

TARARUA PLANTS.

Mr Robert's notes for the study circle on April 23rd. are too full to be copied in toto and too meaty to be condensed. They give a general account of the size and character of the Tararua mountains, with special emphasis on the southern portion. A fairly detailed account is given of the points of botanical interest to be observed on a trip from Otaki to Kaitoke, via Hector, Alpha, and Marchant, with lists of chief species in the different communities. This would be so directly useful to anyone making that crossing and wishing to recognise the characteristic plants that it has been decided to make a few carbon copies of these notes so that they may be made available on loan to any member particularly interested.

DAMAGE BY WIND AND FROST.

The southerly winds of late May seem to have done more damage than usual to plants and some shrubs and trees that usually stand up to the strong southerlies were affected by browning and death of the exposed foliage. Those here mentioned as suffering wind damage were seen along the waterfront between Lowry Bay and Kuritai; since most of the observations were made during a bus ride the list does not pretend to be complete nor are suggestions made as to why the damage was so great.

Large areas of gorse were almost completely browned and several trees of a species of pine and some specimens of Cupressus macrocarpa had suffered slightly. Other exotic damaged were the brooms Cytisus scoparius and C. proliferus, also Albizia lophantha, Eucalyptus sp., Lavatera arborea, Festuca catarrha, Glaucium flavum, Senecio sp. (either mikanoides or angulatus), a plant of bamboo, periwinkle, pampas grass, and boxthorn.

The young shoots of pohutukawa were killed although the older leaves were uninjured. Even the tips and edges of the leaves of cabbage-trees were brown and some plants of Cassinia leptophylla were slightly affected. Nearly every gale was badly browned on the exposed side. Other native plants affected were Coprosma robusta, C. lucida, C. propinqua, C. repens, Coriaria arborea, Solanum aviculare, Leptospermum coparium, Brachyglottis repanda, Nothopanax arboreum, Uhlenbeckia complexa, Hebe salicifolia, Halorrhagis erecta, kahoe, karaka, and kawakawa.

The same winds also severely damaged a number of trees of kaikomako on Mr Buchanan's property. We noticed on our visit of June 6th that the only leaves that had escaped being killed were a few on the leeward side. R.M.

The following records of frost damage in and near Tauranga are of interest since the southern limit of mangrove kauri and several other northern species lies not far away (See p.379 Vegetation of New Zealand for the boundary of the Northern Mainland Botanical Province).

"Visiting the sandhills of the open coast a few miles from Mt Maunganui in late June I found there Muehlenbeckia complexa, Calystegia soldanella, and Oxalis corniculata (large form) all badly frosted, within barely a hundred yards of the breakers. Cyathaea medullaris has been badly frosted for several years practically at sea level in the town of Tauranga. Barely above sea level two or three miles behind the town I noted late in June areas of gorse badly frosted in the flowers, besides Hedera helix, Weinmannia racemosa, Aristolelia racemosa, and several ferns including Blechnum procerum with most of their young shoots quite frosted off. Geniostoma too is frosted everywhere I have seen it in the district save where growing on the warmest and most sheltered banks. A line of puriri, some 10-15 feet high, has been much frosted for two or three seasons in front of the town domain. Mangroves on the harbour annually lose about 6-8 inches of growth from the frosts even in the somewhat sheltered Welcome Bay, so that rarely does one see a plant over 3 feet tall. Patches of Paspalum vaginatum along the shore are generally (as this year) much cut back by frost. On the flats by the railway station and Galahur Point patches of buffalo grass (Stenotaphrum) were almost killed, presumably by the heavy frost of August 1st."

M.Hodgkins.

A list of garden and introduced plants badly affected by the heavy August frosts gives a further idea of the winter conditions in Tauranga.

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