

NEW ZEALAND BROOMS - ENDANGERED PLANTS?

By Andrew W. Purdie

Acting on information received from Dr. Lucy Moore after your Society's visit in March to Hood's Bush Scenic Reserve, near Whitecliffs in Canterbury, I recently travelled there to look for Notospartium torulosum. I found only two shrubs both of which were severely browsed by cattle. The fact that this has occurred in a scenic reserve is a result of the area concerned being unfenced.

Notospartium was possibly a relatively common genus at one time in lowland Canterbury and Marlborough, being associated with forest margins, shaded banks and river gorges. Utilisation of forests, development of land for agriculture, burning and spraying of vegetation and subsequent cultivation and browsing by sheep and cattle have had a disastrous effect on Notospartium and the other native brooms (Carmichaelia, Corallospartium and Chordospartium).

My present work at DSIR on the biochemistry of native brooms has involved a particularly close association with broom plants growing in the wild. The situation regarding our native brooms looks far from encouraging as populations are very much on the decline. Unless action is taken now to preserve our unique brooms, some species could become extinct. Those most affected are: Notospartium torulosum (found in Canterbury), and N. carmichaeliae, N. glabrescens and Chordospartium stevensonii (all found in Marlborough). The indications are that they are endangered native plants and an attempt will be made over the next year to record surviving populations. The co-operation is sought of Botanical Society members in supplying information on locations of Notospartium and Chordospartium. Information should be given to Dr. Lucy Moore or any member of DSIR, Botany Division.

---

NEW ZEALAND BROOMS - ENDANGERED PLANTS?

By L.B. Moore

At the Hood's Bush Scenic Reserve on 12th March, 1977 two members who foraged widely beside the creek, up the tussocky slope and around and into the bush remnants returned with very slender twigs of a broom with sprays of purple pink flowers, collected from different plants. At afternoon tea when specimens were compared and discussed these two brooms were dismissed by one who should have known better with the remark that carmichaelias were too difficult. Only later, with a little prompting from someone who knew what rarities the area should yield, did it suddenly become crystal clear that these were not Carmichaelia (which has stumpy clusters of flowers) but the much rarer Notospartium torulosum, easily identified even in memory by its longer, many-flowered racemes. Amends were made in part by bringing these records to the attention of Andrew Purdie who was able to find two plants, presumably the same ones, later in the autumn when cattle had chewed the twig tips

into six-inch long tassels of white fibres. At my request Mr. Purdie prepared a short statement of his interest in the brooms in general, incorporating a request for help from our Society's members.

---

THE VEGETATION AND FLORA OF MT. MASON

B.P.J. Molloy

Mt. Mason, or Trig Station Q (Grid Ref. S60/896337), is a relatively low peak (850 m) in the Cavendish Hills on the south-western margin of the Culverden Basin. It is situated on a hill country property known by the same name ("Mt. Mason"), approximately 6 km from Masons Flat and 12 km from Hawarden. Access to "Mt. Mason" homestead is provided by the Virginia Road which follows the North Branch Waipara River. From here to Mt. Mason itself is a private vehicle track which brings the summit within easy walking distance of the homestead. Permission is needed to use this track.

"Mt. Mason" is run by S.J.S. (Stephen) Barker, a great-grandson of Dr. A.C. Barker (1819-73) who is well known today for his early sketches and photographs of Canterbury and its people. Stephen Barker is also responsible for the family property on the Chatham Islands. It is little wonder then that a prominent plant cultivated at "Mt. Mason" homestead is a Chatham Island endemic, Hebe barkeri, named by Cockayne after S.D. Barker, a son of Dr. A.C. Barker.

Mt. Mason lies in an interesting block of country, due it seems largely to its geographic position. This is transitional or "front country" of comparatively low altitude, bordering an inland basin of even lower relief and drier climate. At the other extreme are the higher, colder and wetter mountains (Puketeraki Range) to the west.

The rocks are mainly Triassic greywackes typical of the western mountains but with much intruded volcanic rock. Faulting is prevalent - one prominent fault runs through the area (including the homestead site) in a NE - SW direction. This fault is also responsible for the appearance of younger Tertiary rocks at the present surface. A good example is the prominent scarp of Weka Pass limestone below Mt. Mason.

The soils of the area reflect these differences in rock types and the transitional climate. Soils of the higher slopes tend to be shallow, stony and well drained, and in places show the influence of surface volcanics. In general these soils are more fertile than their counterparts further west. This is suggested by the occurrence of Hall's totara (Podocarpus hallii) and other species such as holy grass (Hierochloa redolens) and mountain flax (Phormium cookianum). Soils of the lower slopes tend to be deeper, finer, less well drained and less fertile, as indicated by the presence of manuka (Leptospermum scoparium) and browntop (Agrostis tenuis). The limestone scarp supports several species usually confined to this habitat, and the fertile talus slopes below the scarp carry dense mountain flax.