

SOIREES.

Third.—The third meeting was held on 31st January, and was devoted to the discussion of botanical subjects.

Mr. Fletcher read the report of the Botanical Section.

Mr. Ballantyne then gave an interesting account of some observations made on the duration of the leaves on our various species of ever-green trees. With the white pine (*Pinus strobus*) he had found that as a rule the needles remained on the tree about 18 months. Leaves produced in the spring of one year fell in the summer of the following one, so that the life of a pine needle was two summers and one winter.

In the Spruces the leaves remained on the trees for a much longer period, he considered seven years to be about the length of their duration. The Canadian Balsam Fir not quite so long, four or five years; and the Hemlock a still shorter time, probably only three years.

The cedars were rather more difficult to understand. They seemed to drop their foliage throughout the year and not at any special season. In this case it was not the separate scales which fell but small twigs dropped off. The Tamarac, another conifer, of course, is deciduous, and drops its leaves every autumn.

Mr. Fletcher spoke of the length of life of the needles of *Picea Sitchensis*, the Menzies spruce which he had found on Vancouver Island growing to a height of not less than 40 feet, and still retaining the sharp stiff needles on the stem, so that it was very uncomfortable to climb up it to procure the cones.

In answer to a question he explained that the cause of the falling of the leaves of deciduous trees was due to the gradual deposition of matter in the passages and the lignification of the petioles so that they could no longer perform their functions.

Mr. Ballantyne's address was followed by the exhibition of a collection of Australian ferns belonging to Mr. R. B. Whyte. Mr. Fletcher drew attention to several specimens belonging to genera represented in our Canadian flora and showed the advantages of having specimens from all parts of the world, if we wanted to thoroughly understand any family of plants.

A paper by Mr. H. M. Ami was read upon the variety *obtusilobata* of *Onoclea sensibilis*. The writer considered it merely an occasional form