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A MONOGRAPH OF THE MOLLUSCAN FAUNA OF
THE ORTHAULAX PUGNAX ZONE OF THE
OLIGOCENE OF TAMPA, FLORIDA

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CONUS PLANICEPS Heilprin.

Plate 6, figs. 1, 2.

Conus planiceps HEILPRIN, Trans. Wagner Inst., vol. 1, p. 110, fig. 48, 1887.—
DALL Trans. Wagner Inst., vol. 3, pt. 1, p. 25, pl. 11, figs. 5, 5a, Aug., 1890; pt. 2, p. 219, 1892.

Tampa silex beds at Ballast Point, Tampa Bay, Florida; also from silicified rock at Martin Station about 12 miles North of Ocala, Florida; Willcox. The specimen figured is U. S. Nat. Mus. No. 165029.

The species has also been found at Bailey's Mill Creek sink, in Jefferson County, Florida, about 3 miles southwest of Lloyd's station on the railway. Here the fossils occur in the form of siliceous pseudomorphs, as at Ballast Point, in a sort of clay overlying a bed of limestone, with a number of other species common to the Tampa silex beds.

CONUS ILLIOLUS, new species.

Plate 6, figs. 3, 5.

Shell solid, slender, elongate, turrited, of about $9\frac{1}{2}$ whorls; nucleus small, bulbous, of about 1 whorl, smooth and oblique; suture distinct; the shoulder of the whorl sharply keeled, the space between it and the suture slightly excavated, with two feeble spiral threads equidistant from each other, the suture, and the keel; excavated space transversely sculptured with numerous concavely flexuous, equal, close-set, slightly elevated incremental lines; suture meeting the whorl behind at nearly a right angle some distance below the keel; axial sculpture, beside that above mentioned, comprising a series of very small, short, subequal, and nearly equidistant folds on the whorl just below the keel, with subequal interspaces, which do not nodulate the keel and are stronger on the earlier whorls and nearly obsolete on the last whorl; these are crossed by two or three feeble spiral threads with narrower intervals, below which the spiral sculpture is obsolete and the surface practically smooth for two-thirds the length of the whorl; the anterior third has rather coarse spiral threading of which the first 10 are paired, the anterior 10 being coarser and equidistant, aperture narrow, outer lip (defective); pillar straight, the anterior edge a little prominent and twisted. Length 41.5, breadth at keel 17 mm.

Tampa silex beds at Ballast Point, Tampa Bay, Florida. Type-specimen from the Post collection, U. S. Nat. Mus. No. 165030.

CONUS DESIGNATUS, new species.

Plate 6, fig. 4.

Shell of moderate size with low, broadly conical spire of about 8 whorls; nucleus prominent, subglobular, inflated, smooth; subsequent

whorls flattened on the spire, narrow, bordered at the shoulder by a slightly rounded keel, and separated by a distinct but not deep suture; the whorls on the spire are not spirally sculptured, but show faint traces of incremental, concavely arcuate lines; last whorl in front of the shoulder smooth, acutely conic, the only sculpture being in the anterior third, which has about a dozen fine spiral threads with wider interspaces becoming more crowded and feebly minutely nodulous anteriorly; on the smooth posterior part of the whorl in certain lights can be seen spiral lines distant and fine, but which appear rather to be in the substance of the shell and do not sculpture the surface; aperture narrow elongate, the canal short and wide; the outer lip sharp, simple and very slightly convexly arcuate. Length of shell 23.8, of aperture 21.5, maximum diameter 12 mm.

Tampa silex beds at Ballast Point, Tampa Bay, Florida.

Type-specimen from the Post collection, U. S. Nat. Mus. No. 165031.

Family TURRITIDAE.

Genus TURRIS Bolten.

Turris BOLTON (after Rumphius, 1704) Mus. Bolt. 1798, p. 123. First species,
Murex babylonius LINNÆUS (after *Turris babylonica* of Rumphius).—
GRAY, Proc. Zool. Soc. Lond. for 1847, p. 134, type, *T. babylonius* (Linnæus).—H. and A. ADAMS, Gen. Rec. Moll., vol. 1, 1853, p. 87.—GAEBE,
Journ. Acad. Nat. Sci. Phila., vol. 4, 1860, p. 378.—DALL, Journ. Conch.
(Leeds), vol. 11, April, 1906, p. 291; Bull. Mus. Comp. Zool., vol. 43,
No. 6, 1908, p. 255, not *Turris* Montfort, 1910, or *Turris* Lesson, 1837.

Pleurotoma LAMARCK, Prodrome, 1799, p. 73. Sole example, *Murex babyloniensis* LINNÆUS.

TURRIS ALBIDA Perry.

Plate 5, fig. 13; plate 14, fig. 7.

Pleurotoma albida PERRY, Conch. Expl., pl. 32, fig. 4, 1811.—DALL, Trans.
Wagner Inst., vol. 3, pt. 1, p. 28, pl. 4, fig. 5a, 1890.

Pleurotoma virgo LAMARCK, An. s. Vert., vol. 7, p. 94, 1822.

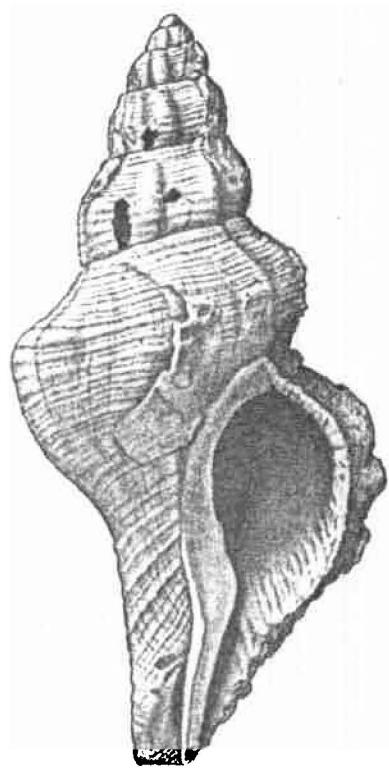
Pleurotoma cochlearis CONRAD, Journ. Acad. Nat. Sci. Phila., ser. 2, vol. 1,
p. 115, pl. 11, fig. 23, 1848.

Pleurotoma haitensis SOWERBY, Quart. Journ. Geol. Soc. London, vol. 6, p.
50, 1849.

Pleurotoma barretti GUPPY, Quart. Jour. Geol. Soc. London, vol. 22, p. 290,
pl. 17, fig. 6, 1866.

Oligocene of Vicksburg, Mississippi; of Santo Domingo and Bowden, Jamaica; of the Tampa silex beds, Ballast Point, Tampa Bay, Florida; Pliocene of the Caloosahatchie River, Florida; living in the Gulf of Mexico and the Antilles in 26 to 125 fathoms. U. S. Nat. Mus. No. 112083.

Conrad's figure is very bad, but I have compared specimens with his types.



FOSSILS OF THE ORTHAULAX PUGNAX ZONE.

FOR EXPLANATION OF PLATE SEE PAGE 161.

PLATE 6

- FIG. 1. *Conus planiceps* Heilprin, alt. 41 mm., p. 37.
2. The same, upper surface.
3. *Conus ictiolus* Dall, alt. 43 mm., p. 37.
4. *Conus designatus* Dall, alt. 23 mm., p. 37.
5. *Conus ictiolus* Dall, from above, p. 37.
6. *Coralliophila magna* Dall, alt. 52.5 mm., p. 78. (See also pl. 7, fig. 7.)
7. *Fasciolaria petrosa* Dall, alt. 100 mm., p. 61.
8. *Actaeocina squarrosa* Dall, alt. 11.5 mm., p. 33.
9. *Cypraea ballista* Dall, lon. 33.5 mm., p. 85.
10. The same in profile.
11. The same, basal view.

PLATE 7

- FIG. 1. *Ancilla sheppardi* Dall, alt. 3475 mm., p. 51.
2. *Vasum subcapitellum* Heilprin, alt. 27 mm., p. 63.
3. *Drillia newmani* Dall, alt. 12.5 mm., p. 46. (See also pl. 3, fig. 9.)
4. *Muricidea heilprini* Cossuann, alt. 13 mm., p. 76.
5. *Cantharus pauper* Dall, alt. 11 mm., n. 60. (See also pl. 10, fig. 12.)
6. *Marginella tampac* Dall, alt. 19 mm., p. 54.
7. *Coralliophila magna* Dall, alt. 45 mm., p. 78. (See also pl. 10, fig. 6.)
8. *Latirus callimorphus* Dall, alt. 41 mm., p. 65.
9. *Purpura (Pteropurpura) posti* Dall, alt. 46 mm., p. 76.

PLATE 8

- FIG. 1. *Potamides cornutus* Heilprin, from type showing secondary lip (a) formed after injury; (b) original lip. Alt. 45 mm., p. 92.
2. *Latirus rugatus* Dall, alt. 42 mm., p. 65.
3. *Bittium priscum* Dall, alt. 7 mm., p. 88.
4. *Drillia lapenotieri* Dall, alt. of fragment 27.5 mm., p. 40.
5. *Potamides hillstorationis* Heilprin, alt. 37.5 mm., p. 91.
6. *Latirus floridanus* Heilprin, alt. 38 mm., p. 61.
7. *Melongena sculpturata* var. *turricula* Dall, alt. 60 mm., p. 68.
8. *Fusinus nebulosus* Dall, alt. 12 mm., p. 66.

PLATE 9

- FIG. 1. *Lyria musicina* Heilprin, alt. 40 mm., p. 59.
2. *Strigatella americana* Dall, alt. 27 mm., p. 61.
3. *Cerithium plectrum* Dall, alt. 4.6 mm., p. 90.
4. *Lyria musicina* Heilprin, alt. 40 mm., p. 59.
5. *Busycon spiniger* var. *nodulatum* Conrad, alt. 37 mm., p. 67.
6. *Turritella systoliata* Dall, alt. 73 mm., p. 99.
7. *Murex trophoniformis* Heilprin, alt. 49 mm., p. 74.
8. *Strombus chipolanus* Dall, alt. 65 mm., p. 87.
9. *Polinices hemicyprinus* Gabb, alt. 8.2 mm., p. 106.
10. *Strombus chipolanus* Dall, alt. 65 mm., p. 87.

PLATE 10

- FIG. 1. *Cancillaria subthomasiac* Dall, alt. 20 mm., p. 47. (See also pl. 3, fig. 7.)
2. *Conomitra staminea* Conrad, alt. 24 mm., p. 62.