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A NEW LAND SNAIL OF THE FAMILY
PROSERPINIDAE FROM CHIAPAS, MEXICO
(GASTROPODA: PROSOBRANCHIA)

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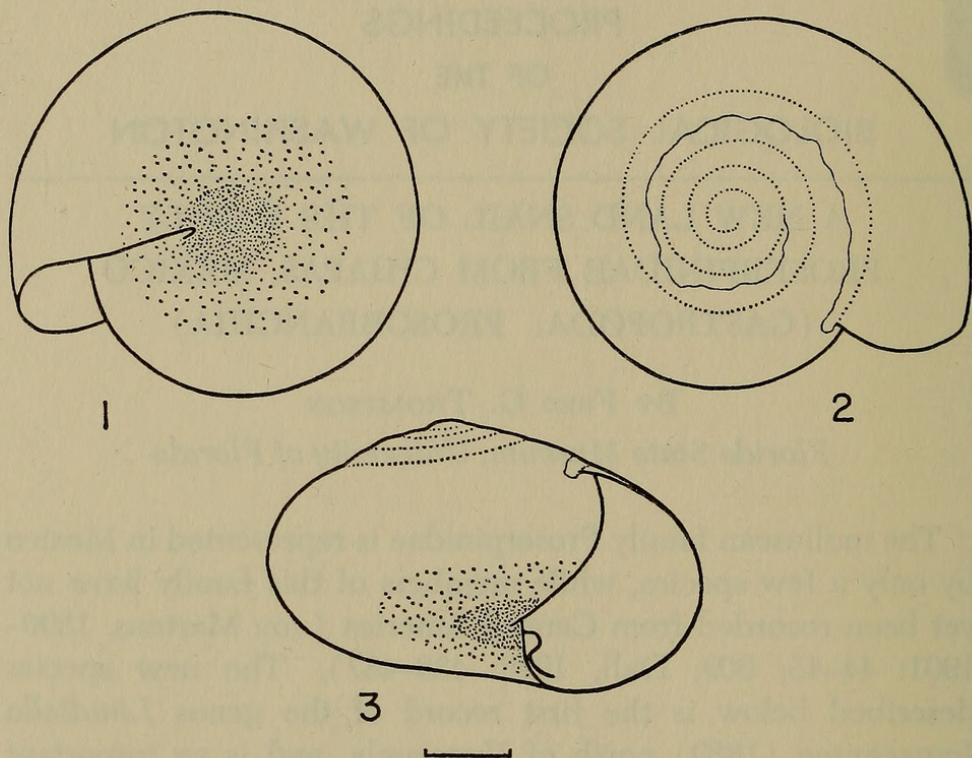
The molluscan family Proserpinidae is represented in Mexico by only a few species, while members of this family have not yet been recorded from Central America (von Martens, 1890-1901: 44-45; 609; Dall, 1926: 486-487). The new species described below is the first record of the genus *Linidiella* Jousseume (1889) north of Venezuela, and is an important addition to the fauna of Mexico because of the species' zoogeographic relationships.

***Linidiella sulfureus* new species**

Description: Shell (Figs. 1-3) small. Depressed helicoid. Spire slightly elevated, weakly convex in outline. Shell 0.63-0.68 times as high as wide. Surface smooth, glossy. Light sulfur yellow. Fresh shells weakly transparent with very fine, light sigmoid radial lines that appear to be in shell matrix. 4.7-5.1 whorls. Nuclear whorl 0.7 mm in diameter. Suture distinct, but weakly impressed, covered with thin enamel wash that extends onto preceding whorls. Periphery of last whorl rounded. Dorsal surface of whorls nearly flattened, only weakly arched between sutures. Ventral surface also nearly flattened. Umbilical area covered with finely granular callus that covers about one-fourth or one-third of the ventral surface. A slight, sparsely granulate deposit extends beyond umbilical callus. Aperture semilunar. Lip simple, but not sharp, weakly recurved at periphery and along base near columella. Lip slightly thickened along baso-columellar region. Columella nearly straight; with single low, but strong, spiral lamella located about midway on columella.

Measurements of holotype: shell height, 3.3 mm; major diameter, 5.2 mm; minor diameter, 4.3 mm; aperture height, 2.6 mm.

Two paratypes are slightly larger than the holotype, but show no noticeable variation in proportions. Measurements for the largest



FIGS. 1-3. *Linidiella sulfureus* new species. Holotype (UF 19025). Scale equals 1 mm.

paratype are: shell height, 4.1 mm; major diameter, 6.0 mm; minor diameter, 4.0 mm; aperture height, 2.8 mm.

Type-locality: Chiapas, 8.2 mi. S Solusuchiapa, 1600 ft altitude. Holotype: Florida State Museum, University of Florida Collections (UF) 19025; collected 2 June 1965 by Fred G. Thompson. Paratypes: UF 19026 (8); same data as the holotype.

Discussion: *Linidiella* includes three other species, two of which occur in Ecuador, *L. cousini* (Jousseume) and *L. cinnamomea* (Sykes), and one in Venezuela, *L. swifti* (Bland). *L. sulfureus* differs from these species most noticeably by its smaller size and by its more globose form. The South American species all are over 10 mm in major diameter, and all have a sub-discoidal shell (Bland, 1863: 16-17. Jousseume, 1887: 181-182. Jousseume, 1889: 256-257. Sykes, 1900: 136-137). Among the South American taxa *L. swifti* is most similar to *L. sulfureus*, which it resembles in its sulfur yellow color and its glossy surface texture, which is produced, in part, by a thin enamel wash. In *L. swifti* the wash forms a narrow, even band paralleling the suture. In *L. sulfureus* the wash forms an irregular zone above the suture of the last whorl, and extends completely over the earlier whorls. The presence or absence of an enamel wash has not been recorded for the other species of *Linidiella*.

The family Proserpinidae is represented in Mexico by three genera, *Ceres* Gray (1856), *Proserpinella* Bland (1865), and *Linidiella*. *Ceres* is characterized by having a carinate shell with strong spiral sculpture, and six spiral lamellae within the aperture—one on the columella, two on the parietal wall, and three on the lower outer lip. *Proserpinella* and *Linidiella* are alike in having depressed shells with a rounded periphery, a smooth shell covered with a thin wash of enamel, and only a single spiral lamella within the aperture. In *Proserpinella*, the lamella is situated on the parietal wall, while in *Linidiella*, the lamella is located on the middle of the columella. Although the differences between *Proserpinella* and *Linidiella* may appear relatively slight, the lamella are homologous with different structures in the more generalized West Indian genus *Proserpina* Sowerby (1839), which has lamellae on both the columella and the parietal wall. *Linidiella* and *Proserpinella* appear to have diverged through different evolutionary lines from the more generalized West Indian stock, although they may be only subgenerically distinct from *Proserpina*, which is presently confined to Jamaica and Cuba.

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