

NORTHERN FERN, SCRUB AND TUSSOCK

EASTERN TAUPŌ SLOPES. For about six miles back from the lake shore fern (*Pteridium*) dominates the ridges and steeper faces, with mountain flax (*Phormium colensoi*) abundant in the most exposed locations. *Leptospermum scoparium* scrub tends to dominate on the flatter ground and on deep pumice often in an arid open association with scattered *Dracophyllum subulatum* and low tussock, *Poa caespitosa* or *Festuca novae-zelandiae*.

Maori settlements, abandoned towards the beginning of the century, are frequent and usually adjacent to the relics of podocarp forest. Evidence of scrub and fern fires is practically continuous, but it seems probable that the scrub and fern is itself a succession following the earlier destruction of forest by fire, as in the neighbourhood of Taupō township (Fletcher).

Over the last 30 years or so the establishment of exotic plantations in the vicinity and the spread of lake-shore settlement have combined to make the local community fire-conscious. Already in some areas, particularly along the Napier-Taupō Road and in the lower Hinemaia Valley, broad-leaved vegetation is entering the *Leptospermum* scrub and tending to dominate with *Pittosporum*, *Neopanax* and *Coriaria* conspicuous.

TAHARUA VALLEY. The upper end of the valley resembles the adjacent Kaingaroa Plains with an open association of *Dracophyllum subulatum*, *Leptospermum scoparium*, *L. ericoides* and *Poa caespitosa* on a barren pumice surface with little humus. According to H. Hill (1911) *Leptospermum* has only appeared in this community since the 1870's in consequence of burning. A number of low-growing plants are also characteristic (List 1).

Descending the valley, which was first grazed as early as the 1850's, *Poa caespitosa* tussock or *Leptospermum* scrub, the latter induced by burning, tend to dominate and *Festuca novae-zelandiae* becomes common. On the river flats at the head of the Mohaka the latter dominates with *Poa* confined to dry terrace margins. The introduced ragwort (*Senecio jacobaeus*) has recently (1950) invaded these tussock flats in quantity.

A distinct localized community occurs here and also in similar situations on the Waimarino and Hinemaia Rivers to the west, and far to the east in Ball's Clearing (Puketitiri), until destroyed by land development (1954). This consists of large round-headed trees of *Olearia virgata* var. *ramuliflora* and *Coprosma propinqua* with some *Dracophyllum subulatum* and the small *Clematis quadribracteolata* growing in abundance in the tussock of *Festuca* and *Poa* (Fig. 1).

River shingle, of no great extent, is colonized initially by a sparse low-growing community (List 2).

PODOCARP FOREST. Fragments of podocarp forest are numerous along the Taupō face of the range on the lower knolls and plateaux. Most of these form promontories of the main beech forest, but the largest, the Opawa Bush (properly Rangitoto-Opawa), which is some 7 miles long by a mile or more wide, is separated by the wide tussock valley of the Hinemaia and extends to within a mile of the lake shore. It occupies most of a level plateau on which pumice appears to be of considerable depths (c. 20 feet in eroded logging tracks).

OPAWA BUSH. This forest is described in some detail as it is the largest and most representative podocarp forest on the eastern side of Taupō, and also because it is now being logged.

Tall podocarps with crowns up to 150ft are dominant, but are rather widely spaced so that the canopy is irregular and a good deal of light reaches the floor. Matai (*Podocarpus spicatus*), rimu (*Dacrydium cupressinum*) and miro (*Podocarpus ferrugineus*) (the latter mainly sub-canopy) are plentiful in that order of