FIELDIANA · ZOOLOGY

Published by

CHICAGO NATURAL HISTORY MUSEUM

Volume 44 | March 21, 1966 | No. 25

On Some New Non-Marine Mollusks from Columbia and Peru

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NEW COLOMBIAN NON-MARINE MOLLUSKS

During the past several years, Dr. Frederick J. Medem, Field Associate in Zoology of Chicago Natural History Museum, has made numerous collecting trips into different parts of Colombia. A by-product of these journeys has been a rather large collection of non-marine mollusks that is now under study by Dr. Alan Solem and myself. Mostly these specimens provide range extensions for previously known taxa. Since completion of the larger review may be considerably delayed, descriptions of the few novelties are presented now. At the same time, the opportunity is taken to describe a remarkable new genus of bulimulids from Peru.

Helicina (Oxyrhombus) unizonata, new species. Figure 48.

Diagnosis.—A relatively small species of the *Helicina rhynchostoma* Pfeiffer, 1865, complex, characterized by its high, somewhat convex spire, red spiral color band located two-thirds of the way from suture to periphery, sculpture of weak spiral grooves, protruded periphery and nodular projection at the palatal-umbilical margin.

Several unbanded species: *Helicina laus* A. J. Wagner, 1905; *H. ucayalensis* A. J. Wagner, 1910; and *H. steindachneri* A. J. Wagner, 1905; and one banded species: *H. inca* Preston, 1914, seem to be related, but present different combinations of sculpture, umbilical features, shape and coloration. *Helicina inca* Preston, 1914, is larger, much more depressed and lacks the basal nodular projection.

Description.—Shell turbinately conoid, of medium size, with acutely angulated protruded periphery and 4¾ whorls. Spire strongly

Library of Congress Catalog Card Number: 66–19865

elevated, sides slightly convex, individual whorls flatly rounded, H/D ratio 0.730. Periphery protruding, white-edged, acutely angulated. Sculpture of weak spiral grooves, rather widely spaced, crossed by faint and irregular growth wrinkles. Color very pale yellow with a single red spiral band, 0.65 mm. wide, behind the lip, located two-

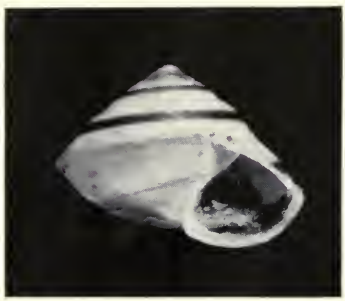

FIG. 48. *Helicina (Oxyrhombus) unizonata*, new species. Viewed from front. × 3.

thirds of way between suture and periphery. Lip narrowly expanded near suture, more so at periphery, rolled and thickened, but only slightly expanded basally. Umbilical callus small, sharply outlined on outer edge by a creased depression, but with smoothly extended parietal callus area. Columellar margin deeply channeled, resulting in a very prominent nodular expansion of the umbilical-palatal margin. Operculum still in shell, thin, without marked coloration. Height of holotype 8.4 mm., diameter 11.5 mm.

Holotype.—Chicago Natural History Museum number 114098. Region of Nueva Granada, Upper Río Putumayo, downstream from Puerto Asís, Putumayo, Colombia (76° 27′ W, 0° 24′ N).[1] Collected by J. M. Idrobo in July, 1957.

Remarks.—Much work remains to be done before we have a clear idea of the relationships between members of the *Helicina rhynchostoma* complex. At the present time species recognition is based on combinations of characters related to size, shape, sculpture, color, columellar and umbilical features. The specimen described here has a combination of characters that are not duplicated by any previously described taxon and are very different from the characters found in other species known from the Upper Amazonian basin.

[1] Nueva Granada was a village of the Siona Indians, near Cuhimbé, Quebrada Cuhimbé, west shore, Río Putumayo, below Puerto Asís. In 1958 it was abandoned and is not listed on any maps.

Helicina decorosa A. J. Wagner, 1910, *H. inca* Preston, 1914 and *H. steindachneri* A. J. Wagner, 1905, lack the nodular swelling at the umbilical-palatal margin, as well as differing in size and shape. *H. ucayalensis* A. J. Wagner, 1910, and *H. laus* A. J. Wagner, 1905, are the only species from this region with the nodular extension, but have quite different shapes and sculpture. The entire complex will be discussed in a later study.

FIG. 49. *Drymaeus gorgonensis*, new species. Viewed from front. × 2.

Drymaeus gorgonensis, new species. Figure 49.

Diagnosis.—An ovate-turrited, almost imperforate species of *Drymaeus*, with a slightly arcuate columella, unexpanded peristome and smooth surface.

Drymaeus flavidus (Menke) from Venezuela to Panama is smaller (height 19–22 mm.), has flatter whorls, distinct spiral sculpture, and the columellar-parietal angle is much more obtuse. *D. tenuilabris* (Pfeiffer) from Venezuela and Colombia is larger (height 30 mm.), umbilicated, and has distinct spiral sculpture.

Description.—Shell rather thin, translucent, light yellow, almost imperforate, ovate-turrited. Whorls 6½, rather convex, separated by a well-defined suture; surface almost smooth, showing irregular, faint growth lines. Aperture less than half the height of the shell, little oblique, narrowly elliptical, with simple peristome; columella

FIGS. 50–52. *Solaropsis* (*Psadara*) *undata*, new species. Viewed from above, front and below.

slightly arched, the columellar margin slightly dilated and almost closing the umbilicus. Height 25 mm., width 11.1 mm.; height of aperture 11 mm., width of aperture 4.1 mm.

Holotype.—Chicago Natural History Museum number 114164. Island of Gorgona, Dept. Cauca, West coast of Colombia (78° 11′ W, 3° N). Collected by Dr. F. Medem in February, 1961.

Remarks.—Only the single specimen was obtained. None of the many West Colombian and Ecuadorian *Drymaeus* seem to be closely related.

Solaropsis (Psadara) undata, new species. Figures 50–53.

Diagnosis.—A species of the *Psadara* group characterized by a slight keel at the periphery of the body whorl and by a surface sculpture of slightly wavy, undulate rugae (fig. 53).

FIG. 53. *Solaropsis* (*Psadara*) *undata*, new species. Portion of shell surface. × 25.

Nearly all *Solaropsis* have a sculpture of fine to strong granulations. The rugae of *S. undata* are unique. *S. diplogonia* (Dohrn) described from Eastern Peru is similar in size, keeling and umbilicus, but apparently has a simple granulose shell sculpture.

Description.—Shell thin, translucent, keeled at the periphery. Spire depressed, suture well marked though not deep. Last whorl slightly hollowed out above the keel, not descending in front; underside very convex, subcompressed around the deep, perforate umbili-

FIGS. 54–55. *Diplodon (Diplodon) losadae*, new species. Viewed from outside and back.

FIG. 56. *Diplodon (Diplodon) losadae*, new species. Viewed from inside.

cus. Whorls 5¾, regularly growing until the last one, which widens rapidly in front. Surface of shell, except the umbilical region, covered with conspicuous, slightly wavy, undulate rugae which cross the lines of growth. Upper margin of whorls regularly spotted at the suture. Aperture shortly elliptical, almost circular, with a thin, disjunct peristome; lips not expanded or dilated except for a triangular dilation of the columellar lip. Greater diameter 22.4 mm., smaller diameter 19.5 mm., height 13.5 mm.

Holotype.—Chicago Natural History Museum number 114100. North of coulee no. 3 of Río Guayabero, in the direction of La Macarena, Dept. Meta, Colombia (*circa* 74°W, 2° 30′S). Collected by Dr. F. Medem in January, 1957.

Paratypes.—Chicago Natural History Museum number 95552. Peru. From the Charles D. Nelson collection.

Remarks.—The two paratypes are slightly smaller than the type and still immature. Although identified as *S. diplogonia*, the very

distinctive sculpture shown by the shells was not mentioned in Dohrn's excellent description and I consider them mis-identified.

Unfortunately, the type specimen was broken after the description and measurements had been completed, but the pieces are sufficient to identify this species.

Diplodon (Diplodon) losadae, new species. Figures 54–56.

Diagnosis.—A decidedly rhombic species of the nominate subgenus with a marked posterior ridge.

Diplodon suavidicus (Lea) from the Amazon basin is very similar in shape and has the same posterior ridge, but is only about 15 mm. in length, while *D. losadae* is 47–48 mm. long.

Description.—Shell moderately solid, slightly inflated, inaequilateral, shortly rhombic. Anterior end short, narrow, rounded; posterior end broad, obliquely truncate. Anterior upper margin slightly arched. Umbones low, not very full, their sculpture not visible. Posterior slope high, separated from the disk by a marked ridge. Disk rather smooth, showing many low and crowded growth lines. Hinge normal, cardinals low, laterals thin and long, interval very short and narrow. Dorsal outline convexly lanceolate, greatest thickness of shell at about the middle. Mother-of-pearl bluish, somewhat iridescent. Length 48 mm., height 30 mm., diameter 17 mm.

Holotype.—Chicago Natural History Museum number 114042. In the Caño Losada, Upper Río Guayabero, Orinoco system, Dept. Meta, Colombia (*circa* 74° 9′ W, 2° 9′ N). Collected by Georg Dahl and Dr. F. Medem between March 1 and 15, 1959.

Paratypes.—Chicago Natural History Museum number 114043, same locality as holotype; Chicago Natural History Museum number 114115, mouth of Caño Losada.

Remarks.—The six specimens are all 47–48 mm. long and show no important variations. Apparently this is the first record of a *Diplodon* from the Orinoco River system.

A New Bulimulid Snail from Peru

Among Peruvian land shells Chicago Natural History Museum received from Mr. Abundio Sagástegui Alva of the University of Trujillo in Peru, there was one lot which appeared to be as yet undescribed. Coincidence had willed that the identical species had been received earlier from Dr. Weyrauch. These had remained unclassified due to several strange features the shell offered that would

not fit into the basic order of bulimulid shells as established by Pilsbry. The two lots at hand came from different localities and are composed of a sufficient number of specimens to rule out the possibility that the characteristic shell features are due to individual or local aberrations.

From its shell features it is very simple to describe this snail and to give it a specific name. While in its external appearance it looks very similar to certain species of *Bulimulus* or *Drymaeus*, it differs basically in its apical structure. At first glance under a hand lens it looks as if the apices were entirely smooth, under a magnification of approximately 100 times, one sees on the first two whorls a series of spiral lines caused by rows of very slightly impressed punctures, similar, but not identical with the apical sculpture of the genus *Macrodontes* or the Brazilian genus *Lopesianus* Weyrauch. Of course, there is no close relationship between these two and our Peruvian shell.

Kionoptyx,[1] new genus

Description.—Shell having the aspect of a *Bulimulus* or a *Drymaeus*, but with an apical sculpture consisting of spiral lines formed by little and rather superficial, punctiform impressions. Furthermore, the columella, at a little distance from the aperture, has a short and ascending flange, quite different from the apertural teeth present in some bulimulids.

Type species.—*Kionoptyx sagasteguii*, new species.

Kionoptyx sagasteguii, new species. Figure 57a, b.

Diagnosis.—A species of the above described genus *Kionoptyx*, which, besides the features mentioned in the generic description, is distinguished by its slender shell and the acute, hardly broadened peristome.

Description.—Shell rather thin, translucent, slender, with 9½ whorls of regular growth which are hardly inflated and which give the outline an almost straight appearance; the suture is very superficial, getting a little bit deeper between the two last whorls. The apex is slightly mammillar and has the sculpture described in the diagnosis of the genus; its first half is slightly sunken. The outer surface of the shell is smooth, lusterless, white with a few blackish-brown streaks near the aperture. The umbilicus is reduced to a rim with a blackish-brown, narrow band encircling it. The aperture is much

[1] κιων, κιονος, pillar, πτυξ, flange.

higher than wide, with almost parallel columellar and palatal borders; the external dark streak near the aperture shines through. Peristome acute, not broadened. Height 33 mm., width 9.75 mm.; height of aperture 11.25 mm., width of aperture 4 mm.

FIG. 57. *Kionoptyx sagasteguii*, new species. *a*, Viewed from front, × 2. *b*, Columella with flange, × 4.

Holotype.—Chicago Natural History Museum number 131682. Marcabal, Prov. Huamachuco, Dept. La Libertad, Peru (77° 49′ W, 7° 37′ S). Collected by A. Sagástegui Alva on April 25, 1961.

Paratypes.—Chicago Natural History Museum number 131683 from the type locality (four specimens); Chicago Natural History Museum number 131684 from the Hacienda Santa Elena, Río Chusgon, 1,600 meters elevation, northeast of Huamachuco, Dept. La Libertad, Peru (*circa* 77° 52′ W, 7° 35′ S), collected by W. Weyrauch (18 specimens).

Remarks.—While the type is an adult specimen, it apparently was collected dead and its surface is lusterless. Fresh examples, such as the paratypes from the Hacienda Santa Elena, possess a certain shine. The streaks, which in the type are restricted to the vicinity of the aperture, can be present on almost the entire surface of the shell, varying in color from light to dark brown. The degree of obesity also varies somewhat, there being among the Santa Elena specimens

one with the measurements 32 × 12.5 mm., which is almost devoid of streaks and shows a dark one only in the aperture close to the peristome, covering both the palatal and the columellar margin. This peristome presents a minute suggestion of some broadening.

This novelty looks very much like *Neopetraeus coerulescens* var. *columna* Pilsbry.[1] The species *coerulescens* Pfeiffer is known only by a verbal description and remains somewhat enigmatical; no description of the nepionic whorls was given and reference to the genus *Neopetraeus* Martens was tentative. Why Pilsbry attributed it to the *Neopetraeus* is uncertain, since the general aspect of the shell is quite different from that of the other *Neopetraeus*. In his description of the new variety of *Neopetraeus coerulescens*, there is no mention of the nepionic whorl sculpture. The only distinguishing feature of the new variety is the sharp spiral fold on the columella deep within the aperture, another feature not found in the genus *Neopetraeus*.

On the strength of the fact that the nepionic shell sculpture in *K. sagasteguii* consists of rows of slightly impressed punctures and not of "delicate subvertical riblets, in the intervals between them bearing closer, lower and finer spiral threads," as stated by Pilsbry for *Neopetraeus*, I feel sure that Pilsbry's classification of *Bulimus coerulescens* Pfeiffer and its variety *columna* Pilsbry is not correct. To which bulimulid genus should this species and the one I am describing be attributed? Among the published genera or subgenera, I don't know any that could come into consideration. Hence, there is only one way out, namely, to create a new group—generic or subgeneric—for the species involved, which is done here by calling it *Kionoptyx*. Future studies will tell, once the anatomy is known, if my creation can survive or not.

Again, now, to the above mentioned figures of *K. coerulescens columna:* Its similarity to my new species is unmistakable, but there are slight differences in shape and coloration which speak against their identity. *K. sagasteguii* is more slender; the margins of the aperture are more parallel, the aperture therefore narrower; the columella is not black and the system of blackish-brown streaks on the whorls is less dense and less regular. These conditions prompt me, without ignoring a close relationship, to consider my shells as different from both *coerulescens* and its variety *columna*, and to give it a name of its own, that of its skilled and eager collector, Mr. Sagástegui Alva of Trujillo, Peru.

[1] Manual of Conchology, 2nd ser., **11**, p. 180, pl. 29, figs. 35–37 from "Peru."