

Rediscovery of oioi in Rotorua Lakes Ecological District in 2012

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In 2012, whilst undertaking a botanical survey of the Kaokaoroa Wetland alongside the Ōhau Channel, which flows between Lakes Rotorua and Rotoiti in the central North Island, I came across a small population of oioi (*Apodasmia similis*). This was an exciting find as oioi had not been seen in the Rotorua Lakes Ecological District for about 140 years. The only previous record of oioi in the vicinity of the Rotorua lakes was from 1872, as described in the “Botany of Rotorua” (Clarkson *et al.* 1991):

“The following species found by Thomas Kirk in 1872 are now thought to be extinct in the district: *Viola cunninghamii*, *Potentilla anserinoides*, *Thelymitra pulchella*, *Chenopodium glaucum*, *Lycopodium laterale*, and oioi (*Leptocarpus similis*).”

Oioi is more commonly associated with coastal estuarine margins throughout Aotearoa New Zealand, but occasionally occurs inland. The following distribution is given in the “Flora of New Zealand Volume II” (Moore and Edgar 1976):

“N., S., St., Ch. Coastal among dunes and in salt marshes. Inland on marshy lake shores in N. and S., and near hot springs at Rotorua and Lake Taupō.”

and in the “Wetland Plants in New Zealand” (Johnson and Brooke 1989):

“N., S., St., Ch. A characteristic plant bordering salt marshes and estuaries, or in dune hollows on the coast but scattered also around some inland lakes and in lowland freshwater marshes.”

However, in Rotorua Lakes Ecological District, despite botanists searching for it over the years (Ecroyd *et al.* 1990 and Clarkson *et al.* 1991), oioi had not been recorded since Kirk recorded it along with other coastal species such as *Sarcocornia quinqueflora* and *Ranunculus acaulis*, both of which have also not been seen subsequently in the Rotorua Lakes Ecological District (Clarkson *et al.* 1991). Ecroyd *et al.* (1990) made the following comment in the annotated list of vascular plants for the Rotorua Lakes Ecological District:

“*Leptocarpus similis* Edgar - jointed wire rush, oioi CHR 18275. Early collections were made from wet cliffs above the Green Lake, and at Ōhinemutu (Kirk 1873) but it has not been seen recently.”

Geothermal influence is clearly a factor in some of the previous occurrences as Kirk (1873) noted oioi and sea rush (*Juncus maritimus*) at thermal sites at Ōhinemutu:

“About hot springs at Ōhinemutu a *Chenopodium* occurs with the leaves farinose beneath, which in the absence of flowers or fruit I refer to *C. ambiguus*, notwithstanding the sub-erect flaccid habit. *Leptocarpus filiformis* (“oioi”) is abundant with *Cladium junceum* in the hot-water swamp.”

So after looking out for oioi and the other coastal species that Kirk found in the Rotorua area for many years, it was very exciting to find one of them.

I also saw other uncommon species (in the Rotorua Lakes Ecological District) in the wetland on that same trip (Wildland Consultants 2012), including burr reed (*Sparganium subglobosum*), karetu (*Hierochloe redolens*), and *Ranunculus macropus*. Of these, *R. macropus* is classified as Data Deficient in de Lange *et al.* (2018), whilst *Hierochloe redolens* is known from very few lowland wetlands in the Bay of Plenty Region. Until about 15 years ago it persisted in the Rotorua Airport Wetland (author pers. obs. 2000s), but that site has since been destroyed to accommodate an extension of the runway, and there is a small population adjacent to Ōhiwa Harbour (Beadel 1993), and a small population in Lake Tahuna Wetland below Putauaki. Otherwise it is mainly known from higher elevations in the Bay of Plenty, including in the Rotorua Lakes Ecological District (Ecroyd *et al.* 1990), and Kaingaroa Ecological District (Wildland Consultants 1997).

All in all, it was a very interesting afternoon in the Kaokaoroa wetland in 2012!

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Okareka mistletoe restoration project

Weed control/plant releasing work day for 2023

Come and join Rotorua Botanical Society to control weeds threatening mistletoe sites and plant new host trees.

Activities will involve hand-pulling, cutting, sawing of vines, climbers and small trees.

When: Sat 14 October – Weed control/plant releasing

Meet: Corner Summit and Loop Roads (lake end) @ 8:45 am

Grade: medium-hard – activities suitable for all ages and abilities will be provided

Please contact the organiser Paul Cashmore

027 650 7264 (mob) or 07 349 7432 (work) to RSVP.

Equipment to bring will be advised.