

JOHNSONIA

Published by
THE DEPARTMENT OF MOLLUSKS
Museum of Comparative Zoölogy, Harvard University
Cambridge, Massachusetts

JUNE 29, 1970

REVIEW NUMBER

VOL. 4, NO. 48

The material published in this Review Number is but a small part of the new information available on the various species covered in JOHNSONIA. However, space is limited and so we are restricting it to certain pertinent new data in the Volutidae and Conidae.

THE FAMILY VOLUTIDAE IN THE WESTERN ATLANTIC

BY

W. J. CLENCH AND R. D. TURNER

Since the publication of the Volutidae (no. 43) we have received several specimens which now allow us to figure the radulae of two species for the first time, to give some range extensions, and to figure the egg case and young of *Voluta musica* Linnaeus.

Voluta musica Linnaeus

Plate 172, figs. 1-3; Plate 173, fig. 3

Voluta musica Linnaeus. Clench and Turner 1964, Johnsonia 4: 140, pl. 84, fig. 13; pl. 85, figs. 1-3.

Remarks. While collecting at Playa Chiquito, Curaçao, Netherlands Antilles, Robert C. Bullock found the egg case of this species fastened to the underside of a coral slab in about 3 meters of water. It contained three young, nearly ready to emerge. These along with the egg case and the radula of the young are figured. The radula has only 12 teeth and these are proportionately narrower and have fewer denticles than the adult (Plate 173, fig. 3). The operculum is well formed, similar to that of the adult but exceedingly thin. The digestive system at this stage is completely formed, and while dissecting out the radula it was possible to identify all of the organs illustrated for the adult in Johnsonia no. 43, Plate 82, fig. 18. There is no question that the young are ready to feed immediately upon emerging from the egg case.

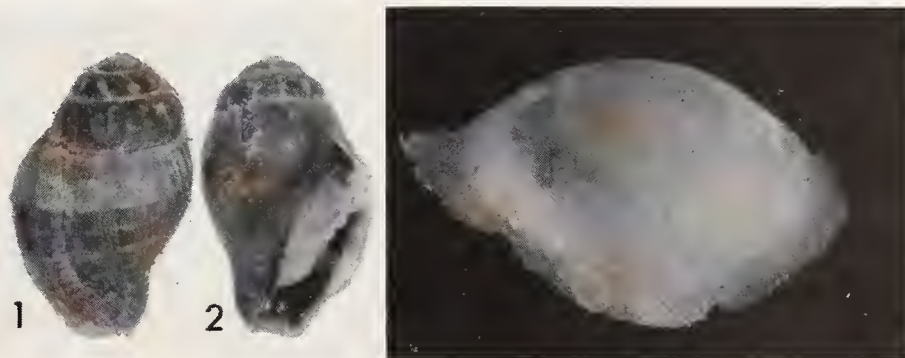


Plate 172. *Voluta musica* Linnaeus. Playa Chiquito, Curaçao, Netherlands Antilles. Young shells and the egg capsule from which they were removed. (Figs. 1-2, 3x; egg capsule 2.3x.)

Voluta virescens Solander

Plate 173, fig. 4

Voluta (?) *virescens* Solander. Clench and Turner 1964, *Johnsonia* 4: 146, pls. 82, 84.

Remarks. At the time we monographed this species, we had not seen any preserved material. Through the kindness of Clifton S. Weaver we received the soft parts of a specimen of *virescens* obtained from the northern part of the Gulf of Mexico. The specimen was too poorly preserved for detailed anatomical work, but it was possible to determine that the radula is typical of the genus. It differs only in being very much smaller, the width being only 0.2 mm., the entire radula being less than 3 mm. in length.

Specimens examined. TEXAS: about 50 miles SE of Port Aransas in 146 meters (Clifton Weaver).

Zidona dufresnei (Donovan)

Zidona dufresnei (Donovan). Clench and Turner 1964, *Johnsonia* 4: 147, pls. 82-83; 88-91.

Specimens examined. BRASIL: Camboriu; Itapema; Penha, all Estado Santa Catarina (all São Paulo Museum).

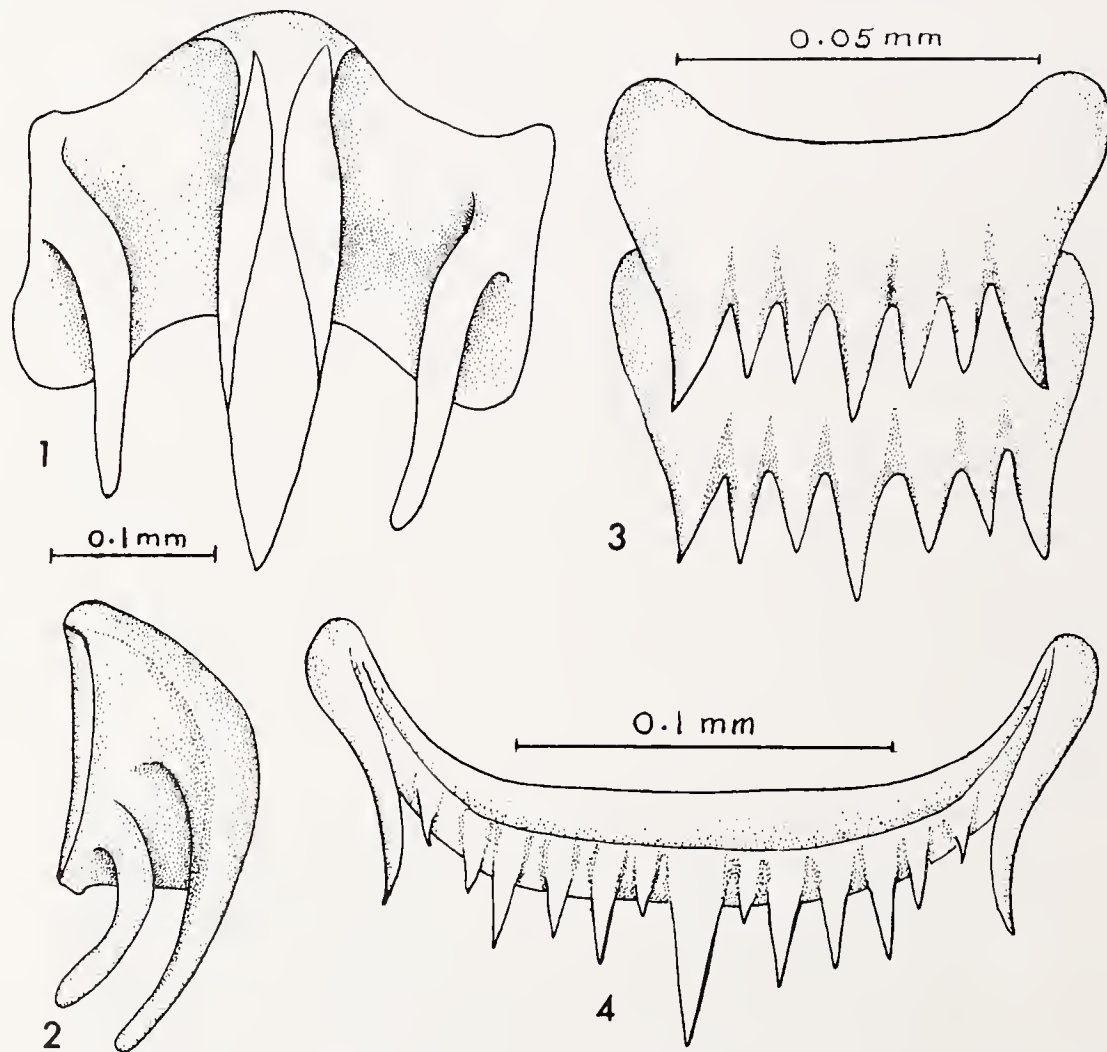


Plate 173. Radulae of Volutidae. Figs. 1-2. Front and side view of single tooth of *Odontocymbiola subnodosa* (Leach), from off Punta Médano, Argentina, in 91.4 meters. Fig. 3. Two teeth from the young *Voluta musica* Linnaeus figured on Plate 172, fig. 2. Fig. 4. Single tooth of *Voluta virescens* Solander from 50 miles SE of Port Aransas, Texas, in 146 meters.

Odontocymbiola subnodosa (Leach)

Plate 173, figs. 1-2; Plate 174, figs. 1-2

Adelomelon (?) *subnodosa* (Leach). Clench and Turner 1964, *Johnsonia* 4: 155, pls. 95-96.

Remarks. At the time we considered this species, we did not have any preserved material for study and there were no published reports concerning the radula. Consequently our previous generic assignment was tentative. In September 1966, Dr. E. de Carvalho Rios of the Museu Oceanográfico, Rio Grande do Sul, Brasil, sent us a preserved specimen. The radula, here figured, proved to be that of an odontocymbolid and not an *Adelomelon* as we had thought on the basis of the shell only.

This is the fourth known species in this genus which is restricted to the east coast of South America from Brasil south to Argentina and the Falkland Islands.

Specimens examined. ARGENTINA: off Punta Médano, Prov. Buenos Aires, in 91.4 meters (Leopold Pontes).

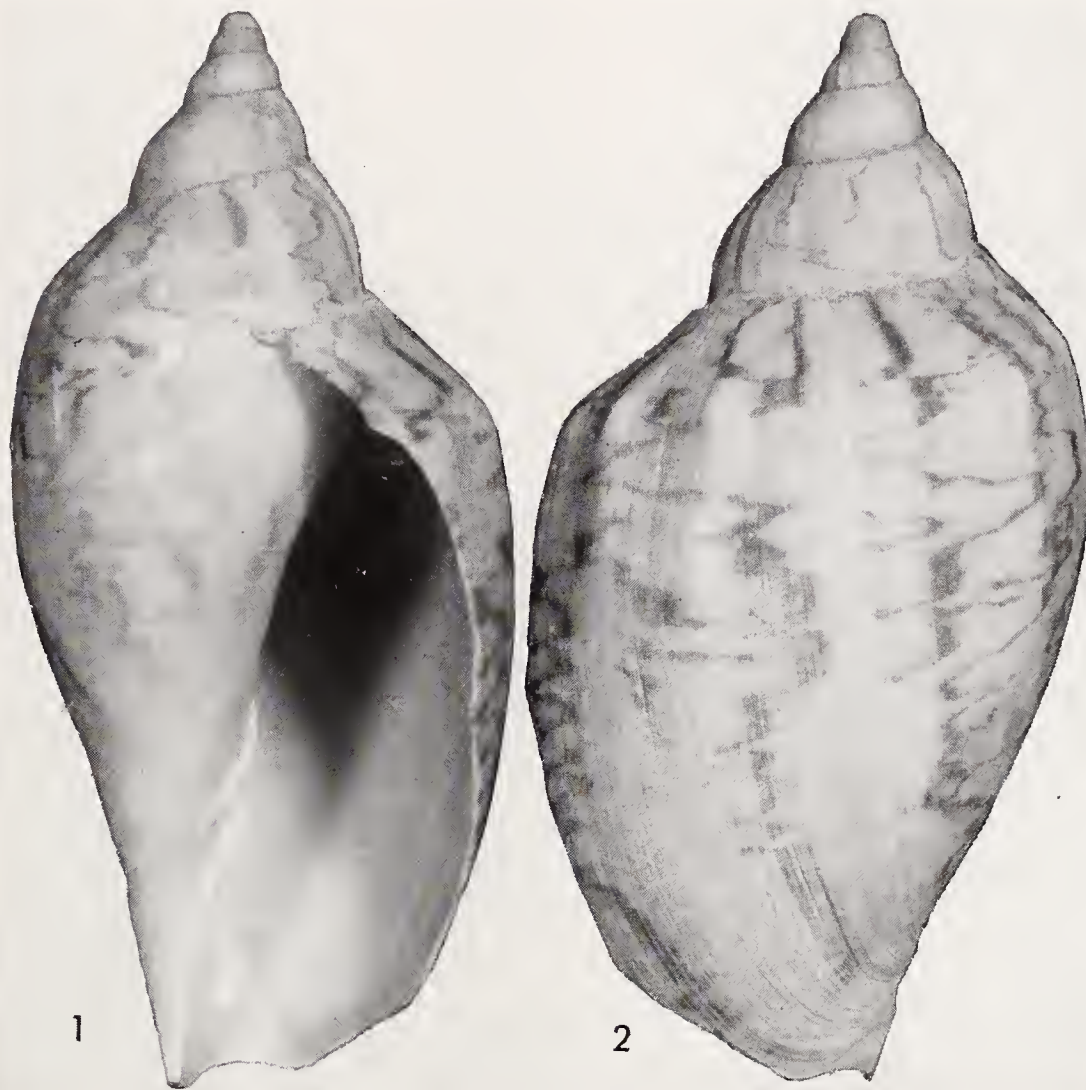


Plate 174. *Odontocymbiola subnodosa* (Leach). From off Punta Médano, Prov. Buenos Aires, Argentina, in 91.4 meters (nat. size).

Scaphella (Scaphella) junonia (Lamarck)

Voluta junonia 'Chemnitz' Lamarck 1804, Ann. Muséum National d'Histoire Naturelle 5: 156 (no locality given) [refers to Chemnitz 1795, Conchylien-Cabinet (1) 11: 16, pl. 177, figs. 1703-1704].

Scaphella (Scaphella) junonia (Shaw). Clench 1946, *Johnsonia* 2: 49, pl. 28, figs. 1-3.

Remarks. The Lamarck reference given above predates that of Shaw 1808 in *The Naturalists Miscellany* 19: 815, pl. 5. Therefore, though there is no change in name of this species, the authority for *junonia* is Lamarck, not Shaw as used in JOHNSONIA no. 22.

* * * * *

THE GENUS CONUS IN THE WESTERN ATLANTIC

BY

WILLIAM J. CLENCH AND ROBERT C. BULLOCK

The genus *Conus* was treated previously in JOHNSONIA 1, no. 6. The Review Number of vol. 2 (1953) summarized the new species and geographic data which had accrued since 1942. However, so much work has been done since 1953 that a new revision of the Conidae is needed. Further ecologic and life history studies, as well as much additional material, are necessary to clarify the many problems in this complex family. In the present number we only add information concerning a few species already treated and report on three species not previously covered in JOHNSONIA.

Conus centurio Born

Plate 175

Conus centurio Born. Clench 1942, *Johnsonia* 1 (6): 24, pl. 12, fig. 1.

Remarks. At the time this species was treated in JOHNSONIA, only a single specimen with precise locality data was available. Through the kindness of Peter Percharde we have received one of five specimens that he collected by SCUBA diving off Miramar

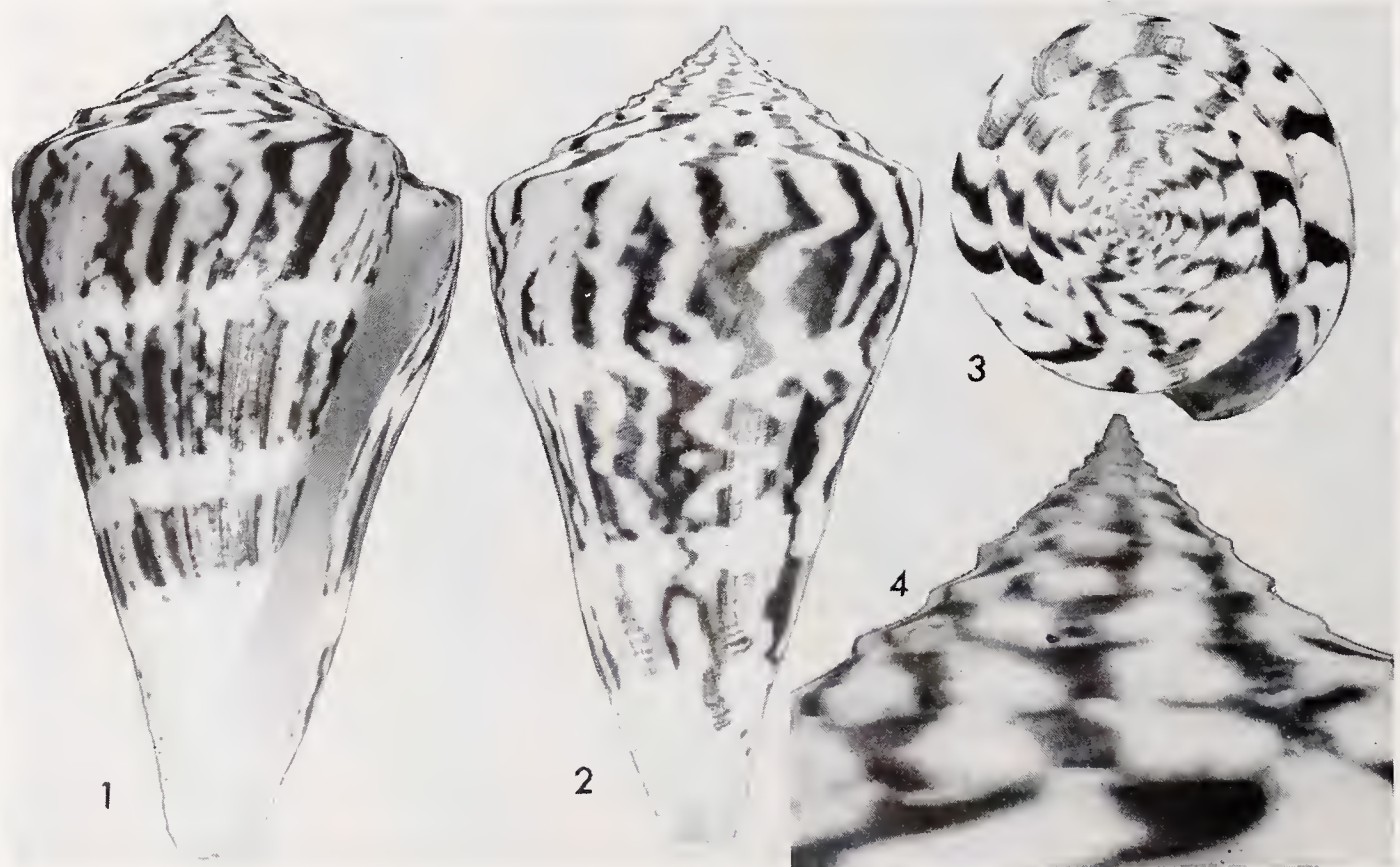


Plate 175. *Conus centurio* Born. Figs. 1-4. Off Miramar Bay, Boca de Monas, Trinidad, in 46-49 meters. Figs. 1-2 (nat. size). Fig. 3. Apical view to show anal notch (nat. size). Fig. 4. Enlargement of apex (3.3x).

Bay, Boca de Monas, Trinidad, in 150–160 feet (46–49 meters). Mr. Percharde (in litt.) described the collecting site as “a flat, silty ledge, 260 feet long by 60 feet wide.” He said that, when at rest, *C. centurio* is practically buried in the silt. The specimen sent to us was found feeding on a *Cyphoma intermedium* and the body of one was found in the “gullet.” The proboscis of *C. centurio* is bright sulfur yellow. He also noted that *C. centurio* was found in association with *Conus insularis* Gmelin, *Murex cabritii* Bernardi, *Polystira albida* (Perry), and numerous specimens of *Cyphoma intermedium* (Sowerby).

The operculum is unguiculate, 21 mm. long and 5 mm. wide with rather sharp concentric ridges. It is approximately one-fourth the length of the aperture.

length	width	whorls
91 mm.	49 mm.	15

Conus hieroglyphus Duclos

Plate 176, figs. 1–5

Conus hieroglyphus Duclos 1833, Magasin de Zoologie, Journal **3**: classe V, pl. 23 (locality unknown; type extant?).

Conus hieroglyphicus [sic] Duclos. Reeve 1843, Conchologia Iconica **1**: *Conus*, pl. 18, figs. 101a–b; Deshayes and Milne Edwards 1845, Animaux sans Vertèbres, 2nd ed. **11**: 140–141; Kiener 1848, Iconographie Coquilles Vivantes **2**: 181, pl. 73, figs. 1–1a; Sowerby 1858, Thesaurus Conchyliorum **3** (part 18): 47, sp. 402, *Conus*, pl. 14, figs. 318–319; Weinkauff 1875, [in] Martini-Chemnitz, Systematisches Conchylien-Cabinet **4** (2): 305, pl. 54, figs. 9–10; Usticke 1968, Caribbean Cones, p. 27, fig. 1018. [All are spelling errors for *C. hieroglyphus* Duclos, 1833.]

Conus armillatus C. B. Adams 1850, Contributions to Conchology, no. 4, p. 59 (Jamaica) [Lectotype USNM 107876]; Clench and Turner 1950, Occasional Papers On Mollusks **1**: 258 [not pl. 31, fig. 10]; Abbott 1958, Nautilus **71**: 117–118; Abbott 1962, Sea Shells of the World, p. 118; Wagner and Abbott 1967, Standard Catalog of Shells, 2nd ed., p. 178 [name only]; Van Mol, Tursch, and Kempf 1967, Ann. Inst. Oceanogr., Monaco **45**: 251, fig. 14.

[?] *Conus mindanus* Hwass. Krebs 1864 [in part], The West-Indian Marine Shells, p. 3; [republished] Clench, Aguayo and Turner 1947, Revista Soc. Malacologia “Carlos de la Torre”, Museo Poey, Univ. de la Habana, **5**: 25.

Conus proteus Hwass. Weinkauff 1875 [in part], Systematisches Conchylien-Cabinet **4** (2): 392; Tryon 1884 [in part], Manual of Conchology **6**: 12.

Conus regius Gmelin. Clench 1942 [in part], Johnsonia **1** (6): 3.

Conus perryae ‘Clench’ Coomans 1958, Studies Fauna Curaçao **8**: 100, pl. 14 (top right) [non *C. perryae* Clench 1942].

Conus aurantius Hwass. Wagner and Abbott 1967 [in part], Standard Catalog of Shells, 2nd ed., p. 179.

Description. Shell small, reaching 15.4 mm. in length and 8.6 mm. in greatest diameter. Whorls $7\frac{1}{2}$, slightly convex, shoulder rounded. Background color white with variable covering of brownish black and reddish brown splotches. Beach-worn specimens lighter in color, sometimes lavender. Spiral threads faint, beaded, white. Aperture white, pinkish, or violet, moderately wide, broadening somewhat anteriorly. Spiral sculpture of 4–6 rather even, closely packed cords on the sutural ramp, and finer, more widely spaced, beaded cords on the body whorl. Anteroventral portion of the shell with spirally incised grooves, white, pink, or violet, and characteristically devoid of the normal color pattern. Periostracum thin, translucent straw-yellow, slightly thickened over the spiral cords, with barb-like projections on the whorl shoulder.

length	width	
15.4 mm.	8.6 mm.	Aruba, Netherlands Antilles
14.1	8.2	Lectotype of <i>C. armillatus</i>

Remarks. The confusion regarding the unique specimen considered as the holotype of *C. armillatus* by Clench and Turner (1950) was discussed by Abbott (1958a). Having examined this specimen (MCZ 154005), we agree with Abbott that it is a worn *Conus regius* Gmelin and that it cannot be considered a type. However, C. B. Adams sent a specimen of *C. armillatus* to the United States National Museum. The USNM label reads "*Conus armillatus* C. B. Ads./ Jamaica. C. B. Ads." and an entry in the catalogue reads "Type." Since characteristics of this specimen (USNM 107876) agree with the original description and since it is from the type series, it is here designated as the lectotype of *Conus armillatus* C. B. Adams (Plate 176, fig. 5).

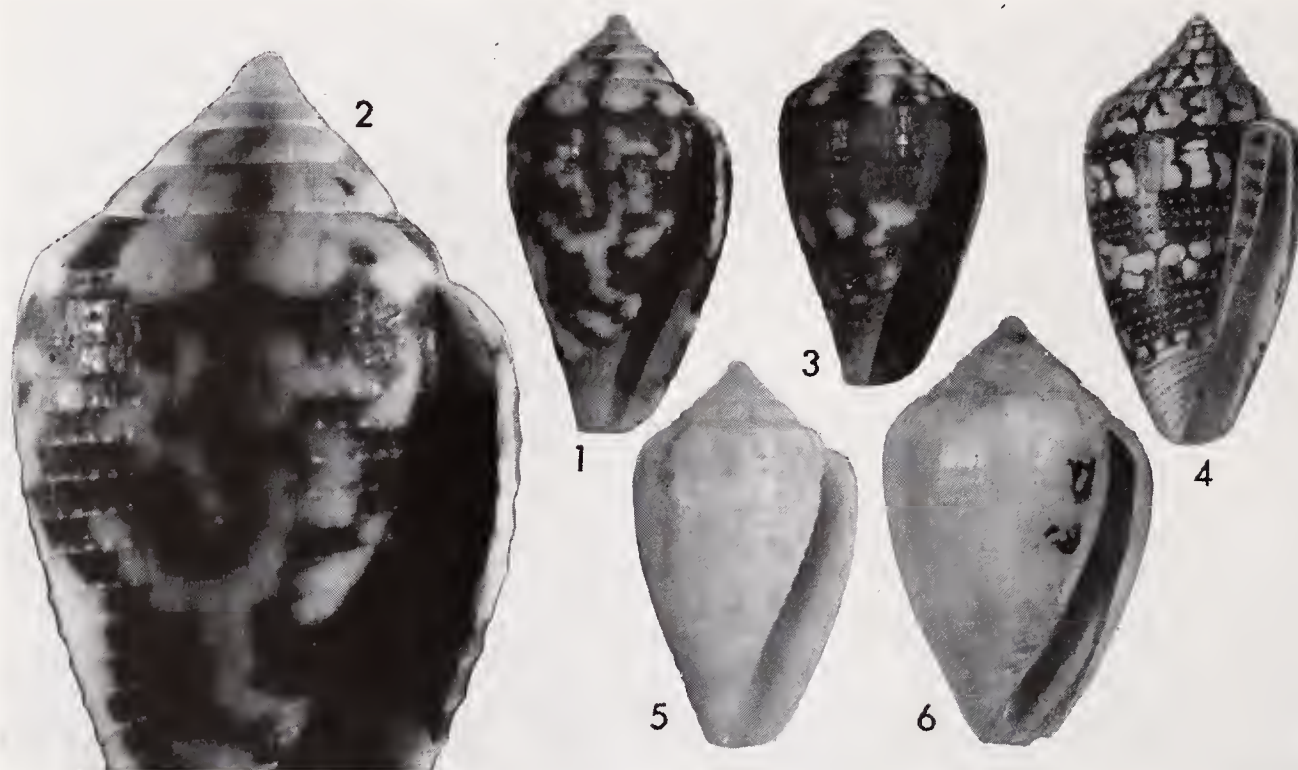


Plate 176. Figs. 1-4. *Conus hieroglyphus* Duclos. Figs. 1-2. From northern tip of Aruba, Netherlands Antilles. Fig. 3. Aruba. Fig. 4. Copy of type figure of *hieroglyphus* from Duclos 1833, pl. 23. Fig. 5. Lectotype of *Conus armillatus* C.B. Adams 1850 (USNM 107876). Fig. 6. Paratype of *Conus selenae* Van Mol, Tursch, and Kempf from off Fortaleza, Ceará, Brasil (MCZ 278239). Figs. 1, 3-6 (2.9x). Fig. 2 (6.3x).

Conus armillatus has been associated, in the literature, with *C. hieroglyphus* Duclos, 1833. All specimens called *C. hieroglyphicus* [sic] Duclos appear to be conspecific with *C. armillatus*. From an examination of the type figure of *C. hieroglyphus* (Plate 176, fig. 4) we concluded that this species is synonymous with *C. armillatus*. Wagner and Abbott (1967) listed *C. hieroglyphus* as a junior synonym of *C. aurantius* Hwass, another Caribbean species. Holeman (1969) stated "The type [Duclos collection specimen ?] of *Conus hieroglyphus* Duclos has been located and is *C. aurantius* Hwass," but did not furnish any proof. There appear to be several significant differences between the two species. The Duclos figure of *C. hieroglyphus* has rather convex whorls, completely lacks knobs on the whorl shoulder, and shows the anteroventral portion of the shell with spirally incised grooves and devoid of the normal color pattern. Duclos mentioned that the interior of the aperture was light violet. These features are characteristic of *C. armillatus*, not *C. aurantius*, and therefore we consider the former a synonym of *hieroglyphus*.

The following account is offered to explain some of the confusion concerning *C. hieroglyphus*, though additional data will undoubtedly clarify the issue. Ten years after the

original description, Reeve (1843: *Conus*, sp. 101) claimed that the Duclos description was made possible by devious means, when he wrote:

I feel exceedingly obliged to M. Deshayes for the loan of this interesting Cone, because it enables me to expose one of the most flagrant examples of dishonesty that ever disgraced the annals of conchological science. The shell now before me was borrowed of M. Deshayes by M. Duclos under the pretext of comparing it with a specimen of much larger dimensions in his own cabinet. There was no such specimen, however, in existence; the drawing given by M. Duclos as of one in his collection is indisputably a magnified representation of this, so that he adopted this discreditable manoeuvre merely to gain the credit of having introduced a new species of Cone. I should not have ventured to publish or to speak so positively of this notorious imposition; but there are certain particular marks in the figure and in the shell by which it may be detected. I am thus obliged to believe as true (and in duty bound to expose), what I have hitherto ridiculed as incredible.

Duclos had stated that his specimen was 36 mm. long and that Deshayes possessed a smaller specimen 22 mm. long. Deshayes probably informed his contemporaries, including Reeve, about what he felt had happened, for Deshayes and Milne Edwards (1845) wrote that *Conus hieroglyphicus* [sic] was known only from one specimen. Further, they said that "the figure given by M. Duclos, in the *Magasin de Zoologie*, represents the individual of our collection, but made larger."

Numerous authors, beginning with Reeve (1843) and Deshayes and Milne Edwards (1845) have referred to *C. hieroglyphus* as *C. "hieroglyphicus."* Tomlin (1939), in his catalogue of the Recent and fossil cones, was the first author to revert to the correct spelling. However, the identity of *C. hieroglyphus* remained a mystery. Duclos thought that it may have come from California. Sowerby (1858) figured two color varieties from the West Indies and perhaps it is for this reason that Tryon (1884) gave the locality as "? West Indies." Recently, Usticke (1968) recognized that *C. hieroglyphicus* [sic] was conspecific with *C. armillatus*.

Range. Reported from Jamaica and Aruba.

Specimens examined. JAMAICA: (USNM). CARIBBEAN ISLANDS: Aruba (H.G. Wiswall); northern tip of Aruba; Malmok, Aruba; Boca Grande, Aruba (all MCZ).

Conus aurantius Hwass

Plate 177, figs. 1-3

Conus aurantius Hwass 1792, [in] Bruguière, *Encyclopédie Méthodique* 1: 606, pl. 317, fig. 7 (Philippines [erroneous—here corrected to Curaçao, Netherlands Antilles]) [Lectotype in Muséum d'Histoire Naturelle de Genève, no. 1106/42]; Coomans 1963, *American Malac. Union Ann. Rept.* for 1963, p. 9; Seamon and Seamon 1967, *Hawaiian Shell News* 15 (12): 1, 8, figs. 1-4; Kohn 1968, *Journ. Linn. Soc. (Zool.)* 47: 414, pl. 2, fig. 9 [Lectotype selected and figured]; Usticke 1968, *Caribbean Cones*, p. 22, fig. 1012; Holeman 1969, *Hawaiian Shell News* 17 (10): 3, figs. 1-3; Van Pel 1969, *Hawaiian Shell News* 17 (10): 5, figs. 1-4.

Description. Shell small to medium, reaching 73.5 mm. in length and 32.5 mm. in greatest diameter. Whorls 10, spire moderately extended, with about 14 obliquely set knobs on the whorl shoulder. In a few specimens the shoulder of the body whorl may be nearly smooth. Color white or light purplish white with prominent irregular markings of orange, gold-brown, or purplish black. Spiral sculpture of numerous node-studded,

white threads with reddish brown markings. On darker specimens the white nodes are seen only on the colored areas. Aperture white to bluish white, broadening slightly near the siphonal canal. Periostracum thin, translucent yellow.

length	width	
73.5 mm.	32.5 mm.	Bonaire
50.7	25.2	Curaçao
49.0	25.0	Lectotype of <i>C. aurantius</i>
23.7	11.3	Aruba

Remarks. *C. aurantius* Hwass has been recorded as an Indo-Pacific species, but recent collecting and reports published during the last decade have shown conclusively that it is a West Indian species.

Wagner and Abbott (1967) and Holeman (1969) stated that *C. hieroglyphus* Duclos, 1833 is a junior synonym of *C. aurantius* (see remarks under *C. hieroglyphus*). The relationship between *C. aurantius* and *C. insularis* Gmelin is uncertain.

Seamon and Seamon (1967:1) reported collecting *C. aurantius* where the water was clear, the bottom of silty sand, coral rubble, and "profuse coral formations." Specimens were found in 10 to 30 feet of water "under huge dead coral heads where the shells were partially buried under sand." Van Pel (1969) recorded finding a black specimen "creeping over an algae field at a depth of 25 feet," but he also found specimens under stones and dead coral in two to four feet of water.

Range. Reported from Aruba, Bonaire, and Curaçao, Netherlands Antilles. Holeman (1969) recorded this species from Grenada and the Grenadine Islands.

Specimens examined. CARIBBEAN ISLANDS: Malmok, Aruba (Bullock); Vaersenbaai, Curaçao (MCZ).



Plate 177. Figs. 1-3. *Conus aurantius* Hwass. Figs. 1-2. Vaersenbaai, Curaçao, Netherlands Antilles. Fig. 3. Malmok, Aruba, Netherlands Antilles. Fig. 4. *Conus insularis* Gmelin, from off Miramar Bay, Boca de Monas, Trinidad, in 46 meters. Figs. 1, 4 (1.2x). Fig. 2 (2.3x). Fig. 3 (2.2x).

Conus insularis Gmelin

Plate 177, fig. 4

Conus insularis Gmelin 1791, Syst. Nat., ed. 13, p. 3389 (no locality).*Conus dominicanus* Hwass. Clench 1942, Johnsonia 1 (6): 6, pl. 4, fig. 4.*Conus regius* Gmelin. Clench 1942 [in part], Johnsonia 1 (6): 3.

Remarks. At the time the genus *Conus* was monographed in JOHNSONIA, little was known about this species, and Clench (1942) synonymized *C. insularis* with *C. regius* Gmelin. Abbott (1958b) also thought this species to be a variant of *C. regius*. Kohn (1966) pointed out that *C. insularis* is a senior synonym of *C. dominicanus* Hwass, and stated: "In my opinion, *C. insularis* should be considered provisionally valid until study of natural populations elucidates the relationship between it and *C. regius*." Although we feel that *C. insularis* is distinct from *C. regius*, it is closely related to *C. aurantius* Hwass. Further study may prove that *insularis* and *aurantius* are conspecific.

Conus ermineus Born

Plate 178

Conus ermineus Born 1778, Index Rerum Naturalium Musei Caesarei Vindobonensis, p. 141 (Indiis) [Lectotype, Naturhistorisches Museum, Vienna, No. 4051, selected by Kohn (1964)].

Conus guinaicus Hwass 1792, [in] Bruguière, Encyclopédie Méthodique 1: 697 (Guinea) [Lectotype, Muséum d'Histoire Naturelle de Genève, No. 1106/87]. New synonym not included in Johnsonia, no. 6.

Conus ranunculus Hwass. Clench 1942, Johnsonia 1 (6): 32, pl. 15, figs. 6-7; Abbott 1958, Acad. Nat. Sci. Philadelphia, Monog. 11, p. 94.

Remarks. Kohn (1968) studied the species of *Conus* described by Hwass and showed that the holotype of *C. ranunculus* is a beach-worn shell of an Indo-Pacific species, *C. achatinus* Gmelin. Therefore, the name *C. ranunculus* is unavailable for the Atlantic species. Kohn suggested use of the name *C. testudinarius* Hwass (see Clench 1942, cited above), but pointed out that the West African *C. ermineus* Born may be conspecific

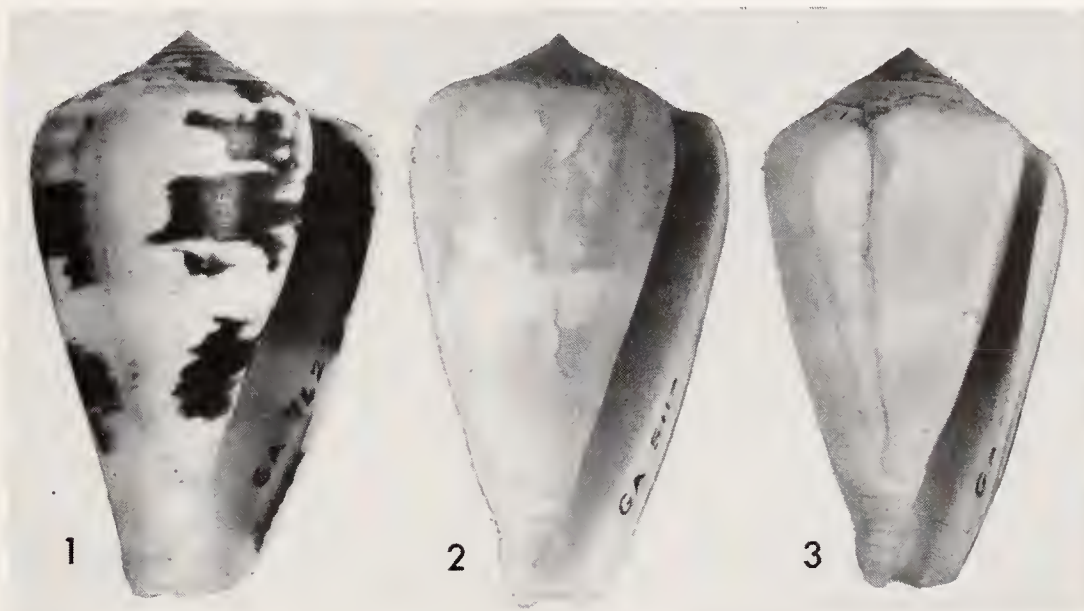


Plate 178. *Conus ermineus* Born, showing color variation. Fig. 1. Bluish white background with reddish brown markings, from silt under the eaves of large rocks, Escondida Cove, Trinidad, in 3-5 meters. Fig. 2. White background with orange markings, from coral reef area, Tyrrel's Bay, Tobago. Fig. 3. White with several faint orange splotches, from a fine silt bottom, Cyril's Bay, Trinidad, in 20-34 meters. Specimens collected by Peter Percharde (all 0.86x).

with the West Indian species. Nicklès (1950) used the name *testudinarius* for the West African species; Clench (1942) and Abbott (1958b) both considered the West African form to be conspecific with the West Indian one. We find no significant differences between the eastern Atlantic and Caribbean forms and conclude that *C. ermineus* is the valid name for this amphiatlantic species.

***Conus selenae* Van Mol, Tursch, and Kempf**

Plate 176, fig. 6

Conus selenae Van Mol, Tursch, and Kempf 1967, Ann. Inst. Oceanogr., Monaco 45: 250-251, pl. 8, figs. 2a-c (Fortaleza, Ceará, Brasil) [Holotype, Muséum National d'Histoire Naturelle, Paris].

Description. Shell moderately small, reaching 19 mm. in length and 11.5 mm. in greatest diameter. Whorls 8, slightly convex, shoulder rounded. Color white with two wide, very light lilac bands flecked with white. Spiral sculpture of faint whitish cords dotted with light reddish brown on the body of the whorl, and 3-4 irregular, beaded spiral cords on sutural ramp. Aperture white to lilac, becoming wider anteriorly. Periostracum very thin, transparent yellow.

Remarks. Van Mol, et al. (1967) mentioned that *C. selenae* differs from all other Western Atlantic *Conus* in the sculpture of the spire. It is distinguished from *C. hieroglyphus* Duclos in having nodular, rather than smooth, spiral cords on the sutural ramp.

Range. Known only from off Recife and Fortaleza, Ceará, Brasil in moderately deep water to 135 meters.

Specimens examined. BRASIL: Fortaleza, Ceará (MCZ).

The following were also described by Van Mol, Tursch, and Kempf (1967), but we have not seen specimens of these species.

***Conus capricorni* Van Mol, Tursch, and Kempf**

Conus capricorni Van Mol, Tursch, and Kempf 1967, Ann. Inst. Oceanogr., Monaco 45: 238, fig. 3 and pl. 10, figs. 1a-b (off Rio Grande, Brasil, 30°40' S; 49° 35.5' W, trawled from 141-135 meters at "Calypso" station 150) [Holotype, Muséum National d'Histoire Naturelle, Paris].

***Conus yemanjae* Van Mol, Tursch, and Kempf**

Conus yemanjae Van Mol, Tursch, and Kempf 1967, Ann. Inst. Oceanogr., Monaco 45: 251, fig. 15 and pl. 8, figs. 1a-b (off the mouth of the Rio São Francisco, in 63 meters, "Canopus" station 35, 4°33' S; 37° W). [Holotype, Muséum National d'Histoire Naturelle, Paris].

REFERENCES CITED

- Abbott, R.T. 1958a. Rediscovery of a rare Caribbean *Conus*. *Nautilus* **71**: 117-118.
- Abbott, R.T. 1958b. The marine mollusks of Grand Cayman Island, British West Indies. Acad. Nat. Sci. Philadelphia, Monograph No. 11, 138 pp., 5 pls.
- Abbott, R.T. 1962. *Sea Shells of the World*. Golden Press, New York. 160 pp.
- Clench, W.J. 1942. The genus *Conus* in the Western Atlantic. *Johnsonia* **1** (6): 1-40, 15 pls.
- Clench, W.J. and R.D. Turner. 1950. The Western Atlantic marine mollusks described by C.B. Adams. *Occasional Papers On Mollusks, Harvard University* **1**: 233-403, pls. 29-49.
- Deshayes, G. P. and H. Milne Edwards. 1845. [in] Lamarek, *Histoire Naturelle des Animaux sans Vertèbres*, 2nd ed. **11**: 1-165.
- Duclos, P.L. 1833. [in] Guerin, *Magasin de Zoologie, Journal for 1833: Classe V*, pl. 23.
- Holeman, J. 1969. Further notes on *Conus aurantius* Hwass, and another mystery. *Hawaiian Shell News* **17** (10): 3-4, figs. 1-5.
- Kohn, A.J. 1964. Type specimens and identity of the described species of *Conus*. II. The species described by Solander, Chemnitz, Born, and Lightfoot between 1766 and 1786. *Jour. Linn. Soc. (Zool.)* **45**: 151-167, 2 pls.
- Kohn, A.J. 1966. Type specimens and identity of the described species of *Conus*. III. The species described by Gmelin and Blumenbach in 1791. *Jour. Linn. Soc. (Zool.)* **46**: 73-102, 3 pls.
- Kohn, A.J. 1968. Type specimens and identity of the described species of *Conus*. IV. The species described by Hwass, Bruguière and Olivi in 1792. *Jour. Linn. Soc. (Zool.)* **47**: 431-503, 9 pls.
- Nicklès, M. 1950. Mollusques testacés marins de la côte occidentale d'Afrique. *Manuels Ouest-Africains* **2**, 269 pp., 464 figs.
- Reeve, L. 1842. Monograph of the genus *Conus*. *Conchologia Iconica* **1**, *Conus*. 47 pls.
- Seamon, N. and E. Seamon. 1967. Observations on the habitat, locality, and range of the rare *Conus aurantius* Hwass 1792. *Hawaiian Shell News* **15** (12): 1, 8, figs. 1-5.
- Sowerby, G.B. 1857-1858. Monograph of the genus *Conus*. *Thesaurus Conchyliorum* **3** (part 17), 56 pp., 24 pls.
- Tomlin, J.R. leB. 1937. Catalogue of Recent and fossil cones. *Proc. Malac. Soc. London* **22**: 205-330, 333.
- Tryon, G.W. 1883-1884. *Manual of Conchology* (1) **1**, 150 pp., 31 pls.
- Usticke, G.W. Nowell-. 1968. Caribbean cones from St. Croix and the Lesser Antilles. Livingston Pub. Co., Narbeth, Pa., 31 pp., 4 pls.
- Van Mol, J.-J., B. Tursch, and M. Kempf. 1967. Campagne de la Calypso au large des cotes Atlantiques de l'Amérique du Sud (1961-1962). 16. Mollusques Prosobranches: Les Conidae du Brésil. *Ann. Inst. Oceanogr.*, Monaco **45**: 233-255, pls. 5-10, 17 figs.
- Van Pel, P.L. 1969. Additional notes on *Conus aurantius*. *Hawaiian Shell News* **17** (10): 5, figs. 1-6.
- Wagner, R. and R.T. Abbott. 1967. *Standard Catalog of Shells*, 2nd ed. D. Van Nostrand Co., Princeton, N.J., 303 pp.

INDEX

The first page number given is the most important reference.

- abbreviata*, *Voluta*, 152
achatinus, *Conus*, 377
Acorylus, 270, 228
acrocosmia, *Tellina*, 268
acuta, *Tellina*, 249
adamsi, *Calliostoma*, 76
adela, *Calliostoma*, 35
Adelomelon, 151
Adelomeloninae, 170
adpersum, *Calliostoma*, 46, 49
adpersus, *Trochus*, 46, 47
Adula, 91, 93
aequistriata, *Tellina*, 267, 260, 264
Aeretica, 345
affinis, *Voluta*, 147
afra, *Pedipes*, 119, 120, 121
agalma, *Calliostoma*, 27
agilis, *Tellina*, 309, 222, 228, 229, 312, 323, 324, 330
alabastrina, *Guivillea*, 164
alabastrum, *Margarita*, 15
alabastrum, *Trochus*, 15
albida, *Polystira*, 373
albidum, *Calopodium*, 189, 190
albinella, *Tellina*, 273
Alcithoinae, 147
alerta, *Tellina*, 269, 229, 260, 268
Alertalex, 78
alternata, *Tellina*, 283, 222, 227, 287, 288, 291
alternata, *Voluta*, 166
alternatus, *Eutrochus*, 31
amazonica, *Calliostoma*, 60, 63
amazonicum, *Calliostoma*, 60
ambigua, *Voluta*, 171
americana, *Odontocymbiola*, 174, 129, 132, 134, 135, 156, 173
americana, *Tellina*, 259, 229
americana, *Voluta*, 174
Ampullotrochus, 11
Anatina, 183, 185
Anatinacea, 188
Anbulus, 300, 336
ancilla, *Adelomelon*, 152, 171, 129, 132, 134, 135, 137, 160, 166, 172
ancilla, *Voluta*, 152, 132, 151, 153
angulata, *Pedipes*, 121
angulata, *Voluta*, 147
angulata, *Volutella*, 147
angulata, *Xancus*, 147
angulata, *Zidona*, 147
angulatus, *Pedipes*, 121
angulosa, *Tellina*, 274, 281, 278, 280, 284, 285, 286, 191
Angulus, 228, 250, 299, 300, 321
Anomia, 85
Antillachelus, 78, 79
antillarum, *Lithodomus*, 99, 96, 101
antillarum, *Lithophaga*, 89, 99, 86
antillarum, *Modiola*, 96, 98
antoni, *Tellina*, 243
antonii, *Tellina*, 245
apicinum, *Calliostoma*, 20, 21
appendiculata, *Lithophaga*, 110
appendiculata, *Modiola*, 110, 112
Arcopagia, 251, 228
arctica, *Pandora*, 211
arcuata, *Pandora*, 190
Ardeamya, 250
arenosa, *Myadora*, 200
arenosa, *Pandora*, 200, 199
arenosa, *Pandorella*, 200
areolata, *Strigilla*, 349
arestum, *Calliostoma*, 79
arista, *Lithophaga*, 105
aristata, *Lithophaga*, 105, 104
aristatus, *Mytilus*, 105, 106
armillatus, *Conus*, 373, 374, 375
arnheimi, *Scaphella*, 152
asperimum, *Calliostoma*, 79
asperrima, *Dentistyla*, 79
asperrima, *Margarita*, 78
asperrima, *Solariella*, 79
asperrimum, *Margarita*, 79
aspersum, *Calliostoma*, 46
assimilis, *Tellina*, 227
Astele, 6, 32, 76
Astropecten, 135
atlantis, *Calliostoma*, 62, 26, 46, 61
attenuata, *Lithophaga*, 102, 104
attenuatus, *Dactylus*, 92
attenuatus, *Mytilus*, 112
aurantius, *Conus*, 375, 373, 377
aurora, *Calliostoma*, 64
bairdii, *Calliostoma*, 38, 37, 40, 64
balthica, *Macoma*, 225, 226, 227
barbouri, *Calliostoma*, 67, 66
barrandei, *Tellina*, 260
bayleana, *Tellina*, 248
beckii, *Adelomelon*, 160, 134, 135
beckii, *Voluta*, 160
bellicosum, *Calliostoma*, 23, 24
benedicti, *Calliostoma*, 70, 72
bicarinata, *Pandora*, 199
biexcavatus, *Lithodomus*, 110, 112
bigelowi, *Calliostoma*, 72, 74
bilirata, *Pandora*, 199, 207
bipenniferus, *Lithodomus*, 105, 107
bisulcata, *Lithophaga*, 110, 84, 89
bisulcatus, *Lithodomus*, 110, 112
blakei, *Calliostoma*, 79
blacki, *Alertalex*, 78
Botula, 90, 91, 93
bracata, *Voluta*, 152
bracteata, *Voluta*, 152
brasiana, *Adelomelon*, 165, 130
brasiana, *Cymbiola*, 166
brasiana, *Pachycymbiola*, 166
brasiana, *Tellina*, 238, 295, 229
brasiana, *Temnoconcha*, 330
brasiana, *Voluta*, 165
braziliensis, *Pandora*, 211
brevis, *Kennerlia*, 205, 208, 207
brevis, *Pandora*, 210
browni, *Tellina*, 292
Buccinum, 137
Bullapex, 123
bullisi, *Calliostoma*, 36, 48
burneti, *Tellina*, 338, 340
bushiana, *Pandora*, 203, 202
cabritii, *Murex*, 373
Cadella, 270
caimitica, *Strigilla*, 359
calcifer, *Lithophaga*, 109
calliglypta, *Tellina*, 338
Calliostoma, 11, 1, 79
Calliotectinae, 176
Callistomus, 11
caloosana, *Tellina*, 265
Calopodium, 189
calyculatus, *Lithophagus*, 109
candean, *Tellina*, 336, 272, 327
Cantharidus, 9
canuloides, *Calliostoma*, 8

- capricorni*, *Conus*, 378
Carassa, 119
carcellesi, *Calliostoma*, 57
caribaea, *Modiola*, 96
caribaea, *Tellina*, 328, 333
carinaria, *Tellina*, 346
carinata, *Voluta*, 166
carnaria, *Lucina*, 349
carnaria, *Strigilla*, 349, 348, 354
carnaria, *Tellina*, 345, 349, 350
carneolata, *Voluta*, 140
carneosum, *Cardium*, 349
carnicolor, *Tellina*, 224
carolinensis, *Lithophaga*, 90
carolinensis, *Pandora*, 200, 202
carolinensis, *Strigilla*, 362
carolinensis, *Tellina*, 288, 291
carolininensis, *Pandora*, 200
carpenteri, *Dactylus*, 105, 107
caudatus, *Lithophagus*, 105
caudigera, *Lithodomus*, 113
caudigera, *Modiola*, 105, 106
caudigera, *Mytilus*, 105
caudigerus, *Lithodomus*, 104, 105
centurio, *Conus*, 372
cerina, *Macoma*, 298
ceylanica, *Pandora*, 188
chariessa, *Tellina*, 234, 237
chloroleuca, *Tellina*, 249, 250
Chlorosina, 139
chlorosina, *Voluta*, 144
chroma, *Strigilla*, 354
cibaoica, *Tellina*, 278, 282
cinctellum, *Calliostoma*, 80
cingulatus, *Astropecten*, 26
circumcinctum, *Calliostoma*, 80
Cirsula, 327
cistula, *Pandora*, 212
claibornensis, *Lithophaga*, 90
clausa, *Plecotrema*, 120
claviculata, *Pandora*, 187, 190
cleryana, *Voluta*, 174, 175
Clidiophora, 190, 186, 187, 188, 193
Clidiphora, 190
Coelodon, 187, 188
colocynthis, *Voluta*, 168
colorata, *Tellina*, 307, 297, 306, 309
columbiensis, *Ardeamya*, 250
compressa, *Tellina*, 300
communis, *Lithophagus*, 94, 92
concinna, *Tellina*, 248
connexa, *Voluta*, 160
consobrina, *Tellina*, 331, 314, 319
constricta, *Voluta*, 171
conuloides, *Trochus*, 12, 9
conulum, *Calliostoma*, 13, 51
Conulus, 11
conulus, *Trochus*, 11
convexa, *Pandora*, 207
coppingeri, *Calliostoma*, 25, 78
coppingeri, *Trochus*, 25
Coralliophaga, 93
corbis, *Calliostoma*, 79
corbis, *Solariella*, 79
corderoi, *Provocator*, 168
corrugata, *Lithophagus*, 99, 101
corrugata, *Modiola*, 99, 101
costatum, *Calliostoma*, 16
crassa, *Tellina*, 251, 222, 225, 227
crassidens, *Pandora*, 193, 194
crenulata, *Lithophaga*, 96, 98
cristallina, *Tellina*, 261, 229
cristata, *Lucina*, 339
cristata, *Tellidora*, 339
crystallina, *Tellina*, 260, 261
cubanum, *Calliostoma*, 61
cubensis, *Laemodonta*, 123, viii
cumingii, *Tellina*, 245
cuneata, *Tellina*, 270, 271
curta, *Voluta*, 171
curviroster, *Mytilus*, 105
Cydippe, 251
cylindrica, *Lithophaga*, 98
cymatium, *Calliostoma*, 25
Cymbiola, 151
Cymbium, 137
cymbia, *Tellina*, 259
Dactylus, 92
dactylus, *Lithodomus*, 94, 86, 95
dactylus, *Lithophagus*, 99, 101
dactylus, *Pholas*, 90
dalli, *Calliostoma*, 75
dalli, *Lithodomus*, 102, 104
damula, *Voluta*, 140
decipiens, *Voluta*, 155
declivis, *Tellina*, 312
decora, *Tellina*, 327, 328
decussata, *Tellina*, 296
decussatula, *Tellina*, 295
dentifera, *Solariella*, 79
dentiferum, *Antillachelus*, 79
dentiferum, *Calliostoma*, 79
Dentistyla, 78
depictum, *Calliostoma*, 46, 48
depressa, *Voluta*, 166
diantha, *Tellina*, 320
dichotoma, *Strigilla*, 356
dichroa, *Lithophaga*, 92
Diberus, 109
discors, *Cardium*, 359
discrepans, *Trochus*, 12
disjuncta, *Strigilla*, 346, 358
distincta, *Voluta*, 147
divaricalx, *Lithophaga*, 109
dodona, *Pandora*, 202
Doliolabis, 109
dominicanus, *Conus*, 377
donacina, *Tellina*, 225, 270, 300
dufresnei, *Voluta*, 147
dufresnei, *Zidona*, 147, 134, 370
Dymares, 11
ebraea, *Voluta*, 143, 130, 132, 134
eburnea, *Tellina*, 282
echinatum, *Calliostoma*, 55, 54
ellipsis, *Tellina*, 252
elliptica, *Tellina*, 249, 251
Elliptotellina, 258, 231
Elmerlinia, 4, 29, 6
elongata, *Pandora*, 185
elongata, *Voluta*, 152
elucens, *Tellina*, 309
Enterodonta, 122
ermineus, *Conus*, 377
ervilia, *Strigilla*, 364
erythronotus, *Tellina*, 317
esmeralda, *Tellina*, 336
Eucasta, 52
euglyptum, *Calliostoma*, 48, 57
euglyptus, *Zizyphinus*, 48
eupareia, *Tellina*, 328
Eupleura, 143
Eurytellina, 273, 222, 228, 334
eutaenia, *Pandora*, 209, 211
Eutellina, 242
Eutrochus, 32, 77
eutykta, *Strigilla*, 364
euvitrea, *Tellina*, 319, 321
exerythra, *Tellina*, 316, 314
exilis, *Tellina*, 335
eximius, *Trochus*, 46
Exodiberus, 109
expansa, *Voluta*, 152
fabrefacta, *Tellina*, 258
fabula, *Tellina*, 225, 227, 327
Fabulina, 327
fascinans, *Calliostoma*, 22
fausta, *Cyclotellina*, 252
fausta, *Tellina*, 251, 229, 253
faustum, *Calliostoma*, 50, 51

- ferruginea, *Voluta*, 155
 ferussacii, *Adelomelon*, 157
 ferussacii, *Voluta*, 157
 festiva, *Voluta*, 160
 fiholi, *Marinula*, 120
 filosa, *Pandora*, 202
 flagellum, *Tellina*, 325
 flexuosa, *Strigilla*, 362, 365
 flexuosa, *Tellina*, 362
 florida, *Aurinia*, 137
 florida, *Scaphella*, 135
 floridana, *Pandora*, 195
 fluctigera, *Tellina*, 258
 fluctuosa, *Gomphia*, 210
 fluxuosa, *Strigilla*, 362
 forficatus, *Lithodomus*, 105, 106
 formosum, *Calliostoma*, 16
 formosus, *Trochus*, 15
 Foveadens, 187
 francisca, *Tellina*, 258
 fratercula, *Voluta*, 157
 fucata, *Strigilla*, 354
 fulgurea, *Voluta*, 155
 fulva, *Voluta*, 146, 140, viii
 fusiformis, *Voluta*, 160
 gabbi, *Strigilla*, 357, 350, 354
 gargadia, *Tellina*, 260
 gemmosum, *Calliostoma*, 74
 gemmosus, *Trochus*, 74
 gemmosus, *Zizyphinus*, 74, 75
 georgiana, *Aurinia*, 137
 georgiana, *Strigilla*, 364
 georgiana, *Tellina*, 288, 291
 gibber, *Tellina*, 321, 317
 Gibbula, 9
 glacialis, *Kennerlia*, 205, 209
 glacialis, *Pandora*, 209, 187, 205
 globosa, *Voluta*, 166
 globulosus, *Pedipes*, 119, 120
 globulus, *Pedipes*, 119
 gouldiana, *Pandora*, 190, 182, 186,
 197, 199, 201
 gouldii, *Tellina*, 270
 gracilior, *Lithophaga*, 106
 gracilior, *Lithophagus*, 105, 86
 gracilis, *Lithophaga*, 98
 gracilis, *Voluta*, 152
 grandis, *Pandora*, 181
 guadaloupensis, *Tellina*, 267
 gadeloupensis, *Tellina*, 304
 guildingii, *Tellina*, 293, 291, 295
 guinaica, *Voluta*, 140
 guinaicus, *Conus*, 377
 guineensis, *Voluta*, 140
 halibrectum, *Calliostoma*, 80
 hallistrepta, *Tellina*, 258, 292
 hanleyi, *Tellina*, 281
 Harpula, 139
 hassler, *Calliostoma*, 66, 37, 68
 hastasia, *Lithophaga*, 110
 healyi, *Tellina*, 334
 hebraea, *Voluta*, 144, 139
 hendersoni, *Calliostoma*, 43
 hermosanum, *Calliostoma*, 23, 24
 hertleini, *Tellina*, 285
 hiberna, *Tellina*, 322
 hieroglyphicus, *Conus*, 373
 hieroglyphus, *Conus*, 373, 378
 hirsuta, *Plectotrema*, 123
 Howellia, 177, 176
 iheringi, *Calliostoma*, 60, 61
 iheringi, *Tellina*, 239, 242
 imperialis, *Volutocorona*, 129
 inaequistriata, *Tellina*, 288, 292
 inaequivalvis, *Pandora*, 185, 183
 inaequivalvis, *Tellina*, 189, 190
 indiana, *Calliostoma*, 52
 indicus, *Nearchinotodelphys*, 89
 indigestus, *Voluta*, 160
 inflata, *Pandora*, 205, 188, 202
 inflata, *Voluta*, 152
 inflatus, *Lithodomus*, 94, 95
 inornata, *Clidiophora*, 197
 inornata, *Pandora*, 197, 193
 instigans, *Lithophaga*, 109
 insularis, *Conus*, 377, 373, 376
 insularis, *Pedipes*, 119, 120
 intermedia, *Voluta*, 166
 intermedium, *Cyphoma*, 373
 interrupta, *Tellina*, 243
 iris, *Tellina*, 328, 333, 334, 335, 336
 irrus, *Tellina*, 333
 Jacinthinus, 11
 Janeithoe, 151
 jaumei, *Calliostoma*, 56, 57
 javanicum, *Calliostoma*, 29, 32, 66
 javanicus, *Trochus*, 29, 31
 jeanneae, *Calliostoma*, 65, 64, 74
 jucundum, *Calliostoma*, 23, 19, 24
 jucundus, *Trochus*, 23
 jujubinum, *Calliostoma*, 31, 29, 36
 jujubinus, *Trochus*, 31, 32, 48
 junonia, *Scaphella*, 129, 136, 371
 junonia, *Voluta*, 371
 juttingae, *Lyratellina*, 265
 juttingae, *Tellina*, 265, 260
 kampsia, *Calliostoma*, 80
 kelseyi, *Lithophaga*, 83
 Kennerlia, 199
 Kennerleya, 199
 Kennerleyia, 199
 Kennerlia, 199, 193, 200
 Kennerlyia, 199
 kieneri, *Aurinia*, 135
 Kombologion, 4, 37, 6
 Labis, 93, 102
 laceridens, *Tellina*, 285
 Laciolina, 247, 231
 lactea, *Voluta*, 166
 Laemadonta, 122
 Laemodonta, 119, 122, viii
 laeta, *Tellina*, 281
 laevigata, *Tellina*, 247, 229
 laevigata, *Voluta*, 140
 laevis, *Tellina*, 248, 251, 250
 labillei, *Calliostoma*, 23, 24
 Laimodonta, 122
 lampra, *Tellina*, 330
 lanceolata, *Tellina*, 300
 lata, *Pandora*, 202
 Leiosolenus, 91, 92
 lenticula, *Strigilla*, 364
 leptalea, *Tellina*, 256
 lerasca, *Tellina sclera*, 265
 ligatum, *Calliostoma*, 16
 liliana, *Tellina*, 282
 Lima, 85
 Limicola, 345
 lineata, *Tellina*, 295
 lintea, *Quadrans*, 267, 269
 lintea, *Tellina*, 267, 295, 229, 268
 Liotellina, 234
 lirata, *Pedipes*, 121, 122
 listeri, *Tellina*, 243, 228, 229
 listeriana, *Cydidippe*, 251
 Lithodoma, 92
 Lithodomus, 92, 113
 lithoglypha, *Lithophaga*, 94
 Lithophaga, 81, 92
 lithophaga, *Lithophaga*, 90, 94
 lithophaga, *Modiola*, 94
 lithophagum, *Callitricoderma*, 94
 Lithophagus, 92
 lithophagus, *Lithodomus*, 94
 lithophagus, *Lithophagus*, 94
 lithophagus, *Mytilus*, 94, 92, 93, 95
 Lithotomus, 92
 Lithotornus, 92
 longiuscula, *Voluta*, 157
 lunatus, *Trochus*, 31, 32
 lunulata, *Tellidora*, 339, 340
 luteola, *Voluta*, 147
 lyra, *Tellina*, 260, 266
 Lyratellina, 260
 lyrica, *Tellina*, 260
 Macaliopsis, 260
 Macoma, 222, 224, 225
 maculata, *Solariella*, 78
 maculosa, *Tellina*, 243
 magellanica, *Odontocymbiola*, 171,
 121, 135, 137, 153, 154, 173, 176
 magellanica, *Pachycymbiola*, 152
 magellanica, *Voluta*, 152, 171
 magna, *Tellina*, 249, 320

- magus, *Calliostoma*, 8
 majorina, *Pandora*, 193
 malayana, *Lithophaga*, 98
 mangeri, *Cymbiola*, 157
 Manotrochus, 11
 Margarita, 9
 Marinula, 119, 118
 marionae, *Calliostoma*, 50, 14
 martensi, *Tellina*, 262
 martensi, *Voluta*, 152
 martinicensis, *Donax*, 281
 martinicensis, *Tellina*, 263, 260
 melanocystea, *Cercaria*, 184
 mera, *Tellina*, 304, 303, 307
 Merisca, 260
 meropsis, *Tellina*, 305
 mexicana, *Tellina*, 243, 245
 micans, *Tellina*, 327
 militaris, *Calliostoma*, 75
 millegranus, *Calliostoma*, 8
 mindanus, *Conus*, 373
 Miomelon, 170
 mirabilis, *Howellia*, 178, 176, 177
 mirabilis, *Pedipes*, 119, 118, 122
 mirabilis, *Strigilla*, 362, 361
 mirabilis, *Tellina*, 362
 mirabilis, *Turbo*, 119
 Mirachelus, 79
 mixta, *Voluta*, 147
 modesta, *Angulus*, 323
 modestatus, *Angulus*, 323
 modestus, *Angulus*, 323
 Moerella, 300
 Monodonta, 9
 Morella, 270
 Musculus, 234
 Musica, 139
 musica, *Voluta*, 140, 129, 130, 139,
 132, 135, 137, 144, 146, 369, viii
 musicalis, *Voluta*, 140
 musicina, *Voluta*, 140
 Myoforceps, 104, 107
 Myopalmula, 91
 myosotis, *Ovatella*, 118
 Mytilus, 86, 91
 mytuloides, *Lithophaga*, 93, 94, 95
 nasica, *Voluta*, 147
 nasuta, *Clidiophora*, 195
 nasuta, *Lithophaga*, 82, 87
 nasuta, *Pandora*, 195
 naticoides, *Pedipes*, 119, 120
 naviculoides, *Pandora*, 202
 nebulosa, *Voluta*, 140
 neptuni, *Melo*, 137
 niger, *Lithodomus*, 96, 98
 nigra, *Lithophaga*, 96, 85, 90, 98
 nitens, *Tellina*, 288, 295, 297, 299
 nitida, *Scrobicularia*, 227
 nitida, *Tellina*, 291, 224, 225, 226
 nuculoides, *Semele*, 272
 nuda, *Lithophaga*, 90
 oblonga, *Pandora*, 200
 obtusa, *Tellina*, 263, 304
 occidentale, *Calliostoma*, 15
 occidentalis, *Trochus*, 15
 ochracea, *Tellina*, 249, 250
 octanfracta, *Laemodonta*, 123
 octanfracta, *Pedipes*, 123
 Odontocymbiola, 170
 Odontocymbiolinae, 170
 omoia, *Tellina*, 307, 297
 oregon, *Calliostoma*, 42, 2, 44
 orion, *Calliostoma*, 54, 56
 ornata, *Voluta*, 160
 ostracea, *Tellina*, 267
 Oudardia, 300
 oudardii, *Tellina*, 300
 ovalis, *Pedipes*, 119, 120
 oviformis, *Voluta*, 157
 Pachycymbiola, 165
 pacifica, *Tellina*, 259
 panamensis, *Pandora*, 187
 panamensis, *Tellina*, 282, 361
 Panderella, 199
 Pandora, 181, 189
 Pandorella, 188, 194
 Pandorina, 189
 papillatum, *Cymbium*, 137
 papillosum, *Calliostoma*, 9
 paradoxa, *Adelomelon*, 157
 paradoxa, *Voluta*, 157
 paraflexuosa, *Strigilla*, 365
 paramera, *Tellina*, 306, 303, 304
 patagonica, *Lithophaga*, 102, 104
 patagonicus, *Lithodomus*, 102, 104
 pauperata, *Tellina*, 313, 314
 paziana, *Tellina*, 305
 Pedipes, 119, 117. See also pp.
 124-127 for a world catalogue of
 Pedipes.
 pedipes, *Pedipes*, 119, 121
 pellyana, *Tellina*, 338
 penita, *Penitella*, 84
 Penitella, 84
 Peronaeoderma, 273
 perryae, *Conus*, 373
 persica, *Tellina*, 256, 292
 perspectivus, *Eutrochus*, 76, 32, 77
 perspectivus, *Trochus*, 31
 peruana, *Tellidora*, 338
 pescalia, *Odontocymbiola*, 172
 petitiana, *Tellina*, 241, 240
 phenax, *Macoma*, 310
 piciformis, *Strigilla*, 359
 Phyllodina, 254, 231
 pileare, *Cymatium*, 102
 pilsbryi, *Strigilla*, 359, 361
 pinna, *Solen*, 189
 pisiformis, *Lucina*, 359
 pisiformis, *Strigilla*, 356, 359, 361
 pisiformis, *Tellina*, 346, 359, 361
 PISOstrigilla, 359, 345, 346, 364
 pisum, *Strigilla*, 359
 plagia, *Tellina*, 333
 planata, *Tellina*, 224
 planulata, *Tellina*, 283
 platensis, *Lithodomus*, 102, 104
 Plectotrema, 122, viii
 Plejona, 139
 plicata, *Voluta*, 140
 plumula, *Lithophaga*, 83, 109, 84
 polita, *Angulus*, 312
 polita, *Tellina*, 312
 polypleura, *Voluta*, 140
 polyzonalis, *Voluta*, 146, 139
 polyzonata, *Voluta*, 140
 ponderosa, *Voluta*, 152
 pretiosa, *Tellina*, 224
 primaeva, *Pandora*, 182
 pristiphora, *Tellina*, 256
 probrina, *Tellina*, 318, 332, 320, 321
 proclivis, *Tellina*, 265
 prodromus, *Pandora*, 193
 producta, *Strigilla*, 355, 354, 361
 promera, *Tellina*, 304, 305
 prora, *Tellina*, 280
 proteus, *Conus*, 373
 Provocator, 167
 pseudocarnaria, *Strigilla*, 352, 350
 351, 358, 359
 pseudofusiformis, *Voluta*, 155
 pseudomagellanica, *Voluta*, 166
 pseudotuberculata, *Voluta*, 171
 psyche, *Calliostoma*, 39, 38, 40, 64
 pulchella, *Lucina*, 359
 pulcher, *Provocator*, 167, 169
 pulcher, *Trochus*, 17
 pulchrum, *Calliostoma*, 17, 18, 21
 punicea, *Tellina*, 274, 281, 222,
 227, 273, 280, 282, 291, 297
 pusilla, *Tellina*, 339
 pusio, *Voluta*, 146
 pygmaea, *Tellina*, 324
 Quadrans, 260
 quadricinctus, *Trochus*, 15
 quadridens, *Pedipes*, 119, 118
 quequensis, *Calliostoma*, 60
 quoyi, *Tellina*, 247
 radiata, *Tellina*, 235, 233, 229
 ranunculus, *Conus*, 377
 rawsoni, *Calliostoma*, 31, 32
 reclusa, *Tellina*, 268
 regius, *Conus*, 373, 377
 remies, *Tellina*, 251, 353

- rhynchoscuta, Tellina, 262
 rioanensis, Tellina, 285
 rioensis, Calliostoma, 23, 24, 25
 riosi, Adelomelon, 162, 132, 134
 roburina, Tellina, 282
 Rombergia, 348
 rombergii, Strigilla, 349, 348, 350
 rombergi, Tellina, 352
 ropan, Mytilus, 105
 rosacea, Tellinides, 281
 roseola, Tellinota, 273
 roseolum, Calliostoma, 19, 8, 23, 52
 rosewateri, Calliostoma, 41, 43
 rubescens, Tellina, 282
 rubricata, Tellina, 325
 rudis, Voluta, 157
 rugifera, Voluta, 140
 Rupiphaga, 110
 rutila, Tellina, 303
 Salebrolabis, 109
 sancti-dominici, Tellina, 262^{1,3}
 sandix, Tellina, 335, 334
 sapidum, Calliostoma, 53
 sarcodum, Calliostoma, 56
 sayanum, Calliostoma, 68, 72
 sayi, Tellina, 312
 Scaphella, 151
 schrammi, Tellina, 261
 schroederi, Calliostoma, 45, 63
 Scissula, 327, 222, 228, 314, 319
 scitula, Tellina, 334
 Scrobiculina, 247
 secta, Macoma, 225, 226
 selenae, Conus, 378
 semizonalis, Tellina, 238
 senegalensis, Strigilla, 346
 sericifila, Solariella, 79
 sericifilum, Calliostoma, 79
 similis, Tellina, 327, 328, 332, 338
 similis, Voluta, 147
 Simplistrigilla, 345
 simulans, Tellina, 276, 278, 337
 sincera, Strigilla, 358
 sol, Phylloda, 249
 sol, Tellina, 249
 Solariella, 78, 79
 solenoidea, Trutina, 189
 spatiosa, Lithophaga, 91
 sphaerion, Strigilla, 365
 spectabilis, Voluta, 152
 spinosa, Conus (= Voluta), 139
 spirabilis, Voluta, 166
 springeri, Calliostoma, 71, 69, 73
 squamifera, Phylloda, 255
 squamifera, Phyllodina, 255
 squamifera, Tellina, 254, 255, 229
 stella, Tellina, 248
 straminea, Lithophaga, 100, 89, 101
 stramineus, Lithodomus, 99, 101
 strata, Strigilla, 346
 striata, Auricula, 123
 striata, Laemodonta, 123
 striata, Tellina, 281, 295, 297
 striatus, Mytilus, 105
 striatus, Trochus, 8
 strictolineata, Tellina, 292
 Strigella, 345
 Strigilla, 345, 346, 348, 350, 364
 Strigillia, 345, 222
 Strigillina, 345
 Strigula, 345
 Stumpiella, 109
 subalveata, Lithophaga, 90
 subcarinata, Astele, 76, 32
 subcarinata, Voluta, 166
 subcarinatum, Astele, 76
 subcarinatum, Calliostoma, 76, 6
 suberis, Tellina, 270, 272
 subgranularis, Zizyphinus, 76, 77
 subgranulatum, Calliostoma, 76
 subnodosa, Adelomelon, 155, 175
 subnodosa, Odontocymbiola, 371
 subnodosa, Voluta, 155, 156, 171
 subradiata, Tellina, 281
 suffusa, Tellina, 303
 sulcata, Voluta, 140
 sybaritica, Tellina, 325, 299, 324
 taeniolata, Voluta, 171
 Tagelus, 224
 Tamarindiformis, 92
 tampaensis, Tellina, 302, 229, 297
 tampaensis, Trochus, 31, 32
 taylori, Tellina, 286
 tayloriana, Tellina, 286, 284
 tejedori, Calliostoma, 73
 Telinella, 242
 Tellidora, 338, 273
 Tellina, 217, 233, 273
 Tellinarius, 242, 234
 Tellinella, 242, 228, 258
 tellinella, Donax, 258
 tellinella, Gari, 227
 Tellinidae, 232
 Tellininae, 217, 232
 Tellinota, 273
 Tellipiura, 338
 Temnoconcha, 224, 227
 tenella, Tellina, 323, 229, 310, 326
 tenellus, Angulus, 323
 tener, Angulus, 309, 323, 324
 tenera, Tellina, 309
 tenuis, Tellina, 307, 225, 220, 297
 Teramachia, 178
 teres, Lithophaga, 98
 testudinarius, Conus, 377
 texana, Tellina, 312, 310
 thiarella, Voluta, 140
 tiara, Calliostoma, 78
 tiara, Solariella, 78
 tiara, Trochus, 78
 tithoglypha, Lithophaga, 94
 tittarium, Calliostoma, 80
 torrei, Calliostoma, 59, 61, 63
 torrei, Volutifusus, 137
 toumeyi, Pandora, 197
 trachystum, Calliostoma, 80
 tridens, Pedipes, 119, 118
 trilineata, Clidiophora, 195
 trilineata, Pandora, 195, 190, 181
 trinitatis, Eurytellina, 279
 trinitatis, Tellina, 279
 tripartitus, Dactylus, 92
 Trutina, 189
 tuberculata, Voluta, 155, 156
 tumida, Tellina, 263, 267
 tumidor, Lithophagus, 105
 turbinata, Voluta, 144
 typica, Voluta, 140, 143
 unimaculata, Tellina, 235, 236
 vaghani, Antillachelus, 79
 veliei, Calliostoma, 17, 18
 ventricosa, Voluta, 147
 vernicosum, Calliotectum, 176
 versicolor, Tellina, 313, 229, 317,
 320, 332, 334
 versluisi, Tellina, 263
 vespertilio, Aulicina, 129
 vespertilio, Voluta, 132, 145
 vespertinalis, Psammobia, 227
 vespucciana, Tellina, 298, 316, 291
 violacea, Voluta, 140
 virescens, Voluta, 146, 139, 370
 virgata, Tellina, 242, 233
 virgo, Tellina, 334, 336
 viridotincta, Scrobicularia, 247, 249
 vitrea, Tellina, 249, 320
 Voluta, 139
 Volutarius, 139
 Volutella, 147
 Volutidae; Volutinae, 139
 Volutifusus, 136
 Volutolyria, 139
 vulgaris, Zizyphinus, 12
 wardiana, Pandora, 181
 waylandvaghani, Tellina, 295
 Weaveria, 162
 yemanjae, Conus, 378
 yucatecanum, Calliostoma, 27, 48
 zacaе, Tellina, 228
 Zidona, 147
 Zidoninae, 147
 Zizyphinus, 11, 9
 Zizyphimus, 11
 zizyphinum, Calliostoma, 12, 14
 zizyphinus, Calliostoma, 8, 9
 zizyphinus, Trochus, 12, 11
 zonamestus, Zizyphinus, 29, 31

BOUND JUL 1975