

TASMANIAN PLANTS

- THE FAMILIAR AND THE STRANGE

by Hugh Wilson

A New Zealander keen to trace the affinities of our own flora and adventurous enough to travel, would have to include several romantic-sounding southern hemisphere countries on the itinerary. Chile and Peru would figure prominently, although their distance from New Zealand might deter. New Guinea would certainly hold the promise of adventure too, botanical and otherwise. In both these areas some plants would be familiar, or at least reminiscent of plants we know at home. Many others would be complete strangers. Those of both categories, surely, would intrigue.

Much nearer home there is a half-foreign, half-familiar island with a rich store of the familiar and the strange. Tasmania is some 2000km from the South Island and about half its size. All of continental Australia lies farther north than the latitude of Cook Strait, but Hobart is almost on a parallel with Christchurch. Like the South Island, Tasmania's terrain is rugged and varied. Thus when the Canterbury Botanical Society sallied forth to explore it we were expecting to find a vegetation and a flora having at least some elements that we knew.

The biggest difference, I suppose, is the dominance of Eucalyptus. Much of Tasmania is still forested, despite chronic battering by fire. Much of this forest is Eucalyptus. It is an exciting genus, not represented at all in the native flora of New Zealand although we grow a few; others of the Myrtaceae (Metrosideros and Leptospermum, for example) are important elements in our vegetation. Tasmania has some 26 Eucalyptus species, of which about half are endemic.* What often seems a slight variation of aspect, soil or slope determines which of the 26 will dominate a site. Many of the species themselves are variable. None of us mastered the complexities but we all marvelled at the range and variety - from gigantic forest trees to short sub-alpine shrubs of E. vernicosa in the mountains of the South-west. Wattles (Acacia) are almost as varied with about 20 native species.

We marvelled too at contrasts in the forests. Our first encounter was with dry, almost savannah woodland on the outskirts of Hobart. Beneath the silver peppermints the ground was bright with flowering shrubs we couldn't name at first - they included pink Tetradlea (Tremandraceae) and Boronia (Rutaceae) and golden pea-flowers of Oxylobium, Dillwynia and Pultenaea. A common shaggy-looking little tree turned out to be an Exocarpus. Tasmania has prostrate species too, more like our own single native one.

Later we were walking in the rain-forests with giant Eucalyptus regnans towering over a lower canopy of Atherosperma and Nothofagus. If we didn't know Atherosperma moschatum at first (they call it sassafras but it's a member of the Monimiaceae to which our pigeonwood and pukatea belong) we couldn't fail to recognise Nothofagus cunninghamii. Persistently perverse the Tasmanians call it myrtle but it looks a lot like silver beech. Myrtle, or myrtle beech, extends to

* that is, native only to Tasmania.

to mainland Australia but the other Tasmanian Nothofagus, N. gunnii, is endemic. It often forms a low tangled thicket of small branches and is never bigger than a small tree. The fresh green foliage is deciduous.

In those rain-forests where there was not even an admixture of emergent eucalypts and where the bush interior was graced with Dicksonia antarctica and Olearia argophylla, it was easy to think that the South Island was not so very far away.

Some of the native gymnosperms are reminiscent of home too. Tasmania has a wealth of these plants, nearly all of them endemic, representing 8 genera in 3 families - Podocarpaceae, Cupressaceae and Taxodiaceae. The presence in Tasmania of the last of these is a startling fact of plant distribution; modern Taxodiaceae are otherwise entirely confined to the northern hemisphere. Lovely stands of pencil pine and King Billy pine (Athrotaxis) which we saw in the highlands, especially near Cradle Mountain, must be living relicts of a very different pattern of plants in the remote past when gymnosperms were still unchallenged by the angiosperms and Taxodiaceae were more widespread. More familiar to us were celery-top pine (Phyllocladus aspleniifolia), Huon pine (Dacrydium franklinii - though we saw precious little of this fine tree) and Podocarpus lawrencii, which looks very like our snow totara.

Climbing towards the 1500m mountain tops we came across an increasing percentage of New Zealand genera but they were mingled, right to the summits, with unfamiliar plants. In contrast to our two northern and chiefly lowland representatives of the Proteaceae this family runs rampant across Tasmania in splendid diversity. The local waratah (Telopea truncata) commanded first and continuing attention, but genus after genus showed itself for our easily-won admiration - Orites, Lomatia, Bellendenia, Agastachys, Cenarrhene, Persoonia, Hakea, and two species of Banksia (B. marginata we saw everywhere, but B. serrata we glimpsed from the bus at one locality only, near Rocky Cape).

Epacridaceae is a family well-represented in New Zealand but it is even more an Australian achievement. Tasmania has a rich and colourful share. The genus which aroused immediate interest was Richea. In a diversity of forms nearly as great as Dracophyllum it fills a similar range of niches. In Richea the corolla does not open in the normal way but falls entirely as a cap exposing the anthers and stigma. This occurs equally in the prickly bushes of R. scoparia and the slender trees of R. pandanifolia which resemble Dracophyllum fiordense but with heads the size of cabbage trees. One species of Richea extends to Victoria but the genus is otherwise wholly Tasmanian. Dracophyllum is represented, but by only 2 species. One of them, (D. minimum) forms tight cushions resembling our own D. muscoides.

The cushion vegetation of the mountains is familiar in appearance; some species are in fact shared with us. We greeted Donatia novae-zelandiae and Phyllachne colensoi like old friends. One big thrill was to visit Hamilton Crags on Ben Lomond in the north-east where we found innumerable plants of Pygmea, apparently P. ciliolata but forming cushions sometimes nearly a metre across. Discovered only 12 months before they are the first known extension of this genus of Scrophulariaceae beyond New Zealand. (On the highest summits we saw another New Zealand genus represented by a single outlier in Tasmania; Cheesemanella has a species there, C. radicata. It was in full flower during our visit in January).

Besides Donatia, Phyllachne and Pygmea, other cushions are endemic. The pale sage-green of Pterygopappus lawrencii makes delicate mosaics with the darker green of Abrotanella forsterioides, the most widespread of Tasmanian cushions. Ewartia meredithae forms paler cushions, silvery white with innumerable tiny flowerheads. All three are endemic composites.

Compositae are as rich and varied as in New Zealand and a bit more colourful. Some were familiar. Their 2 species of Celmisia are not unlike our own. Another species of Ewartia (E. catipes) is reminiscent of New Zealand edelweiss (Leucogenes).

Just as the absence of Eucalyptus in New Zealand means conspicuous differences between Tasmanian and New Zealand forests, so the absence of Chionochloa stresses that the Tasmanian mountains, although they shoulder upwards into the alpine zone, never really resemble our own except in botanical details.

There is a community reminiscent of our tall-tussock grasslands at first sight, although hardly analagous. On wet, infertile soils tussocks of buttongrass (Gymnoschoenus sphaerocephalus - Cyperaceae) cover wide expanses of country. Typical of flat valley floors in areas of high rainfall, the tawny blankets drape themselves over hills as well. Repeated fires have extended their boundaries; they spread beyond the limits of the soil conditions which favour this unique Tasmanian community, in regions climatically suitable for forest. Well-developed tussocks may reach 2m, though they are usually considerably shorter. Between them and under them are many other monocotyledonous species, especially representatives of the Restionaceae. We admired yellow-flowering Xyris (Xyridaceae) and mauve Patersonia (Iridaceae), and triggered innumerable flowers of pink Stylidium (Stylidiaceae).

Certainly we had sallied into a fascinating vegetation and flora. Of some 1200 species of native flowering plants, 200 are endemic. We recognized in the flora as a whole an intriguing and unique blend of Australian and New Zealand elements.
