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NEW SPECIES OF AMNICOLA FROM GUATEMALA

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The Amnicolidæ collected by Mr. A. A. Hinkley during his visit to Guatemala in the winter of 1912-1913 were placed in my hands for identification. Owing to the lack of material deemed necessary for purposes of comparison, which has only recently been obtained, the determination of the species represented in the collection has been delayed until the present time.

The following species of *Amnicola* seem to be new.

I

Amnicola cisternina n. sp. Pl. I, fig. 1.

Shell broadly conic, umbilicate, greenish horn color, smooth and shining, the lines of growth being regular and very fine; the apex is small and immersed so that it does not appear when the shell is viewed from the front, thus it has then apparently an obtuse apex; whorls $4\frac{1}{2}$, rounded and separated

by a deeply impressed suture, body whorl large, ventricose and regularly rounded; aperture large, broadly rounded nearly circular from the upper insertion of the lip to the base of the columella; lip sharp, slightly thickened within, giving a beveled appearance to the inner margin, continuous, but slightly adnate to the body-whorl between the umbilicus and the upper insertion of the lip, but its curve is not impinged upon by the body-whorl; umbilicus fairly wide.

Alt. 3.75, diam. 2.75, aperture alt. 2 mm.

Reservoir north of Guatemala City, Guatemala.

Types No. 47161 Coll. Walker. Cotypes in the collections of A. A. Hinkley, the Philadelphia Academy and the Museum of Zoology, Univ. of Mich.

This well marked species is evidently related to *Amnicola stoll*i v. Mts., which was found in a very similar situation, i. e., wells in the town of Antigua, Guatemala, but differs in being larger and more ventricose and in the larger and broadly rounded aperture. In *stoll*i, according to the figure, although it is not mentioned in the very brief description, the body-whorl is apparently obsoletely angled at the periphery and the aperture is distinctly angled above owing to the flattening of the upper portion of the lip; whereas in *cisternina* the body-whorl is regularly rounded and the upper portion of the lip is expanded in a semi-circular curve.

As usual in the genus two forms, probably sexual, are represented. The figured type is the more slender and is presumably the male. An example of the more inflated form has the same number of whorls as the type, measures alt. 3.5, diam. 3 mm. and has a somewhat wider umbilicus.

II

Amnicola panzosensis n. sp. Pl. I, figs. 2-3.

Shell small, ovate-conic, narrowly umbilicate, horn color, smooth and shining; whorls 4, the apical one small the remainder regularly increasing, body-whorl longer than broad; sutures well impressed; aperture ovate, slightly flattened on the basal margin; lip sharp, inner margin of the peristome adnate to the body-whorl.

Alt. (type fig. 2) 2.75, diam. 1.75, aperture alt. 1.25 mm.

Panzos, Guatemala.

Types No. 37387 Coll. Walker. Cotypes in the collections of A. A. Hinkley, the Philadelphia Academy and the Museum of Zoology, Univ. of Mich.

This diminutive species is one of the smallest yet recorded from Central America. The *A. costaricensis* Mörch from Costa Rica (2 x 1.5 mm.) and *A. tryoni* Pils. from Nicaragua (2.3 x 1.6 mm.) are smaller. The obese form found with it (fig. 3) measures alt. 2.4, diam. 1.75 mm. and has a slightly wider umbilicus.

III

Amnicola conchensis n. sp. Pl. I, figs. 4-5.

Shell ovate-conic, umbilicate, horn color, smooth and shining; spire elevated, conical; whorls 5, regularly rounded, with a well impressed suture, apical whorl small and projecting, body-whorl longer than broad; aperture broad oval, slightly flattened on the basal margin; lip sharp, inner margin of the peristome adnate to the body-whorl; umbilicus narrow.

Alt. (type fig. 5) 3.5, diam. 2.5, aperture alt. 1.6 mm.

Cochens River, Guatemala.

Types No. 38508 Coll. Walker. Cotypes in the collections of A. A. Hinkley, the Philadelphia Academy and the Museum of Zoology, Univ. of Mich.

This species is well characterized by its elevated, conical spire and acute apex. At first sight it looks like an enlarged edition of the preceding species, but it differs in the greater elevation of the spire and acute apex as well as in size. The obese form found with it (fig. 4) measures alt. 3, diam. 2.25 mm.

IV

Amnicola hinkleyi n. sp. Pl. I, fig. 6.

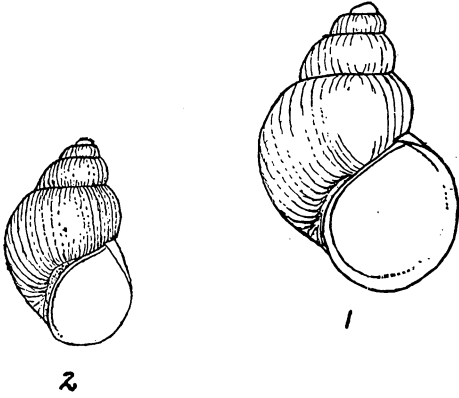
Shell turreted conic, narrowly umbilicate, greenish horn color, smooth and shining; spire elevated, conical; whorls 5, convex, separated by a deep suture, apex somewhat obtuse, body-whorl ventricose, about as long as broad; aperture sub-circular, slightly flattened on the outer margin; inner margin of the peristome thin, appressed to the body whorl for a short distance above the umbilicus.

Alt. 5.25, diam. 3.5, aperture alt. 2.5 mm.

Reservoir north of Guatemala City, Guatemala.

Types No. 47162 Coll. Walker. Cotypes in the collections of A. A. Hinkley, the Philadelphia Academy and the Museum of Zoology, Univ. of Mich.

This is one of the largest species yet recorded from Guatemala. It seems to be more closely allied to the Mexican *A. orizabensis* C. & F. than to any of the described Guatemalan species. It differs from that species in being narrowly umbilicated, less inflated and with a more elevated spire. The obese form found with it measures alt. 4.5, diam. 3.25 mm. and as usual has a slightly wider umbilicus.

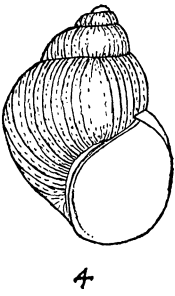


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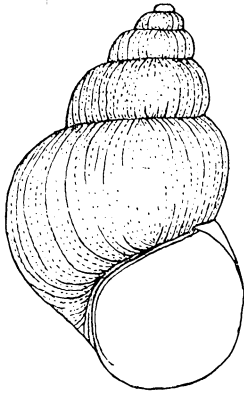
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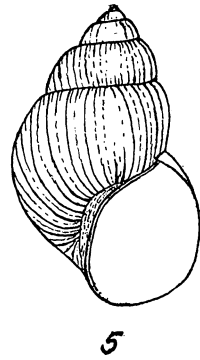
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4



6



5

