

Alphabetical revision of the (sub)species in recent Conidae
6. *cabritii* to *cinereus*

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INTRODUCTION

In this sixth issue of our *Conus* revision the species beginning with *c* up to and inclusive of *cinereus*, are discussed. Since *ae* in (sub)specific names is equivalent to *oe* (ICZN art. 58), *C. caeruleus* becomes a homonym of *C. caeruleus*. The names *C. caelebs* auctt., and *C. caelinae* Barros e Cunha are not mentioned, since these are errors for *C. coelebs* Hinds and *C. coelinae* Crosse respectively. We have also discussed the invalid names *C. candidus* Born and *C. capitaneus* Renier.

Starting with this issue, the type localities (either original or later designated) will be underlined on the distribution maps.

Bucquoy, Dautzenberg & Dollfus (1882) recognized five varieties "ex forma" and eight varieties "ex colore" in *C. mediterraneus*. Some of these have type specimens which are both colour and shape varieties (cf. *C. caeruleus*). Therefore it must have been the intention of these authors to indicate the variability of this polymorphic species, and not to describe new taxa.

The literature on Conidae has recently been augmented by Estival (1981), Da Motta (1981-1983, 1982), Abbott & Dance (1982), and Richard (1982, 1983).

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).

The American malacologist William E. Old, an ardent student of the Conidae, is commemorated here. He was a former colleague of the first author at the American Museum of Natural History. Bill always responded immediately when the present authors asked for advice. His last visit to ZMA was in September 1982; he passed away on 31 December 1982. An obituary with bibliography was published in the New York Shell Club Notes, 286 (1983).

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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 or nomen nudum is printed in normal type. A name misspelt in the literature is generally mentioned under its correct name.

cabritii
figs. 312-313

Conus cabritii Bernardi, 1858, J. Conchyl., Paris 7: 377-378, pl. 13, figs. 2, 2a

Type. - According to Richard (1980: 96) the holotype of *Conus cabritii* is present in MNHN, at Paris. We have studied this shell (fig. 313); the measurements are 19.8 x 11.9 mm. However, in the original description Bernardi gives a shell length of 25-29 mm and width of 14-15mm; the type figure measures 28½ x 15 mm. Also the colour pattern of the supposed holotype (fig. 313a) is different from the type figure (fig. 312). Therefore it is doubtful whether the MNHN specimen is indeed identical to the shell described and figured by Bernardi.

Type-locality. - "Nouvelle-Calédonie".

Remarks. - Although *C. cabritii* has long been treated as a valid species, it is now considered a junior synonym of *C. exiguus* Lamarck, 1810. The species is endemic to New Caledonia and the Loyalty Islands (Estival, 1981: 58, 124, fig. 16). See also under *C. bougei* Sowerby, 1907 (Basteria 46: 36-37, figs. 287-288).

Our thanks are due to Dr. Ph. Bouchet for the loan of the supposed holotype.

caelatus
fig. 315

Conus caelatus A. Adams, 1854, Proc. zool. Soc. Lond. 21: 117

Type. - There are three syntypes in BMNH (no. 1969528/1-3); the measurements are 11.9 x 5.9, 10.9 x 5.4, and 10.6 x 5.3 mm. We herewith designate the largest specimen (fig. 315) lectotype of *Conus caelatus*. This specimen was also figured by Sowerby (1857-1858: pl. 5 fig. 107).

Type locality. - "Chinese Seas", which is not correct.

Remarks. - The shell of *C. caelatus* is coronated, the body whorl is spirally grooved, with a marbled (yellowish brown and white) pattern. We have compared the type material of *C. caelatus* to specimens of *C. marchionatus* Hinds, 1843, and concluded that they represent juvenile shells of the latter. Thus *C. caelatus* is a junior synonym.

The range of *C. marchionatus*, an endemic species from the Marquesas Islands, does not cover the type locality of *C. caelatus*, but localities in 18th and 19th century descriptions have often proven to be erroneous.

Material studied. - The type material of *C. caelatus*, and (sub)adult shells of *C. marchionatus* present in ZMA.

We are grateful to Mrs. K.M. Way for the loan of the syntypes.

caerulans
fig. 316

Conus caerulans Küster, 1838, Syst. Conch.-Cab. Mart. Chemn. 4 (2): 85, pl. 14 figs. 3-4

Type. - Küster reproduced the figure of *Conus coeruleus* from Chemnitz (1795, vol. 11: 54, pl. 182 figs. 1762-1763), and renamed the species *C. caerulans*. The shell was

originally in the Chemnitz collection, but the present whereabouts are unknown. The type figure is reproduced here (fig. 316); the dimensions are 41 x 25 mm, according to Küster 20" x 11" (= 43½ x 24 mm).

A specimen in ZMUC, labelled "*C. coerulescens* Chemnitz", was thought to be the holotype. Although this shell has about the same colour pattern as the type figure, it lacks the fine granulation on the last whorl, mentioned by Chemnitz; in addition it is too small (38.9 x 21.9 mm). We have identified it as *C. aemulus* Reeve, 1843, a species from Angola (vide Basteria 43: 84-86, figs. 26, 33, 37).

Type locality. – "Im westindischen Meer, an der Insel St. Thomas" (in the Caribbean Sea, at the island St. Thomas).

Remarks. – From the type figure, description and locality, *C. caerulans* is conspecific with, and therefore a junior synonym of, *C. ermineus* Born, 1778.

According to Weinkauff (1873-1875: 164) the name *C. coerulescens* Chemnitz was changed to *C. caerulans* by Küster to prevent confusion with *C. caerulescens* Lamarck, 1810. Weinkauff reinstated *C. caerulescens* Chemnitz; however, in 1944 all species named by Chemnitz (1788, 1795) were rejected (ICZN, Opinion 184). The name *C. coerulescens* was validated by Schröter in 1803.

caerulescens
figs. 428

Conus caerulescens Lamarck, 1810, Annl's Mus. Hist. nat. Paris 15: 423, no. 130
(non *C. coerulescens* Schröter, 1803)

Type. – For this species, not present in his collection, Lamarck only refers to "*Conus lividus*" in Chemnitz (1795, vol. 11: 60-61, pl. 183 figs. 1776-1777), non *C. lividus* Hwass, 1792. The figured shell was designated lectotype by Kohn (1981: 317, fig. 40); however, being the sole specimen mentioned by the original author, it is the holotype of *C. caerulescens*. The type figure is reproduced here (fig. 428); dimensions 48 x 23 mm (Kohn: 44 x 21 mm).

Chemnitz stated that the specimen was present in the Spengler collection, now in ZMUC, Copenhagen. This museum has one specimen from the Spengler collection (fig. 429), which measures 47.7 x 23.1 mm and matches the type figure (fig. 428) in size, but does not fit exactly the description by Chemnitz. Another specimen in ZMUC is somewhat smaller (46.0 x 22.3 mm); it looks closer to the type figure, but is not from the Spengler collection. We are not convinced that one of these two shells represents the holotype of *C. caerulescens* Lamarck.

Type locality. – "Les mers des îles Moluques" (the seas of the Moluccan islands). This locality was also given by Chemnitz (1795: 61): "in den Ostindischen Meeren bey den Moluckischen Insuln".

Remarks. – We agree with Kohn that *C. caerulescens* Lamarck is a junior synonym of *C. cinereus* Hwass, 1792 (discussed below, figs. 426-430). Specimens from the Moluccas are present in ZMA.

The name *C. caerulescens* Lamarck, 1810, is a junior homonym of *C. coerulescens* Schröter, 1803.

We are grateful to Dr. J. Knudsen (ZMUC) for the loan of specimens.

caerulescens

Conus mediterraneus var. *ex colore caerulescens* Bucquoy, Dautzenberg & Dollfus, 1882,
Moll. mar. Roussillon 1 (2): 83, pl. 13 fig. 15
(non *C. coerulescens* Schröter, 1803)

Type. – The original authors have not designated a type specimen. They referred to a figured specimen of the variety *elongata* B.D.D. “qui se rapporte à cette variété de coloration” (which corresponds with this colour variety). This shell, from the Guilliou collection, must be considered the holotype of var. *caerulescens* B.D.D.; dimensions 23 x 10 mm. The present whereabouts of the shell are unknown, the type figure is not suitable for reproduction.

Type locality. – “De la faune des éponges, côtes de Barbarie” (on sponges, coasts of Barbary, i.e. western mediterranean North Africa).

Remarks. – Because varieties described before 1961 must be interpreted as denoting subspecific rank (ICZN art. 45e, i), *Conus mediterraneus caerulescens* B.D.D. is a junior homonym, but not a synonym, of *C. coerulescens* Schröter, 1803.

According to its description, the variety *caerulescens* has a blue colour with a pattern of rusty red. We consider it a junior synonym of the polymorphic *C. mediterraneus* Hwass, 1792.

The Dautzenberg collection in IRScNB contains one lot, labelled “*C. mediterraneus* var. *caerulescens*” from the “Baie de l’Ouest” (Canary Islands?). We have identified these shells as *C. guinaicus* Hwass, 1792.

Our thanks are due to Dr. J. van Goethem for the loan of the material.

caesius
fig. 361

Cucullus caesius Röding, 1798, Mus. Bolten. 2: 48, no. 616/109

Type. – Röding recorded one specimen from the Bolten collection, which must be considered lost. A lectotype of *Conus caesius* was designated by Kohn (1975: 198, pl. 1 fig. 14), being the shell figured in Martini (1773: pl. 52 fig. 580). The type figure is reproduced here (fig. 361); the dimensions are 48 x 20½ mm. The specimen was in the Martini collection, but its present whereabouts are unknown.

Type locality. – Not mentioned. Martini (1773: 231) reported it from America and the West Indies; however, we do not recognize it as a species from these areas.

Remarks. – Röding’s description only mentioned “Die weiszblaue Tute” (the white-blue cone). Kohn identified the type figure as „probably a specimen of *C. magus* Linnaeus, 1758”. The present authors agree with that opinion, and therefore *Conus caesius* (Röding) is concluded to be a junior synonym of *C. magus*.

caffer
fig. 314

Cucullus caffer Röding, 1798, Mus. Bolten. 2: 48, no. 606/100

Type. – Röding mentioned two specimens from the Bolten collection, which must be considered lost. Walls (1979: 967) designated the shell figured by Martini (1773: pl. 56

fig. 618) lectotype of *Conus caffer* (Röding). The type figure is reproduced here (fig. 314), the measurements are 26 x 16½ mm. The lectotype was originally in the Martini collection; the present whereabouts are unknown.

The cited Martini figure is also the type figure of *Conus coffeae* Gmelin, 1791.

Type locality. – Not mentioned by Röding or Martini.

Remarks. – *C. caffer* (Röding) is an objective junior synonym of *C. coffeae*, which is considered a nomen dubium (Kohn 1966: 83; 1975: 198).

caffer
fig. 317

Conus caffer Krauss, 1848, Südafr. Moll.: 131, pl. 6 fig. 24
[non *C. caffer* (Röding, 1798)]

Type. – The holotype was in the Staatliches Museum für Naturkunde (formerly the Königliches Naturalien-Cabinet) in Stuttgart, but was destroyed in World War II (Janus, 1961: 1-2). The type figure is reproduced here (fig. 317); the dimensions are 38 x 16 mm, according to the description 17 x 7.5 lin. (= 37 x 16½ mm).

Krauss also mentioned some beachworn, and hence shorter, shells with more dots, which were thought to belong to the same species. We suppose that from this material Janus (1961: 8, pl. 3 figs. 11-12) designated a "lectotype" of *Conus caffer*. This specimen and two "paralectotypes" are present in the Stuttgart Museum (nos. MT 121, 1210, 1211); they were collected in 1837 by Von Ludwig at the "Cap" (= now Cape Province). Since lectotypes may only be selected from syntypes (ICZN art. 74 a, I), the designation of a lectotype for *C. caffer* is invalid (Kilburn, 1971: 51). In addition, the specimens collected by Von Ludwig belong to *C. tinianus* Hwass, 1792 and therefore are not conspecific with the type of *C. caffer*, as was already doubted by Krauss (see above).

Type locality. – "In litore capensi et natalensi". According to the introduction of his work, Krauss collected from 1838 to 1840 on the east coast of the Cape Province to Natal.

Remarks. – *C. caffer* Krauss was misidentified by Tomlin (1937: 224) as *C. aurora* Lamarck, 1810, which is a colour form of *C. tinianus*. Kilburn (1971: 49-51) correctly concluded that (1) *C. caffer* is a junior synonym of *C. mozambicus* Hwass, 1792; and (2) the type figure of *C. elongatus* Holten, 1802, in Chemnitz (1788: pl. 144A figs. i, k) also represents *C. mozambicus*. The cited figure in Chemnitz was designated lectotype of *C. ammiralis guineensis* Gmelin, 1791, by Walls (1979: 546). After this designation *C. guineensis* became the first available name for *C. elongatus*, *C. mozambicus*, and *C. caffer* (cf. Kohn, 1981: 286, fig. 8). Thus *C. caffer* Krauss, 1848, is a junior synonym of *C. guineensis* Gmelin, 1791.

The name *C. caffer* Krauss is a junior secondary homonym of *C. caffer* (Röding, 1798).

caillaudii
figs. 293, 318-319

Conus caillaudii Kiener, 1845, Coq. vivant. 2: pl. 55 fig. 5: 1849-1850: 285

Type. – The holotype was originally in the collection of F. Caillaud (misspelt Caillaud by Kiener); the specimen is now in the natural history museum at Nantes. The measurements

are 51.5 x 24.8 mm. This shell is mounted on cardboard, and could only be photographed from the dorsal side (fig. 318), cf. the type figure in Kiener.

Type locality. - Not mentioned. On the label with the holotype is written "N.elle Calédonie", which locality was added after Kiener's description, and has proven to be incorrect. We herewith designate the Cargados Carajos Islands type locality.

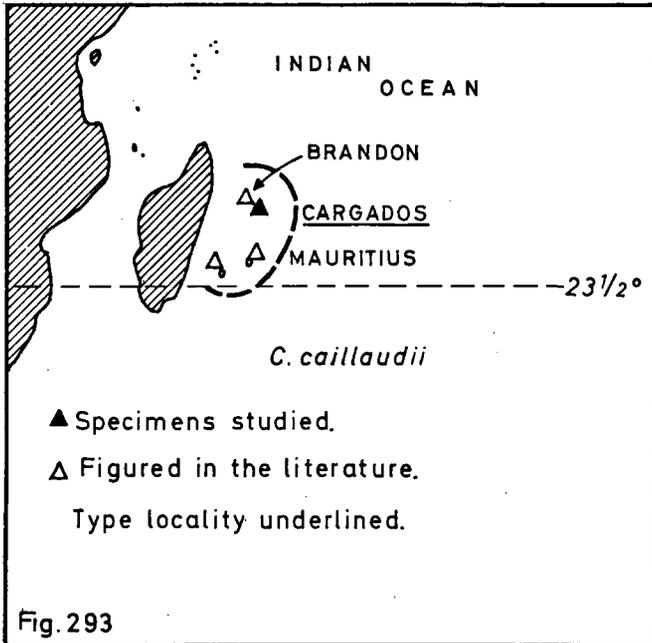


Fig. 293. Distribution of *Conus caillaudii*.

Remarks. - *Conus caillaudii* is considered a valid species. Due to its rarity, the species is hardly mentioned in the literature. Weinkauff (1875: 360) described shells of *C. terebra* Born, 1778, and *C. emaciatu*s Reeve, 1849, artificially painted with red spiral lines to suggest resemblance to *C. caillaudii*.

The name *C. "caillandi"* in Sowerby (1857-1858: 3) is a printing error.

Distribution. - A few specimens are known from the Mascarenes (fig. 293): Walls (1979: 181 above) figured one from Mauritius; another shell, from St. Brandon Id., was figured in "Of Sea and Shore" (Winter 1973-74: 178, 183-184, misspelt *C. "caillaudi"*).

Material studied. - The holotype (fig. 318); one specimen from Cargados (fig. 319) in IRScNB, one from Réunion (in coll. M. Filmer), and two shells without locality in the BMNH.

We are grateful to Mrs. J. Baudouin (Nantes museum) and to Dr. J. van Goethem for the loan of material.

cailliaudii
fig. 343

Conus cailliaudii Jay, 1846, *Annls Lyc. nat. Hist. New York* 4: 169, pl. 10 figs. 8a, b
(non *C. caillaudii* Kiener, 1845)

Type. - The holotype was preserved in the Jay collection (cf. Jay, 1850: 397, no. 10.449). This collection is in the AMNH, New York, but the type specimen of *Conus cailliaudii* is not present (Richards & Old, 1969: 123). The type figure is reproduced here (fig. 343). The dimensions are 41 x 17 mm (Jay: 1 5/8 x 4/8 inch).

Type locality. - Not mentioned.

Remarks. - *C. cailliaudii* Jay is not a junior homonym of *C. caillaudii* Kiener, 1845 (ICZN art. 32, 54). Both species were named after Frédéric Cailliaud (1787-1869), egyptologist/malacologist, who was also director of the natural history museum at Nantes.

C. cailliaudii is now considered to belong to the polymorphic *C. mediterraneus* Hwass, 1792. The shell has a turreted spire and dark brown shell. Identical specimens with a dark colour and high spire were described as *C. mediterraneus* var. *ater* Philippi, 1836 (vide *Basteria* 45: 25) after the colour (*ater* = black). High spired formae were described as var. *alticonica* Pallary, 1904 (vide *Basteria* 44: 23, fig. 65), and recently as forma *gaudiosus* Nicolay, 1978. *C. cailliaudii* Jay therefore is a junior synonym of *C. mediterraneus* forma *ater*.

Cailliaud mentioned later (1859: 309-310, pl. 15 fig. 5) a turreted shell of *C. mediterraneus* from Messina (which is the type locality of forma *ater*); he considered it a monstrosity, but did not refer to *C. cailliaudii*.

caledonicus
figs. 303, 379-380

Conus caledonicus Hwass in Bruguière, 1792, *Encycl. Méth.*: 634-635, no. 33

Type. - The holotype from the Hwass collection (Mermod, 1947: 170) is present in MHNG (no. 1106/73); the dimensions are 55½ x 31 mm (fig. 380). Hwass stated that he bought the shell in 1786 at the auction of the Portland Museum; it should have been collected by Cook during his travels. Another specimen was said to be in the collection of De Calonne.

Type locality. - "la mer Pacifique, sur les côtes de la nouvelle Calédonie" (the Pacific Ocean, on the coasts of New Caledonia). We have checked the auction catalogue of the Portland Museum (Lightfoot, 1786). There were many Conidae amongst the 4156 numbers brought up for sale, but we did not find any *Conus* with the information that it was collected by Cook at New Caledonia. The locality has been doubted by various authors (Crosse, 1872: 351) and also some collectors on the island (Estival, 1980: 10-12; 1981: 108, 114, 125).

Because New Caledonia has recently been proven to be outside the range of the species, we herewith designate St. Vincent, Lesser Antilles, as a corrected type locality for *C. caledonicus*.

Remarks. - Due to the erroneous locality and rarity of the shell, the provenance of *C. caledonicus* has been a subject of speculation. It was sometimes confused with *C. marmoreus* forma *suffusus* Sowerby III, 1870, which is endemic to New Caledonia. In the absence of contrary evidence, Kohn (1968: 444-445) concluded *C. caledonicus* to be a valid species of Indo-Pacific origin.

During a trip to the Lesser Antilles in October 1977, Wils recognized specimens of *C. caledonicus* amongst material of *C. cedonulli* Linné, 1767, from Peter's Hope Bay, St. Vincent, in the collection of Mr. D. Hunt at Barbados. Hunt (1980: 5-6, figs.) published about these shells, considering them a variety of *C. cedonulli*, but did not report on the locality.

Because integrades to typical shells of *C. cedonulli* are known (fig. 379), we consider it a colour form: *C. cedonulli* forma *caledonicus*.

Material studied. - Specimens from Peter's Hope Bay, St. Vincent (ZMA and coll. Wils).

Dr. C. Vaucher kindly supplied us with a photograph of the type specimen.

californicus
figs. 294, 321

Conus californicus "Hinds" Reeve, 1844, Conch. Icon. 1, Conus, pl. 42 spec. 224.

Type. - The holotype was originally in the Belcher collection, now in BMNH (no. 1844.6.7.87), the measurements are $23\frac{1}{2} \times 13$ mm (fig. 321). We have compared this specimen to the figures of *Conus californicus* in Hinds (1844: pl. 1 figs. 3-5), these two shells were also collected by E. Belcher. However, the holotype does not seem to be one of Hinds' specimens, which are larger (26 x 15 mm) and of a different colour pattern. Captain Belcher must have obtained a number of specimens.

Type locality. - "California". Hinds (1844: 7) mentioned the exact locality, "Bay of Magdalena, California. In seven fathoms, on a sandy floor", W. Mexico.

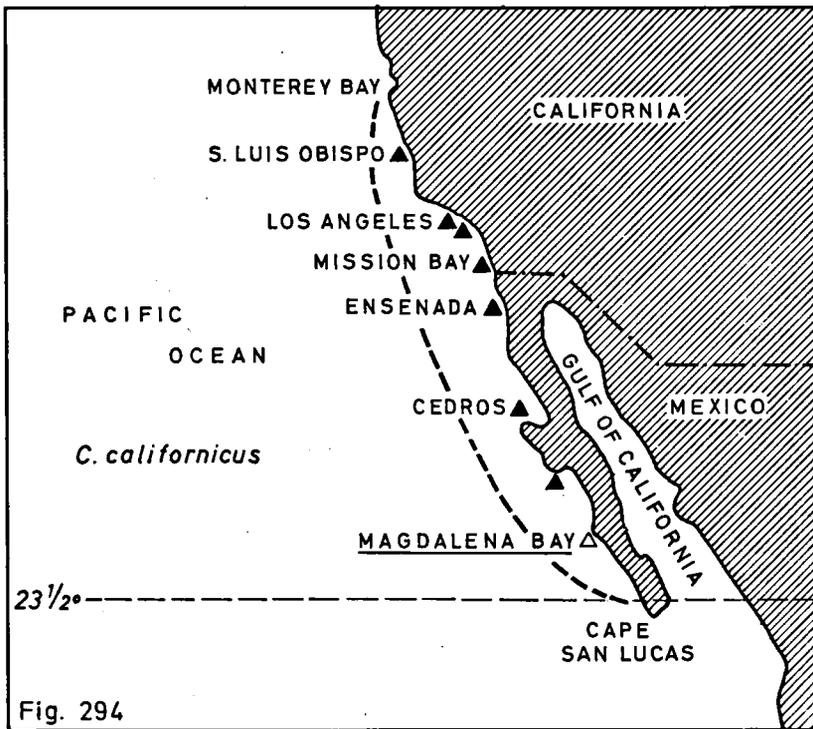
Remarks. - Reeve (January 1844) ascribed *C. californicus* to Hinds, in the Proceedings of the Zoological Society of London of 1844, but it was not described in that journal. Hinds described the species elsewhere only in July 1844; although he is sometimes considered the original author (cf. Hanna, 1963: 58), Reeve's description was published six months before.

C. californicus is a valid species and there are no closely related recent species known from West America or the Caribbean. The feeding behaviour of *C. californicus* is different from that of other Conidae; the prey consists of gastropods, pelecypods, cephalopods, polychaetes, amphipods, and fishes (Saunders & Wolfson, 1961; Kohn, 1966). Generally a *Conus* species is either molluscivorous, vermivorous, or piscivorous.

Distribution. - *C. californicus* is a common species in shallow water from Monterey Bay (Central California) to Cedros Island (W. Mexico); it becomes rare further south towards Cape San Lucas (fig. 294).

Material studied. - Many specimens in Los Angeles County Museum of Natural History from localities between San Luis Obispo (California) and 27° N on the east coast of Lower California (Mexico). ZMA has shells from S. California (Los Angeles, San Pedro Bay, Newport Beach, Mission Bay), and Mexico (Ensenada).

Mrs. K.M. Way kindly supplied us with a photograph of the holotype.

Fig. 294. Distribution of *Conus californicus*.

calliginosus
fig. 323

Conus (Chelyconus) kinoshitai Kuroda forma *calliginosus* nom. nov. Shikama, 1979,
Sci. Rep. Yokosuka City Mus. 26: 5, pl. 1 figs. 15-16

Type. – Since formae are of infrasubspecific rank in zoological nomenclature (ICZN art. 45), there is no holotype. The specimen, from which the forma *calliginosus* was described, is in the collection of Mr. R. Kawamura; it will be deposited later in the National Science Museum, Tokyo. The original figure is reproduced here (fig. 323); the dimensions are 51.3 x 21.3 mm.

Locality. – “Off Taiwan”.

Remarks. – *Conus kinoshitai* forma *calliginosus* is based on a single specimen, and described in a posthumous publication of Shikama. He also called it a “nomen novum”, which term has another meaning in the nomenclature. In the description and abstract the author uses the spelling “calliginosus”, but with the figure the correct Latin spelling “caliginosus” (= cloudy, dark) is used.

Shikama did not discuss in which characters the forma *calliginosus* is distinct from the nominate form; he stated that *C. kinoshitai* Kuroda, 1956 is a “very variable species of

the Japanese waters". The holotype of *C. kinoshitai* measures 71 x 35.4 mm, so that the width is about half the length. The forma *calliginosus* is more slender (51.3 x 21.3 mm), and the colour was described as: "Protoconch greyish white. Surface of last whorl smooth, lustrous and white with light purple tint. It carries 3 spiral light brown colour bands and many small white irregular patches. Shoulder has many small brown spots".

Shikama classified two earlier described nominal species (*C. wistaria* Shikama, 1970, and *C. tamikoana* Shikama, 1973) as formae of *C. kinoshitai*; he observed that the forma *calliginosus* is between *C. kinoshitai* s.s. and forma *wistaria*.

We maintain *calliginosus* as a forma, and consider *C. wistaria* a junior synonym of *C. fulmen* Reeve, 1843. More research is needed in the species complexes of *C. fulmen* and *C. kinoshitai*.

The present authors are grateful to Dr. Y. Kanie, director of the Yokosuka City Museum, for sending us the publication of the late Prof. T. Shikama.

camelinus

Cucullus camelinus Röding, 1798, Mus. Bolten. 2: 48, no. 618/110

Type. - The Bolten collection contained one specimen which is lost. There is no reference to any figure in the literature.

Type locality. - Not mentioned.

Remarks. - Without a specimen and no description *Conus camelinus* (Röding) is a nomen nudum. Röding called it "Die kamehlfarbene Tute" (the camel coloured cone).

canaliculatus

Cucullus canaliculatus Röding, 1798, Mus. Bolten. 2: 40, no. 501/26

Type. - Röding mentioned five specimens in the Bolten collection, which must be considered lost.

Type locality. - Not mentioned.

Remarks. - Röding only stated "Die gerillte Tute" (the grooved cone), without a description or reference. *Conus canaliculatus* (Röding) is therefore a nomen nudum.

canaliculatus

fig. 324

Conus canaliculatus Dillwyn, 1817, Desc. catal. rec. shells 1: 360-361, no. 13
(non *C. canaliculatus* Brocchi, 1814, a fossil)

Type. - As Dillwyn had no specimen available, he referred to *Conus canaliculatus* in Chemnitz (1795, vol. 11: 48-49, pl. 181 figs. 1748-1749), to *C. malacanus* Hwass, 1792, do. in Lamarck (1810: 264), and to the figure in the Tableau Encyclopédique (vol. 23: pl. 325 fig. 9). The last mentioned was designated lectotype of *C. canaliculatus* Dillwyn

by Walls (1979: 687). The type specimen is no longer available (Kohn, 1968: 467); the type figure is reproduced here (fig. 324), the measurements are 53 x 31 mm.

Type locality. - "Inhabits the coasts of Ceylon, and the Nicobar Islands. Chemnitz. Straights of Malacca. Bruguier". Dillwyn had copied these localities from the above-mentioned authors.

Remarks. - The lectotype of *C. canaliculatus* is also the holotype of *C. malacanus*, and thus an objective junior synonym of the latter.

The name *C. canaliculatus* Dillwyn, 1817, is a junior homonym of the fossil *C. canaliculatus* Brocchi, 1814.

cancellatus

figs. 295, 329, 332-333

Conus cancellatus Hwass in Bruguière, 1792, Encycl. Méth.: 712-713, no. 107

Type. - The Hwass collection contained one specimen; the type figure (Hwass, 1798: pl. 338 fig. 1) is reproduced here (fig. 329), it measures 40½ x 21 mm.

According to Mermod (1947: 170) and Kohn (1968: 445, pl. 3 fig. 23) the holotype is in MHNG (no. 1106/50), dimensions 39 x 19 mm (fig. 330). The figure of *Conus cancellatus* in Kiener (1845: pl. 76 fig. 4) represents the same specimen (fig. 331), it measures 44 x 20½ mm on the plate, but in the text Kiener gives 42 mm as length.

Type locality. - "l'isle d'Owhyhée dans l'océan pacifique" (the island of Hawaii in the Pacific Ocean), which is erroneous.

Remarks. - Until recently *C. cancellatus* Hwass has been considered a valid species from the western Pacific (figs. 332-333). After examining the holotype in Geneva, Da Motta (1980: 1) and Röckel & Vink (1982: 5) identified this shell with *C. austini* Rehder & Abbott, 1951, from the West Indies (vide Basteria 45: 38-39, figs. 105, 165-166). The present authors agree with this identification. Consequently *C. cancellatus* is a Caribbean species, and senior synonym of *C. austini*. However, we think that the supposed holotype of *C. cancellatus* (figs. 330-331) is not the specimen described by Hwass, although the measurements are almost equal. Our doubts are based on the following grounds:

1) Hwass (1792: 712) mentioned in the description "les grains dont les tours du sommet sont couronnés" (the granulations by which the whorls of the spire are coronated). In specimens studied we found that shells of *C. cancellatus* from the western Pacific have a coronated spire, whereas the whorls of *C. austini* are hardly coronated.

2) Kiener (1849: 151) indicated that his shell (fig. 331) was from the collection of De Lessert. Although De Lessert was later owner of the Hwass collection (Kohn, 1968: 433), there is no evidence that the supposed holotype was originally from Hwass. There are more examples known of replaced type specimens (in this publication see *C. cabritii* and *C. caeruleans*).

3) The shells of *C. cancellatus* and *C. austini* can easily be confused, since they have many identical characters: the same size, the length being about twice the width, the body whorl conical to pyriform and grooved, the spire high, the ground colour white sometimes with brown bands.

4) The type specimen has an almost straight body whorl, but the type figure shows a pyriform shell.

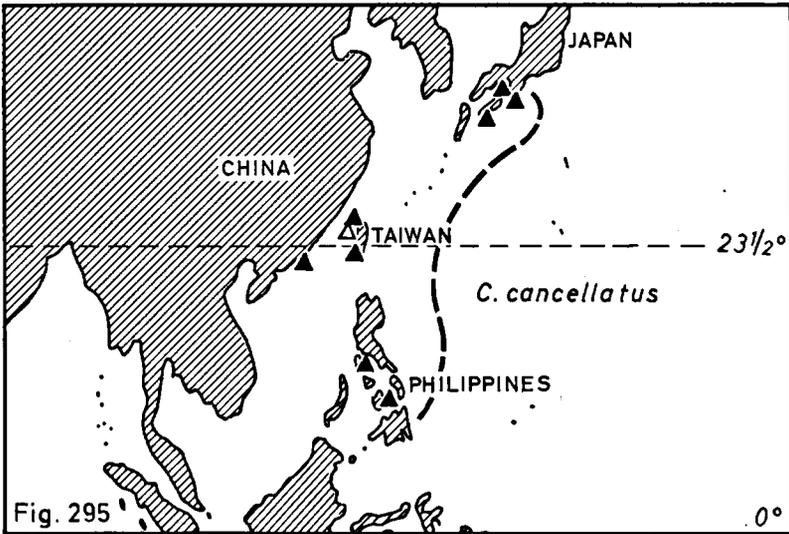


Fig. 295. Distribution of *Conus cancellatus*.

5) *C. cancellatus* was described in 1792, and *C. austini* in 1951. It seems logical that Hwass at the end of the 18th century possessed a specimen of the more common *C. cancellatus*, instead of one of *C. austini* which became only known ca. 160 years later.

6) Although the type locality of *C. cancellatus* is not correct ("Hawaii in the Pacific Ocean"), the species is from the Pacific, whereas *C. austini* occurs in the W. Atlantic.

When our conclusions are correct, the (original) holotype of *C. cancellatus* from the Hwass collection is lost, and replaced by a specimen of *C. austini* (fig. 330) from the De Lessert collection. For this reason, and for the stability of nomenclature, we prefer to maintain the name *C. austini* for the West Indian species, and to retain the name *C. cancellatus* for the Western Pacific species.

C. pagodus Kiener, 1845, is a forma of *C. cancellatus*, with a pyriform shell (fig. 333).

Distribution. - *C. cancellatus* is known from southern Japan to the Philippines (fig. 295) in moderately deep water.

Material studied. - ZMA has specimens from the coast of China. In RMNH from Japan (Wakajama, Kii) and Hongkong; in coll. Wils from Japan (Tosa Bay) and Taiwan (Taipei, Kao-hsiung). There are specimens from the Philippines (Batangas) in the San Diego Museum of Natural History; Mr. R. Martin has informed us (in litt.) that he has dredged this species around Cebu, in 70-80 fathoms.

Our thanks are due to Dr. C. Vaucher for a photograph of the "holotype".

candidus
fig. 322

Conus candidus Born, 1778, Index Mus. Vindob. 1: 130; 1780,
Test. Mus. Vindob.: 150, pl. 7 fig. 9

Type. - The specimen is not present in the Naturhistorisches Museum at Vienna, and must be considered lost. Its figure is reproduced here (fig. 322), measurements 46 x 27 1/2 mm.

Type locality. – “Patria ignota” (country unknown).

Remarks. – The shell was described as white with a purple apex, and a coronated shoulder. *Conus candidus* Born is sometimes identified as *C. suffusus* Sowerby III, 1870, known from New Caledonia. However, that shell does not have a purple apex, and the outline of the last whorl in *C. suffusus* is straight, whereas that of *C. candidus* is convex.

C. candidus Born was placed on the “Official Index of rejected and invalid specific names in zoology”, with the number 841 (Bull. Zool. Nomencl. 22: 286, opinion 757, 1966).

candidus

Cucullus candidus Röding, 1798, Mus. Bolten. 2: 50, no. 643/129
(non *Conus candidus* Born, 1778)

Type. – Röding recorded one specimen from the Bolten collection, which is considered lost. There is no reference to any figure in the literature.

Type locality. – Not mentioned.

Remarks. – Röding called it “Der weisse Küperbohrer” (the white cooper drill). Without a type, reference, description or locality, *Conus candidus* (Röding) is a nomen nudum.

candidus

fig. 325

Conus candidus Kiener, 1845, Coq. Vivant. 2: pl. 97 fig. 1; 1848: 214
(non *C. candidus* Born, 1778)

Type. – The holotype was in the collection of A. Bernardi, but its present whereabouts are unknown. The type figure is reproduced here (fig. 325); the measurements are 31 x 13 mm.

Type locality. – Not mentioned.

Remarks. – *Conus candidus* Kiener has been synonymized with *C. monilifer* Broderip (cf. Reeve, 1849, Emendations: 3), *C. pealii* Green (cf. Tryon, 1884: 36), *C. floridanus* Gabb and *C. floridensis* Sowerby (cf. Sowerby, 1887: 255-256; Tomlin, 1937: 225), and with *C. delessertii* Recluz (cf. Walls, 1979: 394). To this list *C. kerstitchi* Walls, 1978, may be added.

Without a type specimen and no locality it is difficult to decide what *C. candidus* Kiener is, as can be concluded from the different opinions mentioned above. We prefer to assign it the status of a nomen dubium. The name *C. candidus* Kiener, 1845, is a junior homonym of *C. candidus* Born, 1778.

canonicus

figs 296, 326-328

Conus canonicus Hwass in Bruguière, 1792, Encycl. Méth.: 749-750, no. 143

Type. – Hwass recognized two varieties in this species. The var. A is conspecific with *Conus archiepiscopus* Hwass, 1792. A specimen from the Sollier collection in MHNG

(no. 1107/87) is possibly the type of var. B. It was designated neotype of *C. canonicus* by Kohn (1968: 445-446, pl. 3 figs. 25-26); the dimensions are 53 x 28½ mm (fig. 326).

Type locality. – “les mers des grandes Indes” (Indian Ocean), herewith restricted to the Maldives.

Remarks. – Although *C. canonicus* is sometimes considered a form of *C. textile* Linné, 1758, it is generally treated as a valid species. The shell is solid; in typical adult specimens the shape is characterized by straight sides of the last whorl, narrowed at the base (fig. 327). The aperture is pink inside. In most specimens the shape is more slender than the type, the length of the shell being over two times the width (fig. 328).

Da Motta (1982: 5-6, fig. 5) described *C. textile dahlakensis* as an endemic subspecies from the Dahlak Archipelago in the Red Sea. We have examined specimens of *C. canonicus* from Dissei Id., Dahlak Archipelago, which lead to the conclusion that *dahlakensis* is conspecific with *C. canonicus*.

Distribution. – The southern Red Sea, the islands of the central Indian Ocean, Indonesia, and in the W. Pacific from the Philippines to New Caledonia, and Queensland (fig. 296). There are no locality records from East Africa, the Arabian Gulf, India, and the Bay of Bengal.

Material studied. – ZMA has specimens from the Seychelles (Mahé), Maldives, Ceylon, Sumatra (Berhala), Java (Djakarta Bay, Tjilauteurun), Celebes (Batoe Is.), Sumbawa (Wetar Id.), East Flores, Moluccas (Ceram, Amboina, Nusa Laut), New Guinea (Biak, Djajapura), Bismarck Archipelago (Manus, New Ireland), Solomon Is., and Queensland (Innisfail). In coll. Wils there are shells from the Red Sea (Port Sudan, and Dissei Id., Dahlak Archipelago), Mauritius (Port Louis), Philippines (Boac, Marinduque, Negros), and Bismarck Archipelago (New Britain).

Our thanks are due to Dr. C. Vaucher for a photograph of the neotype.

canonicus
fig. 320

Cucullus canonicus Röding, 1798, Mus. Bolten. 2: 43, no. 535/54
(non *Conus canonicus* Hwass, 1792)

Type. – Röding recorded four specimens from the Bolten collection, which is considered lost. Kohn (1975: 198-199) designated a lectotype from the references, being the shell figured in Martini (1773, vol. 2: pl. 57 fig. 629). The type figure is reproduced here (fig. 320); dimensions 63 x 35 mm.

Type locality. – Not mentioned. Martini (1773: 270) indicated the range (East Indies, Amboina, Africa) of the species, but not the locality of the figured specimen.

Remarks. – There is no description of *Conus canonicus* (Röding). We agree with Kohn that the lectotype is conspecific with, and therefore a junior secondary synonym of *C. vexillum* Gmelin, 1791. This synonym was also given by the original author.

The name *C. canonicus* (Röding) is a junior secondary homonym of *C. canonicus* Hwass, 1792.

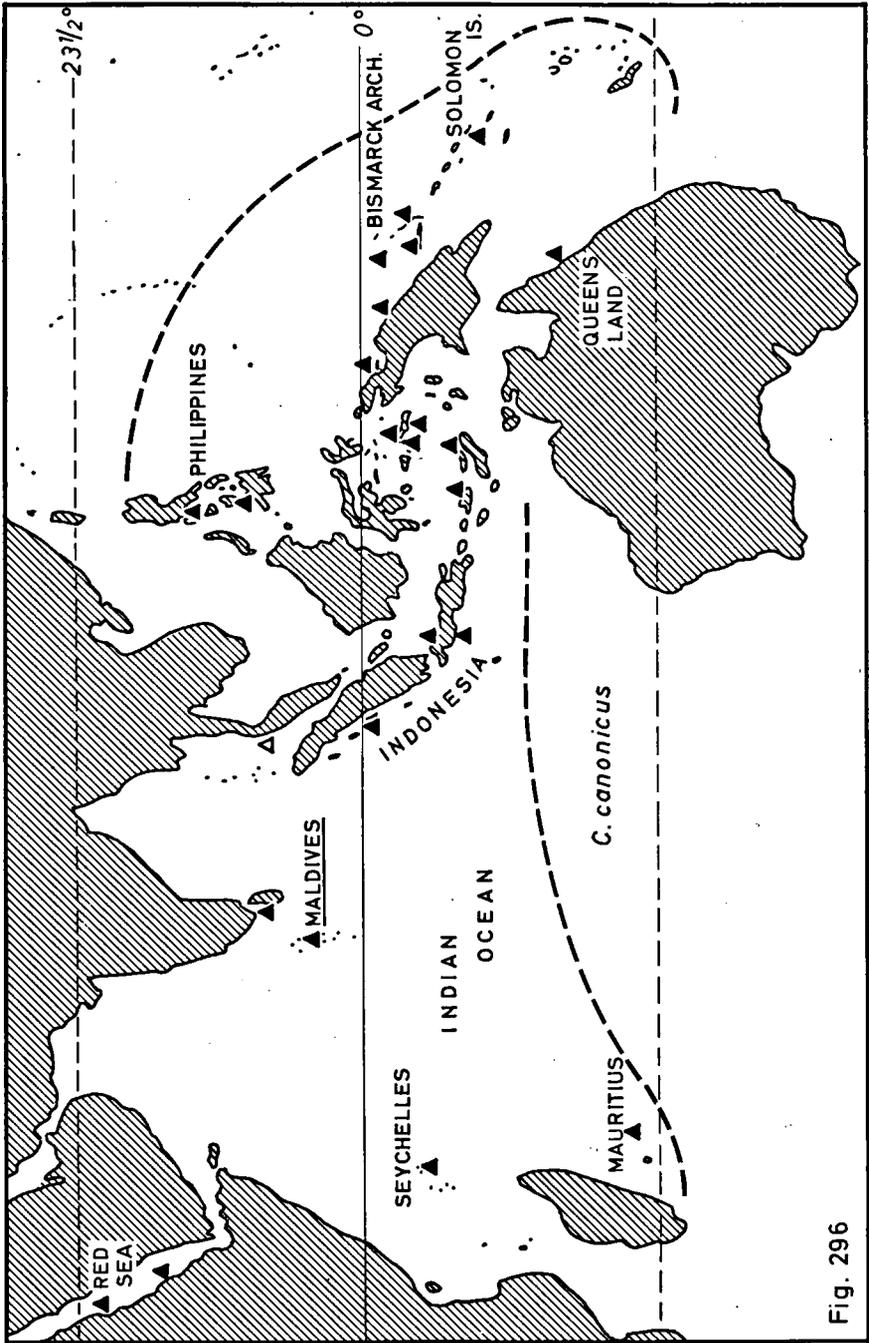


Fig. 296

Fig. 296. Distribution of *Conus canonicus*.

capitanellus
figs. 297, 334-336

Conus capitanellus Fulton, 1938, Proc. malac. Soc. Lond. 23: 55, pl. 3 figs. 1-1a

Type. - The holotype (fig. 334) is present in BMNH (no. 1938. 7.13.14); the dimensions are 36 x 20 mm (Fulton: 36 x 19 mm).

Type locality. - "Kii, Japan".

Remarks. - When Fulton described this species, the name *Conus capitanellus* had been known as a nomen nudum for several years, being used by Kuroda (1935, in *Venus* 5: 54), and by Tomlin (1937: 225). It is considered a valid species. According to Fulton the shell looks somewhat like a small *C. capitaneus* Linné (see this publication, fig. 339), but it differs from that species by its smaller size and narrower shape, with more numerous spiral striae, but without the spiral series of spots (figs. 334-336).

Distribution. - *C. capitanellus* is known from southern Japan to the Philippines from rather deep water (fig. 297).

Material studied. - The holotype, and other specimens from Japan: Tosa Bay (ZMA), Kii and Abana (RMNH), Bolo Point, Okinawa (coll. Wils); and from the Philippines: Bohol, Panglao, 80-120 fathoms (IRScNB).

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

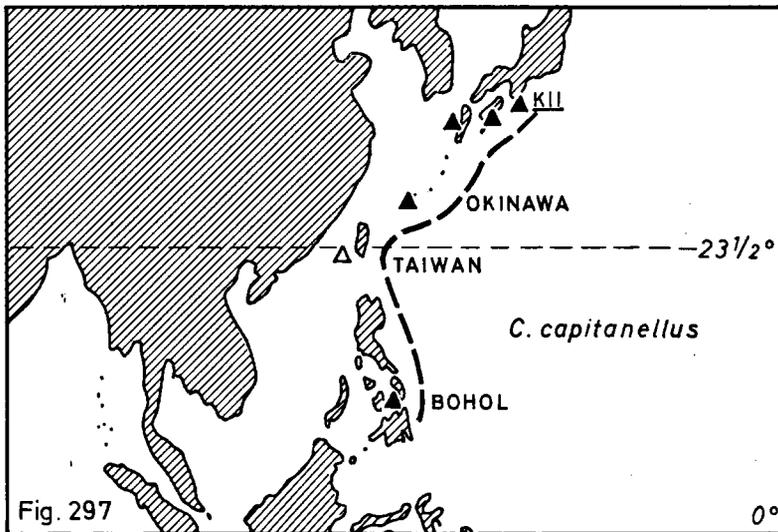


Fig. 297. Distribution of *Conus capitanellus*.

capitaneus
figs. 298, 337-342

Conus capitaneus Linné, 1758, Syst. Nat. 10 ed. 1: 713 no. 254

Type. - In the Linnaean collection in London three specimens are present of which one was designated lectotype and figured by Kohn (1963: 747, fig. 9); the dimensions are 51 x 32 mm.

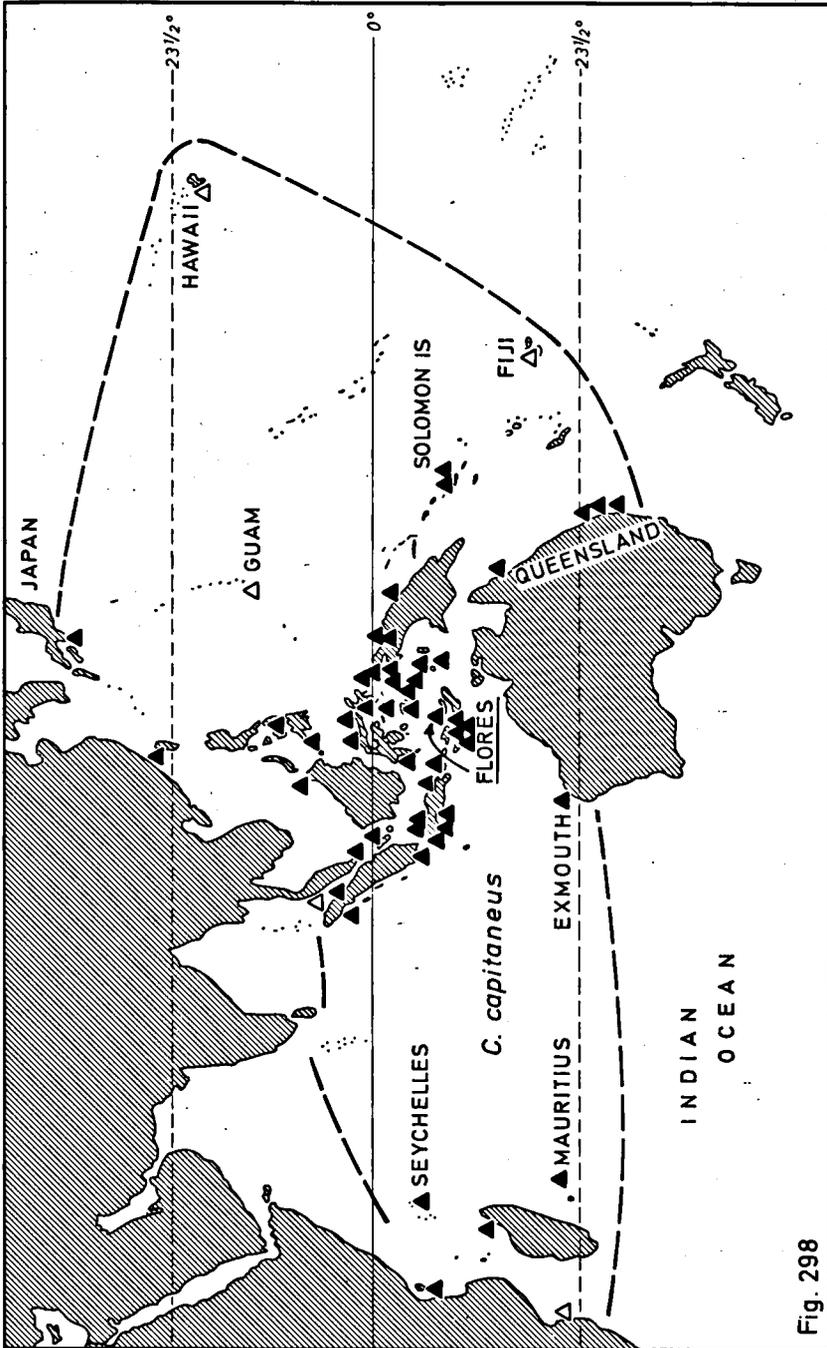


Fig. 298

Fig. 298. Distribution of *Conus capitaneus*.

Type locality. – “Asia”, herewith restricted to Larantuka, Flores, Indonesia.

Remarks. – *Conus capitaneus* is well-known and considered a valid species. The differences with *C. mustelinus* Hwass, 1792, were summarized by Cernohorsky (1968); the shell of this species is more slender, with neatly arranged black spots on the last whorl. The ground colour of *C. capitaneus* varies from greenish to brownish yellow, often with axial brown stripes or spirally dotted lines (figs. 337-339). The length is 50-60 mm, with a maximum of 90 mm.

The forma *ceciliae* Crosse, 1858, is discussed below (figs. 341-342).

Wils c.s. (1969-1974: 91) described a colour form *virgineus* in 1972 (non *C. virgineus* Link, 1807), in which the pattern at midbody is almost completely absent (fig. 340).

Distribution. – The range of *C. capitaneus* covers a large area in the Indo-Pacific (fig. 298), from East Africa (Tanzania and Mozambique) via Indonesia to S. Japan, Hawaii, and Queensland. The species is not reported from the Red Sea, the northern Indian Ocean, and French Polynesia.

Material studied. – ZMA has specimens from Tanzania (Dar-es-Salaam), Seychelles (Mahé), Singapore, North Borneo (Mandi Darrah Id.), Banka, Java (Sunda Straits, Djakarta Bay, Cheribon, Wijnkoops Bay, Tjilauteurun), Bali, Flores (Endeh, Larantuka), Sumba, Sawu, Semau, Timor, Celebes (Macassar, Lintidu, Kaju Ragi), Moluccas (Buru, Besi, Ceram, Amboina, Nusa Laut, Banda, Tenimbar Archipelago), New Guinea (Fakfak, Waigeo, Sorong, Biak, Seroei, Wasior, Djajapura), Solomon Is. (Malaita, Florida), Queensland (Capricorn Group, Moreton, Michaelmas Cay), and W. Australia (Exmouth). In addition we have studied material in RMNH from Madagascar (Nosi Bé), Sumatra (Simeulue, Medan), Java (Tjilatjap), Madura, Sumbawa (Bima), Moluccas (Ternate, Great Kai), Queensland (Bundaberg), and the Philippines (Zamboanga). In coll. Wils there are specimens from Mauritius, Philippines (Cebu), Taiwan (Taipeh), and S. Japan (Kii).

capitaneus

Conus capitaneus Renier, 1804, Tav. alfab. conch. Adriat.: 8

Remarks. – According to Tomlin (1937: 225) *C. capitaneus* in Renier is a nomen nudum. Keen (1951) discussed the generic names of S.A. Renier's “Tavola alfabetica delle Conchiglie Adriatiche” (1804). A few years later, Renier's work was placed on the “Official Index of rejected and invalid works in Zoological Nomenclature” (ICZN, 1954: opinion 316). Despite this rejection, Kohn (1981: 295, 297) treated four *Conus* names introduced by Renier.

capitatus

Cucullus capitatus Röding, 1798, Mus. Bolten. 2: 51, no. 650/136

Type. – Röding mentioned one specimen in the Bolten collection, which is considered lost. There are no references to the literature.

Type locality. – Not mentioned.

Remarks. – Without a type specimen, description or reference, *Conus capitatus* (Röding) is a nomen nudum. Röding called it “der Stockknopf” (the cane handle).

capricorni
figs. 105, 345-347

Conus capricorni Van Mol, Tursch & Kempf, 1967, Ann. Inst. Océanogr. 45:
238-239, fig. 3, pl. 10 fig. 1

Type. - The type material is in MNHN; the measurements of the holotype are 49.2 x 25.0 mm (fig. 345). Five paratypes are from 18½ x 8½ to 52 x 23 mm (figs. 346-347).

Type locality. - "30°40' S - 49°35.5' W, chaluté à 141-135 m (Calypso, station 150)", this locality is off Rio Grande do Sul, S. Brazil. The paratypes were dredged off Pernambuco, at 9°01' S - 34°51'10" W, in 370-560 m (Akaroa, stat. 5).

Remarks. - *Conus capricorni* is based on six dead shells, which are worn, discoloured, and partly damaged (figs. 345-347); only one juvenile paratype is intact. In addition the localities of the holotype and the paratypes are 3000 km apart (cf. fig. 105); it may therefore be doubted that they are conspecific.

The original authors described *C. capricorni* as distinct from *C. austini* Rehder & Abbott, 1951, but according to Richard (1980: 96) these are synonyms.

Most authors consider the large and more elongate shells of *C. austini*, with straight sides and finely grooved, from the Brazilian east coast, as "subspecies *capricorni*". Although the type material is difficult to interpret, we agree with Vink (1982) that the name *capricorni* cannot be applied to the high spired form of *C. austini* from Brazil. Thus our former opinion (vide Basteria 45: 38-39) is herewith rejected.

C. attractus Tomlin, 1937 (new name for *C. fusiformis* Lamarck, 1810) is not a senior synonym of *C. capricorni*, as was suggested by Walls (1979: 116-117, 146). We consider *C. attractus* (vide Basteria 45: 27, fig. 150) to be conspecific with *C. anemone* forma *compressus* Sowerby II, 1866; this is confirmed by Kohn (1981: 320).

Vink (1982: 6, figs. 1-3) compared a better preserved shell of *C. capricorni* from the "type locality" (in coll. Tursch, but not mentioned in the original description) to Floridan specimens of *C. "villeepinii"*, and considered these conspecific. In the *C. villeepinii* complex we recognize some deepwater taxa from the Caribbean: *C. villeepinii* Fischer & Bernardi, 1857 (shell rather small, to 32 mm, off the Lesser Antilles); *C. "villeepinii"* auct. (length 50-70 mm, off Florida and the Gulf of Mexico); and *C. fosteri* Clench & Aguayo, 1942 (length of the shell to 65 mm, off Cuba).

The present authors have compared the holotype of *C. capricorni* (fig. 345) to the type figure and description of *C. villeepinii*, and to specimens of the latter from off Barbados (165-360 m) with a shell length of 18-32 mm. The holotype of *C. villeepinii*, length 32 mm, loc. Marie Galante, Lesser Antilles, is lost. We conclude that the synonymy of *C. capricorni* and *C. villeepinii* s.s. cannot be supported.

Considering the type material we only can state that the taxonomic status of *C. capricorni* is uncertain.

We are grateful to Dr. P. Bouchet for the loan of the type material.

caracanus
figs. 303, 382

Conus cedonulli caracanus Hwass in Bruguière, 1792, Encycl. Méth. 1: 603-606;
1798, Tabl. Encycl. 23: pl. 316 fig. 6

Type. - The holotype is present in the Hwass collection at MHNG (no. 1106/57); the dimensions are 47 x 25½ mm (fig. 382).

Type locality. - "sur la côte de Caracas, dans l'Amérique méridionale, au nord de la Guyane" (on the coast of Caracas, in South America, north of Guyana).

Remarks. - The name *C. caracanus* must be considered of subspecific rank, according to art. 45 of ICZN. Kohn (1976: 44) provisionally regarded it as of infrasubspecific rank.

The holotype of *C. cedonulli caracanus* (fig. 382) has a convex body whorl, with about 35 rows of punctate spiral lines, and a very irregular dark brown pattern. We have studied identical shells of the *C. cedonulli* complex from Aruba Id., Netherlands Antilles. Therefore the type specimen of *C. caracanus* may have originated from Aruba, which is not too distant from Caracas (fig. 303). However, the few specimens known from Grenada also show an identical pattern, which makes localization of the holotype of *C. cedonulli caracanus* at the moment questionable. In view of this, the infraspecific status must await further investigation.

Dr. C. Vaucher kindly supplied us with a photograph of the holotype.

characteristicus
figs. 290, 299, 348-349

Conus characteristicus Fischer, 1807, Mus. Demidoff 3: 139, nos. 113-116

Type. - Fischer von Waldheim recorded two specimens (nos. 113 and 144) of *Conus characteristicus* in the collection of Paul de Demidoff, and referred to the shell figured in Chemnitz (1795, vol. 11: pl. 182 figs. 1760-1761). The collection also contained two varieties (nos. 115, 116), of which to date only the second specimen is present in the Zoological Museum of Moscow State University. The other three were destroyed in the Moscow fire in 1812; none of the shells was figured by Fischer. The remaining shell was studied by us, and identified as *C. eburneus* forma *crassus* Sowerby, 1857 (fig. 350).

The cited figure in Chemnitz was designated lectotype of *C. characteristicus* by Kohn (1981: 298-299, fig. 18). The type figure is reproduced here (fig. 348), the dimensions are 43 x 29 mm (Kohn: 40 x 27 mm). The specimen was from the Chemnitz collection, the present whereabouts are unknown.

Type locality. - Not mentioned. Chemnitz (1795: 54) indicated that the shell was probably from St. Barths, Lesser Antilles, which is erroneous. We herewith designate the Java Sea type locality of *C. characteristicus*.

Remarks. - Chemnitz had named the shell *C. characteristicus* (see this publication), which spelling was used by Dillwyn. *C. characteristicus* is a valid species, the height of the spire varies from almost flat (fig. 349) to elevated; *C. brevis* (vide Basteria 46: 40, fig. 290) represents a juvenile.

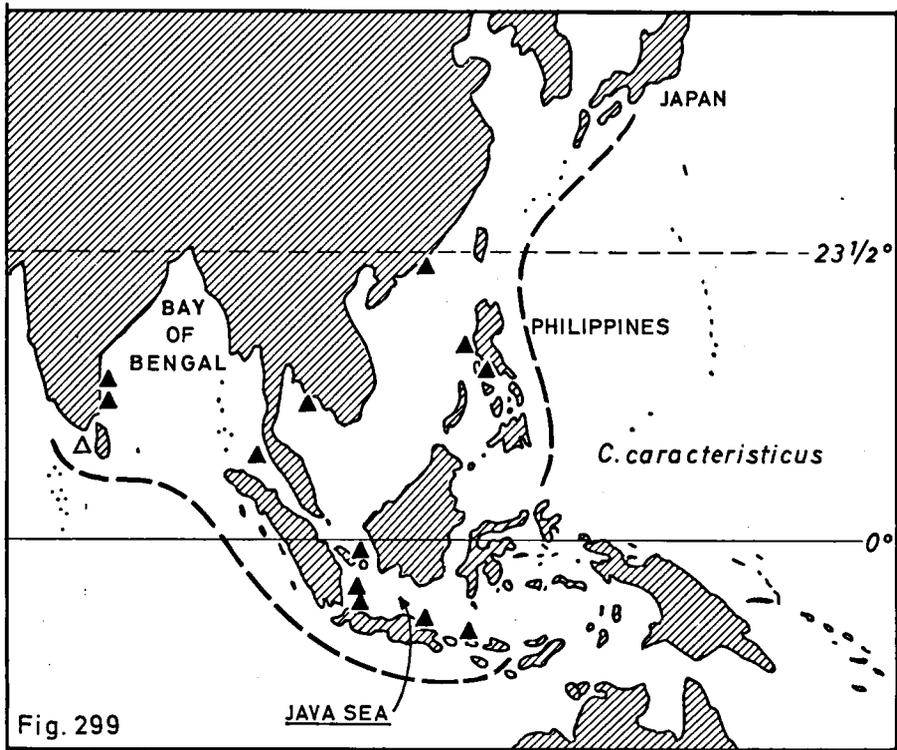


Fig. 299. Distribution of *Conus characteristicus*.

Distribution. - *C. characteristicus* is known from shallow water of the Bay of Bengal, the Straits of Malacca, Java Sea, Gulf of Siam, and the Philippines to southern Japan (fig. 299).

Material studied. - ZMA has specimens from Madras (India), Lombok (Siboga, sta. 33), and Manila Bay (Philippines); RMNH from Phuket (Thailand), Billiton and Borneo, Djakarta Bay (Java), Djumiang (Madura), and Batangas Bay (Philippines), ZMUC from off Tranquebar (India), Koh Kahdat (Thailand), and the Java Sea off Djakarta (Indonesia). In coll. Wils there is material from Kowloon (Hongkong), and Boac, Marinduque (Philippines).

We are grateful to Dr. V. N. Goryachev (Zoological Museum of Moscow University) for the loan of type material.

carcellesi

figs. 300, 353-355

Conus carcellesi Martins, 1945, Notas Mus. Plata 10 (88): 260-263, figs. A-G

Type. - The holotype (29 x 14 mm) and two paratypes are present in the Museo Nacional, Rio de Janeiro (nos. 36300-36302). Two paratypes are preserved in MCZ

(no. 146473); the measurements are 28.7 x 14.9 mm (fig. 353) and 26.7 x 13.9 mm (outer lip damaged); two paratypes are in the Museo Argentino de Ciencias Naturales at Buenos Aires (Clench, 1953: 372-373).

Type locality. - "Mar del Plata, provincia de Buenos Aires, Argentina".

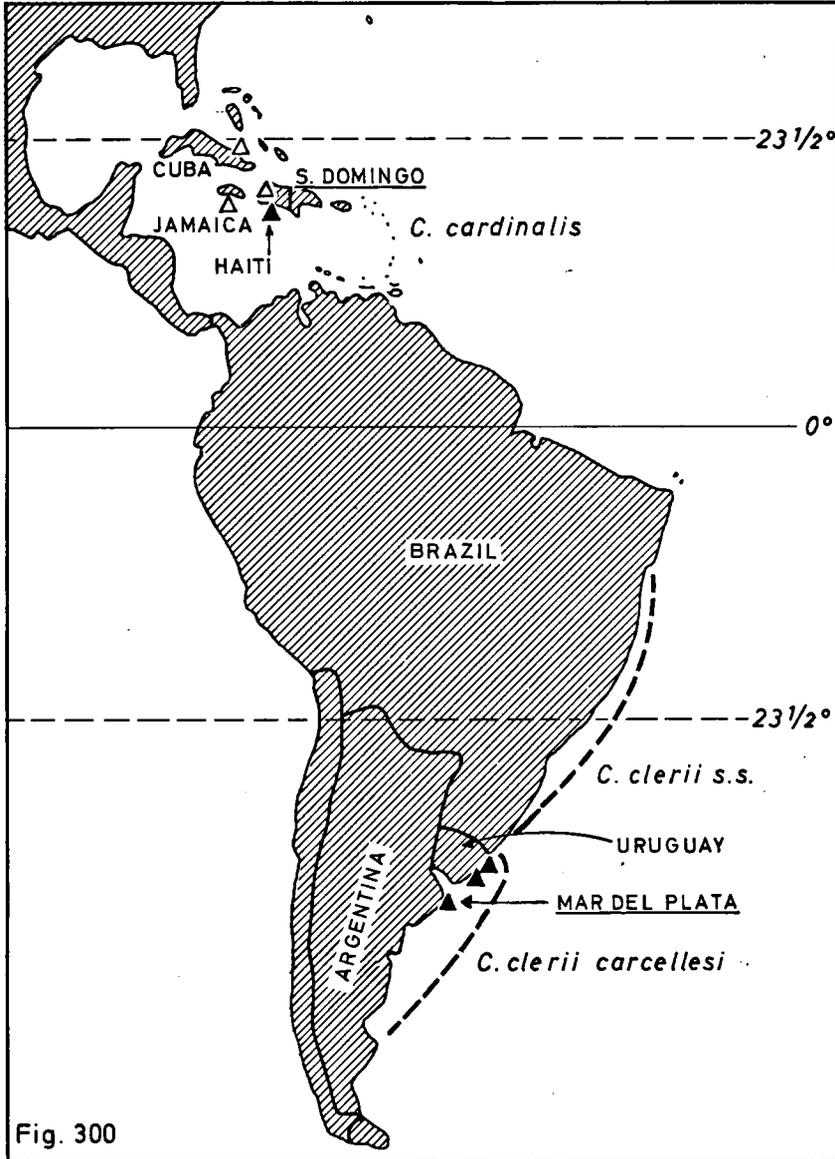


Fig. 300. Distribution of *Conus clerii carcellesi* as compared to that of *C. clerii s.s.*, and known localities of *C. cardinalis*.

Remarks. - In recent literature (Van Mol, Tursch & Kempf, 1967: 240-242; Rios, 1975: 124) *Conus carcellesi* is considered a junior synonym of *C. clenchi* Martins, 1943. We have compared two paratypes (fig. 353) and other specimens (figs. 354-355) of *C. carcellesi* to the Brazilian *C. clerii* Reeve, 1843 and *C. lemniscatus* Reeve, 1849 (which is a senior synonym of *C. clenchi*). It is concluded that *C. carcellesi* is not conspecific with *C. lemniscatus*, but it may be considered a subspecies of *C. clerii*. The conchological differences are summarized by Da Motta (1981: 5, figs. 1-3): *C. clerii* has a turbanate shell with an angulate and carinate shoulder, whereas subspecies *carcellesi* is biconic with a subangulate and smooth shoulder. In addition *C. clerii* reaches a larger size (up to 50 mm) than its subspecies *carcellesi* (to about 30 mm), and the ranges are disjunct (fig. 300).

Distribution. - *C. clerii* s.s. occurs on the Brazilian coast from Bahia to Rio Grande do Sul (fig. 300). The subspecies *carcellesi* is known to us from Uruguay and the northern coast of Argentina, and reported in the literature (Rios, 1975: 124) from as far south as Puerto Deseado at 48° S.

Material studied. - Two MCZ paratypes; ZMA has specimens of *C. clerii carcellesi* from Cabo Polonio and La Paloma (Uruguay).

We are grateful to Dr. K. J. Boss for the loan of the paratypes.

cardinalis
figs. 300, 356-358

Conus cardinalis Hwass in Bruguière, 1792, Encycl. Méth.: 632-633, no. 30

Type. - Hwass mentioned one specimen in his collection, in addition to three literature references, from which Clench (1942: 5-6) designated a lectotype. This is the shell figured in Martini (vol. 2, 1773: pl. 61 fig. 680). The type figure is reproduced here (fig. 356); the measurements are 25 x 15½ mm. The specimen was in the Feldmann collection, but its present whereabouts are unknown. Kohn (1968: 446, pl. 4 fig. 2) considered the specimen from the Hwass collection, now in MHNG (no. 1106/52), holotype of *Conus cardinalis* (fig. 357); however, Clench's earlier designation of a lectotype is valid.

Type locality. - "dans l'océan Indien, et sur les côtes de Saint-Domingue ou de la Martinique" (the Indian Ocean, and on the coasts of Santo Domingo or Martinique). Kohn (1968: 446) restricted the type locality to S. Domingo. According to Martini (1773: 327-328) the locality of the lectotype is unknown.

Clench (l.c.) selected Tortola Id., Virgin Islands, type locality, which is not a valid designation because Hwass mentioned a correct locality. In addition, Clench's specimen (1942: pl. 4 fig. 1) from Tortola is not conspecific with *C. cardinalis*; it belongs to the species complex of *C. magellanicus* Hwass, 1792.

Remarks. - The shell of *C. cardinalis* is characterized by a coral red colour, with white bands on the shoulder and on the middle of the body whorl, in which bands brown spots are present; the shoulder is coronated (fig. 358). The subspecific status in the combination *C. regius cardinalis*, suggested by Clench, has not been recognized by later authors (cf. Abbott, 1958: 92-93).

C. cardinalis is the oldest name in a complex of uncommon nominal species, to which belong *C. havanensis* Aguayo & Farfante, 1947 (Cuba), and *C. kulkulcan* Petuch, 1980

(Honduras), and also possibly *C. ornatus* Sowerby, 1833, and *C. dianthus* Sowerby, 1882 (without type localities). These shells are rather small (under 30 mm), the last whorl is granulated, the shoulder strongly coronated, and the inside of the aperture is pink; the range includes Honduras, Greater Antilles and Bahamas.

A related species complex embraces *C. jucundus* Sowerby, 1887 (no locality), *C. abbotti* Clench, 1942 (figs. 2, 9, Bahamas), and *C. arangoi* Sarasua, 1977 (figs. 95, 113, Cuba). These shells are between 30 and 50 mm long, with an almost smooth last whorl, shoulder weakly coronated, aperture lavender to purple; range Cuba and Bahamas.

The species complex of *C. magellanicus* includes *C. cidaris* Kiener, 1845 (see below, figs. 417-418), *C. speciosissimus* Reeve, 1848 (Curaçao), and *C. lubeckianus* Bernardi, 1861 (Guadeloupe). These small shells are confined to the Virgin Islands and Lesser Antilles (Van Mol, 1977).

Distribution. – Specimens of *C. cardinalis* s.s. with exact locality data are scarce. In recent literature the islands of the Greater Antilles are mentioned (fig. 300), viz. Cuba, Jamaica, and Hispaniola (including the type locality Santo Domingo, and Haiti). For the range of the *C. cardinalis* complex see above.

Material studied. – ZMA and RMNH have a few shells of *C. cardinalis* s.s. from the West Indies in general, IRScNB has one specimen from Haiti.

Dr. C. Vaucher kindly supplied a photograph of the specimen in the Hwass collection.

cardinalis

fig. 359

Cucullus cardinalis Röding, 1798, Mus. Bolten. 2: 42, no. 531/50
(non *Conus cardinalis* Hwass, 1792)

Type. – Röding mentioned two specimens in the Bolten collection, which are considered lost. From the references a lectotype was designated by Walls (1979: 390), being the shell figured in Chemnitz (vol. 10, 1788: pl. 144A fig. L). This shell was originally in the collection of Chemnitz, but the present whereabouts are unknown. The type figure is reproduced here (fig. 359), the measurements are 42 x 23½ mm.

Type locality. – Not mentioned. Chemnitz (1788: 92-93) indicated the "Westindische Zuckerinseln" (West Indian sugar islands).

Remarks. – Kohn (1975: 199) considered *Conus cardinalis* (Röding) a nomen dubium; however, the designation of a lectotype has changed the status of this nominal species. Because its lectotype is also the lectotype of *C. daucus* Hwass, 1792, as designated by Clench (1942: 22), *C. cardinalis* (Röding) is an objective junior synonym, like *C. arau-siensis* Reeve (see Basteria 45: 9).

The name *C. cardinalis* (Röding) is a junior secondary homonym of *C. cardinalis* Hwass, 1792.

caribaensis

fig. 373

Conus centurio form *caribaensis* Usticke, 1968, Caribb. Cones: 13, pl. 2 fig. 998

Type. – Not designated. Usticke's specimen (fig. 373) is now in AMNH (no. 195445); the measurements are 31.5 x 18.1 mm (Usticke: length 30 mm).

Type locality. – Not designated. Localities mentioned: “St. Croix (Krause’s Bay), and taken by Bajan shrimpers to the South of Barbados”. The figured specimen is from Krause’s Bay.

Remarks. – This taxon was described as a forma, and also considered a new subspecies by Usticke. A subspecific status for *caribaensis* cannot be accepted, since it is sympatric with the nominate form (fig. 304). In a later publication, Usticke (1971: 18, pl. 3 fig. 997 var.) discussed and figured the same shell once again, but its length was now reported to be 33 mm. He introduced it then as a variety of *Conus cruzensis* Usticke, 1968. Ignorance of zoological taxonomy and nomenclature has caused serious doubts to be entertained about the value of the names proposed by that author.

We have studied Usticke’s specimen (fig. 373) of *caribaensis*. It appears to be a sub-adult shell of *C. centurio* Born, 1778 (see below, figs. 372, 374). Therefore *C. caribaensis* is a junior synonym.

caribbaeus
fig. 362

Conus caribbaeus Clench, 1942, *Johnsonia* 1 (6): 23-24, pl. 11 figs. 4-5

Type. – The holotype (fig. 362) is in MCZ (no. 138333), the measurements are 31.1 x 15.3 mm. Two paratypes, dimensions 33.5 x 18.5 mm (Clench: fig. 5) and 23 x 12.2 mm, were present in the collections of F.M. Bayer and A.H. Patterson.

Type locality. – “off Palm Beach Co., Florida”. The paratypes were collected at Nassau, New Providence, Bahamas.

Remarks. – The type specimen was originally in the collection of B.R. Bales; he had identified it as “*Conus flavescens?*”, which species is known from Florida and the Bahamas. The holotype of *C. caribbaeus* (fig. 362) is white and covered by remains of a yellowish periostracum; the surface is smooth, with only some incised lines near the base, spire concave. The shell is distinct from *C. mindanus* Hwass, 1792, which has a straight spire, and grooves on the lower half of the body whorl (fig. 47).

C. caribbaeus is only distinct from the yellow *C. flavescens* Sowerby, 1834, by its white colour. Our conclusion is that it represents a colour form: *C. flavescens* forma *caribbaeus*. Walls (1979: 429 below left, 674) also united both nominal species.

Material studied. – The holotype, and specimens of *C. flavescens* from the Bahamas in ZMA.

Our thanks are due to Dr. K. J. Boss for the loan of the type specimen.

carinata
fig. 344

Conus mediterraneus var. ex forma *carinata* Bucquoy, Dautzenberg & Dollfus, 1882,
Moll. mar. Roussillon 1 (2): 82, pl. 13 figs. 16-17
(non *C. carinatus* Swainson, 1822)

Type. – The original authors figured two specimens with dimensions 17 x 10 (fig. 16) and 22 x 12 mm (fig. 17), both from the Guilliou collection. We herewith designate the

largest specimen lectotype of var. *carinata* B.D.D.; the present whereabouts of the type material are unknown. The type figure is not suitable for reproduction.

Type locality. – “des éponges pêchées sur les côtes de Barbarie” (from sponges fished on the coasts of Barbary).

Remarks. – Varieties described before 1961 must be considered subspecies (ICZN art. 45e, i), which makes *Conus mediterraneus carinatus* B.D.D. a junior homonym of *C. carinatus* Swainson, 1822. According to the description the shell is short with a low spire and angulated shoulder (fig. 344). We consider it a junior synonym of the polymorphic *C. mediterraneus* Hwass, 1792, and therefore a new name for *C. carinatus* B.D.D. is not advisable.

Material studied. – In IRScNB, ex collection Dautzenberg, there are specimens (fig. 344) from Sfax, Tunisia (leg. Bedé), and from “éponges de Tunis” (sponges from Tunis).

Our thanks are due to Dr. J. van Goethem for the loan of this material.

carinatus

fig. 363

Conus carinatus Swainson, 1822, Zool. Illustr. (1) 2: pl. 112

Type. – Swainson mentioned one specimen in the Dubois collection, but its present whereabouts are unknown. The type figure is reproduced here (fig. 363); dimensions $67\frac{1}{2} \times 33\frac{1}{2}$ mm.

Type locality. – “Asiatic ocean”. Herewith restricted to the Philippines.

Remarks. – The shell of *Conus carinatus* is heavy, with a depressed and concave spire; the shoulder is carinated, colour yellowish. Dark spots on the spire distinguish it from *C. consors* Sowerby, 1833, which species has a white base. *C. carinatus* belongs to the complex of *C. magus* Linné, 1758, a polytypic species. Provisionally we consider it a form, but the status of subspecies may be necessary when the *C. magus* complex is studied in detail.

The type figure of *C. magus* forma *carinatus* (fig. 363) represents a very adult shell. Specimens as figured by Walls (1979: 436 above right), and Marsh (1964: pl. 10 fig. 16) are commonly found in the Philippines.

Material studied. – ZMA has specimens from the Philippines: Sulu Archipelago, and Cebu, Macten Id.

carmeli

fig. 311

Conus carmeli Tenison-Woods, 1877, Pap. Proc. Rpt. roy. Soc. Tasmania 1876: 134, no. 7

Type. – The holotype is in the Tasmanian Museum, no. E 689/8030, TM 5380 (Turner & Dartnall, 1971: 31); the dimensions are 22×9 mm (fig. 311).

Type locality. – “North Coast” of Tasmania.

Remarks. – *Conus carmeli* is generally considered a junior synonym of *C. anemone* Lamarck, 1810 (vide Basteria 44: 37-38, figs. 56, 88). A lectotype of *C. anemone* was recently designated by Kohn (1981: 311, fig. 33).

The shell of *C. carmeli* is small and slender, with a rather high and stepped spire; the last whorl is striate and the colour is pale pink with a few reddish spots. We consider it a juvenile specimen of *C. anemone* forma *compressus* Sowerby, 1866, which form may reach a length of about 70 mm (the holotype of *C. compressus* is an immature shell of 25 mm). It is known from South Australia.

C. attractus Tomlin, 1937, a nomen novum for *C. fusiformis* Lamarck, 1810 (non Fischer, 1807), is another junior synonym of *C. anemone* forma *compressus* (vide Basteria 45: 27, fig. 150).

According to Richard (1982: 304) *C. carmeli* is a junior synonym of *C. rutilus* Menke, 1843; however, the latter is a much smaller species (to about 15 mm).

Our thanks are due to Mr. R. M. Filmer for supplying a photograph of the holotype.

carnalis
figs. 81-82, 301, 351

Conus carnalis Sowerby III, 1878, Proc. zool. Soc. Lond. 1878: 796, pl. 48 fig. 2

Type. – The holotype (fig. 351) is present in the National Museum of Wales (no. 1955.158.32), ex E. Belcher and Tomlin collections. The measurements are 48.1 x 25.1 mm (Sowerby: 50 x 25 mm).

Type locality. – Not mentioned. We herewith designate Santa Maria Bay, Angola, type locality of *Conus carnalis*.

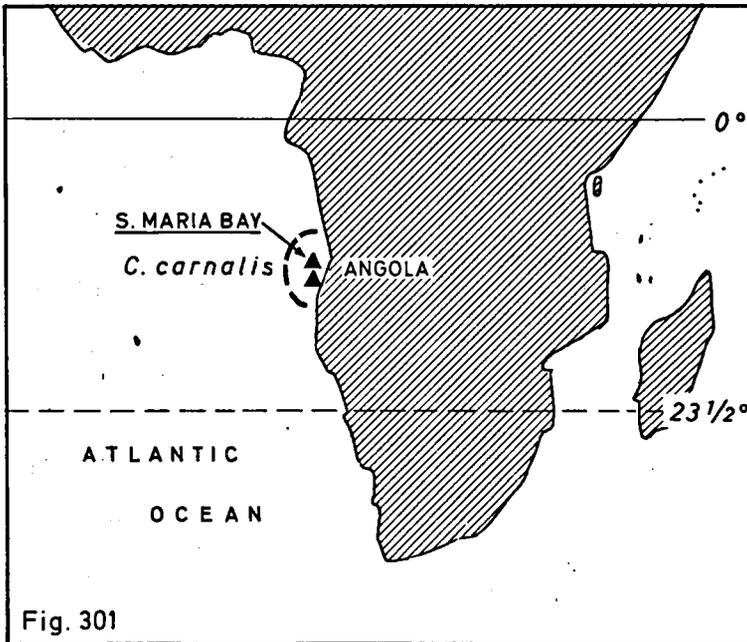


Fig. 301. Distribution of *Conus carnalis*.

Remarks. - We have compared the type specimen of *C. carnalis* to paratypes of *C. amethystinus* Trovão, 1975, from Angola (vide Basteria 44: 29-30, figs. 81-82); they appear to be conspecific. *C. carnalis* is considered a valid species. It is sometimes confused with *C. ambiguus* Reeve, 1843, and *C. tabidus* Reeve, 1843; for distinctive characters see Basteria 44: 27-28.

Distribution. - Known only from the coast of Angola, between Benguela and Moçamedes (fig. 301).

Material studied. - The holotype, and specimens from Santa Maria Bay (ZMA). Two paratypes of *C. amethystinus* (MNHN and Natal Museum).

We are grateful to Dr. P. G. Oliver for the loan of the holotype, and to Dr. F. Fernandes for donating specimens to ZMA.

carota
fig. 352

Cucullus carota Röding, 1798, Mus. Bolten. 2: 47, no. 597/93

Type. - The Bolten collection contained one specimen, which is considered lost. From the references we designate the shell, figured in Martini (vol. 2, 1773: pl. 52 fig. 581), lectotype of *Conus carota* (Röding). The dimensions of the type figure are 52 x 25 mm (fig. 352). The specimen was originally in the collection of D. Feldmann. The present whereabouts are unknown.

Type locality. - Not mentioned. Martini (1773: 232) did not indicate a locality either.

Remarks. - Röding called this shell "Die rothe Rübe" (the red beet-root). According to Kohn (1975: 199) *C. carota* is a junior synonym of *C. spectrum* Linné, 1758, although the type figure (fig. 352) is difficult to interpret. The spire is rather high, but the curved base and the colour pattern are as in *C. spectrum*. For the time being we follow Kohn's interpretation (1975).

carpenteri
fig. 364

Conus carpenteri Crosse, 1865, J. Conchyl., Paris, 13: 302-303, pl. 9 fig. 1

Type. - The holotype is in BMNH (no. 1969527/1-2), ex Cuming collection. The measurements are 46½ x 25 mm (fig. 364). A second specimen (32 x 16 mm) in the type lot was not mentioned by Crosse, and therefore it is not a paratype.

Type locality. - "Nova Guinea, Oceaniae".

Remarks. - Crosse compared *Conus carpenteri* to *C. generalis* Linné, 1767, and to *C. maldivus* Hwass, 1792. We have studied the holotype of *C. carpenteri*, and consider it a colour form of *C. litoglyphus* Hwass, 1792. The shell of forma *carpenteri* has an aberrant pattern, the light bands below the shoulder and on the middle of the last whorl are straight and continuous, whereas in typical *C. litoglyphus* these bands are dissolved into spots.

Material studied. - The holotype and another specimen in BMNH; one specimen from the Moluccas in ZMA.

Mrs K. M. Way kindly supplied us with a photograph of the holotype.

castanea

Conus (Chelyconus) mediterraneus var. *castanea* "Danilo e Sandri" Coen, 1933,
R. Comit. Talassogr. Ital. 192: 70-71
(non *C. castaneus* Kiener, 1845)

Type. - Coen indicated that the type material of the var. *castanea* was in the collection of Danilo-Sandri at Milan. The present whereabouts are unknown; Mr. H. K. Mienis informed us (in litt.) that there are no specimens in the Coen collection in the Zoological Museum, Hebrew University, Jerusalem.

Type locality. - "Costa E." (East coast) of the Adriatic Sea.

Remarks. - Coen recorded *Conus mediterraneus* var. *castanea* without description or figure; therefore it must be considered a nomen nudum. The name "castanea" suggests that the shell is brown. See also under *C. acuminata* Coen and *C. alba* Coen, in Basteria 43: 17, 94-95.

castaneofasciatus

figs. 52, 366

Conus amadis var. *castaneo-fasciata* "Sowerby" Dautzenberg, 1937,
Mém. Hus. r. Hist. nat. Belg. hors serie 2(18): 15

Type. - There is no type specimen in the Dautzenberg collection (IRScNB). The author referred to two specimens in the literature: *Conus amadis* 2nd var., in Kiener (1845: pl. 84 fig. 2; 1847: 121), and *C. amadis* "Variet castaneo fasciatus" in Sowerby II (1858: 16, pl. 8 fig. 171). Sowerby's shell is not present in BMNH.

Varieties described before 1961 must be interpreted as of subspecific rank (ICZN art. 45). We herewith designate the shell figured in Kiener lectotype of *C. amadis castaneofasciatus* Dautzenberg. The specimen was originally in the collections of Delessert and Sollier, presently in MHNG (no. 982.1392); the measurements are 80 x 40½ mm (fig. 366).

Type locality. - Not mentioned.

Remarks. - Dautzenberg considered Sowerby the author of the variety *castaneofasciatus*. However, it was not Sowerby's intention to describe a new variety; he only wanted to indicate the variation in colour of *C. amadis* Gmelin, 1791. Sowerby referred to the figure of *C. neptunus* in Kiener (1845: pl. 99 fig. 5), but not to Kiener's figure mentioned above.

The shell of typical *C. amadis* forma *castaneofasciatus* has a chestnut colour with a band of very fine tent marks (fig. 366). Darker coloured specimens were mentioned in recent literature (Röckel, 1978: 3, top fig.; Da Motta & Lenavat, 1979: pl. 2 fig. 13) from the western coast of Thailand.

The *C. amadis* species complex seems to be confined to the Bay of Bengal (fig. 52). Typical *C. amadis* (fig. 71) is known from the coasts of SE. India and Ceylon. The colour formae *aurantia* (vide Basteria 45: 29, figs. 156-157) and specimens without tent marks (fig. 72) also occur in this area.

The name "*castaneofasciatus*" is incorrectly used for brown and yellow banded shells of *C. amadis* (fig. 367), known from India and Thailand.

From the Andaman Sea and the coast of Birma to N. Sumatra *C. arbornatalis* Da Motta, 1978, was described (vide *Basteria* 45: 9, figs. 116-117), which also belongs to the *C. amadis* complex. *C. subacutus* Fenaux, 1942, of which the holotype was said to be from Madagascar, is considered a junior synonym of *C. amadis*. Another unique specimen from SE. Madagascar was described as *C. lozeti* Richard, 1980; the shell has developed a fold at the base of the columella, it looks like a freak of *C. amadis*.

More material with exact locality data from the Bay of Bengal and Madagascar is needed to consider the taxonomic status and the ranges of the (sub)species and formae in the *C. amadis* complex. Provisionally we consider *C. castaneofasciatus* to be a forma.

The authors are grateful to Mr. A.J. da Motta for specimens donated to ZMA, and to Dr. Cl. Vaucher for a photograph of the lectotype.

castaneus
fig. 425

Conus castaneus Kiener, 1845, Coq. vivant. 2: pl. 104 fig. 3; 1848: 209-210

Type. - The holotype (fig. 425) was originally in the Gubba collection, at present in BMNH (no. 180.10.28.1); the dimensions are 44 x 23½ mm. The type lot also contains a smaller specimen, which was not mentioned by Kiener, thus it is not a paratype.

Type locality. - "la mer des Indes" (the Indian Ocean), which is erroneous.

Remarks. - The holotype (fig. 425) of *Conus castaneus* can be identified as a specimen of *C. cingulatus* Lamarck, 1810, known from Colombia, which makes *C. castaneus* a junior synonym. Kiener's type figure does not show the pattern of spiral lines which are present in the type specimen.

We are grateful to Mrs. K.M. Way for a photograph of the holotype.

castrensis
fig. 365

Conus castrensis Gould, 1842, Boston J. nat. Hist. 4 (1): back cover;
1843, Proc. Boston Soc. nat. Hist. 1: 138

Type. - Gould mentioned one specimen, not figured, dimensions 3 x 1½ poll. (= 75 x 38 mm), which is the holotype. Its present whereabouts are unknown. A "lectotype" was designated by Johnson (1964: 52, pl. 10 fig. 8); this shell (fig. 365) is present in MCZ (no. 169078), on permanent loan from the New York State Museum. Although this specimen did belong to the Gould collection, it cannot be considered a lectotype, because it was not selected from syntypes. It is not the holotype, as its measurements (42.5 x 23.4 mm) are distinct.

Type locality. - Unknown.

Remarks. - In a later publication Gould (1862: 183) stated that *Conus castrensis* is a junior synonym of *C. thalassiarachus* Sowerby, 1834. We have studied the "lectotype" (fig. 365), it is also identified as *C. thalassiarachus*, which species is known to occur around the Philippines.

We are grateful to Dr. K.J. Boss for the loan of the "lectotype", and to Dr. W.K. Emerson for supplying a copy of the original description.

castus
fig. 360

Conus castus Reeve, 1843, Proc. zool. Soc. Lond. 11: 180-181;
1844, Conch. Icon. 1, Conus, pl. 47 spec. 267

Type. – The holotype is in BMNH (no. 1840.6.4.40); the measurements are 19 x 11 mm (fig. 360). In the type lot there is another shell, not mentioned by Reeve, thus it is not a paratype.

Type locality. – Unknown.

Remarks. – The type specimen of *Conus castus* (fig. 360) is a faded juvenile shell of *C. daucus* Hwass, 1792. Therefore *C. castus* is a junior synonym. The second specimen in the type lot is an adult *C. daucus*, length 35 mm.

In the description Reeve mentioned that the shell of *C. castus* is yellow and the type figure also shows this colour. Yellow adult shells of *C. daucus* are known to exist; they were named *C. luteus* Krebs, 1864 (non Sowerby, 1833).

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

catenatus
figs. 303, 381, 383

Conus catenatus Sowerby III, 1878, Proc. zool. Soc. Lond. 1878: 796-797, pl. 48 fig. 3
(non *C. catenatus* Sowerby I, 1850, a fossil)

Type. – The holotype (fig. 383) is in the National Museum of Wales (no. 34.01.30), ex coll. E. Belcher, Melvill, and Tomlin. The measurements are 31.4 x 15.0 mm (Tomlin: 31 x 14 mm).

Type locality. – “Panama?”

Remarks. – Because the name *Conus catenatus* was preoccupied by Sowerby I in 1850, the species was renamed *C. desmotus* by Tomlin (1937: 206). The name *C. “concatenatus”* Sowerby III (1887: 249; non Kiener, 1845) is an error; it was not introduced as a nomen novum. In addition the name *C. catenatus* was printed correctly with Sowerby’s figure (1887: pl. 29 fig. 654).

C. desmotus (= *C. catenatus*) is generally considered a junior synonym of *C. tornatus* Sowerby I, 1833, from the Eastern Pacific. We have compared the holotype (fig. 383) of *C. catenatus* to specimens of *C. sanctaemarthae* Vink, 1977, from the Caribbean coast of Colombia (fig. 381); these are conspecific. Thus the type locality “Panama” must be interpreted as the East or Caribbean coast, rather than the E. Pacific. *C. desmotus* becomes an earlier name for *C. sanctaemarthae*. Furthermore *C. desmotus* is concluded to be a subspecies of *C. cedonulli* Linné, 1767 (see this publication).

In *C. cedonulli desmotus* smooth and granulated shells are known. It may be possible that *C. granarius* Kiener, 1845, represents the granulated shell of *C. c. desmotus*, and consequently becomes the first name for this subspecies. However, the identity of *C. granarius* is questionable, as the type specimen is lost, and the type locality unknown.

Distribution. – *C. cedonulli desmotus* is known from the north coast of South America, from Santa Marta, Colombia, to the Testigos Is., Venezuela (fig. 303). Petuch (1981: 334,

figs. 87-92) mentioned specimens from Cabo la Vela (Colombia), Tortuga and Testigos (Venezuela), but misidentified the shells as *C. consobrinus* Sowerby, 1850, a fossil species.

Material studied. – The type specimens of *C. catenatus* Sow., and of *C. sanctaemarthae* Vink (in RMNH); specimens of smooth and granulated shells of *C. cedonulli desmotus*, from Santa Marta, are present in ZMA, RMNH, and coll. Wils.

We are grateful to Drs. P.G. Oliver and E. Gittenberger for the loan of the type material.

catus
figs. 302, 368-370

Conus catus Hwass in Bruguière, 1792, Encycl. Méth.: 707-708, no. 99

Type. – Hwass described three varieties (A, B and C), all figured in the Tableau Encyclopédique (1798, vol. 23: pl. 332, figs. 3, 4, 7). The shells are present in MHNG, of which the specimen of var. A (no. 1106/53) was designated lectotype of *Conus catus* by Kohn (1968: 446-447, pl. 4 figs. 28-29). The dimensions are 40 x 23 mm (fig. 368).

Type locality. – "l'isle Saint-Domingue, Martinique, les côtes de l'Isle-de-France, Cap-de-Bonne-Espérance". Because three of these localities (the first, second and last) are erroneous, Kohn restricted the type locality to Mauritius (= Isle de France).

Remarks. – *C. catus* is a well known and common species, its variability (figs. 368-370) was already discussed by Hwass. Dautzenberg (1937: 62, pl. 1 figs. 7-8) validated the varieties B and C, mentioned by Hwass, as var. *fuscoolivaceus* and var. *rubrapapillosa*, both from Tjilaut Eureun (Java, Indonesia). At present these are considered colour formae of *C. catus*, because the shells are found together with the nominate form.

Wils c.s. (1971: 60) described granulated specimens of *C. catus* from Malaita (Solomon Is.) as var. *granulata* (non *C. granulatus* Linné, 1758). Granulated Conidae must be considered formae (Coomans, 1973).

Distribution. – *C. catus* is a shallow water species. Its range covers a large area in the Indo-Pacific (fig. 302), from East Africa to Hawaii and the Marquesas Is. (not in the Red Sea, Gulf of Arabia, and Persian Gulf).

Material studied. – ZMA has specimens from Kenya (Malindi), Tanzania (Dar-es-Salaam), Madagascar (Nosi Bé), Ceylon (Colombo and Hikkaduwa), Sumatra (Deli, Nias, Batu Is.), Java (P. Panaitan, Djakarta Bay, Tjilaut Eureun, and N. Madura), Lesser Sunda Is. (Flores, Endeh Bay, and Wetar), Celebes = Sulawesi (S. Celebes, Menado, and Sangihe Is.), Moluccas (Amboina, Aru and Kai Is.), New Guinea (Biak, Mapia, and Djajapura), New Britain, Solomon Is. (Malaita, and Florida Id.), Queensland (Dingo Beach), New Caledonia (Noumea and Prony Bay), Marquesas, Hawaii (Honolulu), and Okinawa. In addition RMNH has specimens from Sumatra (P. Weh, Simeulue, and Nabo), Java (Tjilatjap), Moluccas (Ternate), Cook Is., and Hawaii (Oahu). In coll. Wils there are shells from Zanzibar, the Philippines (Zambales, Luzon, Bohol, and Palawan), and Tuamotu Archipelago (Aratika).

Dr. C. Vaucher kindly supplied us with a photograph of the lectotype.

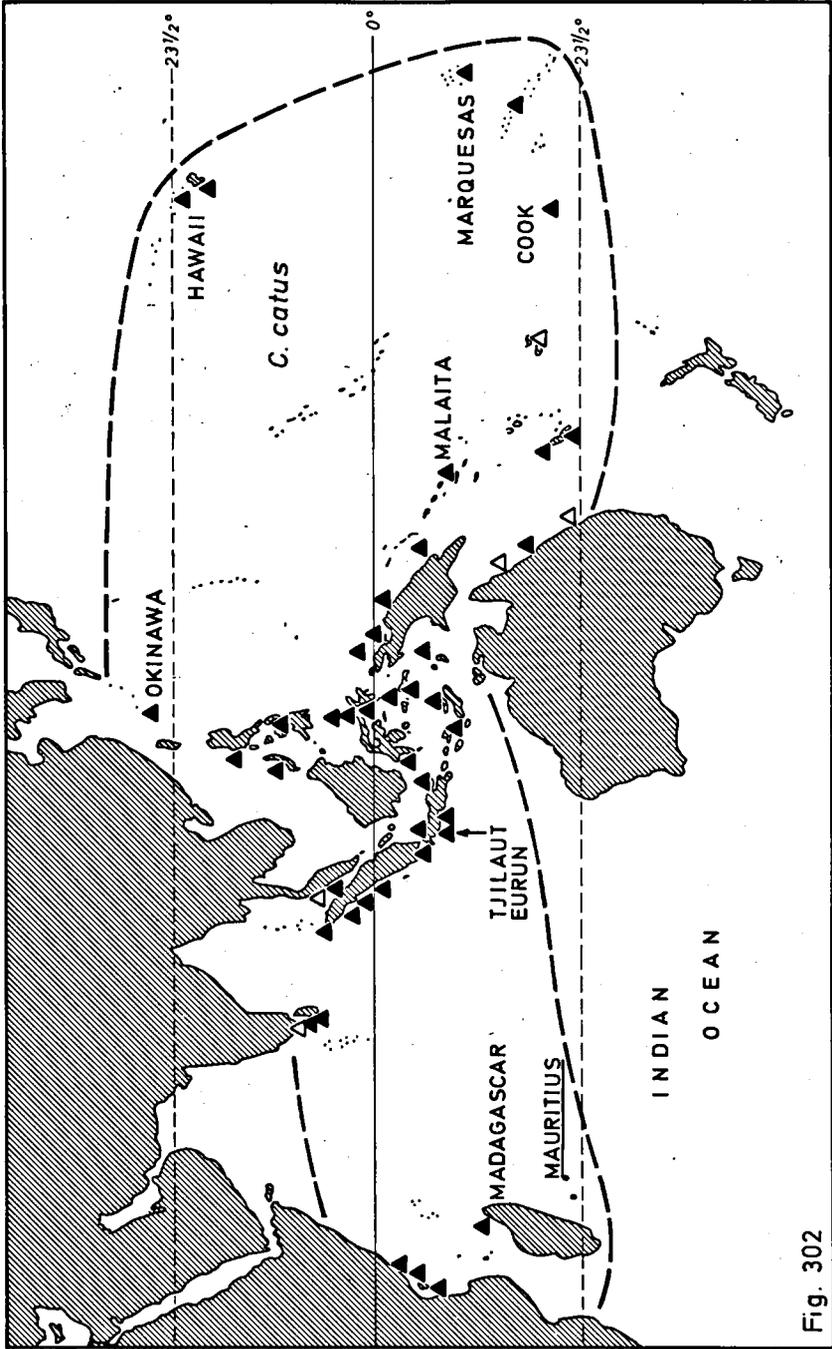


Fig. 302. Distribution of *Conus catus*.

cavailloni
fig. 384

Conus cavailloni Fenaux, 1942, Bull. Inst. Océan. 814: 4, fig. 12

Type. – The author did not state where the type specimens of his thirteen new Conidae are deposited. Dr. C. Testa informed us (in litt.) that the shells are not in the Institut Océanographique at Monaco; likewise they are not in MNHN, nor in IRScNB. We suppose that the shells remained in Fenaux's private collection, of which the present whereabouts are unknown. The type figure is reproduced here (fig. 384); the dimensions are 48 x 18 mm.

Type locality. – "Bermudes", this locality may be wrong.

Remarks. – Because of the locality, Wagner & Abbott (1967: 183) considered *Conus cavailloni* a scalariform specimen of *C. spurius* Gmelin. However, later on these authors (1978: 25-014) recorded it as a malformed *C. regularis* Sowerby. Walls (1979: 670-671) tentatively made it a synonym of *C. lynceus*.

Without a type specimen, and a supposedly incorrect type locality, *C. cavailloni* is difficult to identify. The type figure (fig. 384) shows a shell with a malformed (turreted) spire. On account of both the description and figure we provisionally place *C. cavailloni* in the synonymy of *C. keatii* Sowerby, 1857.

cebuganus
fig. 371

Conus cebuganus Da Motta & Martin, 1982, Carfel Philip. Shell News, 4 (3): 1,3, fig. 1

Type. – The holotype is in MHNG (no. 982.731); the measurements are 36.4 x 14.7 mm (fig. 371). Two paratypes, dimensions 35½ x 14 and 28½ x 11 mm, have been retained by the authors for subsequent distribution to other museums.

Type locality. – "Dredged in sandy-mud bottom of the Visayan Sea, between Malapascua Is. and Bantayan Is. and northward in depths of 20-40 fathoms", Cebu, Philippines.

Remarks. – The holotype of *Conus cebuganus* (fig. 371) is a dead shell, somewhat faded, the nuclear whorls are missing. We have compared it to specimens of *C. australis* Holten, 1802, from Japan and Taiwan, and *C. laterculatus* Sowerby, 1870, from the Philippines. Although the original authors mentioned that *C. cebuganus* is different from *C. australis* (fig. 168), we could not observe any distinctive character in sculpture or colour pattern. The colour of the aperture of *C. australis* varies from white to violet. The remaining differences displayed by *C. cebuganus*, the shell being smaller and having less convex sides, can be explained when it is a juvenile shell of *C. australis*. Provisionally we consider this to be the case and thus *C. cebuganus* becomes a junior synonym of *C. australis*, awaiting research on juvenile shells of the latter. When our conclusion is proven to be correct, the distribution of *C. australis* (fig. 104) should be extended to the Philippines.

Since our discussion of *C. australis* Holten (vide Basteria 45: 40), the species was treated by Kohn (1981: 285, figs. 5-6). He designated the shell figured in Chemnitz (vol. 11, 1795: pl. 183 figs. 1774-1775) as the holotype. However, Holten treated two specimens

from the Chemnitz collection, and thus the designated shell must be considered a lectotype.

We are grateful to Dr. C. Vaucher for the loan of the holotype of *C. cebuganus*.

cecilei
figs. 385-386

Conus cecilei Kiener, 1845, Coq. vivant 2: pl. 98 fig. 4, pl. 107 fig. 3 (var.);
1849-1850: 286-287

Type. – The holotype was in the Largilliert collection, but its present whereabouts are unknown. The type figure is reproduced here (fig. 385), the dimensions are 44 x 20 mm (Kiener: length 42 mm). The author has also mentioned a variety, present in the Gubba collection; the figure measures 43 x 21 mm (fig. 386).

Type locality. – “les mers de Chine” (the seas of China).

Remarks. – From the description and type figure (fig. 385) *Conus cecilei* is generally considered a colour form of the polymorphic *C. furvus* Reeve, 1843, known from the Philippines. The pattern on the shell is almost equal to that of *C. furvus* forma *buxeus* Reeve (vide Basteria 46: 49, figs. 275-276), but forma *cecilei* has in addition a blackish brown base.

ceciliae
figs. 341-342

Conus ceciliae “Chenu” Crosse, 1858, J. Conchyl., Paris 7: 381-382, pl. 14 fig. 5

Type. – The holotype (fig. 341) was originally in the Delessert collection and now in MHNG (no. 1106/56). The measurements are 33 x 19½ mm (Crosse: 36 x 21 mm).

Type locality. – Not mentioned.

Remarks. – Before Crosse described *Conus ceciliae*, the type specimen was figured by Chenu (1847: pl. 9 figs. 5, 5a) as “Cône de Cécile”, without a description. Specimens were already figured by Sowerby (1832-1841: 3, pl. 55 fig. 74) as *C. capitaneus* var., and by Kiener (1845: pl. 63 fig. 3) as “*C. classarius*” (error for *classarius*, non *C. classarius* Hwass).

Crosse compared *C. ceciliae* with *C. capitaneus* Linné, 1758 (see above, figs. 337-339), he considered them distinct species. Later authors have synonymized the names. The length of the shell of *C. ceciliae* does not exceed 40 mm, and the body whorl is covered by spiral rows of closely spaced deep punctures. This sculpture is present in juveniles to subadult shells of *C. capitaneus*, and therefore *C. ceciliae* represents the subadult stage of *C. capitaneus* with a prominent juvenile sculpture. The status of a form is proposed: *C. capitaneus* forma *ceciliae* Crosse.

The name *C. ceciliae* should not be confused with *C. cecilei* Kiener, 1845.

Material studied. – ZMA has specimens of forma *ceciliae* from the Moluccas, Amboina (fig. 342), and New Guinea.

Dr. Cl. Vaucher kindly sent us a photograph of the holotype.

cedonulli
figs. 188, 303, 375-380

Conus ammiralis cedo-nulli Linné, 1767, Syst. Nat. 12 ed., 1: 1167, no. 298

Type. – Linnaeus did not have a specimen in his collection. He only referred to the shell figured in Seba (vol. 3, 1759: pl. 48 fig. 8), where it is figured in reversed position; measurements 56 x 30 mm. Kohn (1976: 40-41) has designated this specimen lectotype of *Conus cedorulli*; however, being the sole representative, it must be considered the holotype (fig. 375). Walls (1979: 159) designated the shell in Seba type figure of *C. cedorulli*, which is a superfluous designation.

According to Seba the type specimen was in the collection of J.B. de la Faille at The Hague, in the Netherlands. After the De la Faille collection was auctioned, the specimen was sent to the King of Denmark, but the shell returned later to Holland and was bought by Pierre Lyonet in The Hague (Chemnitz, vol. 10, 1788: 47-50). The Lyonet specimen is figured in Knorr (vol. 6, 1772: pl. 1 fig. 1); this figure is reproduced here (fig. 376).

According to the literature (Van Benthem Jutting, 1939: 200-201; Dance, 1966: 232-235) the De la Faille collection contained two specimens of *C. cedorulli* and the second specimen is reputed to have been sold to the King of Portugal. Whether or not De la Faille owned two specimens of *C. cedorulli*, comparison of the figures in Seba (fig. 375) and in Knorr (fig. 376), shows that they represent the same shell. This means that the *C. cedorulli* specimen from the Lyonet collection is the holotype. The shell was sold at the Lyonet auction in 1796 (Van Seters, 1962: 48-51). Hwass (1792: 603) stated that the shell went to the cabinet of Abbé Gruel at Paris; but this seems questionable when one compares the dates of statement and auction. We suppose that the type specimen is kept in some European collection. Comparison with the type figure in Knorr would easily identify the shell by its distinctive pattern; the measurements are about 53 x 30 mm.

The MNHG specimen of *C. cedorulli*, claimed by Mermod to be the shell once owned by Lyonet (cf. Dance, 1966: 234, pl. 23), is not the holotype.

Type locality. – "in O. Americae meridionalis" (in the South American Ocean). This locality was given for all varieties of *C. ammiralis* described by Linnaeus in 1758 and 1767. The locality is erroneous for *C. ammiralis*, but surprisingly correct for *C. cedorulli*. Seba (1759: 138) mentioned that the shell was "koning van het Zuidland" (king of the Southland, which may be Australia). Dunn (1971) was the first author who recognized the type figure in Seba (fig. 375) as being a shell from St. Vincent (figs. 377-378), Lesser Antilles, which is correct (cf. Basteria 45: 55).

Remarks. – The identity of *C. cedorulli* has long been a matter of discussion and speculation, reason why the name was considered unacceptable (Dodge, 1953: 27; Kohn, 1963: 762). This was caused by its original description as a variety of *C. ammiralis*, its rarity, and the absence of a type specimen. In addition, between 1767 and 1977 about twenty (sub)specific names were added to the synonymy of the *C. cedorulli* complex.

Clench (1942: 7) selected *C. dominicanus* Hwass, 1792, as the valid name for the West Indian species and he designated a lectotype. After collecting on the Netherlands Antilles, Coomans (1963: 9) listed *C. cedorulli* as a southern Caribbean species. Holeman & Kohn (1970) reported that *C. mappa* Lightfoot, 1786, was the correct name, but when more material was studied (Dunn, 1971: 290-291, figs. 1-2), *C. cedorulli* was finally accepted to represent a valid species (Kohn, 1976: 40-41).

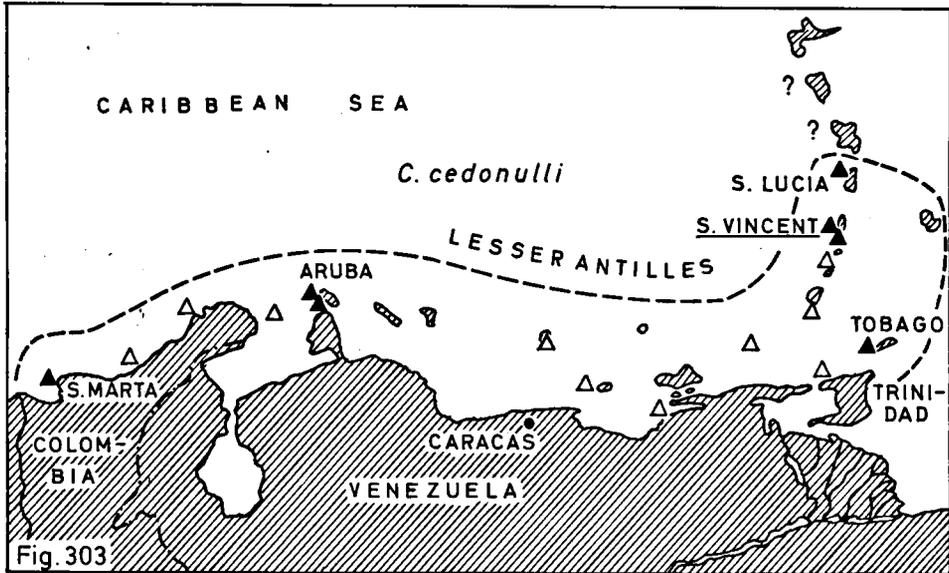


Fig. 303. Distribution of *Conus cedonulli* s.l.

With so many synonyms, it is obvious that *C. cedonulli* must be a polymorphic species (figs. 375-383). The complex has been studied by Vink (1977) and Vink & Von Cosel (in press). In a forthcoming paper the present authors will also discuss this species in detail. *C. cedonulli amiralis* Hwass has already been treated in this series (vide *Basteria* 45: 55; 46: fig. 188); for *C. caledonicus* (figs. 379-380), *C. caracanus* (fig. 382), and *C. catenatus* (figs. 381, 383) see this publication.

Distribution. - *C. cedonulli* inhabits the southern Caribbean Sea along the coasts of Colombia and Venezuela to Trinidad, and northward to the Leeward Islands of the Lesser Antilles as far as St. Lucia (fig. 303). We have no records from Martinique and Dominica.

C. archon Broderip (vide *Basteria* 45: 12, figs. 95, 121) is the Eastern Pacific analogue of *C. cedonulli*. *C. aurantius* Hwass (*Basteria* 45: 31, figs. 100, 159-160) is a related species from the Netherlands Antilles.

Material studied. - ZMA has recently collected specimens from St. Lucia (Gros Islet, Pigeon Id.), St. Vincent (Kingstown Bay, Villa Bay, Young Id.), Aruba (Malmok, Westpoint, Bakval beach), and Colombia (Santa Marta). In addition ZMA has specimens from the Antilles in general, from 18th and 19th century collections. In coll. Wils from Tobago (Pigeon Id.) and St. Vincent (Peter's Hope Bay, Buccament Bay, Villa Bay, Indian Bay).

Our thanks are due to Messrs. J. Berkhout, A. Broeders, R. Bieler, D. Hunt, L. Letens, P.L. van Pel, and Dr. P. Wagenaar Hummelinck, for donating specimens to ZMA. Dr. C. Vaucher kindly supplied photographs of type material in MNHG. Acknowledgements are also due to Dr. R. von Cosel and D.L. Vink for allowing us to read their manuscript on the *C. cedonulli* complex.

centurio
figs. 230, 304, 372-374

Conus centurio Born, 1778, Index Mus. Vindob. 1: 133; 1780, Test. Mus. Vindob.:
153, pl. 7 fig. 10

Type. - The holotype is present in NMW, Vienna; the dimensions are 35.5 x 21.2 mm (fig. 372). The type figure was published s.n. *Conus bifasciatus* Gmelin (fig. 230).

Type locality. - Not mentioned by Born (1778); "Patria ignota" (country unknown) in Born (1780). The label with the type specimen reads "Antilles" (Kohn, 1964: 154-155). Clench (1942: 24, pl. 12 fig. 1) designated Puerto Plata, Santo Domingo, type locality.

Remarks. - *C. centurio* is considered a valid species. The shell may reach to 100 mm (fig. 374). In subadult specimens (length 30-40 mm), like the holotype, the shell has a fine zigzag pattern in the white areas. *C. bifasciatus* Gmelin, 1791 (vide Basteria 46: 24, fig. 230), is an objective junior synonym; *C. woolseyi* M. Smith, 1946, from Jamaica, and *C. tribunus* Gmelin, 1791, are junior synonyms.

Two shells with adult pattern, from off Barbados (depth 175 m), were described as "variety" *antillensis* by Sander (1982). As a variety, *antillensis* has no status in zoological nomenclature.

See also *C. caribaensis* in this publication (fig. 373).

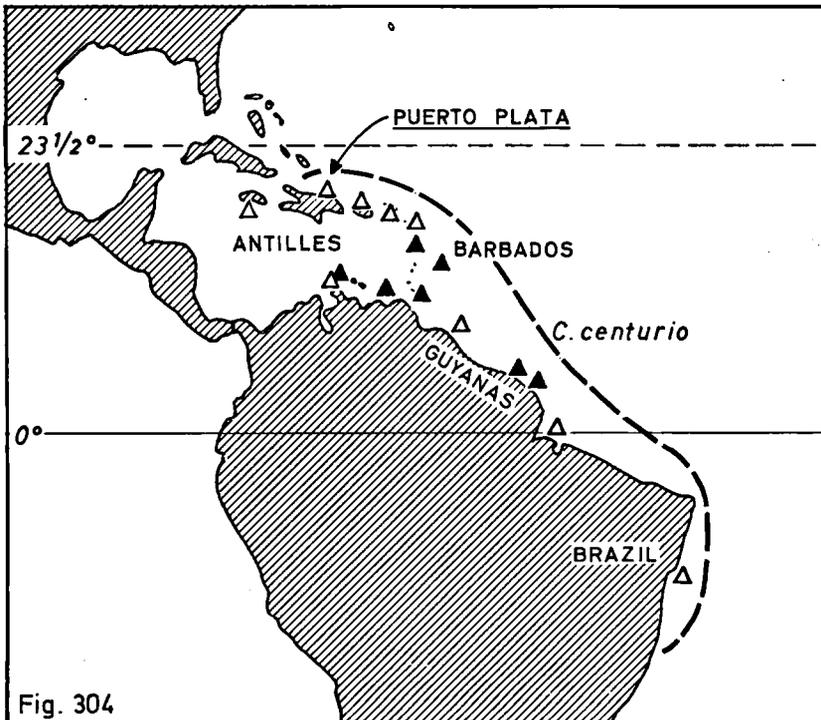


Fig. 304. Distribution of *Conus centurio*.

Distribution. – *C. centurio* is uncommonly found in rather deep water (to 200 m) around the Antilles from Jamaica to Barbados, and off the coast of South America from Venezuela to Espirito Santo, Brazil (fig. 304).

Material studied. – ZMA has specimens from West of Barbados (185 m), and North of Margarita Id., Venezuela (51-52 fathoms). RMNH has material from off Surinam and French Guyana, AMNH from S. Barbados (the type of *C. caribaensis*), and coll. Wils from the west coast of Trinidad (60 m), and off St. Vincent.

Dr. E. Wawra has kindly supplied us with a photograph of the holotype.

cepasi
figs. 305, 387-388

Conus cepasi Trovão, 1975, Bolm. Centr. Port. Activ. subaq. 1975 (Sept):
3-4, pl. 1 figs. 1 a-f

Type. – The holotype with periostracum is preserved in the Laboratory of Malacology of CPAS at Lisbon (no. Con-096/05), the measurements are 46.6 x 26.4 mm. The specimen figured with the original description is one of the paratypes (fig. 387). Another paratype was deposited in the Bocage Museum, but subsequently destroyed by fire. In addition

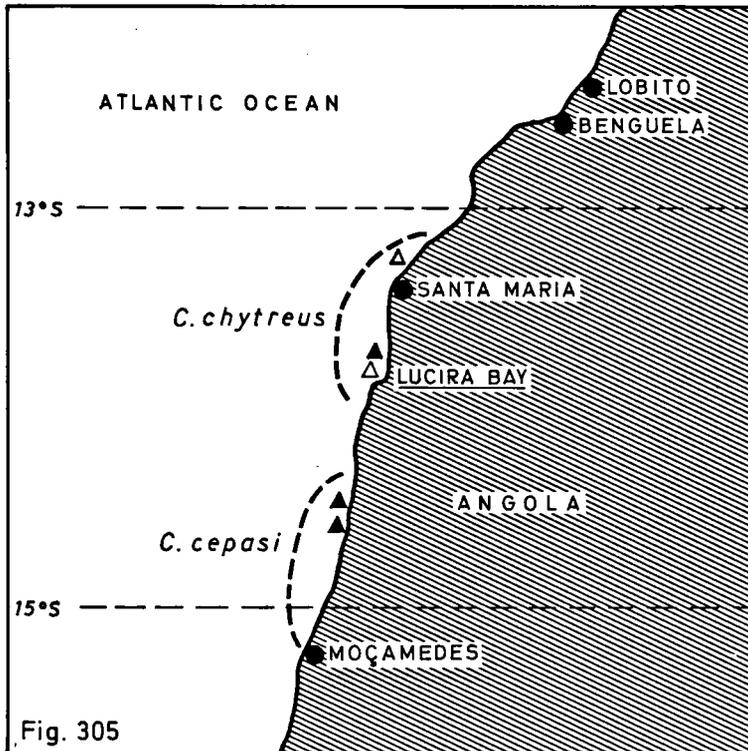


Fig. 305. Distribution of *Conus cepasi*, and *C. chytreus*.

the author mentioned eight more specimens, which may be considered paratypes (ICZN art. 71B). The lengths of these shells are 19 and 24½ mm, the remaining between 40 and 48 mm.

Type locality. – “Angola 14°27' S-12°20' E”, this locality is between Moçamedes and Lucira.

Remarks. – *Conus cepasi* is one of many closely related Conidae from Angola, described as new species during the last decade. At present we only can conclude that these nominal species belong to a few species complexes. In the literature *C. cepasi* has been placed in the synonymy of *C. bulbosus* Reeve, 1843, or of *C. zebroides* Kiener, 1845. Following other authors (Röckel & Fernandes, 1981: 4), we provisionally consider *C. cepasi* a valid species.

Distribution. – The range is very restricted in S. Angola, north of Moçamedes (fig. 305).

Material studied. – The holotype and one paratype (coll. CPAS) and one specimen (fig. 388) in coll. Röckel.

The authors are grateful to Mrs. R. de Lanoy Meijer and Mr. H. Trovão for the loan of type material.

cereolus
fig. 389

Cucullus cereolus Röding, 1798, Mus. Bolten. 2: 44, no. 557/67

Type. – Röding mentioned one specimen in the Bolten collection, which is considered lost. From the references Kohn (1975: 199) has designated a lectotype, viz. the shell figured in Chemnitz (vol. 10, 1788: pl. 140 fig. 1301). The type figure is reproduced here (fig. 389); the dimensions are 55 x 27 mm. The lectotype was originally in the Chemnitz collection.

Type locality. – Not mentioned. Chemnitz (1788: 43-45) stated that his specimen was from the Nicobar Islands, which might be correct.

Remarks. – Röding called this shell “Die Wachskerze” (the wax candle), and gave no further description. We agree with Kohn (1975: 199, pl. 1 fig. 15) that *Conus cereolus* (Röding) is a junior synonym of *C. monile* Hwass, 1792.

cerinus
figs. 182, 390-391

Conus cerinus Reeve, 1848, Conch. Icon. 1, Conus, suppl. pl. 3 fig. 283 a, b

Type. – The holotype is in BMNH (no. 197774/1-3); the dimensions are 29 x 15 mm (fig. 390). The type lot contains two more specimens (fig. 391), ex coll. H. Cuming, which were not mentioned by Reeve, and therefore are not paratypes.

Type locality. – “Island of Mindanao”, Philippines.

Remarks. – As already stated before (vide Basteria 46: 31-32), *Conus cerinus* is considered a form of *C. boeticus* Reeve, 1843. The forma *cerinus* (figs. 390-391) is distinguished by a somewhat thicker and more stout shell, which almost lacks the punctate spiral lines on

the last whorl. However, integrades with *C. boeticus* s.s. (figs. 244-245) are known, and both formae are sympatric (fig. 182).

Material studied. – The holotype; ZMA has specimens of forma *cerinus* from New Guinea (Wandamen Bay and Biak Id.).

Our thanks are due to Mrs. K.M. Way for supplying a photograph of the holotype.

cernicus
figs. 392-394

Conus (Coronaxis) cernicus "Barcl. MS" H. Adams, 1869,
Proc. zool. Soc. Lond. 1869: 272, pl. 19 fig. 1

Type. – The holotype was originally in the D.W. Barclay collection, which was sold in 1891 and 1898. The present whereabouts are unknown; the specimen is not in BMNH. The type figure of *Conus cernicus* is reproduced here (fig. 392); the dimensions are 25 x 12 mm.

Type locality. – "Barkly Island, Mauritius".

Remarks. – Generally the name *C. cernicus* is used for a rather small and polymorphic *Conus* from the Mascarenes (figs. 392-394). The variability is shown in shell shape (pyriform to straight-sided) and pattern (with or without white marks on a differently coloured background). In our discussion on the type figure of *C. balteatus* Sowerby (vide Basteria 46: 7-8, fig. 198) we presumed that it is a shell from the Mascarenes (fig. 173). From the type figure of *C. cernicus* (fig. 392) we must conclude that it represents a specimen of *C. balteatus* with a somewhat raised spire. This makes *C. cernicus* a junior synonym, but the status of a forma may be considered.

The synonymy of *C. balteatus* also includes *C. tenuisulcatus* Sowerby, 1873 (non Sowerby, 1870) = *C. propinquus* Smith, 1877 nom. nov., from Mauritius. The holotype was sold by Sowerby to H.C. Roeters van Lennep, whose collection was auctioned in 1876 in the Netherlands. We have no definite proof that this shell was bought by ZMA (cf. Basteria 44: 23), but a specimen from Mauritius (fig. 199) in ZMA is close to Sowerby's type figure of *C. tenuisulcatus* (= *C. propinquus*), which measures 25 x 16 mm.

C. circumclausus Fenaux, 1942, from Mauritius (fig. 395) is also considered a junior synonym of *C. cernicus*; *C. moussoni* Crosse, 1865, from the Seychelles may represent a slender form.

While discussing *C. balteatus*, we suggested (vide Basteria 46: 7) that two subspecies can be recognized. The nominate form comes from the Mascarenes and includes the synonyms mentioned above; it is generally referred to as "*C. cernicus*" (figs. 198-199, 392-394). The subspecies from Indonesia and the Western Pacific (figs. 173, 200-201) is distinct and for these populations the name *C. balteatus pigmentatus* Adams & Reeve, 1848, is available (fig. 396).

Material studied. – In ZMA there is one specimen of *C. cernicus* (fig. 393) from an old collection. It has the same locality as the holotype, identical measurements and also a somewhat raised spire. The shell pattern shows a few differences with the type figure, so that we are not convinced that it is the lost holotype. A few more specimens from Mauritius are present in ZMA and coll. Wils.

cernohorskyi

Conus cernohorskyi Da Motta, 1983, Publ. ocas. Soc. Port. Malac. 2: 2-3, 8, figs. 9-13

Type. - The holotype (46.4 x 26.8 mm) with paratypes 1, 2 and 3 (measurements 60.1 x 30 mm, 39.5 x 22.1 mm, and 35.5 x 20.5 mm) are stored in MHNG (nos. 983.110, 983.111-113). Paratype no. 10 (46.6 x 26.1 mm) is present in ZMA. Thirteen more paratypes have been retained by the author for distribution to other museums.

Type locality. - "in shallow waters in the vicinity of Borogon, Samar Oriental, Philippines".

Remarks. - Because the description of *Conus cernohorskyi* was published when the manuscript of the present publication was already in the press, a figure will be supplied in the next issue of this series.

From the original description, the type figures (of which figs. 12 and 13 must be interchanged), and the paratype in ZMA, the present authors provisionally conclude that *C. cernohorskyi* belongs to the *C. magus* (including *C. decurtatus*) complex.

C. magus Linné, 1758, is a polytypical species (cf. figs. 146, 286, 363) with a great variation in colour pattern and shell shape. *C. cernohorskyi* is smaller (average 40-50 mm, max. 60 mm) and has a more bulbous shape than many formae of *C. magus* (average 50-70 mm, max. 90 mm).

C. decurtatus Dautzenberg, 1910, was described as a small, short and thick variety of *C. magus*, from Rua-Sura, Solomon Islands. *C. cernohorskyi* is also short and thick, but appears to be larger than *C. decurtatus* (average 25-35 mm, max. 40 mm).

Kohn (1976: 44-45) follows Cernohorsky (1967: 224-226, fig. 431) in accepting *C. ranunculus* Hwass, 1792, as the first name for *C. decurtatus*. However, the holotype of *C. ranunculus* represents a specimen of *C. achatinus* Gmelin, 1791.

The authors are grateful to Mr. A.J. da Motta for donating a paratype to ZMA.

cervus

figs. 306, 398-399

Conus cervus Lamarck, 1822, Hist. nat. Anim. s. Vert. 7: 510-511, no. 151

Type. - The holotype from the Lamarck collection (Mermod, 1947: 175, no. 35) is present in MHNG (no. 1106/6). The measurements are 94 x 43 mm (fig. 398). Lamarck gave a length of "3 pouces, 7 lignes" (= 96.7 mm). The specimen was also figured by Kiener (1845: pl. 74 fig. 1, pl. 75 fig. 1).

Type locality. - Not mentioned. We herewith designate the Moluccas type locality.

Remarks. - *Conus cervus* is considered a valid species. A pre-Linnean specimen from the Moluccas, figured by Valentyn (1754: 69, fig. 91), is present in ZMA (fig. 399).

C. vicweei Old, 1973, from Thailand, seems to be the closest relative, distinct in its pattern of wavy axial lines. A subspecific relation to *C. cervus* may be considered.

"*Conus cervus*" in Sowerby (1838: 3, pt. 147 fig. 94) is a misidentification. The figured shell was described later as *C. deshayesii* Reeve, 1843 (non Bellardi & Michelotti, a fossil species), and renamed *C. cuvieri* Crosse, 1858.

Distribution. - The range of *C. cervus* is restricted to the Moluccas and southern Philippines (fig. 306), in relatively deep water (200-300 m). Live collected specimens are reported in recent literature (Leehman, 1980; Martin, 1980) from the Philippines.

Material studied. - The holotype (MHNG), several specimens from the Moluccas (BMNH and ZMA), one from the Philippines, Balut, Davado, in 120 fathoms (IRScNB), one from the 'Indian Ocean' (RMNH).

We are grateful to Dr. Cl. Vaucher for a photograph of the holotype.

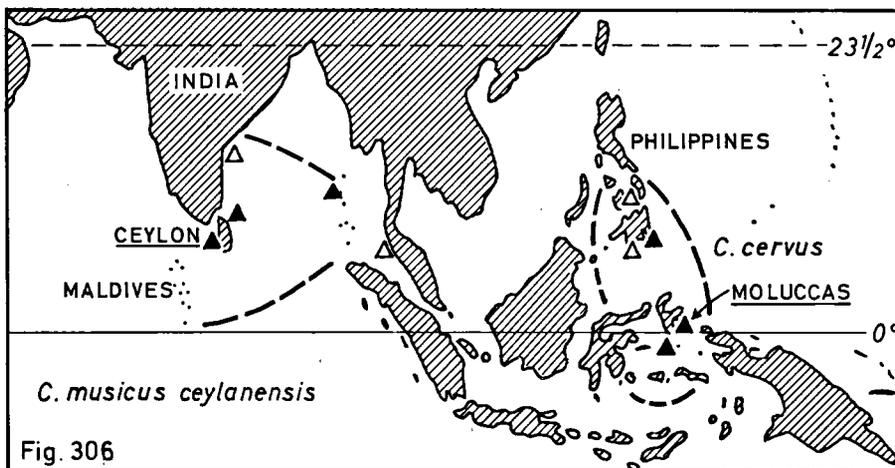


Fig. 306. Distribution of *Conus cervus*, and *C. musicus ceylanensis*.

ceylanensis
figs. 306, 400-401

Conus ceylanensis Hwass in Bruguière, 1792, Encycl. Méth. 1: 636

Type. - The holotype from the Hwass collection is lost (Kohn, 1968: 450). The shell was figured in the Tableau Encyclopédique (vol. 23, 1798: pl. 322 fig. 10), the type figure is reproduced here (fig. 400), measurements 19 x 10 mm (Kohn: 17 x 9 mm, after Hwass's text).

The identity of *Conus ceylanensis*, and its taxonomical status in connection with related taxa is difficult to establish without a type specimen. Therefore we herewith designate a neotype for *C. ceylanensis*; the shell is present in ZMA (no. 3.83.001) and its measurements are 10.0 x 6.2 mm (fig. 401).

Type locality. - "les côtes de l'isle de Ceylan" (the coasts of the island Ceylon). The locality of the neotype is: Ceylon, beach at Hikkaduwa, Dec. 1970 (leg. Dr. M.I. Gerhardt).

Remarks. - The type figure of *C. ceylanensis* shows a rather slender shell (fig. 400), but most specimens from Ceylon are somewhat wider, and smaller. The colour pattern on the last whorl has suffused brown areas in the middle, with rows of brown spots below the shoulder and at the base. We have studied some shells, collected by a Belgian

excursion to the Andaman Islands in April 1983, which are almost identical to the type figure by Hwass in size and pattern.

The neotype of *C. ceylanensis* (fig. 401) agrees with Hwass's description, except for the size. It forms part of a sample of 17 specimens, all collected together, of which ten adults, ranging in length from 9½ to 13 mm. The largest specimen (15.0 x 9.7 mm) in ZMA is from Pigeon Island, 19 km North of Trincomalee (leg. Moolenbeek, 1980).

C. ceylanensis is generally considered to belong to the species complex of *C. musicus* Hwass, 1792. Kohn (1968: 450) provisionally considered it a valid species. With Abbott (1957: 103) we prefer a subspecific status: *C. musicus ceylanensis*.

C. acutus Sowerby, 1875 (non Anton, 1839), from Ceylon, is a nomen dubium (vide *Basteria* 43: 20); it was described as an irregular form of *C. ceylanensis*.

In *C. musicus* s.s., from Indonesia and the Western Pacific, the last whorl has one or two solid bluish-grey bands, with rows of brown spots from shoulder to base. *C. mighelsi* Kiener, 1845, seems to be a colour form of *C. musicus*, it is not a distinct species from the Red Sea.

C. parvatus Walls, 1979, originally described as a subspecies of *C. musicus*, is white with rows of reddish-brown spots (= *C. pusillus* Reeve, non Lamarck); it occurs in the Indian Ocean and Red Sea.

According to most authors, the *C. sponsalis* complex is distinct from the *C. musicus* complex; the nominal species in both complexes have small shells, the base and inside of the aperture are bluish-purple.

Distribution. – *C. musicus ceylanensis* is known from Ceylon, Southern India (Kohn, 1978: 308), and the Andaman Islands (fig. 306). It may occur in the Maldives (Kohn & Robertson, 1968: 274-275), and in Thailand (Da Motta & Lenavat, 1979: 4, pl. 2 fig. 33).

Material studied. – ZMA has specimens from Ceylon (Hikkaduwa, Pigeon Id., Trincomalee), and South Andaman (Corbin's Cove, leg. A. Verhecken).

ceyonicus
fig. 397

Conus ceyonicus "Chemnitz" Sowerby II, 1857, *Thes. Conch.* 3, *Conus*: 8,
no. 56, pl. 2 figs. 22, 16 (var.)

Type. – The holotype is not in BMNH, and may be lost. The type figure is reproduced here (fig. 397); the measurements are 33 x 22 mm. The variety (Sowerby: fig. 16) is not conspecific with the holotype.

Type locality. – "Ceylon".

Remarks. – Sowerby considered Chemnitz (1788, vol. 10: 67) the author of *Conus ceyonicus*. However, most of Chemnitz's zoological specific names have been declared invalid (ICZN opin. 184), so that the correct name for this nominal species is *C. ceyonicus* Sowerby, 1857. The shell figured in Chemnitz does not belong to the type material, because Sowerby did not refer to it.

In the synonymy Sowerby listed *C. obesus* Lamarck and *C. zeylanicus*. Because the type figure (fig. 397) is conspecific with *C. zeylanicus* Gmelin, 1791, it must be concluded that *C. ceyonicus* Sowerby is a junior synonym.

The "narrow variety" mentioned by Sowerby (his fig. 16), may represent a specimen of *C. arenatus* Hwass.

chaldaeus
figs. 307, 402-404

Cucullus chaldaeus Röding, 1798, Mus. Bolten. 2: 42, no. 525/47

Type. – Röding mentioned five specimens in the Bolten collection; these shells are considered lost. From the references a lectotype was designated by Kohn (1975: 200, pl. 1 fig. 16), viz. the shell figured in Knorr (1768, vol. 3: pl. 4 fig. 2). The type figure is reproduced here (fig. 402), the dimensions are 36 x 22 mm.

Type locality. – Not mentioned. According to Knorr (1768: 13) the lectotype is from the Red Sea, but the species does not occur there. We herewith designate the Moluccas type locality for *Conus chaldaeus* (Röding).

Remarks. – Röding only gave a name, “Die schwarze Tute” (the black cone), without a description. *C. chaldaeus* is a well-known and valid species. It is closely related to, and largely sympatric with, *C. ebraeus* Linné, 1758. *C. chaldaeus* is distinguished by two axial rows of black vermiculate lines (fig. 403), sometimes close together and forming two solid black bands (fig. 404). *C. vermiculatus* Lamarck, 1810, is a junior synonym; Lamarck also mentioned granulated shells as a variety.

The name is often spelled “chaldeus”, which is not correct.

Distribution. – *C. chaldaeus* lives in the tropical Indo-Pacific, from East Africa (Somalia-Natal), via Ceylon and Indonesia to S. Japan and N. Australia, and the Pacific islands (fig. 307). There are no records from the Red Sea, the Arabian Gulf and the coast of India. The species is enlarging its range into the tropical Eastern Pacific; it has now been reported from Clipperton Id., the Galapagos, and Central America (Anders, 1978: 17, fig. 1).

Material studied. – ZMA has specimens from Kenya (Malindi, Vasco da Gama Point), Tanzania (Dar-es-Salaam), Seychelles (Port Claud), Ceylon (Hikkaduwa), Indonesia [Sumatra (Atjeh, Tjalang), Java (Sunda Straits: P. Panaitan and Meeuwen Id., Tjilatjap, Pameun-peuk, Nusa Baran Id.), Bali, Flores (Larantuka), Wetar Id., Celebes (SW. coast, Lintido, Sangir Is.), Moluccas (inclusive of Amboina), New Guinea (Biak, Manokwari, Djajapura)], W. Australia (Exmouth), Solomon Is. (Florida = Nggela), Bismarck Archipelago (New Ireland), Cook Is. (Rarotonga), and Japan (Okinawa). In RMNH there are specimens from Mombasa and New Caledonia, and the Indonesian islands: Pulu Weh, Nias, Simalue, Java (Tandjong Priok), Madura, Sumbawa, Timor, Ternate, Banda, and Sorong, in Los Angeles County Museum of National History from Costa Rica (Puntarenas) and in coll. Wils from Mauritius (Grand Baie, Mahébourg), Seychelles (Mahé), Taiwan (Kaoshiung, Tainan), Japan (Kii), and Solomon Is. (Malaita).

characteristicus
fig. 348

Conus characteristicus Dillwyn, 1817, Descr. catal. rec. shells 1: 367, no. 26

Type. – Dillwyn had no specimen available, he simply referred to the figure of *Conus characteristicus* in Chemnitz (1795, vol. 11: 54, pl. 182, figs. 1760-1761), which must be considered the holotype (fig. 348). This shell also represents the lectotype of *C. characteristicus* Fischer, 1807.

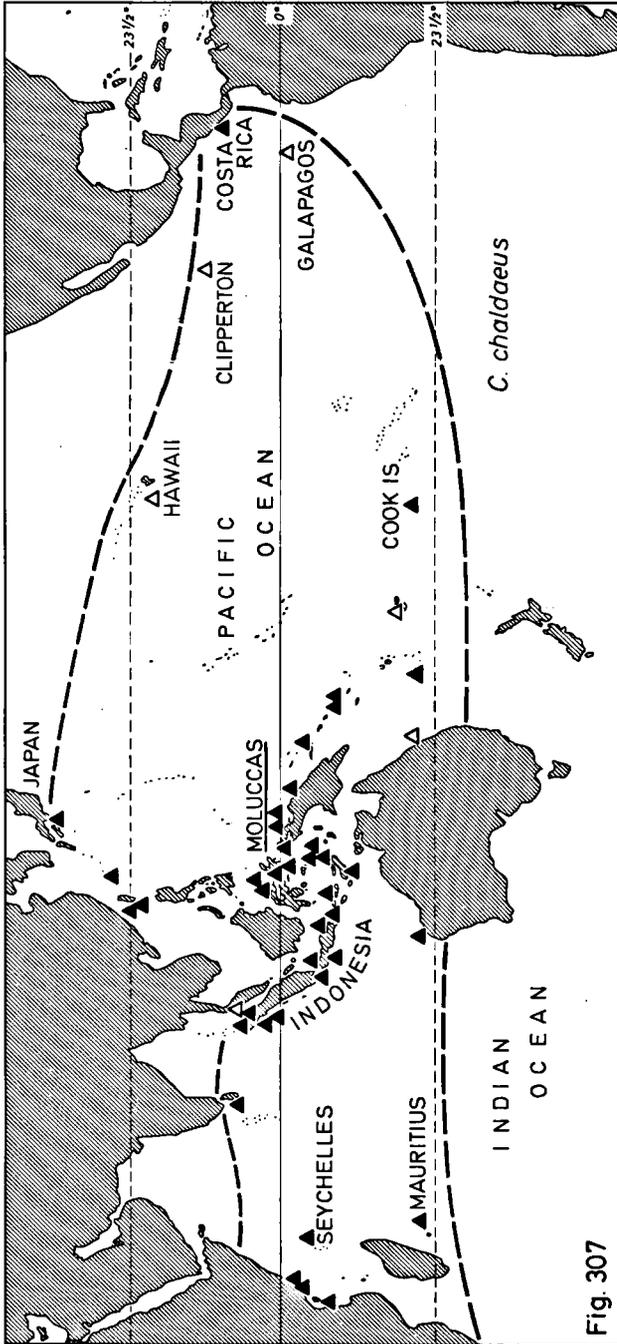


Fig. 307

Fig. 307. Distribution of *Conus chaldaeus*.

Type locality. – “Inhabits the West Indian Seas on the coast of the Island of St. Bartholomew”. This locality was copied from Chemnitz.

Remarks. – Dillwyn has validated the name *C. characteristicus* of Chemnitz. Being based on the same type specimen, *C. characteristicus* Dillwyn is an objective junior synonym of *C. characteristicus* Fischer.

chemnitzii
fig. 406

Conus chemnitzii Dillwyn, 1817, Descr. catal. rec. shells 1: 363, no. 18

Type. – Dillwyn had no specimen available, but he gave two references: *Conus capitaneus punctatus* in Chemnitz (1795, vol. 11: 55), and *C. capitaneus* var. C in Lamarck (1810: 266). Both names are based on the same specimen from the collection of Chemnitz (1795: pl. 182 figs. 1764-1765). This shell is the holotype of *C. chemnitzii*, of which the present whereabouts are unknown. The type figure is reproduced here (fig. 406); the dimensions are 45 x 28 mm.

Type locality. – “The coasts of Ceylon”, this locality was copied from Chemnitz.

Remarks. – Although *C. chemnitzii* is sometimes considered a junior synonym of *C. capitaneus* Linné, 1758, it is obvious from the type figure and description that *C. chemnitzii* is a junior synonym of *C. rattus* Hwass, 1792. It is a common species in the Indo-Pacific, also known from Ceylon, from where *C. capitaneus* (see above) is not reported.

chenui
fig. 405

Conus chenui Crosse, 1858, Revue Mag. Zool. (2) 10: 120;
J. Conch. (Paris) 6: 381-382, pl. 11 figs. 3-4

Type. – The holotype (fig. 405) is present in MNHN, ex coll. Crosse. The measurements are 49.1 x 26.9 mm (Crosse: 50 x 28 mm).

Type locality. – “Nova-Caledonia”.

Remarks. – It is generally accepted that *Conus chenui* was originally described in the Journal de Conchyliologie (vol. 6, of 1857). However, Crosse (1858: 382) mentioned “La diagnose de ce Cône a déjà paru dans la Revue zoologique (1858, page 120); mais il n’a pas été figuré” [the diagnosis of this cone has already appeared in the Revue Zoologique (1858, page 120); but it was not figured]. This indicates that the description in the Journal was published after the diagnosis in the Revue, thus in 1858, not in 1857.

We have studied the holotype, and agree with Richard (1980: 96) that it is conspecific with *C. planorbis* Born, 1778. The latter has a polymorphic shell. *C. chenui* is characterized by two rows of brown flammulate axial stripes on the body whorl, not found in typical *C. planorbis*. The status of a colour form is suggested, and intermediate specimens are known.

Shells of forma *chenui* occur in New Caledonia, where they are found sympatric with *C. planorbis* s.s. (Estival, 1981: 72-73).

Material studied. – In addition to the holotype we have seen a few more specimens from New Caledonia.

We are grateful to Dr. P. Bouchet for the loan of the holotype.

chersoideus

Conus mediterraneus var. *chersoideus* "Ch." Nardo, 1847, Sinon. moderna: 41-42, sp. 10

Type. – This variety was originally described in a manuscript by S. "Ch"iereghini in 1802, to which Nardo referred. Chiereghini's collection is dispersed, and the type material of *chersoideus* is considered lost (cf. *C. amazonicus*, in Basteria 44: 26).

Type locality. – "nella spiaggia dell' isola di Cherso" (on the beach of Cherso island), Adriatic Sea.

Remarks. – The variety *chersoideus* was described as a white and smooth shell, ornamented with fine yellow axial lines and in the middle of the body whorl with a band with whitish wrinkled lines. We consider it a synonym of the very variable *Conus mediterraneus* Hwass, 1792.

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

chiangi

figs. 308, 407

Taranteconus chiangi Azuma, 1972 (July), Venus 31: 56-57, 59-61, figs. 5-6

Type. – The holotype is present in the Azuma collection (no. 15777); the measurements are 17.8 x 10.0 mm (fig. 407).

Type locality. – "South China Sea, ca. 200 fathoms on coral bed".

Remarks. – *Conus chiangi* (Azuma) was described from only one specimen, which is preserved in a private collection. Azuma placed the species in a new, monotypical genus, *Taranteconus*, characterized by a small shell, ornamented with raised wavy striae on the spire, and with 16 minute spinous tubercles on the shoulder of the body whorl. Radula teeth without serrations.

Cornutoconus lamellatus Suzuki, 1972, from the Izu Islands (depth about 300 m) and the South China Sea, is a junior synonym of *Conus chiangi*. Although Suzuki's publication is dated May 1972, the actual date is supposed to be the first ten days of September 1972; the issue was not distributed before 15 August, and only mailed to a limited number of persons (Taki & Habe, 1973: 161-162).

Ladd (1976: 135-136, figs. 21-22) gives a fossil record of *C. cf. chiangi* from the New Hebrides; he referred it to the genus *Kenyonia* Brazier, 1896. Powell (1966: 111) discussed the status of *Kenyonia*. The lost and unfigured type specimen of the type species *K. pulcherrima* Brazier (from the New Hebrides) suggests a shell similar to *Conopleura striata* of the family Turridae. Because of this controversy, Abbott & Dance (1982: 263) recorded *Conus chiangi* as "possibly a turrid". After studying the holotype, we prefer *C. chiangi* to belong to the genus *Conus*.

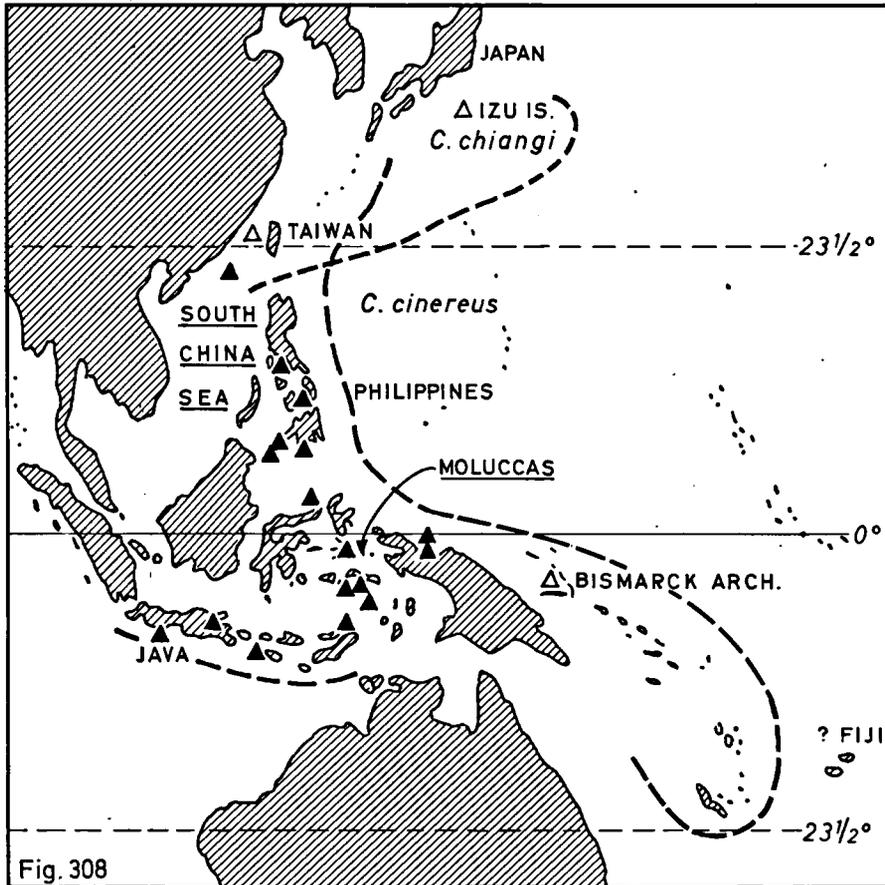


Fig. 308. Distribution of *Conus cinereus*, and known localities of *C. chiangi* (South China Sea, Taiwan Straits, Izu Is.).

Walls (1979: 314) considered *C. chiangi* related to *C. lamellosus* Hwass, 1792, a nomen dubium (Kohn, 1968: 463).

Distribution. - The species is recorded (fig. 308) from the South China Sea, the Izu Islands off S. Japan (Suzuki, 1972; Okutani, 1975: 194), and Taiwan Straits (Walls, 1979: 209). A possible fossil record (Pleistocene) is mentioned above.

Material studied. - The holotype.

We are grateful to Prof. M. Azuma for the loan of the type specimen, and to Dr. G. Richard for a copy of Suzuki's publication. Dr. A. Matsukuma supplied important information.

chinensis
fig. 408

Cucullus chinensis Röding, 1798, Mus. Bolten. 2: 47, no. 595/92

Type. - Röding recorded three specimens to be in the Bolten collection, which is considered lost. In addition there are two literature references: Chemnitz (1788, vol. 10: pl. 144 A figs. g, h), and Gmelin (1791: 3395). The shell figured in Chemnitz is reproduced here (fig. 408); the measurements are 40 x 23 mm. This specimen was originally in the Chemnitz collection, but its present whereabouts are unknown.

Type locality. - Not mentioned. Chemnitz (1788: 91) indicated that this specimen was from Sumatra. The shell was not named "chinensis" after China, but because of its design of chinese characters.

Remarks. - Chemnitz called this species *Conus spectrum sumatrae*, whereas Gmelin considered it a variety of *C. spectrum* Linné, 1758.

The shell figured in Chemnitz may represent *C. spectrum*, but without a specimen identification remains questionable. For this reason Kohn (1975: 200) considered *Conus chinensis* (Röding) a nomen dubium.

chinoi
fig. 409

Conus (Rhizoconus?) chinoi Shikama, 1970, Venus 29: 115-116, figs. 1-4

Type. - The holotype (fig. 409), measurements 32.0 x 17.6 mm, and one paratype (22.6 x 10.9 mm) were preserved in the private collection of Mr. Chino. At present they are in the National Science Museum, Tokyo (no. NSMT Mo.-60079). A second paratype (26.7 x 14.3 mm) is present in the Geological Institute, Yokohama National University.

Type locality. - "Ogokuda, Shiono-misaki, Wakayama Prefecture, Japan".

Remarks. - We have studied the holotype of *Conus chinoi* (fig. 409), and identified it as a juvenile specimen of *C. distans* Hwass, 1792. Juvenile shells of *C. distans* with a characteristic flattened apex, are quite different from adults. Several times they were described as distinct species, like *C. kenyonae* Brazier, 1896, and its var. *arrowsmithensis* (vide Basteria 45: 22, fig. 134).

We are grateful to Dr. A. Matsukuma for his assistance to borrow the holotype from Mr. Chino's collection.

cholmondeleyi
figs. 410-411

Conus cholmondeleyi Melvill, 1900, J. Conch. (Lond.) 9: 308, ill.

Type. - The holotype (fig. 410) is in the Manchester Museum, originally in the Reginald Cholmondeley collection. The measurements are 42.9 x 18.0 mm (Melvill: 45 x "12" mm, the width is obviously a printing error).

Type locality. - Unknown.

Remarks. – *Conus cholmondeleyi* has a dark coloured shell, in which the pattern consists of very close-set lines and tent marks. This dark pattern is also known in some other tent cones: *C. euetrios* Sowerby, 1882, *C. eumites* Tomlin, 1926, and *C. elisae* Kiener, 1845. The phenomenon was studied in Hawaii by Perron (1980), who proved that *C. elisae* is only a rare dark colour forma of *C. pennaceus* Born, 1780. In the Australian *C. victoriae* Reeve, 1843, light and dark colour formae are also known to exist.

Specimens of *C. cholmondeleyi* occur at Zanzibar, where the shells are often somewhat wider (fig. 411) than the holotype (fig. 410). They belong to the *C. textile* complex, a polymorphic species in the Indo-Pacific. When *C. pyramidalis* Lamarck, 1810, is considered the East African subspecies of *C. textile* Linné, 1758, as Roedel (1979-1982: nr. 348) suggests, than *C. cholmondeleyi* is its dark colour forma from Zanzibar. According to Richard (1983: 16) *C. cholmondeleyi* is a valid species from East Africa.

The relation of *C. cholmondeleyi* to *C. euetrios* (type locality unknown), and to *C. eumites* (from Natal) needs further investigation.

Material studied. – The holotype of *C. cholmondeleyi*, and specimens from Zanzibar in ZMA and coll. Wils.

Our thanks are due to Mr. Ch. W. Pettitt for the loan of the type specimen.

chrysalis

Cucullus chrysalis Röding, 1798, Mus. Bolten 2: 50, no. 645/131

Type. – Röding mentioned one specimen to be in the Bolten collection, which is lost. There are no references to any figure in the literature.

Type locality. – None.

Remarks. – Röding only described it as “Der gelbe Küperbohrer” (the yellow cooper drill). Without a type specimen, reference, description, or locality, *Conus chrysalis* (Röding) is a nomen nudum.

chrysocestus

fig. 420

Conus chrysocestus Berry, 1968, Leaf. Malacol. 1 (25): 157

Type. – The original author did not figure the holotype, nor did he state where the specimen is deposited. Dr. Berry informed us (in litt.), that it is kept in his private collection, but he does not trust mailing this shell. It was figured by Keen (1971: fig. 1511) and McLean & Nybakken (1979: fig. 14); the dimensions are 45.3 x 24.3 mm (fig. 420).

Type locality. – “Trawled in 30 to 45 fms., off Morro Colorado, Sonora”, Mexico.

Remarks. – *Conus chrysocestus* was described in a privately published journal, from only one specimen, and not figured. It was considered a junior synonym of *C. fergusonii* Sowerby, 1879, by Keen (1971: 667-668). Recent studies by McLean & Nybakken (1979: 139-140, figs. 13-23) have shown that *C. chrysocestus* is a junior synonym of *C. xanthicus* Dall, 1910, which species is known from Sonora, Mexico, to Colombia and the Galapagos Islands.

We are grateful to Dr. J. McLean for a photograph of the holotype and to Dr. S.S. Berry and Dr. B. Roth for information.

chusaki
fig. 412

Conus chusaki Da Motta, 1978, Centre Thai nat. Study: 6, 8, figs., Addenda

Type. - The holotype is in MHNG (no. 978/402), the measurements are 65.2 x 30.6 mm (fig. 412). According to the Addenda, the three specimens figured on p. 6 are paratypes (dimensions 78 x 39, 78 x 36, and 57 x 28 mm); it was not stated where these shells are lodged.

Type locality. - "in depth of 80 to 120 feet in sandy sea bed interspersed with rocks off Raya Island, Phuket", Thailand.

Remarks. - Da Motta compared *Conus chusaki* to the similar *C. striatus* Linné, 1758, from which *C. chusaki* is distinct in being smooth and glossy, spire somewhat raised, lavender coloured with brown maculations or clouds, aperture inside orange, only known from the west coast of Thailand, subtidal.

We have compared *C. chusaki* to *C. floridus* Sowerby II, 1857-1858. The holotype of the latter is present in BMNH, the shell is faded, but the type figure shows the original colours. We must conclude that *C. chusaki* is a junior synonym of *C. floridus*.

Further research must disclose whether *C. floridus* is a valid species, or a deeper water subspecies, or a form of the littoral *C. striatus*. In this respect also the shells of "*C. terminus*" from Ceylon must be studied (non *C. terminus* Lamarck, 1810 = *C. gubernator* Hwass, 1792), figured by Reeve (1843: pl. 7 fig. 39), Sowerby (1857-1858: pl. 21 fig. 533), and Walls (1979: 660 below right).

Material studied. - The holotypes of *C. chusaki* and *C. floridus*, and some specimens from Raya Island (ZMA, and coll. Wils).

We are grateful to Dr. Cl. Vaucher for the loan of the holotype, and to Mr. A.J. da Motta for the donation of shells.

chytreus
figs. 305, 414-416

Conus figulinus var. *chytreus* Melvill in Tryon, 1883, Man. Conch. (1) 6: 17, pl. 27 fig. 1

Type. - The holotype was originally in the Melvill-Tomlin collection (Trew, 1982: 10), now in the National Museum of Wales (no. 1955.158.46). The measurements are 16.6 x 10.0 mm (fig. 414).

Type locality. - Not mentioned. We herewith designate Lucira Bay, Angola, type locality of *Conus chytreus*.

Remarks. - Because the shell of *C. chytreus* is covered with brown spiral lines (figs. 414-416), it was described as a variety of *C. figulinus* (cf. figs. 277-278). Hopwood (1920: 103, pl. 2 figs. 4-6) redescribed *C. chytreus* from two more specimens, without a locality, as a separate species.

At present the distribution of *C. chytreus* is known, but its taxonomic status is still a matter of discussion. Recent authors place it in the synonymy of *C. variegatus* Kiener, 1845 (cf. Walls, 1979: 922), others consider it a distinct species (Röckel & Fernandes,

1981-1982, part 3: 5). As stated before (vide *Basteria* 43: 87-88) the taxonomy of Angolan Conidae is in need of a revision and re-evaluation.

Provisionally we consider *C. chytreus* a valid species; though closely related to *C. variegatus*, we do not agree as to both being conspecific. Shell shape and colour pattern are very similar, but the inside colour of the aperture in both taxa is different.

Distribution. - The coast of Angola, between S. Maria and Lucira (fig. 305), after which the junior synonym *C. lucirensis* Paes da Franca, 1957, was named.

Material studied. - The holotype, and a few specimens from Angola between Lucira and Limagens Bay.

We are grateful to Dr. P. G. Oliver for the loan of the holotype, and to Mr. F. Fernandes for his donation of Angolan Conidae.

cibieli
fig. 413

Conus cibieli Kiener, 1845, Coq. Vivant. 2: pl. 107 fig. 2; 1849: 242-243

Type. - The holotype was in the Cibiel collection at Le Havre, France. The present whereabouts are unknown. The type figure is reproduced here (fig. 413); the dimensions are 28 x 17 mm.

Type locality. - Unknown.

Remarks. - With the figure and in the index, Kiener writes *Conus cibieli*; in the text the spelling *C. cibielii* is used.

Without a type specimen or locality, the identity of this species is difficult to establish. We doubt its synonymy with *C. balteatus* (figs. 198-199). Provisionally *C. cibieli* is considered a valid species, but its status can only be discussed after specimens are collected.

cidaris
figs. 417-418

Conus cidaris Kiener, 1845, Coq. vivant. 2: pl. 63 figs. 1, 1a; 1846: 57-58

Type. - The type material consists of two syntypes. Richard (1980: 96-97) designated the specimen figured in Kiener (pl. 63 fig. 1) lectotype of *Conus cidaris*. This shell (fig. 417) is present in MNHN; the measurements are 28.4 x 14.1 mm (Kiener: length 25 mm). The paralectotype (Kiener: fig. 1a, 26 x 14 mm) was in the collection of Madame Dupont (fig. 418).

Type locality. - "l'océan Indien"; Richard recorded "Moluques", both localities are erroneous.

Remarks. - We have studied the lectotype, and agree with Richard that *C. cidaris* is a junior synonym of *C. magellanicus* Hwass, 1792, which species is known from the Lesser Antilles.

We are grateful to Dr. P. Bouchet for the loan of the holotype.

cinamomeus
fig. 419

Cucullus cinamomeus Röding, 1798, Mus. Bolten. 2: 43, no. 534/53

Type. – Röding mentioned one specimen from the Bolten collection, which is considered lost. From the references a lectotype was designated by Kohn (1975: 200, pl. 1 fig. 17), viz. the shell figured in Martini (1773, vol. 2: pl. 57 fig. 631). The type figure is reproduced here (fig. 419); the measurements are 52 x 25 mm.

Type locality. – Not given by Röding; Martini (1773: 272) stated "Indien" as locality of his specimen.

Remarks. – We agree with Kohn that *Conus cinamomeus* (Röding) is a junior synonym of *C. litoglyphus* Hwass, 1792.

cinctus
fig. 421

Conus cinctus Bosc, 1801, Hist. nat. Coq. 5: 140, pl. 40 fig. 2

Type. – The type specimen was originally in the Famin collection at Le Havre, but at present it is considered lost (Kohn, 1981: 283). Bosc figured the shell in reversed position, and enlarged, so that it was smaller than the type figure of 26 x 13 mm. It is reproduced here (fig. 421), in normal position.

Type locality. – Not given.

Remarks. – Walls (1979: 967) listed *Conus cinctus* Bosc as an unrecognizable species, or perhaps *C. miles* Linné, 1758. From the description and type figure Kohn concluded that it is a junior synonym of *C. ventricosus* Gmelin, 1791 (= *C. mediterraneus* Hwass, 1792).

Bosc mentioned that the shell is greenish grey with a blue purple band. The present authors do not know of any shell of *C. mediterraneus* with this pattern, which, to the contrary, has a light coloured band on the middle of the last whorl. Therefore we prefer to consider *C. cinctus* Bosc a nomen dubium.

cinctus

Conus cinctus Link, 1807, Besch. Nat. Samml. Univ. Rostock 3: 102-103
(non *C. cinctus* Bosc, 1801)

Type. – The holotype was not figured by Link, and the shell could not be traced in Rostock (Kohn, 1981: 301-302).

Type locality. – Not mentioned.

Remarks. – *Conus cinctus* Link was described as (translated from the German): "It looks like *C. generalis*, but smaller and wider. The spire is flat with brown spots, the whorls of the spire are concave, with spiral grooves. The last whorl has a white band near the shoulder, with a few brownish red blotches. Below this is a brown band, marked by a

fine cord, consisting of interrupted brown and white dots. Below this a narrow white band with brownish red spots. The base brown-red with white stripes and grooves”.

We agree with Kohn (1981: 303) that from this description alone, without a type specimen or figure, and no locality, *C. cinctus* Link is a nomen dubium.

The name *C. cinctus* Link is a junior homonym of *C. cinctus* Bosc, 1801.

cinctus
fig. 422

Conus cinctus Swainson, 1822, Zool. Illustr. 2: pl. 110
(non *C. cinctus* Bosc, 1801)

Type. – The type specimen was originally in the Dubois collection, ex Mrs. Angus, but the present whereabouts are unknown. The type figure is reproduced here (fig. 422); the dimensions are 62 x 34 mm. Swainson also mentioned a “variety” in his own cabinet, a shell without a purple base.

Type locality. – Not stated.

Remarks. – *Conus cinctus* Swainson is a junior homonym of *C. cinctus* Bosc, 1801. Therefore the species was renamed *C. circumactus* Iredale, 1929.

cinctus

Conus cinctus Valenciennes, 1832, in: Humboldt & Bonpland, Voy. intér. Amerique,
Recueil Observ. Zool. et Anat. Comp. 2: 337
(non *C. cinctus* Bosc, 1801)

Type. – The whereabouts of the holotype are unknown. According to the description the shell measures “15 lignes” (= 34 mm). The specimen was not illustrated.

Type locality. – “Acapulco”, W. Mexico.

Remarks. – From the description and the type locality, *Conus cinctus* Valenciennes has been considered a senior synonym of *C. recurvus* Broderip, 1833, of *C. purpurascens* Broderip, 1833, and of *C. emarginatus* Reeve, 1843. The present authors would identify it as *C. vittatus* Hwass, 1792. The different opinions about a nominal species, of which no type specimen is available and no type figure exists, are reasons to consider *Conus cinctus* Valenciennes a nomen dubium. In addition it is a junior homonym of *C. cinctus* Bosc, 1801.

cinerarius
figs. 423-424

Cucullus cinerarius Röding, 1798, Mus. Bolten. 2: 46, no. 590/89

Type. – Röding mentioned one specimen to be in the Bolten collection, which is considered lost. The single reference was designated lectotype of *Conus cinerarius* (Röding)

by Kohn (1975: 201, pl. 1 fig. 18). It is the shell figured in Knorr (vol. 3, 1768: pl. 16 fig. 3); the measurements are 43 x 21 mm. The type figure is reproduced here (fig. 423).

Type locality. - Not given; Knorr (1768: 35) did not supply a locality of the lectotype either.

Remarks. - Knorr stated that his shell is a specimen of *C. monachus* Linné, 1758, with a distinct colour pattern. Therefore Kohn considered *C. cinerarius* a junior synonym. Typical *C. monachus* is characterized by a marbled pattern of brown or/and bluish-grey colours. In *C. cinerarius* the colour pattern consists of wide bands of bluish-grey and orange-yellow. The status of a colour form is proposed: *C. monachus* forma *cinerarius*. ZMA has one specimen from Amboina (fig. 424).

Conus contusus Reeve, 1848, from the Moluccas may also belong to this colour form.

cinereus

figs. 225-226, 308, 426-429

Conus cinereus Hwass in Bruguière, 1792, Encycl. Méth. 673-674, no. 67

Type. - Hwass described four varieties of *Conus cinereus*. These were discussed by Kohn (1968: 451, pl. 4 fig. 34), who designated the specimen of variety A as lectotype of *C. cinereus*. This shell is present in MHNG (no. 1106/62); the dimensions are 48 x 24 mm (fig. 426).

Type locality. - "l'océan asiatique", herewith restricted to the Moluccas.

Remarks. - *C. cinereus* is a valid species. The colour of the shell is variable (figs. 426-427, 429); the species is named after its ash gray colour. Specimens with reddish or chestnut shells were described by Hwass as var. B ("testa rufescente") and var. C ("testa castanea") (the var. D in Hwass is not conspecific with *C. cinereus*). The brown colour form, *C. cinereus* forma *bernardii* Kiener, 1845, was discussed before (vide *Basteria* 46: 21, figs. 225-226).

C. caerulescens Lamarck (see above, fig. 428) is a junior synonym of *C. cinereus*.

Da Motta (1983: 11) mentioned the "rediscovery" of *C. listeri* Renier, 1804, and figured a specimen from NE. Java. As stated before (see under *C. capitaneus* Renier) the work of Renier is rejected by the ICZN, thus the name *C. listeri* is not valid. The shell figured by Da Motta can be identified as *C. cinereus*, which species may reach a length of over 50 mm.

Distribution. - *C. cinereus* has a limited range in the Indo-Pacific (fig. 308). The Philippines and Moluccas are the centre of its distribution; it occurs as far as Japan, Java, and New Caledonia. Fiji records (Lewis, 1980: 7) need confirmation.

Material studied. - ZMA has different colour forms of *C. cinereus* from several Moluccan islands, in addition to specimens from W. Sumba (Indonesia) and Marinduque (Philippines), RMNH from the Indonesian islands Java (Tjilatjap and Bangi), Timor (Wetar), Celebes (Menado), Moluccas (Ceram, Amboina, Obi, and Banda), and New Guinea (Seroei), and from the Philippines (Zamboanga). In coll. Wils there is material from New Guinea (Biak) and the Philippines (Marinduque, Bohol, Jolo, Balut).

Dr. C. Vaucher kindly supplied us with a photograph of the lectotype.

cinereus
fig. 430

Cucullus cinereus Röding, 1798, Mus. Bolten. 2: 46, no. 589/88
(non *Conus cinereus* Hwass, 1792)

Type. – Röding mentioned four specimens from the Bolten collection, they are considered lost. From the two literature references we herewith designate the shell figured by Martini (1773, vol. 2: 229-230, pl. 52 fig. 578) lectotype of *Conus cinereus* (Röding). The shell was at that time in the collection of D. Feldmann in the Netherlands, but its present whereabouts are unknown. The type figure is reproduced here (fig. 430); the measurements are 53 x 26 mm.

Type locality. – Not given. Martini recorded the species from “Indien” and “Amboina”.

Remarks. – According to Kohn (1975: 201) *C. cinereus* (Röding) is a nomen dubium. The lectotype (fig. 430) may represent a bulbous specimen of *C. cinereus* Hwass (figs. 426-427), which makes *C. cinereus* (Röding) a junior synonym. In addition it is a junior secondary homonym of *C. cinereus* Hwass.

In the synonymy Martini referred to *C. rusticus* Linné, 1758, which name was suppressed by the ICZN (Opinion 753) in 1965.

cinereus

Conus cinereus Schröter, 1803, Arch. Zool. Zoot. 3 (2): 72
(non *C. cinereus* Hwass, 1792)

Type. – The remaining part of the Schröter collection at Gotha, DDR, was studied by Kohn (1981: 289-291); the type specimen of *Conus cinereus* Schröter is considered lost. The shell was not figured.

Type locality. – Not given.

Remarks. – The species was described as follows (translated from the German): “This small Cone is only seven lines (= 15 mm) long, somewhat more bulbous than *C. guienensis*. The shell is smooth, also at the base, the spire is rather high and greyish brown, the apex obtuse; the dorsal side is grey with widely spaced spiral lines. The base is not notched, but the sharp outer lip has an anal slit. The aperture is narrow, contracted in the middle, inside of aperture greyish white, the shell is sturdy”. From this description alone, without a type specimen and no type figure, *Conus cinereus* Schröter is unrecognizable. We agree with Kohn (1981: 291) that this is a nomen dubium. The name is a junior homonym of *C. cinereus* Hwass, 1792.

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 sixth part the following *Conus* names are discussed:

cabritii Bern. – junior synonym of *C. exiguus* Lam.: holotype probably interchanged.

caelatus Adams – junior synonym of *C. marchionatus* Hinds; lectotype designated.

- caerulans* Küst. – junior synonym of *C. ermineus* Born; the supposed holotype is a specimen of *C. aemulus* Rve.
- caerulescens* Lam. – junior homonym of *C. caerulescens* Schröter; junior synonym of *C. cinereus* Hwass.
- caerulescens* B.D.D. – junior homonym; junior synonym of *C. mediterraneus* Hwass.
- caesius* (Röd.) – junior synonym of *C. magus* L.
- caffer* (Röd.) – objective junior synonym of *C. coffeae* Gmel.; nomen dubium.
- caffer* Kr. – junior secondary homonym; junior synonym of *C. guineensis* Gmel.
- caillaudii* Kien. – valid species – Mascarenes; Cargados Is. designated type locality.
- cailliaudii* Jay – junior synonym of *C. mediterraneus* forma *ater* Phil.
- caledonicus* Hwass – colour form of *C. cedonulli* L. – type locality corrected to St. Vincent.
- californicus* Rve – valid species – Central California to Cape San Lucas, Mexico.
- calliginosus* Shikama – colour form of *C. kinoshitai* Kur.
- camelinus* (Röd.) – nomen nudum.
- canaliculatus* (Röd.) – nomen nudum.
- canaliculatus* Dillw. – junior homonym; objective junior synonym of *C. malacanus* Hw.
- cancellatus* Hwass – valid species; type specimen interchanged? – southern Japan to the Philippines.
- candidus* Born – rejected and invalid specific name.
- candidus* (Röd.) – nomen nudum.
- candidus* Kien. – junior homonym; nomen dubium.
- canonicus* Hwass – valid species – Indian Ocean and W. Pacific; type locality restricted to the Maldives.
- canonicus* (Röd.) – junior secondary homonym; junior secondary synonym of *C. vexillum* Gmel.
- capitanellus* Fult. – valid species – S. Japan to Philippines.
- capitaneus* L. – valid species – Indo-Pacific from E. Africa to Hawaii; type locality restricted to Larak, Flores, Indonesia.
- capitaneus* Renier – rejected and invalid name.
- capitatus* (Röd.) – nomen nudum.
- capricorni* M., T. & K. – taxonomic status undefinable, but not the high spired form of *C. austini* R. & A. – Brazil.
- caracanus* Hwass – subspecies or form of *C. cedonulli* L. – S. Caribbean.
- characteristicus* Fisch. – valid species – Bay of Bengal to S. Japan; Java Sea designated type locality.
- carcellesi* Mart. – subspecies of *C. clerii* Rve – Uruguay and Argentina.
- cardinalis* Hwass – valid species – Greater Antilles.
- cardinalis* (Röd.) – junior secondary homonym; objective junior synonym of *C. daucus* Hwass.
- caribaensis* Ust. – junior synonym of *C. centurio* Born.
- caribbaeus* Clench – colour form of *C. flavescens* Sow. – Florida, Bahamas.
- carinata* B.D.D. – junior homonym; junior synonym of *C. mediterraneus* Hwass – lectotype designated.
- carinatus* Sw. – form or subspecies of *C. magus* L. – type locality restricted to the Philippines.
- carmeli* T.-Woods – junior synonym of *C. anemone* fa. *compressus* Sow. – S. Australia.
- carmalis* Sow. – valid species – Angola; Santa Maria Bay designated type locality.
- carota* (Röd.) – junior synonym of *C. spectrum* L.; lectotype designated.
- carpenteri* Cr. – colour form of *C. litoglyphus* Hwass.
- castanea* Coen – nomen nudum.
- castaneofasciatus* Dtz. – colour form of *C. amadis* Gmel.; lectotype designated.
- castaneus* Kien. – junior synonym of *C. cingulatus* Lam.
- castrensis* Gould – junior synonym of *C. thalassiarachus* Sow.
- castus* Rve – junior synonym of *C. daucus* Hwass.
- catenatus* Sow. – junior homonym (renamed *C. desmotus* Toml., a subspecies of *C. cedonulli* L. – Caribbean coast of Colombia, and Venezuela).
- catus* Hwass – valid species – Indo-Pacific from E. Africa to Hawaii.
- cavalloni* Fen. – probably a malformed shell of *C. keatii* Sow.; type locality doubtful.
- cebuganus* M. & M. – provisionally considered a junior synonym of *C. australis* Holt.
- cecilei* Kien. – colour form of *C. furvus* Rve. – Philippines.
- ceciliae* Cr. – form of *C. capitaneus* L.
- cedonulli* L. – valid species – S. Caribbean from Colombia to St. Lucia.
- centurio* Born – valid species – Jamaica to S. Brazil.
- cepasi* Tr. – provisionally considered a valid species – South Angola.

- cereolus* (Röd.) – junior synonym of *C. monile* Hwass.
cerinus Rve – form of *C. boeticus* Rve.
cernicus Ad. – junior synonym or form of *C. balteatus* Sow.
cernohorskyi Da Motta – a form of *C. magus* L. or *C. decurtatus* Dtz.
cervus Lam. – valid species – Moluccas and southern Philippines; Moluccas designated type locality.
cervus "Sow." – a misidentification.
ceylanensis Hw. – subspecies of *C. musicus* Hw.; neotype designated – Ceylon, S. India and Andaman Sea.
ceylonicus Sow. – junior synonym of *C. zeylanicus* Gmel.
chaldaeus (Röd.) – valid species – tropical Indo-Pacific from E. Africa to Central America; Moluccas designated type locality.
characteristicus Dillw. – objective junior synonym of *C. characteristicus* Fisch.
chemnitzii Dillw. – junior synonym of *C. rattus* Hw.
chenui Cr. – colour form of *C. planorbis* Born. – New Caledonia – the correct date is 1858.
chersoideus Nardo – junior synonym of *C. mediterraneus* Hw.
chiangi (Azuma) – valid species – S. Japan to South China Sea.
chinensis (Röd.) – nomen dubium.
chinoi Shik. – junior synonym of *C. distans* Hw.
cholmondeleyi Melv. – colour form of *C. textile pyramidalis* Lam. – Zanzibar.
chrysalis (Röd.) – nomen nudum.
chrysocestus Berry – junior synonym of *C. xanthicus* Dall.
chusaki Da Motta – junior synonym of *C. floridus* Sow.
chytreus Melv. – provisionally considered a valid species – Angola; Lucira Bay designated type locality.
cibieli Kien. – provisionally considered a valid species.
cidaris Kien. – junior synonym of *C. magellanicus* Hw.
cinamomeus (Röd.) – junior synonym of *C. litoglyphus* Hw.
cinctus Bosc – nomen dubium.
cinctus Link – junior homonym; nomen dubium.
cinctus Sw. – junior homonym; renamed *C. circumactus* Iredale.
cinctus Val. – junior homonym; nomen dubium.
cinerarius (Röd.) – colour form of *C. monachus* L.
cinereus Hwass – valid species – central Indo-Pacific; type locality restricted to the Moluccas.
cinereus (Röd.) – lectotype designated; junior secondary homonym and a junior synonym of *C. cinereus* Hwass.
cinereus Schr. – junior homonym; nomen dubium.

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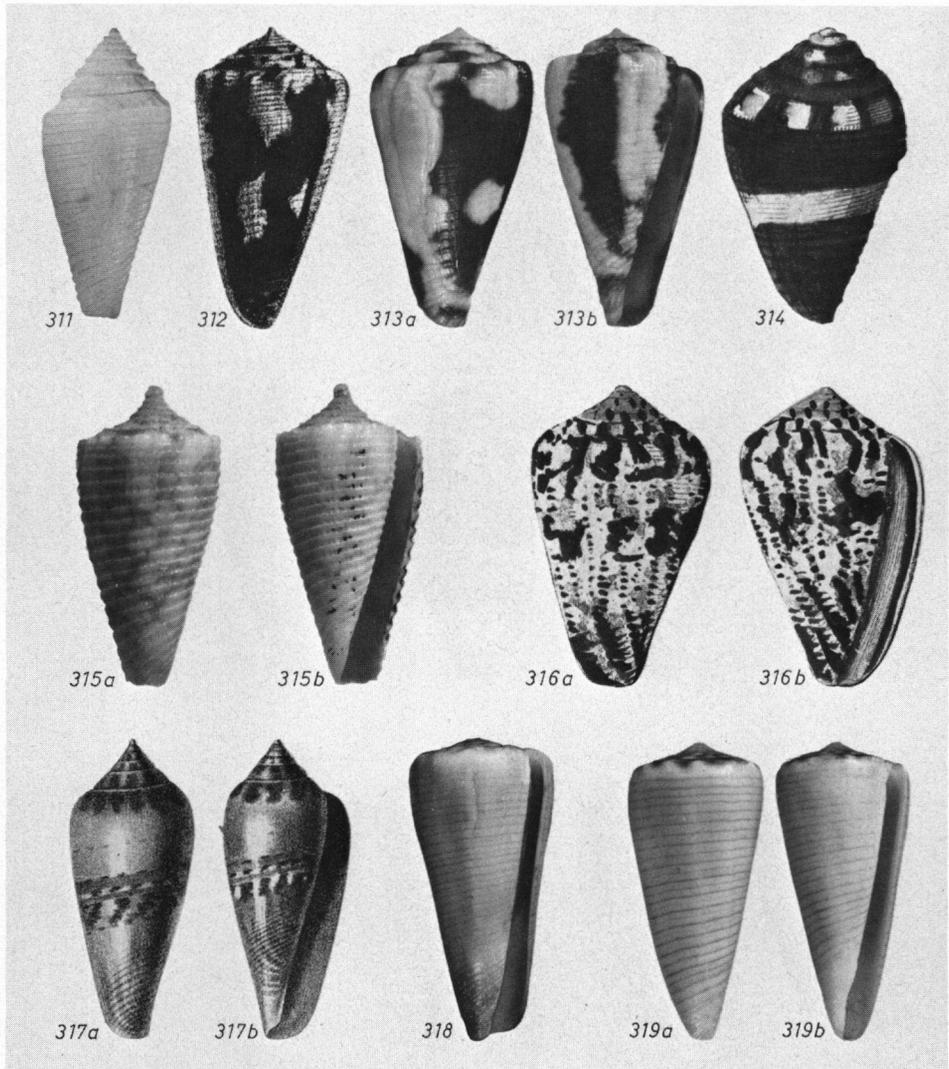


Fig. 311. *Conus anemone* fa. *compressus* Sow., juvenile, holotype of *C. carmeli* T.-Woods, north coast of Tasmania, length 22 mm (photo N.R. Kemp; Tasmanian Mus.).

Figs. 312-313. *C. exiguus* Lam., New Caledonia. 312. Type figure of *C. cabritii* Bern., length 28½ mm (after Bernardi). 313. Supposed holotype of *C. cabritii*, length 19.8 mm (MNHN).

Fig. 314. *C. caffer* (Röd.), lectotype figure, length 26 mm (after Martini).

Fig. 315. *C. marchionatus* Hinds, lectotype of *C. caelatus* Ads, length 11.9 mm (BMNH).

Fig. 316. *C. ermineus* Born, type figure of *C. caeruleans* Küster, St. Thomas, length 41 mm (after Chemnitz).

Fig. 317. *C. guineensis* Gmel., type figure of *C. caffer* Kr., Cape province to Natal, length 38 mm (after Krauss).

Figs. 318-319. *C. caillaudii* Kien. 318. Holotype, length 51.5 mm (Musée d'Histoire Naturelle, Nantes). 319. Cargados, length 33.2 mm (IRScNB).

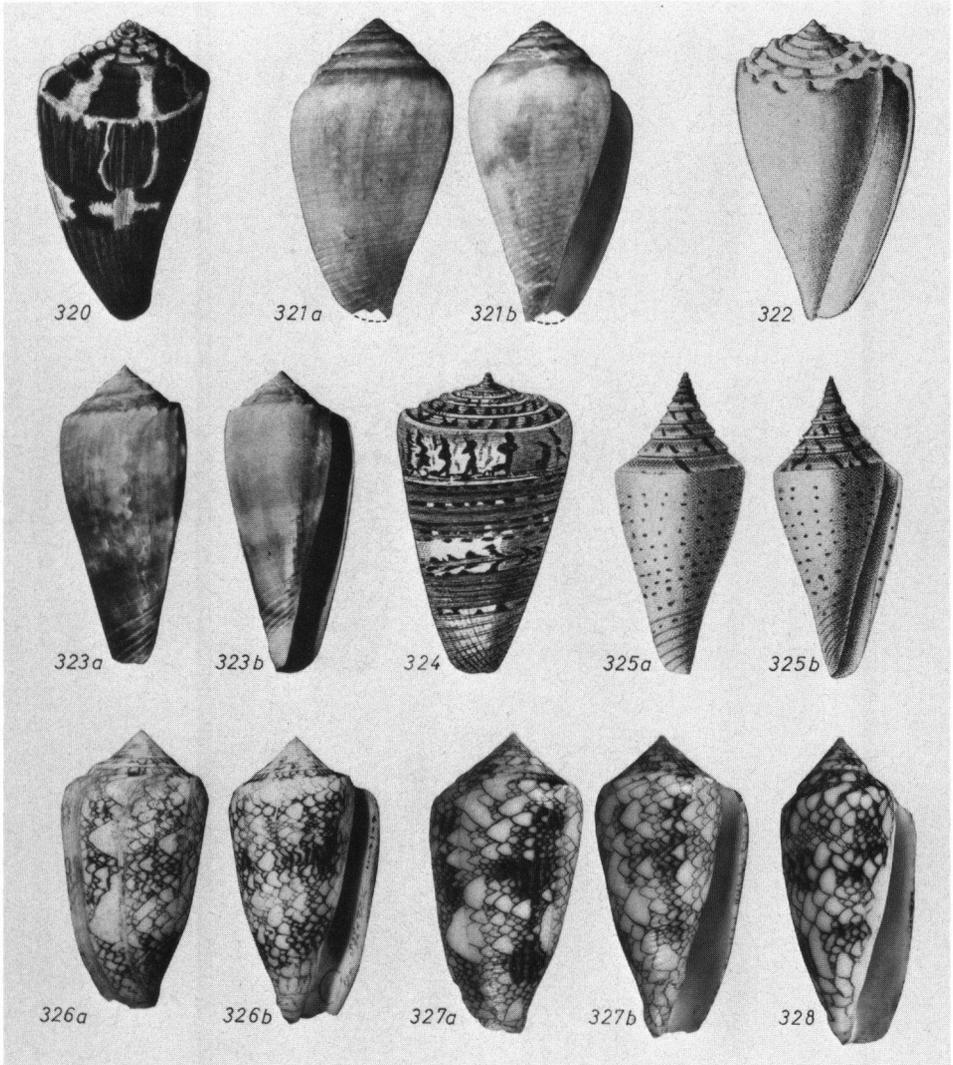


Fig. 320. *Conus vexillum* Gmel., type figure of *C. canonicus* (Röd.), length 63 mm (after Martini).

Fig. 321. *C. californicus* Rve, holotype, California, length 23½ mm (photo BMNH).

Fig. 322. *C. candidus* Born (rejected name), length of the figure 46 mm (after Born).

Fig. 323. *C. kinoshitai* fa. *calliginosus* Shik., type figure, Taiwan, length 51.3 mm (after Shikama).

Fig. 324. *C. malacanus* Hw., lectotype figure of *C. canaliculatus* Dillw., Straits of Malacca, length 53 mm (after Hwass).

Fig. 325. *C. candidus* Kien., type figure, length 31 mm (after Kiener).

Figs. 326-328. *C. canonicus* Hw. 326. Neotype, length 53 mm (photo G. Dajoz, MHNG). 327. Maldives, length 40.5 mm. 328. Slender form, New Guinea, Djajapura, length 42.3 mm.

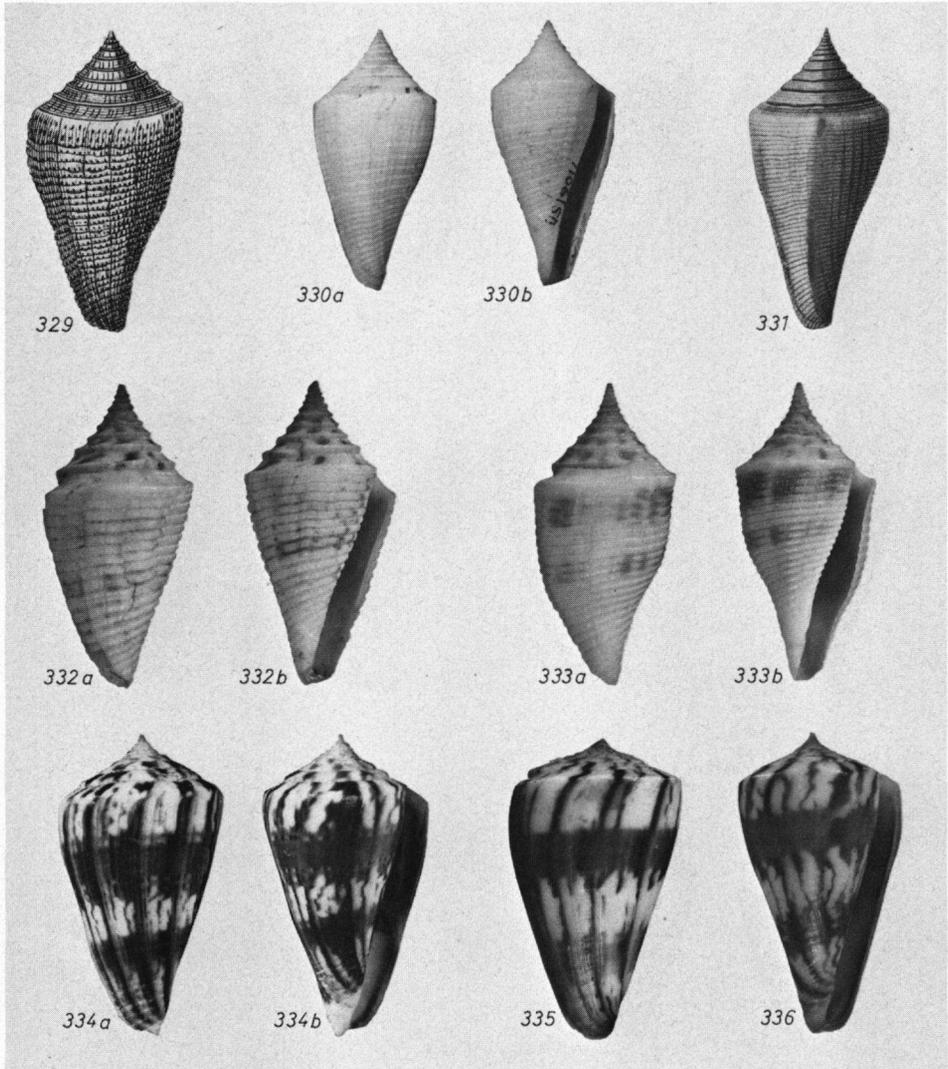
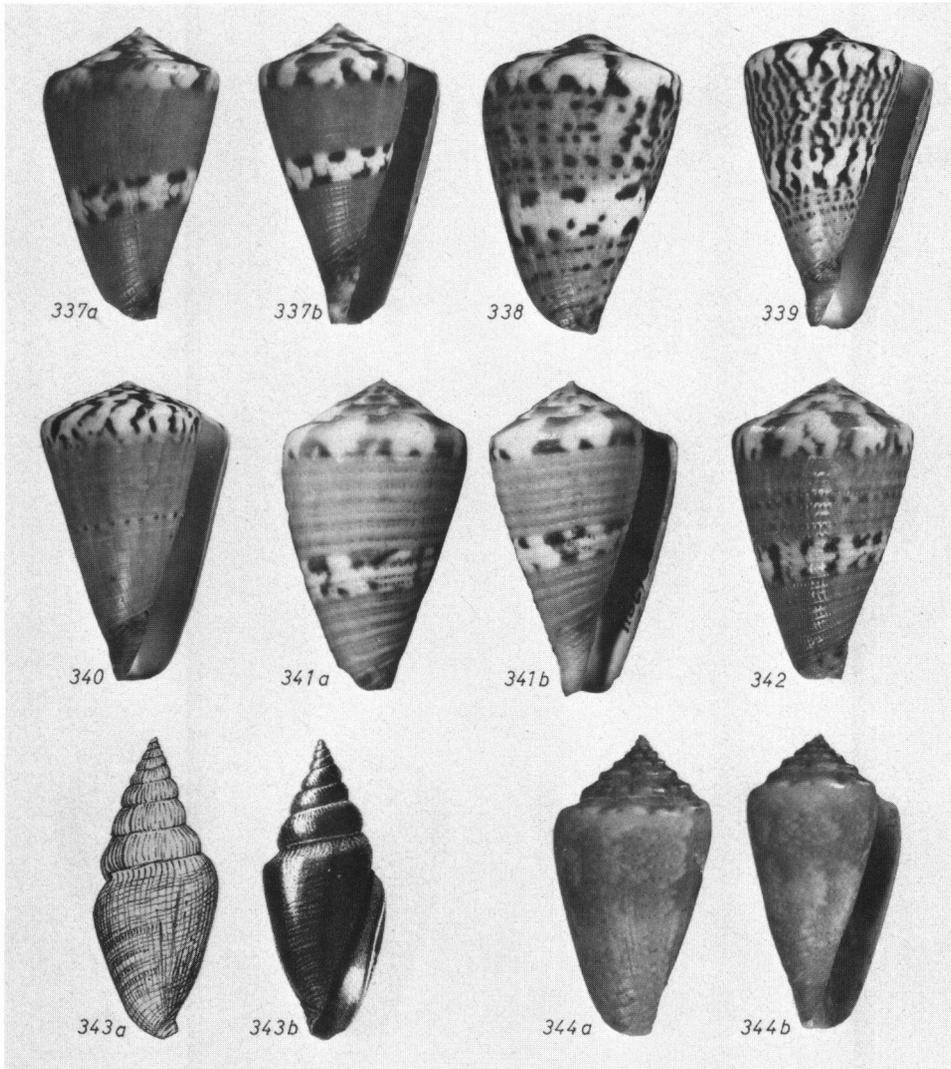


Fig. 329. *Conus cancellatus* Hw., type figure, length $40\frac{1}{2}$ mm (after Hwass).
 Figs. 330-331. *C. austini* Rehd. & Abb., supposed holotype of *C. cancellatus* Hw. 330. Length 39 mm (photo G. Dajoz, MHNG). 331. Length of figure 44 mm (after Kiener).
 Fig. 332. *C. cancellatus* Hw., Japan, Tosa Bay, length 39.4 mm (coll. Wils).
 Fig. 333. *C. cancellatus* fa. *pagodus* Kien., length 36.5 mm.
 Figs. 334-336. *C. capitaneus* Fulton, Japan. 334. Holotype, Kii, length 36 mm (photo BMNH).
 335. Tosa Bay, length 31.4 mm. 336. Kii, length 32.1 mm (RMNH).



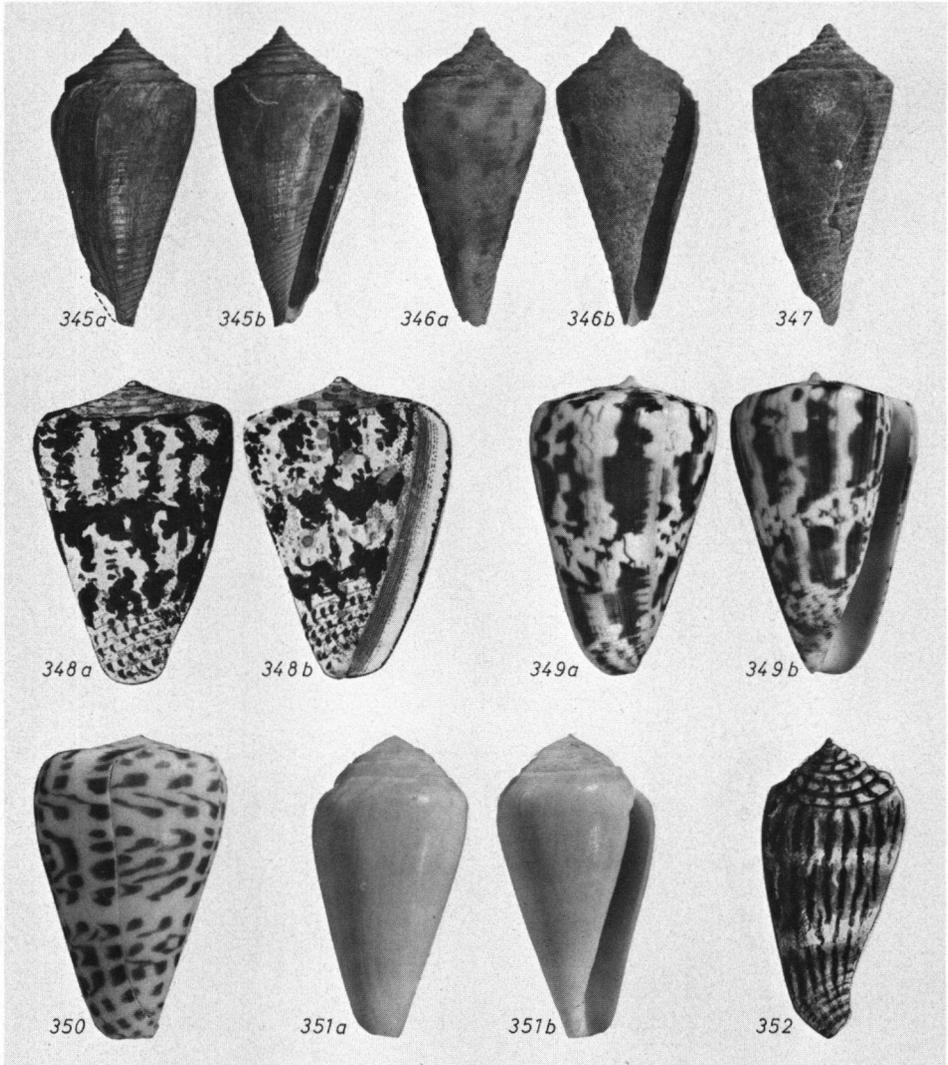
Figs. 337-339. *Conus capitaneus* L. 337-338. Flores, Larantuka, length 35.8 and 47.9 mm. 339. Moluccas, length 68.3 mm.

Fig. 340. *C. capitaneus* fa. *virgineus* Wils, Mauritius, Mahébourg, length 70.2 mm (coll. Wils).

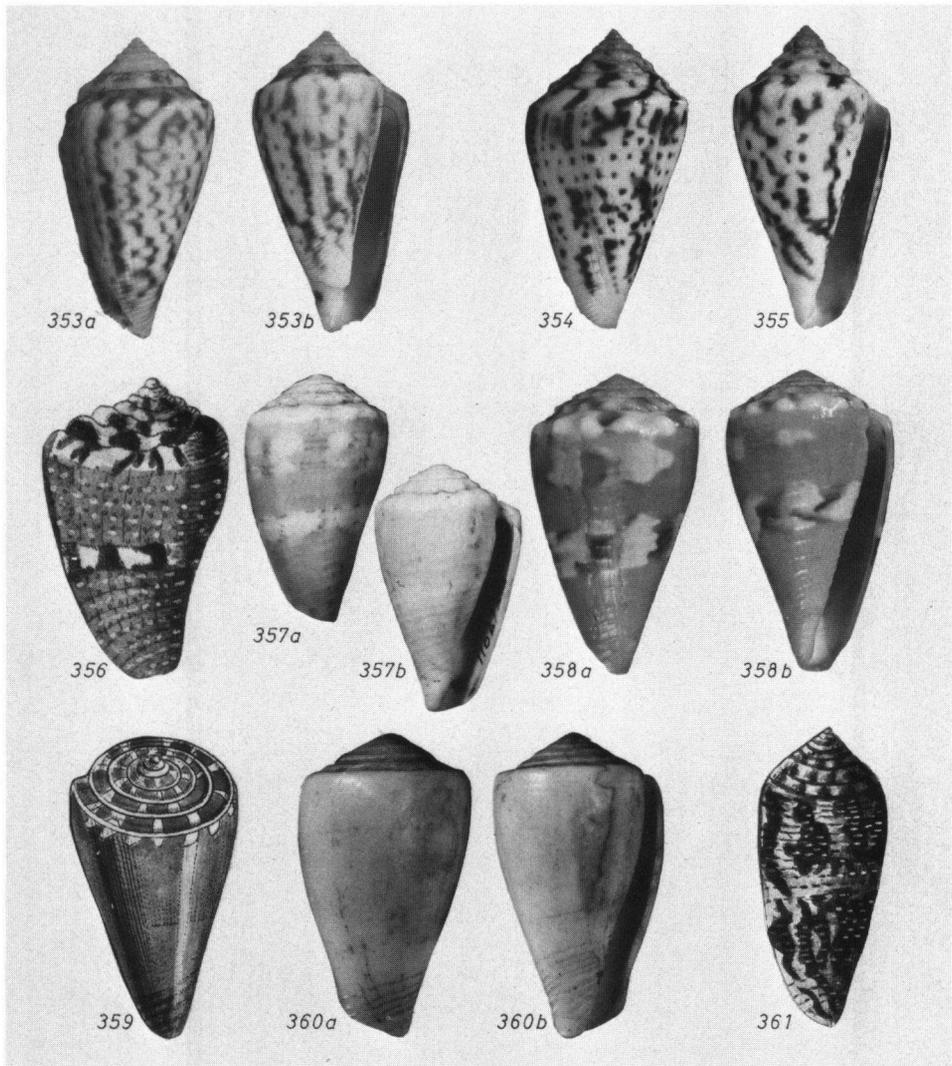
Figs. 341-342. *C. capitaneus* fa. *ceciliae*. 341. Holotype of *C. ceciliae* Crosse, length 33 mm (photo G. Dajoz, MHNG). 342. Moluccas, Amboina, length 36.0 mm.

Fig. 343. *C. mediterraneus* fa. *ater* Phil., type figure of *C. cailliaudii* Jay, length 41 mm (after Jay).

Fig. 344. *C. mediterraneus* Hw., "variety" *carinata* B.D.D., Tunisia, Sfax, length 18.7 mm (IRScNB, ex coll. Dautzenberg).



Figs. 345-347. *Conus capricorni* M.T.K., Brazil. 345. Holotype, off Rio Grande do Sul, length 49.2 mm (MNHN). 346-347. Paratypes 3 and 4, off Pernambuco, length 32.0 and 28.4 mm (MNHN).
 Figs. 348-349. *C. characteristicus* Fischer. 348. Lectotype figure, length 43 mm (after Chemnitz).
 349. India, Madras, length 43.6 mm.
 Fig. 350. *C. eburneus* fa. *crassus* Sow., paralectotype of *C. characteristicus* Fisch., length 44.8 mm (Zoological Museum of Moscow University).
 Fig. 351. *C. carnalis* Sow., holotype, length 48.1 mm (National Museum of Wales).
 Fig. 352. *C. spectrum* L., lectotype figure of *C. carota* (Röd.), length 52 mm (after Martini).



Figs. 353-355. *Conus carcellesi* Martins. 353. Paratype, Argentina, Mar del Plata, length 28.7 mm (MCZ). 354-355. Uruguay, La Paloma, length 41.1 and 37.1 mm.
 Figs. 356-358. *C. cardinalis* Hw. 356. Lectotype figure, length 25 mm (after Martini). 357. "Holotype", length 26 mm (photo G. Dajoz, MHNG). 358. West Indies, length 23.8 mm.
 Figs. 359-360. *C. daucus* Hw. 359. Lectotype figure of *C. cardinalis* (Röd.), West Indies, length 42 mm (after Chemnitz). 360. Holotype of *C. castus* Rve., juvenile, length 19 mm (photo BMNH).
 Fig. 361. *C. magus* L., lectotype figure of *C. caesius* (Röd.), length 48 mm (after Martini).

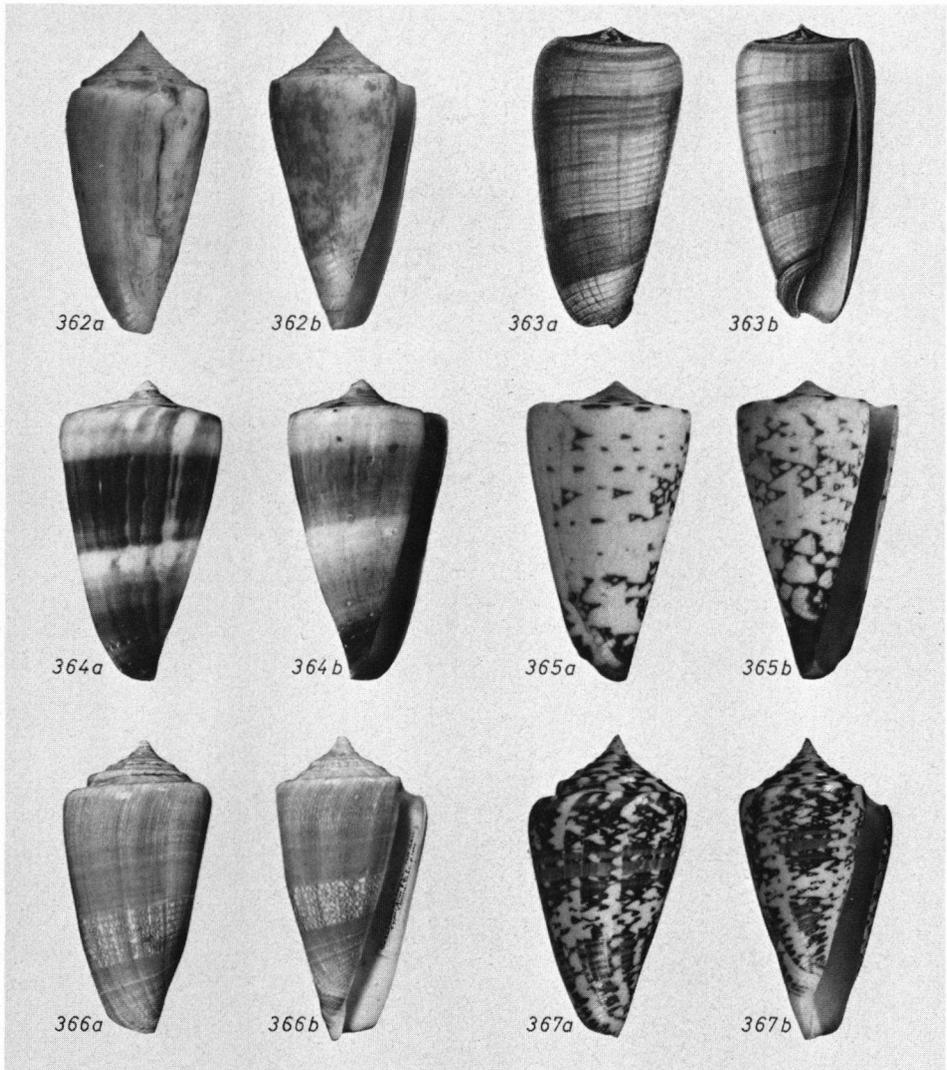


Fig. 362. *Conus flavescens* fa. *caribbaeus*, holotype of *C. caribbaeus* Clench, Florida, Palm Beach Co., length 31.1 mm (MCZ).

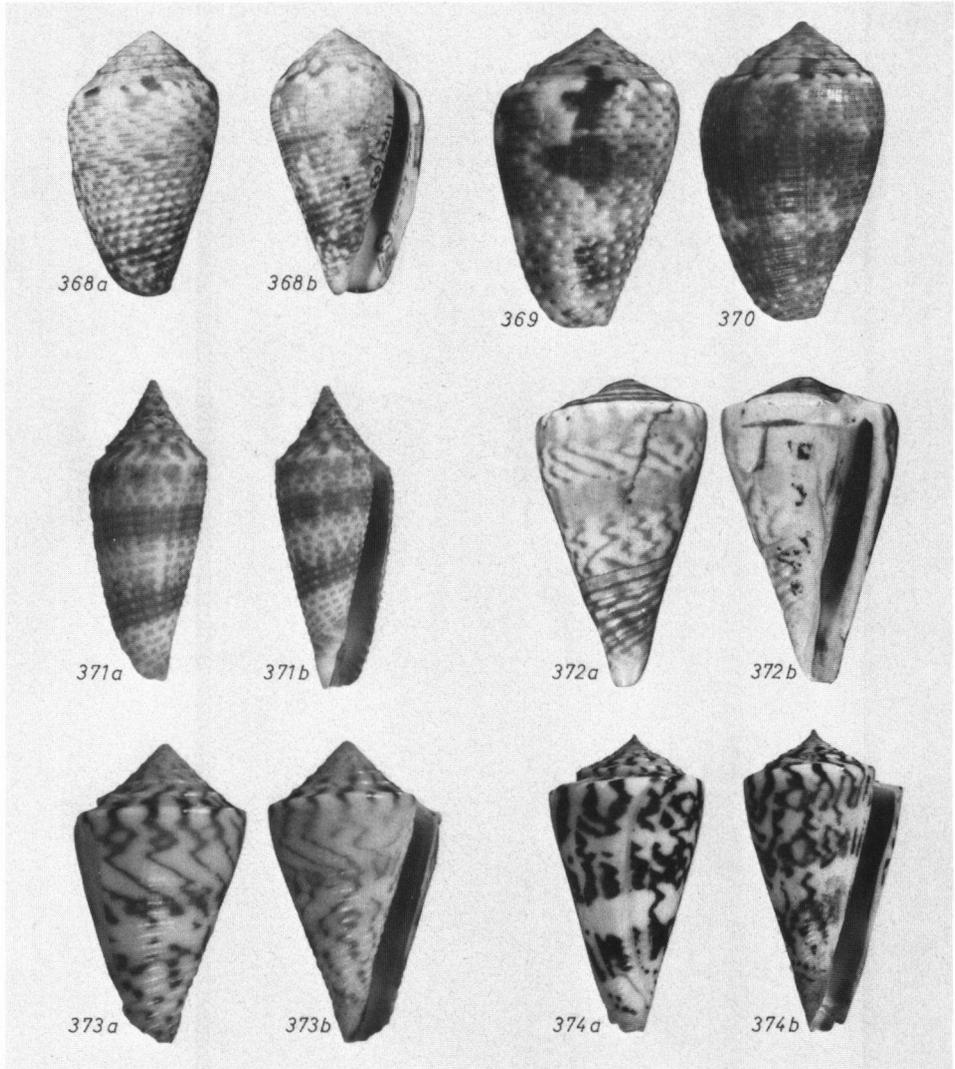
Fig. 363. *C. magus* fa. *carinatus*, type figure of *C. carinatus* Sw., length 67½ mm (after Swainson).

Fig. 364. *C. litoglyphus* fa. *carpenteri*, holotype of *C. carpenteri* Crosse, New Guinea, length 46½ mm (photo BMNH).

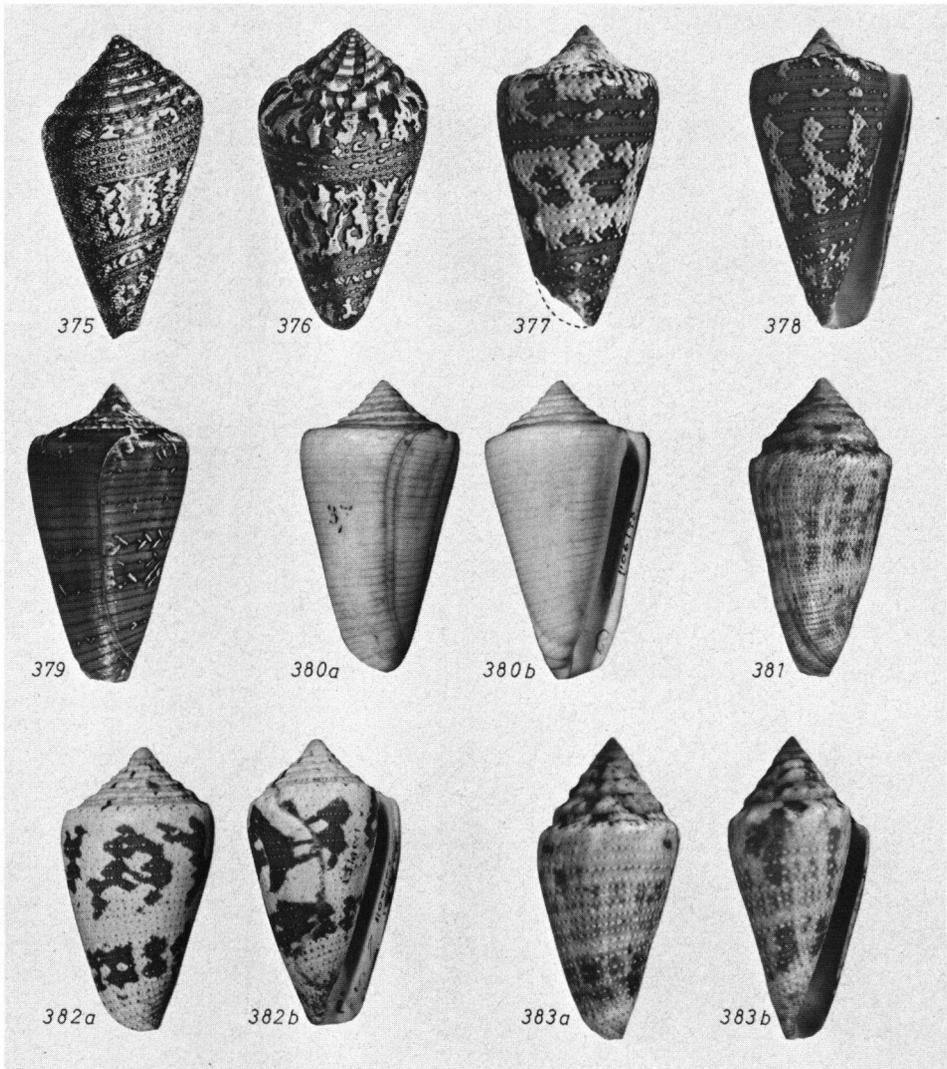
Fig. 365. *C. thalassiarachus* Sow., 'lectotype' of *C. castrensis* Gould, length 42.5 mm (MCZ).

Fig. 366. *C. amadis* fa. *castaneofasciatus* Dautz., lectotype, length 80 mm (photo G. Dajoz, MHNG).

Fig. 367. *C. amadis* Gmel. colour forma, incorrectly considered as "*C. castaneofasciatus*", India, Cuddalore, length 81.8 mm.



Figs. 368-370. *Conus catus* Hw. 368. Lectotype, length 40 mm (photo G. Dajoz, MHNG). 369. Moluccas length 34.0 mm. 370. Solomon Is., Malaita, length 19.7 mm.
 Fig. 371. *C. cf. australis* Holten, holotype of *C. cebuganus* M. & M., Cebu, length 36.4 mm (MHNG).
 Figs. 372-374. *C. centurio* Born. 372. Holotype, length 35.5 mm (photo NMW). 373. "Holotype" of *C. caribaensis* Ust., St. Croix, length 31.5 mm (AMNH). 374. Trinidad, length 49.2 mm (coll. Wils).



Figs. 375-378. *Conus cedonulli* Linné. 375. Type figure, length 56 mm (after Seba, shown dextrally).
 376. Type figure, length 53 mm (after Knorr). 377-378. St. Vincent, length 44.3 and 48.8 mm.
 Figs. 379-380. *C. cedonulli* fa. *caledonicus* Hw. 379. Intermediate to *cedonulli* s.s., St. Vincent, Peter's Hope Bay, length 47.8 mm. 380. Holotype of *C. caledonicus*, length 55½ mm (photo G. Dajoz, MHNG).
 Figs. 381, 383. *C. cedonulli desmotus* Tomlin. 381. Colombia, Santa Marta, length 58.7 mm. 383. Holotype of *C. catenatus* Sow., Panama?, length 31.4 mm (National Museum of Wales).
 Fig. 382. *C. cedonulli* ssp./fa. *caracanus* Hw., holotype, Venezuela, near Caracas, length 47 mm (photo G. Dajoz, MHNG).

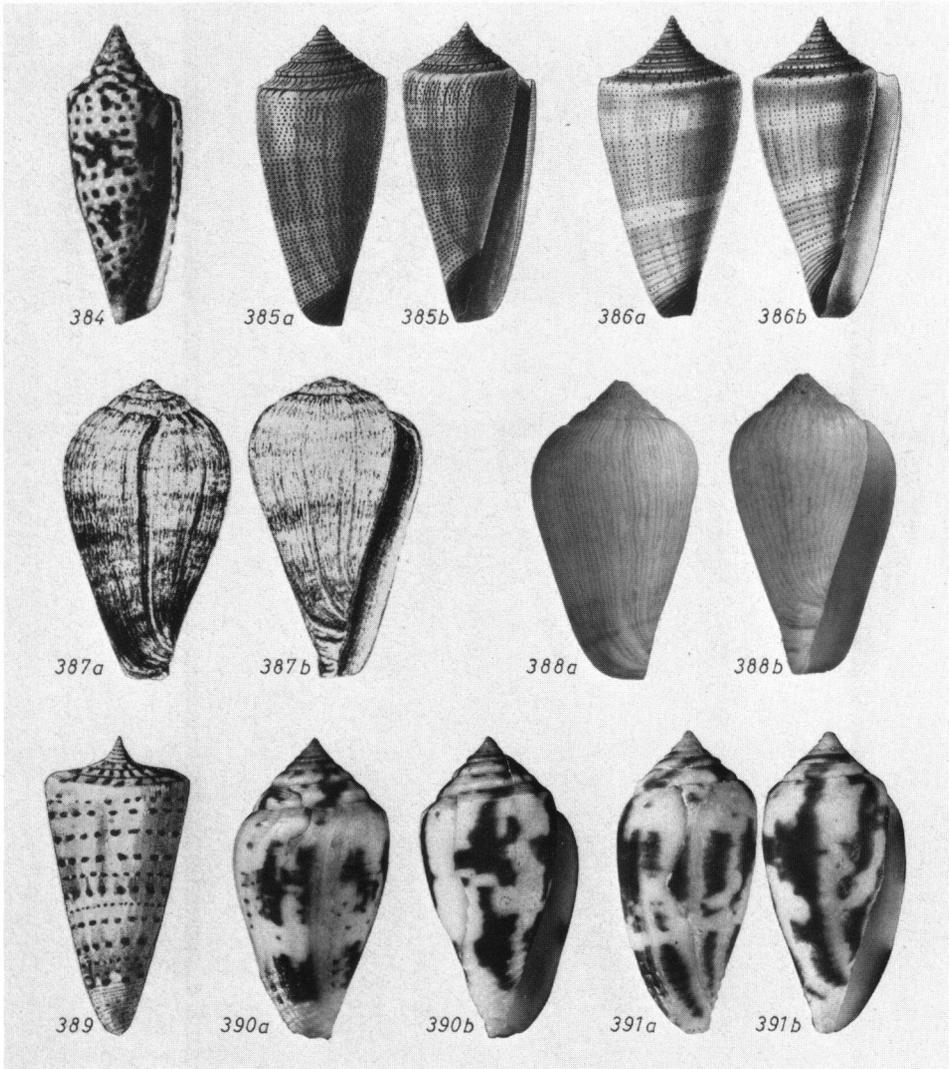
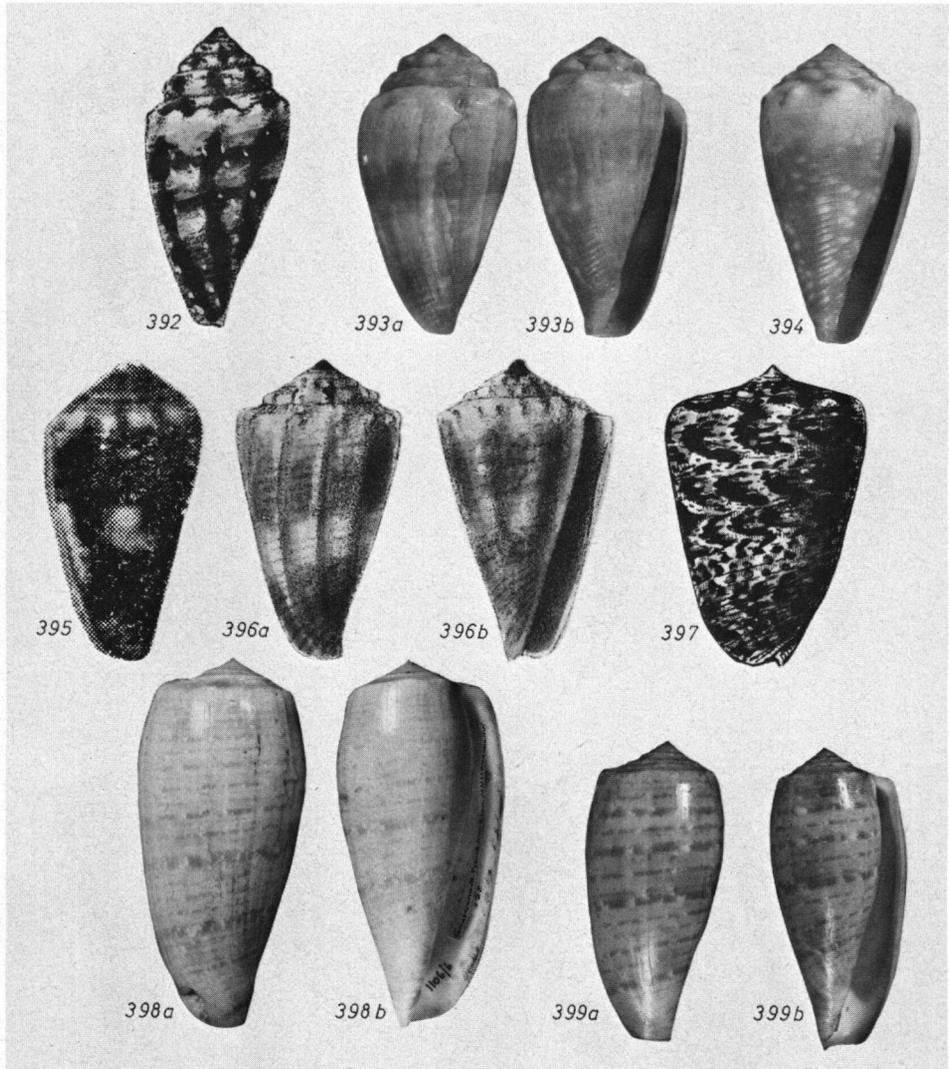
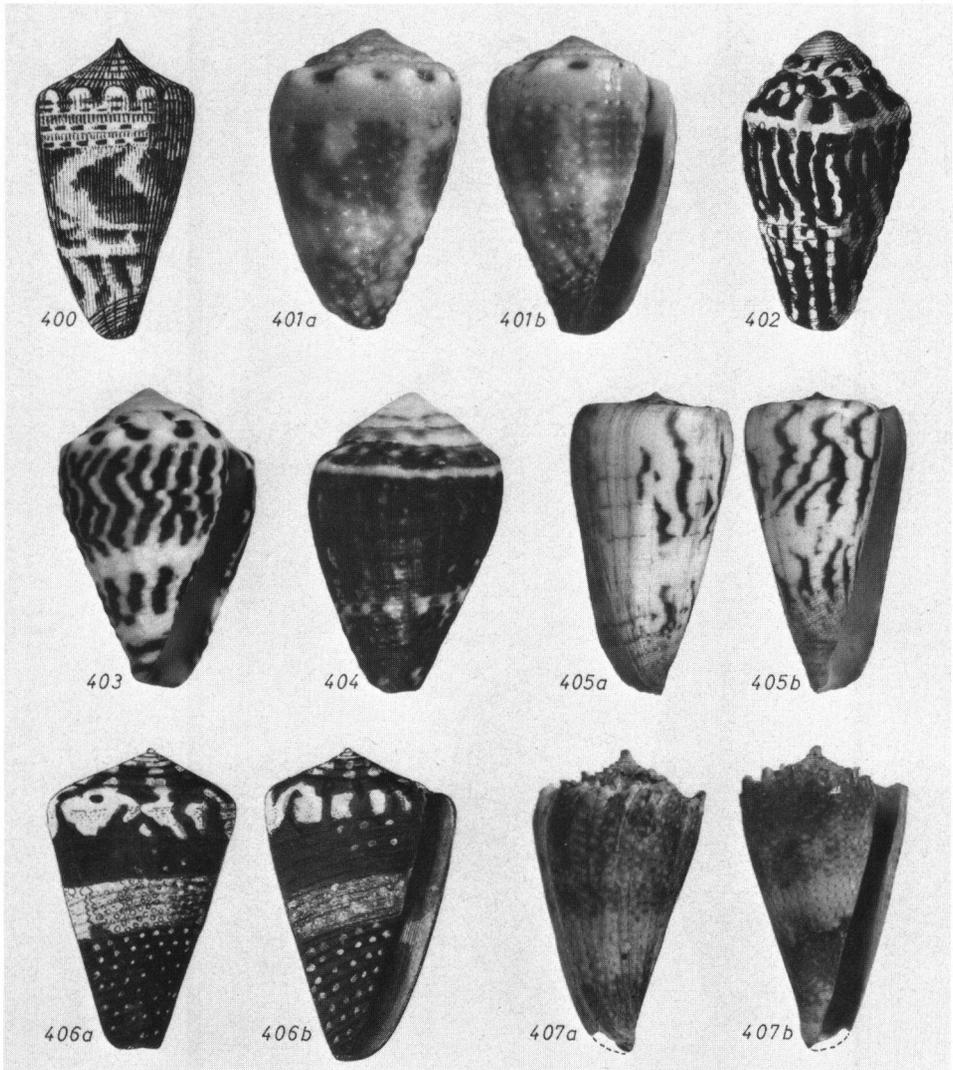


Fig. 384. *Conus* cf. *keatii* Sow., type figure of *C. cavalloni* Fen., length 48 mm (after Fenaux).
 Figs. 385-386. *C. furvus* fa. *cecilei*. 385. Type figure of *C. cecilei* Kien., China Seas, length 44 mm (after Kiener). 386. Figure of the "variety" of *C. cecilei*, length 43 mm (after Kiener).
 Figs. 387-388. *C. cepasi* Trov., S. Angola. 387. Paratype figure, length about 42 mm (after Trovão). 388. Length 27.9 mm (coll. D. Röckel).
 Fig. 389. *C. monile* Hw., lectotype figure of *C. cereolus* (Röd.), Nicobar Is., length 55 mm (after Chemnitz).
 Figs. 390-391. *C. boeticus* fa. *cerinus*, Mindanao. 390. Holotype of *C. cerinus* Rve, length 29 mm (photo BMNH). 391. Length 24 mm (photo BMNH).



Figs. 392-393. *Conus balteatus* Sow., Mauritius, Barkly Id., length 25 mm. 392. Type figure of *C. cernicus* Ads (after Adams). 393. Possible holotype of *C. cernicus*.
 Fig. 394. *C. balteatus*, Mascarenes, length 19.8 mm.
 Fig. 395. *C.* cf. *balteatus* Sow., type figure of *C. circumclausus* Fen., Mauritius, length 18 mm (after Fenaux).
 Fig. 396. *C. balteatus pigmentatus*, type figure of *C. pigmentatus* Ads & Rve, length 25 mm (after Adams & Reeve), cf. fig. 200.
 Fig. 397. *C. zeylanicus* Gmel., type figure of *C. ceylonicus* Sow., Ceylon, length 33 mm (after Sowerby).
 Figs. 398-399. *C. cervus* Lam. 398. Holotype, length 94 mm (photo G. Dajoz, MHNG). 399. Moluccas, length 103.8 mm; this specimen was figured by Valentyn in 1754.



Figs. 400-401. *Conus musicus ceylanensis*, Ceylon. 400. Type figure of *C. ceylanensis* Hw., length 19 mm (after Hwass). 401. Neotype, Hikkaduwa, length 10.0 mm.
 Figs. 402-404. *C. chaldaeus* (Röd.). 402. Lectotype figure, length 36 mm (after Knorr). 403. Moluccas, length 26.4 mm. 404. Amboina, length 24.0 mm.
 Fig. 405. *C. planorbis* fa. *chenui*, holotype of *C. chenui* Crosse, New Caledonia, length 49.1 mm (MNHN).
 Fig. 406. *C. rattus* Hw., type figure of *C. chemnitzii* Dillw., Ceylon, length 45 mm (after Chemnitz).
 Fig. 407. *C. chiangi* (Az.), holotype, South China Sea, length 17.8 mm (coll. Azuma).

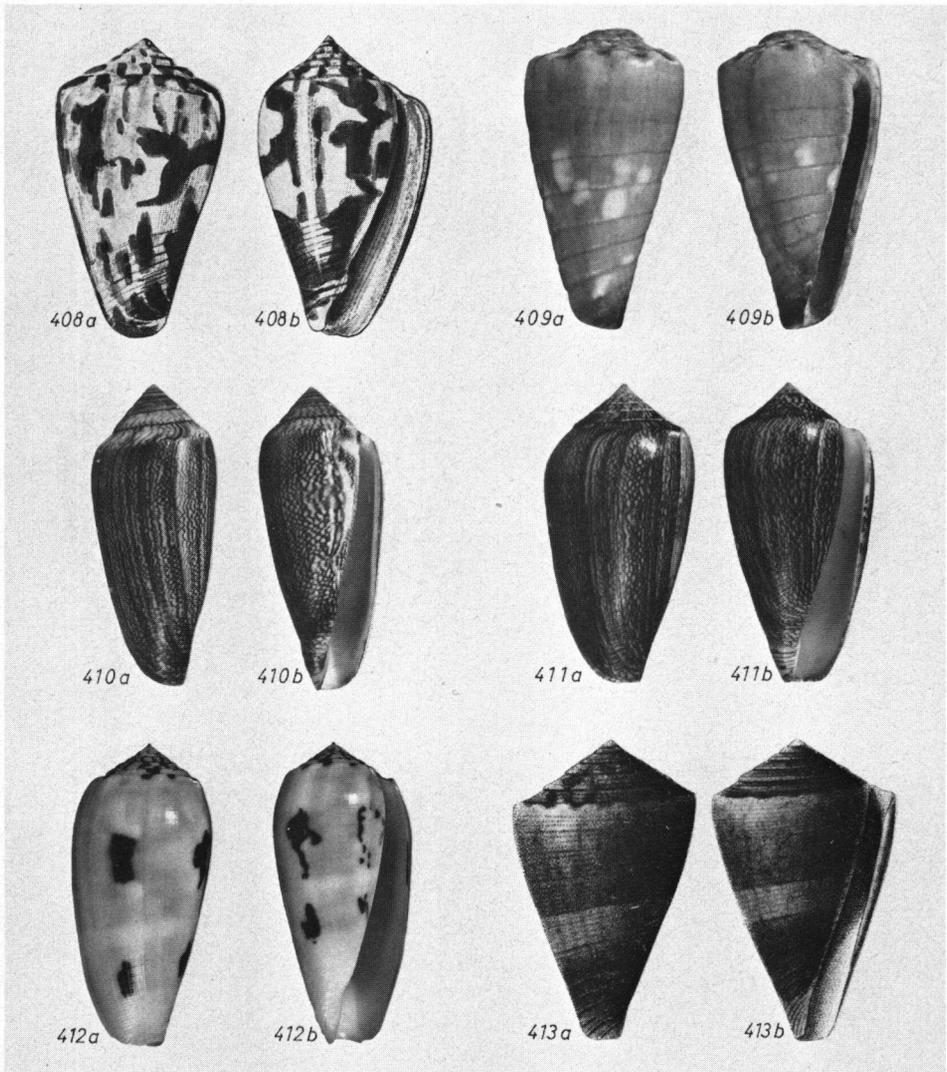
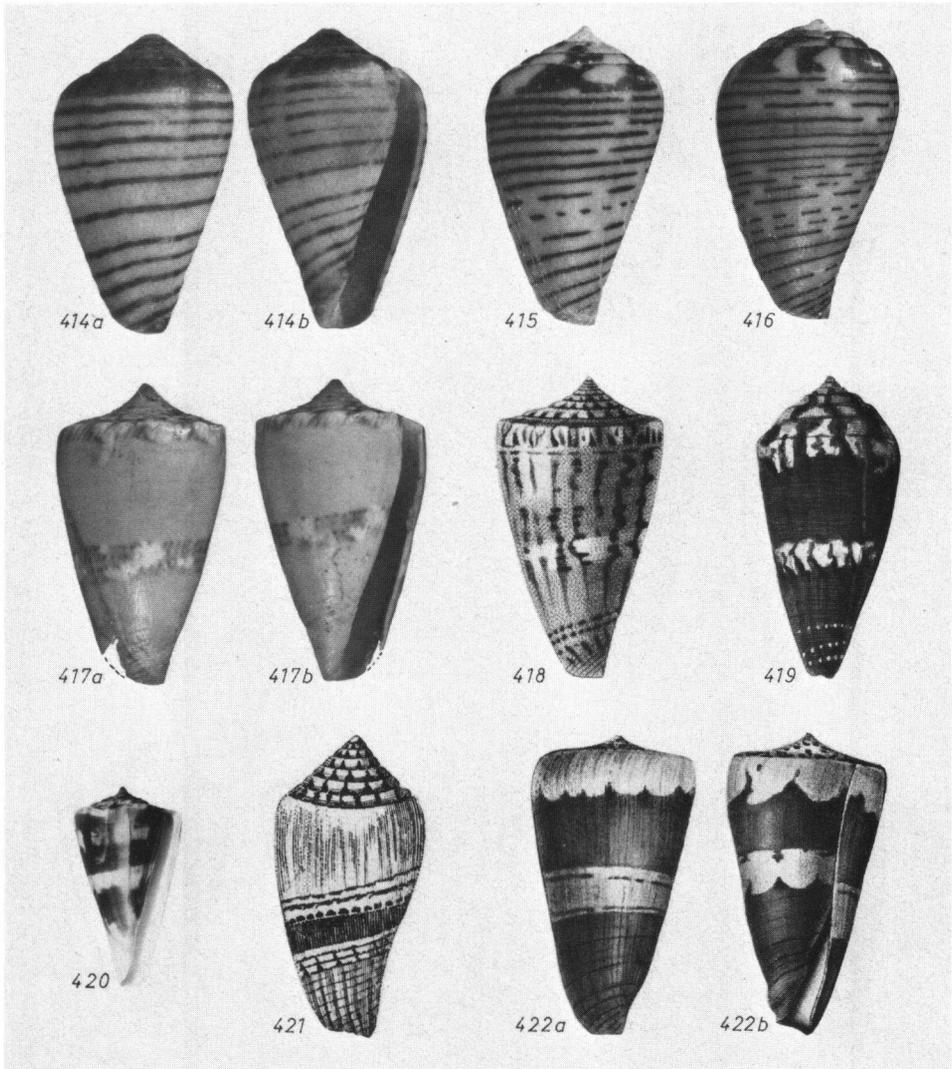
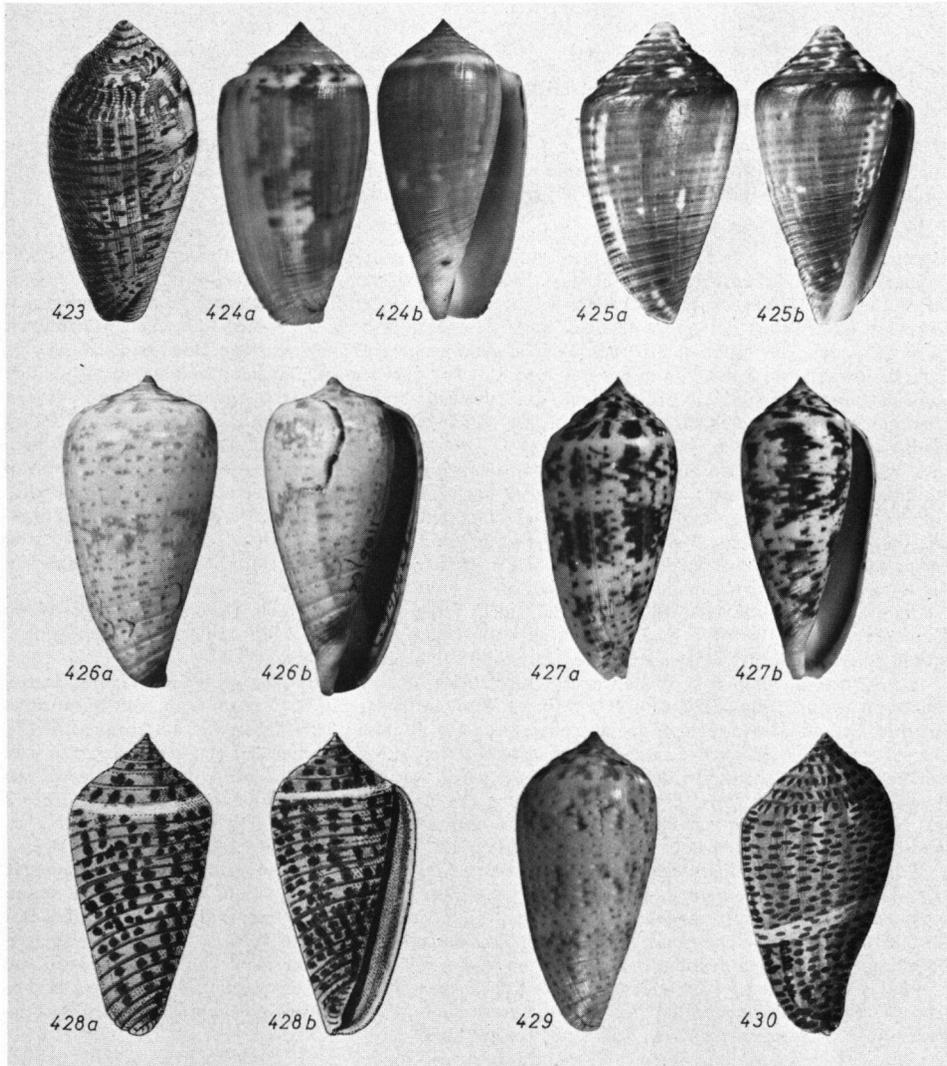


Fig. 408. *Conus cf. spectrum* L., syntype figure of *C. chinensis* (Röd.), Sumatra, length 40 mm (after Chemnitz).
 Fig. 409. *C. distans* Hw., juvenile, holotype of *C. chinoi* Shik., Japan, Ogokuda, length 32.0 mm (National Science Museum, Tokyo).
 Figs. 410-411. *C. textile pyramidalis* fa. *cholmondeleyi*. 410. Holotype of *C. cholmondeleyi* Melv., length 42.9 mm (Manchester Museum). 411. Zanzibar, length 47.8 mm.
 Fig. 412. *C. floridus* Sow., holotype of *C. chusaki* Da Motta, Thailand, Phuket, length 65.2 mm (MHNG).
 Fig. 413. *C. cibieli* Kien., type figure, length 28 mm (after Kiener).



- Figs. 414-416. *Conus chytreus* Melv. 414. Holotype of *C. figulinus* var. *chytreus*, length 16.6 mm (National Museum of Wales). 415-416. S. Angola, length 15.8 and 16.0 mm.
- Figs. 417-418. *C. magellanicus* Hw. 417. Lectotype of *C. cidaris* Kien., length 28.4 mm (MNHN). 418. Paralectotype figure of *C. cidaris*, length 26 mm (after Kiener).
- Fig. 419. *C. litoglyphus* Hw., lectotype figure of *C. cinamomeus* (Röd.), East Indies, length 52 mm (after Martini).
- Fig. 420. *C. xanthicus* Dall, holotype of *C. chrysocestus* Berry, Mexico, off Sonora, length 45.3 mm (coll. Berry, photo Dr. J. McLean).
- Fig. 421. *C. cinctus* Bosc, type figure, length less than 26 mm (after Bosc, shown dextrally).
- Fig. 422. *C. circumactus* Ired., type figure of *C. cinctus* Sw., length 62 mm (after Swainson).



Figs. 423-424. *Conus monachus* fa. *cinerarius*. 423. Lectotype figure of *C. cinerarius* (Röd.), length 43 mm (after Knorr). 424. Amboina, length 51.0 mm.
 Fig. 425. *C. cingulatus* Lam., holotype of *C. castaneus* Kien., length 44 mm (photo BMNH).
 Figs. 426-429. *C. cinereus* Hw. 426. Lectotype, length 48 mm (photo G. Dajoz, MHNG). 427. Moluccas, length 55.8 mm. 428. Type figure of *C. caerulescens* Lam., Moluccas, length 48 mm (after Chemnitz). 429. Length 47.7 mm (ZMUC, ex coll. Spengler).
 Fig. 430. *C. cf. cinereus* Hw., lectotype figure of *C. cinereus* (Röd.), length 53 mm (after Martini).

Unless otherwise stated, specimens in ZMA.