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Some Observations on the Plants of the Chatham Islands

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Summary

This is a report on observations from the New Zealand Region field trip to the Chatham Islands in February 2024. Included are plant observations that provide some insights into the biodiversity of areas preserved by the Department of Conservation or private owners.

INTRODUCTION

The first thing that strikes you on arriving in the Chathams is the lack of forest cover. Most has been burned in Polynesian and European fires. What remains, however, in a few Department of Conservation and private reserves is quite distinctive and well worth checking out. The other noticeable feature is the lack of tall trees in the forest. Dry land only appeared above the ocean 3 million years ago on the Chatham Islands and consequently none of the tall mainland New Zealand species, including all of the podocarps, has managed to cross the 800 km of sea and turn up there. The biggest trees are probably the ubiquitous *Olearia traversiorum* (called akeake by the locals)

(**Fig. 1**) and karaka (*Corynocarpus laevigatus*) which is considered to have been introduced by Maori or Moriori up to 800 years ago, and the nikau (*Rhopalostylis sapida*, Chathams form).

Figure 1. Ancient *Olearia traversiorum* on Pitt Island.

While the biodiversity on this island is not huge, there are about 52 species or subspecies that are either unique to the Chathams or are distinctly different from their mainland counterparts. A number of these make great garden plants and there is potential to see more of them in cultivation. Coastally, some interesting plants have survived the fires and large numbers of feral cattle and pigs. We saw a few surviving forget-me-nots (*Myosotidium hortensia*) growing in pure sand in the dunes, as well as hundreds that have been propagated and planted around some of the beaches. Another striking plant in the dunes was the sow thistle *Sonchus macrophyllus*. Despite the unfortunate name, this is another very cool megaherb with huge chunky leaves and would be great in the garden. Beyond the dunes we saw *Corokia macrocarpa* (**Fig. 2**), *Astelia chathamica, Carex trifida*, a *Pimelea*, and on coastal cliffs, *Geranium traversii*. A local form of the ice plant *Disphyma australe* was common on rock outcrops and had particularly bright pink flowers. We also saw some kowhai (*Sophora chathamica*) growing on steep coastal banks and reaching 3 - 4metres tall. Some researchers believe it may have been introduced by Maori or Moriori a few hundred years ago rather than being indigenous to the Chathams.

Figure 2. *Corokia macrocarpa*

We also encountered all three hebe species that occur on the Islands. *Veronica chathamica* which is a very flat groundcover growing in dune areas and could be used much more widely as a garden plant as it is in very limited cultivation in New Zealand. *Veronica dieffenbachia* is a mid-sized shrub quite widely distributed on the

Island and *V. barkeri* which can grow to 13 m tall – this must be the tallest hebe on the planet. *Dracophyllum arboreum* is another species that seems to be on steroids. While most New Zealand mainland species are shrubs or even groundcovers, this one can reach a very impressive 18 m making it a canopy species here. *Aciphylla traversii* was encountered with seed heads on female plants and also *A. dieffenbachii* with its unusual blue/green divided leaves which lack the vicious spikey leaf tips of other species. This one is of course widely cultivated as an ornamental garden plant in New Zealand.

Horticulturally, plants with real merit that we saw were *Brachyglottis huntii* (known as the Chatham Island Christmas tree) and still flowering in February (**Fig. 3**), and two stunning olearias; *O. chathamica* and *O. semidentata* whose major drawback seems to be the difficulty in actually keeping them alive when planted out (**Fig. 4**). *O. semidentata* was growing on raised humps in a peat bog and still covered in attractive purple flowers. *Olearia chathamica* also has a purple centre but white petals.

Figure 3. *Brachyglottis huntii*.

Figure 4. *Olearia semidentata*.

The Chatham Island lancewood was widespread and curiously lacks the distinctive juvenile form of mainland species. *Phormium tenax* was also common and often has drooping leaves here. It may well prove to be a different species. *Melicytus chathamicus* was also quite common and variable, but with thick, waxy serrated leaves it is quite attractive and certainly more frost tolerant than *M. ramiflorus* in southern New Zealand **(Fig.5**).

Figure 4. *Melicytus chathamicus*.

Some other plants that we saw had less obvious differences from their mainland equivalents and included *Myrsine australis*, *Plagianthus regius* (larger leaves), *Coprosma chathamica*, *Dicksonia* squarrosa, *Myoporum laetum* and *Macropiper excelsum* (kawakawa).

The Chatham/ Pitt Island nikau (*Rhopalostylis sapida*), while not currently regarded as a separate species, is a much better garden plant than the mainland form in my opinion. The leaves are wider, it is a bit quicker growing, fairly frost hardy and a tidier, more compact plant. It is also more stable in strong winds and very rarely blows over – not surprising given its occurrence on a small island hundreds of kilometres from anywhere in the Pacific Ocean.