

## THE NAUTILUS.

Vol. v.

OCTOBER, 1891.

No. 6.

## MOLLUSKS OF SPOON RIVER, ILL.

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Spoon river is a tributary of the Illinois. For a hundred miles from its junction with that stream its average width is about one hundred and fifty feet. It is a clear, swift-running stream, pursuing a sinuous course through a valley a half mile wide. Its banks are fringed by willows that here and there sweep the current in rhythmical response to every passing breeze. Overshadowing this border are silver-leaved maples, elms, and intertwining undergrowth, and beyond, towering above all like gigantic sentinels, stand the monarchs of the forest—giant sycamores.

No systematic study of the mollusks of this river has ever been made. Prof. Jno. Wolf, an aged naturalist of Canton, Ill., has made some researches, and probably knows more of the mollusks of the Illinois and Spoon Rivers than does any other living man, but he has written little of his discoveries.

Some of the Unios found, attain a size and perfection of form rarely equalled by shells of the same species found elsewhere. This perfection is due to the fact that each species finds in the variety of deep and shallow water, swift and sluggish currents, deposits of black mud, blue clay, sand, rock, and gravel, or a mixture of all these, the environment most suitable for perfect development.

Specimens of *U. multiplicatus* have been found over eight inches in length, and weighing three pounds. *Margaritana complanata* also

grows very large, one specimen found two years ago being nine inches long.

A half a mile below the milldam at Bernadotte there is a noted mussel bed where for many years the fishermen have resorted for bait for their trout lines; here in a few minutes an ample supply of big fat mussels was to be had, and a catch of the toothsome channel cat assured. If an eel was desired the red meat of a *trigonus* was thought to be almost a sure means of luring the slippery *Anguillula*. Here within a space of two feet square I have taken at one time such species as *Unio plicatus*, *ventricosus gibbosus*, *asperrimus*, *pustulosus*, *tuberculatus*, *anodontoides*, and *Marg. rugosa*. A little higher up in deeper water and muddier banks *U. multiplicatus*, and *Marg. complanata* were plentiful. A little lower down, where there was much sand, the *U. occidentalis* and *anodontoides* could be found by tracing the path made by them in moving about. A half mile further down stream are great ledges of rocks that in places project far out over the water. This is a favorite resort for pic-nics, fishing parties, and experts at throwing the gig or fish-spear can sometimes obtain fine buffalo or catfish that are disporting under the shadows of these immense rocks.

At this picturesque point are to be found in considerable numbers, *U. trigonus*, *gracilis*, *pustulosus*, *tuberculatus*, and *levissimus*. The latter, up to date, I have not succeeded in finding in any other location on the river.

Above the dam, where the water for a distance of five miles is from eight to fourteen feet deep, the *Ano. grandis* and the little *U. parvus* are the main shells. Here also are to be found many *Sphaerium solidulum*, and *Paludina integra*. The *Physa heterostropha* and *Somatogyrus subglobosus* I find below in more shallow water.

On a large moss-covered rock I found at one time last fall large numbers of *Pleurocera Lewisii*, and in a few minutes gathered an oyster-can full. Visiting the locality again a few days later not one could I find, nor could I again locate them during the season.

The pearl craze struck this village last fall and wagon loads of the larger species were carried ashore and eagerly opened with the expectation of finding pearls that would at once enrich the possessor. The mussel bed before mentioned was almost annihilated. The final summing up showed about one hundred pearls of various sizes and colors. These were sent to Geo. F. Kunz, gem expert with Tiffany & Co., N. Y., who reported them of little or no value.

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I append a list of the mollusks that I have found to date.

<i>Unio multiplicatus</i> Lea.	<i>Unio ventricosus</i> Barnes.
<i>plicatus</i> LeS.	<i>lutesus</i> Lam.
<i>anodontoides</i> Lea.	<i>ligamentinus</i> Lam.
<i>rectus</i> Lam.	<i>lacrymosus</i> Lea.
<i>gracilis</i> Barnes.	<i>cornutus</i> Barnes.
<i>alatus</i> Say.	<i>elegans</i> Lea.
<i>pustulosus</i> Lea.	<i>zigzag</i> Lea.
<i>tuberculatus</i> Barnes.	<i>Marg. rugosa</i> Barnes.
<i>metanevrus</i> Raf.	<i>complanata</i> Barnes.
<i>trigonus</i> Lea.	<i>Anodonta grandis</i> Say.
<i>coccineus</i> Lea.	<i>edentula</i> Say.
<i>fragosus</i> Cond.	<i>plana</i> Lea.
<i>verrucosus</i> Barnes.	<i>Paludina integra</i> Say.
<i>parvus</i> Barnes.	<i>Physa heterostropha</i> Say.
<i>occidens</i> Lea.	<i>Somatogyrus subglobosus</i> Say.
<i>gibbosus</i> Barnes.	<i>Sphaerium solidulum</i> Prime.
<i>laevissimus</i> Lea.	<i>Pleurocera lewisii</i> Lea.
<i>asperrimus</i> Lea.	

LOCAL VARIATION.

BY REV. HENRY W. WINKLEY.

A good title for nature would be "Unity differentiated," and the words may be used not only of the whole, but of any part. Take as examples, the cell with its modifications, the class mollusca and its species, (an excellent comment on the variations as contributed by Mr. Chas. T. Simpson, to the February NAUTILUS and reminds the writer of a few which are noted below.)

A large continent is a grand field for the evolution of many varieties. Yet small areas often afford excellent examples of local variation. I mention a few as seen in this State.

Examples of *Fusus Islandicus* Gmel., from Eastport, Old Orchard or the Sheepscote now are before me. Specimens with about the same number of whorls vary greatly in size, being 3, 3½, and 1½ inches respectively. The color variations are also marked.