

RECENT DISCOVERIES ON HINEWAI RESERVE

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It is sometimes hard for botanists and naturalists not to feel sorry for those other human beings who have never known the joy of finding some particularly interesting plant or animal in the wild. The sad thing about it, which is also a nice thing, is that such experiences are really very readily available. Nature bestows such moments freely and all we have to do is to have our eyes and minds tuned and ready for them.

Of course the moments come in varying degrees of mind-blowing power. We cannot all expect to be Friedrich Welwitsch who discovered for western science the bizarre gnetophyte *Welwitschia mirabilis* in the dry sands of the Namib Desert, and who is said to have fallen on his knees in utter wonder and disbelief, and probably supplication, praying that it was not some desert mirage or product of a sunstruck imagination. But experiences such as those of my sister Alison are not in essence dissimilar. Alison's eyes were only recently opened to plants in a discerning sort of way (due to a close friend of hers, I have to say, not to my best efforts over the years!). Not long ago she described to me her first encounter with *Ranunculus sericophyllus* in seemingly profligate flower. The symptoms sounded very familiar - the rush of joy, the increased heartbeat, the urge to leap about and shout aloud and share one's rapture with a good friend (urges which I certainly succumb to for particularly exciting finds). On my Stewart Island botanical survey my field assistants knew which discoveries came into this category because as well as all the prancing about I would offer to buy them an icecream in celebration when we got back to Halfmoon Bay weeks later. (I am still asked by one of them whether such and such a discovery comes into the icecream category).

Well, since my article on the Botany of Hinewai Reserve in the last Journal (Number 22, 1988) I have been spending half my time on the reserve, and it is perhaps not too surprising that I continue to find things. It is a little humbling too, though. I spent six years on a detailed botanical survey of Banks Peninsula, but of all the Peninsula, there is no doubt, I know the 109 hectares of Hinewai best of all. If I am still making fresh discoveries here, how many more are lurking on the remaining 100,000 hectares?

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Discoveries on Hinewai are special for several reasons. What a delicious feeling it is to be exploring some fresh corner, or going over ground one thinks one knows so well, and suddenly to come face to face with a species not seen on the reserve before! What an added joy it is to know that on Hinewai the plants have a better than average chance of survival, here on a piece of sacred land protected in perpetuity, freed of grazing, browsing, burning, clearing and spraying to the best of our ability.

Some of the new records this year merely represent species that we knew were very close by anyway, thus *Haloragis erecta*, *Senecio glomeratus* and *Epilobium cinereum* have turned up within the reserve boundaries. Some represent more careful checking of uncertain records, thus we now know that both *Hydrocotyle microphylla* and *H. sp.* ('novae-zelandiae var. montana') are present. In a few cases I have shifted seedlings from unliberated ground a few metres outside the reserve on to now ungrazed and appropriate sites inside the reserve, where *Celmisia mackaui*, *Brachyglottis lagopus* and *Anisotome aromatica* are now thriving.

But the following are icecream plants; they produced a catch in the throat, a dance of joy, and yahoos of delight when my eye first lit upon them.

Cordyline indivisa

It seems remarkable enough that the species even exists on Banks Peninsula, it is characteristic of well-lit sites in high rainfall montane forests such as in Westland and Fiordland. During my botanical survey of the Peninsula I encountered about 60 adult plants, some of them damaged by opossums. I found not a single seedling, not for climatic reasons I'm sure, but because the species is extremely vulnerable to being grazed off at establishment stages. There are a few adults fairly close to Hinewai, on Stony Bay Peak and in Armstrong Reserve, and I made several forays to collect seed so that the species could be grown in our arboretum of Southeast Banks Peninsula trees and shrubs. But the trees do not fruit every year. A few days after an unsuccessful foray I was looking for orchids in Tom's Clearing when my eyes locked on to a tiny seedling of *Cordyline indivisa*. We decided to protect it against hares and opossums by erecting an enclosure of waratahs and shade cloth but not to give it other artificial assistance. Thus we refrained from watering it during the perilously dry Spring of 1988. As I write, it has 8 leaves, and is thriving, and might feel proud that it has established in the driest year since 1915.

Perhaps there are more establishing secretly and silently on Hinewai now that mammal numbers are low and falling.

Pseudopanax anomalus

The one member of the lancewood and fivefinger genus that qualifies for inclusion in the Society's guide to small-leaved shrubs, *Pseudopanax anomalus* certainly is anomalous. It is common in many parts of Banks Peninsula, but diligent searching on Hinewai had not revealed it until I revisited the untracked bush east of Skyline Track. This is an intriguing part of Hinewai, where a remnant of ancient totara/hardwood forest is being invaded by beech. There are gigantic fuchsia trees here with diameters at breast height of nearly a metre. Since the cessation of grazing a year and a half ago, recovery of the ground ferns has been good, especially *Polystichum vestitum*, *Asplenium bulbiferum* and *Leptopteris hymenophylloides*. I was just admiring all this one cold day in June when my biological computer screen took in a robust under-canopy thicket of a small-leaved shrub which could only be - yes, closer inspection confirmed a healthy patch of *Pseudopanax anomalus*.

Tupeia antarctica

Banks Peninsula is a good place for native mistletoes despite the presence of opossums, although I have been unable to confirm that *Alepis flavida* survives on the beeches. Nor had I found any mistletoes at all on Hinewai until January 1989 when I was recording a fixed plot in second growth bush above the house. To my delight I came across *Tupeia antarctica* parasitic on *Pittosporum tenuifolium*. Although abundant locally on Banks Peninsula, *Tupeia* is much less common than *Ileostylus micranthus* which is abundant and widespread on a wide range of native and introduced trees and shrubs. More than once I have come across *Tupeia* parasitising *Ileostylus*. But *Ileostylus* has not turned up on Hinewai yet, nor have I found any of the tiny mistletoes in the genus *Korthalsella*.

Asplenium oblongifolium

The shining spleenwort, at its southern limit for the east coast on Banks Peninsula, is abundant at lower altitudes in our district. It would not be unexpected in the lower end of the main valley on Hinewai, with kawakawa, pigeonwood, supplejack, and silver treefern, but I never found it there. To my surprise I found one large plant growing as a low epiphyte in a hollow of a beech bole at just over 500 m, to the east of Tom's Clearing.

Dicksonia fibrosa

My botanical survey of Banks Peninsula revealed this species as the rarest of the Peninsula's six tree fern species. (A slight difficulty raises itself here - there are six tree fern species on the Peninsula if you include *Cyathea colensoi*, even though it has no trunk. Also, *Dicksonia lanata* has been recorded, but I doubt the record). On all my survey I found only four wild specimens of *Dicksonia fibrosa*, although they are in widely scattered localities. While traversing a corner of Hinewai I had never scrambled across before I came suddenly face to face with a fine healthy adult with a 1.5 m trunk. After my little dance of delight and a hug around the tree fern's thick skirt of dead fronds, a search revealed no fewer than three healthy young plants of the species, growing strongly among the now ungrazed commoner ferns of the steep, rocky, forest floor.

My neighbour said to me when I told her about it, "Ah, it's like the ducks in the duckshooting season; they know where they're safe!"