

SESSIONAL PAPER No. 38a

small worthless *luteolus*. Not having completely satisfied myself I again went over the ground thoroughly the next day in company with Captain Glass of Sarnia, finding very little, however, of any value whatever. The current flowing through the river here is very strong. It seemed foolish to look so carefully for shells large enough and in sufficient quantity to be of commercial value, but I desired to thoroughly settle the matter. Popular reports concerning shells are generally misleading. This is due to the fact that very few people understand shells from a commercial point of view. With regard to Lake Smith, for example, glowing reports of shells were made. One man supporting this view was kind enough to get a boat and take me over the ground, but we found only numerous specimens of the common worthless lake clams.

NOTTAWASAGA RIVER.

Mr. Gross, button-manufacturer of Kitchener, Ont., had been informed that large quantities of mussels had been found along the river. He decided to investigate the reports and agreed to my accompanying him. A motor launch was engaged to take us up the river. Several miles up the river we discovered a bed where the mussels were very thick. We needed but to drag the crow-foot bar a short distance when a considerable number of clams would be caught. Shells were also obtained in a similar manner near the mouth of the river, just out from the Riveria hotel. In all, the following species were taken: *L. recta*, *L. ventricosa*, *L. gibbosus*, *S. costata*, and *L. ventulus*. In the commercial appraisal the *L. ventricosa* are reported to be small, no discoloration, hard and brittle, fourth grade, and giving 640 16-line gross blanks per ton. Many of the *ventricosa* taken were too small to be of commercial value and had to be thrown back. The shells here are very remarkable for their colour. *Ventricosa* is in fact the only species showing no discoloration. Some of the *recta* are extremely dark purple. Mr. Gross did not consider it worth while to prospect further. Only a small part of the river has thus been surveyed for shells. The prospect here is not at all promising, at any rate not until there is a demand for coloured shells. It would be interesting to determine the cause of discoloration. This is as yet unknown.

The bottom, from which most of the shells came, was gravelly and the water from 5 to 6 feet deep. There is a large flow here and the river should support considerable mussel life.

GENERAL REMARKS.

This investigation was conducted only at selected points on a few of our rivers. The results cannot, therefore, be taken as fully indicative of our mussel resources. The river Thames, for example, draining a large area between the Grand and the Aux Sables, both of which contain commercial shells, has not been touched. It is impossible to know our resources until a more extended survey is made.

A great deal of important information could no doubt be obtained quite economically if further fresh-water mussel investigations were combined with those of the district hydrographers of the Hydro-electric Power Commission of Ontario. They, I believe, cover a great many points along our rivers regularly. In the month of June of last year the staff at Brantford visited the following stations:—

Stations.

Burford,
Osoondaga,
Brantford,
Canning,
Nicholson,
Glennorris,

23365—2B

Streams.

Whiteman's Creek,
Fairchild's Creek,
Grand River,
Nith River,
Nottawasaga River,
Grand River,