THE SOUTHERNMOST TAWA AND KAMAHI IN CANTERBURY

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During a recent PNA (Protected Natural Areas) survey of the Kaikoura Ecological region we visited most forest stands and many of the scrub areas in the district After traversing part of a titoki/hinau (Alectryon excelsum/Eleocarpus dentatus)stand on a property of Mr Hale (Grid-ref S49, 995-995) some 8km north of Kaikoura, the survey team stood on the roadside inspecting the remainder of the area which was difficult to get at as it lay on a steep face along the foot of which was a large ox-bow swamp. We were spotting trees with binoculars and came to argue over the identity of one of the podocarps, whether it was matai(Black pine, Prumnopithys taxifolia) or as I suggested kahikatea (White pine, Dacrycarpus dacrydioides). Matai is more common in the area than kahikatea. Finally to settle the argument two of us decided to forgo an early lunch and trudge in to confirm who was right. As we approached the offending tree we came out under a canopy of an unfamiliar tree with smooth black bark. Coming from the central North Island I quickly recognised it as a large tawa, Beilschmiedia tawa) of over 40cm dbh. Beneath it there were several tawa saplings, possibly suckers. Later we identified one other, from binoculars, in the same reserve. And the podocarp - the woman is always right.

A year later showing a friend the tawa and visiting another very interesting forest remnant containing hinau, matai, maire, and titoki. at the Maori cemetery (Grid-ref S49, 028-019), which had been inspected during the PNA survey, I was again stopped by an unfamiliar tree shape which turned out to be another small tawa.

All this goes to show that there is a large element of chance in finding isolated plants near a species limit. Tawa it appears was once a common component of the forest of the coastal plains near Kaikoura.

In the spring I spent several days inspecting indigenous forest remnants in the deep steep-sided gullies of Ashley State Forest in an attempt to assess their importance as representatives of the former vegetation of the foothills. Using aerial photographs and the forest maps I attempted to vist all significant remnants

There were many severe shocks to the system as when, having negotiated a sea of gorse, broom, and radiata logs from thinning and logging, one short step brought a gravel cliff, down which there was generally no path.

Kamahi (Weinmannia racemosa)had been recorded at Ashley about 20 years ago, so initially I attempted to find it there only to find that those sites had been cleared for planting. I had almost given up hope of finding it until I got lost in compartment 137 close in under Mt Grey while examining a very interesting, apparently virgin stand of rimu (Red pine, Dacrydium cupressinum)and stumbled across a gully containing many small kamahi trees and saplings. The next stand I visited also turned up everal quite large trees again in a deep gully, this time associated with a few kahikatea and some supplejack (Ripogonum scandens), one of the two known localities , for the latter, in Ashley forest.

Then while chasing red beech remnants (possibly the southern-most in Canterbury before the beech gap) near the information centre at the head of Bushy Creek gully, I found several areas of kamahi, again in deep south facing gullies, establishing the general pattern. In all 10 sites were identified in five major gullies. All stands were small and had probably been felled or burned at some time or other over the last 100 years. Some trees had clearly regenerated after stands had been planted about 30 years ago and regeneration was often abundant in the deep wet gully localities. It would appear that the species is near its climatic limit and restricted by the drying northwest winds. To date no plants have been found in the Mt Grey indigenous tract and the reason for its absence there is puzzling.

The Wilberforce catchment is the only other locality where it is found in Canterbury. There it is almost always associated with rata (Metrosideros umbellata) on rocky spurs and is quite widespread. Rata is absent from the general Ashley area and although recorded from Coopers Creek (Mt Oxford) and Mt (Ararat) (Omihi State Forest) near the coast, it appears to be absent from Mt Grey. This suggest that the kamahi at Ashley was part of the sub-canopy of once extensive podocarp forests on the rolling hills where Ashley exotic forest now stands rather than part of a typical rata-kamahi association such as that in the Wilberforce catchment and on the West Coast.