FLUMINICOLA MINUTISSIMA n. sp. Plate IX, fig. 1.

The shell is perforate, obliquely globose, thin, smooth, olivaceous yellowish, composed of three rapidly enlarging whorls, which are convex, and separated by an impressed suture, which becomes very deep in the last half-whorl. The spire is very short, the summit obtuse, the first whorl being nearly flat. The last whorl enlarges rapidly, and is well rounded peripherally, less so below; its last half descends rapidly. The aperture is quite oblique, nearly circular, but is angular above. The outer lip is thin, distinctly retracted at the upper insertion; the slightly concave columella is very strongly calloused within, flattened on the face. Below the umbilical perforation there is a narrow, crescentic, slightly excavated area, bounded outwardly by a low angle.

Alt. 1.5, diam. 1.75 mm.

Price Valley, Weiser Canyon, Washington Co., Idaho. Types no. 94273 A. N. S. P., collected by the Rev. E. H. Ashmun.

This species is smaller than any other of the genus, and is further distinguished by its very short spire and the rapid descent of the last half whorl. The columellar callus is unusually heavy for so small a shell.

SHELLS COLLECTED IN NORTHEASTERN MEXICO.

BY A. A. HINKLEY.

BULIMULIDÆ.

Oxystyla princeps Brod. Tampico and Valles. Only dead specimens secured.

UROCOPTIDÆ.

Macroceramus mexicanus Martens. El Abra,

Holospira hinkleyi Pils. El Abra, on the mountain side with Opeas.

PUPILLIDÆ.

Strobilops hubbardi A. D. Brown. Tampico, scarce in drift.

Pupoides marginatus Say. Tampico, drift.

Bifidaria contracta Say. Tampico, drift, the most abundant species.

Bifidaria pellucida Pfr., var. hordeacella Pils. Tampico, drift, almost as numerous as B. contracta.

Bifidaria procera Gld. Tampico, found under pieces of wood in an open field, also in the drift.

Vertigo milium Gould. Tampico, two specimens in the drift.

ACHATINIDÆ.

Opeas gracile Hutton. El Abra, plentiful on the mountain side. Opeas beckianum Pfr. Tampico, drift.

Opeas micra Orb. Tampico, drift.

Leptinaria tamaulipensis Pils. Tampico, scarce in the drift.

Leptinaria mexicana Pfeiffer. Tampico, drift.

Spiraxis tampicoensis Pils.1 Tampico, drift, numerous.

Cecilioides (Cæcilianopsis) jod Pils. Tampico, drift.

OLEACINIDÆ.

Euglandina corneola Binn. Valles, a few dead ones.

Euglandina texasiana Pfr. Tampico and Valles, found about decaying logs, the most plentiful species of this family. Pilsbry says "Not G. turris. I find that they agree fully with Texas examples."

Euglandina sp. Valles.

Streptostyla gracilis Pils. Tampico and Valles, dead specimens. Salasiella joaquinæ Strebel. El Abra, one specimen.

ZONITIDÆ.

Guppya elegans Strebel. Tampico, a few in the drift.

Zonitoides minuscula Binney. Tampico, numerous in the drift.

Zonitoides singleyana Pils. Tampico, common in the drift.

Zonitoides pentagyra Pils. Tampico, drift.

Zonitoides elegantula Pfr. Tampico, drift. This minute species was not plentiful. Pilsbry says "This is Helix elegantula Pfr., very badly figured as Chanomphalus elegantulus, by Strebel. Hitherto not known north of Vera Crnz. It has about the size and general appearance of a Radiodiscus, but the embryonic whorl is without spiral striæ."

LIMACIDÆ.

Agriolimax sp. undet. Valles, scarce.

ENDODONTIDÆ.

Pyramidula victoriana Pils. Tampico, in the drift, mostly immature examples.

¹ This species appears to belong to the genus Cælostele, which has not hitherto been known in America.—ED.

SUCCINEIDÆ.

Succinea luteola Gould. In the vicinity of Tampico this species was numerous in a pasture; near Valles they were found along the wagon road, but more plentiful on a railroad embankment. They are richly colored, reddish with pale and dark streaks; some albino specimens were taken.

Succinea luteola Gld., var. subtilis Marts. Valles; only two examples taken.

Succinea sp. Tampico. Found in a loose pile of decaying vegetation and on the skull of a cow. The specimens taken are not quite as large as S. luteola, and are thinner.

VERONICELLIDÆ.

Veronicella sp. Valles; scarce, in shaded places.

CYCLOSTOMATIDÆ.

Adelopoma stolli Martens. Tampico. A single specimen found in the drift. Pilsbry says "This small species was described by Prof. Von Martens as Diplommatina stolli. This example is a little smaller than typical stolli, with weaker ribs and less swollen penult. whorl. The last whorl is gibbous above the columella, a character not noticed by Von Martens in his description of stolli. The number of riblets is about the same as in stolli, or perhaps somewhat greater. Until further examples are found the value of these differences from stolli is uncertain."

LYMNÆIDÆ.

Lymnæa cubensis Pfr. Valles. Taken from a pool by the roadside.

Planorbis cultratus Orb. Tampico. This small flat species was noticed in but one place; they were taken from the edge and underside of a piece of board and other driftwood lying on the land near the edge of a small pond. A few Seg. obstructa were taken with them.

Planorbis liebmanni Dkr. Tampico and Valles; only dead specimens found in river débris.

Planorbis sp. Tampico. A very small form found in the drift.

Segmentina obstructa Morelet. Tampico and Valles. A common species in ponds; dead ones were numerous in places in the drift. Physa mexicana Phil. Tampico and Valles. Young shells were numerous in some of the shallow pools, the larger ones being rather scarce.

Physa osculans Hald., var. rhyssa Pils. Roadside pool near Valles with Lym. cubensis, the only place these two species were found. Differs from P. mexicana in having a more attenuate spire, one more whorl, and the body whorl is less inflated.

Physa sp. This is thicker than the *P. mexicana* and has the chestnut-colored callus within the outer lip, which in the larger examples shows at previous stages of growth.

Ancylus excentricus Morelet. Found on plants in Tamesi and Valles rivers; scarce; a fragile species.

VALVATIDÆ.

Valvata humeralis Say. Valles river.

AMNICOLIDÆ.

Cochliopa riograndensis Pils. & Ferr. Valles river. More elevated than Valvata humeralis and differs from it in having several colored spiral lines, giving it a striking resemblance to a small Helix. The operculum and teeth, examined by Dr. Pilsbry, show it to be correctly referred to Cochliopa. The aperture is angular above, thus differing from that of Valvata.

Amnicola guatemalensis C. & F. Tampico, on pieces of wood in ponds.

Amnicola tryoni Pilsbry. Tampico, drift; a smaller species than guatemalensis.

Potamopyrgus coronatus Pfr. Tamesi river, Tampico. The spines on the shoulder are well developed for so small a species.

Potamopyrgus coronatus texanus Pils. Valles river, only two examples secured, they do not show the spines.

Paludestrina tampicoensis Pils. & Hinkl. Tampico.

MELANIIDÆ.

Pachycheilus vallesi Hinkley. Plentiful in the Valles river.

UNIONIDÆ.

Unio tampicoensis Lea. Valles river.

Unio popei Lea. Valles river. Pilsbry says of these shells "I think they are correctly referred to popei Lea, as a variety. It differs from typical Texan popei in the dark nacre and the more distinct green rays. It is related also to U. soledadensis Crosse &

Fischer, but differs in the wide posterior end and the distinct rays. U. soledadensis was omitted by Simpson, evidently inadvertently. It should go in the Synopsis next to U. popei."

Unio sp. Valles river. The most plentiful *Unio* found. Dall referred it to *soledadensis*. Pilsbry says "A new species, related to *popei*, yet with some features of *U. medellinus*."

CYRENIDÆ.

Cyrena carolinensis Bosc. Panuco river, Tampico; found but few. Cyrena germana Prime. Panuco river, Tampico. A single example, more compressed, and lighter colored, but possibly intergrades with carolinensis.

Pisidium singleyi Sterki. Valles river; Valles and drift of Panuco river, Tampico.

Eupera singleyi Pils. Valles river, Valles; and Tamesi river, Tampico.

MACTRIDÆ.

Mulinia lateralis Say. Panuco river.

PELSENEER'S TREATISE ON MOLLUSCA.

A TREATISE ON ZOOLOGY, edited by E. Ray Lankester, Part V, Mollusca, by Paul Pelseneer, London, 1906. This admirable book, of 355 pages, should be studied by every conchologist, although it is not quite elementary, and some fundamental knowledge of zoölogy is required to fully understand it. The text is well illustrated by 301 figures, partly diagrammatic, many of them from Prof. Lankester's article "Mollusca" in the ninth edition of the Encyclopedia Britannica, 1883. It is interesting to note the considerable changes of classification from Lankester's article to the present book. The editor of the Nautilus may permit to cite the main groups here, side by side:

LANKESTER, 1883.

Branch A. Glossophora.

Class 1. Gastropoda.

Br. a. Isopleura.

Br. b. Anisopleura.

Class 2. Scaphopoda.

Class 3. Cephalopoda.

Br. a. Pteropoda.

Br. b. Siphonopoda.

Branch B. Lipocephala.

Class 1. Lamellibranchia.

PELSENEER, 1906.

Grade A. Isopleura.

Class I. Amphineura.

Grade B. Prorhipidoglossomorpha.

Class I. Gastropoda.

Class II. Scaphopoda.

Class III. Lamellibranchia.

Grade C. Siphonopoda.

Class I. Cephalopoda.



Hinkley, A A. 1907. "Shells collected in northeastern Mexico (concluded)." *The Nautilus* 21, 76–80.

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