

## REPORT OF THE ZOOLOGICAL BRANCH, 1907.

*To the Council of the Ottawa Field Naturalists' Club:—*

In presenting the Report of this Branch of the Club's work for 1907 your leaders have to announce that the interest manifest in the study of zoology, as evidenced at the Club's excursions and in the contributions published in THE OTTAWA NATURALIST, shews no signs of diminution. In the first place the members of the Branch feel bound to record their pleasure at the erection of a splendid new zoological station by the Dominion Government at St. Andrew's, N.B., and the publication in connection therewith of a scientific report which includes a number of valuable papers on Marine Biology, etc., by eminent Canadian Zoologists. A new station of a similar character is now being completed at Departure Bay on the British Columbia coast in the vicinity of one of the richest marine zoological grounds in the Pacific waters—perhaps one of the richest in the world. Prominence was given to these marine researches at the May meeting of the Royal Society, when Professor Prince, one of our leaders, gave an address on Canadian Marine Biology, and zoological subjects were dealt with in a number of able papers. The subject of abnormalities in various animals was discussed at the same meeting, and in connection therewith it may be stated that Professor Prince has secured a remarkable specimen of a small sturgeon in which the long and powerful tail is absent, and in the absence of a true caudal member the anal fin has grown round the blunt terminal stump and acts vicariously as a tail.

The same gentleman obtained a specimen of *Helix* which had evidently taken up a permanent position in a niche in the smooth bark of a wild cherry tree. That the snail moved a little was plain from a small patch of dried glistening mucus below the niche; but as the smooth cuticle of the tree had apparently grown over the shell of the living animal, it appeared as a small protuberance. The patch of mucus alone revealed the fact that the small rounded prominence like a button was the shell of a living snail. If the marine crabs like *Inachus* are protected by overgrowths of sea-weeds on their backs, this land *Helix* in the case mentioned was as effectually protected. Professor Sydney Hickson says: "If the plants be artificially scraped off the crab will go in search of fresh ones . . . and then deliberately decorate the carapace with them as before. There are some mollusks that artificially decorate themselves with little shells and other objects in such manner as to completely hide their general form. . . . In both these cases it is clear that the reason of the phenomena described is that of affording a covering



or mantle which hides or obscures the real form and character of the living animals." The specimen of *Helix* is in many ways even more remarkable if the covering of its shell be really an overgrowth of the outer bark of the tree upon which it was found resting—the tree being one on the banks of the Gatineau near Wakefield.

Mr. Andrew Halkett spent the Summer collecting and observing in the two new provinces of Saskatchewan and Alberta, and devoted his attention especially to the fishes, numerous specimens of which were collected, and the following list of determined species from the chain of lakes in the Qu'Appelle Valley, Saskatchewan, and from Beaver, Hastings, and Cooking lakes, Alberta, are here given as follows:—

- Buffalo-fish (*Ictiobus bubalus*).
- White Sucker (*Catostomus commersonii*).
- Red Horse (*Moxostoma aureolum*).
- Spawn-eater (*Notropis hudsonius*).
- White-fish (*Coregonus clupeiformis*).
- Tullibee (*Argyrosomus tullibee*).
- Common Pike (*Lucius lucius*).
- Brook Stickleback (*Eucalia inconstans*).
- Nine-spined Stickleback (*Pygosteus pungitius*).
- Sand Roller (*Percopsis guttatus*).
- Pike-Perch, or Doré (*Stizostedion vitreum*).
- Yellow Perch (*Perca flavescens*).
- Johnny Darter (*Boleosoma nigrum*).
- Burbot, or Ling (*Lota maculosa*).

Besides these certain small cyprinoids and percoids, and one or two larger fishes await determination.

Besides fishes, numerous specimens belonging to other classes of the animal kingdom were collected or observed. Some batrachians are plentiful in the two provinces, and specimens of frogs (*Rana*), toads (*Bufo*) and salamanders were collected. Both provinces appear to be poor in reptiles; no turtles were seen, but rattle-snakes (*Crotalis*) are known to inhabit certain localities in Alberta. A few specimens of a garter-snake (*Eutainia*), with a bright orange dorsal band were obtained in the Qu'Appelle Valley.

The valley of the Qu'Appelle is a regular paradise of birds, and so is Beaver Lake in Alberta, but as birds are the theme of the ornithological branch, they are not referred to further here; and in the same way, it may be said, that some insects are being submitted to Dr. Fletcher, and no doubt the entomological branch will bring to light anything about them which may happen to be worthy of mention.



The following observations regarding mammals may be of interest. Rodents, especially the little gophers, were very plentiful all over the prairies, and a few specimens of different kinds of rodents obtained. A covote, or prairie wolf, was seen walking over a field, some 50 yards away, in the Qu'Appelle Valley; and having an opportunity Mr. Halkett paid a visit to the park in Alberta where the recently acquired herd of buffalo have been introduced. He saw about 30 of the bulls herding by themselves, but the park was too extensive to devote the time to go over the whole of it. They were massive animals, but whether owing to their transportation, or because the environment did not suit them, the most of them appeared to be in poor condition. The tracks of the escaped bull, of which so much was mentioned in the newspapers, were also seen along the shores of Beaver Lake. A shrew was found in the village of Chipman, Alberta, and three bats were obtained in the Qu'Appelle Valley.

Whilst horses and cattle appear to be in the finest condition in the valley of the Qu'Appelle, Mr. Halkett was struck with the entire absence of sheep on the ranches. On enquiring for the reason of this, he was told that it was impossible to keep them because they eat the leaves and plumose styles of a plant which the people call the prairie crocus (*Pulsatilla hirsutissima*) which are said to form masses in the stomachs of the sheep and cause their death. Cattle, on the other hand, are said to eat this plant with impunity.

An unusually handsome toad (*Bufo americana*) was obtained by Mr. E. E. Lemieux at Victoria Park, Aylmer, P.Q., and the same gentleman secured a specimen of the milk-snake (*Natrix sipedon*) in the vicinity of Chats Falls, containing over 40 perfect young, each about 6 inches long. The date was October 1st, and the capture is remarkable, not only as illustrating the viviparous character of this species, but extending its breeding season to a much later date than before recorded. Fuller notes on this capture will appear immediately in the 'Ottawa Naturalist.'

Several specimens of the lake sturgeon (*Acipenser rubicundus*) from Lake Deschene and the Ottawa River, near the Rifle Range, Ottawa, have been mounted and placed in the collection in the Fisheries Museum; but the most remarkable local find of the season, perhaps, is a specimen of the soft-shelled turtle (*Trionyx spinifer*) from l'Ange Gardien, Province of Quebec. This turtle belongs to the Super-family Trionychoidea, whereas the most of the turtles of Canada belong to the Super-family Cryptodira, and it is surely a rarity.



Two special reports entitled: 'The Local Movements of Fishes' and 'The Unutilized Fishery Products of Canada,' by Prof. Prince, Commissioner of Fisheries, have just been published in the 40th Annual Report of the Department of Marine and Fisheries; and a report of the Canadian Fisheries Museum by Mr. Halkett, treating mostly of the vertebrate portion, and especially of the fishes in the collection form Appendix 14 of the same official report.

EDWARD E. PRINCE,  
ANDREW HALKETT,  
W. S. ODELL,  
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#### MEETING OF ENTOMOLOGICAL BRANCH.

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Meeting held at the residence of Mr. W. Simpson, 16th Jan., 1908. Present: Messrs. Fletcher, Young, Baldwin, Metcalfe, Wilson, Letourneau, Gibson and Simpson.

Mr Young exhibited a beautifully prepared case showing the life-history of the Silver-spotted Hesperid, *Eudamus tityrus*. The food plant of this species, the Common Locust, specially dried and very life-like, was shown in the centre of the case with several of the larvae working in their characteristic manner, with the body hidden inside a case made from several of the leaflets spun together around it. While examining the case a discussion arose as to what effect intense cold and freezing have on insects, and several instances were given by those present of insects having been found embedded in ice and which had afterwards revived. Reference was also made to a paper in the 22nd annual report of the Entomological Society of Ontario, 1891, by Mr. H. H. Lyman, entitled "Can Insects Survive Freezing?"

Dr. Fletcher showed specimens of a fine collection of Tenebrionidae and a pair of *Dynastes tityus*, which had been sent to him by Prof. H. F. Wickham, of Iowa City, the well known coleopterist and an Honorary Member of our Club. He also showed an ant lion from Kaslo, British Columbia, sent by Mr. J. W. Cockle and gave a short account of the larval habits of this insect. From the same place and collector he also exhibited a handsome pair of the large and rare water fly *Chauliodes californicus*, which, in general appearance, resembles the well known Hellgrammite Fly, but has an entirely different head. The specimen had been named by Prof. J. G. Needham, of



Prince, Edward Ernest et al. 1908. "Report of the Zoological Branch, 1907." *The Ottawa naturalist* 21(10), 198–201.

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