

the Museum, in a letter to our secretary says "Please convey to your Council and members the hearty thanks of the Auckland Botanical Society and the Museum for your wonderful exhibit. This arrived in good time and in perfect order.... We arranged the exhibit on a long table with a platform in four tiers above it. The specimens looked very well indeed against a cream background and were greatly admired.... Miss Katie Pickmere, whom you all know and Mr. W. Newport of the State Forest Service, took a special interest in displaying your specimens."

A 16-page catalogue prepared for the show lists the principal sections including competitive school displays, individual children's exhibits of posies, berry foods of birds, pressed specimens, paintings and sketches; uses of native plant fibres, medicinal, foods, seaweeds, Lycopodium powder, timber trees, dye plants, the latter supplemented by demonstrations of spinning wool dyed with native barks and lichens; flower and foliage arrangements, street planting model, lava fields and salt marsh exhibits, cushion plants.

Attendances of over 9,000 in the first four days are a measure of the popularity of this annual exhibition and reflect great credit on those responsible for the organization.

DYES FROM NATIVE PLANTS.

Cards of wool dyed with native plants (lichens, bark, etc.) were exhibited at the October meeting. Mrs. Hutchinson of Rissington who made these samples has published a pamphlet called "Plant Dyeing". Orders may be left with Miss King. Price 2/-, proceeds of sale for the Napier Red Cross.

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Renunculus lobulatus was in full flower at Otari on September 24th. The first buds of R. nivicola had opened too but it did not reach its full glory until the last few days of October. In that week also R. lyallii was blooming in the Botanical Gardens. On Butterfly track on September 13th dainty flowers of Cyrtostylis oblonga graced the tops of many clay banks. Pterostylis graminea in similar places showed a complete range from early bud to almost mature fruit. Young seeds of micro were barely a quarter of an inch long and nearly every liverwort was fertile.

arranged out on the lines of a horticultural show, the classes and displays to include: collection of native trees and shrubs in pots with corresponding sample of foliage etc., collection of N.Z. polished and grained timbers; display of manufactured articles made of N.Z. woods; display of photographs of native flora; display of N.Z. ferns; native flora curiosities and freaks; collection of native mosses and fungi; miniature rock-garden; and three competitive classes for school children. This project is expected to bring the activities and objectives of the club more definitely before the general public.

G. Leslie Adkin.

RECENT BOTANICAL PAPERS.

In the September 1941 number of the Journal of the Royal N.Z. Institute of Horticulture Mr. Stirling's diploma thesis on Hedges was published in full. Members who heard him discuss this subject at a study circle will recollect many practical tips about establishing native plants for hedges and will be glad that the general account is now available.

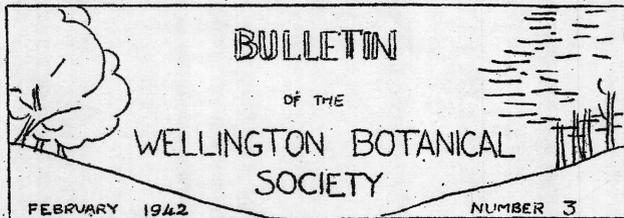
Mr A.D. Beddie is the author of a paper on Natural Root Grafts in New Zealand Trees, in the December issue of the Transactions of the Royal Society of New Zealand. Root grafts are recorded in 30 species and a further six are listed as strongly suspected. Records of interspecific grafts are especially interesting and a number of references are made to accounts of similar phenomena in other countries. Weinui-o-mata hills and Khandallah Domain are mentioned as places where examples can be seen in situ.

The other botanical paper in this publication is by Mrs. E.A. Hodgson, on the New Zealand species of the liverwort genus *Schistochila*. Mrs. Hodgson acknowledges help from many collectors and would be glad to have further gatherings especially from the South Island.

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L.B. Moore, Editor.



PLANT PARASITES.

Summary of Dr. Cone's Lecture 23:10:41

A parasite is literally one that eats at another's table. A plant parasite takes its food from another organism, plant or animal, and incidentally to some extent damages its host.

Parasites may be classified according to their means of getting food; complete parasites have neither roots nor green leaves while partial parasites usually have functional leaves but depend on the host for what other plants usually take in through their roots. It is sometimes hard to draw the line between partial parasitism and symbiosis where there is an exchange of materials between two plants to their mutual benefit.

The complete parasites were illustrated by various fungi recognised chiefly by the damage they do. Leaf spots and grass rusts are easily passed over but when we saw ugly deformed flowers of Clematis we were interested to hear that this is the result of a parasitic rust fungus that stimulates its host to produce gall tissue in much the same way as growth promoting substances (phytohormones) encourage cuttings to form roots. Bracket fungi, common on forest trees are responsible for rot in the wood. One timber specimen displayed was stained bright green by a parasitic fungus pervading its substance.

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