

BIOLOGY OF THE SCOTTISH LOCHS

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PART I

THE BIOLOGY IN RELATION TO ENVIRONMENT

INTRODUCTION

DURING the five years of the existence of the Lake Survey, 562 lochs have been surveyed. Biological collections were made in nearly all of those lochs, and more than 400 of these collections have been examined. Usually only a single collection of plankton was taken in each loch; but in Loch Ness and a few other lochs it was possible to study the biology more thoroughly, and to examine the littoral and abyssal regions also. From a biological survey made in this manner it is hardly possible to make generalisations of any value. Each loch being examined only once, and the survey being carried on almost at all seasons of the year, the lochs cannot even be fairly compared one with another. The amount of difference found between the plankton of different parts of the country may in part arise from the fact that they were examined at different seasons of the year. This is the more probable since it is known that fresh-water plankton is very uniform over vast areas. Despite this difficulty, it is, however, certain that some very interesting facts in the distribution of plankton organisms can be ascertained from an examination of these collections. Their chief use, in the meantime, is to enable a census of the inhabitants of the Scottish lochs to be made—very imperfect, certainly, but of some value to special students, as offering a large body of facts not readily got together.

The biological survey was concerned solely with the Invertebrata among animals, and chiefly with the microscopic Algæ among plants. Of the Vertebrata, the only class which is conspicuous among true lacustrine animals, the Fishes, had already been the subject of much special study. The same may be said of the aquatic birds; and the other classes of Vertebrata—Mammalia, Reptilia, Batrachia