The Ohio City specimens were abundant at 11,000 feet, just above timber line, near a snow bank. That it was not a case of dwarfing of specimens of *cooperi* on account of lack of moisture or low temperature is indicated by the fact that O. s. depressa at that and higher altitudes seems at its best.

OREOHELIX HAYDENI (Gabb).

The only place in Colorado from which this species has been received is Glenwood Springs, where it was found alive in such abundance by Bethel and Dakan, and some fossil specimens collected near there. I see no reason for Binney's conclusion that it is only a variety of strigosa.

OREOHELIX HAYDENI GABBIANA (Hemphill).

In the Glenwood Springs colony hereinbefore described there is some tendency to intergrade with haydeni, and the sculpture of the embryonic whorls further indicates a close relationship. Dakan found another astonishing colony near Newcastle, from which he brought over 1,000 very fine adult specimens collected alive in a few moments. I found them more sparingly at another point near there, on Lower Mancos shales. Nine miles east of Meeker I found a colony on Lower Mancos shales, where they were mingled with cooperi in about equal proportions. It was raining, and the snails were crawling about under the bushes by the hundreds.

OREOHELIX HENDERSONI Pilsbry.

Known only from the type locality, where dead shells were collected three years ago by Mr. A. Dakan, on Little Thompson Creek, ten miles northwest of Longmont, on a talus slope of Niobrara limestone. Dr. Pilsbry considered it new, so I asked Mr. Dakan to search for live ones. Last July, during better snail weather, he returned to the place and had no difficulty in getting 160 live ones and many more dead ones. He says "it appears to be a small, healthy colony."

NOTES ON SHELLS FROM QUIRIGUA, GUATEMALA.

BY HENRY A. PILSBRY.

In the course of a recent visit to Guatemala, chiefly for studying insects, Mrs. T. D. A. Cockerell collected the following snails, all from Quirigua.

Aperostoma dysoni (Pfr.)

Ampullaria sp. (young).

Helicina amœna Pfr.

Thysanophora plagioptycha (Shuttl.)

Thysanophora cockerellæ n. sp.

Opeas micra (Orb.)

Euglandina cumingi (Beck.)

Cæcilioides consobrina veracruzensis (C. and F.)

Succinea sp. (immature).

Aplexa princeps Phillips.

THYSANOPHORA COCKERELLÆ n. sp. Pl. I, figs. 5, 6.

Related to T. conspurcatella, hornii etc. The spire is conic, composed of nearly $4\frac{1}{2}$ very strongly convex whorls united by a very deep suture, the last whorl regularly rounded, rather coarsely striate. Umbilicus contained $3\frac{1}{4}$ times in the diameter. Aperture subcircular, about one-fifth of the circumference occupied by the preceding whorl.

Alt. 2.4, diam. 3.4 mm.

Quirigua, Guatemala, W. P. Cockerell, 1912.

The spire is decidedly higher than in *T. conspurcatella* Morel. It is nearer *T. proxima* Pils., from the state of Michoacan which agrees in size of umbilicus, but the spire is higher in *T. cockerellæ*. *T. fischeri* Pils. is a more delicate shell with narrow umbilicus. Seven specimens were collected, the largest being measured above and figured. Most of the lot are decidely smaller with 4 whorls. The surface is not in good condition, but will probably prove to have cuticular processes like those of the related species mentioned.

It is named for Mrs. Cockerell.

NOTES.

BERMUDA SHELLS.—Mr. Arthur Haycock presented to the Academy of Natural Sciences of Philadelphia a set of shells from Whitby Cave, Bermuda, including Strobilops hubbardi Br., Zonitoides bristoli Gul., Thysanophora hypolepta Shutt., Bifidaria rupicola Say, and Striatura milium meridionalis Pils. The Striatura is new to the Bermuda fauna.—E. G. VANATTA.

ERRATA.—February number, page 110, end of sixteenth line from bottom, for "the rows" read two rows.



Pilsbry, Henry Augustus. 1912. "Notes on shells from Quirigua, Guatemala." *The Nautilus* 26, 11–12.

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