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THE GENUS *CYPHOMA* IN FLORIDA

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Cyphoma is a group of few species confined to tropical America, comprising *C. emarginata* (Sowb.) of the Panamic region, *C. intermedia* (Sowb.) from the West Indies and northern South America,¹ and the following species occurring in southern Florida.

Cyphoma means a hump; not a nice name, but it sounds better in Greek, and is appropriate for these hunchbacked snails. De Montfort's name, *Ultimus*, formerly in use, was given because it was the last genus in his book. They are pretty shells, but the living animals are really lovely. They are not especially shy, and can be kept in captivity several days if fresh sea water is supplied.

CYPHOMA GIBBOSA (L.). Pl. 1, Figs. 5-8, 13-16.

This is a common species from the Lake Worth region to the Keys and in the West Indies, living on gorgonians from about four or five feet to the lower limit of the gorgonians they inhabit.

The special character of the shell is that the callus of the sides extends up high on the back, and thins out at the edge, so that its limit is scarcely visible except by the color, the callus being from cream buff to apricot buff, pinkish vinaceous or orange vinaceous in color, the uncovered middle of the back from pure white to cream buff. The interior varies from pure white to pink, nearly uniform or with white clouds in the middle and towards the ends.

The living animal is pale flesh tinted with crowded black rings over the mantle, the rings often more or less deformed; there is some ochraceous-orange tint within the rings and on the outer foot edges. The tail has a black median line and quite irregular

¹ Dall (Bull. 37, U. S. Nat. Mus., p. 134) cited *Simnia intermedia* Sowb. from Hatteras to Brazil, but we have not seen Florida or East Coast specimens.



OXYSTYLA TORREI, new species. Plate 2, figs. 7 and 8.

See January, 1939, page 93. It seems well to note that there were no typical specimens of *Oxystyla zonifera* (Strebel) in the Acapulco series of *Oxystyla*. This *Oxystyla* has been reported from several localities in the State of Guerrero, but either some distance north or northwest of Acapulco, where *O. ponderosa* is firmly entrenched.

OXYSTYLA PULCHELLA (Spix). Plate 2, fig. 9.

A specimen of this beautiful tree snail from Barbados is figured. It has not been reported from this island before, so far as I know.

ADDITIONAL NOTES ON *TEREBRA FLAMMEA*
LAMARCK

BY WILLIAM J. CLENCH

Additional data have been obtained both regarding the published record of this species and from correspondence. A summary of this study is as follows:

Hedley (Proc. Linn. Soc. New South Wales 38, p. 306) considers Reeve's record of this species as occurring in Moreton Bay, Australia, an error, and further states that "material in the British Museum indicates that this species and its variety, *T. incomparabilis* Deshayes, inhabit the West Indies. . . . It does not appear to have been remarked that *Epitonium feldmanni* Bolten, 1798, is an earlier name for Lamarck's species."

The "variety *incomparabilis*," however, is not even closely related to *flammea*, but is a synonym of, or very near to, *robusta* Hinds, of the Panamanian province (Pacific).

Bolten's (Röding) *feldmanni* is also the same as *robusta* or very close to that species. The proportions are very different between this west coast species and *flammea*. Bolten's reference was made to the excellent figure by Chemnitz, 1780, Conchy.-Cab. (1), 4, p. 296, pl. 154, fig. 1446.

Dr. Rehder suggested that *T. texana* Dall might be the same, and upon an examination of the type specimens in Washington, this was found to be true. This species was originally described from Matagorda Island, Texas, and later (1919) Henderson fig-

ured a specimen collected in Barbados and mentioned a specimen which also existed in the National Museum that had been collected in a kitchen midden in Brazil.

Dr. Jutting has kindly checked specimens in certain of the European museums and her notes are as follows: The Amsterdam Museum has two specimens labeled "China" from Cuming. These are apparently part of the same set that is possessed by the Acad. Nat. Sci., Philadelphia, and by the Mus. Comp. Zool. The Leyden Museum has two specimens, one marked "Indian Ocean" and the other "Haiti." Dr. Bayer, however, did not consider the latter locality as at all trustworthy. There are three examples in the British Museum, all from St. Lucia, two from Cuming and one from Ponsonby.

Recently (NAUTILUS 52, p. 109) McGinty has reported this species from Lake Worth, Boynton, Florida.

The known range then for this species extends from southern Florida to Texas and south as far as Brazil. A brief synonymy follows:

TEREBRA FLAMMEA Lamarck

Terebra flammea Lam. 1822, An. s. Vert. p. 284; Kiener 1839, Icon. Coquilles Viv. 10, p. 12, pl. 5, fig. 10 (specimen probably from Lamarck's collection); Clench 1938, NAUTILUS 51, p. 114, pl. 9, figs. 1-2; McGinty 1939, NAUTILUS 52, p. 109.

Terebra texana Dall 1898, NAUTILUS 12, p. 44; Henderson, J. B. 1919, Univ. of Iowa Studies 8, p. 89, pl. 40, fig. 5.

A REVISION OF SPIRAXIS C. B. ADAMS

H. BURRINGTON BAKER

This is part 4 of a series on Mexican mollusks collected for Dr. Bryant Walker in 1926. The first part appeared (1928) as Occasional Papers Mus. Zool. Univ. Michigan, no. 193, in which the symbols for localities are explained on pp. 2-25. In plates 3 to 5, the scales for shells, genitalia and pallial complexes indicate lengths of 1 mm.; those for lines of right half of radular rows (T) 0.05 mm.; those for radular teeth 0.01 mm. (10 microns). In each new form, the figured shell is the type.

On account of the traditional importance ascribed to columellar

differences, the union of *Pseudosubulina* and *Spiraxis* into a single genus may seem rather iconoclastic. But, the generic retention of the former would necessitate four other genera (my subgenera) and I doubt if anyone could definitely place many of the species that are anatomically unknown. While I now feel that I could arrange shells with some accuracy, the name *Versutaxis* expresses the bewilderment one feels during their examination; senescent examples of *Rectaxis* and *Miraradula* may closely imitate the sigmoid columella of true *Volutaxis* and *S. (P.) orizabensis* and an undescribed species approach the columella of *Versutaxis*.

The following anatomical definition and subdivision of *Spiraxis* (new subfamily SPIRAXINAE) are founded on drawings of dissections of 24 Mexican (+ 2 radulae) and 5 Jamaican species and on the radulae of one Cuban and one Venezuelan species.

Foot long and slender, pointed posteriad; lower pedal groove distinct; mantle-collar (MC; pl. 3, f. 10, pl. 5, f. 3) quite deep but thin; right (MR) and anterior (MA) and posterior (MP) left mantle-lappets small. Lung wall elongate; minor venation indistinct; principal vein (HV) often bordered by bands of muscle. Kidney (K) with a triangular pericardial (H) limb and a vestigial (in large forms) to conspicuous (in small species; pl. 3, f. 3) extension between ureter (KD) and hindgut varying around 1.5 times as long as its base or length of pericardium. Anal mantle gland extending posteriad between hindgut and ureter; relatively large in small species.

Ovotestis (G; pl. 3, f. 7) about one whorl in length and imbedded in liver about a half-whorl above stomach; duct (GD) markedly swollen when filled with sperm; talon (GT) very short; carrefour (X) slender. Albumen gland (GG) large, elongate. Oviduct consisting of short slender duct (UX) below carrefour, uterus (UT) and postuterine or free oviduct (UV). Spermatheca (S) of long type; sac imbedded in base of albumen gland above aorta. Vagina (V) various. Prostate (DG) completely separate from uterus (at least in large species). Free vas deferens (D) fairly heavy and muscular but without epiphalloid enlargement (except in *Micromena*; E, pl. 3, f. 6); caught into penioviducal angle by right eye-muscle; opening (EP) into penial apex without definite verge (except in *Micromena*; PV). Penis (P) without appendages; retractor (PR) arising high on diaphragm and inserting on or near penial apex. Atrium (Y) opening below base of right ommatophore.