Rediscovery of a nationally rare tussock in Makara Foreshore Reserve, Owhariu Bay, Wellington

Barbara Mitcalfe¹ and Chris Horne²

This tiny reserve (c. 40×70 m), on a substrate of coarse sand and gravel with a few stony patches, is located immediately behind the Makara storm beach between the end of Makara Road and the estuary of Makara Stream. It is bounded on three sides by unformed parking spaces and on the fourth side by weedy backyards and the Sunset Café. Exposed to the northwest, it is sunny, salty and windswept, with a plant association (pingao, spinifex and *Raoulia* "Makara") now rare in the Cook Strait Ecological District.

Wellington City Council asked us in April 1997 to report on the condition of the Reserve with recommendations for its management. Our research included fossicking through several decades of WCC files, including Maggy Wassilieff's Vegetation Survey of the Makara Estuary and Foreshore 1992, which no doubt eventually prompted WCC to take steps towards preparing a management plan. We found that not all parts of the area are gazetted as reserve: in the 1970s some lots were taken for recreation and community purposes and are therefore not subject to the Reserves Act.

In the late 1970s there were seven separate lots set aside for 'parking, picnicking and protection of the special plant groups and associations'. These incompatible designations were no doubt due to the strongly-divergent opinions held by Makara residents and the result was an uneasy compromise made worse by subsequent neglect of the site. Litter accumulated and the weed species outnumbered the naturally-occurring native species by almost two to one. A barely-legible weather-beaten notice invited people to walk through '...this area which has a unique collection of groundcover plants. It has been fenced to keep cars and motorbikes out. Thankyou.'

Our research produced no clues as to who originally told WCC about the significance of the sand-binding and mat plant community, though Ecology Division, D.S.I.R. and Botany Department, Victoria University were acknowledged as sources of information. We would be interested to hear from anyone who was involved.

By March 1997 when we began our survey, marram, mallow, buck's-horn plantain, allseed and other weeds had colonised about half the reserve and were relentlessly smothering the native plants. We divided the site into eight quadrats,

¹ 15 Boundary Road, Kelburn, Wellington 5.

² 28 Kaihuia Street, Northland, Wellington 5.

listing species, photographing and mapping the vegetation in each. The main plant associations comprise several scores of mats of *Raoulia* "Makara", a few patches of pingao, some spinifex (Fig. 1), a few *Pimelea prostrata*, many *Disphyma australe* and, to our surprise, two scruffy tufts of sand tussock, *Austrofestuca littoralis* (Fig. 2), not recorded at Makara since Dr Aston's record of 1908. Sand tussock is nationally rare.

Our recommendations for management include gazettal of the whole area as a Scenic Reserve; a public relations exercise to inform local residents about the Reserve's natural values; phased removal (including hand-removal) of marram; seed-collection, propagation and planting of native plants; installing an interpretive panel; removal of rubbish; repairs to the fence and bollard/chain barrier; appointing a suitable local person to be an honorary ranger; and designating a senior WCC staff member to have overall responsibility for the Reserve.

We look forward to reporting, in a future *Bulletin*, on the continuing ecological restoration of the reserve.



Figure 1 (above). Male flowers of spinifex at Makara Foreshore Reserve.

Figure 2 (top). Female spinifex at Makara Foreshore Reserve.

Figure 3 (right). Austrofestuca littoralis (hinarepe) in flower.

Photos Barbara Mitcalfe.