

NAUTILUS.

FORMS OF LUCIDELLA.

A. PILSBRY.

strongly marked specific stocks of the variety *undulata*; *L. depressa* (*ina*), with the aperture like *aureola*, sed, and weakly sculptured; and *L. ma* Pfr., is doubtless a variety or l, with a strong, squarish tooth on ral liræ.

f the *lineata* type was collected by Johnson in a cave at Port Antonio, ca.

form, size and color, and the acute wing sparse, rather long and equid off. Whorls $4\frac{1}{2}$, the last complete, descending in front, excavation covered by a thin callus which is rulate or roughened by minute oblique, subtriangular, the outer flexed; basal lip bearing a large *lineata*; upper margin with a d from the lip-edge; *outer lip* developed only in fully mature

diam. 3.5 mm.

base flattened, smooth except two spiral threads close to the nodal, radially undulated and ated and irregular or serrate; a little deflexed, somewhat Aperture oblique, triangular, ing a prominently projecting, small submarginal tubercle,

THE NAUTILUS.

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and there is another smaller one on the outer lip below the external angle.

Alt. 2, diam. 2.7 mm.

Differs from *lineata* and *Foxi* in the trochiform shape, almost complete freedom from spiral threads on the base, and in the acute periphery. It has a small tubercle on the outer lip, as in *L. Foxi*, a larger species with sculptured base, rounded periphery, scalloped upper lip and different contour.

The specimens were found associated with *L. lineata*.

NOTES ON THE MOLLUSCA OF OWASCO LAKE, N. Y.

BY FRANK C. BAKER.

Recently the Chicago Academy of Sciences has received from Dr. Howard N. Lyon, of Chicago, a fine lot of the shells of Cayuga Co., N. Y., collected for the most part by himself about Owasco Lake and River. Dr. Lyon was very precise concerning his data, and for this reason a list of the species in the collection may be of value.

For brevity I have used the following symbols for localities:

* Near Auburn, in Owasco River.

** Hayden's Mills, six miles below Auburn.

† Foot of Owasco Lake.

‡ Cascade.

†† Marsh at foot of Owasco Lake.

‡‡ North end of Owasco Lake.

1. *Alasmodonta rugosa* Barnes,*† July, 1893.

2. *Alasmodonta pressa* Lea,*† in brook four miles north of Auburn, July 1893 and 1882.

3. *Strophitus edentulus* Say.†

4. *Unio complanatus* Solander,* in South Street Brook, July, 1879.

5. *Anodontopsis subcylindraceus* Lea,* in South Street Brook, various collections from 1880 to 1885.

6. *Lampsilis luteolus* Lam,* July, 1883.

7. *Sphaerium simile* Say,* in South Street Brook, 1882.

8. *Vallonia pulchella* Müller, April, 1882.

9. *Polygyra albolabris* Say.†

10. *Polygyra thyroides* Say, var. *bucculenta* Gould.†

11. *Polygyra palliata* Say. †
 12. *Polygyra tridentata* Say. †
 - 12a. *Polygyra tridentata* var. *juxtidentis* Pilsbry. †
 - 12b. *Polygyra tridentata* var. *bidentata* Baker. †
 13. *Polygyra monodon* Rackett. †
- Nos. 9 to 13 were collected on a well wooded limestone hill, well watered.
14. *Bifidaria armifera* Say.*
 15. *Pupa muscorum* Linné, Auburn. Common in damp grass throughout the city, often found in private grounds.
 16. *Vertigo milium* Gould,** 1880.
 17. *Cochlicopa lubrica* Müller,** 1880 and 1876, on driftwood in Owasco River at Auburn.
 18. *Omphalina fuliginosa* Griff. † 1883.
 18. *Vitrea hammonis* Ström,** April, 1882.
 20. *Conulus fulvus* Müll,** on roots of grass near edge of river, April, 1882.
 21. *Zonitoides arboreus* Say. †
 22. *Zonitoides nitidus* Müller,** April, 1882.
 23. *Gastrodonta ligera* Say,** April, 1882.
 24. *Agriolimax campestris* Binney.
 25. *Pyramidula alternata* Say,* very abundant in low meadows, under bark of trees and the under side of logs where the ground is partially shaded.
 26. *Helicodiscus lineatus* Say. †
 27. *Succinea retusa* Lea, †† on logs and trunks of trees near high water mark, July, 1880.
 28. *Succinea avara* Say, †† July, 1880, in company with the above.
 29. *Limnæa palustris* Müller, †† 1884.
 30. *Limnæa emarginata* Say, †† ** also in Owasco River, at foot of lake, 1880, and April, 1882.
 31. *Limnæa desidiosa* Say, †† on weeds, 1880.
 33. *Planorbis bicarinatus* Say, †, 1881, Port Byron, 1883.
 34. *Planorbis trivolvis* Say, † old and new outlets, 1880, Port Byron.
 35. *Planorbis campanulatus* Say,* 1882, also in brook emptying into lake at Cascade.
 36. *Planorbis parvus* Say,* on big dam.
 37. *Physa heterostropha* Say,* Port Byron, 1879 to 1882.

38. *Physa ancillaria* Say, †† 1
39. *Aplexa hypnorum* Linne, †
40. *Valvata tricarinata* Say,* of the "Big Run," spring of 18
41. *Campeloma decisum* Say, August, 1882, also in Owasco R

AGASSIZ ASSOCI

[Conducted in the interest of the Agassiz Association, by its General

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- 38. *Physa ancillaria* Say, †† 1879 to 1885.
- 39. *Aplexa hypnorum* Linne, †† 1883.
- 40 *Valvata tricarinata* Say, * found in driftwood at the tail race of the "Big Run," spring of 1881.
- 41. *Campeloma decisum* Say, † Owasco River near Owasco Lake, August, 1882, also in Owasco River three miles below lake.

AGASSIZ ASSOCIATION DEPARTMENT.

[Conducted in the interest of the Isaac Lea Conchological Chapter of the Agassiz Association, by its General Secretary, Dr. W. S. Strodé.]

During the last year I have done all the work possible towards collecting the *Pisidia* of the northeast of Maine. About 50,000 specimens have been obtained and worked over by Dr. V. Sterki of New Philadelphia, Ohio. The material has been finely preserved in nearly every locality. The cold water of our streams is favorable for the development of this minute clam. In all about twenty species and some varieties have been obtained. Many of these species have proved new to the State, and a few have been published by Dr. Sterki as new species. A part are very difficult to identify until a larger amount of material is obtained. It sometimes results that among thousands of specimens there will be only one individual representing a certain species. *Pisidium contortum* Prime, has been found living in a small lake in the northeast of Perham. It had heretofore only been found fossil, in Maine and Massachusetts.

The little *Pisidium milium* Held, so common in the north of Europe (a straggler like myself), has been found living in the south branch of Caribou stream in Woodland. It is curious how this little creature came across the ocean.

Two years ago I found *Planorbis crista* Lin., var. *cristata* Drap., a species of Northern Europe, in Barren Brook, Caribou. This summer I have found it fossil in the marl deposit of Lovely Brook in the town of Fort Fairfield. I think this is proof that it was not imported by any accident or in the outfit of any emigrant coming to this continent. In my last report I had about 81 species collected in this region. This year I have of land shells 33 species, fresh water gastropoda 23 species, and of *Unio* 1, *Margaritana* 2, and *Anodonta* 1 species; *Sphaerium* 5, and *Pisidium* 20 species and several varieties.

Total 85 species. The *Pisidia* will be published by Dr. Sterki, and the results will thus be made known to those interested in these little animals.

OLOF O. NYLANDER.

GENERAL NOTES.

We regret to record the death on August 16th of Dr. W. D. Hartman, of West Chester, Pa. Further notice will appear next month.

POMATIA ASPERSA IN CALIFORNIA.—I found a fine living specimen of *Pomatia aspersa*, Müll., this summer at Pacific Grove, California. A small colony of this European snail was established many years ago at San José, more than fifty miles from the spot where this specimen was found. The species is apparently becoming naturalized.—*Josiah Keep.*

POLYGYRA BINNEYANA.—Owing to hasty proof reading, several errors appear in the article on "New Southwestern Forms of Polygyra" in the July issue. On page 38, sixth line from top, the word *umbilicus* should be inserted between *divesta* and *narrow*. On p. 39, second line, for "county" read "country."—*H. A. P.*

THE BRITISH PLIOCENE NON-MARINE MOLLUSCA are revised by Messrs. A. S. Kennard and B. B. Woodward, in Proc. Malac. Soc., Lond. III., pt. 4, March, 1899. "It is in the Red and Norwich Craggs that the genesis of our present molluscan fauna is to be sought. It is a noteworthy fact that many of our existing species are met with for the first time in these beds, and are not known to have existed on the continent until a much later date. This may result from the imperfection of the geological record, or it may indicate that these forms have been derived from a region to the northward." Of 38 species discussed, 6 are extinct. 6 species, *Corbicula fluminalis*, *Helix lactea*, *Hygromia rubiginosa*, *H. incarnata*, *Helicodonta lens*, and *Eulota fruticum* are now extinct in England, though living on the continent; *C. fluminalis* and *Eulota fruticum* having existed to the Post-Pliocene. It is interesting to find that *Eulota* extended in the Pliocene so far to the westward. *Helix lactea* and *Helicodonta lens*, each represented by very scanty but apparently authentic material, are now restricted to the circum-Mediterranean fauna. One new species, *Paludestrina Reevei*, is described from the Norwich Crag. It is allied to the Upper Oligocene and Lower Miocene *P. obtusa* (Sandb.) of Germany.