

## SOME UNCOMMON SAND DUNE SPECIES OF THE CANTERBURY COAST

New Brighton Spit - Waipara River

M.J.A. Simpson and R. Mason

Over the past four summers, with assistance from Gregory Collett and Janet Moss, we have been listing the native and adventive species present in the sand dune complex between New Brighton Spit and the mouth of the Waipara River. We still have a little field work to do before we present our information but list here some of the species for which we have few records, some which have not been seen in recent years and others which are almost certainly lost to the area, in the hope that members may be able to confirm or extend our information.

The sand dune plants of Canterbury were first listed by J.F. Armstrong (1870) in an account of the vegetation in the neighbourhood of Christchurch. Included were 2 mosses, 4 ferns or fern allies, 2 grasses, 15 rushes or sedges, 6 orchids, 37 herbs, and 12 shrubs or small trees. Many of these are no longer to be found although it is tantalising to think that some, e.g. Botrychium sp., Ophioglossum sp., and the orchid species Thelymitra longifolia, Prasophyllum colensoi, and "four other orchids" may still be located by vigilant observers.

Those which have not been seen for some years include the grasses Deyeuxia billardierii, and the lovely Spinifex hirsutus which Wall (1922) records from South Beach, New Brighton, where "a large patch grew on the outmost dune". He noted that it was once plentiful on North Beach also. It was last known from North Beach in the 1940's recorded by Simpson in No. 7 of this Journal pp 18-19.

Lachnagrostis filiformis var. semi-glabra we have recorded from two areas and another grass of restricted distribution Cockaynea laevis, we found growing in an interdune hollow

with scrub vegetation near Leithfield. This species is not common in Canterbury and is usually found at higher altitudes. Two other species not seen in recent years and not noted in our survey are the pale yellow-flowered herb, Sebaea ovata of the Gentian family and the pink-flowered orchid, Spiranthes australis. However, Mr H. Talbot now of Richmond, Nelson, recalls Sebaea ovata growing on the estuary of the Waimakariri River among marram "back from beach and strand" in January 1946 (pers. comm.). It is listed by both J.F. Armstrong and J.B. Armstrong for the coastal area, and was collected by J.B.A. from Banks Peninsula. Harry Talbot can also recall Spiranthes australis growing "in a hollow behind the foredune at Waikuku" in 1946 (pers. comm.). The small sedge Eleocharis neozelandica is another not seen for many years but this tiny plant is easily over looked and is worth watching for.

At some times of the year the short culms turn rich gold in colour and attract attention.

Species almost certainly lost to the area include Euphorbia glauca and Pimelea arenaria and some listed by Wall (1953) and not seen by us include the sedge, Carex resectans, three grasses, Deschampsia caespitosa, Hierochloa redolens and Poa seticulmis, the semi-liane, Carmichaelia kirkii, the prostrate shrub, Muehlenbeckia ephedroides and the small herb, Limosella lineata. Other rushes and sedges known only from one or a few localities are Baumea rubiginosa, Eleocharis gracilis, Schoenus nitens var. nitens, and Juncus holoschoenus. Records of these, mostly by John Thompson, are documented in earlier numbers of the journal. Scirpus lacustris was once known from South Brighton and Heathcote but we did not see any. Pingao (Desmoschoenus spiralis), we know from Sumner, near Spencer Park and Amberley beach. It may occur elsewhere and should be noted. We expected the sand gunnera, G.arenaria, to be common in dune slack areas but found only one colony, near Spencer Park. The fleshy yellow fruits are

favoured by birds.

Arnold Wall wrote that the small, white-flowered mazus (M. pumilio) was "the great distinction of the dune vegetation". John Thompson has recently reported this from wet areas in a paddock behind Leithfield beach, from Chaney's and from near Bottle Lake plantation. We did not see it anywhere within the dune system. Mimulus repens is restricted to dune slack areas and was not plentiful in four sites where it was recorded. The white form was not seen.

Ranunculus acaulis was noted at Spencer Park, on the inner side of Brooklands tidal lagoon and between Kairaki and Woodend. Ruth Mason, No. 6, p2, of this Journal, had not seen this species in Canterbury other than at the Rakaia R. mouth and indicated that all coastal stations were worth noting.

Greg Collett reports Pratia angulata and Utricularia sp from Spencer Park, but we have no specimens. Utricularia monanthos has been reported by Mason, No. 4, pp 10-11 of this Journal, from one lowland site in Canterbury between the Rakaia River and Taumutu and both U. monanthos and U. novae-zelandiae are recorded by J.B. Armstrong for his "Littoral District" [which] "extends along the coast, and inland about a mile and a half".

Of trees and shrubs we noted Coprosma repens at New Brighton Spit probably naturalised as recorded by Mason No 14, pp 12-13 of this Journal. Other records would be of interest. Akeake (Dodonaea viscosa) was found in two localities only, between Kairaki and Woodend and on the outer side of Brooklands tidal estuary where a large solitary tree has a trunk with a circumference of 109 cm (43 in).

Ngaio (Myoporum laetum) we noted at Spencer Park and a large tree near the akeake at Brooklands.