

merge into the low forest behind, the latter being especially dominated by *Myrsine chathamica*, *Melicytus chathamicus* and *Corynocarpus laevigatus*, with an understorey of *Macropiper excelsum* in many places. There I noticed another outcrop of raised limestone with its flora of scattered ferns and tree saplings growing out of the crevices. On the more open dunes *Pimelea arenaria* was abundant and in suitable sites grows *Pratia arenaria* and *Samolus repens*. Also it was nice to see in many places the yellow brown plants of pingao, *Desmoschoenus spiralis*, amongst the marram grass. However, I saw no *Myosotidium hortensia* whereas I did so in this area in 1993. By this time it was almost 6pm so Alison rounded us up and shepherded us back to the Lodge and on to the bus again. Without further delay we headed back to Waitangi and a magnificent “fishy” dinner at the Hotel. Seafood each day was something that we were coming to expect on the Chathams.

30 NOVEMBER – NIKAU BUSH AND WHAREKAURI

Judy Bugo

While some of the group flew off to Pitt Island the remainder were treated to an unforgettable day. The group headed north from Waitangi and made their first stop at some limestone cliffs on the shore of Te Whanga Lagoon (Fig. 7), just north of Cattle Point. Of special interest on the low cliffs, close to the water’s edge, were *Sophora chathamica*, a *Calystegia* with very large flowers, *Urtica australis* and *Linum monogynum* var. *chathamicum*.

The cliff forest canopy consisted of *Myrsine chathamica*, *Olearia traversii*, *Coprosma chathamica*, *Sophora chathamica*, *Pseudopanax chathamicus*, *Melicytus chathamicus* and *Corynocarpus laevigatus*. Chatham endemic understorey species present were *Leptecophylla robusta*, *Hebe dieffenbachii*, *Coprosma chathamica* and *Geranium traversii*, along with the indigenous *Macropiper excelsa*, *Haloragis erecta*, *Solanum laciniatum*, *Urtica australis* and *Acaena novae-zelandiae*. Ferns included *Adiantum cunninghamii*, *Asplenium oblongifolium*, *Pteridium esculentum*, *Microsorium pustulatum*, *Pyrrosia eleagnifolia* and *Asplenium chathamense*.

We then drove 2 km north to the Nikau Bush Conservation Area. This 19 ha reserve was fenced off in 1981 and has regenerated vigorously. It is the site of the largest stand of Chatham Island nikau *Rhopalostylis* aff. *sapida* on Chatham Island. The reserve is a good example of lowland broadleaf forest found on slightly swampy ground. The regeneration

process is evident from the numerous seedlings of nikau, *Coprosma*, *Pseudopanax*, *Myrsine*, *Macropiper* and *Melicytus*.



Figure 7. Forest on the low limestone cliffs on the shore of Te Whanga Lagoon near Cattle Point. *Photo: J. Bugo*

Canopy trees included *Coprosma chathamica*, *Melicytus chathamicus*, *Myrsine chathamica*, *Olearia traversii*, *Pseudopanax chathamicus*, *Plagianthus chathamicus* and the dominant kopi *Corynocarpus laevigatus*. Tree ferns present were *Cyathea cunninghamii* (dominant), *C. smithii*, *C. dealbata* and *Dicksonia squarrosa*. Ground ferns included *Polystichum* aff. *vestitum* plants with fronds over 1m long, *Asplenium bulbiferum*, *A. flaccidum*, *Pyrrosia eleagnifolia*, *Pellaea rotundifolia*, *Blechnum pennamarina*, *Histiopteris incisa*, and *Blechnum novae-zelandiae* at the bush edge.

We then proceeded further north [*the fire burning in Green Swamp Reserve (see Fig 9, p. 13) distressed Alison our driver very much Ed*] and took the Wharekauri Road (and several paddocks) west to Mairangi Beach, where we had lunch and admired large specimens of *Embergia grandifolia* and *Myosotidium hortensia*. There was a dense planting of *Olearia traversii* just above the sand at one end of the beach. Chatham Island oyster catchers were nesting on the beach.

Finally we visited Cape Young with its spectacular rock formations. Tall yellow-brown cliffs of volcanic ash overlies black basalt lava flows which



Figure 8. Salt turf along the summit of the east side of Cape Young. *Photo: J. Bugo*



Figure 9. Fire in Green Swamp Reserve. *Photo: M.& B. Geerkens*

reach out into the sea, their submerged parts clad with golden-brown bull kelp. Some of the lava flows contain sparkling glassy hornblende crystals. An exposed bed of 5 million year old fossil scallop shells and dramatic black volcanic dykes that rise vertically, often with radiating flower-like patterns, reminds one of unfamiliar times and forces.

Along the summit on the east side of the cape is a large area of salt turf (Fig 8, p. 13). This includes typical salt turf species such as *Samolus repens*, *Selliera radicans*, *Sarcocornia* and *Apium prostratum*. Also present were *Disphyma papillatum*, *Cotula coronopifolia* and a small *Leptinella* sp. The strong winds would undoubtedly keep this area well drenched with salt spray.

1 DECEMBER – OCEAN MAIL RESERVE, HAPUPU RESERVE AND KAINGAROA

Peter Wardle

Yet another fine, warm day, to explore the northeast of the island. Our first stop was to examine the colony of 'Chilean guava' (*Ugni molinae*) that extends for some 100m along the road. Its density was illustrated by the head-first dives that our 12-year old passengers Finn and Tui made into



Figure 10. Colony of Chilean guava (*Ugni molinae*) on North Road, its density and resilience providing our young passengers with a soft landing. Photo: E. Bissell