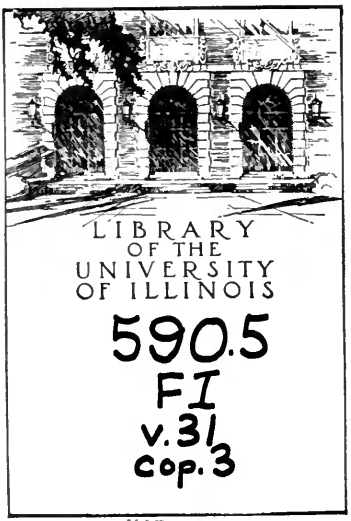

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LAND AND FRESH-WATER MOLLUSKS FROM PERU

FRITZ HAAS

CURATOR OF LOWER INVERTEBRATES

The material here reported was gathered by Mr. José Maria Schunke, a professional collector in Pucalpa. The collection proved to be especially interesting on account of the rare species it contains and the high number of new species. Mr. Schunke collected in the departments of Huánuco and Loreto, in the following localities:

HUÁNUCO.—Divisoria, altitude about 5,000 feet; May 15, 1947, and the months of August and September, 1947. Divisoria is the familiar name of the Cordillera Azul, the watershed between the Huallaga and Ucayali rivers, which is essentially followed by the border between the departments of Huánuco and Loreto; Mr. Schunke's locality is situated on the west side of the crest, toward Huánuco.

LORETO.—Pucalpa (often spelled Pucallpa), on the Río Ucayali; February 5, 1947. Río Neshuya, left affluent of the Ucayali, crossed by the highway from the valley of this river to Huánuco, in the Huánuco Valley; October 2, 1947. Contamana, on the Río Ucayali; May 20–22, 1947. Cerro Azul, on the Río Ucayali, near Contamana; March and April, 1947. Metelo Yacú, near the Cerro Azul and near Contamana, an affluent of the Ucayali; May, 1947.

For the photographs reproduced in this article I am indebted to my friend and colleague Dr. Rainer Zangerl, Curator of Fossil Reptiles, and for the drawings used for figure 54, to Miss Margaret Bradbury, Artist in the Department of Zoology.

LIST OF SPECIES

Pleurodonte (Labyrinthus) baeri baeri Dautzenberg.

Six specimens from the Cerro Azul, May 10, 1947.

Pleurodonte (Labyrinthus) dacostiana Preston.

Two specimens from Divisoria, the one collected between August 5 and September 10, 1947, the second on September 18, 1947. This seems to be the first report of this species since its publication (Preston, 1907, p. 490, fig. 3).

Solaropsis (Psadara) calstelnaudii Deville and Hupé.

One specimen from Divisoria, August 26, 1947.

Strophocheilus (Megalobulimus) maximus maximus Sowerby.

One specimen from Pucalpa, February 5, 1947.

Orthalicus (Orthalicus) gallina-sultana Chemnitz.

Two specimens from Metelo Yacú, May 10, 1947.

Bulimulus (Bulimulus) inconspicuus sp. nov. Figure 50, *a*.

Type.—Chicago Natural History Museum No. 30038, from Contamana on Río Ucayali, Department of Loreto. Collected by José Maria Schunke, May 20, 1947.

Diagnosis.—A medium-sized species of the typical subgenus of *Bulimulus*, plain, inornate, transparent, dull horn-colored.

Comparisons.—Of all the many South American species of the typical subgenus of *Bulimulus*, this new species is closest to *B. transparens* Reeve, of unknown locality. It differs from that species, however, in being smaller (17 mm.; 19 mm. in *transparens*) and in having 7 whorls, whereas *transparens* is said to have only 6; however, the two species resemble each other so closely that the description of *transparens*, with the few features mentioned changed, might serve for the new species also.

Description of type.—Shell subperforate, oblong-conic, thin, rugosely striate, pellucid, dull corneous. Spire conic, slightly obtuse. Whorls 7, a little convex, the last a little shorter than the spire, somewhat attenuated at base. Columella arcuate. Aperture oblique, oval; peristome simple, the right margin slightly arcuate, columellar margin slightly reflexed above, subappressed.

Measurements of type.—Height 17 mm., width 7.5 mm., height of aperture 6.9 mm., width of aperture 4.2 mm.

Notes on paratypes.—Chicago Natural History Museum No. 30039a–c. The paratypes at hand, with the same data as the type, consist of a specimen three-fourths adult, another subadult and fragments of an adult specimen, which, judging from the dimensions of the aperture, must have been slightly larger than the type. The type specimen itself is a little damaged also, as shown in figure 50, *a*.

Drymaeus (Drymaeus) schunkei sp. nov. Figure 50, *b*.

Type.—Chicago Natural History Museum No. 30040, from Cerro Azul, on Río Ucayali, Department of Loreto. Collected by José Maria Schunke on May 8, 1947.

Diagnosis.—A larger species of the typical subgenus of *Drymaeus* characterized by its ovate, acuminate shape, the black-brown zigzag

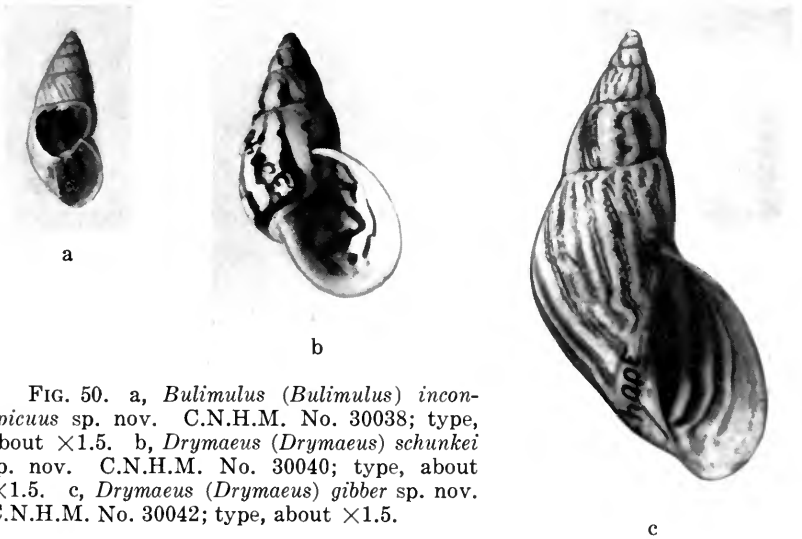


FIG. 50. a, *Bulimulus (Bulimulus) inconspicuus* sp. nov. C.N.H.M. No. 30038; type, about ×1.5. b, *Drymaeus (Drymaeus) schunkei* sp. nov. C.N.H.M. No. 30040; type, about ×1.5. c, *Drymaeus (Drymaeus) gibber* sp. nov. C.N.H.M. No. 30042; type, about ×1.5.

stripes of its surface, and the large aperture with its broadly expanded, yellow-colored peristome.

Comparisons.—Very similar to *Drymaeus (Drymaeus) aequatorianus* E. A. Smith (1877, p. 363, pl. 39, fig. 7) from Ecuador, differing from it mostly by the conspicuously broader expansion of the peristome, which, furthermore, is yellow, not rose-colored as in *aequatorianus*. The affinities of both species, however, are so close that they may represent geographical races only, not separate species.

Description of type.—Shell ovate acuminate, subumbilicate, thin, substriate, and with faint spiral lines. Spire conic, apex acute, with

5¾ whorls that are slightly convex and separated by a shallow suture; last whorl slightly ascending in front, inflated toward the aperture. Color of shell white with blackish brown zigzag stripes that are also visible inside the aperture. Aperture shortly oval, a little higher than the spire, with a wide, yellow-colored peristome that reflexes over the umbilical chink.

Measurements of type.—Height 27.1 mm., width 14.1 mm., height of aperture 15.1 mm., width of aperture 11.4 mm.

Notes on paratypes.—Chicago Natural History Museum No. 30041a–c. Same data as the type. The paratypes show no traces of variation. They correspond with the type in all characters of shape and coloration. Their dimensions are:

	mm.	mm.	mm.
Height of shell	27.0	26.9	26.1
Width of shell	13.6	13.2	12.8
Height of aperture	15.0	15.0	13.7
Width of aperture	10.7	10.0	10.2

Drymaeus (Drymaeus) expansus Pfeiffer.

One specimen from the Cerro Azul, May 8, 1947, which, while otherwise quite typical, is much smaller than all the known forms of this species. Its measurements are: Height 22.9 mm., width 14.6 mm., height of aperture 14.0 mm., width of aperture 10.5 mm.

Drymaeus (Drymaeus) inca Maxwell Smith.

Three specimens from Divisoria, collected between August 5 and September 10, 1947. First report since original description (Maxwell Smith, 1943, p. 61, pl. 7, fig. 10).

Drymaeus (Drymaeus) gibber sp. nov. Figures 50, *c*; 51, *a–d*.

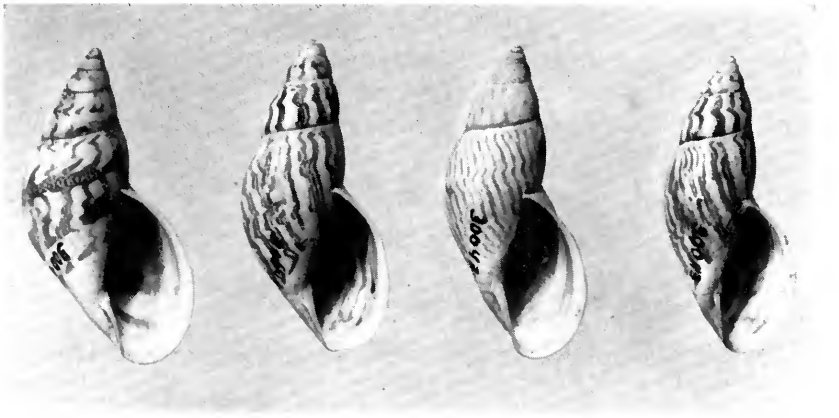
Type.—Chicago Natural History Museum No. 30042, from Divisoria, Department of Huánuco. Altitude 5,000 feet. Collected by José Maria Schunke between August 5 and September 10, 1947.

Diagnosis.—A large specimen of *Drymaeus* proper, characterized by a hunchback-like swelling of the last whorl about half a whorl from the aperture, a feature unique in the genus.

Comparisons.—This new species corresponds in almost every feature with the Ecuadorian *Drymaeus inaequalis* Pfeiffer (1856, p. 330; 1860, p. 158, pl. 42, figs. 3–5) but for the hump-like gibbosity in the middle of the last whorl, which gives a marked asymmetrical

aspect to the shell; the color variation of *D. gibber* is even greater than that of *inaequalis*.

Description of type.—Shell irregularly elongated, imperforate, thin, shining. Whorls 7, rather flat, the first six regularly, the last rapidly increasing, with a gibbosity that inflates its latter half irregularly, causing it to deviate from the axis of the shell to the right; while the back of the shell becomes very convex, its front is almost flat. Suture well impressed, ascending a little toward the aperture. The basic color of the surface is a pale, grayish yellow on which slightly undulate blackish stripes appear; these stripes are wide,



a b c d

FIG. 51. a–d, *Drymaeus* (*Drymaeus*) *gibber* sp. nov. C.N.H.M. No. 30043; paratypes, showing variation of shape and pattern; about ×1.

as wide as the interstices, and split up in narrow stripes between which equally wide stripes of the basic color are visible. Aperture long, slanting forward, ovate-oblong, showing the external marking inside, but with the blackish stripes entire, not split into narrower ones; peristome pale yellow, outer and basal margins rather widely expanded, columellar margin slightly expanded and reflexed and adnate over the curved columella.

Measurements of type.—Height 38.1 mm., width 19.4 mm., height of aperture 19.6 mm., width of aperture 8.5 mm.

Notes on paratypes.—Chicago Natural History Museum No. 30043a–d, and No. 30044a–p. Same data as the type. The nineteen paratypes at hand show that this species varies quite notably. Figure 51, *a–d*, demonstrates the variation in shape as well as in

color pattern. The shape varies from that of the type (fig. 51, *a*) gradually (figs. 51, *b* and *c*) to an almost regularly convoluted specimen (fig. 51, *d*) in which the gibbosity of the last whorl, though still clearly recognizable, is much less developed. The color pattern may be that of the type (fig. 51, *c* and *d*), or there may be narrow, widely spaced, undulating, grayish-brown stripes (fig. 51, *b*), or, lastly, the basic color may be banded by three irregularly confined spirals, which can anastomose and on which there are minute spot-like windows of the basic color (fig. 51, *a*).

Euglandina (Euglandina) sp.

One very young specimen from Contamana, May 20, 1947, which, while permitting an unequivocal classification of the genus and subgenus, is too minute to allow specific determination. No *Euglandina* has apparently ever been reported from Peru.

Leptinaria (Leptinaria) lamellata Potiez and Michaud.

Twenty-eight specimens from Contamana, May 22, 1947.

Subulina (Subulina) yatesi Pfeiffer.

Twenty-seven specimens from Contamana, May 20, 1947.

Obeliscus (Protobeliscus) teres sp. nov. Figure 52.

Type.—Chicago Natural History Museum No. 30028, from Divisoria, Department of Huánuco, altitude about 5,000 feet. Collected by José Maria Schunke, August 13–15, 1947.

Diagnosis.—A species of the subgenus *Protobeliscus*, characterized by an almost cylindric shape.

Comparisons.—None of the Peruvian and Ecuadorian species of *Protobeliscus* bear any closer similarity to this new species, but the Bolivian *Obeliscus bacterionides* Orbigny, which Pilsbry (1906, p. 250, pl. 36, figs. 71–72) includes in *Obeliscus* proper, looks very much like it. Pilsbry's copy of Orbigny's *Helix bacterionides* (1837, p. 260, pl. 29, figs. 1–3) is rather inexact and misleading, whereas the original figure shows great similarity to the new *teres*. Judging from Orbigny's original figure, *bacterionides* has to be a member of the subgenus *Protobeliscus*, in which I am placing *teres* also. L. Pfeiffer (1852, p. 117, pl. 35, figs. 15–17), too, gives a figure of what he believed to be Orbigny's *bacterionides*, and Pilsbry (1906,

p. 250) quotes this figure in the synonymy of this species; however, I feel certain that Pfeiffer's figure represents an entirely different species, showing a much more oval shell than *bacterionides*.

Description of type.—Shell long, narrow, turrite, almost cylindric, transparent, smooth, almost lubricate, glossy, straw-yellow. Apex obtuse. Eight and one-half whorls, suture shallow and somewhat appressed. Aperture high and narrow, pear-shaped, with cutting edges. Columella not truncated, slightly twisted. No umbilical perforation or chink.

Measurements of type.—Height 21.2 mm., width 5.8 mm., height of aperture 6.4 mm., width of aperture 4 mm.

FIG. 52. *Obeliscus* (*Protobeliscus*) *teres* sp. nov. C.N.H.M. No. 30028; type, about ×2.

FIG. 53. *Nenia* (*Columbinia*) *obesa* sp. nov. C.N.H.M. No. 30025; type, about ×2.

Notes on paratype.—Chicago Natural History Museum No. 30029. Same data as the type. Height 17.9 mm., width 5.4 mm., height of aperture 6.1 mm., width of aperture 2.9 mm.

Nenia (Columbinia) obesa sp. nov. Figures 53, 54.

Type.—Chicago Natural History Museum No. 30025, from Cerro Azul on Río Ucayali, Department of Loreto. Collected by José Maria Schunke, May 9, 1947.

Diagnosis.—A species of the subgenus *Columbinia*, characterized by considerable obesity.

Comparisons.—While completely in accordance with Polinski's diagnosis of his subgenus *Columbinia* (1925, p. 743) as far as the internal features of lamellae and folds are concerned, this new species differs from all the other known consubgenerics, i.e., *perezi* Jousseaume, *columbiana* Polinski, *epistomium* Küster, and *pseudepistomium* Bourguignat, all of which are rather slender, by its obesity. It shares this character with *Nenia reyrei* Jousseaume from Ecuador (Jousseaume, 1887, p. 172, pl. 3, fig. 9), which is still stouter, but which apparently is very close to *obesa* as far as the external and internal features of the shell are concerned. Polinski (1925, p. 744)

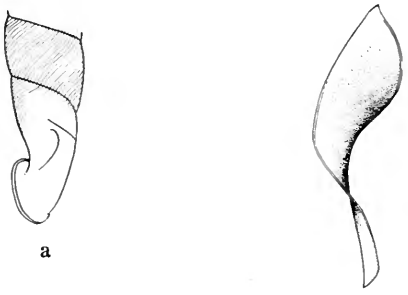


FIG. 54. *Nenia (Columbinia) obesa* sp. nov. *a*, Side view of the last whorl, showing disposition of principal and lunellar folds; about ×1.5. *b*, Clausilium, about ×5.5; C.N.H.M. No. 30026, paratype.

had not included *reyrei* in his new subgenus *Columbinia,* most probably because its general shape was so different from that of the species comprised in *Columbinia;* a mistake or a misprint occurring in the original description of *Nenia reyrei* may have contributed to this exclusion, namely, the fact that the length of this species is given as 13 mm., whereas it should read 23 mm., according to the corresponding figure on plate 3. Another species comparable with this novelty is *Nenia bryantwalkeri* Pilsbry from Huallaga, Peru (Pilsbry, 1922, p. 95, pl. 2, figs. 4, 5, 12–14). Indeed, the similarity between the two species is great. They differ by the length of the shell, 15 mm. in *bryantwalkeri* and 25.8 mm. in *obesa;* by the way in which the superior lamella is joined to the spiral lamella, as there is no bend in *bryantwalkeri* and a marked one in *obesa;* and by the different shape of the clausilium, which does not show any excision in *obesa.*

Description of type.—Shell entire, not decollate, fusiform, widest at the sixth whorl. Color Cinnamon to Verona Brown. Seven

and one-half whorls, a little convex, the last becoming free and descending more rapidly. Apex blunt. Suture not very distinct. Sculpture of oblique, low, but distinct, straight or slightly arcuate riblets, of which there are 5 or 6 in 1 mm. on the penultimate whorl, while on the neck they become much more crowded. Neck rounded. Aperture slightly protracted, irregularly ovate, with strongly expanded, continuous, flesh-colored peristome. Superior lamella somewhat protruding above the peristome, strong, vertical, channelled on the left side; inferior lamella not reaching to the margin of the peristome, rather low, almost horizontal in a frontal view. Principal fold dorsal, about half a whorl long, lunella subdorsal, strongly arched, free from the principal fold (fig. 54, *a*).

Measurements of type.—Height 25.2 mm., width 6.7 mm., height of aperture 6.1 mm., width of aperture 5.3 mm.

Notes on paratypes.—Chicago Natural History Museum No. 30026 and No. 30027a–m. Same data as the type. Paratype 30026, which is partly broken, enables me to describe the interior features of this species. The superior lamella joins the spiral one in a decided bend to the left, and the inferior one, which is low in the aperture, is rapidly becoming high in the interior and extends about half a whorl deep. The clausilium, whose shape can be better explained by a figure (54, *b*) than by a verbal description, is thicker on the distal end and does not show any excision. The remaining paratypes, No. 30027, vary from 22.2 mm. to 25.1 mm. in height, and from 6.1 mm. to 6.8 mm. in width; one specimen, however, has the outstanding width of 6.9 mm. with a height of only 24.9 mm.

Nenia (Incania) jelskii Polinski.

Four specimens from the Cerro Azul, May 16, 1947.

Nenia (Incania) trigonostoma O. Boettger.

Five specimens from Divisoria, between August 13 and 15, 1947.

Happia (Drepanostomella) ammoniformis Orbigny.

One young specimen from Contamana, May 22, 1947.

Systrophia (Systrophia) affinis Pilsbry. Figure 55.

This species will be discussed, under comparisons, with the following one.

Twenty specimens from Contamana, May 20–22, 1947.

Systrophia (Systrophia) obvoluta sp. nov. Figure 56.

Type.—Chicago Natural History Museum No. 30030, from Contamana, Department of Loreto. Collected by José Maria Schunke, May 20–22, 1947.

Diagnosis.—A small species of the typical subgenus of *Systrophia*, characterized by its most densely convoluted whorls, by a rather narrow umbilicus, and by a relatively great height of shell.

Comparisons.—Since all the species of *Systrophia* proper exhibit basically the identical shell features and since their distinction rests

FIG. 55. *Systrophia (Systrophia) affinis* Pilsbry. C.N.H.M. No. 30032; shown from side, above and below, about ×1.25.

almost entirely upon the combination of relative differences in width, height, number of whorls, etc., it is difficult to compare this new species to any individual congeneric species. However, since a

FIG. 56. *Systrophia (Systrophia) obvoluta* sp. nov. C.N.H.M. No. 30030; type, shown from side, above and below, about ×1.75.

second kind of the same genus was found together with *obvoluta*, and since this other species has never been figured before and has been mentioned but once in the literature, I compare our novelty to it; the species I have in mind is *Systrophia (Systrophia) affinis*, described by Pilsbry (1900, p. 388) as *Polygyratia affinis*. This species, which is figured here (fig. 55) for the first time, measures up to 12.7 mm. in diameter, has a flat, even slightly sunken spire, a rather wide umbilicus, and 8½ whorls, whereas *obvoluta* has a diameter measuring up to 9.2 mm., a flat but somewhat raised spire, a narrow umbilicus and 9 whorls. The height of both species being equally about 4 mm., the relative height of the shell of *obvoluta* is considerably greater.

Description of type.—Shell planorboid, flat or somewhat raised in the middle, with a rather narrow, funnel-shaped umbilicus below, pale yellow, glossy, faintly and distantly striatulate and showing more or less distinctly some spiral lines. Whorls 9, excessively densely coiled, the last about three times as wide, but four times as wide near the aperture, as the preceding, peripherally rounded, suddenly widening and slightly descending in front of the aperture, somewhat flattened there on its upper part. Aperture oblique, higher than wide, semilunar, peristome thin and slightly reflected all around, but mostly at the base.

Measurements of type.—Diameter 9.2 mm., height 4.0 mm., diameter of umbilicus 2.9 mm.

Notes on paratypes.—Chicago Natural History Museum No. 30031a–k. Same data as the type. Variation of size, in the material at hand, ranges from 9.2 and 8.7 mm. in width and from 3.5 and 4.0 mm. in height. In two specimens, each measuring 9.2 mm. in diameter, the height is 3.7 and 4.0 mm., respectively.

Systrophia (Systrophia) retinella sp. nov. Figure 57.

Type.—Chicago Natural History Museum No. 30035, from Contamana, Department of Loreto. Collected by José Maria Schunke, May 22, 1947.

Diagnosis.—A species of *Systrophia* proper with 7½ regularly increasing, not tightly coiled up whorls and a rather narrow, deep umbilicus.

Comparisons.—As pointed out above, all systrophias have so much in common in the shape of their shells that it is hard to find one relative closer than another to a given species. This case, however, has its alterum comparationis in *S. inca* Crawford (1939, p. 324, pl. 20, figs. 20–23) from Pisacc in the Urubamba Valley, Peru. This species is smaller, has a more elevated spire, a greater number of whorls, and a much wider umbilicus. Both species belong to that group of the typical subgenus of *Systrophia* that is not planorboid, that has whorls not closely convoluted, and that, on behalf of these characters, looks very much like the *Retinella* of the family Zonitidae of the Northern Hemisphere.

Description of type.—Shell with very low spire, with the apex raised above the upper surface, thin, transparent, pale grayish yellow. Whorls 5½, rounded, the first 4½ regularly, the last one faster increasing, being almost three times wider at the aperture than the

preceding; the first two whorls smooth, the following ones with irregular transverse striae and faint spiral lines. Suture distinct. Umbilicus deep and narrow. Aperture as wide as high, circular, with simple, unexpanded lips.

Measurements of type.—Diameter 7.1 mm., height 3.3 mm., diameter of umbilicus 2.0 mm.

Notes on paratypes.—Chicago Natural History Museum No. 30036a–c. Same data as the type. The three paratypes are somewhat smaller than the type, 6.7 mm. to 7.0 mm., and their spire is

FIG. 57. *Systrophia (Systrophia) retinella* sp. nov. C.N.H.M. No. 30035; type, shown from side, above and below, about ×2.

a trifle higher than that of the type, though the entire height of the shell does not exceed that of the type.

Systrophia (Systrophia) stenogyra Pfeiffer.

Eighteen specimens from the Cerro Azul, April 12, 1947.

Systrophia (Systrophia) helicycloides Orbigny.

Nine specimens from the Cerro Azul, May 12, 1947.

Systrophia (Systrophia) altivaga Crawford.

One specimen from Divisoria, August 26, 1947; with 12.5 mm. diameter slightly larger than Crawford's specimens, which measured 9–10 mm. in diameter.

Systrophia (Systrophia) angigyra sp. nov. Figure 58.

Type.—Chicago Natural History Museum No. 30034, from Divisoria, Department of Huánuco, altitude about 5,000 feet. Collected by José Maria Schunke, August 26, 1947.

Diagnosis.—A small species of the typical subgenus of *Systrophia*, characterized by the low, almost flat spire, the close convolution of the 8½ whorls, and the deep, narrow umbilicus.

Comparisons.—This novelty belongs to the same group within *Systrophia* proper, of which the species *affinis* Pilsbry and *obvoluta* sp. nov. (mentioned above) are members. *S. angigyra* is very close to both, but differs from them in the still closer convolution of the whorls and in its small size.

Description of type.—Shell transparent, waxy, pale yellow, almost planorboid, with scarcely raised spire. Whorls 8½, exceedingly closely convoluted, separated by a rather deep suture and showing a dense striation on the upper side while the lower one is smooth. Last whorl very convex on its upper half, less so on the lower one,

FIG. 58. *Systrophia (Systrophia) angigyra* sp. nov. C.N.H.M. No. 30034; type, shown from side, above and below, about ×2.

suddenly descending somewhat and widening one-fourth of one whorl before the aperture, with a bump-like swelling that gives the shell an asymmetrical appearance. Umbilicus narrow, deep, almost cylindrical, showing a very deep, almost furrow-like suture between the whorls. Aperture oblique, crescent-shaped, a little bit protracted in the middle, higher than wide; margin thin, somewhat expanded all around.

Measurements of type.—Diameter 6 mm., height 2.9 mm., diameter of umbilicus 1.9 mm.

Systrophia (Systrophiella) peruviana Preston.

Six specimens from Divisoria, August 26, 1947. Apparently this species has never been found again since its original description (Preston, 1907, p. 490, fig. 1).

Austroselenites (subgenus?) **variegatus** sp. nov. Figure 59.

Type.—Chicago Natural History Museum No. 30037, from Cerro Azul, on Río Ucayali, Department of Loreto. Collected by José Maria Schunke, April 20, 1947.

Diagnosis.—A rather solid, scarcely transparent, obtusely conical shell of 5¾ whorls with an angulate periphery and a wide, funnel-shaped umbilicus, with a simple peristome of the aperture and with

the surface covered by a conchinic layer showing alternating, closely set brownish and yellowish transverse stripes.

Comparisons.—No similar shell seems to be known. The hitherto known species of the haplotrematid genus *Austroselenites* are all much larger. The allocation of this new species to *Austroselenites* can, hence, be only tentative. Its real nature will most probably be known only when its anatomy has been studied; unfortunately my only specimen does not contain the soft parts.

Description of type.—Shell of medium size, rather solid, almost opaque, smoothish, depressedly conical above and rather flat below,

FIG. 59. *Austroselenites variegatus* sp. nov. C.N.H.M. No. 30037; type, shown from side, above and below, about ×2.

with an angle at the periphery. Whorls 5¾, regularly increasing, very little convex, separated by a shallow suture. The conchinic layer on the surface has a pattern of alternating brownish and yellowish transverse stripes of which there are about three to a millimeter on the last whorl and which are less conspicuous on the under side. Under side of shell rather flat, hollowed by a wide, funicular umbilicus. Aperture oblique, simple, almost triangular, narrow above, wide and full below.

Measurements of type.—Diameter 10.3 mm., height 5.5 mm., diameter of umbilicus 3.9 mm.

Helicina (Helicina) bourguignatiana Ancey.

Five specimens from the Cerro Azul, April 30, 1947. This species is represented by two phases, a small one (diameter 8.2 mm.) and a big one (diameter 9.9 mm.).

Helicina (Oxyrhombus) laus ucayalensis A. J. Wagner.

Ten specimens from the Cerro Azul, April 30, 1947. First report of this subspecies after its description (A. J. Wagner, 1910, p. 290).

Aperostoma (Aperostoma) depressum Da Costa.

Fourteen specimens from the Cerro Azul, April 20, 1947. *Aperostoma (A.) peruense* and *Aperostoma (A.) leai*, both described by Bartsch and Morrison (1942, p. 245, pl. 35, figs. 10–12 and p. 246, pl. 35, figs. 17–19, respectively), seem to be identical with *Neocyclotus depressus* Da Costa (1906, p. 9, pl. 1, figs. 14–16), apparently not found again since the time it was described.

Ampullarius (Limnopomus) columellaris Gould.

One specimen from Contamana, May 18, 1947, and five from Metelo Yacú, April 30 and May 14, 1947, respectively.

Mycetopoda soleniformis Orbigny.

Three specimens from the Neshuya River, October 2, 1947.

Mycetopodella falcata Higgins.

One specimen from the Neshuya River, October 2, 1947.

Anodontites (Anodontites) crispatus crispatus Bruguière.

Seven specimens from Metelo Yacú, May 2, 12 and 13, 1947, respectively.

REFERENCES

Bartsch, Paul and Morrison, J. E.
1942. The cyclophorid mollusks of the mainland of America. Bull. U. S. Nat. Mus., **181**, pp. 142–293, pls. 19–42.

Crawford, G. I.
1939. Report on the terrestrial mollusca collected by the Percy Sladen Expedition to Lake Titicaca, 1937. Proc. Mal. Soc. London, **23**, pp. 318–332, figs. 28–30, pls. 19–20.

Da Costa, S. I.
1906. Descriptions of new species of *Drymaeus*, *Amphicyclotus*, and *Neocyclotus*, from South and Central America. Proc. Mal. Soc. London, **7**, pp. 7–10, pl. 1.

Jousseaume, F.
1887. Mollusques nouveaux de la république de l'Équateur. Bull. Soc. Zool. France, **12**, pp. 165–186, pl. 3.

Orbigny, Alcide d'
1835–45. Voyage dans l'Amérique Méridionale (le Brésil, La République Orientale de l'Uruguay, etc. . . .) exécuté pendant les années 1826, 1827, . . . et 1833), **5**, pt. 3, Mollusques, 758 pp., 85 pls.

PFEIFFER, LOUIS

1845–55. Die Gattungen *Bulimus, Partula, Achatinella, Achatina* and *Azeca*. In Abbildungen nach der Natur, mit Beschreibungen. Begonnen von Dr. H. C. Küster, fortgesetzt und beendigt von Dr. L. Pfeiffer zu Cassel. Martini-Chemnitz, Syst. Conch. Cab., I, **13**, 395 pp., 70 pls.

1856. Descriptions of fifty-eight new species of *Helicea* from the collection of H. Cuming, Esq. Proc. Zool. Soc. London, 1856, pp. 324–336.

1860. Novitates Conchologicae. Series Prima. Mollusca Extramarina, **2**, pp. 139–303, pls. 37–72.

PILSBRY, HENRY AUGUSTUS

1900. New South American land shells. Proc. Acad. Nat. Sci. Philadelphia, **1900**, pp. 385–394, pls. 11–12.

1906–1907. Achatinidae: Stenogyrinae and Coeliaxinae. Man. Conch., (2), **18**, 357 pp., 51 pls.

1922. Some Peruvian Clausiliidae. Nautilus, **35**, pp. 93–95, pl. 2, figs. 1–5, 12–17.

1933. South American land and fresh-water mollusks: Notes and descriptions, No. 8. Proc. Acad. Nat. Sci. Philadelphia, **84**, pp. 387–402, 5 figs., pls. 27–28.

POLINSKI, WLADYSLAW

1925. Sur un nouveau sous-genre et deux nouvelles espèces de Clausiliidés sudaméricaines. Bull. Internat. Acad. Polon. Sci. Lettres, (B), 1924, pp. 739–744, pl. 49.

PRESTON, H. B.

1907. Descriptions of new land and freshwater shells from Central and South America. Ann. Mag. Nat. Hist., (7), **20**, pp. 490–498, 20 figs.

SMITH, EDGAR A.

1877. Description of new species of South-American Helicidae in the British Museum. Proc. Zool. Soc. London, **1877**, pp. 361–365, pl. 39.

SMITH, MAXWELL

1943. New species of *Cerion, Nenia*, and *Drymaeus*. Nautilus, **57**, pp. 59–62, pl. 7, figs. 7–10.

WAGNER, A. J.

1907–11. Die Familie Helicinidae. Martini-Chemnitz, Syst. Conch. Cab., I, **18**, (2), 391 pp., 70 pls.