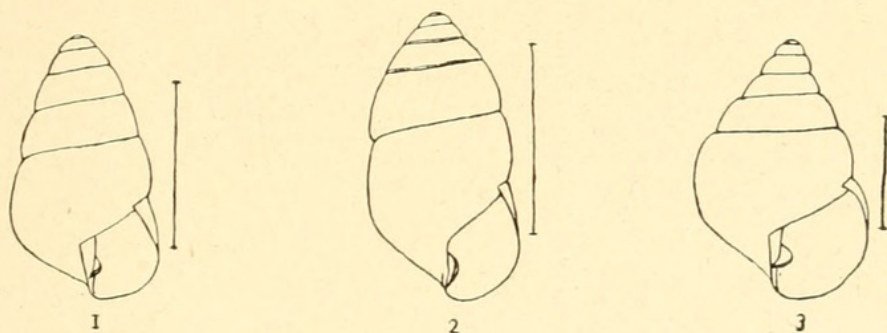


# Three New Species of *Amastra* from Oahu

BY C. MONTAGUE COOKE, JR.

DURING the last few months Mr. Irwin Spalding has found a number of interesting forms of *Amastra*. Three of these are entirely distinct from any of the species already described. Some of the other forms do not agree with any description but may be referred, as varieties, to some of the species already described. It seems strange that all of the three species described here are found within five miles of Honolulu.



## *Amastra irwiniana*, n. sp.

Fig. 3.

The shell is minutely (though distinctly) perforate, dextral, globosely conical, with slightly concave outlines, thin, distinctly irregularly and closely striate with lines of growth, not glossy, the upper whorls and the base of the last whorl light brown with a slightly yellowish tinge, the upper portion of the last whorl of a dark chestnut. Spire slightly concavely conic, apex acute. Suture simple, well impressed. Whorls  $6\frac{1}{4}$ , the embryonic slightly swollen, the fourth and fifth slightly flatter, the last convex, tumid, with an almost obsolete angle at the periphery, tapering towards the base. Aperture rather large, bluish within, in the form of a slightly oblique sector of a circle, very slightly oblique. Columella straight; columellar fold almost median, rather large,



thin and slightly oblique. Outer margin of lip thin, slightly thickened within, erect, regularly curved, forming an angle with the base of the columella; columellar margin thin, reflexed above the umbilicus. Umbilicus minute, semicircular. Length 11.2, diam. 7.2, length of ap. (diagonal) 5.9 mm.

Oahu: Summit of Lanihuli, at 2700 ft. (Spalding).

Type No. 16,633, Bishop Museum Coll.

This species is undoubtedly related to *A. breviata* Baldwin. It is, however, smaller, with a more acute and slightly concave spire, and the arrangement of its color is different.

A second specimen has the following measurements: length 10.8, diam. 6.9 mm.

### ***Amastra spaldingi*, n. sp.**

Fig. 2.

The shell is imperforate, dextral, cylindrically ovate, somewhat thin, irregularly and faintly striate with lines of growth, the third whorl distinctly and diagonally striate, the third and fourth whorls having a distinct spiral thread just above the sutures, the first three whorls light brown with a yellowish tinge, the lower three of a uniform dark resinous chestnut. Spire subcylindrical, with slightly convex outlines, apex somewhat obtuse. Suture simple, hardly impressed. Whorls  $6\frac{1}{2}$ , increasing somewhat regularly, the embryonic somewhat convex, the rest flatly convex, the last cylindrical, tapering gradually towards the base. Aperture subpyriform, bluish within, scarcely oblique. Columella nearly straight, hardly twisted; columellar fold basal, rather small, thin, oblique, flexuous. Outer margin of lip regularly curved, erect, thin, forming a slight angle with the base of the columella; columellar margin thin, appressed, adnate. Length 18.9, diam. 9.6, length of ap. (diagonal) 8.1 mm.

Oahu: Summit of Konahuanui, at 3300 ft. (Spalding).

Type No. 16,451, Bishop Museum Coll.

*A. spaldingi* is not closely related to any of the already described species. Its nearest congener is, probably, the species wrongly described and figured by Reeve as *A. ventulus* Fér.



(Conch. Icon., Achatinella, No. 31). It is much larger than any specimens of Reeve's species and more cylindrical in outline. The spiral thread on the third and fourth whorls is peculiar, as are the rather pronounced striæ on the third whorl.

A second specimen, in the Bishop Museum collection, is younger, with 6+ whorls. It is slightly more convex in outlines and measures: length 17.2, diam. 9.7 mm.

***Amastra davisiana*, n. sp.**

Fig. 1.

The shell is perforate, dextral, subconic, with slightly convex outlines, obtusely and faintly angular at the periphery, with a somewhat flattened base, rather solid, nearly smooth, distinctly and almost regularly striate just below the sutures, slightly glossy, dark reddish brown, with an indistinct broad dark band just above the periphery and continued on the spire just above the sutures. Spire almost conic, apex very obtuse. Suture minutely crenulate, scarcely impressed, yellowish along its edge. Whole  $6\frac{3}{4}$ , the embryonic rather large (for the genus), the rest increasing slowly and very regularly, almost flat, the last descending slightly near the aperture. Aperture small, subquadrate, oblique, bluish within. Inner margin of the columella slightly diagonal, outer margin nearly straight; columellar fold nearly basal, strong, thick, slightly oblique. Outer margin of lip thin, slightly thickened within, nearly straight above, curved below, forming something of an angle with the base of the columella; columellar margin thin, reflexed above the umbilicus. Umbilicus small, semicircular. Length 16.5, diam. 9.2, length of ap. (diagonal) 7.0 mm.

Oahu: About a mile from the summit of Konahuanui (Davis); summit of Konahuanui (Spalding).

Type No. 16,454, Bishop Museum Coll.

I know of no species to which this is at all related. It is entirely distinct from any of the other species of *Amastra*. The blunt apex and very regularly coiled and almost flat whorls are very peculiar. The single type specimen was originally collected



by Mr. Elmer Davis, about a mile from the summit of Kona-huanui. Additional specimens were found later by Mr. Spalding at the summit. These are smaller, slightly darker and have about  $\frac{1}{4}$  less whorls. One of these (No. 16,453, Bishop Museum) measures: length 14.4, diam. 8.5 mm.

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