## THE CANADIAN ENTOMOLOGIST.

The parallelism of structure, the apparent identity of ecological relationship and the suggestion of some peculiarities of geographical distribution seemed to justify the extensive investigations necessary for the elaboration of the problem.

The final treatment of the various phases of the problem is not yet ready for publication, but quite a full discussion appears in the Sixteenth Annual Report of the Missouri Botanical Garden. It is the purpose of the present note to direct the attention of entomologists to a phase of ecology and biogeography, which is of interest to both botanists and zoologists, and requires the co-operation of both groups of workers.

The plant forms to be considered were limited to those in which the anthers open by terminal pores instead of the more general longitudinal slits. Detailed structural comparisons have shown that flowers with apically dehiscent anthers may be divided upon structural grounds into seven groups. Like most categories of classification, these groups are not sharply defined, but in some degree transgressive. The distinction between dehiscence by pores and by longitudinal splits and between the several types recognized is not an absolute one. The number of apically dehiscent genera or species might be increased or decreased by including forms in which the lateral slits first open more widely at the tip, or excluding all those in which the pores are finally supplemented by lateral slits. The number of genera as limited is, the writer feels confident, approximately right so far as may be determined from systematic literature and the examination of herbarium material. The groups, too, cannot be separated by sharp characters, but the questionable forms are but few as compared with those which do fall clearly into one of the recognized classes.

The classes recognized have been designated as the Araceous, Gramineous, Polygalaceous, Ericaceous, Dilleniaceous, Solanum-Cassia and Melastomataceous types. The first three of these represent welldefined groups, which are quite foreign to our present consideration. The Ericaceous type is not so sharply limited, and perhaps includes some forms which should have been placed in one of the other types. The Dilleniaceous, Solanum-Cassia and Melastomataceous types are the ones to which especial attention has been given.

The Dilleniaceous type has both whorls of the perianth usually developed, but one or both sometimes reduced, usually campanulate or rotate in disposition; stamens indefinite in number; filaments long or

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