

*Lottia Antillarum* Sowb., REEVE, Conchol. System., pl. cxxxvii, f. 4 (printed from same plate as Sowerby's *Genera*) 1842.

*Patella tenera* C. B. ADAMS, Proc. Bost. Soc. N. H. ii, p. 8 (1845).

*Patella tenera* Ad., REEVE, Conch. Icon. fig. 104.

*Patella Candeara* ORB., Moll. Cuba, ii, p. 199, atlas pl. 25, figs. 1-3.

*Acmæa Candeara* Orb., DALL, Catal. Mar. Moll. S. E. U. S., p. 159.

*Acmæa Candeara* Orb., PILSBRY, Manual of Conchology, xiii, p. 38, pl. 5, figs. 91-95, and pl. 42, figs. 92-95.

? *Patella (Acmæa?) elegans* PHILIPPI, Abbild. u. Beschreib. iii, p. 34, *Patella* p. 6, pl. 2, fig. 2 (1846).

? Not *P. antillarum* Sowb., PHILIPPI, Abbild. iii, *Patella* pl. 2, fig. 12.

*Acmæa Antillarum* is found throughout the West Indies, from the Bahamas and Southwest Florida to Tobago.

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NOTES ON UNIONIDE.

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BY CHAS. T. SIMPSON.

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The November number of the NAUTILUS seems to be devoted mostly to Unios, and to me is an exceedingly interesting issue.

Lea's classification of the *Unionida* was almost wholly an artificial one, and I believe he instituted it for convenience in working, just as Linnæus founded the artificial system of classification in botany. Both these great pioneers in science recognized the natural systems, and probably used these as makeshifts. All through the latter part of his writings, Dr. Lea acknowledged the fact that the *Unionida* were divisible into natural groups. To some capable student of the future is reserved the task of determining these groups and assigning the species to them. The accomplishment of this will be well worth a working lifetime of careful and honest study.

Mr. Geo. W. Dean claims to be able at sight, to refer to its proper species any specimen of either *Unio luteolus* or *radiatus*. I confess that this is more than I can do, and I have handled many thousands of specimens of both, collected from the entire territory inhabited by these familiar forms. The distinguishing features

given by Mr. Dean are excellent. There is generally that intangible something which is apparent to the experienced eye by which they may be separated, a difference more particularly in the texture of the epidermis than anything else; but even this difference is not always visible to my eyes, and I have handled many specimens that were so puzzling and close that I have been obliged to ask, "Where did they come from?" before I even dared to guess what they were.

Generally *luteolus* is solid, more inflated, wider posteriorly and narrower anteriorly, as well as smoother than *radiatus*, but not always. A specimen of *radiatus* in Dr. Lea's collection from Lake Champlain, collected by Dr. Ingalls (Museum No. 85035), is very solid, and as much inflated as *U. hydianus*, is narrow before, and broad behind, and can only be distinguished from *luteolus* by the color and texture of the epidermis.

It was one of the great objects of Dr. Lea in making his collection, to get material from all the different parts of the territory through which the species were distributed, to get all the variations possible, and carefully preserve the name of the collector, and the record of the place in which they were obtained. Had he never done anything more than get together in this way this unequalled collection—requiring, as it did, the educating and training of a corps of able assistants in various parts of the world—he would have deserved the gratitude of students of conchology for all time to come.

In this collection are varieties of *radiatus* of every possible form, from a great number of localities; they vary from flattened and almost lenticular, to oval, quadrate, elongated, obovate and inflated. One of these shells from Newton Creek, N. J. (85058) which is labelled *Unio radiatus*, has a smooth yellowish epidermis, save when eroded, and I should unhesitatingly pronounce it *M. luteolus* if it had come from Ohio or Indiana.

Are *luteolus* and *radiatus* ever found together? From the following table it will be seen that although *U. luteolus* is a Mississippi drainage species, and *radiatus* belongs to the waters that flow into the Atlantic, the habitats of these species considerably overlap. This last includes only a few of the localities of specimens in the Lea collection.

<i>Unio radiatus.</i>	<i>Unio luteolus.</i>
Saratoga Lake, N. Y.	Niagara Falls, N. Y.
Troy, N. Y.	Mohawk R., Erie, N. Y.
Little Lakes, Lycoming Co., N. Y.	Genesee R., N. Y.

Genessee R., N. Y.	Cohoes Falls, Hudson R.
Ottawa, Can., Rideau Canal.	Seneca Lake, N. Y.
Montreal, Can.	Oneida Lake, N. Y.
St. Lawrence R., Thousand Isles.	Moose R., Hudson Bay.
Camden, S. C.	Lake Winnipeg.
Oguchee R., Ga.	Athabaska Lake.
Savannah R.	Great Slave Lake.
Charles Co., Indiana!	Small Lakes, Mackenzie R.
	Red River of the North.
	New Mexico.

I have collected *Unio luteolus* in Eastern Colorado, and it is in the General Collection of the National Museum from Mississippi and Texas. It probably ranges from the Arctic circle to the Gulf of Mexico, and from the Rocky Mountains east to the Atlantic, except in the southeastern states lying east of the Appalachian Chain. A small form occurs in Canada and the more northern states, which is quite solid, and has a dark, rather rough, brown epidermis, often without rays, sometimes almost black, and in form and texture is strikingly like some specimens of *U. Downiei* from Southern Ga., but has not a lurid nacre as the latter has. This was named *Unio borealis* by A. F. Gray, and differs sufficiently from the type to be considered a distinct species, but it connects insensibly through forms found in Wisconsin and Michigan with the western shells. One of these in the collection of Dr. Lea (85045) from Montreal, was referred by him to *radiatus*. Other forms of this protean species are so close to *ligamentinus* that it is almost impossible to separate them and this is true of certain specimens of *radiatus*.

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ON THE USE OF THE GENERIC NAME SCUTELLINA.

BY H. A. PILSBRY.

The name *Scutellina* was proposed by Gray in 1847, to replace *Scutella* of Broderip, preoccupied by Lamarck for a genus of Echinoderms. It has apparently escaped the attention of malacologists who have written upon this small but excessively interesting group, that Agassiz, in 1841, used the name *Scutellina* for a genus of Echinoderms allied to *Scutella* Lam. This generic term is still in use, appearing in the latest publications relating to that group. It