Field trip: Bush remnant at Burnside Rd, Makarau. 18/06/05

Tim Martin & Jenny Lux

On the northern side of Burnside Road, shortly before the road leaves the stream which it follows and ascends steeply, is a forest remnant approximately 25 hectares in area. The remnant is on a steep, south facing slope, and the steepness of the terrain is probably why the area was not converted into pasture or forestry. The forest is between 20 and 100 m altitude, and lies approximately 8.5 km inland from the Kaipara Harbour. The vegetation fits broadly into the category of lowland podocarp broadleaf forest, but significant changes occur in soil drainage, aspect, and stage of vegetation development that create a mosaic of distinct vegetation types at a smaller spatial scale.

The remnant was fenced and covenanted in 1998 as part of the approval for an adjacent subdivision that divided the ownership of the remnant into four titles. Stray cattle were probably present until sometime in 2000, when a small population of feral goats was also culled. Since fencing and the subsequent removal of ungulate browsers the abundance of seedlings and saplings has noticeably increased. In 2001 the forest was assessed, along with 21 other native forest areas in the Rodney District, as part of a regional study of forest health (Ogden et al. 2001). The forest was the second most browsed remnant of the forest patches surveyed, with particularly palatable species such as kohekohe (*Dysoxylum spectabile*) in poor health. Possums have recently been controlled in the area, both through a once off poisoning and through trapping, and numbers appear to be significantly reduced (Tim Martin pers. obs.). The health of palatable canopy species appears to have correspondingly increased, but this has not been quantitatively assessed.

On the 18 June 2005 a hardy group of Auckland Botanical Society members braved a dubiously fine winter's day to survey the portion of the remnant owned by Jane Harris. The first venture out was down towards the stream, to a waterfall and swimming hole with near vertical rock sides. This is an area of youthful forest, dominated by *Myrsine australis*, *Carpodetus serratus*, *Olearia rani* and *Cyathea dealbata*, that presumably regenerated following a failed attempt to turn the area into pasture. The semi-shaded, rocky streamside habitat was the most challenged by weed competition from herbaceous space-invaders such as *Ranunculus repens*, *Rumex obtusifolius*, *Tradescantia fluminensis*, *Prunella vulgaris*, *Lotus peduncularis* and *Galium aparine*. Despite this we were able to see both *Epilobium pedunculare* (Fig. 1) and *E. nerteroides,* sprawling over rocks and in crevices at the water's edge. Discovery of the two *Epilobium* allowed comparison between the two; *E. pedunculare* has prominent leaf teeth, and *E. nerteroides* has more angled leaves without prominent leaf teeth. Both these species are becoming rarer in the Auckland region, possibly due to competition with weeds. The overhanging rock wall on the sides of stream was home to *Corybas rivularis*, and also sported a fringe of *Trichomanes enderlicherianum*, and luxurious tiles of the thallose liverwort *Monoclea forsteri*. *Carex geminata* (or a form of *Carex lessoniana* – these species are variable and hard to distinguish in this area) was found nestled in wet depressions set back from the stream amongst the weedy grasses *Holcus lanatus* and *Dactylis glomerata*. We spent a lot of time staring into the gallery forest on the opposite bank, picking out species such as *Olearia rani* and *Streblus heterophyllus*.

Figure 1. *Epilobium pedunculare* growing over moss by stream. (Photo: Ewen Cameron).

By now the weather had turned to rain so we returned to the centrally located house for lunch. Taking a different route back we worked our way up a steep, shady gully and discovered a group of *Cyathea smithii*. Once at the house, some stalwarts stayed outside under the trees to eat soggy sandwiches and revel in the sensation of water dripping off their wet collars and dribbling down their backs. Then it was back out for the majority (some not so stalwart field trippers retreated to the vehicles). We waded through the long grass of a sodden paddock to the taraire nikau forest on the south facing hillside above the house. In places dense groves of tall taraire (*Beilschmiedia tarairi*) with their characteristically thick layer of brown, decaying leaves made for easy travel; elsewhere, where some past disturbance had broken the canopy, progress involved pushing through dense regrowth of *Geniostoma ligustrifolium* and *Cyathea dealbata*. Groups of young kahikatea (*Dacrycarpus dacrydioides*) or totara (*Podocarpus totara*) occurred sporadically, and an occasional, usually solitary rimu (*Dacrydium cupressinum*). Perhaps the highlights of this part of the day were an enormous specimen of *Griselinia lucida* (Fig. 2) growing up a now dead host tree, the *Acianthus sinclairii*, which were in flower, and watching numerous kereru feeding on the ripe taraire berries. A flock of seven kereru were seen, indicating that this

Figure 2. Large *Griselinia lucida* in the taraire forest. Alastair MacArthur (to the right of its leaning trunk) for scale. (Photo: Ewen Cameron).

now uncommon species might be faring relatively well in the Rodney district.

The local bryophyte flora was not forgotten, especially by those apt to kneeling (for closer inspection) our smaller but no less interesting species. Mike Wilcox provided the following notes on the bryophytes of Burnside:

On an open clay slope near the house grew extensive colonies of four moss species. *Polytrichadelpus magellanicus* with its distinctively separate male and female plants covered a large area, alongside *Breutelia pendula*. *Thuidium furfurosum* was conspicuous in more grassy areas, while *Campylopus clavatus* grew beside the entrance into the bush. In the forest, *Hypnodendron arcuatum* and *Leucobryum candidum* were the commonest ground mosses.

A critical mass of wet Bot Soccers returned finally to the house, only to be rewarded with copious amounts of freshly baked scones (with cream and jam) – the work of our generous hostess Liz Martin. These were eaten with gusto, along with cups of tea, before people returned to their cars for the trip back to Auckland.

Reference

Ogden, J.; Boow, J.; Martin, T. 2002. *Forest health of Rodney Ecological District*. Unpublished report, Auckland Uniservices Limited, Auckland.

Species list

* = exotic ^{P} = planted

Bryophytes

Breutelia pendula
Campylopus clavatus
Hypnodendron arcuatum
Leucobryum candidum
Monoclea forsteri
Polytrichadelpus magellanicus
Thuidium furfurosum

Ferns & fern allies

Adiantum cunninghamii
Adiantum fulvum
Anarthropteris lanceolata
Asplenium bulbiferum
Asplenium flaccidum
Asplenium oblongifolium
Asplenium polyodon
Blechnum chambersii
Blechnum filiforme
Blechnum fraseri
Blechnum membranaceum
Blechnum novae-zelandiae
Cyathea dealbata
Cyathea medullaris
Cyathea smithii
Deparia petersenii
Dicksonia squarrosa
Diplazium australe
Doodia australis
Huperzia varia
Hymenophyllum demissum
Hymenophyllum flabellatum
Lastreopsis glabella
Lastreopsis hispida
Leptopteris hymenophylloides
Lygodium articulatum
Microsorum pustulatum
Microsorum scandens
Paesia scaberula
Pneumatopteris pennigera
Pteridium esculentum
Pteris tremula
Pyrrosia eleagnifolia
*Selaginella kraussiana**
Tmesipteris elongata
Tmesipteris lanceolata
Trichomanes endlicherianum
Trichomanes venosum

Gymnosperms

Agathis australis
Dacrycarpus dacrydioides
Dacrydium cupressinum
Phyllocladus trichomanoides
Podocarpus totara
Prumnopitys ferruginea
Prumnopitys taxifolia
*Taxodium distichum**^{P}

Dicotyledons

Acaena anserinifolia
Acaena novaezelandiae
Ackama rosifolia^{P}

Alectryon excelsus
Ascarina lucida[P]
Beilschmiedia tarairi
Beilschmiedia tawa
Betula sp. *[P]
Brachyglottis repanda
Callitriche muelleri
Carmichaelia australis
Carpodetus serratus
Centella uniflora
*Cirsium vulgare**
*Citris limon**[P]
Clematis paniculata
*Conyza sumatrensis**
Coprosma arborea
Coprosma grandifolia
Coprosma lucida
Coprosma rhamnoides
Coprosma robusta
Coriaria arborea
Corynocarpus laevigatus
Dodonaea viscosa[P]
*Dovyalis caffra**[P]
Dysoxylum spectabile
Elaeocarpus dentatus
Elatostema rugosum
Epilobium nerteroides
Epilobium pedunculare
*Eucalyptus ficifolia**[P]
*Ficus carica**[P]
Fuchsia excorticata
*Galium aparine**
Geniostoma ligustrifolium
Geranium homeanum
Griselinia lucida
Haloragis erecta
Hebe stricta
Hedycarya arborea
Hoheria sexstylosa[P]
Hydrocotyle elongata
Knightia excelsa
Kunzea ericoides
Leptospermum scoparium
Leucopogon fasciculatus
*Leycesteria formosa**
*Lotus pedunculare**
Melicytus macrophyllus
Melicytus ramiflorus
Metrosideros diffusa
Metrosideros fulgens
Metrosideros perforata
Metrosideros robusta x *M. excelsa*[P]
Myrsine australis
*Nasturtium aquaticum**
Nertera dichondrifolia
Nestegis lanceolata
*Nymphaea alba**[P]
*Olea europaea**[P]
Olearia furfuracea
Olearia rani
Persicaria decipiens
*Phytolacca octandra**
Pittosporum tenuifolium
Pittosporum cornifolium[P]
Pouteria costata[P]
*Prunella vulgaris**
*Prunus persica**[P]
Pseudopanax arboreus[P]
Pseudopanax crassifolius
*Psidium cattleianum**[P]
*Quercus canariensis**[P]
*Ranunculus repens**
Rhabdothamnus solandri
Ripogonum scandens
Rubus cissoides
Schefflera digitata
*Senecio jacobea**
Solanum americanum
*Solanum nigrum**
Sophora microphylla[P]
Sophora tetraptera[P]
Streblus heterophyllus
*Tradescantia fluminensis**
Virgilia sp. *[P]
Vitex lucens

Monocotyledons

Acianthus sinclairii
Astelia solandri
*Butia capitata**
Carex geminata
Carex lambertiana
Carex solandri
Carex virgata
Collospermum hastatum
Cordyline australis
Cordyline banksii
Corybas rivularis
Corybas sp.
Cyperus ustulatus
*Dactylis glomerata**
Dianella nigra
Drymoanthus adversus
Earina mucronata
Freycinetia banksii
Gahnia lacera
Gahnia setifolia
Gahnia xanthocarpa
*Holcus lanatus**
Juncus sarophorus
Libertia sp.
*Livistona australis**[P]
*Livistona chinensis**[P]
Microlaena avenacea
Microlaena stipoides
Microtis ?unifolia
Oplismenus hirtellus
*Phoenix canariensis**[P]
*Phoenix reclinata**[P]
Phormium tenax[P]
Pterostylis sp.
Rhopalostylis sapida
Thelymitra sp.
Typha orientalis
Uncinia uncinata
*Wachendorfia thyrsifolia**[P]

Vegetation and vascular flora of southern Ponui Island, Hauraki Gulf – a return visit. 16/10/05.

Ewen K. Cameron and Peter J. de Lange

Because of boat troubles, the previous Auckland Botanical Society (ABS) day trip to southern Ponui Island on 20 November 1999 ended up being a rushed visit with only three hours ashore (Cameron 2000). A return visit occurred on 16 October 2005 with 47 members on the Department of Conservation boat *Hauturu* skippered by Lionel Brock, which departed in drizzle from Maraetai Wharf on a falling tide at 8.50am and arrived at Motunau Bay on southern Ponui Island. There we were met by David Chamberlin on his motorized cattle barge. After a single transfer of passengers (Fig. 1) the barge was run up onto the beach with its full human load and we were all ashore with dry feet by 9.50am.