

Notes from Branches and Sections

OTAGO

A project for development at the Lenz Forest Reserve, at Tautuku in South Otago, recently acquired by the Society, was outlined by the Otago president, Mr J. Wallace Ramsay, at a recent meeting of the Otago Branch.

Mr Ramsay said that a committee from the branch had conferred with members from the Southland Section at the reserve and had decided on the site for building a small lodge. This would accommodate parties of members, who would be able to assist in making tracks in the bush and to study at first hand the native flora and fauna. Tentative plans for the building were shown to the meeting, which was asked to give donations and ideas for raising funds for financing the project so that an early start could be made.

Dr J. S. Pillai, of the Microbiology Department of the Otago Medical School, gave a talk "Mosquitoes and their Environment", a subject into which he is carrying out research. He outlined the life history of the insect: first the egg, laid on top of water at the border with the shore; next the larval stage (which according to species might have up to four phases); then the pupa, where the insect formed into the adult after a few days. The larva and pupa lived under the water, but the adult was not aquatic. During early embryonic formation water and oxygen readily entered through the shell of the egg, but later the shell became impervious when water and oxygen were no longer needed for continuance of incubation. This stage might occupy a few days, a few months, or a year, depending on the species. When the adult stage was reached, the insects mated high above the breeding site. After mating the female left to search for a host to feed on, usually mammal, reptile, or bird. Having taken a blood meal from the host, she retired to a quiet spot and after the blood was digested the egg was ready to be laid, and the cycle would begin all over again. Up to 500 eggs might be laid by a female in a season.

Dr Pillai said it was easier to study the larval than the adult stage. To study adults traps containing a host to attract them had to be set. One could then analyse previous blood feeding and get information about environmental behaviour.

A species common in Otago, *Aedes australis*, bred throughout the year and could be found on the high water mark along the shoreline of Otago Peninsula, but its area extended from Bluff to Shag Point. Sea water was capable of supporting at least two species round Dunedin, but eggs and larvae in the sea were subject to destruction by waves and buffeting by winds or an increase of salinity beyond the point they could tolerate.

Studies of breeding sites during two successive summers had shown that the commonest sites were in roadside ditches in open country; some were in horse and cattle troughs, cans, buckets, and the like, a few were in ponds and natural pools, and fewer still were in sluggish streams.

A visit to Rangitoto Island in Auckland Harbour by Dr Pillai had revealed an interesting example of adaptation to different conditions of environment. On this small island, with no natural surface water (as the land is of recent volcanic origin and very porous, rain water sinks underground), he found during a walk of about 1,000 yds four species breeding. Three of these were breeding in man-made water sources, a petrol drum draining a roof, a water storage tank, and even a jar of water standing near a tank; another (a species of *Culex*) was breeding in the leaf axils of a plant epiphytic on a pohutukawa.

The talk was illustrated by colour slides showing many aspects of the research, some of which are directed toward discovering the role of the mosquito in carrying viruses affecting the health of humans and animals.

RANGITIKEI

About 250 small trees and shrubs, all natives, were planted in August by five members of the Rangitikei Section in the section at Bushy Park under their care.

The area has been planned to show off the horticultural merits of the native flora, and most of the plants belong to the genera *Hebe*, *Olearia*, and *Senecio*, quick-growing, showy plants.

A few of the other plants of interest were tawapou (*Planchonella novo-zealandica*), *Carmichaelia williamsii*, kaka-beak (*Clanthus puniceus*), horopito, *Corokia cotoneaster*, kamarama, whau, purple ake-ake, and *Carmichaelia grandiflora*.

NAPIER

The Rev. C. J. Callaghan, S.M., was re-elected chairman of the Napier Section at its annual meeting in August. During the year nine meetings, four field days, and a half-day outing were held.

The first field trip was to Ball's Clearing to see the magnificent stand of trees at Puketitiri; the next was to Gwavas Station, the lovely old home-stand of the Carlyon family, with its gardens, bush, and birds; the third was to Triple-X Creek in the Ruahines; and the other was to Maraetotara, where en route members were invited to view the aviary of native parrakeets on the farm of Mr Taylor, of the Hastings Section. The half-day outing was made to the bird sanctuary at Westshore Lagoon, where Mr N. MacKenzie, a member of the section and a noted ornithologist, identified the birds and spoke on their habits.

WAIROA

The Wairoa Section has been able to have outings every month except one in its past year; two meetings in country areas were well attended. Speakers at monthly meetings, at which the average attendance has been 20 children and 20 adults, have travelled long distances to be present and have talked on a wide variety of subjects.

Another full programme has been arranged for the next year, and preliminary plans have been made to hold a nature exhibition in October 1966.