CANADIAN FOSSIL INSECTS.

Coelambus derelictus.

BOUDDER.

" informalis, disjectus,

Orchestes avus. Centriuns disiunctus. SCOLYTIDAE (1 sp.) Phlocosinus squalidens (borings.)

The comparison of this assemblage of forms with their recent allies brings one to the same conclusions as were reached* by the study of those first obtained. All come from the same horizon and several are found in more than one locality, but none of the elytra from the Don Valley, where the other remains indicate a warmer climate than the present, were determinable. The Coleoptera from this Scarborough horizon indicate a climate closely resembling that of Ontario to-day, or perhaps a slightly colder one, a considerable proportion of their present allies being known from a more northern habitat. Nevertheless a few of the species belonging to the present additions to the fauna find their apparently nearest allies in sonthern forms; these are, however, so few as to suggest the probability of a mistaken reference in these cases. One cannot fail, also, to notice that a large number of the allies of the interglacial forms are recorded from the Pacific coast. Taking the case as it stands, I can only repeat as a final conclusion what I said before, that on the whole, the fauna has a boreal aspect, though by no means so decidedly boreal as one would anticipate under the circumstances,

The Scolytid borings, the last species of the list, were recently placed in the hands of Dr. A. P. Hopkins, of Morgantown, W. Va., who is more conversant with American Scolytidae and their work than any other of our naturalists, and he has given me the results of his examination of them, which appear as an Appendix to this paper, illustrated by two plates drawn or photographed by him. He gives a closer determination of the affinities of the insect which made the borings than I could do, as I was unable to make a definite generic reference.

In conclusion, I must express my indebtedness to Mr. Samuel Henshaw of Cambridge, who has kindly given me the statistics of the distribution of the existing beetles with which I have compared the fossils, and through whom I have had access to the LeConte collection of Colcoptera in the Museum of Comparative Zoology for purposes of comparison,—an invaluable opportunity ; and to Professor J. W. Folsom of Antioch College, who, when living in Cambridge, made for me a preliminary comparison of most of the fossils with the same extensive museum scries at great pains and expense of time and with much enthusiasm, thus greatly lightening my final work ; I am glad to be able to add that his determinations in nearly all cases agreed very closely with my own, and rendered the accuracy of what may be regarded as in some sense our joint work more probable.

* See p. 28 of the present volume. Sc-14

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