

from the mountains, and that the roots of one of them were embedded in pure shingle. Mr. C. E. Foweraker, however, said that in Westland totara trees were to be found growing in pure shingle.

Mr. Stead said that a stump similar to those at Prebbleton was a few years ago carried down the Rakaia River and came ashore near its mouth. In the course of a couple of years it was gradually carried out to sea by successive floods, and every time it changed position it came to rest right side up. Furthermore, in 1916 and 1917 numerous stumps cut from forests or plantations had floated down on to the shores of Wairarapa Lake. They had all come to rest right side up. Tangled deposits of timber similar to that described at Cashmere also occurred under water at "The Timber Yard" on the shore of Lake Ellesmere.

### *Ranunculus paucifolius* T. Kirk.

W. B. BROCKIE.

In January, 1940, at Castle Hill, the following particulars were noted regarding the state of *Ranunculus paucifolius*:

Plants having 1 leaf	..	..	1
" " 2 leaves	..	..	25
" " 3 leaves	..	..	20
" " 4 leaves	..	..	12
" " 5 leaves	..	..	6
" " 6 leaves	..	..	5
" " 7 leaves	..	..	6
Total number of plants seen			75

Actual total number of plants probably does not exceed 100.

Average number of leaves to each plant, three and a-half.

Number of specimens severely mutilated by animals, 15.

Number of fruiting specimens, 3.

Undoubtedly the present greatest menace to the plants lies in the danger of their being trodden on by cattle and sheep.

Unless a strong fence is put round the area of three and a-half acres which covers the field of its distribution, this interesting species which for ages has succeeded in maintaining itself within the narrow confines of its present rock-encircled home, will continue gradually to perish.

Cost of materials for the fence is estimated at £60.

### Studies in Hebe: II. The Significance of Male Sterility in the Genetic System.

O. H. FRANKEL.

1. Male sterility with female fertility has been observed in nature in eight forms of the genus *Hebe*, comprising five species and one species hybrid.

2. Degeneration occurs rapidly and with regularity, either in pachytene or in the course of pollen development, at a stage which is characteristic for each form.