

## ODONATA AND EPHEMERIDÆ.

Contributions to Canadian Biology, being studies from the Biological Stations of Canada, 1911-1914, Fasciculus II—Fresh Water Fish and Lake Biology. Supplement to the 47th Annual Report of the Department of Marine and Fisheries; Fisheries Branch. Ottawa, 1915.

In this "Blue book," issued by the Dominion Government, there is a series of thirteen important papers dealing with the aquatic fauna and flora of the eastern coast of the Georgian Bay in Ontario. They are published in this way in order to extend the knowledge respecting the available food for fishes in these waters, their parasitic enemies and other matters of biologic interest. Three papers deal with aquatic insects. The first is by Dr. E. M. Walker on "The Odonata of the vicinity of Go Home Bay," in which he records his observations on the Dragon and Damsel flies to be found in the neighbourhood of the Biological Station, with descriptive notes on more than sixty species. The article is illustrated with two plates of structural details, five views of the characteristic scenery, and a plan showing the seasonal distribution of the species—the whole forming a most valuable contribution to the knowledge of the life-histories of these attractive insects.

The other papers of an entomological character are by Mr. W. A. Clemens of the University of Toronto, and are entitled, "Rearing Experiments and Ecology of Georgian Bay Ephemeridæ" and "Life-histories of Georgian Bay Ephemeridæ: observations on Heptagenia and breeding experiments." In the former paper twenty species are referred to and many of them described; and in the latter, which deals only with a single but largely represented genus of May-flies, there is given a key to the imagos and descriptions of the nymphs and their life-histories. Six plates of nymphs and details of structure add much to the value of the papers. These insects, which are often to be found in enormous numbers, supply a very important part of the food of many fishes.

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