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# The Orchids of Chatham and Pitt Islands

Anne Fraser

## Introduction

Orchid genera known from Chatham and Pitt Islands include *Acianthus*, *Adenochilus*, *Aporostylis*, *Corybas*, *Drymoanthus*, *Earina*, *Gastrodia*, *Microtis*, *Nematoceras*, *Petalochilus*, *Prasophyllum*, *Pterostylis*, *Simpliglottis*, *Singularybas*, *Spiranthes*, *Thelymitra* and *Winika* (de Lange *et al*, 1999; P. J. de Lange *pers. comm* (unpub. Species list).

Of these, our group did not see *Adenochilus*, *Drymoanthus*, *Gastrodia*, *Singularybas*, *Spiranthes* and *Winika*. Of genera listed, not all species reported were seen. Late observation, after flowering, contributed to the difficulty of identifying some species.

## Habitat

At first sight, the rolling heath lands of both Chatham and Pitt Island suggested an ideal orchid habitat, especially for terrestrial species. They are bracken dominant, with open spaces of dry peat, exposed in tracks broken by stock, but often covered with thin pasture and in places, full vegetation. Genera that commonly colonise this habitat are *Thelymitra*, some *Prasophyllum* and *Microtis* species, and these were also seen in a variety of other open, usually dry situations, including roadsides.

Wetter swamp areas contain some species of *Thelymitra*, *Prasophyllum* and *Pterostylis*, but the latter are more commonly found in moist bush land. This is also the habitat of *Acianthus*, and also *Nematoceras*,

although some of these species prefer wet, cool, shaded stream banks. Dry forest shelters *Petalochilus* sp. and *Aporostylis bifolia* on the more open margins. Epiphytes are usually found in forest and *Gastrodia* in the darkest closed vegetation or in pine forest.

Orchids reported on the group trips (see Young 2007):

## Ocean Mail Reserve

At the first reserve, the summer-dry wetland reminded me of the orchid habitat on the Central Plateau around Ruapehu, where similar species of associated vegetation accompanied the tall darkly flowered *Prasophyllum* found here, considered to be *Prasophyllum* aff. *colensoi* (b) (of St George *et al*. 2005). Its visual difference from *P. colensoi* observed in other North Island areas prompts further investigation. *Microtis* sp. and *Thelymitra longifolia* well past flowering were seen here and on the drier high land above the lake. *Thelymitra pulchella* was in flower still.

## Rangaika Reserve

This reserve and environs proved to be a treasure trove for orchids. Here was first seen the Chatham Islands endemic *Pterostylis silvicultrix* in its extraordinary habitat, epiphytic on *Dicksonia fibrosa* trunks, just underneath the new fronds, but above where the dead fronds excluded the light from the trunk. Some plants still had flowers. The whole plant was reminiscent of *Pterostylis humilis*, a montane

species in mainland North Island, with its soft light green rounded leaves and chubby flowers, the pink laterals quite short above the galea (hood). Some plants were also seen on the ground, and this area also supported the extraordinary large leaves of *Nematoceras* aff. *sulcatum*.

Other terrestrial species recorded here included *Microtis* aff. *unifolia* (the late flowering variant of St George *et al.* 2006), *Thelymitra longifolia*, *T. pulchella*, and *Aporostylis bifolia* along the fence line and in the still wet peat, pugged up by cattle. *Prasophyllum*, more likely *P. colensoi* s.s. here, as it had the yellow-green flowers in a smaller flower spike and stems that are characteristically bent, not strongly upright like the variant seen at Ocean Mail, with the darker-coloured flowers.

In the dry *Dracophyllum* forest edge an observant member of the group saw several *Petalochilus* in flower, a good find. Consultation with Bruce Irwin of Tauranga established this species as most likely *P.* aff. *chlorostylus*. The epiphytic orchid *Earina mucronata* was common here, both in closed forest and in the areas where forest was modified.

### Northern Chatham Island

On the walk to the basalt columns across the 'clears' of struggling, peat-colonising plants, in the process of being converted to farmland, species of dry-land terrestrial *Prasophyllum*, *Thelymitra*, and *Microtis* were seen. Across the road some nice *Thelymitra pulchella* were still in flower. A good find at Port Hutt was *Simpliglottis cornuta* under pine trees, a common habitat for this species. A stop at a summer-dry wetland below the road to Waitangi West, yielded *Thelymitra cyanea*, a beautiful blue orchid, the only *Thelymitra* species which shows a small differentiation in the labellum. Some open flowers of *T. pulchella* were present and *Microtis* aff. *unifolia* was common at the roadside, with *T. longifolia* among shrubs on the dry hillside.

### Nikau Forest

Nikau forest was a nice forest environment, with the emergent *Rhopalostylis* aff. *sapida* reminiscent of a tropical island. *Earina* was common on trees, and a lovely group on a fallen kopi was in full bloom, with the labellum of the yellow flowers a deep orange. The

question was raised as to the identification between the species of *Earina*, was it *E. mucronata* or *E. aestivalis*? The late flowering confirmed *E. aestivalis*. We also recorded a number of late flowering *Pterostylis banksii*.

### Ellen Elizabeth Preece Conservation Covenant (Pitt Island)

This is a nice bush with literally dozens of *Pterostylis*. *P. silvicultrix* was both on the ground and epiphytic on the *Dicksonia fibrosa*, tucked up under the new fronds. It appeared that there could be another *Pterostylis* species in association with those noted, a robust plant with darker rounded slightly shiny leaves, past flowering unfortunately. Tall multi-flowered *Microtis* aff. *unifolia* were common in the trackside grass.

The first sighting of *Acianthus sinclairii* was made near the track in this wonderful terrestrial orchid habitat, and *Nematoceras* spp. were again prominent. I also saw a rounded, smaller leafed species here, most probably *Nematoceras orbiculatum* but it may also have been *N. iridescens*.

The 'clears' bordering the airstrip on Pitt, with bracken and grass between bare areas of ground, supported *Thelymitra* spp., *Prasophyllum colensoi*, *Microtis* spp. and *Aporostylis bifolia*, with some of the same species present in the swamp. *Aporostylis bifolia* and a *Thelymitra* sp. with the characteristic wide leaf and scented flower of *T.* aff. *longifolia* were also found by waiting plane passengers at the bridge below the airstrip.

### Awatotara Conservation Covenant (Tuku Rd.)

A prolific roadside orchid population was seen here, containing *Thelymitra longifolia*, *Prasophyllum colensoi*, *Microtis* aff. *unifolia*, a possible *T.* aff. *pauciflora*, *Pterostylis* species with the look of *P. silvicultrix*, but with spent flowers so it was difficult to be decisive about it, and in a very different habitat, a rocky road side bank.

### Te Matauae, near Te One (Pat Smith's Forest)

Pat Smith's covenanted regenerated forest yielded *Microtis* sp. and *Earina* sp., and Pat told me that beyond the peat ridge across from where the bus was parked, there were dozens of blue flowers, probably *Thelymitra cyanea*, in the wet land.

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