

The stranded plants of the Furneaux Group

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Introduction

There are many similarities between the coastal plants of north-eastern Tasmania, familiar to this writer, and those seen on Flinders Island. After all, the southern-most islands of the Furneaux Group are really only about 20 kilometres north of Cape Portland on Tasmania's north-eastern tip. Both areas are home to the many different species of saltbush, tea trees and, of course, boobyalla and coast wattle. *Leucophyta brownii* is common in both places, as is *Correa alba*. There is *Muehlenbeckia adpressa* and *Lomandra longifolia*, and many other plants the two places have in common.

These hardy plants thrive in a harsh coastal environment. In fact, all the plants we have in common seem to be stronger, more robust, and even more compact on Flinders Island. Being pruned by the constant wind is possibly a factor. They are, after all, in the full force of the Roaring Forties (see Plate 1).

After yet another visit to this beautiful group of islands I began to compare the differences and similarities in the flora, and the following remarks draw heavily on various published sources that helped inform my observations while travelling around Flinders Island.



Plate 1. Saltbush on Whitemark Beach, with boobyalla behind it pruned by harsh winds.

Geographical background

During the last glacial period the sea level dropped and the 'islands' were part of a ridge of mountains between Wilsons Promontory and north-east Tasmania rising above the Bassian Plain.

After the last glacial period when sea levels rose, from around 10,000 years ago, many plants that were remnants from that time became isolated on the islands in the Furneaux Group. Now, the islands form a vestige of what was once that land-bridge (Harris, Buchanan & Connolly 2001).

There are up to one hundred islands in the Furneaux Group. These biogeographically important islands support a wide range of habitats: there is rainforest in the mountains of Strzelecki National Park in the south of Flinders Island, wet eucalypt forest in deep gullies across the island, and woodland and scrubland across much of the island. On the east coast there are many inlets and saline lagoons with the accompanying coastal scrub, beach dunes, grasslands and heathlands.

Notes on the flora

The Furneaux Group straddles the divide between the Tasmanian and mainland Australian floras, being at the northern-most range of about five Tasmanian endemics, and at the southern-most range of several mainland species not otherwise found in Tasmania.

Most of the threatened species on the islands are growing at the edge of their range. For example, *Lomatia tinctoria* grows at its northern distribution limit here, whilst *Acrotriche cordata* and *Melaleuca armillaris* grow at the southern limits of their distributions.

The native tobacco, *Apalochlamys spectabilis* (Plate 2), is hardly ever seen in Tasmania but can be seen on Flinders Island and all along the Victorian coast. It is also known as the showy cassinia. When you see it in flower, it looks as though it is dying as the flowers are a brownish colour. Often though, the leaves closer to the ground are indeed dead. This strongly scented biennial herb of up to 2 metres in height favours alkaline soils and because it colonises



Plate 2. Native tobacco (*Apalochlamys spectabilis*) in flower; growing on the roadside at Palana, in the north of Flinders Island.



Plate 3. Saw banksia, *Banksia serrata*

disturbed areas, can be easily mistaken for an introduced weed. Indeed, an information panel I read indicated “it appears soon after an area is disturbed and disappears almost as quickly”.

Gardeners and others might be familiar with the saw banksia, *Banksia serrata* (Plate 3). There are only two small populations of this plant in Tasmania. One in the north-west of the state is mainly restricted to the Rocky Cape National Park. The other is a small population of approximately 100 plants in Wingaroo Nature Reserve on Flinders Island. These areas are the southern limits of this species’ distribution. However, if you drive through the Gippsland forests in Victoria, you will see a massive concentration of *B. serrata*

all the way along the south-eastern coastline, often in single-species groves and forests.

Classified as Rare by the *Threatened Species Protection Act 1995* in Tasmania, the Wingaroo population is rapidly declining due to the incursion of *Phytophthora cinnamomi* – a soil-borne root mould that causes dieback. During a Bush Blitz carried out in the reserves on Flinders Island (Australian Government et al. 2014), seed of *Banksia serrata* was collected by staff from the Tasmanian Royal Botanical Gardens just prior to the site being burnt as part a management regime. The seeds were taken from 50 plants and 80% germination was achieved (Wood pers. comm. 2021).

On the windy headlands of the Bass Strait islands, there is a purple pea flower twining at ground level called poison pea, *Swainsona lessertiiifolia* (Plate 4). It is poisonous to stock; it was reported by one collector to make horses go mad. Although it is also found on King Island, it is most common all along the coasts of Victoria and South Australia. Indeed, it is endemic to south-eastern Australia.

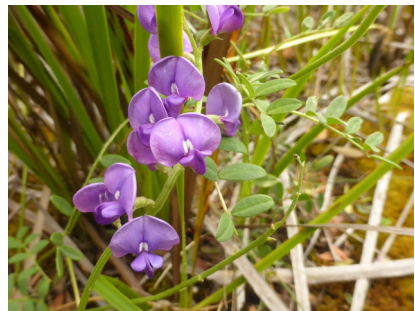


Plate 4. Poison pea, *Swainsonia lessertiiifolia*

The coast twin-leaf, *Zygophyllum billardieri* (Plate 5), a scrambling, low-growing, dune-stabilising plant from the calcareous sands and rocky shorelines of the Furneaux Group, is listed as a threatened species (Rare) in Tasmania, although it is reasonably common on the coast of Victoria.



Plate 5. Coast twin-leaf, *Zygophyllum billardieri*

In the small relicts of wet forest on Flinders and King islands in Bass Strait, there is a beautiful small tree, the blueberry ash, *Elaeocarpus reticulatus* (Plate 6), growing naturally at its southern-most limit. It can also be seen in the southern forests of Victoria but is found nowhere else in Tasmania. Fire is a significant threat to this plant as it does not recover vegetatively after it is burnt. The deep gullies where it grows have obviously provided refuge from fire and drought.

In the deep wet gullies in the centre of Flinders Island, *Eucalyptus globulus* and *Eucalyptus viminalis* co-occur and are habitat for the forty-spotted pardalote, a bird species listed as Endangered on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. A



Plate 6. Blueberry ash, *Elaeocarpus reticulatus* (unfortunately not in flower); foliage and fruit (Photo: Ruth Dinning)



Plate 7. Vegetation on calcarenite, Fotheringate Bay

project to mount nesting boxes in trees has been carried out and the research team is waiting for citizen scientists to send in their observations. These two tree species are also growing together at sea level and may be visited by the swift parrot. Indeed, breeding swift parrots were observed and recorded formally in the Strzelecki National Park for the first time in 2012.

The Furneaux flora includes plants occurring on calcarenite substrates (Harris & Kitchener 2005) (see Plate 7). Such habitat supports plants more commonly found growing in the calcareous soils of the limestone coasts of mainland Australia.

Such calcicoles can be observed, for example, at Fotheringate Bay, Settlement Bay and Killiecrankie Bay where intricately weathered and sometimes jagged formations of calcarenite are

present. Calcarenite is a carbonate limestone consisting of small sand-sized particles of shells and sand cemented together with crystallised lime over tens of thousands of years. It is rare elsewhere in Tasmania and especially significant in the Furneaux Group because here, these calcarenites correspond with low rainfall and produce vegetation communities similar to those that can be found on the coast of South Australia.

The following plants grow on the local calcareous soils: the coast bonefruit, *Threlkeldia diffusa*, a prostrate, succulent spreading plant extremely common in coastal South Australia through to the north-west of Western Australia, though rare on mainland Tasmania; other plants in this rare community include *Lasiopetalum bicolor* and *L. macrophyllum*, *Entaxia microphylla* and *Acrotriche cordata* (see Fig. 1).

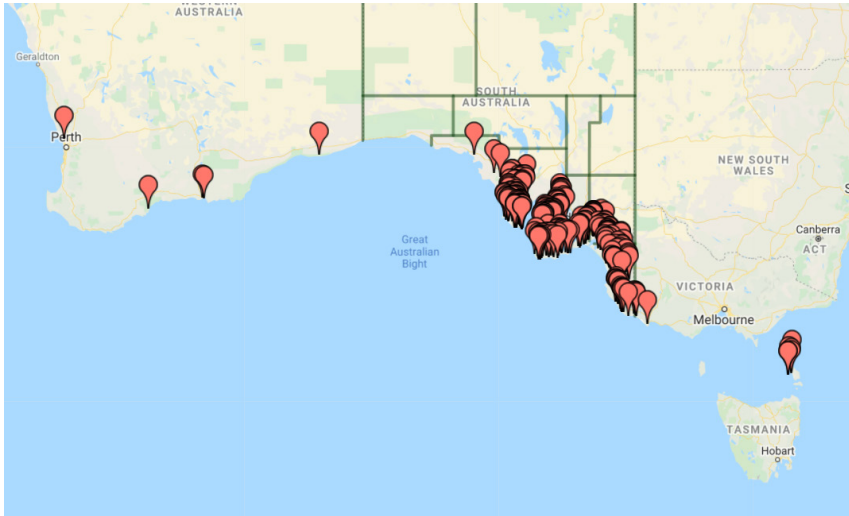


Figure 1. Map showing distribution of *Acrotriche cordata* (corresponding closely to that of the coast bonefruit, *Threlkeldia diffusa*). Source: State Herbarium of South Australia/Google Maps 2021.

Below are some notes on other threatened species from the Natural Values Survey 2012:

- Dwarf wedgepea, *Gompholobium ecostatum*, endangered TSPA. Within Tasmania, this species is restricted to Flinders Island, but is present in the Grampian Ranges, Victoria.
- Swamp beardheath, *Leucopogon esquamatus*, rare TSPA. Within Tasmania this species is restricted to Cape Barren Island and Flinders Island.
- Furze needlebush, *Hakea ulicina*, vulnerable TSPA. Found Flinders and Cape Barren Island. Fairly common in Victoria.

While Flinders Island hosts many threatened species, there are also a range of significant threats to its biodiversity.

These threats were studied in detail during the Natural Values Survey (Hamish Saunders Memorial Trust & Department of Primary Industries, Parks, Water and Environment, Tasmania 2012); the main threats are environmental weeds and the spread of the root-rot fungus *Phytophthora cinnamomi* that causes dieback.

For example, sea spurge, *Euphorbia paralias*, is widespread in coastal areas and poses a significant weed problem. Cape beach daisy, *Arctotheca populifolia*, is also common and spreading on the east coast.

Pampas grass, *Cortaderia selloana*, was recommended for planting as a shelter plant by government agencies in the early 1990s because it is swift-growing, has a dense habit, is able to withstand

strong salty winds and can be used as emergency fodder.

Boxthorn, *Lycium ferocissimum*, first used by settlers on Goose Island in the 1840s to create windbreaks and for boundary fencing, and Chilean needle grass, *Nassella neesiana*, were also noted in the Hamish Saunders report as significant problem weeds. The report also identified 48 plant species and 15 plant communities as being likely to be impacted by *P. cinnamomi* infestation (p.10).

Management and preservation of species refugia and isolated populations is a high priority on these islands. Many rare species and their habitats on Flinders Island constitute sites of significance for conservation.

Acknowledgements

Thanks to Ruth Dinning for providing the photo of *Elaeocarpus reticulatus* in fruit.

References

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