

## BOTANICAL BRANCH.

The second meeting of the Botanical Branch was held at the residence of Mr. J. M. Macoun, Thursday evening, Nov. 18th, when the following members were present: Messrs. Fletcher, Attwood, John Macoun, Blackadar, Edward Cameron, Roy Cameron, R. B. Whyte, W. T. Macoun, T. E. Clarke, Carter, St. Jacques, Clarke, Ami and J. M. Macoun.

The discussion on "Individuality in Plants" was resumed and a letter was read from Prof. D. F. MacDougal, of the New York Botanical Garden, in which he stated that certain points connected with mutants and hybrids seem to be well established. These are:

"1. No systematist who has seriously examined the mutants of Lamarck's evening primrose, in the adult stage, has decided them to be otherwise than species and varieties in accordance with the estimate placed upon them by de Vries.

"2. Lamarck's evening primrose does not vary widely, not so widely as some of the mutants, as has been found by statistical methods. The mutants do not intergrade with each other or with the parental form as shown by series of measurements.

"3. The common evening primrose does not vary as widely as it is reputed to do, as has been found by cultural studies: doubtless closely related species have been confused with it, which has led to much misapprehension in the matter.

"4. Mutants have been seen to arise from Lamarck's evening primrose in my own cultures under circumstances that admitted of but one interpretation, and historical investigations show that this species is eligible as research material in every way.

"5. The entire obliteration of the evening primroses and all records concerning them would still leave ample evidence that new qualities arise suddenly or by mutation and that new species owe their origin to changes of this kind. It can not be proven of course that all species arise in this manner, and very probably they do not, as for instance, the species that have been formed by natural hybridizations."

In Prof. MacDougal's paper on "The Origin of Species by Mutation," he cites *Chelidonium laciniatum* as an example of a