

neglect the lake, as some birds might do, but may be seen searching for food even in parts of it remote from their nesting-islands. There seems, therefore, to be every reason for taking action to

ensure the preservation at one and the same time of a unique and splendid bit of wild life and of a tireless band of scavengers and guardians of the health of a large town.

## THE SPIDERS OF CANADA.

By J. H. EMERTON.

The writer recently published, in the *Transactions of the Canadian Institute*, Toronto, a catalogue of the known spiders of Canada, numbering 342 species. This seems small when compared with the numbers in countries where the fauna is better known, but spiders are hard to find and this number represents very well the larger and more common species. Many more will do no doubt be found, as more persons take up the study of these animals.

In 1846, John Blackwall, then the leading student of spiders in England, published in the *Annals and Magazine of Natural History* of London a "Notice of Spiders captured by Prof. Potter in Canada" a few years before in the neighborhood of Toronto. In 1871, he published in the same journal a "Notice of Spiders captured by Miss Hunter in Montreal." In 1875, T. Thorell published in the *Proceedings of the Boston Society of Natural History* "Descriptions of Spiders collected by A. S. Packard in Labrador." In 1876, the writer spent a short time in Montreal and collected a few spiders, which were described in a paper on New England *Theridiidae*, published by the Connecticut Academy in 1882. Between 1880 and 1890, J. B. Tyrrell collected spiders at Ottawa, in the Rocky Mountains and other parts of Canada, and at the same time T. E. Bean, in connection with his work on Lepidoptera, collected spiders around Laggan in the Rocky Mountains.

Since 1900, a considerable number of collectors have interested themselves in Canadian spiders. In 1905, the writer visited western Canada collecting at Vancouver, Lake Louise, Banff and Medicine Hat. The same year G. W. Peckham collected through the same region, especially at Vancouver, Glacier and Banff. In 1914, the writer again visited the Rocky Mountains, and collected in the Yoho Valley and Lake Louise, Banff and Jasper Park, and also at Edmonton, Athabasca Landing and Prince Albert. In 1915, he collected in the lower St. Lawrence Valley, and in 1917 at Le Pas and along the Hudson Bay Railway. The Canadian Arctic Expedition of 1913 to 1916 made a small collection of spiders on the Arctic coast of Canada and Alaska. The Crocker Land ex-

pedition also collected spiders on the west coast of Greenland in 1917. Messrs. E. M. Walker and T. B. Kurata of Toronto, collected spiders in 1913 at several points across Canada, and especially on Vancouver Island. Mr. N. B. Sanson of Banff, has collected spiders for several years in the surrounding country, especially on Sulphur Mountain. Mr. M. Taylor of Vancouver, has collected around that city and in the mountains north of it. Mr. Robert Matheson collected in Nova Scotia in 1913. Dr. C. W. Townsend of Boston, on his visit to "Audubon's Labrador" in 1915, collected spiders and extended the known range of several species. Spiders have also been collected in recent years by Mr. Norman Criddle in Manitoba, Mrs. J. H. Faull in Toronto, Mr. Charles Macnamara of Arnprior, Ontario; Mr. F. W. Waugh of Ottawa, Mrs. W. W. Hippiusley of Dauphin, Manitoba; Prof. A. B. Klugh of Kingston, Ontario; the late C. G. Hewitt, Mr. Arthur Gibson, and other correspondents of the Entomological Branch of the Department of Agriculture at Ottawa. New discoveries have been noted from year to year in the Entomological Record published annually in the reports of the Entomological Society of Ontario.

The spiders which Blackwall described cannot now be found and apparently no care was taken to preserve them after descriptions were published. The spiders collected by Packard in Labrador have also been lost, and some of their descriptions will never be certainly identified. The spiders collected by Tyrrell and his colleagues are in the collection of the Entomological Branch at Ottawa or in that of Harvard University. The collection at Ottawa has been much increased in the last few years and now contains probably 300 of the species catalogued. The Harvard collection is rich in Canadian spiders and contains most of the

The common spiders of Canada are described and illustrated in "Common Spiders of the United States," by J. H. Emerton, published in 1902, by Ginn & Co., Boston; "The Spider Book," by J. H. Comstock, published in 1912, by Doubleday, Page & Co. and "American Spiders and Their Spinning Work," by H. C. McCook, published by the author in Philadelphia, 1889 to 1893.