SOME NEW RECORDS OF NAIADES FROM EASTERN NORTH AMERICA. -- BY HERBERT D. ATHEARN. (Reprinted from American Malacological Union News Bulletin and Annual Report, 1952, pp. 8-9).

Much work is still to be done in the collecting and study of the distribution of naiades in our extensive river drainages. I wish to include here, a few of the most interesting discoveries that I have come across during recent years.

The Petitcodiac River system of Westmoreland County, New Brunswick, has yielded two outstanding species, uncommon throughout the extent of their range. Alasmidonta marginata varicosa Lamarck is fairly common just above Salisbury. Length of specimens run up to 79 mm. The North River, a branch of the Petitcodiac, contains the species Alasmidonta heterodon Lea. This should be an important record to add to the few existing records of the species. Additional records for this species which I believe to be new were found in the Scantic River in Hartford County, Connecticut and Hampden County, Massachusetts.

Very few stations for Margaritana margaritifera Linne have been reported from Massachusetts and Connecticut. To this short list I can add Salmon Brook, Hartford County, Connecticut and Scantic River, Hampden County, Massachusetts.

In pursuit of the species Anodonta implicata Say, I have found that it is very common near the mouth of the Aroostook River, Victoria County, New Brunswick. This station is fully 150 miles from the sea. Other stations taken in the St. John River system, New Brunswick are St. John River, York County; Canaan River, Queens County; and Kennebecasis River, Kings County. Northern records which may be new are McIntyre Lake and Grand Mira River, Cape Breton Island, Nova Scotia.

A survey of the St. Lawrence River drainage for east coast species and eastern records of Great Lakes species has brought about several interesting results. Very definite records of Lampsilis cariosa Say have been taken from the Grass River, St. Lawrence County, New York; Madawaska River, Renfrew County, Ontario (a tributary of the Ottawa River); St. Francis River, Yamaska County, Quebec and the Nicolet River, Nicolet and Yamaska Counties, Quebec.

Some extreme eastern records for Great Lakes fauna were taken from the Nicolet and St. Francis Rivers, Yamaska County, Quebec. From the South (page 9) Branch of the Nicolet River were taken Lasmigona costata Rafinesque, Ligumia recta latissima Rafinesque and Alasmidonta marginata Say; while from the St. Francis a very brief survey under difficult collecting conditions brought in Lasmigona compressa Lea and Obovaria olivaria Rafinesque.

Some recent work done in Adams County, Pennsylvania has established some new records not recorded by Dr. Ortmann in his work of 1919. From Marsh Creek were taken Elliptio productus Conrad, Elliptio fisherianus Lea and Lasmigona subviridis Conrad. In the same county, large specimens of Elliptio fisherianus Lea and Lampsilis ovata Say were taken in Rock Creek.

Following Mr. Athearn's paper, observation was made from the floor that Margaritana margaritifera Linne is known to have a long life, sometimes as long as 80 or 90 years. Also, that where extensive mussel surveys have been made, the water in which this species occurs is predominately soft, quite the contrary to that of the Connecticut River, listed as a record by this paper. A single Michigan locality is known for Alasmidonta marginata varicosa Lamarck, that of the Ocqueoc River in the lower peninsula.

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A VARIATION OF ELLIPTIO COMPLANATUS SOLANDER. -- BY HERBERT D. ATHEARN.
(Reprinted from American Malacological Union News Bulletin and Annual Report, 1954, pp. 13-14).

During the last century, Isaac Lea gave specific recognition to a large number of variations of Elliptio complanatus. Among these were Elliptio roanokensis and Elliptio northamptonensis. These titles are synonymous. This variant differs from the typical complanatus in that it is larger, more elongated, subrhomboid rather than rhomboid, more compressed and usually exhibits a shallow radial depression in front of the posterior ridge.

The form is sometimes found in the generally shallow sections of streams where the water is flowing fairly rapidly over a packed sand and gravel bottom. Records range from the Michipicoten River near Lake Superior in Ontario to Lime Kiln Creek in Coweta County, Georgia, where the waters flow into the Gulf of Mexico by way of the Apalachicola River system.

A. E. Ortmann, in his A MONOGRAPH OF THE NAIADES OF PENNSYLVANIA, using the title violaceus in place of the now recognized title of complanatus states, "The ability of Elliptio violaceus to live everywhere under a great variety of environmental conditions undoubtedly accounts for its great variability, as well as its tendency to develop many different phases, which may turn up anywhere under proper conditions, but which do not lead to the development of geographical races, at least in our territory." In large streams where habitats such as long sandbars form an abrupt line of demarcation between them and an adjacent, perhaps somewhat deeper mud or clay bottom, the variants within the species are usually quite distinct. In smaller streams where there is an equal contrast in habitat, although on a smaller scale, the variants within the species will merge with one another. Where a stream is found containing a consistent environment, one will find Elliptio complanatus to be quite unvarying in shape, excepting of course, where mechanical obstructions have distorted the shell. (page 14)

When such individual environments become permanently separated by topographic or climatologic changes, the species seems particularly adaptable to transform itself into various constant forms which must be identified as subspecies and in more advanced cases, as species. This is the case with our Floridian Elliptios.

Such permanent changes of environmental conditions have not taken place where the variant roanokensis or northamptonensis exists in the St. Lawrence River and the Atlantic Coastal Plain systems. In this instance therefore, there appears to be no scientific purpose in giving this variant specific or sub-specific rank.