

MEETING - - - 5 April 1967

Mr. Geo. Uhe spoke most interestingly on the Tongan island of Niuafo'ou (the Tin Can island of the philatelists). Mr. Uhe is studying the manner in which plants recolonise the lava flows following a volcanic eruption, and by a lucky misunderstanding with the government of Tonga, was able to spend 9 days on the island. Niuafo'ou appears to be a sort of tropical Rangitoto, of much the same size, shape and composition, but with a large sulphurous crater lake in the centre. There is no drinkable water on the island and the plentiful rain soaks straight through the porous lava and back, with underground outpouring noises, into the sea. A precarious domestic water supply is maintained by means of corrugated iron catchments and inadequate holding tanks, but during the time Mr. Uhe was there, no fresh water was available for any purpose at all, and he had to quench his thirst with the fluid from green coconuts, which soon ceased to be amusing.

The ash and lava lacks nitrogen and the bulk of the plants are adapted, either by association with mycorrhiza or bacteria, to cope with this deficiency, and also to withstand the extremes of heat and dryness inseparable from contact with bare lava beneath a tropical sun. Mr. Uhe shifted his discussion fairly rapidly round the Pacific, from Hawaii to Savaii, and from the New Hebrides to New Zealand, and in the end I regret to confess that I got my species a bit mixed up. In general however the pioneer plants on the lava are creeping ferns such as Nerhrolepis and Phymatodes, followed by Psilotum, Coriaria, Astelia and Solanum. In some areas the movement begins with Metrosideros, which forms a shrub nucleus with a little shade in which other plants can gather to build up pockets of vegetation. Mycoporum and the Compositae, and several forms of Ficus soon follow.

By and large our own Rangitoto appears to be an almost perfect example of the regeneration of plants covering a volcanic cone. A museum piece in fact, and it is up to us to preserve it, and maintain it intact if possible. E.D.H.

PUBLICATIONS OF INTEREST

Tuatara - Vol.14: December 1966.
p.121. Vegetative features of Griselinia lucida -
J.W.Dawson (5 photographs).

p.130. Notes on the occurrence of Thismia rodwayi.
R.H.Steele (2 photographs).
