

U. S. COMMISSION OF FISH AND FISHERIES,
GEORGE M. BOWERS, Commissioner.

THE
MOLLUSCA OF PORTO RICO.

BY

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deflected at the aperture and bluntly carinated, the last two having faint, brown strigations and sometimes subobsolete, revolving bands on a lighter ground; aperture oblique; lip slightly reflexed, white; columella heavy, entering deeply, sometimes feebly toothed.

Height, 15; greater diameter, 25; lesser, 20 mm.

San Juan; near Caguas, Porto Rico.

Pilsbry makes this a variety of *P. lima*, while Crosse considers it a valid species. It seems to stand about midway between *lima* and *incerta*, and might as well or better be called a variety of the latter. *P. incerta* is decidedly granular throughout, has a narrow, dark peripheral band, and is generally higher and less carinate than *P. castrensis*. *P. lima* does not have revolving striae and is usually less elevated than *castrensis*.

Pleurodonte incerta Férussac.

Helix incerta Férussac, Hist. Nat. Moll. Terr., pl. cv, fig. 2, 1832.

Helix incerta Pilsbry, Manual, v, p. 57, pl. I, figs. 1, 2; pl. IV, figs. 36, 37, 1889.

Not in Crosse's list, but reported from Porto Rico on the authority of Pilsbry.

Superorder STREPTONEURA.

Order CTENOBANCHIATA.

Suborder ORTHODONTA.

Superfamily TOXOGLOSSA.

Family TEREBRIDÆ.

Genus **TEREBRA** Bruguière 1789.

Shell elongated, solid, many-whorled; whorls generally flattened; suture shallow; aperture small, notched below; columella without plaits above.

Type *T. subulata* Linneus.

Section **HASTULA** H. & A. Adams, 1857.

Terebra cinerea Born.

Buccinum cinereum Born, Test. Mus. Vind., p. 267, pl. x, figs. 11, 12, 1780.

An abundant, widespread species, which is quite variable and has received many names. It is found generally throughout the Indo-Pacific region, the West Coast of Africa, and the West Indies. A single worn specimen was collected by the *Fish Hawk* expedition at Aguadilla, Porto Rico.

Terebra hastata Gmelin.

Buccinum hastatum Gmelin, Syst. Nat., p. 3502, 1792; Tryon, Manual, VII, p. 34, pl. x, fig. 57, 1885.

Porto Rico (Gundlach); West Indies generally.

Section **ACUS** H. & A. Adams, 1857.

Terebra protexta Conrad.

Terebra protexta Conrad, Proc. Acad. Nat. Sci. Phila., III, p. 26, 1843; Tryon, Manual, VII, p. 25, pl. VI, fig. 98, 1885.

Whorls about fifteen, somewhat rounded, having about eighteen rather sharp, curved ribs, which are made slightly nodulous by numerous revolving liræ; sutural band obscure or wanting; apex smooth for the first two whorls; columella twisted; canal thrown backward; outer lip simple.

Color, brownish or purple brown.

Length, 18 to 20 mm.

Mayaguez Harbor, several young shells; also southern and southeastern United States.

Terebra juanica, n. sp. Plate 57, fig. 5.

Shell minute, slender, acute, with a minute subglobular apex, brilliantly polished, purplish brown with a paler presutural band. Whorls nine, with two additional nepionic turns, which are

smooth, pale, and inflated, then the more mature whorls following have at first rather strong, even, slightly flexuous axial ribs extending from suture to suture; these gradually become fainter and on the last whorl obsolete. The only spiral sculpture is a faint groove between the ribs marking the anterior border of the rather obscure sutural band; this groove becomes obsolete also on the anterior whorls. Pillar short, strong, simple, with no indication of any plait.

Length of largest specimen, 7.5; maximum diameter, 1.7 mm.

San Juan Harbor, Porto Rico.

This is perhaps the smallest species of *Terebra* yet described from the West Indies and is notable for its brilliant vitreous polish and obsolete sculpture.

***Terebra nassula* Dall.**

Terebra (*Agastis*) *nassula* Dall, Blake Report, II, p. 66, pl. xxxvi, fig. 8, 1889.

Shell slender, yellowish white or buff, the color paler at the sutural band; whorls eighteen, the nuclear smooth, remainder of the shell uniformly sculptured; in the earlier whorls the band is defined, but in the later ones it is faint; longitudinal ribs numerous, curved; spiral threads rather strong, forming slight nodules on the ribs, fainter on the base; aperture elongated, canal short, twisted.

Length, 55; diameter, 10 mm.

Mayaguez, Porto Rico; Vieques; Culebra. Several specimens were obtained, all young and more or less worn.

***Terebra limatula* var. *acrior* Dall. Plate 57, fig. 6.**

Terebra limatula var. *acrior* Dall, Blake Report, II, p. 66, 1889.

Four badly broken and worn specimens were obtained at Mayaguez Harbor, Porto Rico.

Family CONID-E.

Genus CONUS Linnæus, 1758.

Shell solid obconic; whorls enrolled upon themselves, the spire short, smooth, or tuberculate; aperture elongated, narrow, the margins parallel; lip simple, but having a slight sutural sinus.

? *Conus delesserti* Recluz.

Conus delesserti Recluz, Mag. de Zool., pl. LXXII, 1843.

A single badly broken and faded specimen from Boca Prieta, Porto Rico, was obtained, but it is not in condition to be identified with certainty.

***Conus agassizii* Dall.**

Conus agassizii Dall, Blake Report, I, 1886, pl. IX, figs. 8, 8a, and explanation to plate; II, p. 68, 1889.

Shell spindle-shaped, the outline of the last whorl swollen a little at the middle; entire surface of this whorl except the extreme upper part grooved, the grooves stronger below; lower ridges shouldered; spire high, straight or a little concave; suture distinct, almost channeled; whorls on the spire channeled and sculptured with elegant curved riblets; shoulder sharp and dotted with reddish brown. There are faint revolving series of brown dots on the body whorl, and a few irregular longitudinal brown flames on the spire and body.

Length of specimen obtained, 27; diameter, 14 mm.

Mayaguez, Porto Rico, one fine young shell.

***Conus pygmæus* Reeve.**

Conus pygmæus Reeve, P. Z. S., 1843, p. 179; Kiener, Coq. Vivantes, *Conus*, p. 174, pl. cii, figs. 1, 1a, 1b, 1848.

Several specimens from Aguadilla, Porto Rico, may be this, but they are too badly worn to be determined with certainty. Reeve's figure in the *Conchologia* is utterly worthless.

***Conus verrucosus* Hwass.**

Conus verrucosus Hwass, Encyc. Méth., I, pt. II, p. 708, 1792; Kiener, Coq. Vivantes, *Conus*, p. 55, pl. LXXI, figs. 6, 6a, 1848.

Shell elongate-conical, with a high spire, composed of about ten grooved whorls; suture deep and distinct; shoulder sharp; body whorl nearly straight, grooved except at extreme upper part, each ridge generally bearing a row of small tubercles. Color whitish, irregularly clouded with brown.

Length, 27; diameter, 12 mm.

Mayaguez Harbor, one shell in fair condition.

