

PALÆONTOLOGY AND NATURAL HISTORY.

The examination, commenced in 1879, of the fossil plants of the carboniferous formation of Canada in the collection of the survey, has been completed. The species not hitherto determined have been kindly identified by Principal Dawson, and the whole series is now properly named and labelled.

Collections as follows have been examined during the year :—

1. A small series of fluviatile mollusca from the lignite tertiary of the Souris River, collected by the Director.

2. 79 specimens of Cambro-Silurian and Devonian fossils from Red River, Manitoba, and the valleys of the Nelson and Churchill Rivers, collected by Dr. R. Bell, in 1879; a report on these has been prepared and published as a supplement to Dr. Bell's account of his explorations. (See Progress Report, Geological Survey of Canada, 1879-80.)

3. Fifty specimens of fossil fishes, collected by Messrs. R. W. Ellis and F. C. Weston, from the Devonian rocks of Scammerac Bay, on the north shore of Baie des Chaleurs.

A paper describing the species in this collection has been published in number 116 of the American Journal of Science, August, 1880. During the months of July, August and part of September, Mr. A. N. Foord made a careful examination of these fish-bearing beds and secured a further collection of 282 specimens. A preliminary examination has been made of these, and some notes on the specimens were read at a meeting of the Natural History Society of Montreal, on the 25th October. Though the actual number of species in the collection is not very large, most of the specimens are of great interest. Since the commencement of October, a great portion of Mr. Whiteaves and Mr. Foord's time has been occupied in sorting and labelling specimens and superintending the packing of the collections, preparatory to their removal to Ottawa.

One hundred and fifty-five fossils from the Silurian rocks, Clinton and Aragra groups in the vicinity of Hamilton, Ontario, have been presented by Colonel Grant.

Besides those already mentioned, large collections have been made by the exploring parties in the North-West Territories, in Manitoba, in New Brunswick, and in the Province of Quebec. The whole of these, about 1,500 specimens, have been carefully labelled, and most of them have received a preliminary examination.

THE LABORATORY.

The work carried out in the laboratory of the survey during the past year comprises :—

1. Analyses of lignite, or brown coals, from the North-West Territories and British Columbia.