Punctum conspectum, Bland, found in large numbers around the roots of the Eucalyptus trees on the east side.

Zonitoides minuscula, Binney, found at the roots of the Eucalyptus trees.

Mr. E. W. Gifford reported finding Epiphragmophora fidelis, Gray, at San Mateo Point, but I regard this as erroneous as the farthest south it is known is the form infumata, Gould, found as far south as Santa Rosa. As there is no land connection between there and San Mateo Point, the only explanation would be that they were washed into the bay on a log or a tree and drifted to the point; but this is highly improbable, as they would have to stand immersion in the salt water for many days, and I am positive that it does not occur there now, so it is quite probable that he mistook one of the light forms of Epiphragmophora arrosa, Gld., for fidelis, Gray.

NOTES ON OREOHELIX.

BY L. E. DANIELS.

During the fall of 1909 in company with J. H. Ferriss, I collected snails in the Kaibab Mountains and the Grand Canyon of the Colorado. Oreohelix strigosa depressa Ckll. was the most abundant species north of the canyon, O. yavapai Pils., on the south side.

A few notes may be of interest to the readers of The Nautilus. Oreohelix is viviparous, and when cleaning the shells if I observed one that was gravid I made note of the number and color of the embryos.

The first Oreohelix s. depressa collected was on August 28th on Powell Plateau, and when cleaned nearly one-third were found to be gravid, with from four to eight young in each shell, the young consisting of from one and one-half to two and one-half whorls; all of the adult shells were brown with dark bands, and the young were all brown. Very few of the embryonic shells show bands and then only a faint trace.

The last station, Spectacle Cove in the Grand Canyon, was collected on October 23d, the number taken was 456 O. yavapai. Only ten were gravid, or one in forty-five. Six of these contained two, three contained three and one four embryos. This lot was

¹ NAUTILUS, XIV, page 144, 1901.

hibernating and was not cleaned until January 15th after returning home. Of this lot of ten shells, six were brown with darker stripes, and four were white or albino. Five of the brown shells contained brown embryos of from two to three in each, the other brown shell contained three brown and one white; two of the white contained two brown each; one white contained two brown and one white, and the remaining white one contained two white. Whether the small number in each shell of this lot tends to show that a portion of the embryos may have been extruded and the remainder would have been carried until the returning spring, I cannot say, or it may be that this particular colony would not produce as many young, as the adult shells are not more than two-thirds the size of those from most of the other stations.

At a station in Quaking Asp Canyon, Kaibab Mountains, four of the shells of *Oreohelix strigosa depressa* were gravid, three brown with dark bands and one white. One brown shell contained five brown; one brown contained nine brown; the other brown shell contained three brown and two white, and the white shell contained five brown and two white embryos. These shells were hibernating, and they were collected on October 14th and opened January 15th, 1910.

At twelve stations taken at random the number of young ranged between five and twelve from each shell. One shell from another station contained twenty embryos. All of the shells taken at these thirteen stations were brown with dark bands and the embryos were all brown.

In this connection I might say that in the fall of 1907 I collected in the Huachuca Mountains. The species of Oreohelix there being strigosa concentrata (Dall) and strigosa huachucana (Pils.). I did not see a single albino and none among the embryos.

Query: In the light of the above notes what is to be done with varieties alba and rubra among the species of snails.

A GIANT ADMETE FROM BERING SEA.

BY WILLIAM H. DALL.

Among the collections made by me more than thirty-seven years ago in Bering Strait and at Plover Bay on the Siberian side of the



Daniels, L E. 1911. "Notes on Oreohelix." The Nautilus 25, 18–19.

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