

TWO NEW LAND SHELLS OF THE EPIPHRAGMOPHORA TRASKII GROUP.

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My short paper on the Californian land shells of the *Epiphragmophora traskii* group¹ resulted in having a lot of land shells sent to me by west American collectors for classification.

Among these are two lots which represent races not heretofore described. They were collected by Mr. Herbert N. Lowe, of Long Beach, California, in mountains from which no material was available at the time the paper mentioned above was prepared. It is quite possible that careful collecting in the higher altitudes of other isolated peaks in Southern California and adjacent Mexican territory will bring additional forms to our attention.

Mr. Lowe has kindly donated both types to the United States National Museum, and I take great pleasure in bestowing the name *Epiphragmophora cuyamacensis lowei* on the new form from Palomar Mountain.

EPIPHRAGMOPHORA CUYAMACENSIS LOWEI, new subspecies.

Plate 83, figs. 1, 2, 3.

Shell very large, depressed, helicoid, broadly, openly umbilicated, horn colored, with a chestnut band at the periphery which is flanked on each side by a narrow zone, a little lighter than the general color of the shell. Nuclear whorls one and a half, moderately rounded, marked by retractively curved, incremental lines and scattered papillae. Postnuclear whorls marked by somewhat irregularly spaced and irregularly developed, retractively slanting, depressed lirations, which give to the surface a somewhat roughened aspect, and rather strongly developed, elongated papillae which are arranged in series that form curves, slanting in just the opposite direction from the incremental lines. These papillae are rather regularly developed and quite evenly distributed on the upper surface; on the lower surface they are shorter and inclined to be hemispherical.

¹ Proc. U. S. Nat. Mus., vol. 51, pp. 609-619, pls. 114-117, 1916.

Here, too, they are quite regularly distributed, but a little more densely spaced immediately behind the aperture than on the rest of the shell. Aperture large; outer lip very slightly reflected; inner lip expanded at the base and slightly reflected over the umbilicus; parietal wall covered by a thin callus.

The type (Cat. No. 216906, U.S.N.M.) has six whorls and measures—altitude, 15.9 mm.; greater diameter, 26.7 mm.; lesser diameter, 21.2 mm. It comes from Palomar Mountain, which Mr. Lowe informs me is sometimes called Smith Mountain. He states further that this is a detached mountain midway between the San Jacintos on the north and the Cuyamacas on the south. He says that it is about 5,700 feet at the highest peak, and that the shell was obtained at an altitude of 5,000 feet.

EPIPHRAGMOPHORA TRASKII ISIDROENSIS, new subspecies.

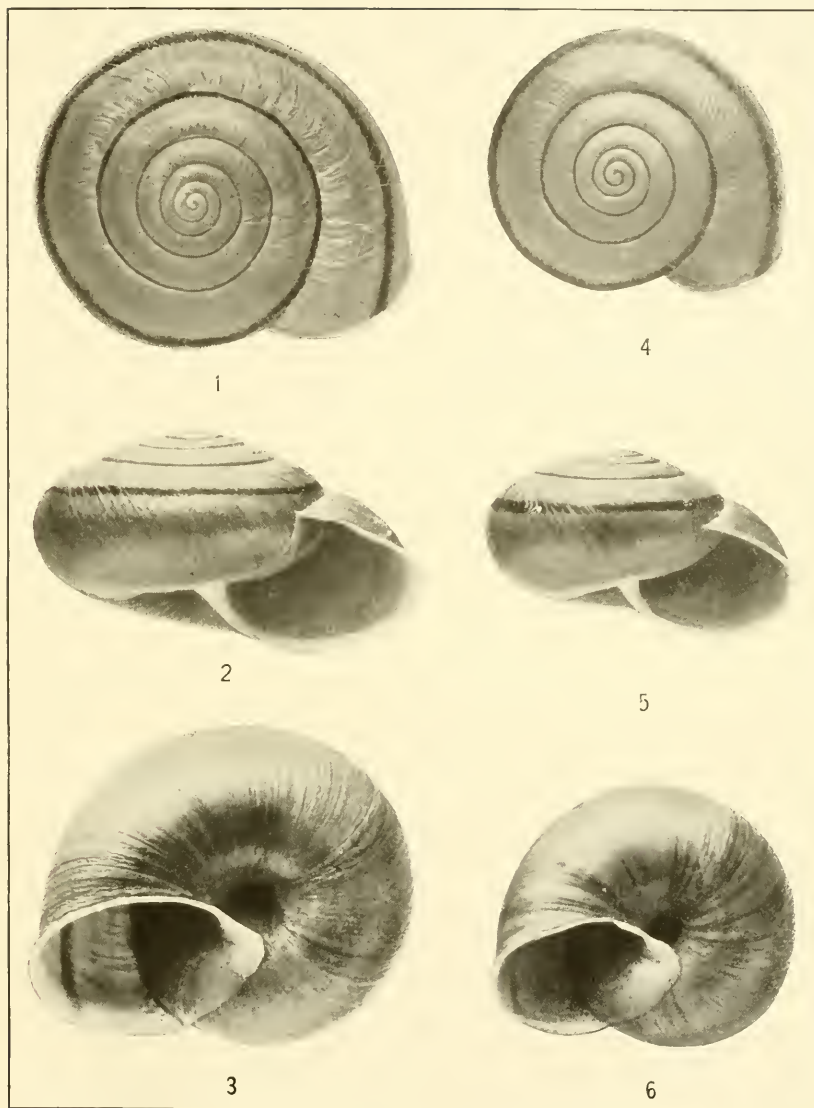
Plate 83, figs. 4, 5, 6.

Shell depressed, helicoid, horn-colored, with a broad chestnut band at the periphery, that is edged on either side by a somewhat lighter zone than the general tint of the shell, which is almost as wide as the brown band. Nuclear whorls one and three-quarters, moderately rounded, densely covered with small papillae, which gives the entire surface a granulose appearance. The succeeding whorls are marked by decidedly, obliquely curved, retractive lines of growth and rows of well rounded, small papillae which form lines practically at right angles to the lines of growth. In addition to this sculpture the last two whorls are marked by rather distantly spaced, somewhat interrupted, feebly incised spiral lines. Base well rounded, with a moderately broad umbilicus, which is almost half covered by the reflected inner lip, marked by strong incremental lines and the weakly incised spiral striations which equal those on the upper surface. The general papillation is absent on the lower surface excepting immediately behind the aperture where there is a dense massing of very fine granules, which is also the case on the upper surface. Aperture large, subcircular; outer lip very slightly reflected; inner lip broadly expanded at the base and reflected to half cover the umbilicus.

The type and another specimen were collected by Mr. H. N. Lowe on Campo San Isidro Mountain on the Mexican border. The type (Cat. No. 216907, U.S.N.M.) has 5.5 whorls and measures—altitude, 13.5 mm.; greater diameter, 21.3 mm.; lesser diameter, 17.6 mm. The other specimen, which is in Mr. Lowe's collection, is not quite mature.

EXPLANATION OF PLATE 83.

Figs. 1, 2, and 3. *Epiphragmophora cuyamacensis lowei*.
4, 5, and 6. *Epiphragmophora traskii isidroensis*.



NEW LAND SHELLS FROM CALIFORNIA

FOR EXPLANATION OF PLATE SEE PAGE 524

