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MOLLUSKS FROM ILHA GRANDE, RIO DE JANEIRO, BRAZIL

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Chicago Natural History Museum is indebted to Dr. Helmut Sick of Lapa, Rio de Janeiro, D.F., Brazil, for the collection of marine and non-marine shells here listed. Ilhe Grande, an island on the east coast of Brazil, almost under the Tropic of Capricorn, is an isolated and hence little-explored spot, so that the faunal list given here, although incomplete, is nevertheless of definite importance; two species believed to be new to science are contained in the material collected by Dr. Sick during the years 1943 and 1944.

MARINE MOLLUSKS

- | | |
|---|--|
| <i>Dentalium (Dentalium) texasianum rio-ense</i> Henderson | <i>Chama (Chama) congregata</i> Conrad |
| <i>Dentalium (Antalis) disparile</i> Orbigny | <i>Chama (Echinochama) arcinella</i> Linnaeus |
| <i>Nucula (Nucula) crenulata</i> A. Adams | <i>Papyridea (Papyridea) spinosa</i> Meuschen |
| <i>Arca (Arca) deshayesi</i> Hanley | <i>Laevicardium (Trachycardium) muricatum</i> Linnaeus |
| <i>Arca (Cucullaearca) candida</i> Gmelin | <i>Laevicardium (Laevicardium) brasilianum</i> Lamarck |
| <i>Arca (Argina) campechiensis perata</i> Say (new record for Rio de Janeiro) | <i>Venus (Lirophora) paphia</i> Linnaeus |
| <i>Arca (Argina) campechiensis americana</i> Wood | <i>Venus (Antigona) rugatina</i> Heilprin |
| <i>Arca (Scapharca) auriculata</i> Lamarck | <i>Venus (Chione) mazzyckii</i> Dall |
| <i>Arca (Naricula) imbricata umbonata</i> Lamarck | <i>Dosinia (Dosinidia) concentrica</i> Born |
| <i>Mytilus (Chloromya) perna</i> Linnaeus | <i>Pitar (Pitar) fulminatus</i> Menke |
| <i>Crenella (Crenella) divaricata</i> Orbigny (new record) | <i>Pitar (Paradione) maculatus</i> Linnaeus |
| <i>Modiolus (Modiolus) tulipa</i> Linnaeus | <i>Gouldia insularis</i> Dall and Simpson (new record) |
| <i>Pteria (Pinctada) radiata</i> Leach | <i>Gouldia cerina</i> C. B. Adams |
| <i>Pinna (Atrina) rigida</i> Dillwyn | <i>Ervilea rostratula</i> Rehder (new record) |
| <i>Ostrea (Ostrea) puelchana</i> Orbigny | <i>Mactra (Mactrotoma) petiti</i> Orbigny |
| <i>Pecten (Nodipecten) nodosus</i> Linnaeus | <i>Mactra (Mactrotoma) fragilis</i> Chemnitz |
| <i>Pecten (Euvola) ziczac</i> Linnaeus | <i>Sanguinolaria (Sanguinolaria) rosea</i> Gmelin |
| <i>Spondylus echinatus</i> Martyn | <i>Tagelus (Tagelus) gibbus</i> Spengler |
| <i>Phacoides (Bellucina) amiantus</i> Dall | <i>Strigilla (Strigilla) carnaria</i> Linnaeus |
| <i>Phacoides (Lucinisca) muricatus</i> Spengler (new record) | <i>Solen (Solen) rostriformis</i> Dunker |
| <i>Divaricella (Divaricella) quadrisculata</i> Orbigny | <i>Saxicava (Saxicava) solida</i> Sowerby |
| <i>Divaricella (Divaricella) dentata</i> Wood | <i>Corbula (Caryocorbula) cubaniana</i> Orbigny |

- Corbula (Caryocorbula) caribaea*
 Orbigny
Corbula (Corbula) nasuta Sowerby
 (new record)
Bullaria (Bullaria) striata Bruguière
Acteocina candei Orbigny
Cylichna sp. (broken; new species?)
Siphonaria lepida Gould
Lucapina (Lucapina) meta Ihering
Lucapina (Lucapina) adspersa Philippi
Diodora patagonica Orbigny
Fissurella (Cremides) rosea Gmelin
Acmæa (Collisella) subrugosa Orbigny
Tegula (Chlorostoma) viridula viridula
 Gmelin
Astræa (Astraliium) brevispina
 Lamarck
Tricolia (Tricolia) pygmaea Philippi
Littorinopsis (Littorinopsis)
columellaris columellaris Orbigny
Littorinopsis (Littorinopsis) ziczac
 Gmelin
Rissotina (Schwartziella) woodwardi
 Carpenter
Caecum (Fartulum) vitreum Carpenter
 (new record)
Alaba tervaricosa C. B. Adams
Therictum atratum Born
Alabina cerithioides Dall
Diestoma varium Pfeiffer
Melanella (Melanella) unifasciata Forbes
- Melanella (Melanella) subcarinata*
 Orbigny (new record)
Melanella (Balcis) glabra Jeffreys
 (new record)
Turbonilla (Turbonilla?) pusilla
 C. B. Adams
Crepidula (Crepidula) aculeata Gmelin
Strombus (Strombella) pugilis
nicaraguensis Fluck
Natica (Natica) canrena Linnaeus
Natica (Tectonatica) micra sp. nov.
 (description, p. 206)
Sinum (Sinum) perspectivum Say
Polinices (Naticina) lacteus Guilding
Cabestana (Monoplex) costata Born
Hexaplex (Phyllonotus) chrysostomus
 Sowerby
Thais (Stramonita) haemastoma
 Linnaeus
Cantharus (Pollia) caribaeus Orbigny
Ithycthyra hyperlepta sp. nov.
 (description, p. 207)
Anachis (Anachis) terpsichore Sowerby
Anachis (Zafra) obesa C. B. Adams
Leucozonia (Leucozonia) cingulifera
 Lamarck
Pisania (Prodotia) janeirensis Philippi
Fusus (Fusus) marmoratus Philippi
Olivella (Olivella) floralia Duclos
Olivella (Olivella) jaspidea Gmelin

Some of the species contained in the preceding list were not taken on the beach or in the littoral water; Dr. Sick extracted them from the intestines of various animals, from which some of them were even obtained alive. The collections listed according to such sources follow:

INTESTINE OF SEA CUCUMBER

- Small opisthobranchiate gastropod,
 genus *Cylichna*, broken and
 unclassifiable
Melanella (Melanella) subcarinata
 Orbigny
Alaba tervaricosa C. B. Adams
Diestoma varium Pfeiffer
- Turbonilla (Turbonilla) pusilla*
 C. B. Adams
Modiolus (Modiolus) tulipa Linnaeus
 (very young)
Phacoides (Lucinisca) muricatus
 Spengler
Gouldia cerina C. B. Adams
Venus (Lirophora) paphia Linnaeus

INTESTINE OF STARFISH

- Mytilus (Chloromya) perna* Linnaeus
 (very young)
Corbula (Caryocorbula) caribaea
 Orbigny
Diodora patagonica Orbigny (very
 young)
- Tricolia (Tricolia) pygmaea* Philippi
Caecum (Fartulum) vitreum Carpenter
Therictum atratum Born (young)
Anachis (Anachis) terpsichore Sowerby
Olivella (Olivella) floralia Duclos

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STOMACH OF SEA SLUG¹

- | | |
|--|---|
| <i>Modiolus (Modiolus) tulipa</i> Linnaeus | <i>Diostroma varium</i> Pfeiffer |
| (young) | <i>Tricolia (Tricolia) pygmaea</i> Philippi |
| <i>Cylichna</i> sp. (broken) | |

LAND AND FRESH-WATER MOLLUSKS

- | | |
|---|---|
| <i>Orychilus (Orychilus) fruhstorferi</i> O. Boettger (classification doubtful) | <i>Opeas (Opeas) gracile</i> Hutton |
| <i>Solaropsis (Solaropsis) braziliana</i> Deshayes | <i>Opeas (Opeas) micrum</i> Orbigny |
| <i>Endodonta janeirensis</i> Thiele | <i>Opeas (Opeas) beckianum</i> Pfeiffer |
| <i>Amphidoxa (Stephanoda) pleurophora</i> Moricand | <i>Opeas (Opeas) goodalli</i> Miller |
| <i>Habroconus (Pseudoguppya) semen-lini</i> Moricand | <i>Subulina (Subulina) octona</i> Bruguière |
| <i>Simpulopsis (Simpulopsis) rufovirens</i> Moricand | <i>Leptinaria (Leptinaria) lamellata</i> Potiez and Michaud |
| <i>Simpulopsis (Simpulopsis) sulculosa</i> Férussac | <i>Caecilioides (Geostilbia) gundlachi</i> Pfeiffer |
| <i>Gastrocopta (Gastrocopta) servilis</i> Gould | <i>Obeliscus (Ischnocion) sp.</i> (see comment below) |
| <i>Happia (Happia) vitrina</i> J. A. Wagner | <i>Succinea (Hydrophyga?) meridionalis</i> Orbigny |
| <i>Streptaxis (Scolodonta) spirorbis</i> Deshayes | <i>Burnupia (Anisancylus) obliquus</i> Broderip and Sowerby |
| <i>Zaplagius auris-leporis</i> Bruguière | <i>Helicina (Oxyrhombus) inaequistriata</i> Pilsbry |
| | <i>Pisidium globulus</i> Clessin |

COMMENTS AND DESCRIPTIONS OF NEW SPECIES MENTIONED ABOVE

The following species, both marine and non-marine, listed above had never before been recorded from the region of Rio de Janeiro:

- | | |
|--|--|
| <i>Arca (Argina) campechiensis pexata</i> Say | <i>Ervilea rostratula</i> Rehder |
| <i>Crenella (Crenella) divaricata</i> Orbigny | <i>Corbula (Corbula) nasuta</i> Sowerby |
| <i>Phacoides (Luciniscia) muricatus</i> Spengler | <i>Caecum (Fartulum) vitreum</i> Carpenter |
| <i>Gouldia insularis</i> Dall and Simpson | <i>Melanella (Melanella) subcarinata</i> Orbigny |
| | <i>Melanella (Balcis) glabra</i> Jeffreys |

Tricolia (Tricolia) pygmaea Philippi was described from an unknown locality, and our specimen of this species from Ilha Grande may be the first supplied with exact data.

Obeliscus (Ischnocion) sp. This find is entitled to a somewhat more explicit comment. The subgenus *Ischnocion* was erected by Pilsbry in 1907 for what he thought was an aberrant *Leptinaria*; Thiele, however (1931, p. 555), grouped *Ischnocion* with the subgenera of *Obeliscus*, and I follow him in this arrangement. The only species of *Ischnocion* (*triptyx* Pilsbry 1907, from Colombia) was apparently never recorded again, until (1951, p. 512) I was able to list it from a collection gathered in the Peruvian Andes. Thus it seems that the

¹ Apparently, from description submitted by Dr. Sick, *Aplysia brasiliiana* Rang.

species *Obeliscus (Ischnocion) triptyx* Pilsbry is an Andean form; in this connection it is of interest that another species of the subgenus *Ischnocion* is recorded here from eastern Brazil. Unfortunately the unique specimen at hand has the aperture broken, though the colu-

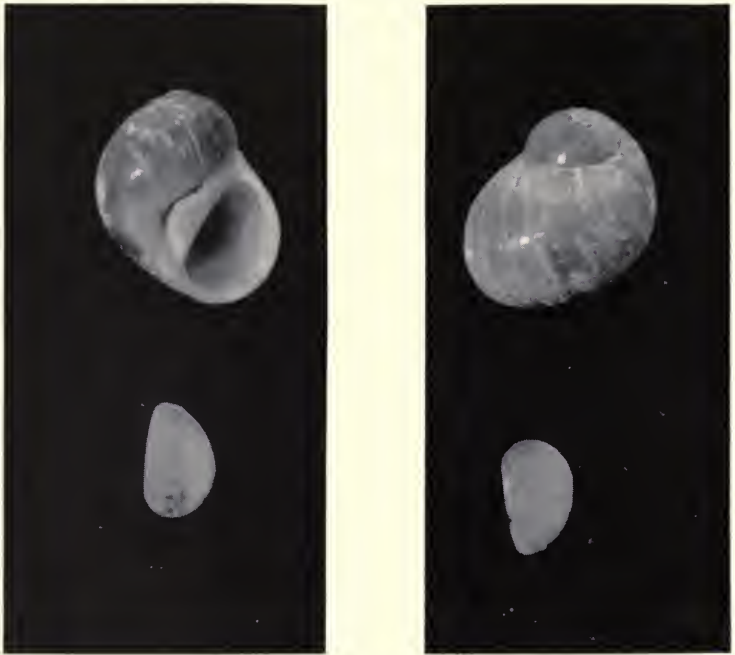


FIG. 41. *Natica (Tectonatica) micra* sp. nov. C.N.H.M. no. 43961, type. Above, front and back views of shell; below, outer and inner views of operculum. All about $\times 6$.

mellar region with its characteristic features is intact. There are seven whorls and the height of the shell is only 4.5 mm.; probably the specimen is not yet adult. I therefore refrain from naming and describing it, though there cannot be a doubt that it constitutes an undescribed species, and I confine myself to reporting a member of the subgenus *Ischnocion* from Ilha Grande, i.e., from the State of Rio de Janeiro in eastern Brazil.

Natica (Tectonatica) micra sp. nov. Figure 41.

Type.—Chicago Natural History Museum no. 43961, from Ilha Grande, State of Rio de Janeiro, Brazil. Collected, 1944, by Dr. Helmut Sick.

Diagnosis.—A species of the subgenus *Tectonatica* (genus *Natica*) characterized by its extreme smallness, by the roundish conic-ovate shell without a prominent apex, and by the light chestnut color of the conchinc layer.

Comparisons.—There are none among the consubgenera, and even the congeners, to which this novelty might be compared as far as the shape and the coloration of the shell are concerned, for no other *Natica* offers a shape with such a broad, not prominent, apex, or a shell coloration comparable to that of *micra*. The aperture and the umbilical callus are comparable to those existing in *Natica* (*Natica*) *sagraiana* Orbigny.¹

Description of type.—Shell rather solid, smooth, globular conic-ovate, with flat apex not prominent above the second whorl. Whorls $3\frac{3}{4}$, of very rapid growth, the very swollen last one practically as high as the entire shell; suture shallow, appressed, the last whorl somewhat flattened or even concave near it; aperture somewhat more than half the height of the shell, pear-shaped, with thickened, white margins, pointed and somewhat protracted above, broadened at the columellar margin into a heavy callus that enters and almost closes the umbilicus, leaving merely a narrow chink open; this chink continuous, below, with a furrow running across and downward to the basal columellar margin. Conchinc layer without a pattern, of a light chestnut color. Operculum thin, somewhat curved, of a light brown color.

Measurements of type.—Height 4.4 mm., width 3.4 mm., height of aperture 2.5 mm., width of aperture 1.9 mm.

Paratypes.—Chicago Natural History Museum no. 43962, with the same data as the type; four specimens identical with, but somewhat smaller than the type.

***Ithycthyara hyperlepta* sp. nov. Figure 42.**

Type.—Chicago Natural History Museum no. 43963, from Ilha Grande, Rio de Janeiro, Brazil. Collected, 1943, by Dr. Helmut Sick.

Diagnosis.—A typical species of the genus *Ithycthyara*, characterized by its extreme slenderness and by the hexagonal cross section of the shell.

Comparisons.—“*Mangelia*” *hexagonalis* Reeve from the Indo-Pacific Ocean resembles this novelty in having six longitudinal, con-

¹ *Natica pusilla* Say, from the southeastern United States, is of about the same size as this new species, but it is rather distinct.

tinuous ribs, but it is considerably stouter. *Ithycythara pentagonalis* Gray from the West Indies is very much like the new *hyperlepta* as far as the general appearance is concerned, but it has only five longitudinal sets of ribs.

Description of type.—Shell elongate, very slender, subsolid, whitish brown with a waxy gloss. Whorls 10, the earlier ones with



FIG. 42. *Ithycythara hyperlepta* sp. nov. C.N.H.M. no. 43963, type. Front and back views of shell. All about $\times 6$.

straight outlines, the later ones becoming gradually somewhat convex. Six sets of equally spaced, prominent, and continuous ribs adorn the otherwise plain surface of the shell on which retractive growth-lines are visible, causing the slightly sigmoid curvature of the ribs. The surface between the ribs is flat or even minutely concave, so that, in a cross section, the shell has the appearance of a hexagon with concave sides. The aperture is about one-fourth as high as the entire shell, very narrow with almost parallel sides, ending in a point above and in a short, truncated canal below; lip incision short, near the suture.

Measurements of type.—Height 7.9 mm., width 1.8 mm., height of aperture 2.0 mm., width of aperture 1.2 mm.

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