. The type figure is reproduced here (fig. 456); the measurements are 85 x 52 mm.

Type locality. - Gmelin mentioned the "insulas amicas" (Tonga Islands), which was copied from Martyn: "Friendly Isles (île des Amis)".

Remarks - We agree with Kohn (1966: 82, pl. 1 fig. 8) that the type figure of C. cingulum represents an aberrant shell of C. quercinus Solander, 1786.

circae figs. 457-458

Conus circae Chemnitz, 1795, Syst. Conch. Cab. 11: 61-63, pl. 183 figs. 1778-1779

Remarks. - Because the "Systematisches Conchylien Cabinet" by Martini and Chemnitz was placed on the index of invalid works by the ICZN, *Conus circae* Chemnitz is not a valid name. Many zoological names, used for the first time by Martini and Chemnitz, were validated later, mainly by Gmelin (1791) and Dillwyn (1817).

The name *C. circae* Chemnitz was cited by Dillwyn (1817: 422) as a synonym of *C. magus* Linné variety C. Since names used in synonymy are not available (ICZN art. 11d), we cannot accept Dillwyn to be the author of this variety. *C. circae* was used for the first time as a valid nominal species by Sowerby (see below). The shell figured by Chemnitz (his figure is our fig. 457) was rediscovered in ZMUC; the measurements are 45.9 x 20.3 mm (fig. 458), ex coll. Spengler, locality Moluccas. After comparing "*C. circae* Chemnitz" to the holotype of *C. magus* Linné, 1758, we conclude that they must be considered conspecific. Of course, Spengler's specimen does not belong to the type material of *C. circae* Sowerby.

circae fig. 459

Conus circae "Chem" Sowerby II, 1857-1858, Thes. Conch. 3 39 no. 338, pl. 21 figs. 513-514; variety: pl. 22 fig. 525 (non *C. circae* "Chemnitz")

Type. - Sowerby figured two syntypes from the Cuming collection. These specimens are not present in the type collection of BMNH, but may still be in the general collection.

When rediscovered, a lectotype for *Conus circae* Sowerby can be selected. One of the syntype figures is reproduced here (fig. 459), the dimensions of the shell are about 52×27 mm.

The specimen, considered a variety of *C. circae*, was discovered by the present authors in BMNH. This shell (41.7 x 22.2 mm) belongs also to the syntype series of *C. frauenfeldi* Crosse, 1865.

Type locality. - "Philippines". Sowerby did not give a locality for the variety; the shell was said to be from Madagascar by Crosse (1865: 307).

Remarks. - Sowerby quoted Chemnitz as the author of *C. circae*, because it was not his intention to describe a new species. Because Chemnitz' work was placed on the list of invalid works, Sowerby automatically became the author of *C. circae*. After comparing the type figures it is evident that *C. circae* Sowerby (fig. 459) is distinct from "*C. circae* Chemnitz" (figs. 457-458).

According to Sowerby his shell is different from C. magus Linné, 1758, in "being more solid, swelled near the upper angle and contracted to the centre". At present it is considered a form of C. magus, a polymorphic species in the Indo-Pacific. The shell of C. magus forma circae is identical to the forma raphanus Hwass, 1792, but it has large axial brown dots

Material studied. - ZMA has specimens of C. magus forma circae Sowerby from the Moluccas.

circumactus figs. 422, 432, 460

Conus circumactus Iredale, 1929, Mem. Queensl. Mus. 9: 281

Type. - Because Conus circumactus is a nomen novum for C. cinctus Swainson, 1822 (vide Basteria 47: 121), the type specimen of C. cinctus (fig. 422) is the holotype of C. circumactus.

Type locality. - C. cinctus Swainson has no type locality. Its junior synonym C. pulchellus Swainson, 1822 (non Röding, 1798) was from Amboina (fig. 432). This Moluccan island is herewith designated type locality for C. circumactus.

Remarks. - In one year Swainson described two nominal species, now to be considered only one valid species, which must be named *C. circumactus* (figs. 422, 460). Sometimes the incorrect spelling "circumactis" is used.

Some nominal species are often united with *C. circumactus*; however, we are able to recognize two distinct species amongst these. Typical *C. circumactus* (= *C. cinctus* Swainson, fig. 422) has a straight body whorl, the whorls of the spire are concave and have a deep groove in the middle; the colour pattern consists of two wide orange-yellow bands, below the shoulder and at the base purple stained, the spire is white with few brown spots (cf. colour figure in Walls, 1979: 240 below right).

C. hammatus Bartsch & Rehder, 1943 (fig. 461) is the first available name for the shells with a convex body whorl, the spire whorls straight and grooved; colour pattern with two orange-yellow to brown bands and darker brown axial blotches, spire white with brown blotches, base purple, below the shoulder a white or pink area (cf. the colour figures in Walls, 1979: 240 above and below left).

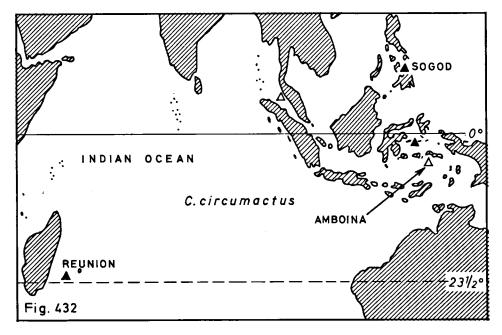


Fig. 432. Known localities of Conus circumactus.

See also C. connectens Adams in this publication (fig. 462).

Distribution. - C. circumactus seems to be rare; only some widely dispersed localities in the Indo-West Pacific are known to us (fig. 432). Da Motta & Lenavat (1979: pl. 4 fig. 11) figured a specimen from W. Thailand (Kantang).

Material studied. - ZMA has specimens from the Moluccas, and from Reunion (Baie de la Possession, 60 m, leg. J.C. Martin). In coll. R.M. Filmer from the Philippines (Sogod). In coll. J. Elsen from Madagascar and the Philippines.

circumcisus figs. 257, 433, 463-464

Conus circumcisus Born, 1778, Index Mus. Vindob. 1:147;1780, Test. Mus. Vindob.: 163

Type. – The specimen described by Born is not present in the Naturhistorisches Museum at Vienna. Kohn (1964: 155, fig. 4) designated a lectotype from the references, viz. the shell figured in Valentyn (1773: pl. 2 fig. 11; Dutch editions were already published in 1726 and 1754). This specimen is present in MHNG (no. 1106/68); measurements 71 x 27 mm (fig. 463). It was figured by Kiener (1845: pl. 62 fig. 1A).

Type locality. - Not mentioned. Valentyn (1754: 67) did not cite a locality for his specimen, but his work described mainly the marine life from around Amboina, Moluccas. We herewith designate the Moluccas type locality of *Conus circumcisus*.

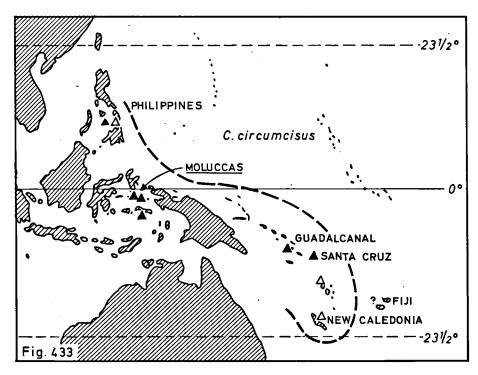


Fig. 433. Distribution of Conus circumcisus.

Remarks. - Typical shells of *C. circumcisus* have an orange-red colour with spiral lines of brown to black dots on the body whorl (fig. 463). It is considered a valid species; *C. affinis* Gmelin, 1791 (vide Basteria 43: 86) and *C. dux* Hwass, 1792, are junior synonyms. The colour form *laevis* Gmelin, 1791, has a cloudy pattern (fig. 464). In forma *brazieri* Sowerby, 1881 (vide Basteria 46: 38-39, fig. 257), the last whorl is without spots. Distribution. - The tropical western Pacific from the Philippines to New Caledonia (fig. 433), offshore to about 100 m. Occurrence at Fiji needs further confirmation. Material studied. - ZMA has specimens from the Moluccas, including Nusa Laut Id. (Siboga sta. 234), and the Solomon Is. (Guadalcanal). In RMNH from the Moluccas; in coll. Wils from the Philippines (Negros), Guadalcanal (Marau Sound), and Santa Cruz.

circumclausus fig. 395

We are grateful to Dr. C. Vaucher for a photograph of the lectotype.

Conus circumclausus Fenaux, 1942, Bull. Inst. Océan. 814: 3, fig. 8

Type. - The present whereabouts of the holotype are unknown (cf. C. cavailloni Fenaux, in Basteria 47: 100). The type figure was reproduced before (fig. 395); the dimensions are 18 x 9½ mm.

Type locality. - "I. Maurice" (Mauritius).

Remarks. – This species was described from only one shell, which is not available for study. Since its description the name *Conus circumclausus* was never used again by other authors. From the type figure and locality it is considered a junior synonym of *C. cernicus* H. Adams (vide Basteria 47: 107).

Mr. M.J. Faber drew our attention to some articles by A. Fenaux in the Journal de Conchyliologie vols. 81 (1937) to 83 (1939), from which it seems that he was connected with the École de Mines in Paris, Dr. J.G.J. Kuiper has informed us that the former shell collection of that institution is at the moment not available, being stored in the university at Lyon.

circumductus

Cucullus circumductus Röding, 1798, Mus. Bolten. 2: 48 no. 611/105

Remarks. - Röding reported two specimens to be in the Bolten collection, which is considered lost. He did not refer to any figure in the literature and only gave a vernacular name "Die weisze Schnur" (the white cord). According to art. 12 (ICZN) Conus circumductus (Röding) is a nomen nudum.

circumpunctatus fig. 465

Conus caribbaeus var circumpunctatus subspec. Nowell-Usticke, 1968, Caribb. Cones: 15, pl. 2 fig. 1002

Type. – In the original description the name *circumpunctatus* was introduced both as a variety and as a new subspecies. A type specimen was not designated. After his work was criticized by Abbott (1969: 147-148), Usticke (1971: 18, pl. 3 fig. 1002) redescribed *Conus circumpunctatus* as a full species, the "holotype" being preserved in his private collection. At present this specimen (fig. 465) is in AMNH (no. 195446); the measurements are 33.6 x 19.1 mm (Usticke: 35 x 20.0 mm).

Since a holotype can only be designated with the original description, and because the type material consisted of more than one specimen from several islands, we herewith designate the specimen mentioned above as lectotype.

Type locality. - Not given with the original description, although Anguilla, Haiti, St. Croix, and Antigua were mentioned as localities. Usticke (1971) designated "Anguilla" type locality.

Remarks. - For the validity of the taxa described by Usticke, we may refer to the Introduction of *Conus* 4 (Basteria 45: 3), and to *C. caribaensis* (in Basteria 47: 90-91).

The lectotype of *C. circumpunctatus* (fig. 465) is a faded shell of *C. daucus* Hwass, 1792, with spiral rows of brown dots on the body whorl. We consider it a colour forma, because the specimens are found together with the nominate form. See also *C. croceus* Sowerby (fig. 556) in this publication.

Material studied. - The lectotype; ZMA has specimens of C. daucus forma circum-

punctatus from the Netherlands Antilles (Aruba and Curação), and from the West Indies in general.

We are grateful to Dr. W.K. Emerson for the loan of the type specimen.

circumsignatus fig. 466

Conus circumsignatus Crosse, 1865, J. Conch. Paris 13: 311-312, pl. 10 fig. 4

Type. - The holotype is present in BMNH (no. 1969526), ex coll. Cuming. The measurements are 30 x 16 mm (fig. 466).

Type locality. - Unknown.

Remarks. - Conus circumsignatus is sometimes identified as C. magus Linné, 1758, a very variable species.

The present authors agree with Walls (1979: 478-479, 308 top figs.) that the holotype of *C. circumsignatus* is a yellowish specimen of *C. floccatus* Sowerby, 1839. An earlier name for the yellow colour form of *C. floccatus* is *C. magdalenae* Kiener, 1845.

Ms. K.M. Way supplied us with a photograph of the type specimen.

circumsisus

Conus circumsisus Solander [in Lightfoot], 1786, Cat. Portland Mus.: 153 no. 3358

Remarks. - Conus circumsisus Solander is considered an incorrect subsequent spelling of C. circumcisus Born, 1778; otherwise it is a nomen nudum.

Solander reported two varieties in the Portland collection. According to Kohn (1964: 160) the present whereabouts of most of the specimens are unknown. There was no locality given, and Solander only indicated that it is a rare shell.

circumvolutus

Cucultus circumvolutus Röding, 1798, Mus. Bolten, 2: 48 no. 613/106

Remarks. - Röding reported one specimen to be in the Bolten collection, which is considered lost. He did not refer to any figure in the literature, and only mentioned a vernacular name, "Die graugrüne Tute" (the grayish green cone). According to art. 12 (ICZN) Conus circumvolutus (Röding) is a nomen nudum.

citrinus figs. 467-468

Conus citrinus Gmelin, 1791, Syst. Nat. 13 ed.: 3389, no. 37

Type. - Gmelin had no specimen available. He only referred to the shell figured in Martini (vol. 2, 1773: pl. 61 fig. 681), which is therefore the holotype of *Conus citrinus*.

The specimen was in the D. Feldmann collection, the present whereabouts of which are unknown. The type figure is reproduced here (fig. 467); measurements 26 x 14½ mm.

Type locality. - "Curacas", this is an error for Curação. Martini (1773: 328) mentioned Kuração.

Remarks. - C. citrinus is considered the yellow colour form of C. regius Gmelin, 1791. ZMA has specimens from the type locality Curação, Netherlands Antilles. In some specimens (fig. 468) the shell is partly coloured like typical C. regius, and partly like the yellow citrinus.

citrinus fig. 469

Conus citrinus Kiener, 1845, Coq. Vivant. 2: pl. 59 fig. 6; 1849: 248-249 (non C. citrinus Gmelin, 1791)

Type. – The holotype was in the Declerc collection; the present whereabouts are unknown. The type figure is reproduced here (fig. 469); the dimensions are $44 \times 23 \text{ mm}$ (Kiener: length 40 mm).

Type locality. - "la mer des Indes, les côtes de l'île de Ceylan" (the Indian Sea, the coasts of the island Ceylon), which localities are erroneous.

Remarks. - Because the name *Conus citrinus* Kiener is a junior homonym of *C. citrinus* Gmelin, 1791, the species was renamed *C. kieneri* Crosse, 1858 (non *C. kieneri* Reeve, 1849).

From Kiener's description and type figure (fig. 469) we conclude that *C. citrinus* must belong to *C. tinianus* Hwass, 1792, from South Africa, a variable species. The shell of *C. citrinus* is orange-yellow; we consider it a junior synonym of the orange-reddish forma aurora Lamarck, 1810 (vide Basteria 45: 38, fig. 167). A lectotype for *C. aurora* was recently designated by Kohn (1981: 315).

The colour and pattern of C. citrinus Kiener reminds one also of C. guineensis lautus Reeve, 1844, but the bulbous shape and reddish apex are characteristic for C. tinianus.

Many authors (Abbott & Dance, 1982: 262; Richard, 1982: 305; Walls, 1979: 342) have placed C. citrinus Kiener (fig. 469) in the synonymy of C. cocceus Reeve (fig. 486). However, the pattern on the body whorl is distinct (spiral vs. irregular), and the spire of C. cocceus is higher and straight.

clandestinatous fig. 470

Conus (Rhizoconus) clandestinatous Shikama, 1979, Sci. Rep. Yokosuka City Mus. 26: 2, pl. 1 figs. 3-4

Type. - The holotype (fig. 470) is in the National Science Museum, Tokyo (no. 60946, ex coll. R. Kawamura). The measurements are 44.0 x 23.2 mm (Shikama: 43.5 x 22.5 mm).

The author mentioned four more specimens in the collections of Kawamura and Shi-

kama. These were not designated paratypes, and only the dimensions of the largest shell are given (48.8 x 23.5 mm).

Type locality. - "South China Sea."

Remarks. - Conus clandestinatous was described in a posthumous publication of T. Shi-kama, the name was misspelt as "clandestinutous" with the figure. The author compared the species to C. voluminalis avus Pilsbry, 1905, a fossil from the Pliocene of Japan.

We have studied the holotype of *C. clandestinatous* and compared it to specimens of *C. macarae* Bernardi, 1857, from W. Thailand, and concluded that these are conspecific. Thus *C. clandestinatous* is a junior synonym of this name.

The present authors are grateful to Dr. A. Matsukuma for the loan of the type specimen.

clandestinus fig. 471

Remarks. - The name Conus clandestinus was used for the first time by Chemnitz (1788, vol. 10: 37-38, pl. 140 fig. 1296), but the "Conchylien-Cabinet" by Martini & Chemnitz was placed on the index of invalid works by the ICZN. Later authors have used clandestinus in the synonymy of other Conidae, which action does not make this name available (ICZN art. 11d).

We have reproduced here the figure from Chemnitz (fig. 471); the dimensions are 51 x 24 mm. The shell was reported from the Chemnitz collection, locality East Indian Seas. Most authors (Dillwyn, 1817: 422; Reeve, 1849, Emendations: 2) consider *C. clandestinus* a junior synonym of *C. magus* Linné, 1758, and we agree with this identification.

Conus shikamai nomen novum fig. 472

Conus clandestinus purpuratus Shikama, 1979, Sci. Rep. Yokosuka City Mus. 26: 2-3, pl. 1 figs. 5-6
[non Conus purpuratus (Röding, 1798)]

Remarks. - Conus clandestinus purpuratus was described from off Taiwan. The subspecies is distinguished from "clandestinus Chemnitz" by coarser spiral brown lines and bluish purple ground colouration". From specimens studied (in coll. J.P. Camp and coll. Wils) it is obvious that C. clandestinus purpuratus Shikama (fig. 472) has no subspecific relation to the shell figured by Chemnitz (fig. 471). Furthermore, the name purpuratus Shikama, 1979, is a junior secondary homonym of C. purpuratus (Röding, 1798).

We herewith propose *Conus shikamai* as a nomen novum for *C. purpuratus* Shikama, 1979. This taxon will be treated later in this series, after more research as regards related congeners from the western Pacific. The problems about these species were already discussed by Röckel (1976: 3-6; 1983: no. 423).

The Japanese malacologist Tokio Shikama was professor at the Geological Institute, Yokohama National University. Since 1963 he described 26 new Conidae, some together with other authors. Shikama passed away in 1978 and his last publication (1979) was posthumous.

clarki figs. 96, 473

Conus clarki Rehder & Abbott, 1951, J. Wash. Acad. Sci. 41: 22, figs. 1-6

Type. - The holotype and one paratype are in USNM (nos. 485740 and 488465), another paratype is in MCZ. The measurements of the holotype are 35.6 x 16.8 mm (fig. 473).

Type locality. - "50 miles south-southwest of Marsh Island, Iberia County, La. (lat. 28° 27.0′ N; long 92° 14.0′ W., in 29 fathoms)". This is the Gulf of Mexico (fig. 96). Remarks. - We have studied the holotype (fig. 473), and conclude that *Conus clarki* is a junior synonym of *C. armiger* Crosse, 1858 (vide Basteria 45: 21, figs. 135-136). We are grateful to Dr. R.S. Houbrick for the loan of the type specimen.

clarus figs. 434, 476-477

Conus clarus E.A. Smith, 1881, Annls. Mag. nat. Hist. (5) 8: 442

Type. - The holotype is in BMNH (no. 81.11.8.1) and the measurements are 26.7 x 14.0 mm (fig. 476).

Type locality. - "West Australia".

Remarks. - The identity of *Conus clarus* has long been misinterpreted in the Australian literature (Coomans & Filmer, in prep.), because the holotype is a faded white specimen, which was not studied by most of the authors. After more material was collected and compared to the type specimen and congeners, *C. clarus* is now considered a valid species. The shell is biconic with a carinate shoulder; the colour is pale pink with light brown patches, aperture rose (fig. 477). The length may reach to over 40 mm.

We agree with Kendrick & Ryland (1981: 3) that C. segravel Gatliff, 1891, from Shoreham, Victoria, is a junior synonym.

Distribution. - C. clarus ranges in the Great Australian Bight from Cape Leeuwin (West Australia) to South Australia and Victoria (fig. 434).

Material studied. - The holotypes of *C. clarus* and *C. segravei*, and specimens in ZMA from Point Leo (Victoria); in coll. Wils from Point Brown (S.A.) and in coll. R.M. Filmer from Albany (W.A.) and west of Kangaroo Island (S.A.).

We are grateful to Ms. K.M. Way and Ms. Joan Phillips for the loan of type material.

classiarius figs. 474-475

Conus classiarius Hwass in Bruguière, 1792, Encycl. Meth.: 705, no. 96

Type. - Hwass had one specimen in his collection, but this shell is not present in MHNG (Mermod, 1947: 176, no. 39). In addition he referred, with a question mark, to a specimen figured in Favanne & Favanne (1780: 462, spec. L., pl. 14 fig. C 5). Kohn

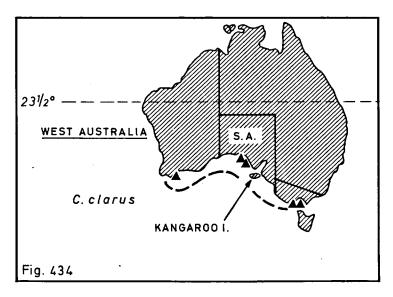


Fig. 434. Distribution of Conus clarus.

(1968: 451-452) demonstrated that the type figure of *Conus classiarius* in the Tableau Encyclopédique (vol. 23, 1798: pl. 335 fig. 7) does not agree with the original description, whereas the figure in Favanne & Favanne depicts a different species (see below). Thus Kohn concluded that no specimen or figure is available for selection as lectotype.

Because the shell figured by Favanne & Favanne does not belong to the type material (ICZN art. 72b), Hwass's original specimen must be considered the holotype of *C. classia-rius*.

Type locality. - "l'Océan asiatique".

Remarks. - Bruguière already stated that the diagnosis of *C. classiarius* by Hwass does not fit the figured specimen in the Tableau, therefore he had given a new diagnosis for the species. The problem, concerning the original description and the figured shell, have caused the misinterpretation of *C. classiarius* by later authors. Marsh (1964: 78, pl. 11 fig. 6) and Eisenberg (1981: 136, pl. 118 fig. 1) consider it a valid species from the Red Sea; however, their specimens are *C. fumigatus* forma blainvillei Kiener (figs: 234-235).

Kohn tentatively placed C. classiarius in the synonymy of C. capitaneus Linné, 1758, and most authors agree with that opinion. The shell figured in the Tableau Encyclopédique is reproduced here (fig. 474); measurements 32 x 19 mm. It represents a specimen of C. capitaneus forma ceciliae (vide Basteria 47: figs. 341-342).

C. "classarius" in Kiener (1845: pl. 63 fig. 3) is an error for classiarius. The figured shell also represents the forma ceciliae Crosse, which is confirmed by Mermod (1947: 176).

The specimen figured by Favanne & Favanne is reproduced here (fig. 475), the dimensions are 19 x 10 mm; the locality was not given. From its shape and pattern this shell can be identified as *C. africanus* Kiener, 1845 (cf. fig. 34). It is possible that Hwass's original specimen also belonged to this taxon.

The present authors prefer to consider *C. classiarius* a nomen dubium to be placed on the list of rejected names for the following reasons: (1) no type specimen is available; (2) there is a discrepancy between description and the figured specimen; (3) therefore no type figure is available; (4) a question mark was added to the single cited reference.

clavatus fig. 430

Cucullus clavatus Röding, 1798, Mus. Bolten. 2: 46, no. 588/87

Type. - The Bolten collection contained two specimens, which are lost. Röding referred to the shell figured in Martini (vol. 2, 1773: pl. 52 fig. 578), which is herewith designated lectotype of *Conus clavatus* (Röding). This specimen is also the lectotype of *C. cinereus* (Röding), vide Basteria 47: fig. 430.

Type locality. - Not mentioned.

Remarks. - Röding did not supply a description of *C. clavatus*, he only named it "die aschgraue Tute" (the ash-grey cone). Kohn (1975: 201) concluded that it is a nomen dubium, being a junior synonym of *C. rusticus* Linné, 1758, a suppressed name.

Because C. clavatus and C. cinereus (Röding) are based on the same lectotype, these names are objective synonyms. As discussed before (Basteria 47: 123), the shell figured in Martini may represent a bulbous specimen of C. cinereus Hwass, 1792.

clavus

Conus clavus Linné, 1758, Syst. Nat. 10 ed., 1: 716, no. 272

Type. - There is no specimen in the Linnaeus collection, and no reference to any figure in the literature.

Type locality. - Not given.

Remarks. - Kohn (1963: 747-748) concluded that *Conus clavus* must be considered a nomen dubium. The case was studied by the I.C.Z.N. (Bull. 2001. Nomencl. 20: 309-312, 1963), and two years later *C. clavus* was placed on the Official Index of Rejected and Invalid Names (Bull. 2001. Nomencl. 22: 226-227, 1965).

"Conus clavus" auct. is C. auricomus Hwass, 1792.

clenchi figs, 478-479

Conus clenchi Martins, 1943, Bolm. Mus. Nacion. (nov. sér.) Zool. 12: 2-4, ill.

Type. – The holotype is present in the Museu Nacional, Rio de Janeiro (no. 11.720); the measurements are 36.2×19.5 mm. It is a dead shell, polished smooth (fig. 478).

Type locality. - "Barra do Furado, Município de Campos, State of Rio de Janeiro, Brazil. At the shore-line."

Remarks. - Martins supplied both a Portuguese and an English description of *Conus clenchi*, of which only one specimen was known to him. In the holotype (fig. 478) the ground colour is golden yellowish brown with a lighter band in the middle, and spirally articulated bars on the body whorl. After more material became available, it was shown that the golden brown colour is generally present in a broad zigzag pattern (fig. 479).

For a number of years *C. clenchi* was considered a valid species. In 1977 Wils studied the type collection of the Conidae in BMNH, and noticed that *C. lemniscatus* Reeve, 1849, was conspecific so that *C. clenchi* became a junior synonym. This view was accepted by Vink (1981 a, b) and by Röckel (1981).

See also under C. clerii in this publication.

We are grateful to Prof. A.C.S. Coelho for the loan of the holotype.

clerii figs. 300, 435, 480-482

Conus clerii Reeve, 1843, Proc. zool. Soc. Lond. 11: 175; Conch. Icon. 1, Conus, pl. 43 spec. 229 (1844)

Type. – The holotype is present in BMNH (no. 1983109); the dimensions are $31.9 \times 15.7 \text{ mm}$ (fig. 480). The type lot contains a second specimen with periostracum, which was neither mentioned nor figured by Reeve.

Type locality. - "Cape St. Thomas, Brazils (found in sandy mud at the depth of thirty-five fathoms)", State of Rio de Janeiro.

Remarks. - Conus clerii is a valid species. The holotype is rather small, but the species may reach a maximum length of 60 mm. The subspecies C. clerii carcellesi Martins, 1945, was discussed before (Basteria 47: 87-89, figs. 300, 353-355).

Some authors unite *C. lemniscatus* Reeve (syn. *C. clenchi* Martins) with *C. clerii* s.s.; both are found on the southeast coast of Brazil. In general *C. lemniscatus* is more slender with a straight body whorl, an almost straight spire and a pattern of spirally articulated bars on the body whorl (fig. 479). *C. clerii* has a slightly concave body whorl with a concave spire; ground colour white with brown axial zigzag pattern, occasionally with some spirally articulated bars (figs. 480-482). The postnuclear whorls are also distinct (Van Mol c.s., 1967: figs. 5-6).

Distribution. - C. clerii s.s. lives off the coast of southeastern Brazil from Bahia to Rio Grande do Sul (fig. 435), offshore at 20-60 m depth. For the range of C. clerii carcellesi see fig. 300.

Material studied. - ZMA has specimens from the States of Rio de Janeiro (off Cabo Frio in 25-30 fms, off Rio de Janeiro in 30 fms), and Rio Grande do Sul (Tramandai). We are grateful to Ms. K. Way for a photograph of the type specimen.

clodianus

Conus mediterraneus var. clodianus "Ch." Nardo, 1847, Sinon. moderna: 41-42, sp. 12

Type. - This variety was originally described and figured in a manuscript by S. "Ch"iereghini in 1802, to which Nardo referred. Chiereghini's collection has been dispersed, and

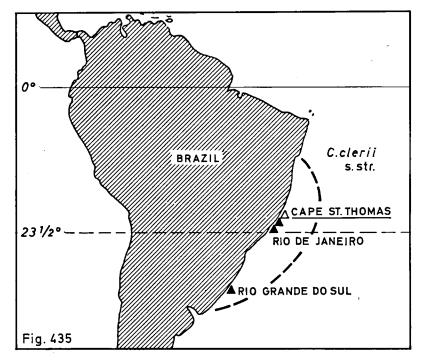


Fig. 435. Distribution of Conus clerii s.str. (cf. fig. 300, distribution of C. clerii carcellesi).

the type material of *clodianus* is considered lost. The specimen figured by Chiereghini is the holotype of the variety *clodianus*.

Type locality. - "nel sedimento della spiaggia di Chioggia" (in sediment on the beach of Chioggia), Gulf of Venice.

Remarks. – The shell of *clodianus* has duplicate spiral lines, with white bands in between, occasionally with dots consisting of very fine yellow stripes. We consider it a junior synonym of the very variable *Conus mediterraneus* Hwass, 1792. It is one of the 13 varieties of this species, described from the Gulf of Venice by Nardo (vide *adriaticus*, *amazonicus*, and *chersoideus* in former issues of this series, and *cretheus* in this part).

Our thanks are due to Mrs. Dr. M.I. Gerhardt for translating the Latin description.

cloveri figs. 448, 483

Conus cloveri Walls, 1978, Pariah 2: 2, 5, ill.

Type. - The holotype is in the Delaware Museum of Natural History; length 25.7 mm. One paratype is in ZMA (no. 3.78.002); measurements 24.5 x 14.3 mm (fig. 483). Other paratype(s) are in collection P.W. Clover.

Type locality. - "Senegal, Dakar, Harbor near Anse Bernard."

Remarks. – Conus soaresi Trovão, 1978, also from Senegal (Gorée and Anse Bernard), is a synonym of C. cloveri. According to the dates on the publication, the first-mentioned is from 15 January 1978, whereas C. cloveri is dated 31 January 1978. However, Walls (1978a: 15) in discussing the publication date of C. soaresi reported that this name was pre-dated, and that the correct date should be between 15 February and 8 March 1978.

This would make C. cloveri the senior name.

C. cloveri is related to C. mercator Linné, 1758, a polymorphic species from West Africa. The main character for separating both nominal species is the colour pattern. In C. cloveri the body whorl has axial brown lines forming a tented design, but the area from shoulder to apex is without any pattern (fig. 483). Sometimes the tent pattern is nearly absent, resulting in a whitish shell. The spire is mucronate.

In view of the variability of *C. mercator* and of the present limited knowledge of *C. cloveri*, we are not yet able to accept it as a valid and distinct species. Sowerby (1857-1858: pl. 18 fig. 428) has figured a specimen of what is now called *C. cloveri*, and considered it a variety of *C. mercator* (shell in BMNH), with which opinion we concur.

Distribution. - C. cloveri is only known from Dakar and Gorée island, Senegal (fig. 448). C. mercator has a larger range on the coast of Senegal.

Material studied. – ZMA has one paratype of *C. cloveri*, donated by Mr. J.G. Walls, and a whitish shell from the type locality was received from Mr. P.W. Clover. The Wils collection contains specimens from Dakar.

clytospira figs. 484-485

Conus (Cylinder) clytospira Melvill & Standen, 1899, Ann. Mag. nat. Hist. (7) 4: 461-463

Type. - Two syntypes are mentioned but not figured, leg. F.W. Townsend. The largest specimen measures 119 x 37 mm (fig. 485), and is deposited in the Manchester Museum; this shell is illustrated by both Melvill & Standen (1901: pl. 21 fig. 12) and by Dance (1966: pl. 25 fig. a). Another specimen is present in BMNH (no. 1900.11.10.56, dimensions 108 x 33 mm, fig. 484); this shell is herewith designated lectotype of *Conus clytospira*.

A specimen in the National Museum of Wales, ex Melvill collection (Dance, 1969: 111-112, pl. 21 fig. b), does not belong to the type material; it was collected by Townsend in 1903.

Type locality. - "Arabian Sea, about 125 miles W.S.W. of Bombay, long. 71°30' to 71°45' E., lat. 18°43' N.; hauled up from 45 fathoms."

Remarks. - C. clytospira is considered a junior synonym of C. milneedwardsi Jousseaume, 1894; this species occurs in the western Indian Ocean from the Arabian Sea to Mozambique (Kohn, 1978: 316).

The authors are grateful to Ms. A. Trew for information, and to Ms. K.M. Way for a photograph of the lectotype.

cocceus figs. 436, 486-487

Conus cocceus Reeve, 1843, Proc. zool. Soc. Lond. 11: 174; Conch. Icon. 1, Conus: pl. 42 spec. 228 (1844)

Type. - Reeve mentioned three specimens from the Cuming collection, which are all present in BMNH (no. 1982230). From the syntypes we designate the shell, figured by Reeve, lectotype of *Conus cocceus*; the measurements are 31.2 x 16.2 mm (fig. 486). The paralectotypes are 38.8 x 20.4 and 29.1 x 15.0 mm.

Type locality. - "New Holland" (Australia), herewith restricted to Geographe Bay, West Australia.

Remarks. - C. cocceus is a valid species. The shell is white to yellow or pale pink, with irregular orange-brown blotches (figs. 486-487).

C. decrepitus Kiener, 1845, also described from New Holland, is a junior synonym of C. cocceus. However, C. citrinus Kiener (see this publication, fig. 469) is not considered conspecific by the present authors.

Distribution. - Endemic to western Australia from N.W. Cape to Albany (fig. 436), intertidal but uncommon (Holeman & McGill, 1970).

Material studied. – The type material. Specimens in ZMA from Geographe Bay, south of Bunbury, and Cowaramup Bay. The collection P.L. van Pel contains two yellow shells from Geraldton.

Our thanks are due to Ms. K.M. Way for a photograph of the lectotype.

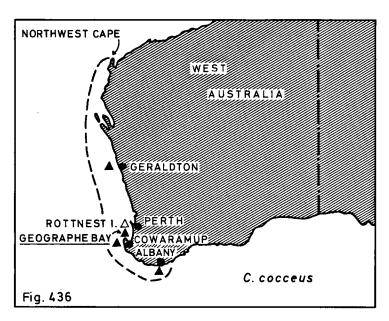


Fig. 436. Distribution of Conus cocceus.

coccineus figs. 437, 489-491

Conus coccineus Gmelin, 1791, Syst. Nat. 13 ed., 1: 3390, no. 46

Type. – Gmelin did not have a specimen available. He only referred to a figure in Knorr (pt. 5, 1771: pl. 24 fig. 2), which shell is lost. The type figure is reproduced here (fig. 489); the measurements are 32 x 15 mm. It is also the type figure of *Conus ammiralis anglicus* Gmelin, 1791, but *C. coccineus* has been selected as the valid name for this species (Kohn, 1964: 78).

We have discussed under *C. anglicus* (vide Basteria 44: 39) that the type figure of *C. coccineus* may give rise to nomenclatorial problems. If one accepts it to represent the Panamic *C. vittatus* Hwass, 1792, this generally used name for a valid species would become a junior synonym. It is therefore in the interests of a stable nomenclature to designate a neotype for *C. coccineus* Gmelin, 1791, which is not identical to *C. vittatus*. The neotype is present in ZMA (no. 3.84.005) and the measurements are 49.4 x 24.3 mm (fig. 490). For a statement of characters we refer to Walls (1979: 343, 346-347).

Type locality. - Not mentioned. The comment by Kohn (1966: 82-83), that Knorr (1771: 37) cited the "West Indies" for the figured specimen, is not correct. This locality referred to C. granulatus. The locality of the neotype, Samar Id., Philippines, automatically becomes the type locality.

Remarks. - C. coccineus is a valid species. Some colour formae were figured in Hawaiian Shell News 30 (5): 4, 1982, and by Estival (1981: figs. 95, 95a); one is also figured here (fig. 491).

C. solandri Brod. & Sow., 1830, is a junior synonym.

Distribution. - C. coccineus lives in the tropical West Pacific from the Philippines to Queensland and New Caledonia (fig. 437); we have no definite locality records from Taiwan and the Ryu Kyu Islands.

Material studied. - ZMA has specimens from the Philippines (Samar) and Indonesia (Moluccas); in RMNH from "Lord Howard" Id.; in Zeemuseum Scheveningen from Zamboanga; in IRScNB from Luzon and New Caledonia. The Wils collection contains specimens from the Philippines (Balut and Samar); in coll. R.M. Filmer from Queensland.

coelebs

Conus coelebs Hinds, 1843, Ann. Mag. nat. Hist. 11: 256; 1844, Zool. voy. Sulphur 2: 7 (as C. caelebs)

Type. - The holotype was in the collection of captain E. Belcher; the length is reported to be 12 lines (25.3 mm). The whereabouts of the specimen are unknown and the shell was not illustrated.

Type locality. - "Ambow, Feejee Islands, on the coral reefs".

Remarks. - One year after its description Hinds stated that Conus coelebs must be regarded a juvenile of C. terebellum Gmelin, 1791 (= C. terebra Born, 1778), thus C. coelebs is a junior synonym of that name.

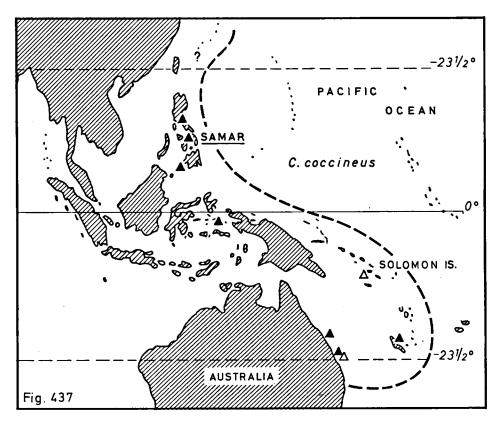


Fig. 437. Distribution of Conus coccineus.

Cernohorsky (1964: 87) stated that this species is very common at the Fiji Islands and he designated these islands type locality for C. terebra.

"C. caelebs" auctt. is only an alternative spelling for coelebs (art. 58 (1) ICZN).

coelinae figs. 438, 492-493

Conus coelinae Crosse, 1858a, Revue Mag. Zool. (2) 10:81; 1858b: 117-119, pl. 2 fig. 1

Type. - The holotype is in IRScNB (no. 10591); the measurements are 115.0 x 56.2 mm (fig. 492).

Type locality. - "Nouvelle-Calédonie" (New Caledonia).

Remarks. - Conus coelinae is a valid species. The name has always been spelt "coelinae"; it appears, however, from his alphabetic list of the Conidae, that Crosse (p. 126)

intended the spelling to be "caelinae". According to ICZN (art. 58) both versions are homonyms.

The type specimen has a somewhat aberrant shell (fig. 492): it is very large, the base is rounded, the colour is white with a slightly purplish base. Generally the shell of *C. coelinae* is smaller (70-90 mm), truncate at the base, yellow to cream coloured with an orange-red to purple base (fig. 493).

The species is related to *C. virgo* Linné, 1758, which grows to a larger size (to 140 mm) and has a violet base. This species is very common and has a large range in the Indo-Pacific. Another relative is the smaller *C. emaciatus* Reeve, 1849, 30-60 mm, also with a violet base and a wide range in the Indo-Pacific.

"C. caelinae" in Barros e Cunha (1933: 95) is an error for coelinae.

Distribution. - C. coelinae has a restricted range, being common at New Caledonia and the Loyalty Islands (fig. 438). The species is reported from some other islands in the Pacific (Kwajalein, Guam), but these localities are doubtful and need verification.

Material studied. - The holotype; ZMA has specimens from New Caledonia (Poindimie).

We are grateful to Dr. J. van Goethem for the loan of the holotype, and to Mr. P. Deleuze for his donation of specimens.

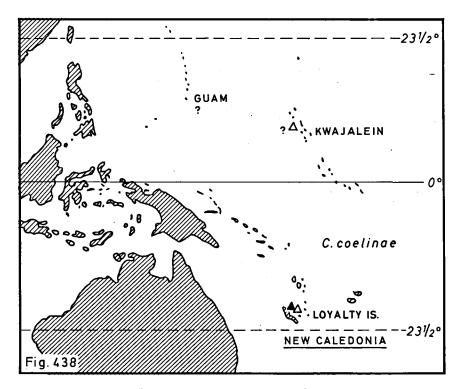


Fig. 438. Distribution of Conus coelinae.

coerulescens fig. 494

Conus coerulescens Schröter, 1803, Arch. Zool. Zoot. 3 (2): 67

Type. - Kohn (1981: 292, fig. 15) recently traced the holotype in the Museum der Natur in Gotha, DDR. The measurements are 52 x 29 mm (fig. 494). We are grateful to Dr. A.J. Kohn for a photograph of the type specimen.

Type locality. - Not given.

Remarks. - We agree with Kohn that Conus coerulescens Schröter is a junior synonym of C. ermineus Born, 1778. Schröter did not refer to C. coerulescens in Chemnitz (1795: 54), although he certainly knew this work; both authors have used the name coerulescens for the same species.

For C. coerulescens, Dillwyn (1817: 368, no. 27) has referred to the shell figured in Chemnitz (1795: pl. 182 figs. 1762-1763). This specimen is also the holotype of C. caerulans Küster; the type figure was reproduced before (in Basteria 47: 68-69, fig. 316), and has been identified as C. ermineus.

C. caerulescens Lamarck, 1810, is a junior homonym of C. coerulescens.

coffeae fig. 314

Conus coffeae Gmelin, 1791, Syst. Nat. 13 ed., 1: 3388, no. 31

Type. - Gmelin only referred to a figure in Martini (vol. 2, 1773: pl. 56 fig. 618), which specimen is therefore the holotype. The type figure was published before (vide Basteria 47: 70-71, fig. 314), being also the lectotype of *C. caffer* (Röding, 1798). The shell was in the Martini collection and its present whereabouts are unknown.

Type locality. - Not given, Martini (1773: 261) did not mention a locality either. Remarks. - Kohn (1966: 83) discussed this species and concluded that *Conus coffeae* should be suppressed as a nomen dubium. A proposal to this effect has been sent to the ICZN by Kohn.

"C. coffea" is an incorrect spelling. "C. coffeae" auct. is C. fumigatus Hwass.

collisus figs. 439, 496-497

Conus collisus Reeve, 1849, Conch. Icon. 1, Conus, suppl.: pl. 8 spec. 273

Type. - Reeve figured one shell from the Cuming collection, which specimen was designated lectotype by Walls (1979: 875); the specimen is not present in BMNH. The type figure is reproduced here (fig. 496); the dimensions are 41 x 20 mm.

In addition Reeve stated that Cuming possessed several examples, differing very much in the pattern of their colouring. In BMNH there is one lot with three shells, ex coll. Cuming, these are considered paralectotypes, since they were mentioned by Reeve. Tom-

lin (1937: 230) indicated that none of these three shells agrees with the type figure, which is confirmed by the present authors.

Type locality. - Unknown. We herewith designate Phuket, Thailand, type locality. Remarks. - Conus collisus is the first available name for a species complex, which is in need of revision. The complex includes C. stigmaticus A. Adams, 1854, C. straturatus Sowerby, 1865, C. mulderi Fulton, 1936, and others.

The shell of *C. collisus* (figs. 496-497) was described as "oblong-conical, rather solid, somewhat inflated; smooth, transversely grooved, grooves distant, upper ones more or less obsolete; spire striately grooved, sharp at the apex; aperture rather broad; whitish, clouded and variegated with fulvous colour".

C. spectrum Linné, 1758, is distinct because of its wider aperture; C. subulatus Kiener, 1845, is more slender with a higher spire and purplish aperture.

C. collisus is a valid species, C. "collitus" in Reeve (1849, Emendations: 5) is a printing error. C. albospira Smith (vide Basteria 43: 98) and C. andamanensis Smith (Basteria 44: 36) were mentioned as junior synonyms.

Distribution. - C. collisus is so far only known to us from the Andaman Sea (fig. 439). Material studied. - The paralectotypes; ZMA has specimens from the type locality. In coll. Wils from the Andaman Sea.

colorovariegatus fig. 495

Conus colorovariegatus Kosuge, 1981, Bull. Inst. Malac Tokyo 1 (6): 94-95, pl. 32 figs. 1-5

Type. – The holotype is in the Institute of Malacology, Tokyo (no. 81-12); the measurements are 63.3×27.4 mm (fig. 495). The author mentioned four more specimens, to be considered paratypes, of which two were figured (dimensions 63.6×27.0 and 60.0×24.4 mm).

Type locality. - "Bohol Island, Philippines".

Remarks. - The holotype of *Conus colorovariegatus* is chestnut brown with white tent marks (fig. 495). In one of the paratypes the tent marks are absent, but in another the marks are dominant.

We have compared the type specimen to *C. neptunus* Reeve, 1843, which was also described from Bohol. It is concluded that these two nominal species are conspecific, so that *C. colorovariegatus* becomes a junior synonym.

Material studied. - The holotype; we are grateful to Dr. S. Kosuge for the loan of this specimen.

colubrinus figs. 439, 498-499

Conus colubrinus Lamarck, 1810, Annls Mus. Hist. nat. Paris 15: 433, no. 163

Type. - A lectotype was designated by Kohn (1981: 318, fig. 43). This specimen is in MNHN (no. 114) and the measurements are 53.5 x 24.5 mm (fig. 498). It was figured by Kiener (1845: pl. 82 fig. 3); the shell has faded.

Type locality. - "mers des grandes Indes" (Indian Ocean).

Remarks. - Richard (1980: 97) placed *Conus colubrinus* in the synonymy of *C. omaria* Hwass, 1792, whereas Kohn identified the lectotype tentatively with *C. pennaceus* Born, 1778. Da Motta (1982: 4) concluded to a nomen dubium, because the lectotype is beach worn and the opinions are so divergent.

The scarce material available to us seems to indicate that *C. praelatus* Hwass, 1792, is the closest relative, but the synonymy cannot be affirmed. When more specimens become available, a definite conclusion may be given.

C. colubrinus in Walls (1979: 233, 351) is C. crocatus Lamarck.

Material studied. - The lectotype, for which we are grateful to Dr. P. Bouchet; ZMA has one specimen from the Moluccas (figs. 439, 499).

columba figs, 500-502

Conus columba Hwass in Bruguière, 1792, Encycl. Méth.: 709, no. 101

Type. – Hwass recognized two varieties in *Conus columba*, one with a rose coloured shell, the other white. Both specimens are not in MHNG (Kohn, 1968: 452-453). Clench (1942: 39) designated the figure in Gualtieri (1742: pl. 25 fig. G) the type figure, which we consider designation of a lectotype. The figure is reproduced here (fig. 500); the dimensions are 29 x 19 mm.

According to Van Benthem Jutting (1959: 200) the collection of Gualtieri is preserved in the museum at Pisa. Dr. M. Curini-Galletti informed us (in litt., 1984) that the Gualtieri collection was in the ancient museum of the University of Pisa. Presently it is in the Certosa di Calci building, and he will try to separate the Gualtieri shells from the bulk of the collection. Results as regards C. columba will be reported on in the future.

Type locality. - "l'océan asiatique". Gualtieri did not mention a locality for his specimen. In recent literature C. columba is recognized as a taxon from the lower Caribbean.

Remarks. - We agree with Kohn's treatment (1968: 452-453, pl. 4 figs. 35-36) of *C. columba*, in accepting Clench's designation to be valid. The species formerly known as "C. columba" can be identified as C. parius, 1844.

Seamon (1968) has discussed *C. columba* and considered it a valid species. Now it is placed in the *C. puncticulatus* complex (Walls, 1979: 816--820; Vink, 1980: 5), as distinct from the *C. jaspideus* complex (Tucker, 1979: 9).

The shell of *C. puncticulatus* Hwass, 1792, is covered with rows of punctuated spots, the aperture is purple inside. The shape is like that of the shell of *C. columba*, and both are found in the southern Caribbean. *C. columba* is pure white, occasionally with brown spots (figs. 501-502), it is considered a colour form of *C. puncticulatus*.

C. perplexus Sowerby, 1857-1858, is the twin species of C. puncticulatus in the eastern Pacific (Gulf of California to Ecuador). The shell of C. perplexus grows to a larger size, but exhibits less variation in colour than its Caribbean counterpart.

Distribution. - C. puncticulatus lives in the Caribbean from the Lesser Antilles to Colombia. The forma columba is locally common, but not found in all populations of C. puncticulatus; in the literature it is mentioned from Guadeloupe and Martinique.

Material studied. – ZMA has specimens of the forma columba from the Netherlands Antilles: Aruba (Westpunt, Malmok, Hadikurari, Basiruti, Pova Beach, Punta Brabu, Paardenbaai, Baby Lagoon), Curaçao, and Bonaire (Lagoen, Lac), and also from the Lesser Antilles: Marie Galante, and Antigua (St. John's Harbour).

comatosa figs. 439, 503-504

Conus comatosa Pilsbry, 1904b, nomen novum, Proc. Acad. nat. Sci. Philad. 56: 550

Type. – Conus comatosa is a new name for Conus dormitor Pilsbry, 1904 (non Solander, 1766). Two syntypes of C. comatosa are present in ANSP (no. 85950), ex Hirase collection; the measurements are $43.5 \times 16.7 \text{ mm}$ (outer lip broken, colour pattern vaguely visible), and $43.8 \times 16.6 \text{ mm}$ (shell worn, outer lip broken).

We herewith designate the described and figured specimen of *C. dormitor* in Pilsbry (1904a: 6, pl. 1 figs. 9, 9a) lectotype of *C. comatosa* (fig. 503).

Type locality. - Mentioned under C. dormitor: "Kikai, Osumi, in a deposit probably Pliocene", S. Japan.

Remarks. – Although C. comatosa was described as a fossil species, recent specimens are known (fig. 504) which on conchological characters cannot be separated from the lectotype. Pilsbry indicated that the specimens show no colour; however, on the last whorl of the lectotype a vague light brown pattern is visible. Under ultraviolet light this pattern appears to be identical to the colour pattern in recent shells. The body whorl in both the type material and in recent specimens is covered with punctured spiral grooves from shoulder to base.

We consider *C. comatosa* a recent and valid species, as was also done by Walls (1979: 236, 355, 358) and other authors.

C. orbignyi Audouin, 1831, seems to be a close relative distinguished by a nodulose shoulder.

Distribution. - From southern Japan to the Philippines (fig. 439), in deeper water. Material studied. - The type material; specimens from the Philippines in ZMA (Bohol, Panglao, 80 fms.), and RMNH (Cebu, Punta Engano, 50-60 fms.).

We are grateful to Dr. G.M. Davis for the loan of the type material.

commodus fig. 505

Conus commodus A. Adams, 1854, Proc. zool. Soc. Lond. 21: 117, no. 9

Type. – Adams reported that the type specimen of *Conus commodus* was present in the Museum Gruner, in Bremen. In 1857 this collection was bought by the German dealer Landauer. Weinkauff (1873-1875: 330-331, pl. 61 figs. 4, 6) stated that his figured shell is the original specimen described by Adams; at that time the shell was in the Von Maltzan collection. The measurements are 31 x 14 mm. Thus the specimen figured by Weinkauff is the holotype; Adams' description agrees with this figure. The Maltzan col-

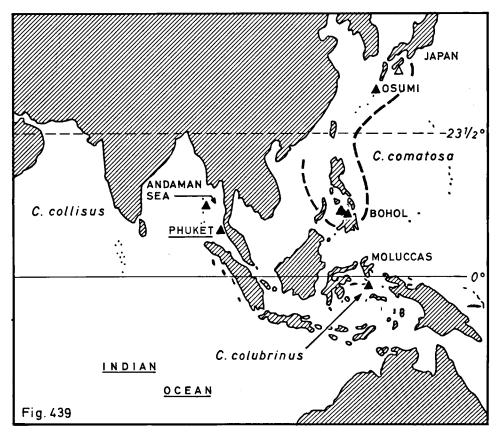


Fig. 439. Known localities of Conus collisus and C. colubrinus, and distribution of C. comatosa.

lection was bought by the Natur Historisches Institut Linnaea in Berlin (a firm of natural history dealers) in 1889 (Dance, 1966: 293), but we do not know what happened to the type specimen of *C. commodus*. The type figure is reproduced here (fig. 505); the measurements are 28½ x 14½ mm.

Type locality. - Unknown.

Remarks. – Adams only supplied a Latin description and the shell was not figured. Therefore *C. commodus* is considered an unrecognizable species in recent literature (Wagner & Abbott, 1978: 25-015; Walls, 1979: 963). The description reads: "Shell elongate, smooth, base grooved, last whorl keeled; spire high, sutures deep, apex pointed; colour white, spire yellow-brown variegated, periostracum brownish yellow."

From type figure and description *C. commodus* appears to be close to a subadult specimen of *C. eximius* Reeve, 1849. However, without a type specimen, the identification of *C. commodus* remains dubious.

We are grateful to Mrs. Dr. M.I. Gerhardt for the translation of the original description.

communis fig. 506

Textilia communis Swainson, 1840, Treat. Malacol.: 312

Type. - Swainson only referred to the Tableau Encyclop. Méth. (Hwass, 1798) pl. 346 figs. 1-5. These five shells must be considered the syntypes of *Conus communis* (Swainson). The figures 1, 3 and 4 represent three valid *Conus* species: *C. archiepiscopus*, *C. aureus* and *C. auricomus* respectively. The figures 2 and 5 depict two shells of the *C. textile* complex; the specimen of fig. 2 (= *C. textile* var. F. in Hwass) is still present in MHNG (Mermod, 1947: 209). It is figured here (fig. 506); the measurements are 68 x 35 mm.

It does not serve taxonomy to select the single available syntype as lectotype of *C. communis*, since by that designation it would reinstate an obscure name. In addition, the taxon to which this shell belongs has recently been named (see below). In order not to disturb the stability of nomenclature, we herewith select as lectotype for *C. communis* the shell depicted in the first mentioned figure, i.e. *C. archiepiscopus* Hwass, 1792.

Type locality. - Not given.

Remarks. – C. communis was an almost forgotten name ("nomen oblitum"), not being mentioned in standard works or species lists of Conidae, except by Kohn & Riggs (1979: 135). The available paralectotype (fig. 506) can be identified as a specimen of the subspecies of C. textile Linné from the Red Sea. These shells are characterized by a rather short and concave spire, straight last whorl, orange-brown colour and large white tent marks. For a long time these shells were named C. vicarius auctores (non Lamarck, 1810 = C. ammiralis L.). Dautzenberg (1937: 255-257) proposed the name C. textile var. abbreviata (after Lamarck, 1822: 524, C. textile var. e, "abbreviata"), but he introduced var. abbreviata as a nomen novum for C. vicarius Lamarck. For this reason, and because his abbreviata is a junior homonym of C. abbreviatus Reeve, 1843, the name abbreviata Dautzenberg cannot be used (vide Basteria 43: 14).

Da Motta (1982: 4-5, fig. 4) described the subspecies from the Red Sea as C. textile neovicarius (holotype in MHNG), also indicating that this name substitutes C. vicarius of authors (non Lamarck, non Linné).

We are grateful to Dr. C. Vaucher for the loan of the paralectotype.

compactus figs. 440, 507

Conus imperialis compactus Wils, 1970, Fam. Conidae: 8, 12, pl. 2 fig. 7

Type. – In the description a number of specimens was mentioned, from which we herewith designate as lectotype the originally figured specimen; the measurements are 71.0 x 43.1 mm (fig. 507). This shell is present in ZMA (no. 3.70.001), ex coll. Wils.

Type locality. - "Nosy Bé, Madagascar".

Remarks. - With the description the year 1969 is mentioned; however, the publication date of this part was 30 January 1970. According to the description the subspecies compactus is distinct from Conus imperialis Linné, 1758, in being shorter but wider, therefore more triangular, body whorl with slightly concave sides, shoulder less coronated. The length/

width ratio is between 1.6 and 1.7; in C. imperialis s.s. this is 1.9 to 2.0. The colour pattern is in regular bands, without an axial design (cf. the figure in Walls, 1979: 369 below right).

"C. compactus" in Weinkauff (1873-1875: 277) is a printing error for complanatus, as was already corrected by Weinkauff (p. 395), hence not a homonym of compactus Wils.

Distribution. - The subspecies *compactus* is known from the coast of East Africa (Kenya to Mozambique, Zanzibar) and N.E. Madagascar (fig. 440). C. imperialis has a very large range in the Indo-Pacific.

Material studied. - The lectotype, and specimens without a locality (ZMA); paralectotypes from Nosy Bé in coll. Wils.

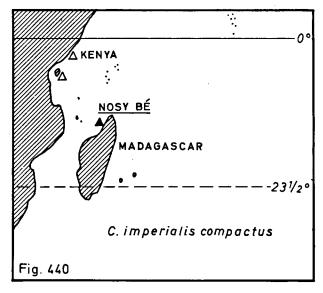


Fig. 440. Known localities of Conus imperialis compactus.

complanatus

fig. 508

Conus complanatus Sowerby II, 1866, Thes. Conch. 3, Conus suppl.: 330 no. 441, pl. 28 figs. 650, 651; 1857-1858: pl. 23 fig. 576 (as C. victoriae)

Type. – There are two specimens in the type lot in BMNH (no. 18741211287), ex coll. T.L. Taylor. The measurements are 52.3 x 29.6 and 47.9 x 26.9 mm. The former is the shell of Sowerby's fig. 650, of which he indicated that it is a variety, being somewhat different in colour pattern from *Conus complanatus*. For this reason the specimen does not belong to the type material (ICZN art. 72). The latter shell in the type lot might be the specimen of Sowerby's fig. 576; this syntype is figured here (fig. 508). The present whereabouts of the remaining syntype (Sowerby's fig. 651) are unknown; dimensions 50 x 27 mm.

Type locality. - "Australia".

Remarks. - Sowerby compared C. complanatus to C. victoriae Reeve, 1843, of which it was said to be distinct by being "broader, flat-topped, more inflated, more finely reticulated and banded". For the time being C. complanatus is considered a form, characterized by an apical angle larger than 90°. Colour and pattern of both C. victoriae and its forma complanatus are very variable.

Material studied. - The type lot in BMNH. ZMA has specimens of *C. victoriae* forma *complanatus*, collected together with the nominate form, from Port Hedland, Cape Kreaudren, and Barrow Island (W. Australia). The range of *C. victoriae* comprises the northwestern coast of Australia, from N.W. Cape to Northern Territory.

The authors are grateful to Ms. K.M. Way for a photograph of the syntype.

compressus figs. 441, 509

Conus compressus Sowerby II, 1866, Thes. Conch. 3: 325 no. 404, pl. 25 figs. 602-603

Type. - The holotype is in BMNH (no. 1879.2.26.2), ex coll. T.L. Taylor. The measurements are 24.8 x 10.6 mm (fig. 509).

Type locality. - Unknown. Kendrick & Ryland (1981: 4) "nominate" (not designate) the Houtman Abrolhos Archipelago, West Australia (fig. 441), the most likely source area for Sowerby's holotype.

Remarks - Sowerby indicated that Conus compressus has "some resemblance to C. anemone Lamarck, but is more solid in texture and the whorls are much more compressed."

Generally "C. compressus" is considered to be the high spired forma of C. anemone (vide Basteria 44: 37-38), although some authors recognize these turreted shells as a valid species. However, both interpretations have recently been shown to be wrong. Kendrick & Ryland (1981: 3-4, figs. 3-5) examined an extensive range of specimens of C. anemone. They concluded that the holotype of C. compressus (fig. 509) represents a local forma of C. anemone from the Houtman Abrolhos Archipelago, and that it bears little resemblance to the turreted shells from South Australia. This conclusion is accepted by the present authors.

The first available name for "C. compressus auct." is C. carmeli Tenison-Woods, 1877 (vide Basteria 47: 92-93, fig. 311). The shell can be recognized by the biconic turreted shape, with straight sides, narrow aperture, and angular shoulders on which a carina is present; uncommonly found off the coast of South Australia and Victoria. C. atractus Tomlin, 1937 (vide Basteria 45: 27, fig. 150) is a junior synonym.

Material studied. - The holotype; we are grateful to Ms. K.M. Way for a photograph of this shell. The collection of R.M. Filmer contains specimens from Wallabi Island, which is just north of Houtman Abrolhos.

comptus fig. 510

Conus comptus Gould, 1853, Boston J. nat. Hist. 6: 387-388, pl. 14 fig. 23

Type. - The type specimen was originally in the Jewett collection, and could not be

traced by Johnson (1964: 32, 58). The type figure is reproduced here (fig. 510); dimensions 31 x 19 mm.

Type locality. - "Santa Barbara", California.

Remarks. - Conus comptus was later identified by Gould (1862: 187) as a worn juvenile specimen of C. purpurascens Sowerby, 1833. This synonymy has been confirmed by other authors.

The type locality of *C. comptus* is probably erroneous, since the range of the species is from the Gulf of California to Peru and the Galapagos Islands.

comptus fig. 512

Conus comptus A. Adams, 1854, Proc. zool. Soc. Lond. 21 (1853): 119, no. 19 (non C. comptus Gould, 1853)

Type. - The holotype is present in BMNH (no. 19601616), ex coll. H. Cuming; its measurements are 20.9 x 12.1 mm (fig. 512). The type specimen is figured here for the first time.

Type locality. - "Natal", which is erroneous.

Remarks. - The original description of *Conus comptus* Adams reads (translated from the Latin): "shell turbinate, somewhat ventricose, smooth and shiny, sulcate at the base; yellowish brown, ornated with a single band of dark brown maculations; the last whorl is convex above but attenuated and curved at the base; outer lip thin and arcuate; spire depressed, whorls of the spire grooved and somewhat nodulose". We may add that the colour of the last whorl of the type specimen has faded to a pale orange-yellow, and the original dark brown spots are now pale brown. In addition there is a light band over the middle; the apex and inside of the aperture are pink. It is a juvenile shell, with a retouched outer lip.

According to the label, and probably based on the type locality, the shell was later identified as *C. aurora* Lamarck. However, after comparing *C. comptus* to juvenile shells of *C. tinianus* forma aurora, we could not confirm the synonymy. We consider *C. comptus* to be a juvenile of *C. anemone* Lamarck, 1810, seemingly close to the forma peronianus Iredale, 1931.

C. comptus Adams is a junior homonym of C. comptus Gould (see above).

We are grateful to Ms. K.M. Way for the loan of the type specimen and to Mrs. Dr. M.I. Gerhardt for translating the Latin description.

concatenatus

fig. 513

Conus concatenatus Kiener, 1845, Coq. Vivant. 2: pl. 110 fig. 1; 1848: 362

Type. – The type specimen was originally in the Lorois collection; the present whereabouts are unknown. The type figure is reproduced here (fig. 513), dimensions 35×17 mm.

Type locality. - Not given.

Remarks. - Kiener stated that Conus concatenatus belongs to the "Drap d'or" (= C. textile) complex. The shell (fig. 513) is characterized by a pattern without the typical tent marks. For this reason the specimens figured in Wagner & Abbott (1978: pl. 3 fig. 7 as C. textile forma concatenatus) and by Da Motta (1981: 3, fig. 8b) are not similar to the type figure in Kiener.

The present authors have never seen any specimen resembling C. concatenatus, so that we are not able to give a well-founded opinion. Therefore C. concatenatus is provisionally considered a valid species.

concatenatus

Conus concatenatus Sowerby III, 1887, Thes. Conch. 5: 249-250; pl. 29 fig. 654
(as C. catenatus)
(non C. concatenatus Kiener, 1845)

Remarks - Conus concatenatus is a typographical error for C. catenatus Sowerby III, 1878 (vide Basteria 47: 97). The name was not introduced as a nomen novum and in addition the correct name C. catenatus was used with the figure.

The shell figured by Sowerby in 1887 is not the holotype of *C. catenatus*. From the figure it can be identified as *C. tornatus* Sowerby I, 1833, this being the reason for the misinterpretation of *C. catenatus* (renamed *C. desmotus* Tomlin, 1937) in the literature.

concinnulus

Conus concinnulus Crosse, 1858, Revue Mag. Zool. (2) 10: 200

Remarks. - Conus concinnulus is a nomen novum for C. concinnus Broderip, discussed below.

concinnus

Conus concinnus Broderip, 1833, Proc. 2001. Soc. Lond. 1833: 53-54 (non C. concinnus J. de C. Sowerby, 1821, a fossil)

Remarks. - Conus concinnus Broderip is a junior homonym and it was renamed C concinnulus Crosse, 1858. Conus dupontii Kiener, 1845, is a senior synonym.

The species does not belong to the Conidae; it is identified as *Parametaria dupontii*, family Columbellidae.

concinnus fig. 511

Conus concinnus Sowerby II, 1866, Thes. Conch. 3, Conus suppl.: 329 no 438, pl. 28 fig. 646 (non C. concinnus J. de C. Sowerby, 1821, a fossil)

Type. – The type specimen was originally in the T.L. Taylor collection, but the present whereabouts are unknown; the shell is not in BMNH. The type figure is reproduced here (fig. 511); the dimensions are 26 x 19 mm.

Type locality. - Unknown.

Remarks. - Conus concinnus Sowerby II is a junior homonym of the fossil C. concinnus J. de C. Sowerby. It was renamed C. sapphirostoma Weinkauff, 1874 (misspelt as "saphyrrostoma" in Weinkauff, 1873-1875: 368).

The description, translated from the Latin, reads: "shell more or less pear-shaped, smooth, grooved at the base, solid; colour purplish with interrupted spiral lines, whorls of the spire keeled and with black spots".

Sowerby added that it is a smoother and neater shell than C. punctatus Chemnitz (= C. biliosus, fig. 231). In recent literature C. concinnus Sowerby is therefore considered a junior synonym of C. biliosus (Röding). Because of the violet-blue colour of the aperture the species was renamed C. sapphirostoma; this may represent the first name for C. imperator (Woolacott, 1956) from Queensland, or C. meyeri Walls, 1979, from S. Africa. Both nominal species belong to the C. biliosus/parvulus complex (vide Basteria 46: 25). We will discuss this further under C. sapphirostoma.

The authors are grateful to Mrs. Dr. M.I. Gerhardt for the translation of the Latin description.

concolor fig. 514

Conus concolor Sowerby I in Sowerby II, 1834, Conch. Ill.: 3, pl. 54 fig. 59

Type. - Conus concolor is a new name for C. unicolor Sowerby I, 1834 (non Sowerby I, 1833). Thus the holotype of C. concolor is identical to the type specimen of C. unicolor Sowerby, 1834. The whereabouts of this shell are unknown. The type figure is reproduced here (fig. 514); dimensions 42 x 24 mm.

Type locality. - Not given.

Remarks. - Sowerby did not supply a description for this species, and his reference to "Z.P." (= Proceedings of the Zoological Society) is not correct. For the identification of C. concolor only the type figure is available, which shows a dorsal view of a light brown shell.

From the type figure we have identified *C. concolor* as a colour form of *C. hyaena* Hwass, 1792. The uniformly brown specimens of the latter should therefore be called *C. hyaena* forma concolor.

concolor fig. 515

Conus pigmentatus concolor Barros e Cunha, 1933, Mem. Est. Mus. zool. Univ. Coimbra (1) 71: 52-53, no. 43

(non C. concolor Sowerby, 1834)

Type. - The holotype is present in the Departemento de Zoologia of the University of

Coimbra, Portugal. The measurements are $22.9 \times 15.1 \text{ mm}$; it is figured here for the first time (fig. 515).

Type locality. - "Mares orientalis - proveniência exacta desconhecida" (Eastern seas, exact locality unknown).

Remarks. - According to Barros e Cunha the subspecies concolor differs from Conus pigmentatus Adams & Reeve, 1848, in its lavender coloured body whorl. The holotype is a worn shell with a white spire and pink apex, the shoulder is coronated.

We must conclude that *C. pigmentatus concolor* is a discoloured specimen of *C. balteatus pigmentatus* (cf. figs. 200-201, 396), having lost the original brown colour. In addition it is a junior homonym of *C. concolor* Sowerby, 1834, which species was also discussed in the work of Barros e Cunha (1933: 173).

We are grateful to Prof. Dr. Maria M.G. Assalino for the loan of the type specimen.

condensus

fig. 516

Conus condensus Sowerby II, 1866, Thes. Conch. 3: 326-327, no. 417, pl. 26 fig. 622

Type. - The type specimen is not in BMNH; the present whereabouts of the shell are unknown. The type figure is reproduced here (fig. 516); dimensions 47 x 20 mm.

Type locality. - "Sandwich Islands", (Hawaii), which is considered erroneous.

Remarks. - Sowerby indicated that *Conus condensus* is a connecting link between the groups of *C. auratus* and *C. textile*. The cylindrical shell has a pale rose ground colour with a pattern of brown tent marks, inside of aperture darker rose.

Although mentioned by Sowerby to have come from Hawaii, shells resembling C. condensus have not been reported from these islands.

ZMA has one specimen of *C. condensus*, from a 19th century collection; its locality "Sandwich Islands" probably was copied from Sowerby. We must conclude that *C. condensus* is a rose coloured slender form of *C. canonicus* Hwass, which species does not occur at Hawaii, but in the Indo-West Pacific ocean (vide Basteria 47: 79-80, figs. 296, 328).

condoriana

Conus minimus Linné, var. condoriana Crosse & Fischer, 1864, J. Conchyl., Paris 12: 334

Type. - The authors mentioned one specimen of 21 x 12 mm, collected by Mr. A. Michau, and probably in his collection. The holotype was not figured and its present whereabouts are unknown.

Type locality. - "Poulo-Condor, dans les trous formés par des polypiers" (island Condor, in holes formed by polyps), in the South China Sea, off Saigon.

Remarks. - The variety condoriana must now be considered a subspecies of C. minimus; the latter is considered a nomen dubium by Kohn (1963: 754). From the dimensions, locality and description (pale coloured, with brown articulated lines, granulated at

the base), the shell is here identified as C. coronatus Gmelin, 1791 (fig. 540), so that C. condoriana becomes a junior synonym.

connectens fig. 462

Conus connectens A. Adams, 1855, Proc. zool. Soc. Lond. 22: 136

Type. - The holotype is in BMNH (no. 1967926), originally in coll. Cuming; the measurements are 54 x 29 mm (fig. 462). The specimen was not illustrated by Adams. Type locality. - "China".

Remarks. - Because the original colours of the holotype have faded, the identity of Conus connectens is questionable. The type locality is hardly of any value for proper identification. Walls (1979: 362) considered it the first available name for C. circumactus Iredale, including C. hammatus Bartsch & Rehder. However, we have discussed in this publication (vide sub C. circumactus) that these are two distinct species. Da Motta (1980: 10) stated that the holotype of C. connectens is an "unrecognizable pinkish beach specimen, not C. pulchellus Swainson or C. circumactus". Provisionally we consider C. connectens unrecognizable.

Material studied. - The holotype; we are grateful to Ms. K.M. Way for the loan of this specimen

consanguineus fig. 517

Conus consanguineus E.A. Smith, 1880, Proc. zool. Soc. Lond. 1880: 478-479, pl. 48 fig. 1

Type. - The holotype is in BMNH (no. 1879.9.6.10), ex T.L. Taylor collection; measurements 87.3 x 48.8 mm (fig. 517).

Type locality. - Unknown.

Remarks. - Smith in his original description compared *Conus consanguineus* to *C. fulvocinctus* Crosse, 1872, to which species it should be closely allied. Tomlin (1937: 233) considered the two conspecific.

The present authors have studied the type specimen (fig. 517) and we agree with Walls (1979: 466) that *C. consanguineus* is a junior synonym of *C. fergusoni* Sowerby, 1873. We are grateful to Ms. K.M. Way for a photograph of the holotype.

consiliarius

Conus consiliarius Solander (in Lightfoot), 1786, Cat. Portland Mus.: 153, no. 3352

Type. - The type shell(s) was (were) sold at the auction of the Portland Museum, and the present whereabouts are unknown.

Type locality. - Not given.

Remarks. - Without a type figure, description, and references, Conus consiliarius is a nomen nudum.

consobrinus

Conus consobrinus G.B. Sowerby I, 1850, Quart. J. geol. Soc. Lond. 6: 45

Remarks. - Conus consobrinus was described as a fossil from the Miocene of Santo Domingo. Petuch (1981: 334) recorded it as a recent species from off Colombia and Venezuela. However, we do not consider these recent shells to be conspecific with the fossil C. consobrinus. We have identified the recent ones as smooth and granulated specimens of C. cedonulli desmotus Tomlin, 1937 (vide C. catenatus in Basteria 47: 97-98).

The lectotype of *C. consobrinus*, designated by Pflug (1961: 62-63, pl. 17 figs. 1-2) is present in BMNH (no. G 83962). The shell is large (65 x 30 mm) with a flaring outer lip and deeply grooved spire whorls. *C. desmotus* is generally smaller, with an almost straight outer lip, and hardly grooved on the spire. *C. consobrinus* may belong to the *C. cedonulli* complex, and represent a fossil ancestor.

consors

figs. 87, 441, 519-521

Conus consors Sowerby I, 1833, in Sowerby II, Conch. Ill. (Conus): 2, pl. 36 fig. 42

Type. - The holotype is not in BMNH and must be considered lost. The type figure is reproduced here (fig. 519), dimensions 62 x 34 mm.

Type locality. - Not given. We herewith designate Singapore type locality.

Remarks. - Sowerby did not supply a description of *Conus consors*. It is generally considered a valid species related to the *C. magus* complex, but distinguished by its heavy and wider shell without a pattern on the spire (figs. 520-521).

The forma anceps (fig. 87) was discussed before (vide Basteria 44: 35).

Distribution. - C. concors is known from the Andaman Sea, Indonesia, and the western Pacific from the Philippines to Eniwetok and New Caledonia (fig. 441). Records from Queensland, East Africa and the Red Sea need confirmation.

Material studied. - ZMA has specimens from Singapore, Indonesia (Sabang, Djakarta Bay, Moluccas and East Flores) and the Philippines; in coll. Wils from the Philippines (Palawan).

conspersus figs, 523-525

Conus conspersus Reeve, 1843. Proc. zool. Soc. Lond. 11: 180; 1844, Conch. Icon. 1, Conus: pl. 47, spec. 262

Type. - The holotype was present in the Gruner collection at Bremen, but the present whereabouts are unknown. The type figure is reproduced here (fig. 523), dimensions 31 x 16 mm. A few years later (Reeve (1849: suppl. pl. 9 spec. 262) stated that the type figure is not very characteristic, and he supplied a new figure of a larger specimen (47 x 26 mm) from the Gubba collection, reproduced here (fig. 524).

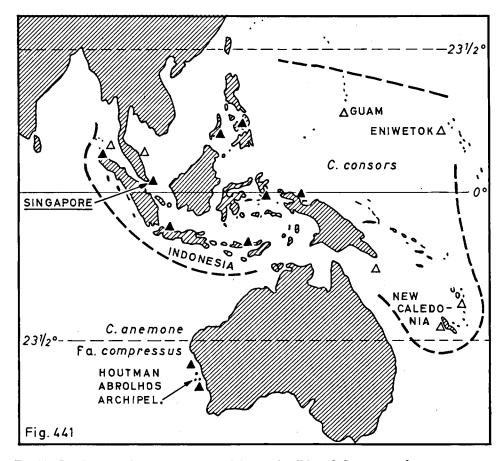


Fig. 441. Distribution of Conus consors, and known localities of C. anemone forma compressus.

Type locality. - Unknown. We herewith designate the Moluccas, Indonesia, type locality. Remarks. - Reeve indicated with the description that *Conus conspersus* "may be recognized by the fine hair lines" on the entire surface. He mentioned *C. verreauxii* Kiener, 1845, to be a junior synonym.

We consider *C. conspersus* a colour form of *C. spectrum* Linné, 1758. A specimen in ZMA (fig. 525) from the Moluccas shows a strong resemblance to the shell figured by Reeve in 1849 (fig. 524).

Material studied. - ZMA has a number of lots of C. spectrum forma conspersus from the Moluccas, including intergrades to C. spectrum s.s.

conspicuus

Conus conspicuus Solander (in Lightfoot), 1786, Cat. Portland Mus.: 167, no. 3623

Type. - The shell(s) was (were) sold at the auction of the Portland Museum; the present whereabouts are unknown.

Type locality. - Not given.

Remarks. - Without a type figure, description or reference, Conus conspicuus is a nomen nudum,

consul fig. 518

Conus consul Boivin, 1864, J. Conchyl., Paris 12: 33-35, pl. 1 figs. 5-6

Type. - The holotype was present in the collection of A. Boivin, but the present whereabouts are unknown. The dimensions are reported to be 43 x 19 mm. The type figure is reproduced here (fig. 518).

Type locality. - Unknown.

Remarks. - Boivin compared *Conus consul*, of which he had only one specimen, to *C. magus* Linné, 1758, a polymorphic species in the Indo-Pacific. The characters in colour pattern and structure identifying *C. consul* are within the range of variability of *C. magus*. It is therefore generally accepted that *C. consul* is a junior synonym of *C. magus*.

contusus fig. 526

Conus contusus Reeve, 1848, Conch. Icon. 1, Conus suppl.: pl. 2 spec. 276

Type. – The holotype is in BMNH; the measurements are 32.6 x 15.2 mm (fig. 526). Type locality. – "Moluccas".

Remarks. - We have studied the holotype; the shell is bluish, stained with orange-yellow, and a lighter band in the middle of the body whorl. An almost identical specimen (35.7 x 16.1 mm) is present in ZMA, also from the Moluccas. We have compared these shells to *C. monachus* Linné, and its colour forma *cinerarius* (Röding), discussed before (vide Basteria 47: 121-122, figs. 423-424). It is concluded that *C. contusus* represents the juvenile stage of the forma *cinerarius*, and thus it is a junior synonym of the latter.

We are grateful to Ms. K.M. Way for a photograph of the holotype, and to Mr. R.M. Filmer for discussing the status of this taxon.

convolutus fig. 527

Conus convolutus Sowerby II, 1857-1858, Thes. Conchyl. 3: 44 no. 380, pl. 23 fig. 564

Type. - Sowerby stated that the type figure represents a specimen from the Cuming collection, but that the colour was added from a shell in the collection of Mrs. Deburgh.

Cuming's shell is present in BMNH and is herewith designated lectotype of *Conus convolutus*. The measurements are 59.3 x 24.0 mm (fig. 527).

Type locality. - Not given.

Remarks. - Sowerby indicated that *C. convolutus* has affinity with *C. omaria* Hwass, but the spire is more elevated and sharp, and the whorls are more closely rolled up. After comparing the lectotype with material of *C. omaria*, in ZMA from several localities, it was concluded that *C. convolutus* may represent an aberrant shell of *C. omaria*.

We are grateful to Ms. K.M. Way for a fotograph of the lectotype.

cooki figs. 94, 528

Conus cooki Brazier, 1870, Proc. zool, Soc. Lond, 1870: 109; J. Conchyl., Paris 18: 300-301

Type. - Brazier described one specimen from his collection, dimensions 10 x 5½ lines (21 x 11 mm); the present whereabouts of this shell are unknown. He mentioned two more specimens in the collection of W.H. Hargraves. None of these three syntypes was figured. The Australian Museum in Sydney has two shells (no. C. 11658), measurements 17.2 x 11.1 and 15.2 x 9.3 mm, considered to be the specimens from coll. Hargraves. We herewith designate the specimen of 17.2 x 11.1 mm as lectotype of *Conus cooki* (fig. 528).

Type locality. - "Captain Cook's Landing-place, Botany Bay; amongst the rocks", this locality belongs to the shell in the Brazier collection. The Hargraves specimens were from "Cape Solander, Botany Bay, New South Wales". With the lectotype designation, the latter becomes the type locality. On the label with the type lot also "Kurnell, Botany Bay" is indicated.

Remarks. - C. cooki is generally considered a junior synonym of C. aplustre Reeve, 1843 (vide Basteria 45: 4, figs. 94, 108). The latter has spirally arranged spotted lines on the body whorl (fig. 108). C. cooki is characterized by axial reddish undulating lines (fig. 528) and we consider it a colour form. Also, the type locality of forma cooki lies within the range of C. aplustre (cf. fig. 94).

Material studied. - The lectotype and one paralectotype; we are grateful to Dr. P.H. Colman for the loan of these specimens.

coralinus fig. 529

Rhizoconus coralinus Habe & Kosuge, 1970, Venus 29: 81, pl. 5 figs. 3-4 (non C. corallinus Kiener, 1845)

Type. - The holotype is in the National Science Museum, Tokyo (no. 37290), ex coll. M. Suzuki; the measurements are 38.4 x 21.5 mm (fig. 529).

Type locality. - "Zamboanga, Mindanao, Philippines".

Remarks. - Before the description in Venus the holotype was figured as *Conus coralinus* Habe & Kosuge, and very briefly described in Japanese by S. K. (= Sadao Kosuge), on the inside cover of Pacific Shell News no. 1 (1970), see Inaba & Oyama (1977: 33). It can be disputed whether this is a valid description.

After studying the holotype of *Conus coralinus* (Habe & Kosuge) we agree with Walls (1979: 401, 626-627) that it represents a reddish specimen of *C. klemae* Cotton, 1953, of which the shell normally is brown. It is known from South and West Australia only, therefore the type locality of *C. coralinus* is doubtful.

According to ICZN, art. 58 (6), the name coralinus Habe & Kosuge is a junior homonym of corallinus Kiener.

We are grateful to Dr. A. Matsukuma for the loan of the type specimen, and for a copy of the preliminary description.

corallinus figs. 442, 530-531

Conus corallinus Kiener, 1845, Coq. Vivant. 2: pl. 73 fig. 2; 1849: 246-247

Type. – The holotype was present in the Dupont collection; the present whereabouts are unknown. The type figure is reproduced here (fig. 530), the dimensions are 27×11 mm (Kiener: length 24 mm).

Type locality. - Not mentioned. We herewith designate Mactan Island, Philippines, type locality.

Remarks. - The identity of *Conus corallinus* has long been unknown, until recently when newly collected specimens were recognized by Röckel (1981: no. 167). It is considered a valid species characterized by a reddish to orange-yellow shell (fig. 531). A specimen from New Britain is figured as "C. luteus" by Walls (1979: 425 below right).

The name Conus corallinus was used by Dillwyn (vol. 1, 1817: 404) in the synonymy of C. coccineus Gmelin, from a manuscript name by Solander. Because names used in synonymy are not available (ICZN art. 11d), "C. corallinus Dillwyn" is an invalid name.

Distribution. - According to Röckel the species occurs in the western Pacific from Okinawa to the Solomon Islands and N. Australia (fig. 442), offshore in depths of 30-150 m.

Material studied. - ZMA has one specimen from the Philippines (Cebu, Mactan, Punta Engano, 80 fms.); in coll. Wils from the Solomon Is. (Santa Cruz).

coralloides fig. 522

Conus coralloides Perry, 1811, Conchology: pl. 25 no. 6

Type. - The holotype, figured by Perry, is considered lost. The type figure is reproduced here (fig. 522); the dimensions are 49 x 27 mm.

Type locality. - "Sumatra and Ceylon".

Remarks. - The description reads: "Shell pale red, striped and variegated with a rich

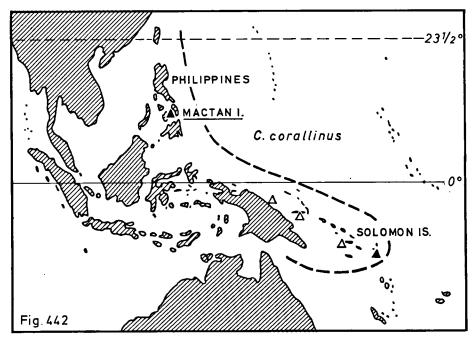


Fig. 442. Distribution of Conus corallinus.

pattern of coral, represented by neat bands, and diversified with stripes of the same colour and with spots of red; mouth of a pale red colour".

Despite the description, type figure, and locality, *Conus coralloides* is unrecognizable. Most of the figures in Perry are unindentifiable. Perry's work was already criticized in the 19th century by Sowerby and Reeve (Dance, 1966: 121).

corbula fig. 532

Conus corbula Sowerby II, 1857-1858, Thes. Conch. 3: 42 no. 365, pl. 23 fig. 573

Type. – The type specimen in BMNH measures 69.5 x 34.5 mm (fig. 532), but according to the type figure the shell is 60 x 30 mm. Although these measurements do not agree, from the shape we suppose that the BMNH specimen is identical to the figured shell.

Type locality. - Unknown.

Remarks. - Sowerby indicated that *Conus corbula* has the typical shape of *C. textile* Linné, but differed in being finely striate and more solid, and by a different colouring. The opinions by recent authors on *C. corbula* are different: (1) a form of *C. abbas* Hwass; (2) an East African subspecies of *C. textile*; (3) a valid species.

The subcylindrical shape and fine reticulate pattern has led us to suggest that *C. corbula* has affinity to *C. canonicus* Hwass (vide Basteria 47: 79-81, figs. 326-328). In fact we consider it an extremely large specimen.

Our thanks are due to Ms. K.M. Way for a photograph of the supposed holotype.

cordigera figs, 443, 535-536

Conus cordigera Sowerby II, 1866, Thes. Conch. 3, appendix: 329 no 437; pl. 21 fig. 498 (as C. nobilis)

Type. – The holotype is in BMNH, measurements 61.9 x 31.6 mm (fig. 535). This specimen was figured before Sowerby's description by Reeve (1843: pl. 1 fig. 2b) as Conus nobilis variety γ , ex. coll. Cuming. The type lot contains two more specimens, measurements 56.8 x 30.1 and 50.6 x 27.1 mm; these shells were not mentioned by Sowerby.

Type locality. - Sowerby indicated "Philippines, Moluccas, etc.". The exact locality on the label in the type lot reads: "Is. of Cuyo, Philippines, Cuming", which locality was already mentioned by Reeve (1843).

Remarks. - Sowerby described C. cordigera (fig. 535) as distinct from C. nobilis Linné, 1758, in having a convex last whorl and a white apex, with the heart shaped white spots close together, and the intervening spaces not crossed by articulated lines. In C. nobilis (fig. 534) the body whorl is straight, the apex pink, the intervening spaces wider and often marked with spiral articulated lines, and the white spots are bordered with a darker line on the front side. Sowerby states that these points of difference are constant, and thus he considered C. cordigera a distinct species. In addition C. nobilis has a purplish base, which is not the case in C. cordigera. Based on the close relationship and disjunct range we prefer a subspecific status.

C. bitleri da Motta, 1984 (fig. 536) is a more stout forma of C. cordigera. Da Motta compared C. bitleri to C. nobilis, and to C. marchionatus Hinds, 1843, from the Marquesas Islands, but he did not mention C. cordigera. The type locality of C. bitleri is Baliungan Island, being within the known range of C. nobilis cordigera.

The C. nobilis complex was discussed in Basteria by Van Benthem Jutting & Van Regteren Altena (1965). They concluded to a disjunct distribution of C. nobilis s.l., viz. the S.W. Philippines, and from the Andaman Islands to the Batu Islands. C. victor Broderip, 1842, was considered a distinct subspecies from the Lesser Sunda Is.; a population from Bali was split off by Da Motta (1982: 8-10, fig. 8) as C. skinneri.

Distribution. – C. nobilis cordigera is restricted to the islands in and around the Sulu Sea (fig. 443). Van Benthem Jutting & Van Regteren Altena (1965: pl. 2) mentioned Cuyo (type locality of cordigera), Palawan, Bancalan, Balabac, Mandi Darrah, and Marudu Bay. To these can be added the islands of the Sulu Archipelago, viz. Siasi Sulu and Baliungan, Tawi Tawi group (type locality of C. bitleri).

Material studied. – The holotype and other shells in the type lot. ZMA has specimens from Siasi Sulu, in coll. Wils from the Cuyo islands, in coll. Herlaar from Balabac. The forma bitleri in coll. Van Pel (Philippines) and J. Elsen (Sulu Archipelago).

Thanks are due to Ms. K.M. Way for a photograph of the holotype and to Mr. A. Verhecken for allowing us to study his material from the Andaman Islands.

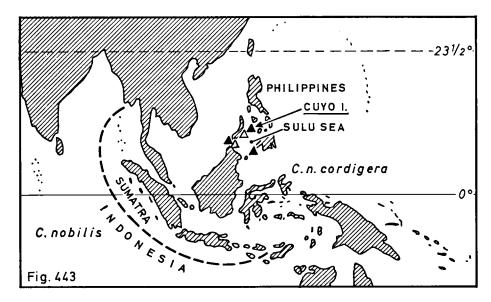


Fig. 443. Distribution of Conus nobilis cordigera, compared to the distribution of C. nobilis.

coromandelicus figs. 444, 533

Conus coromandelicus E.A. Smith, 1894, Ann. Mag. nat. Hist. (6) 14: 159-160, pl. 4 figs. 1-2

Type. - The holotype was originally in the Indian Museum at Calcutta, but at present in the collection of the Zoological Survey of India also in Calcutta. The type figure is reproduced here (fig. 533); the dimensions are 37 x 14 mm.

Smith also mentioned a variety, which cannot be considered a paratype (ICZN art. 72b). This shell is present in BMNH (no. 1894.9.11.26), measurements 33.2 x 14.7 mm.

Type locality. - "Off Coromandel coast, lat. 14° 18′ 15″ N., long. 80° 18′ 30″ E., in 80-110 fathoms". The variety was collected at 15° 4′7″ N 80° 25′7″ E, in 128 fms. These localities are in the Bay of Bengal.

Remarks. - Melvill (1904) discussed the position of Conus coromandelicus; he considered it the living analogue of the extinct genus Conorbis Swainson, 1840 (Cretaceous to Miocene). He studied C. coromandelicus from the Gulf of Oman (25° N 59° E, 180-205 fms.) and placed the species in the Conidae but indicated also the close relation to the Turridae. Because of the shell shape Powell (1942: 170-171; 1966: 95) treated Conorbis with the Turridae. However, he stated that C. coromandelicus might belong to the Conidae; this view was based on the radula (cf. Thiele, 1929: 372, fig. 460) and on the resorption of the inner whorls of the spire.

Up to now there is no definite opinion about the systematic place of C. coromandelicus. With Kohn (1978: 308, fig. 32) we treat the species as belonging to the Conidae.

The variety differs only in having the ridges nearly completely plain instead of nodulous.

Distribution. - Known from the Bay of Bengal and the Gulf of Oman, in deeper water (fig. 444).

Material studied. - Several samples from the Bay of Bengal (in BMNH), for which we are grateful to Ms. K.M. Way.

Dr. N.V. Subba Rao informed us (in litt.) about the transfer of all type material from the Indian Museum to the Zoological Survey of India at Calcutta.

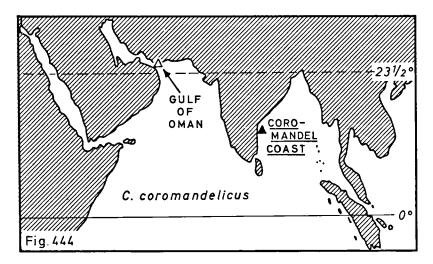


Fig. 444. Known localities of Conus coromandelicus.

coronacivica fig. 537

Cucullus corona civica Röding, 1798, Mus. Bolten. 2: 38, no. 466/3

Type. - Röding reported one specimen to be in the Bolten collection, which is considered lost. Kohn (1975: 201-202, pl. 1 fig. 19) designated the single reference, i.e. the shell figured in Martini (vol. 2, 1773: pl. 61 fig. 678), lectotype of *Conus coronacivica* (Röding). The type figure is reproduced here (fig. 537), dimensions 47 x 27 mm. The specimen was in the Martini collection, but the present whereabouts are unknown.

Type locality. - Not given by Röding. After Kohn's designation of a lectotype, the locality mentioned by Martini (1773: 322-323), "West Indies" became the type locality.

Remarks. - Kohn considered *C. coronacivica* a junior synonym of *C. aurantius* Hwass, 1792. However, from the shape of the shell, the strongly coronated and wide shoulder, the low and concave spire with grooves on the whorls (fig. 537), we identify it as a specimen of *C. regius* Gmelin, 1791 (fig. 468). Thus *C. coronacivica* is a junior secondary synonym of the latter.

C. aurantius (vide Basteria 45: 31, figs. 159-160) has a more elongate shell, a more weakly coronated shoulder, and a straight and higher spire.

coronaducalis fig. 538

Cucullus corona ducalis Röding, 1798, Mus. Bolten 2: 38, no. 464/2

Type. - Röding reported one specimen to be in the Bolten collection, which is considered lost. Kohn (1975: 202, pl. 1 fig. 20) designated the single reference, i.e. the shell figured in Martini (vol. 2, 1773: pl. 62 fig. 693), lectotype of *Conus coronaducalis* (Röding). The type figure is reproduced here, dimensions 51 x 27 mm (fig. 538).

Type locality. - Not given; Martini (1773: 338) mentioned the island of Mauritius as locality for what later became the lectotype.

Remarks. - Martini considered his figured specimen a "second rank C. imperialis", being somewhat distinct from C. imperialis s.s. The first name for these shells is C. fuscatus Born, 1778, which is a subspecies of C. imperialis Linné, 1758.

coronalis

Cucullus coronalis Röding, 1798, Mus. Bolten. 2: 38, no. 478/9

Type. - Röding reported one specimen to be in the Bolten collection, which is considered lost, and he referred to "Gmel sp 39".

Type locality. - Not given.

Remarks. - Kohn (1975: 202) concluded that *Conus coronalis* (Röding) is a junior objective synonym of *C. coronatus* Gmelin, 1791. Because Kohn designated a neotype of the latter (see below, fig. 540), *C. coronalis* can only be a junior synonym.

coronatus figs. 445, 540-542

Conus coronatus Gmelin, 1791, Syst. Nat. 13 ed., 1: 3389, no. 39

Type. – Gmelin had no specimen available, but Kohn (1966: 83-84, pl. 1 figs. 11-12) designated a neotype from the Banks collection in BMNH; this shell measures 27.5 x 16.4 mm (fig. 540).

Type locality. - Not given by Gmelin. The neotype was collected in "Australia", which becomes the type locality.

Remarks. - Conus coronatus is a well-known, very common and variable, and valid species (figs. 540-542). C. aristophanes Sowerby was mentioned before (vide Basteria 45: 19, fig. 132) as a forma; see also C. condoriana in this publication.

Distribution. - The range of C. coronatus covers the entire tropical Indo-Pacific (fig. 445).

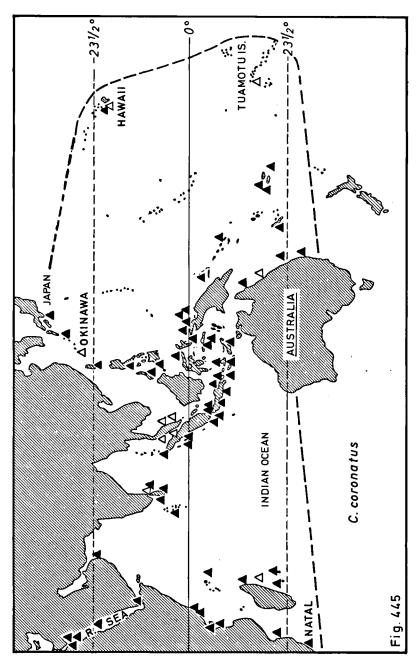


Fig. 445. Distribution of Conus coronatus.

Material studied. - The neotype. ZMA has specimens from many localities in the Red Sea and on the East African coast south to Durban (Natal), Oman, islands in the Indian Ocean, Indonesia, the Philippines, Taiwan, S. Japan, Queensland, and islands in the western and central Pacific.

Thanks are due to Ms. K.M. Way for a photograph of the neotype.

coronatus figs. 77, 119-120

Conus ammiralis coronatus Gmelin, 1791, Syst. Nat. 13 ed., 1: 3379 (non C. coronatus Gmelin, 1791)

Type. - Gmelin had no specimen available, he referred to some figures in the literature, from which Walls (1979: 295) has designated a lectotype of *Conus ammiralis coronatus*. It is the shell figured in Martini (vol. 2, 1773: Vignette 26 fig. 1). This specimen was figured earlier by Argenville (1757: appendix pl. 1 fig. M; 1772: pl. 10 fig. M), see our fig. 119.

Type locality. - Not given. Both Argenville and Martini do not mention a locality either. Remarks. - C. ammiralis coronatus is an objective junior synonym of C. architalassus Solander, 1786, because both taxa are based on the same shell in Argenville's collection. In addition it is a junior homonym of C. coronatus Gmelin, mentioned above.

C. architalassus was discussed before (vide Basteria 44: 31, fig. 77; 45: 10-11, figs. 119-120) and it is considered the granulated forma of C. ammiralis Linné, 1758. Despite its name, the shell is not coronated.

Kohn (1966: 78-79) originally considered *C. a. coronatus* the granulated form, but later (Kohn, 1976: 41-42) he united it with *C. cedonulli* Linné. In discussing this matter, Dr. Kohn informed us that his original opinion is correct.

coronatus fig. 539

Conus coronatus Reeve, 1849, Conch. Icon. 1, Conus suppl. pl. 7 fig. 263 (non C. coronatus Gmelin, 1791)

Type. – The figured holotype is present in BMNH, ex coll. Cuming; the measurements are $9.0 \times 4.6 \text{ mm}$ (fig. 539). The type lot contains two more specimens ($9.1 \times 4.8 \text{ and } 8.6 \times 4.6 \text{ mm}$), but these were not mentioned in the original description. Reeve figured a variety on suppl. pl. 9 fig. 263b.

Type locality. - "Island of Ticao, Philippines (on the reefs)".

Remarks. – Conus coronatus Reeve, 1849, is a junior homonym of C. coronatus Gmelin, 1791. Therefore the species was renamed C. papalis by Weinkauff (1875: 359, pl. 66 fig. 10). It is doubted by many authors whether this species belongs to the Conidae. This taxon will be discussed later under C. papalis.

Ms. K.M. Way kindly supplied a photograph of the holotype.

corrugatus fig. 543

Conus corrugatus Sowerby III, 1870, Proc. zool. Soc. Lond. 1870: 257, pl. 22 fig. 7

Type. – The holotype is in BMNH (no. 1879.2.26.3); the measurements are 19.0×8.8 mm (fig. 543).

Type locality. - Unknown.

Remarks. - The type specimen of *Conus corrugatus* is a juvenile shell, and we are not able to establish its identity. Adult specimens with locality data are needed for an opinion about its taxonomic status.

Thanks are due to Ms. K.M. Way for a photograph of the holotype.

coruscus

Conus coruscus Solander (in Lightfoot), 1786, Cat. Portland Mus.: 153, no. 3352

Type. - The shell(s) was (were) sold at the auction of the Portland Museum and the present whereabouts of the material are unknown.

Type locality. - Not given.

Remarks. - Without a type figure, description, and reference, Conus coruscus is a nomen nudum.

cosmographicus fig. 488

Volute cosmographicus Martyn, 1792, Univ. Conch. 4: fig. 125

Remarks. - Because the volumes of the Universal Conchologist were placed on the list of invalid works (ICZN Opinion 456), Conus cosmographicus (Martyn) is not a valid name. The shell was recorded from the coast of Guinea, so that it may represent a specimen of C. ermineus Born. However, from the figure of C. cosmographicus (fig. 488) the shell can be identified as C. achatinus Gmelin, 1791 (vide Basteria 43:15, figs. 11-13); the measurements are 72 x 35 mm.

costatus fig. 544

Conus costatus Gmelin, 1791, Syst. Nat. 13 ed., 1: 3388, no. 35

Type. - Gmelin had no specimen available and only referred to the shell figured in Gualtieri (1742: pl. 20 fig. 0), which is therefore the holotype. The type figure is reproduced here (fig. 544); the dimensions are 49 x 30 mm. The specimen was in the Gualtieri collection, for information on which we refer to C. columba in this publication.

Type locality. - Gualtieri does not give a locality for this shell.

Remarks. - According to Kohn (1966: 84) Conus costatus Gmelin is unidentifiable, and must be considered a nomen dubium. We are of the opinion that the type figure represents a juvenile shell of the genus Strombus (family Strombidae). Thus "Conus costatus Gmelin" is excluded from the Conidae.

costatus fig. 545

Conus costatus Holten, 1802, Enum. Syst. Conch.: 38, no. 83 (non C. costatus Gmelin, 1791)

Type. - Holten mentioned three specimens in the Chemnitz collection, and he referred to the figures of two of these in Chemnitz (vol. 11, 1795: pl. 181 figs. 1745-1747). The shell of figs. 1745-1746 was designated lectotype by Kohn (1981: 286, fig. 7). The type figure is reproduced here (fig. 545); the dimensions are 65 x 34 mm.

Type locality. - Not given by Holten. Chemnitz (1795: 48) indicated "China".

Remarks. - Conus costatus Holten is a junior homonym of C. costatus Gmelin, 1791 (see above).

The lectotype of *C. costatus* Holten is also lectotype of *C. asper* Lamarck, 1810, designated by Kohn (1981: 314, fig. 7). As discussed before (Basteria 45: 24) these nominal species are junior synonyms of *C. sulcatus* Hwass, 1792. The paralectotype figured in Chemnitz (pl. 181 fig. 1747) shows a granulated shell of *C. sulcatus*, also from China.

For more information on the C. sulcatus complex we refer to C. bocki and C. bretting-hami (vide Basteria 46: 29-30, 39).

Dillwyn (1817, vol. 1: 398) in discussing C. costatus also referred to the same figures in Chemnitz.

couderti fig. 546

Conus couderti Bernardi, 1860, J. Conchyl., Paris 8: 212, pl. 4 figs. 3-4

Type. – The holotype was present in the collection of Mr. Coudert at Bordeaux, but the present whereabouts are unknown. The type figure is reproduced here (fig. 546); the dimensions are 25×15 mm.

Type locality. - Unknown.

Remarks. – Without a type specimen available, and no type locality mentioned, the identity of *Conus couderti* has been a matter of speculation. The description reads in translation: ground colour of last whorl yellow, with three irregular white zones; spire white with radiating brown lines, 10 to 11 stepped whorls with spiral grooves and not coronated.

Since its description C. couderti has been considered a valid species by Sowerby (1866: 327, misspelt C. "conderti"), or identified as a synonym of C. speciosus Sowerby (cf. Weinkauff, 1873-1875: 361), of C. papilliferus Sowerby (cf. Walls, 1979: 779), of

C. magellanicus Hwass (cf. Vink, 1980: 3), or of C. caracteristicus Fischer (cf. Tucker, 1981: 249).

The present authors have noticed a resemblance of *C. couderti* to *C. brasiliensis* Clench (figs. 254-256), and if this relationship can be established as synonymy, *C. couderti* would become the first available name in the complex to which *C. brasiliensis* belongs (see under *C. croceus* Sowerby in this publication).

However, a conclusion concerning the identity of *C. couderti* must be postponed until the type specimen is rediscovered, and conspecific material with locality data has been collected. Therefore we provisionally consider it a nomen dubium.

coxeni figs. 450, 549

Conus coxeni Brazier, 1875, Proc. zool. Soc. Lond. 1875: 34, pl. 4 fig. 10

Type. – The type specimen was originally in the collection of Ch. Coxen at Brisbane, but the present whereabouts are unknown. The type figure is reproduced here (fig. 549); the dimensions were reported to be 15×7 lines (32×15 mm).

Type locality. - "Moreton Bay", Queensland.

Remarks. - Conus coxeni is a colour form of C. cyanostoma Adams (figs. 547-548), distinguished by its axial brown dots and flames on the body whorl. The forma is known from the same area as C. cyanostoma, viz. Queensland and northern N.S. Wales (fig. 450).

Material studied. – ZMA has specimens of the forma coxeni from southern Queensland (Cape Moreton and off Mooloolaba), RMNH from Kingschiff (northern N.S.W.) and Keppel Island.

coxianus fig. 550

Conus coxianus Sowerby III, 1895, Proc. malac. Soc. Lond. 1: 215, pl. 13 fig. 7

Type. – The holotype is in BMNH (no. 1927.9.7.8), ex coll. P.Z. Cox; the measurements are 39.3 x 21.0 mm (fig. 550); unfortunately the outer lip is broken. In the type lot two juvenile Conidae are also present; these shells do not belong to the type material, because Sowerby stated in the original description: "The only specimen I have at present seen".

Type locality. - "Bay of Zeyla, Somaliland".

Remarks. - We have studied the holotype of *Conus coxianus*, which is considered a specimen of *C. acuminatus* Hwass, 1792 (vide Basteria 43: 17-18, figs. 1, 19-23) with an aberrant design of spiral lines on the body whorl (fig. 550). The characteristic tent pattern of *C. acuminatus* can vaguely be observed on the shell of *C. coxianus*.

The type locality is situated within the range of *C. acuminatus*, covering the southern Red Sea and Gulf of Aden (fig. 1). ZMA has recently collected specimens of *C. acuminatus* from the Gulf of Aden, and from Djibouti in French Somalia, which is close to the Bay of Zeyla.

C. "coaxianus" in Wagner & Abbott (1978: 25-015) is a typographical error. Thanks are due to Ms. K. M. Way for the loan of the holotype.

crassus

figs. 350, 551

Conus crassus Sowerby II, 1857, Thes. Conch. 3: 25, pl. 12 figs. 254-255

Type. - Sowerby figured two specimens, and stated that the shell of fig. 255 is an abnormal specimen. Both shells are present in BMNH (no. 1968877), of which Walls (1979: 419) designated the specimen of fig. 254 lectotype of *Conus crassus*. The measurements are 44.2 x 28.8 mm (fig. 551).

Type locality. - "Feejee Islands".

Remarks. - Sowerby described C. crassus as being like C. tessulatus Born, but distinct in the red brown dots, and striated spire. At present it is considered a colour form of C. eburneus Hwass, 1792. The abnormal paralectotype has a more stout shell with a bulging shoulder, and measures 41.3 x 30.6 mm.

One of the varieties of C. característicus Fischer (vide Basteria 47: 86-87, fig. 350) was also identified with C. eburneus forma crassus.

Material studied. - The type material in BMNH, with thanks to Ms. K.M. Way for a photograph of the lectotype. ZMA has specimens of forma crassus from New Caledonia (Noumea), the Solomon Islands (Florida Id.), New Guinea (Hollandia, Biak, Waren, Manokwari), the Moluccas (South Moluccas, Amboina), Sumatra (Atjeh, Idi), Ceylon, and Japan.

crebremaculatus

fig. 552

Conus ammiralis var. crebremaculata Dautzenberg, 1937, Mém. Mus. r. Hist. nat. Belg. hors série 2 (18): 19

Type. - Dautzenberg did not describe the variety crebremaculata from a specimen in his collection. He only referred to some references in the literature, from which we herewith designate the specimen figured by Chemnitz (1788: pl. 141 fig. 1309) lectotype of Conus crebremaculatus. This shell was originally in the Spengler collection, parts of which are now in ZMUC, but this particular specimen has not yet been traced (Dr. J. Knudsen, in litt.). The type figure is reproduced here (fig. 552); the dimensions are 65 x 37 mm.

Type locality. - Not given by Dautzenberg; the locality mentioned by Chemnitz (1788: 58) "Ostindischen Meeren" (East Indian Seas) now becomes the type locality.

Remarks. – Dautzenberg described this variety of *C. ammiralis* Linné, 1758, as characterized by a large number of white dots of different size and shape. As already stated *C. ammiralis* (vide Basteria 44: 30-33) has a wide variation in colour pattern. Some colour formae have been discussed before in this series, see *C. amboinensis* Donovan (fig. 75) and *C. australis* Dautzenberg (fig. 169). *C. crebremaculatus* may be considered another form of *C. ammiralis*.

crebrisulcatus fig. 553

Conus crebrisulcatus Sowerby II, 1857-1858, Thes. Conch. 3: 21 spec. 173 (as crebrisulcus), pl. 14 fig. 321

Type. - The holotype is in BMNH (no. 1982128), the measurements are 12.2 x 6.0 mm (fig. 553). A second specimen in the type lot (12.0 x 5.8 mm) was not mentioned by Sowerby.

Type locality. - Unknown.

Remarks. - The name of this species is generally considered to be *Conus crebrisulcus*, because this spelling was used with the description. However on the original label, with the figure, and in the index it is called *C. crebrisulcatus*; therefore we accept the latter name to be the one intended by Sowerby to be the correct one. According to the ICZN (art. 32a) the printing error "crebrisulcus" must be corrected to *crebrisulcatus*. The name "crebisulcatus" in Walls (1979: 878-879) is another error.

We have studied the holotype and the second specimen in the type lot. These shells are identified as juveniles of the polymorphic *C. jaspideus* Gmelin, 1791. Thus *C. crebrisulcatus* is a junior synonym of that name.

We are grateful to Ms. K.M. Way for the loan of the type material.

crenulatus

Cucullus crenulatus Röding, 1798, Mus. Bolten. 2: 46 no. 581/80

Remarks. - Röding mentioned two specimens in the Bolten collection, which is considered lost. He did not refer to any figure in the literature, and only mentioned a vernacular name "die gerillte Tute" (the ridged cone). It is concluded that *Conus crenulatus* (Röding) is a nomen nudum.

crenulatus fig. 135

Conus crenulatus Kiener, 1845, Coq. vivant. 2: pl. 109 fig. 1; 1849-1850: 355-356 (non C. crenulatus Deshayes, 1835, a fossil)

Remarks. - Because the name *Conus crenulatus* was preoccupied by Deshayes in 1835, Kiener's shell was renamed *C. armiger* Crosse, 1858. The species was discussed under this name (vide Basteria 45: 21, figs. 96, 135-136).

crepusculum fig. 554

Conus crepusculum Reeve, 1843, Proc. zool. Soc. Lond. 11: 178; 1844, Conch. Icon. I, Conus: pl. 45 spec, 251 Type. - The holotype was originally in the collection of J. Adamson, which was auctioned in 1848. The shell is not in BMNH and the present whereabouts are unknown. The type figure is reproduced here (fig. 554); its measurements are 30 x 17 mm.

Type locality. - Unknown.

Remarks. - From the type figure and description *Conus crepusculum* is generally considered a junior synonym of *C. furvus* Reeve, 1843, a variable species from the Philippines.

cretaceus fig. 555

Conus cretaceus Kiener, 1845, Coq. vivant. 2: pl. 99 fig. 1; 1849: 264

Type. - The holotype was originally in the collection of A. Bernardi, later in the Gubba collection at Le Havre. The specimen is not in MNHN and the present whereabouts are unknown. The type figure is reproduced here (fig. 555); its measurements are 33 x 17 mm (Kiener: length 32 mm).

Type locality. - Not given.

Remarks. - The type specimen of *Conus cretaceus* was examined by Reeve (1849, suppl.: 4), who states that it is a bleached shell of *C. mindanus* Hwass, 1792. Description and type figure have caused us to agree with this identification, as was already discussed under *C. agassizii* Dall (vide Basteria 43: 89). Thus *C. cretaceus* is a junior synonym of *C. mindanus*.

cretheus

Conus mediterraneus var. cretheus "Ch." Nardo, 1847, Sinon. moderna: 41-42, sp. 5

Type. - This variety was originally described and figured in a manuscript by S. "Ch"-iereghini in 1802, to which Nardo referred. The shell(s) discussed in this manuscript must be considered the type material of *cretheus*. However, Chiereghini's collection is dispersed (according to H.K. Mienis, in litt. 1978), so that no material is available.

Type locality. - "nelle base delle spongie" (in the base of sponges), Gulf of Venice. Remarks. - The variety cretheus was described as having a smooth and light red shell, covered with very small red spots, and two transverse white bands. When it is not an individual colour pattern in the variable C. mediterraneus Hwass, 1792, than it may be a junior synonym.

See also under C. clodianus Nardo.

Our thanks are due to Mrs. Dr. M.I. Gerhardt for translating the Latin description.

crocatus figs. 446, 558-559

Conus crocatus Lamarck, 1810, Annls. Mus. Hist. nat. Paris 15: 424-425, no. 136

Type. - The unfigured type specimen was in the Lamarck collection and its length was reported to be two inches. A shell in MHNG (no. 1105/93) with dimensions 44 x 20 mm

(fig. 558) and according to Kiener (1845: pl. 52 fig. 3; 1847: 162) from the Lamarck collection, is considered the holotype by Kohn (1981: 318-319, fig. 44).

Type locality. - "mers des grandes Indes" (Indian Ocean).

Remarks. - Conus crocatus is a valid species. Typical shells are cylindrical in shape and are hardly shouldered (figs. 558-559). A population from Raya Island, West Thailand, with broad triangular shells, was described as C. thailandis Da Motta, 1978. Full-grown, large specimens with a wide shoulder were also recorded from New Caledonia (Estival, 1981: 112-113, fig. 112). C. crocatus is misidentified in Walls (1979: 233, 351) as "C. colubrinus".

Distribution. - The central Indian Ocean, and the western Pacific from S. Japan to New Caledonia (fig. 446), uncommon.

Material studied. - ZMA has specimens from Indonesia (Moluccas), Mauritius, and the Solomon Islands (Guadalcanal, Marau Sound). In IRScNB from the Seychelles and Karimata Str., in ZMUC from the Philippines.

ZMA has subsp. thailandis from the Andaman Sea, Raya Id.

Dr. C. Vaucher has kindly sent us a photograph of the holotype and thanks are due to Messrs. J. Elsen and A.J. da Motta for donation of specimens to ZMA.

croceus fig. 556

Conus croceus Sowerby I, 1833, in Sowerby II, Conch. Ill. (Conus): 2, pl. 29 fig. 27

Type. - The whereabouts of the holotype are unknown; the specimen is not in BMNH. The type figure is reproduced here (fig. 556); its measurements are 43 x 26 mm.

Type locality. - Not given.

Remarks. - Sowerby only supplied a figure of *Conus croceus*, originally considered a distinct species. In the later published index to the Conchological Illustrations he mentioned it as a variety of *C. daucus* Hwass, being "lutea, fasciata et punctata" (yellow, banded and punctuate). At present *C. croceus* is placed in the synonymy of *C. daucus*. Because the lectotype of *C. daucus* (fig. 359) is plain orange red, specimens with a pattern like *C. croceus* may be considered a colour forma. See *C. circumpunctatus* Usticke in this publication (fig. 465).

The specimen of C. daucus (fig. 115), which was compared to C. archetypus (fig. 114) in Basteria 45 (1981: 47), shows resemblance with forma croceus.

When discussing C. archetypus Crosse, 1865 (vide Basteria 45: 9-10), it was considered an extreme variant of C. daucus, although characters of C. mayaguensis Usticke were noticed. The latter was included with the complex of C. beddomei Sowerby and C. brasiliensis (vide Basteria 46: 17-18, 38). After studying more material, Vink (1982: 3-4) concluded that the holotype of C. archetypus is identical to specimens from Baia de Todos os Santos, Salvador, State of Bahia, Brazil. Vink designated this bay type locality of C. archetypus. The new facts have caused us to reconsider our opinion about this species, which we now think is conspecific with C. brasiliensis Clench, 1942 (fig. 254)

In this species complex of *C. beddomei* and *C. brasiliensis*, the oldest available valid name is *C. archetypus* Crosse, 1865. However, if, as noticed under *C. couderti* (fig. 546)

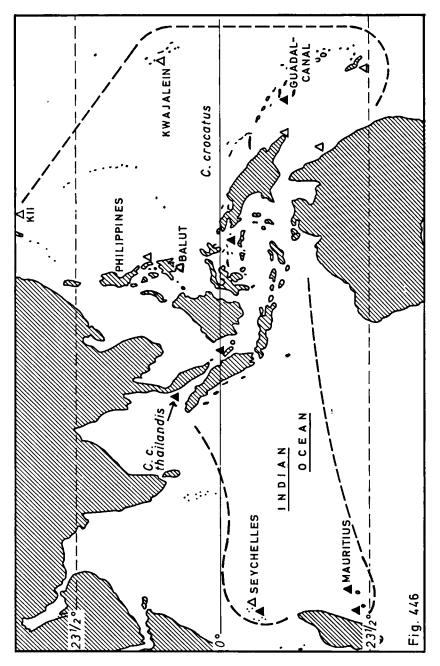


Fig. 446. Distribution of Conus crocatus, including C.c. thailandis.

in this publication, the species can be shown to be conspecific with *C. brasiliensis* (figs. 254-256), the senior name and thus the nominate form in the complex would be represented by *C. couderti* Bernardi, 1860.

croceus fig. 557

Conus croceus E.A. Smith, 1877, Ann. Mag. nat. Hist. (4) 19: 223 (non C. croceus Sowerby I, 1833)

Type. - The holotype is present in BMNH (no. 197775); the measurements are 25.3 x 8.5 mm (fig. 557).

Type locality. - Unknown.

Remarks. - Because the name Conus croceus was preoccupied by Sowerby I in 1833, C. croceus Smith was renamed C. hypochlorus Tomlin, 1937. The species will be discussed under the last mentioned name.

We are grateful to Ms. K.M. Way for the loan of the type specimen.

crosseanus

fig. 447, 561-563

Conus crosseanus Bernardi, 1861, J. Conchyl., Paris 9: 168-169, pl. 6 figs. 5-6

Type. – Bernardi figured two syntypes, the largest of which is in BMNH; this measures 68.8 x 39.4 mm (Bernardi: 66 x 38 mm), and is herewith designated lectotype of *Conus crosseanus* (fig. 561). The smaller specimen was originally in the collection of Mr. Thomas in Brest, presently in AMNH (no. 46865), ex Constable coll. (Richards & Old, 1969: 31). The measurements are 45.0 x 25.2 mm (fig. 562).

Type locality. - "Nova-Caledonia".

Remarks. - C. crosseanus is generally considered to be a form of C. marmoreus Linné, 1758. In the shell of C. crosseanus the dark colour prevails, whereas a number of the white blotches is tinged with blue; the shoulder is hardly coronated, and the shell (up to 90 mm) does not reach the larger sizes (130 mm) of C. marmoreus and C. bandanus Hwass (vide Basteria 46: 9-11).

Crosse (1878: 168-169, pl. 3 fig. 3) described *C. crosseanus* var. *lineata* (non *C. lineatus* Solander, 1766), distinguished by having in addition a number of white spiral lines on the body whorl. However, we also noticed a few white spiral lines on the last whorl in the type material of *C. crosseanus*.

Some authors unite *C. crosseanus* and *C. nigrescens* Sowerby, 1859 (fig. 206) from Samoa. We rather suggest a relation of *C. crosseanus* to *C. bandanus* forma equestris (fig. 205) from the Moluccas. The white blotches in the dark coloured shells of these three nominal species are tinged with blue. In addition, the lectotype of *C. equestris* (Röding, 1798) also has white spiral lines like the forma *lineatus*.

We are of the opinion that C. crosseanus merits subspecific status in the C. bandanus complex.

Distribution. – Estival (1981: 48) states that the population of *C. bandanus crosseanus* is restricted to the Isle of Pines, southeast of New Caledonia (fig. 447). The malacofauna of New Caledonia (including the small satellite islands) also contains other local populations of the *C. marmoreus/bandanus* complex: *C. suffusus* Sowerby, *C. noumeensis* Crosse and *C. pseudomarmoreus* Crosse.

Material studied. – The type material of *C. crosseanus* in BMNH and AMNH, and specimens from Isle of Pines in ZMA and coll. Wils (fig. 563).

Thanks are due to Ms. K.M. Way for a photograph of the lectotype, to Mr. W. Sage for the loan of the paralectotype, and to Mr. J. Elsen for donating specimens to ZMA.

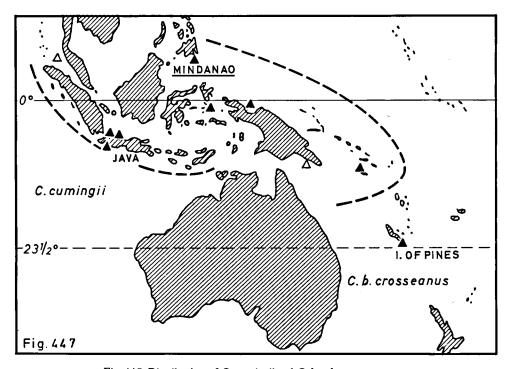


Fig. 447. Distribution of C. cumingii and C. bandanus crosseanus.

crotchii figs. 448, 564-565

Conus crotchii Reeve, 1849, Conch. Icon. I, suppl. Conus: pl. 6 spec. (254) 304

Type. - The figured holotype was originally in the Cuming collection, but at present the specimen is not in BMNH. The type figure is reproduced here (fig. 564); the measurements are 28½ x 16½ mm. The type collection in BMNH contains one lot with three

shells, labelled as "probably syntypes of Conus crotchii". These specimens were not mentioned by Reeve, so that they do not belong to the type material.

Type locality. - "Saldanha Bay, South Africa", which locality is incorrect. We herewith designate "Cape Verde Islands, Boavista, Santa Monica" as corrected type locality for C. crotchii. This is also the type locality of its junior synonym C. poppei Elsen, 1983.

Remarks. - Because of the wrong "type material", C. crotchii has been misinterpreted in the literature (cf. Röckel c.s. 1980: 75-76, fig. 47; Elsen, 1983). Recently live collected specimens were described as C. poppei.

C.crotchii is considered a valid species; it will be discussed in detail by Moolenbeek & Elsen (1984). The species belongs to the complex of Conidae from the Cape Verde Islands, discussed by Röckel c.s. (1980). C. borgesi Trovão (vide Basteria 46: 33-34, figs. 247-248), also from Boavista Island, is considered a colour form of C. crotchii.

Distribution. - Restricted to the Cape Verde Islands: Boavista (fig. 448).

Material studied. – The probable "syntypes" in BMNH, and type material of *C. poppei* in coll. Elsen and Wils. ZMA has one specimen with the false locality "Kaap de Goede Hoop" (Cape of Good Hope), measurements 21.8 x 14.2 mm (fig. 565), resembling the type figure of *C. crotchii* in shape and colour pattern.

crucifer fig. 560

Cucullus crucifer Röding, 1798, Mus. Bolten. 2: 48, no. 617/110

Type. - Röding reported two specimens to be in the Bolten collection, these are probably lost. From the references we herewith designate the shell figured in Martini (vol. 2, 1773: pl. 55 fig. 605) lectotype of *Conus crucifer* (Röding); the dimensions are 61 x 38 mm (fig. 560). The shell was present in the Martini collection.

Type locality. - Not given; Martini (1773: 251) mentioned the "Friedrichsinseln" (= Nicobar Islands).

Remarks. - Kohn (1975: 203) concluded that C. crucifer is a nomen dubium. From the type figure we have identified the shell as C. ermineus Born, 1778.

C. cutisanguina (Röding) is based on the same figure.

cruzensis fig. 566

Conus centurio forma cruzensis subsp. Usticke, 1968, Caribb. Cones: 12-13, pl. 2 figs. 997

Type. – No holotype was designated with the original description, so that the two figured specimens are syntypes; their lengths were reported to be 35 and 40 mm. Three years later Usticke (1971: 17-18, pl. 3 fig. 997) considered the largest shell (then stated to be 39 x 25 mm) "holotype" of *Conus cruzensis*; we herewith designate this shell (fig. 566) lectotype. The specimen was in the collection of Usticke, now deposited in AMNH (no. 195444); the measurements are 37.9 x 23.8 mm. The partly damaged shell (broken outer lip and a hole in the body whorl) was cleverly repaired by somebody.

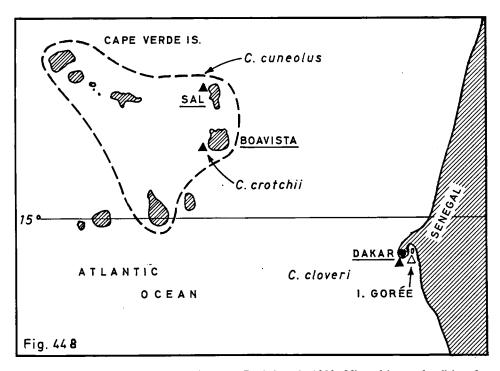


Fig. 448. Distribution of Conus cuneolus (after Röckel et al., 1980: 92), and known localities of C. cloveri and C. crotchii.

Type locality. - The syntypes were from "St. Croix"; later Usticke (1971) emended this to "Ham Bay, St. Croix".

Remarks. - In the original publication C. cruzensis was introduced as a form and as a new subspecies; later the status of a forma was accepted, but with the figure the name is treated as a species.

Usticke (1971: 18, pl. 3 fig. 997 var.) also introduced a variety of *cruzensis*. The same shell was described before (Usticke, 1968: 13, pl. 2 fig. 998) as *C. centurio caribaensis* (vide Basteria 47: 90, fig. 373), which, to say the least, is rather confusing.

We have studied the lectotype of *C. cruzensis* (fig. 556). It appears to be a subadult shell of *C. centurio* Born, 1778 (vide Basteria 47: 104-105), characterized by the zigzag pattern on the body whorl. Therefore *C. cruzensis* is a junior synonym of the latter.

We are grateful to Dr. W.K. Emerson and Mr. W. Sage for the loan of the lectotype.

cumingii figs. 447, 567

Conus cumingii Reeve, 1848, Conch. Icon. I, Conus suppl.: pl. 3 spec. 282

Type. - There are two specimens in the type lot in BMNH, of which only the holotype is described and figured by Reeve; measurements 34.3 x 17.2 mm (fig. 567).

Type locality. - "Island of Mindanao, Philippines".

Remarks. - Conus cumingii is a valid species. It may be confused with C. lachrymosus Reeve, 1849 (considered a forma of C. boeticus Reeve). Both shells are yellowish brown with a pink apex, and are found in the same region. However, C. cumingii grows to a larger size, is wider and has a more regular pattern.

Distribution. - From Indonesia to the Solomon Islands and southern Philippines (fig. 447). Recently reported from Madras, India (Haw. Shell News, Oct. 1984: 10). Records from Hawaii are *C. sazanka* Shikama, 1970 (Kay, 1979: 383).

Material studied. - The holotype. ZMA has specimens from Java (West Java, Wijnkoops Bay, and Tjilauteureun), the Moluccas, and New Guinea (Waren); in coll. Wils from the Solomon Islands (Guadalcanal).

Thanks are due to Ms. K.M. Way for the loan of the type specimen.

cumingii fig. 568

Conus cumingii Reeve, 1849, Conch. Icon. I. Conus suppl. pl. 8 spec. 277 (327) (non C. cumingii Reeve, 1848)

Type. – Reeve indicated that several specimens were collected. The type lot in BMNH contains three syntypes, measuring 53.8 x 16.9, 56.3 x 27.2 mm and 61.1 x 32.1 mm. The smallest specimen (fig. 568) seems to be the shell figured by Reeve, and is here with designated lectotype of *Conus cumingii* Reeve, 1849.

Type locality. - "Salango, West Columbia (at a depth of about seven fathoms)". Remarks. - C. cumingii Reeve, 1849, is a junior homonym of C. cumingii Reeve, 1848, discussed above. A new name is not advisable, because the lectotype is identified as C. virgatus Reeve, 1849, which species also has Salango as type locality.

Material studied. - The type material in BMNH; we are grateful to Ms. K.M. Way for a photograph of the lectotype.

cuneatus fig. 569

Conus cuneatus Sowerby III, 1873, Proc. zool. Soc. Lond. 1873: 146, pl. 15 fig. 5

Type. - The material of the five species described by Sowerby in this publication were obtained by H.C. Roeters van Lennep (1876), a Dutch shell collector (vide Basteria 44: 23, under *C. altispiratus*). At the auction of his collection in 1876 the holotype of *Conus cuneatus* was bought by the Zoological Museum Amsterdam; measurements 33.0 x 20.2 mm (fig. 569).

Type locality. - Unknown.

Remarks. - Since its description no more shells of *C. cuneatus* have been recorded. The type specimen is solid with a triangular shape; last whorl with seven marked ridges at the base; shoulder angulate. The spire consists of 6-7 postnuclear whorls with spiral lines; suture conspicuous and somewhat crenulated; apex worn. Over more than a century the

colour has faded. Originally the body whorl was pale brown with a white band in the middle, with some dark brown, squarish dots in the white band; spire with irregular brown spots. At present the shell is almost white with some vague brown dots and the inside of the aperture very pale violet.

C. cuneatus shows resemblance to C. fumigatus Hwass, and to juvenile C. malacanus Hwass, but it is still uncertain whether they are conspecific. Walls (1979: 50) placed it in the synonymy of C. acuminatus Hwass, but with a question mark. Richard (1983: 16) recorded C. cuneatus as a valid species from the Persian Gulf.

C. cuneatus is provisionally considered a valid species.

Material studied. - The holotype in ZMA (no. 2.73.002).

cuneiformis

fig. 570

Conus cuneiformis E.A. Smith, 1877, Quart. J. Conchol. 1: 202-204, ill.

Type. – Two syntypes are present in BMNH (no. 1982127); the measurements are 25.2 x 14.1 and 28.7 x 15.1 mm, ex coll. Cuming. The smaller specimen (fig. 570) is described and figured by Smith, and herewith designated lectotype of *Conus cuneiformis*. Type locality. – Not given.

Remarks. - The lectotype is white, inside of the aperture violet, apex light brown; the body whorl is grooved from the middle to the base. Because of the colour, Walls (1979: 382) considered *C. cuneiformis* a junior synonym of *C. cyanostoma* Adams, 1854; however, the latter species is generally smaller and different in shape (figs. 547-548).

We have studied shells like the type material of *C. cuneiformis*, some are provided with vague brown markings on the last whorl; Smith mentioned: "faintly tinted with purple". The shells are identified as whitish specimens of *C. inscriptus* Reeve, 1843; this species generally has a brown pattern (vide Basteria 43: 101, middle figure "32", error for fig. 31). We consider it a colour form, *C. inscriptus* forma *cuneiformis*.

Material studied. - The syntypes; ZMA has specimens from off Madras, India.

We are grateful to Ms. K.M. Way for the loan of the type material, and to Mr. H. Saesen for the donation of specimens. Thanks are due to Ms. Anne Thomson for a copy of the original description.

cuneolus figs. 448, 573-574

Conus cuneolus Reeve, 1843, Proc. 2001. Soc. Lond. 11: 173; Conch. Icon. I, Conus: pl. 37 spec. 205 a, b

Type. - Reeve figured two specimens, one from Cuming (spec. 205a), another from the Metcalfe collection (spec. 205b). We do not know the whereabouts of the latter shell. Cuming's specimen is present in BMNH (no. 196180), and herewith designated lectotype of Conus cuneolus; measurements 33.1 x 20.6 mm (fig. 573). The type lot contains two more specimens, not mentioned in the original description, and supposedly added in later years.

Type locality. - Unknown. We designate the Island of Sal, Cape Verde Islands, type locality.

Remarks. - C. cuneolus is a valid species. For reasons discussed with C. balteus Wood (vide Basteria 46: 8, fig. 202) we do not consider the latter to be conspecific with C. cuneolus. Röckel et al. (1980: 92-116) showed the large variation in colour pattern of the species. It seems that nearly every single bay in the Cape Verde Islands contains a population of C. cuneolus with a characteristic pattern. Specimens from Algodoeira Bay (fig. 574) and Mordeiro Bay on the island of Sal agree with the lectotype (fig. 573). The variability of C. cuneolus is emphasized by recent authors (Petuch, 1975; Trovão, 1979; Röckel et al., 1980; Rolan, 1980) by describing a number of "new species", of which the taxonomic status needs further research.

C. anthonyi Petuch (vide Basteria 44: 41, fig. 93), provisionally considered a junior synonym of C. lugubris Reeve, also belongs to the species complex of C. cuneolus. Distribution. – Restricted to the Cape Verde Islands (fig. 448).

Material studied. - The lectotype, and specimens from several localities in the Cape Verde Islands.

We are grateful to Ms. K.M. Way for a photograph of the lectotype, and to Messrs. L.P. Burnay, J. Elsen, E. Rolán, H. Saesen, and G. Saunders for the donation of shells from the Cape Verde Islands to ZMA.

curassaviensis figs. 303, 575-577

Conus cedonulli curassaviensis Hwass in Bruguière, 1792, Encycl. Méth. 1: 602-604

Type. - The type material consists of one shell from the Hwass collection, and four specimens mentioned in the literature.

The Hwass specimen is not present in MHNG, but its figure in the Tableau Encyclopédique (1798, vol. 23: pl. 316 fig. 4) is reproduced here (fig. 575); the measurements are 49 x 24½ mm. From description and figure we suppose that this shell belongs to the St. Lucia population of *Conus cedonulli*. These shells are in general characterized by isolated darker areas (like islands) on a lighter background of the last whorl; they show less than thirty rows of punctuated lines, and a concave spire. The name *C. cedonulli insularis* Gmelin, 1791, may be applied to this population from St. Lucia (see below under type locality).

Hwass has cited the four following references from the literature.

- (1) One specimen in Argenville (1757: 388, suppl. pl. 1 fig. X) of 50 x 24 mm (fig. 576), is from "Curaçao". This shell was present in a Dutch collection (see below). It belongs to the *C. cedonulli* complex, and its origin from the Netherlands Antilles can be confirmed.
- (2) One specimen in Favanne & Favanne (vol. 2, 1780: 441, pl. 16 fig. D 1), called the "Amiral de Curação, brun", is a brown specimen of C. aurantius (cf. fig. 160).
- (3) Two orange-brown specimens in Regenfuss (vol. 1, 1758: 48, 51, pl. 7 figs. 9-10), locality unknown. The shell of fig. 9 resembles *C. cedonulli* and fig. 10 represents *C. aurantius*. Dr. J. Knudsen informed us (in litt. 1984) that some shells, figured by Regenfuss, were traced in Copenhagen, but so far no Conidae.

(4) Four specimens in Seba (vol. 3, 1759: 132, pl. 44 figs. 19-22), no locality stated, were mentioned by Hwass with a question mark, because the shells were not considered to be *C. cedonulli* by Seba. That is correct, at least three can be identified as *C. aurantius* Hwass (vide Basteria 45: 31, figs. 159-160), characterized by a granulated body whorl with a coronated shoulder. The use of a query by Hwass excludes these four shells from the type material.

Thus five specimens must be considered syntypes of Conus cedonulli curassaviensis, of which only one is a shell of C. cedonulli from "Curaçao". Therefore we herewith designate that shell, figured by Argenville, as lectotype of C. cedonulli curassaviensis Hwass (fig. 576). The specimen was in the cabinet of the Rev. C. Chais (1701-1788) at The Hague, Netherlands; it was mentioned in the catalogue of that collection by Meuschen (1766: 30, no. 349). The present whereabouts of the shell are unknown.

Type locality. - "les côtes de l'isle de Curaçao" (the coasts of the island Curaçao). As discussed above, this locality is doubted for the paralectotype which was in Hwass' collection. This opinion is confirmed by Mermod (1947: 172), who states that there is another specimen of the "variety curassaviensis" in MHNG (no. 1104/92), ex coll. Hwass or Sollier. The shell is figured by Chenu (1859, vol. 1: 243, fig. 1453) and it shows the typical insularis-pattern of specimens from St. Lucia.

The locality "Curaçao" and consequently the name "curassaviensis" were taken from the shells figured by Argenville and Favanne & Favanne. The former "colony of Curaçao" included the islands Curaçao, Aruba and Bonaire, which are now part of the Netherlands Antilles. Specimens of C. cedonulli curassaviensis are not from Curaçao, but from the neighbouring island of Aruba (fig. 303).

Remarks. - The name *C. curassaviensis* must be considered of subspecific rank (ICZN art. 45), indicating a taxon belonging to the complex of *C. cedonulli* Linné, 1767 (vide Basteria 47: 102-103). Kohn (1976: 44) provisionally regarded *C. curassaviensis* as of infrasubspecific rank.

The variation in the populations of the C. cedonulli complex at the islands of the Lesser Antilles and the north coast of South America (fig. 303) makes a clear-cut division into subspecies very difficult. The name curassaviensis may be reserved for the populations of C. cedonulli from Aruba. These shells are variable in colour (brown, orange, yellow) and pattern, usually showing large irregular areas like geographical maps, the body whorl is straight to somewhat convex, with about 30 to 50 punctuated spiral lines, and the spire is rather high and straight (fig. 577). We have indicated under C. cedonulli caracanus Hwass (vide Basteria 47: 86, fig. 382) that its holotype may have originated from Aruba also.

Because the type figure of *C. mappa* Lightfoot, 1786 (fig. 578) shows the characters of a specimen from Aruba, we must conclude that *C. cedonulli mappa* is an earlier name for *C. cedonulli curassaviensis*.

Material studied. - ZMA has recently collected specimens from the northwest coast of Aruba (Westpunt, Malmok, Bakval Beach, Hadikurari, and Paardenbaai).

We are grateful to Dr. J. Knudsen for his relevant information.

cutisanguina fig. 560

Type. - Röding referred to five specimens in the Bolten collection. From the references we herewith designate the shell figured in Martini (vol. 2, 1773: pl. 55 fig. 605) lectotype of Conus cutisanguina (Röding); the dimensions are 61 x 38 mm (fig. 560).

Type locality. - Not given. Martini (1773: 251) mentioned the "Friedrichsinseln" (= Nicobar Islands).

Remarks. - C. cutisanguina is a junior objective synonym of C. crucifer (Röding), discussed above, since both are based on the same shell. The type figure is identified as C. ermineus Born, 1778.

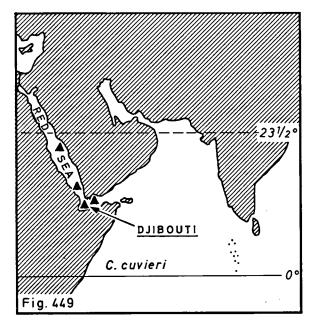


Fig. 449. Distribution of Conus cuvieri.

cuvieri figs. 449, 571-572

Conus cuvieri Crosse, 1858, Revue Mag. Zool. (2) 10: 123

Type. - Conus cuvieri is a nomen novum for C. deshayesii Reeve, 1843 (non Bellardi & Michelotti, 1840, a fossil). Reeve (1843: 168-169) described C. deshayesii, and giving it a "substitute name" for the misidentified "C. cervus" in Sowerby (1838: 3, pt. 147 fig. 94), non C. cervus Lamarck, 1822. Reeve indicated that he knew of a few specimens of C. deshayesii, and in the Conchologica Iconica (vol. 1, 1843: pl. 5 spec. 28) he refigured Sowerby's shell, at that time present in the Stainforth' collection. This specimen was recently traced by us in IRScNB, ex coll. Dautzenberg; it is herewith designated lectotype

of C. deshayesii Reeve, and therefore subsequently also of C. cuvieri. The shell will be figured under C. deshayesii in the next issue of this series.

Type locality. - "Swan river", Australia, which is erroneous. We designate Djibouti in the Gulf of Aden as corrected type locality.

Remarks. - C. cuvieri is a valid species. The colour pattern is rather variable, but the thin shell with anteriorly wide aperture is characteristic (figs. 571-572).

Distribution. - Red Sea and Gulf of Aden (fig. 449).

Material studied. - The lectotype. ZMA has specimens from the Bay of Obock (Djibouti) and Saudi Arabia (Jeddah). In IRScNB from Aden and Erythrea (Massaua); in BMNH from Aden.

cyanostoma figs. 450, 547-549

Conus cyanostoma A. Adams, 1854, Proc. zool. Soc. Lond. 1853: 116

Type. - The holotype is in BMNH; measurements 27.0 x 15.2 mm (fig. 547).

Type locality. - "West Africa", which locality is erroneous. Hedley (1906: 309) reported that the species is from East Australia. We herewith designate Keppel Bay, Queensland, as corrected type locality.

Remarks. - Conus cyanostoma is a valid species. Typical shells are bluish grey with the inside of the aperture dark violet; body whorl with spiral grooves from shoulder to base (figs. 547-548).

C. coxeni (see this publication, fig. 549) is a colour form with brown blotches.

Distribution. - Restricted to Queensland and northern New South Wales (fig. 450), in moderately deep water.

Material studied. - The holotype; we are grateful to Ms. K.M. Way for a photograph of this shell. ZMA has specimens of typical *C. cyanostoma* from Great Keppel Island, Keppel Bay, and off South Keppel (Queensland). In coll. Wils from northern Queensland.

cylindraceus figs. 451, 579-580

Conus cylindraceus Broderip & Sowerby I, 1830, Zool. J. Lond. 5: 51, suppl. pl. 40 fig. 5

Type. - The holotype was described from material collected by the "Blossom"; the present whereabouts of the shell are unknown. The type figure is reproduced here (fig. 579); it measures 35½ x 12 mm.

Type locality. - Unknown. We herewith designate New Caledonia type locality. Remarks. - Conus cylindraceus is a valid species, distinguished from almost all other Conidae by its remarkable shape (fig 579-580).

Distribution. - The entire tropical Indo-Pacific from East Africa to Midway and French Polynesia (fig. 451), but not common. The species is not reported from the northern Indian Ocean.

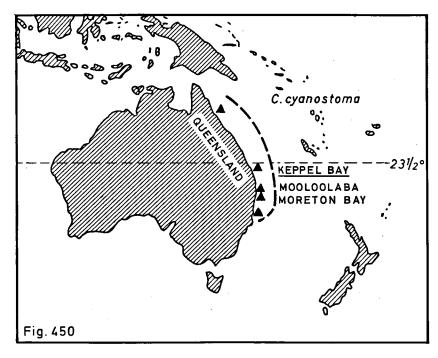


Fig. 450. Distribution of Conus cyanostoma including the forma coxeni.

Material studied. – In ZMA from Indonesia (Moluccas); IRScNB has specimens from New Caledonia (Lifou, Ile des Pins), the Society and Tuamotu Islands; in BMNH from Zanzibar, Chagos (Peros Bankos), and Savage Islands (= Niue).

SUMMARY

Based on the type material and the original descriptions, on the *Conus* collection of the Zoological Museum Amsterdam and other museums and private collections, the (sub)specific names in the recent Conidae are revised. Illustrations and distribution maps are supplied. In the seventh part the following *Conus* names are discussed:

cingulatus Lam. - valid species - Panama to Venezuela; Santa Marta, Colombia, designated corrected type locality.

cingulatus Sow. - junior homonym; junior synonym of C. adamsonii Brod. - range extension mentioned.

cingulum Gmel. - junior synonym; an aberrant C. quercinus Sol.

(circae Chemn.) - invalid name - specimen traced and identified as C. magus L.

circae Sow. - form of C. magus L.

circumactus Ired. - new name for C. cinctus Swains. - valid species - Indo-West Pacific; Amboina designated type locality.

circumcisus Born - valid species - W. Pacific; Moluccas designated type locality.

circumclausus Fenaux - junior synonym of C. cernicus Ads.

circumductus (Rod.) - nomen nudum.

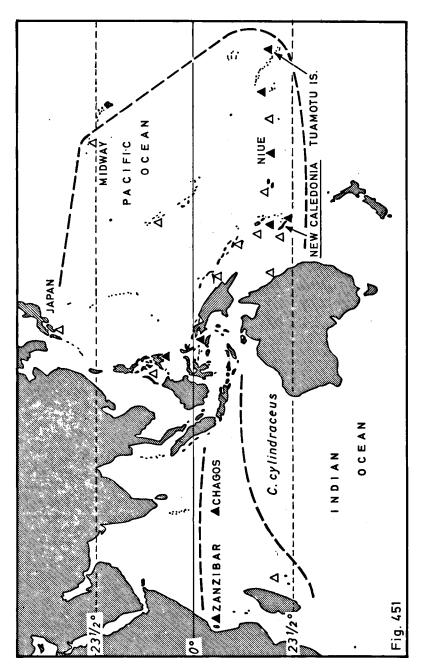


Fig. 451. Distribution of Coms cylindraceus.

```
circumpunctatus Ust. - colour form of C. daucus Hw.; lectotype designated.
circumsignatus Crosse - junior synonym of C. floccatus forma magdalenae Kiener.
circumsisus Sol. - incorrect spelling of C. circumcisus Born.
circumvolutus (Röd.) - nomen nudum.
citrinus Gmel. - colour form of C. regius Gmel.
citrinus Kien. - junior homonym, renamed C. kieneri Crosse (non Reeve); junior synonym of C. tinla-
   nus forma aurora Lam.
clandestinatous Shik. - junior synonym of C. macarae Bernardi.
(clandestinus Chemn.) - invalid name; is C. magus L.
clandestinus purpuratus Shikama - junior secondary homonym of C. purpuratus (Röd.) - here renamed
   C. shikamai.
clarki Rehd. & Abb. - junior synonym of C. armiger Crosse.
clarus Smith - valid species - S.W. Australia to Victoria.
classiarius Hw. - nomen dubium.
clavatus (Röd.) - junior synonym of C. cinereus Hw.; lectotype designated.
(clavus L.) - suppressed name.
clenchi Martins - junior synonym of C. lemniscatus Rve.
clerii Rve - valid species - S.E. Brazil.
clodianus Nardo - junior synonym of C. mediterraneus Hw.
cloveri Walls - possibly a form of C. mercator - Dakar, Senegal.
clytospira Melv, & Stand, - junior synonym of C. milneedwardsi Jouss.; lectotype designated.
cocceus Rve - valid species; lectotype designated - W. Australia; Geographe Bay designated restricted
   type locality.
coccineus Gmel. - valid species; neotype designated - W. Pacific; Samar, Philippines, becomes type
   locality.
coelebs Hinds - junior synonym of C. terebra Born.
coelinae Crosse - valid species - New Caledonia.
coerulescens Schröter - junior synonym of C. ermineus Born.
coerulescens Dillwyn - junior homonym; junior synonym of C. ermineus Born.
coffeae Gmel. - nomen dubium.
collisus Rve - valid species - Andaman Sea; Phuket, Thailand, designated type locality,
colorovariegatus Kosuge - junior synonym of C. neptunus Rve.
colubrinus Lam. - possibly a valid species, or junior synonym of C. praelatus Hw.
columba Hw. - colour form of C. puncticulatus Hw.
comatosa Pilsbry - new name for C. dormitor Pilsbry (non Sol.); valid species; lectotype designated -
   S. Japan to Philippines.
commodus Ads - nomen dubium.
communis (Swainson) - "nomen oblitum"; lectotype designated; junior synonym of C. archiepiscopus
   Hw.; one paralectotype is C. textile neovicarius da Motta.
compactus Wils - subspecies of C. imperialis L.; lectotype designated - East Africa.
compactus in Weinkauff - printing error for C. complanatus.
complanatus Sow. - form of C. victoriae Rve.
compressus Sow. - a local forma of C. anemone Lam. - W. Australia.
compressus auct. - is C. carmeli Ten.-Woods - S. Australia and Victoria.
comptus Gould - junior synonym of C. purpurascens Sow.
comptus Ads - junior homonym; junior synonym of C. anemone Lam.
concatenatus Kien. - provisionally valid species - locality unknown.
concatenatus in Sow. - printing error for catenatus Sow.
(concinnulus Crosse) - nomen novum for C. concinnus Brod.; is Parametaria dupontii (Kiener), fam.
   Columbellidae.
(concinnus Brod.) - junior homonym of C. concinnus J. de C. Sow., a fossil - renamed C. concinnulus
   Crosse.
concinnus G.B. Sow. - junior homonym; renamed C. sapphirostoma Weink.
concolor Sow. - nomen novum for C, unicolor Sow.; colour form of C, hyaena Hw.
concolor Barr, e Cunha - junior homonym; junior synonym of C. balteatus pigmentatus Ads & Rve.
condensus Sow. - form of C. canonicus Hw.
condoriana Crosse & Fisch. - junior synonym of C. coronatus Gmel.
```

```
connectens Ads - identity not yet established; perhaps C. circumactus Ired.
consanguineus Smith - junior synonym of C. fergusoni Sow.
consiliarius Sol. - nomen nudum.
(consobrinus Sow.) - Miocene fossil from Santo Domingo.
consors Sow. - valid species - Central Indo-Pacific; Singapore designated type locality.
conspersus Rve - colour form of C. spectrum L. - Moluccas designated type locality.
conspicuus Sol. - nomen nudum.
consul Boivin - junior synonym of C. magus L.
contusus Rve - junior synonym of C. monachus forma cinerarius (Röd.).
convolutus Sow. - perhaps an aberrant C. omaria Hw.; lectotype designated.
cooki Braz. - colour form of C. aplustre Rve; lectotype designated.
coralinus (Habe & Kosuge) - junior homonym; junior synonym of C. klemae Cotton.
corallinus Kien. - valid species - western Pacific; Mactan Id., Philippines, designated type locality.
coralloides Perry - unrecognizable.
corbula Sow. - junior synonym of C. canonicus Hw.
cordigera Sow. - subspecies of C. nobilis L. - Sulu Sea - C. bitleri da Motta, 1984, is a form of cordigera.
coromandelicus Smith - valid species - Bay of Bengal and Gulf of Oman.
coronacivica (Röd.) - junior synonym of C. regius Gmel.
coronaducalis (Röd.) - junior synonym of C. imperialis fuscatus L.
coronalis (Rod.) - junior objective synonym of C. coronatus Gmel.
coronatus Gmel. - valid species - tropical Indo-Pacific.
coronatus Gmel. - junior homonym; objective junior synonym of C. ammiralis forma architalassus
coronatus Rve - junior homonym; renamed C. papalis Weinkauff,
corrugatus Sow. - a juvenile Conus, identity not established.
coruscus Sol. - nomen nudum.
(cosmographicus Martyn) - an invalid name.
(costatus Gmel.) - not a Conus species; a juvenile Strombus, fam. Strombidae.
costatus Holten - junior homonym; junior synonym of C. sulcatus Hw.
couderti Bern. - provisionally considered a nomen dubium; cf. C. brasiliensis Clench.
coxeni Braz. - colour form of C. cyanostoma Ads.
coxianus Sow. - aberrant C. acuminatus Hw.
crassus Sow. - colour form of C. eburneus Hw.
crebremaculatus Dautz. - colour form of C. ammiralis L., lectotype designated.
crebrisulcatus Sow. - junior synonym of C. jaspideus Gmel.
crebrisulcus Sow. - error for C. crebrisulcatus Sow.
crenulatus (Röd.) - nomen nudum.
crenulatus Kien. - junior homonym; renamed C. armiger Crosse.
crepusculum Rve - junior synonym of C. furvus Rve.
cretaceus Kien. - junior synonym of C. mindanus Hw.
cretheus Nardo - junior synonym of C. mediterraneus Hw.
crocatus Lam. - valid species - Indian Ocean and western Pacific.
croceus Sow. - colour form of C. daucus Hw.
croceus Smith - junior homonym; renamed C. hypochlorus Tomlin.
crosseanus Bern, - subspecies of C. bandanus Hw.; lectotype designated - Isle of Pines, New Caledonia.
crotchii Rve - valid species - Cape Verde Islands; Boavista designated corrected type locality.
crucifer (Röd.) - junior synonym of C. ermineus Born; lectotype designated.
cruzensis Ust. - junior synonym of C. centurio Born; lectotype designated.
cumingii Rve, 1848 - valid species - Indonesia to the Philippines and Solomon Is.
cumingii Rve, 1849 - junior homonym; lectotype designated; junior synonym of C. virgatus Rve.
cuneatus Sow. - provisionally considered a valid species, holotype traced in ZMA.
cuneiformis Smith - lectotype designated; colour form of C. inscriptus Rve.
cuneolus Rve - valid species; lectotype designated - Cape Verde Islands; Sal designated type locality.
curassaviensis Hw. - lectotype designated; junior synonym of C. mappa Gmelin.
cutisanguina (Röd.) - lectotype designated; junior objective synonym of C. crucifer (Röd.); junior
   synonym of C. ermineus Born.
```

- cuvieri Crosse new name for C. deshayesii Rve; valid species; lectotype designated and traced in IRScNB Red Sea and Gulf of Aden; Djibouti designated corrected type locality.
- cyanostoma Ads valid species Queensland and New South Wales; Keppel Bay designated corrected type locality.
- cylindraceus Brod. & Sow. valid species Indo-Pacific; New Caledonia designated type locality.

REFERENCES

General works on Conidae are mentioned in the 1st, 4th and 6th part of this series, Basteria 43: 11; 45: 44-45; 47: 125-126.

- ABBOTT, R.T., 1969. Publications received (book review). Nautilus 82: 147-148.
- ADAMS, A., 1855. Descriptions of thirty-nine new species of shells, from the collection of Hugh Cuming, Esq. Proc. zool. Soc. Lond. 22: 130-138.
- ARGENVILLE, A.J.D. D', 1757. L'Histoire naturelle éclaircie dans une de ses parties principales la conchyliologie. Nouv. édit. (unpaged). Paris.
- BARROS E CUNHA, J.G. DE, 1933. Catálogo descritivo das conchas exóticas da coleçção António Augusto de Carvalho Monteiro. Família Conidae. Mems Estud. Mus. zool. Univ. Coimbra (1) 71: 1-224.
- BENTHEM JUTTING, W.S.S. VAN, 1959. Rumphius and malacology. In: Rumphius Memorial Volume: 181-207.
- ---- & C.O. VAN REGTEREN ALTENA, 1965. Conus nobilis Linnaeus and Conus victor Broderip.
 Basteria 29: 81-88.
- BERNARDI, A., 1860. Descriptions d'espèces nouvelles. J. Conchyl., Paris 8: 211-212.
- ---, 1861. Description de deux espèces du genre Cône. J. Conchyl., Paris 9: 168-171.
- BOIVIN, A., 1864. Description de cinq espèces nouvelles du genre Conus. J. Conchyl., Paris 12: 33-40.
- BRAZIER, J., 1870a. Description d'espèces nouvelles de coquilles marines des côtes d'Australie. J. Conchyl., Paris 18: 300-301.
- —, 1870b. Descriptions of three new species of marine shells from the Australian coast. Proc. zool. Soc. Lond. 1870: 108-110.
- —, 1871. Notes on the localities of Dolium melanostoma and other shells found in Australia and the adjacent islands in the Australian seas. Proc. zool. Soc. Lond. 1871: 585-587.
- ----, 1875. Descriptions of ten new species of shells from the collection of Mr. Charles Coxen, of Brisbane, Queensland. Proc. zool, Soc. Lond. 1875: 31-34.
- BRODERIP, W.J., 1833. Characters of new species of Mollusca and Conchifera, collected by Mr. Cuming. Proc. zool. Soc. Lond. 1: 52-56.
- ---- & G.B. SOWERBY (I), 1830. Observations on new or interesting Mollusca, contained, for the most part, in the Museum of the Zoological Society. Zool. J. Lond. 5: 46-51.
- CHENU, J.C., 1859. Manuel de conchyliologie et de paléontologie conchyliologique 1: 1-508. Paris. COOMANS, H.E., R.G. MOOLENBEEK & E. WILS, 1983. Alphabetical revision of the (sub)species in recent Conidae. 6. cabritii to cinereus. Basteria 47: 67-143.
- CROSSE, H., 1858a. Diagnoses de coquilles nouvelles. Revue Mag. Zool. (2) 10: 81-82.
- ----, 1858b. Observations sur le genre Cône et description de trois espèces nouvelles, avec un catalogue alphabétique des Cônes actuellement connus, I-V. Revue Mag. Zool. (2) 10: 113-127, 150-157, 199-209.
- _____, 1878. Description d'espèces nouvelles de mollusques. J. Conchyl., Paris 26: 166-169.
- -----, & P. FISCHER, 1864. Faune malacologique de Cochinchine. Premier supplément. J. Conchyl., Paris 12: 322-338.
- DANCE, S.P., 1969. Rare shells: 1-128. London.
- EISENBERG, J.M., 1981. A collector's guide to seashells of the world: 1-239. New York.
- ELSEN, J., 1983. Taxonomy of some Cape Verde Conidae with description of a novel species. Inf. Soc. belge. Malac. 11 (4): 180-189.
- FAVANNE, J. DE & G.J. DE FAVANNE, 1780. La conchyliologie, 1: 1-878; 2: 1-848; atlas. 3e édit. Paris.

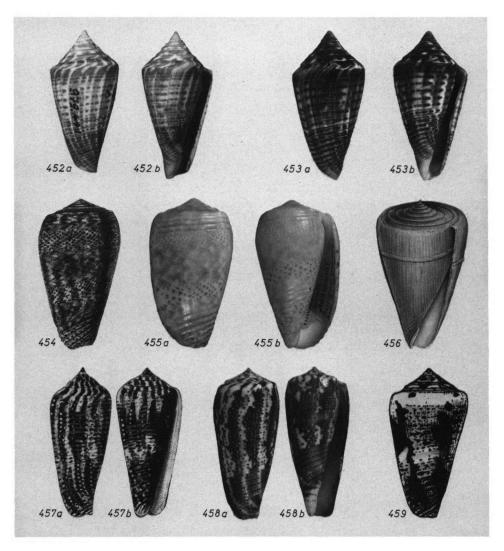
- GOULD, A.A., 1853. Descriptions of shells from the Gulf of California and the Pacific coasts of Mexico and California. Boston J. nat. Hist. 6: 374-408.
- ----, 1862. Otia Conchologia: descriptions of shells and mollusks from 1839 to 1862: 1-256. Boston. GUALTIERI, N., 1742. Index testarum conchyliorum: 1-23. Florence.
- HABE, T., & S. KOSUGE, 1970. Descriptions of two new species of Cone shell from the Philippines and Taiwan. Venus 29: 81-83.
- HEDLEY, C., 1913. Studies in Australian Mollusca. Part XI. Proc. Linn. Soc. N.S.W. 38: 258-339.
 HINDS, R.B., 1843. Descriptions of new shells from the collection of Captain Sir Edward Belcher. Ann. Mag. nat. Hist. 11: 255-256.
- ----, 1844, The zoology of the voyage of H.M.S. Sulphur, under the command of captain Sir Edward Belcher, during the years 1836-42. Vol. 2, Mollusca: 1-72, I-V. London.
- [HOLEMAN, J., & O. McGILL], 1970. The Conus corner: Conus cocceus. Hawaii. Shell news 18 (2): 6-7.
- HOLTEN, H.S., 1802. Enumeratio systematica Conchyliorum beat. J.H. Chemnitzii: 1-88. Copenhagen. INABA, T., & K. OYAMA, 1977. Catalogue of molluscan taxa described by Tadashige Habe during 1939-1975, with illustration of hitherto unfigured species: 1-185. Tokyo.
- IREDALE, T., 1929. Queensland molluscan notes, no. 1. Mem. Qd. Mus. 9: 261-297.
- JOHNSON, R.I., 1964. The recent Mollusca of Augustus Addison Gould. Bull. U.S. natn. Mus. 239: 1-182.
- KAY, E. A., 1979. Hawaiian marine shells: 1-653. Honolulu,
- KENDRICK, G. W., & V. A. RYLAND, 1981. Two Australian Conus species re-examined. Austr. Shell News 34: 3-4.
- KOSUGE, S., 1981. Notes on newly recorded species of the superfamily Conacea from Philippines with descriptions of new species of the genera Terebra, Conus and Glyphostoma. Bull. Inst. Malac. Tokyo 1 (6): 93-96.
- MARTINS, E.A., 1943. Uma nova espécie de Molucco do género Conus do Brasil (A new species of Mollusk of the genus Conus from Brazil). Bolm. Mus. Nacion. (nov. sér.) Zool. 12: 1-8.
- MARTYN, T., 1784-1792. The Universal Conchologist, 1-4. London.
- MELVILL, J.C., 1904. Conus coromandelicus, Smith, its probable affinities and systematic position in the family Conidae. Proc. malac. Soc. Lond. 6: 170-173.
- & R. STANDEN, 1899. Description of Conus (Cylinder) clytospira, sp.n., from the Arabian Sea. Ann. Mag. nat. Hist. (7) 4: 461-463.
- —— & ——, 1901. The Mollusca of the Persian Gulf, Gulf of Oman, and Arabian Sea, as evidenced mainly through the collections of Mr. F.W. Townsend, 1893-1900; with descriptions of new species. Proc. zool. Soc. Lond. 1901: 327-460.
- MEUSCHEN, F.C., 1766. Catalogus Musei Ch(ais): 1-116. In: Miscellanea Conchyliologica, Amsterdam
- MOOLENBEEK, R.G. & J. ELSEN, 1984. On the identity of Conus crotchii Reeve, 1849. Inf. Soc. belg. Malac. 12 (in press).
- MOTTA, A.J. DA, 1980. Confusion in the museums. Hawaii. Shell News 28 (8): 1, 10.
- ---, 1981. An examination of the C. textile complex, II. Conchiglia 13 (150-151): 3-5, 8-9.
- ____, 1982. An examination of the Conus textile complex. VII. Conchiglia 14 (160-161): 4-5.
- —, 1984. Three new Conus species (Gastropoda: Conidae). Conchiglia 16 (178-179): 24-26. NARDO, G.D., 1847. Sinonimia moderna della specie..., che abitano le lagune e Golfo Veneto: 1-128.
- NARDO, G.D., 1847. Sinonimia moderna della specie.... che abitano le lagune e Golfo Veneto: 1-128. Venice.
- NOWELL-USTICKE, G.W., 1971. A supplementary listing of new shells: 1-32. St. Croix.
- OLSSON, A. A., & T. L. McGINTY, 1958. Recent marine mollusks from the Caribbean coast of Panama with the description of some new genera and species. Bull. Am. Paleont. 39 (177): 1-58.
- PERRY, G., 1811. Conchology, or the natural history of shells: 1-4. London.
- PETUCH, E.J., 1975. A review of the small Mauretanian cone shells with the description of a new genus and a new species. Veliger 17: 262-263.
- ----, 1981. A relict Neogene Caenogastropod fauna from northern South America. Malacologia 20: 307-347.
- PFLUG, H.D., 1961. Mollusken aus dem Tertiär von St. Domingo. Acta humboldt. 1: 1-101.
- PILSBRY, H.A., 1904a. New Japanese marine Mollusca: Gastropoda. Proc. Acad. nat. Sci. Philad. 56: 3-37.

- ----, 1904b. New Japanese marine Mollusca: Pelecypoda. Proc. Acad. nat. Sci. Philad. 56: 550-561. POWELL, A.W.B., 1942. The New Zealand recent and fossil Mollusca of the family Turridae. Bull. Auckl. Inst. Mus. 2: 1-188.
- ----, 1966. The molluscan families Speightiidae and Turridae. Bull. Auckl. Inst. Mus. 5: 1-184. REGENFUSS, F.M., 1758. Auserlesne Schnecken, Muscheln und andre Schaalthiere 1: 1-22, I-LXXXVII. Copenhagen.
- REHDER, H.A. & R.T. ABBOTT, 1951. Two new recent cone shells from the western Atlantic (Conidae). J. Wash. Acad. Sci. 41: 22-24.
- RICHARDS, M.C. & W.E. OLD, 1969. A catalogue of Molluscan types specimens in the Department of Living Invertebrates, the American Museum of Natural History New York, New York, U.S.A.: 1-147. New York.
- RÖCKEL, D., 1976. Another approach to the Taiwan cones tangle. Hawaii. Shell News 24 (10): 3-4, 6.
- ----, 1979-1984. Die Familie Conidae: 1-474. Darmstadt.
- ----, 1981. The confusion about Conus lemniscatus Reeve. Hawaii. Shell News 29 (10): 7.
- ----, E. ROLAN & A. MONTEIRO, 1980. Cone shells from Cape Verde Islands. A difficult puzzle: 1-156. Spain.
- ROETERS VAN LENNEP, H.C., 1876. Catalogue alphabétique des Cones actuellement connus, faisant suite au catalogue de Mr. H. Crosse: 1-10, Twello.
- ROLÁN, E.F., 1980. Descripción de tres nuevas especies del género Conus Linné, 1758, procedentes del archipielago de Cabo Verde. Boll. Malac. 16: 79-93.
- SCHMELTZ, J.D.E., 1876. Conchyliologische Miscellen. Verh. Ver. naturw. Unterh. Hamb. 2: 1-6.
- SEAMON, N., 1968. Observation on the history, habitat, and range of Conus columba Hwass (in Bruguière) 1792. Hawaii. Shell News 16 (10): 3, 7.
- SEBA, A., 1759. Locupletissimi Rerum Naturalium Thesauri accurata descriptio et iconibus artificiosissimis expressio per universam physices historiam 3: 1-212. Amsterdam.
- SHIKAMA, T., 1979. Description of new and noteworthy Gastropoda from western Pacific Ocean (II).

 Sci. Rep. Yokosuka Cy Mus. 26: 1-6.
- SMITH, E.A., 1877a. Description of a new species of Conus. Quart. J. Conchol. 1: 202-204.
- ----, 1877b. Descriptions of new species of Conidae and Terebridae. Ann. Mag. nat. Hist. (4) 19: 222-231.
- ---, 1880. Descriptions of twelve new species of shells. Proc. zool. Soc. Lond. 1880: 478-485.
- ---. 1881. Description of two new species of shells. Ann. Mag. nat. Hist. (5) 8: 441-442.
- ----, 1894. Report upon some Mollusca dredged in the Bay of Bengal and the Arabian Sea. Ann. Mag. nat. Hist. (6) 14: 157-174.
- SOWERBY, G.B. (I), 1825. A catalogue of the shells contained in the collection of the late Earl of Tankerville: I-VII, 1-92, appendix I-XXXIV. London.
- ----, 1850. Description of new species of fossil shells found by J.S. Heniken, Esq. Quart. J. Geol. Soc. Lond. 6: 44-53.
- ----, (III), 1870. Descriptions of forty-eight new species of shells. Proc. zool. Soc. Lond. 1870: 249-259.
- ----, 1873. Descriptions of five new Cones. Proc. zool. Soc. Lond. 1873: 145-146.
- ----, 1895. Descriptions of nine new species of shells. Proc. malac. Soc. Lond. 1: 214-217.
- SWAINSON, W., 1840. A treatise on malacology; or the natural classification of shells and shell-fish: 1-419. London.
- THIELE, J., 1929-1931. Handbuch der systematischen Weichtierkunde I: 1-778. Jena.
- TROVÃO, H.F.M., 1979. Contribuição para o estudo dos Moluscos Gasterópodos da família Conidae da África occidental. Amphitrite 1 (1): 3-12.
- TUCKER, J.K., 1979. A simple method to identify Conus puncticulatus. Hawaii. Shell News 27 (8): 9.
- —, 1981. Fifty frequently misused names in Cones. Of Sea and Shore II (4): 249-250, 258. USTICKE, vide NOWELL-USTICKE.
- VALENTYN, F., 1754. Verhandeling der zee-horenkens en zee-gewassen in en omtrent Amboina en de nabijgelegene eilanden: 1-70. Amsterdam.
- ----, 1773. Abhandlung von Schnecken, Muscheln, und Seegewächsen, welche um Amboina und den umliegenden Inseln gefunden werden. Vienna.
- VINK, D.L.N., 1980a. Conus puncticulatus, a polytypic species. Hawaii. Shell News 28 (5): 5.

-, 1980b. Finding the true Conus beddomei Sowerby. Hawaii. Shell News 28 (12): 3-4., 1981a. Venezuela's "Conus clerii" is unmasked. Hawaii. Shell News 29 (4): 4.

- WALLS, J.G., 1978. Diagnoses of four new Cones (Mollusca: Conidae). Pariah 2: 1-7.
- _____, 1978b. Status of more African cones described by H. Trovao. Pariah 3: 15.



Figs. 452-453. Conus cingulatus Lam. 452. Neotype, length 44 mm (photo G. Dajoz, MHNG), 453. Colombia, Sta Marta, length 37.8 mm (coll. Wils).

Figs. 454-455. C. adamsonii Brod. 454. Type figure of C. cingulatus Sow., length 49 mm (after Sowerby). 455. Holotype of C. adamsonii Brod., length 46.1 mm (Natn. Mus. Wales).

Fig. 456. C. quercinus Sol., type figure of C. cingulum Gmel., Tonga Is, length 85 mm (after Martyn). Figs. 457-458.. C. magus Linné, Moluccas. 457. Figure of "C. circae Chemn.", length 48 mm (after Chemnitz). 458 Specimen described by Chemnitz, length 45.9 mm (ZMUC, ex coll. Spengler).

Fig. 459. C. magus fa. circae, syntype figure of C. circae Sow., Philippines, length 52 mm (after Sowerby).

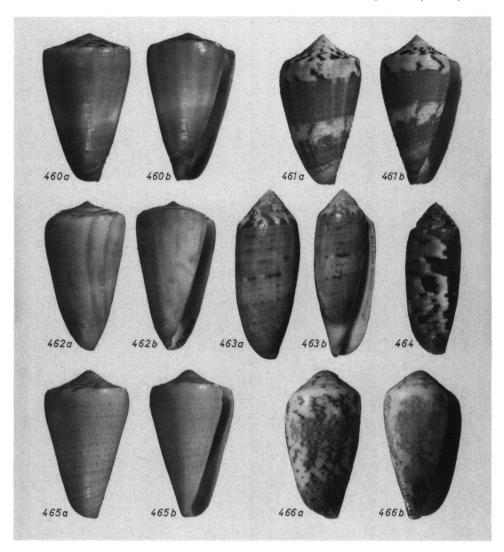


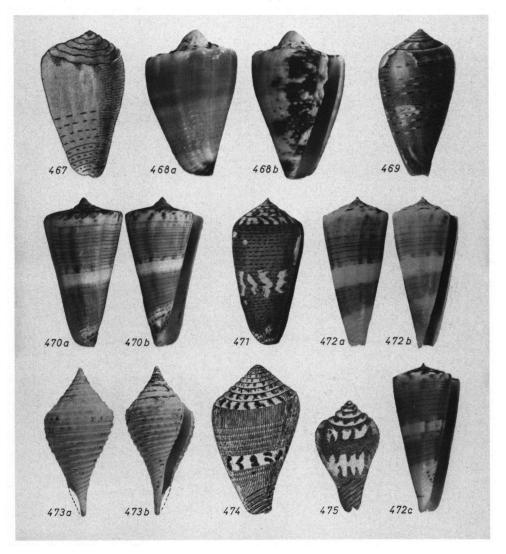
Fig. 460. Conus circumactus Ired., Moluccas, length 37.1 mm.
Fig. 461 C. hammatus Bartsch & Rehd., Moluccas, length 52.4 mm, granulated specimen.

Fig. 462. C. connectens Ads, holotype, China, length 54 mm (BMNH).

Figs. 463-464. C. circumcisus Born. 463. Lectotype, ? Amboina, length 71 mm (photo G. Dajoz, MHNG). 464. Forma laevis Gmel., Moluccas, length 57.9 mm.

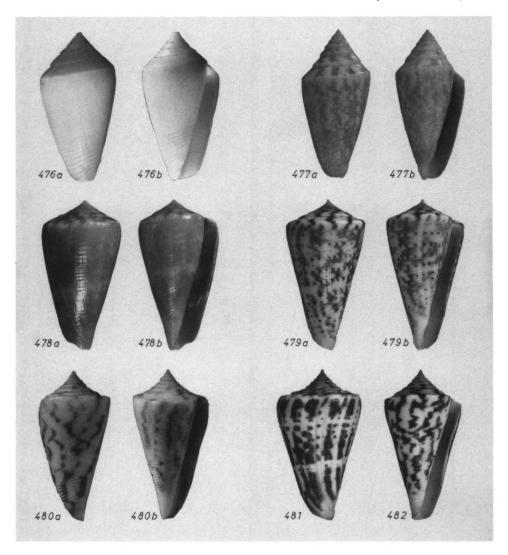
Fig. 465. C. daucus fa. circumpunctatus, lectotype of C. caribbaeus var. circumpunctatus Usticke, Anguilla, length 33.6 mm (AMNH).

Fig. 466. C. floccatus fa. magdalenae Kien., holotype of C. circumsignatus Crosse, length 30 mm (photo BMNH).



Figs. 467-468. Conus regius fa. citrinus. 467. Type figure of C. citrinus Gmel. Curação, length 26 mm (after Martini). 468. Bonaire, Sorobon, length 37.5 mm. a. Dorsal side with citrinus pattern; b. Ventral side like typical C. regius Gmel.

- Fig. 469. C. tinianus fa. aurora Lam., type figure of C. citrinus Kien (= C. kieneri Crosse), length 44 mm (after Kiener).
- Fig. 470. C. macarae Bern., holotype of C. clandestinatous Shik., South China Sea, length 48.8 mm (Natn. Sci. Mus. Tokyo).
- Fig. 471. C. magus L., figure of "C. clandestinus Chemnitz", East Indies, length 51 mm (after Chemnitz).
- Fig. 472. C. shikamai nom. nov. a-b. Holotype of C. clandestinus purpuratus Shik., South China Sea, off Taiwan, length 45.7 mm (after Shikama). c. Philippines, Mactan Id., 100 Fms., length 50.4 mm (coll. J.P. Camp).
- Fig. 473. C. armiger Crosse, holotype of C. clarki Rehd. & Abb., Gulf of Mexico, length 35.6 mm (USNM).
- Fig. 474. C. capitaneus fa. ceciliae Crosse, figure of C. classiarius Hw., Asian Ocean, length 32 mm (after Hwass).
- Fig. 475. C. cf. africanus Kien., "? C. classiarius Hw.", length 19 mm (after Favanne & Favanne).



Figs. 476-477. Conus clarus Smith. 476. Holotype, West Australia, length 26,7 mm (BMNH). 477. Point Leo, Victoria, length 38,2 mm.

Figs. 478-479. C. lemniscatus Rve., Brazil. 478. Holotype of C. clenchi Mart., Barra do Furado, length 36.2 mm (Mus. Nac., Rio de Janeiro). 479. Est. Rio de Janeiro, length 40.6 mm.

Figs. 480-482. C. clerii Rve., Brazil. 480. Holotype, Cape St. Thomas, length 31.9 mm (photo BMNH).

481. Cabo Frio, length 43.6 mm. 482. Est. Rio de Janeiro, length 43.2 mm.

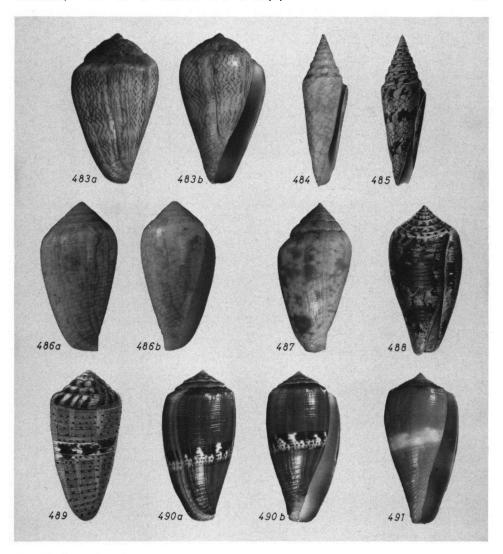


Fig. 483. Conus cloveri Walls, paratype, Anse Bernard, Senegal, length 24.5 mm. Figs. 484-485. C. milneedwardsi Jouss., type material of C. clytospira Melv. & Stand., Arabian Sea. 484. Lectotype, length 108 mm (photo BMNH). 485. Figure of paralectotype, length 119 mm (after Melville & Standen).

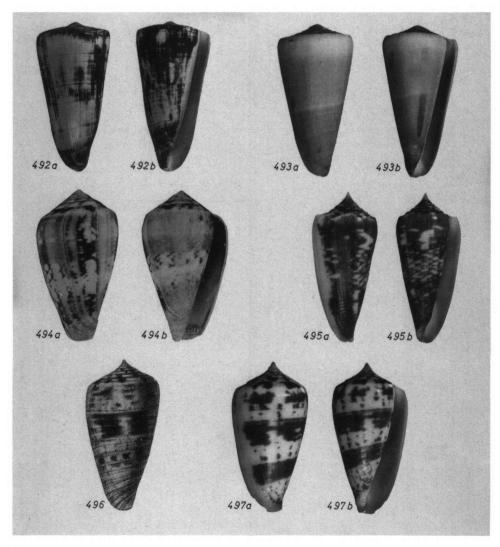
Figs. 486-487. C. cocceus Rve. 486. Lectotype, Australia, length 31.2 mm (photo BMNH), 487. Cowa-

ramup Bay, W. Australia, length 35.8 mm

Fig. 488. C. achatinus Gmel., figure of "Volute cosmographicus Mart.", length 72 mm (after Martyn).

Figs. 489-491. C. coccineus Gmel. 489. Type figure, length 32 mm (after Knorr). 490. Neotype,

Same Id. Philippings length 40.4 mm 401. Same Id. Philippings length 40.4 mm 401. Samar Id., Philippines, length 49.4 mm. 491. Samar Id., length 27.1 mm (coll. Wils).

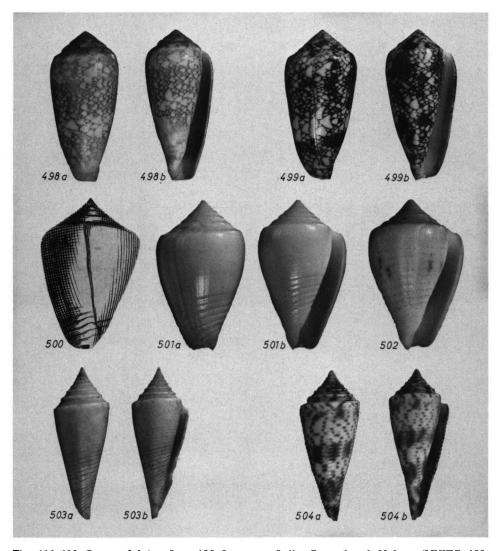


Figs. 492-493. Conus coelinae Crosse, New Caledonia. 492. Holotype, length 115.0 mm (IRScNB). 493. Poindimie, length 66.8 mm.

Fig. 494. C. ermineus Born, holotype of C. coerulescens Schröter, length 52 mm (Mus. Natur, Gotha; photo Dr. A.J. Kohn).

Fig. 495. C. neptunus Rve, holotype of C. colorovariegatus Kos., Bohol Id., Philippines, length 63.3 mm (IMT).

Figs. 496-497. C. collisus Rve. 469. Lectotype figure, length 41 mm (after Reeve). 497. Phuket, Thailand, length 44.6 mm.



Figs. 498-499. Conus colubrinus Lam. 498. Lectotype, Indian Ocean, length 53.5 mm (MNHN). 499. Moluccas, length 74.5 mm.

Figs. 500-502. C. puncticulatus fa. columba. 500. Lectotype figure of C. columba Hwass, length 29

mm (after Gualtieri). 501-502. Pova Beach, Aruba, length resp. 22.8 and 24.7 mm.
Figs. 503-504. C. comatosa Pilsbry. 503. Lectotype of C. dormitor Pilsbry, Kikai, S. Japan, length
43.5 mm (ANSP). 504. Bohol, Philippines, length 36.6 mm.

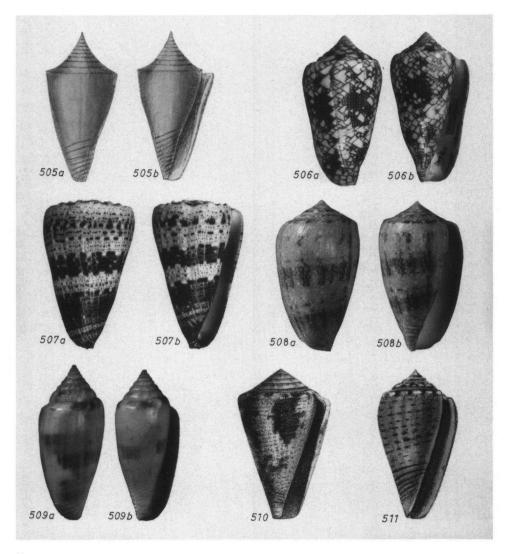


Fig. 505. Conus commodus Ads, type figure, length 28% mm (after Weinkauff).

Fig. 506. C. textile neovicarius Da Motta, paralectotype of C. communis (Swain.), length 68 mm (MHNG).

Fig. 507. C. imperialis compactus Wils, lectotype, Nosy Bé, Madagascar, length 71.0 mm.

Fig. 508. C. victoriae fa. complanatus, syntype of C. complanatus Sow., Australia, length 47.9 mm (photo BMNH).

Fig. 509. C. anemone fa. compressus, holotype of C. compressus Sow., length 24.8 mm (photo BMNH).

Fig. 510. C. purpurascens Sow., type figure of C. comptus Gould, Santa Barbara, length 31 mm (after Gould).

Fig. 511. C. sapphirostoma Weink., type figure of C. concinnus Sow., length 26 mm (after Sowerby).

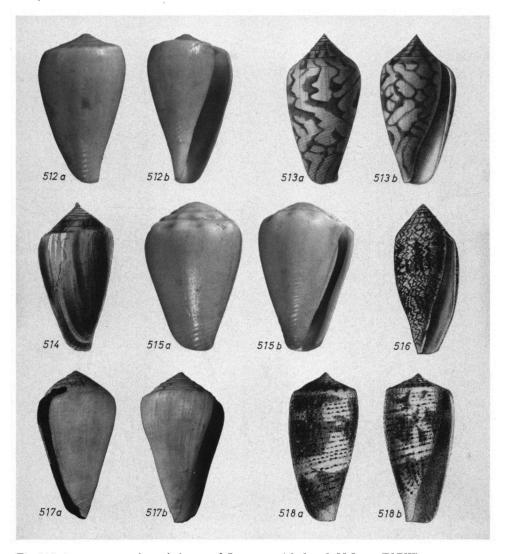


Fig. 512. Conus anemone Lam., holotype of C. comptus Ads, length 20.9 mm (BMNH).

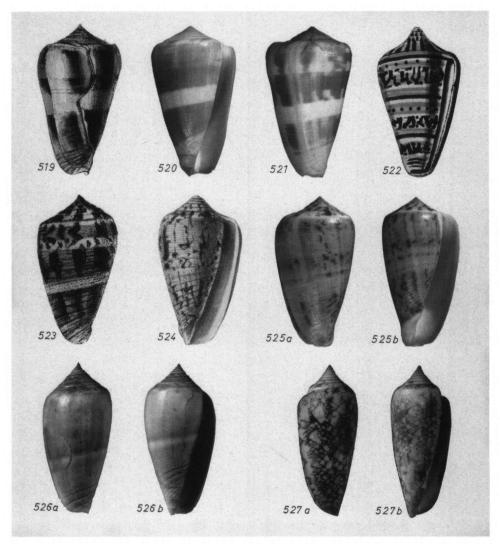
Fig. 513. C. concatenatus Kien., type figure, length 35 mm (after Kiener).

Fig. 514. C. hyaena fa. concolor Sow., type figure of C. unicolor Sow., length 42 mm (after Sowerby).

Fig. 515. C. balteatus pigmentatus Ads & Rve, holotype of C. pigmentatus concolor Barros e Cunha, length 22.9 mm (dept. Zool., Univ. Coimbra).

Fig. 516. C. canonicus fa. condensus, type figure of C. condensus Sow., length 47 mm (after Sowerby). Fig. 517. C. fergusoni Sow., holotype of C. consanguineus Smith, length 87.3 mm, part of periostracum preserved on outer lip (photo BMNH).

Fig. 518. C. magus L., type figure of C. consul Boivin, length 43 mm (after Boivin).



Figs. 519-521. Conus consors Sow. 519. Type figure, length 62 mm (after Sowerby). 520-521. Philippines, length resp. 57.8 and 70.8 mm.

Fig. 522. C. coralloides Perry, type figure, length 49 mm (after Perry).

Figs. 523-525. C. spectrum fa. conspersus. 523. Type figure of C. conspersus Rve, length 31 mm (after Reeve). 524. Figure of C. conspersus, length 47 mm (after Reeve). 525. Moluccas, length 42.5 mm.

Fig. 526. C. monachus fa. cinerarius (Röding), holotype of C. contusus Rve, Moluccas, length 32.6 mm (photo BMNH).

Fig. 527. C. cf. omaria Hw., lectotype of C. convolutus Sow., length 59.3 mm (photo BMNH).

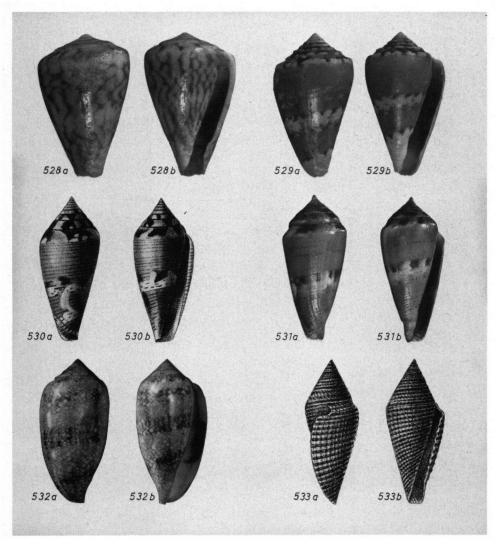


Fig. 528. Conus aplustre fa. cooki, lectotype of C. cooki Brazier, Botany Bay, Australia, length 17.2 mm (Austral. Mus. Sydney).

Fig. 529. C. klemae Cotton, holotype of C. coralinus (Habe & Kosuge), "Zamboanga, Philippines", length 38.4 mm (Natn. Sci. Mus. Tokyo).

Figs. 530-531. C. corallinus Kien. 530. Type figure, length 27 mm (after Kiener). 531. Santa Cruz, Solomon Is, length 25.0 mm (coll. Wils).

Fig. 532. C. aff. canonicus Hw., supposed holotype of C. corbula Sow., length 69.5 mm (photo BMNH).

Fig. 533. C. coromandelicus Smith, type figure, off Coromandel coast, India, length 37 mm (after Smith).

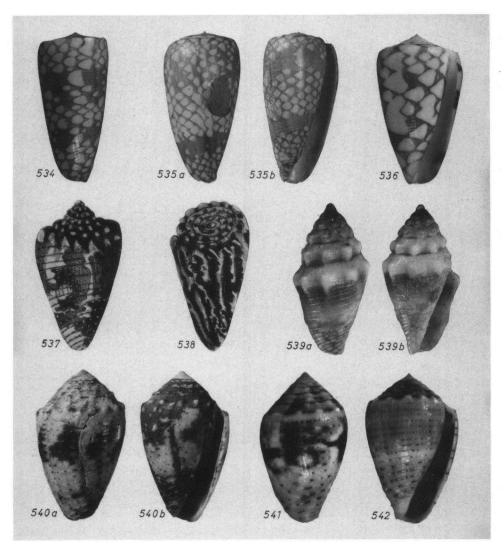


Fig. 534. Conus nobilis nobilis Linné, Sumatra, length 58.9 mm.
Figs. 535-536 C. nobilis cordigera. 535. Holotype of C. cordigera Sow., Cuyo, Philippines, length 61.9 mm (photo BMNH). 536. Forma bitleri Da Motta, Philippines, length 32.4 mm (coll. Van Pel). Fig. 537. C. regius Gmel., lectotype figure of C. coronacivica (Röding), West Indies, length 47 mm (after Martini).

Fig. 538. C. imperialis fuscatus Born, lectotype figure of C. coronaducalis (Röding), Mauritius, length

51 mm (after Martini).

Fig. 539. C. papalis Weinkauff, holotype of C. coronatus Rve, Ticao Id, Philippines, length 9.0 mm (photo BMNH).

Figs. 540-542. C. coronatus Gmel. 540. Neotype, Australia, length 27.5 mm (photo BMNH). 541-542. Djakarta Bay, Indonesia, lengths resp. 22.7 and 24.0 mm.

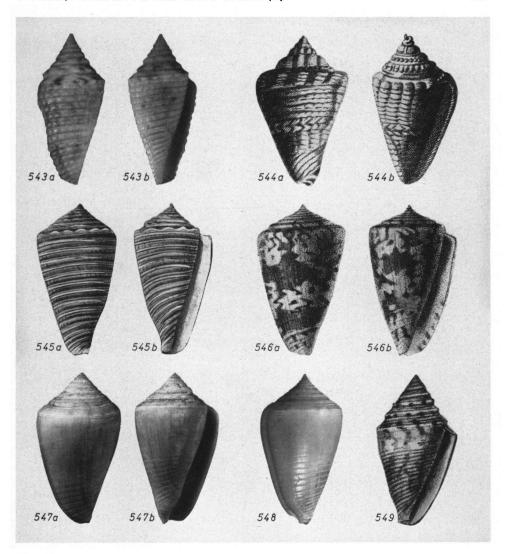


Fig. 543. Conus corrugatus Sow., holotype, length 19.0 mm (photo BMNH).

Fig. 544. Strombus spec., juvenile; holotype of "C. costatus Gmel.", length 49 mm (after Gualtieri). Fig. 545. C. sulcatus Hw., lectotype figure of C. costatus Holten, China, length 65 mm (after Chemnitz). Fig. 546. C. couderti Bern., type figure, length 25 mm (after Bernardi).

Figs. 547-548. C. cyanostoma Ads. 547. Holotype, length 27.0 mm (photo BMNH). 548. Great Keppel Id, Queensland, length 23.1 mm.

Fig. 549 C. cyanostoma fa. coxeni, type figure of C. coxeni Braz., Moreton Bay, Australia, length 32 mm (after Brazier).

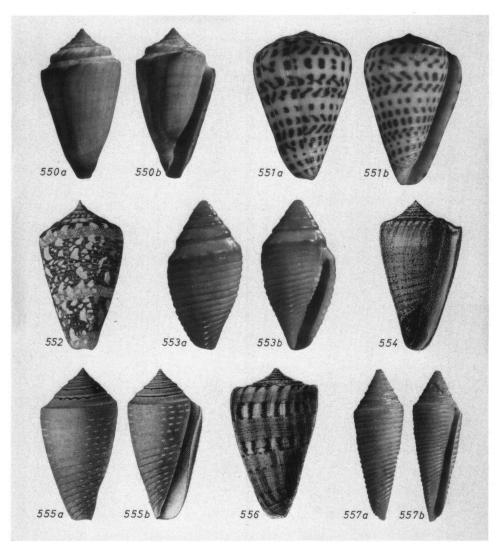
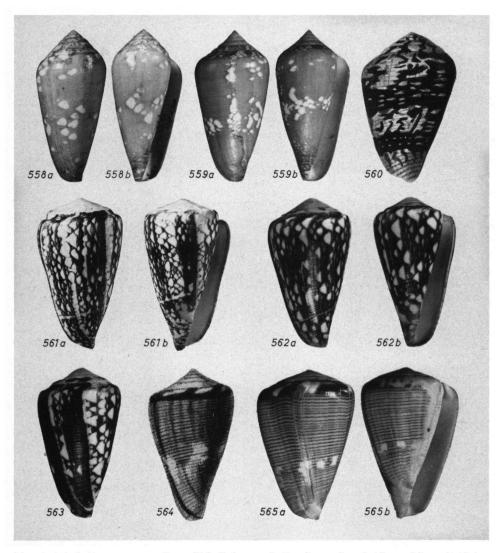


Fig. 550. Conus acuminatus Hw., holotype of C. coxianus Sow., Bay of Zeyla, Somaliland, length 39.3 mm (BMNH).

- Fig. 551. C. eburneus fa. crassus, lectotype of C. crassus Sow., Fiji Is, length 44.2 mm (photo BMNH). Fig. 552. C. ammiralis fa. crebremaculatus, lectotype figure of the variety crebremaculata Dautz.,

 East Indies, length 65 mm (after Chemnitz).
- Fig. 553. C. jaspideus Gmel., holotype of C. crebrisulcatus Sow., length 12.2 mm (BMNH).
- Fig. 554. C. furvus Rve, type figure of C. crepusculum Rve, length 30 mm (after Reeve).
- Fig. 555. C. mindanus Hw., type figure of C. cretaceus Kien., length 33 mm (after Kiener).
- Fig. 556. C. daucus fa. croceus, type figure of C. croceus Sow., length 43 mm (after Sowerby).
- Fig. 557. C. hypochlorus Tomlin, holotype of C. croceus Smith, length 25.3 mm (BMNH).



Figs. 558-559. Conus crocatus Lam. 558. Holotype, Indian Ocean, length 44 mm (photo G. Dajoz, MHNG). 559. Mauritius, length 55.2 mm.

Fig. 560. C. ermineus Born, lectotype figure of C. crucifer (Röding) and C. cutisanguina (Röding), length 61 mm (after Martini).

Figs. 561-563. C. bandanus crosseanus, New Caledonia. 561. Lectotype of C. crosseanus Bernardi, length 68.8 mm (photo BMNH). 562. Paralectotype, length 45.0 mm (AMNH). 563. Isle of Pines, length 50.4 mm (coll. Wils).

Figs. 564-565. C. crotchii Rve. 564. Type figure, length 28½ mm (after Reeve). 565. "Kaap de Goede Hoop", length 21.8 mm.

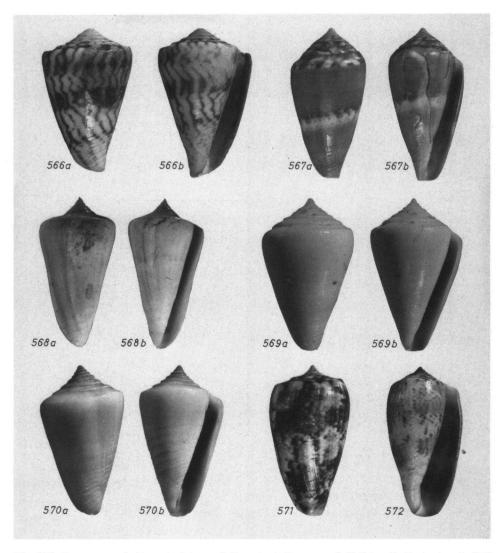
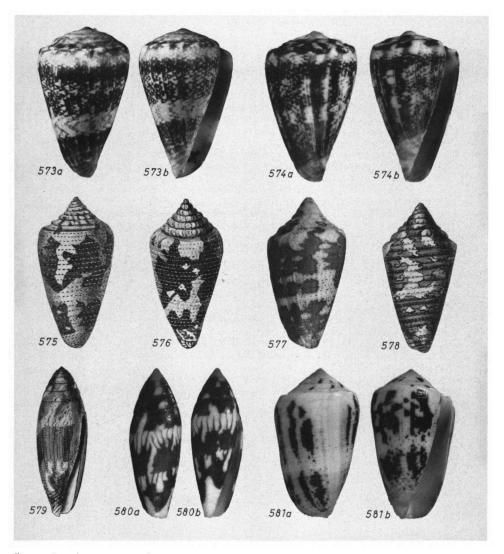


Fig. 566. Conus centurio Born, lectotype of C. centurio fa. cruzensis Usticke, St. Croix, length 37.9 mm (AMNH).

Fig. 567. C. cumingii Rve, 1848, holotype, Mindanao Id, Philippines, length 34.3 mm (BMNH). Fig. 568. C. virgatus Rve, lectotype of C. cumingii Rve, 1849, Salango, West Colombia, length 53.8 mm (photo BMNH).

Fig. 569. C. cuneatus Sow., holotype, length 33.0 mm.
Fig. 570. C. inscriptus fa. cuneiformis, lectotype of C. cuneiformis Smith, length 25.2 mm (BMNH).
Figs. 571-572. C. cuvieri Crosse. 571. Djibouti, Somaliland, length 30.8 mm. 572. Red Sea, length 37.7 mm.



Figs. 573-574. Conus cuneolus Rve. 573. Lectotype, length 33.1 mm (photo BMNH). 574. Algodoeira Bay, Sal, Cape Verde Is, length 21.4 mm.

Fig. 575. C. cedonulli cf. insularis Gmel., syntype figure of C. cedonulli curassaviensis Hw., "Curação", length 49 mm (after Hwass).

Figs. 576-578 C. cedonulli mappa Lightf. 576. Lectotype figure of C. cedonulli curassaviensis Hw., "Curaçao", length 50 mm (after Argenville). 577. Malmok, Aruba, length 41.2 mm. 578. Type figure of C. mappa Lightf., length 44 mm (after Knorr).

of C. mappa Lightf., length 44 mm (after Knorr).

Figs. 579-580. C. cylindraceus Brod. & Sow. 579. Type figure, length 35½ mm (after Broderip & Sowerby). 580. Moluccas, length 30.4 mm.

Fig. 581. C. cernohorskyi Da Motta, paratype, Samar, Philippines, length 46.7 mm. See Basteria 47: 108, 1983.