

The Canadian Field-Naturalist

VOL. XXXVIII

OTTAWA, ONTARIO, NOVEMBER, 1924.

No. 9

A BIOLOGICAL EXCURSION TO ANTICOSTI ISLAND

By FRITS JOHANSEN

DURING the end of July and the first half of August, 1923, I spent a couple of weeks on Anticosti Island, in the Gulf of St. Lawrence, for the sake of marine and freshwater investigations. Apart from a four days' sailing all around the island in the guards' boat with a stop-over for half a day at Fox Bay, on the north-east end of the island, I stayed at Ellis Bay, exploring the west end of the island.

No freshwater Isopods were found, but woodlice (Oniscidæ) were common all over the island, under stones, in decayed trees, etc., and I kept a female with eggs from Ellis Bay, August 1, which has been identified by Mr. C. R. Shoemaker of the U.S. National Museum as *Porcellio scaber* Latr. Apparently this is the first definite record of terrestrial Isopods from this island.

The only freshwater Amphipods recorded from the island so far are *Gammarus limnæus* Smith, listed by Dr. J. Schmitt, in his "Monographie de l'Ile d'Anticosti", Paris, 1904, p. 256, from both the east (Fox Bay) and west (Baie St. Clair and Ellis Bay) ends of the island. These specimens

from the west end of the island (Cape Ruisseau and Lake St. George) are found both in the local museum at Ellis Bay (Port Menier), where I saw them and retained a couple for the Ottawa Museum, and in the U.S. National Museum, they having been identified for Dr. Schmitt by Mr. S. J. Holmes of Washington, D.C., and now re-examined by Mr. C. R. Shoemaker (letter of April 5, 1924). On August 31, 1923, I also collected a specimen of *G. limnæus* in Lake St. George (Gamache Lake); and on August 10, 1923, a couple in Lake Princeton, in the interior of the west end of the island. But I obtained other freshwater Amphipods too, in 1923.

Thus on July 30 I walked up along the Gamache River, from its outlet in Ellis Bay to the place where it is dammed up by a large rotating water-wheel, which supplies the Chateau Menier with fresh water. In the streaming water, just below this water-wheel (which was moving at the time of my visit) I noticed aquatic insects and schools of small brook-trout, and coming down with the current were a number of freshwater Amphipods,



Outlet of Gamache River into Lake St. George, Anticosti Island, P.Q., August 3, 1923.
(Seen from north end of the lake)

Photo by F. Johansen



Lake St. George, Anticosti Island, P.Q., August 3, 1923. (Seen from south-east end, looking north)

Photo by F. Johansen

which I was able to secure in the deeper pools of the channel of the river, where the water was more quiet, as they attached themselves to the scattered, submerged vegetation there. These Amphipods have been kindly identified by Mr. C. R. Shoemaker of the U.S. National Museum, as probably *Gammarus fasciatus* Say, hitherto not recorded from this island. I noticed at the time of capture that, because of their smaller size, the red-brown lining of the metamers, etc., they did not look like *G. limnæus*, but rather like the freshwater Amphipods I collected last summer on Prince Edward Island (see *The Canadian Field-Naturalist* for December, 1922, p. 178).

On August 3 I walked all around Gamache Lake (Lake St. George), which is an artificial widening of Gamache River, caused by the damming up and the locks placed in this river just north of the settlement at Ellis Bay, about 20 years ago, for the sake of lumbering. Now the lumber-cutting, floating, and export has been abandoned and practically no water comes through these locks from Lake St. George down the artificial ditch (St. George's Channel) to the pulp mill at Port Menier; but it is allowed to follow the original brook-bed (Gamache River) down to the sea, except for what is diverted to the chateau by the above-mentioned waterwheel and pipes placed astride the river near its outlet (see Bayfield's detail-map, 1828, of Ellis Bay, "Plans in the Gulf of St. Lawrence", No. 308, Brit. Admiralty). Gamache Lake (Lake St. George) has, in the course of time, developed a rich vegetation around

and in it, as will be seen from the photograph I took of it, and is shallow, though quite extensive. At the time of my visit it was much dried up along the margin, exposing sand-bars, mud-flats, or the level limestone-floor (bed-rock), so that it was not difficult to walk all around it. The woods, which formerly practically surrounded it, are now found only along its north side; along its east side they have been replaced by a shrubbery of alder, etc., and along its south and west sides by grass-swamps or agricultural fields, etc. The shores of the lake are everywhere low and consist of loose material (gravel, sand, clay, etc.); at the east end is a peat deposit, formerly used, and at the north-west end is much cleared land, owing to the model-farm being situated here. Gamache River falls into the lake on its north side and leaves it again at its south-west end; at both places in the form of a sluggish brook.

Out in the lake and along its margin still stand the remains of the earlier lumber industry, in the form of platforms, piers or shacks, etc.; and particularly in the bights along its south shore are washed-up logs, not needed any more now.

In one of these bights with *Juncus* vegetation on the south side of this lake I collected among the bottom deposits of saw-dust, mosses, etc., or from the underside of smaller pieces of wood, stones, etc., a number of invertebrates, snails (*Lymnæa*); Oligochaete worms; small, pale leeches* with young (identified by Prof. J. P.

*First record for the island.

Moore of Philadelphia as *Helobdella stagnalis*); yellow-green Sponges (*Spongilla*); aquatic insects, etc., and also samples of the tadpoles and sticklebacks so common here. Most interesting to me was however the finding of a great many freshwater Amphipods (*Hyalella azteca*) here; and I collected a number of them, both females with eggs and other adults, besides young ones. This is the first record of this species from Anticosti Island.

On August 10 I accompanied the party of Senator Gaston Menier on an excursion to the (supposed) largest lake in the interior of the island (Lake Simonne), and on the way back I got off the train and went down to Lake Princeton, which lies about half way between the north and south shores of the island, about eight miles north-east of Ellis Bay. We remained only half an hour at Lake Simonne.

Both Lake Simonne and Lake Princeton are beautiful bodies of water, all surrounded by the woods, except where the latter have been cleared for the purpose of laying the railroad-track and the resulting lumber-cutting, along the north side of Lake Simonne and along the west side of Lake Princeton. Lake Simonne has a small, heavily wooded island in it; but the banks surrounding Lake Princeton are higher, except at its north and south ends, where a brook comes in and runs out in grass-swamps. Both lakes have extensive and shallow marginal water (though they are said to be deep in the middle); and dry up very much here, so that the mudflats and limestone bed-rock

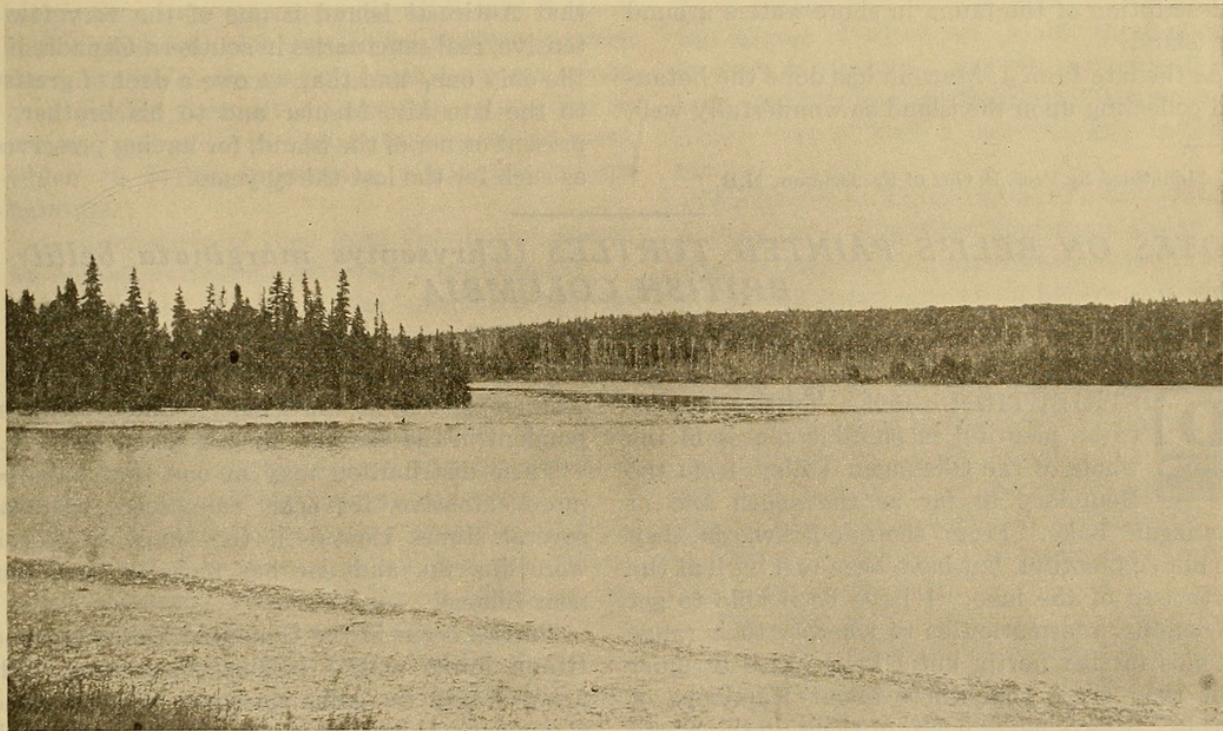
floor forming their bottom are exposed all around.

I took a picture of Lake Princeton from its west shore, looking north, which shows well these characteristics of the natural lakes on Anticosti Island, namely, the woods surrounding them, the extensive exposure of the limestone "beach" all around, owing to drainage and evaporation during the summer; their clear water and the general lack of aquatic plants, apart from bights with more muddy bottom and the places where brooks come in or run out. Upon the east shore of the lake will be seen, in the photograph, a burned-over part of the forest; and the wooded point to the left separates the bight south-west of it from the north end of the lake.

This bight had a vegetation of high *Juncus*, and a bottom of deep mud mixed with empty shells of small Molluscs (*Lymnæa*, *Planorbis*, *Physa*, *Sphærium* and *Pisidium*). Large freshwater clams (*Anodonta marginata*) were also common here, as well as in Lake Simonne; often with a freshwater-sponge (*Spongilla*) spreading over the umbo.

I secured here also, attached to moss or small pieces of wood, Oligochaete worms, and both adults and young of the same species of freshwater Amphipods (*Hyalella azteca*), which I had collected a week before in Lake St. George. The bight was the favorite resort for great schools of Killifish (*Fundulus diaphanus*†) of all sizes from the fry to adults, which were continually jumping up in the water, after the manner of small trout, to catch

†Identified by Prof. P. Cox of Fredericton, N.B.



North end of Lake Princeton, Anticosti Island, P.Q., August 10, 1923. (Seen from west bank)

Photo by F. Johansen

the swarms of gnats, Ephemeroids and Trichoptera, flying above. A stickleback (*Gasterosteus atkinsi*†) was also secured here.

While fresh bear-tracks were seen in the mud flats surrounding these lakes that I visited on Anticosti Island, and the red deer was often seen coming out to them for drinking, their lack of bird-life was most conspicuous. No waders, Grebes or Loons, etc., hardly a song-bird in the bush or woods nearby; and only an occasional Eagle sailing through the sky far above, or a couple of Gulls circling over them. Lake St. George is a little more enlivened by the presence of noisy Terns, which *may* nest upon the abandoned platforms out in the lake; but the silence of the inland country upon this island is most oppressive. It is probably different in the spring, when the northward migration of the birds take place; and the wealth of fishes (*Fundulus*) and invertebrates in these lakes cannot fail to attract their attention and make them linger for a while on Anticosti Island.

It is not my intention, in this article about the freshwater Amphipods of Anticosti Island, to write as fully as I could about all that I saw there during a two weeks "holiday". The freshwater invertebrates which I collected have only been partly identified yet, and I intend to write later an account of the fishes of this island, based upon the many specimens I collected. I also collected a number of insects (particularly bees), etc., which have been presented to the National Collection here in Ottawa and will be identified in the course of time, and a number of marine invertebrates, for a description of the fauna in shore-waters around the island.

As the late Prof. J. Macoun has done the botanical collecting upon the island so wonderfully well,

†Identified by Prof. P. Cox of Fredericton, N.B.

I collected only an occasional plant, particularly things (aquatic forms) which he perhaps did not secure. Among them are *Chara foetida* from the merging of Gamache River into the north end of Lake St. George, and *Chara fragilis* from pools in the bed of Fox River, on the east end of the island, August 6, both submerged plants, and typical for calcareous bottom; they have been kindly identified for me by Dr. M. A. Howe of the New York Botanical Garden.

My observations on the birds upon the island will be found in Mr. H. F. Lewis' account of the Avifauna of Anticosti appearing in this volume of *The Canadian Field-Naturalist*; and Mr. Bryant Walker, of Detroit, has kindly identified the freshwater Molluscs I collected there. So there will be further notes or articles about the freshwater fauna of this island.

But we already have now the first records of several lower animals from this island, and it is ample reward for my two weeks' efforts last summer to know that the only representative collections of fishes and terrestrial invertebrates from this island are now found in the small, local museum at Ellis Bay and in the National collections here in Ottawa.

I take this opportunity to express my appreciation for the many courtesies and the kind assistance shown me by the Administration of Anticosti Island during my stay there last summer, which enabled me to accomplish my purpose so well. It is only as we gradually find out what this island exactly contains of wild life that we understand that Anticosti Island is one of the very few extensive, real sanctuaries in southern Canada, if not the only one, and that we owe a debt of gratitude to the late Mr. Menier and to his brother, the present owner of the island, for having preserved it as such for the last thirty years.

NOTES ON BELL'S PAINTED TURTLES (*Chrysemys marginata bellii*) IN BRITISH COLUMBIA

By T. L. THACKER

DISTRIBUTION. Bell's Turtles appear to be plentiful in suitable places in the whole of the Okanagan Valley, from the Boundary as far as the south end of Okanagan Lake. From there northwards they are not so plentiful, but have been met with at the north end of the lake. I have been able to get no definite information as to whether their range extends further north, but I have heard a rumor that they occur somewhere about Kamloops or Nicola. I have never heard of them up the North and South Thompson Rivers, nor do they appear to be known on the main Thompson River below

Kamloops, nor in the Fraser Valley. A correspondent in the Cariboo has not heard of them.

Their distribution may at one time have been more extensive, for near Yale, some years ago, several stones carved in the shape of tortoises were dug up, and one has recently been found near Lillooet.

Turtles occur in the Columbia Valley near both Grand Forks and, I believe, Cranbrook. They are probably the same species. In the Southern Okanagan, I had trustworthy information that they occur above Elkhorn Lake at an elevation of over 3500 feet, and this is corroborated by Mr.



Johansen, Frits. 1924. "A Biological Excursion to Anticosti Island." *The Canadian field-naturalist* 38(9), 161–164. <https://doi.org/10.5962/p.338435>.

View This Item Online: <https://www.biodiversitylibrary.org/item/89061>

DOI: <https://doi.org/10.5962/p.338435>

Permalink: <https://www.biodiversitylibrary.org/partpdf/338435>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Ottawa Field-Naturalists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.