

Macropiper excelsum
Melicytus micranthus
M. ramiflorus
Muehlenbeckia australis
Myrsine australis
Nestegis lanceolata
Parsonsia heterophylla
Passiflora tetrandra
Pittosporum crassifolium
P. eugenioides
P. tenuifolium
Planchonella costata
*Prunus campanulata**
Pseudopanax crassifolius
P. crassifolius x *P. lessonii*
P. lessonii
Rubus cissoides
Schefflera digitata
*Solanum pseudocapsicum**
Streblus heterophyllus
*Syzygium smithii**
Vitex lucens

Monocots: 9 native, 11 exotic*

*Agapanthus orientalis**
*Asparagus asparagoides**
Carex lambertiana
*Chlorophytum comosum**
*Clivia miniata**
*Ehrharta erecta**
Cordyline australis
Gahnia lacera
*Hedychium gardnerianum**
Isolepis inundata
Microlaena stipoides
*Monstera deliciosa**
Oplismenus hirtellus
*Pennisetum clandestinum**
*Phoenix canariensis**
Rhopalostylis sapida
Schoenus maschalinus
*Tradescantia fluminensis**
Uncinia distans
*Zantedeschia aethiopica**

Trip report: Titirangi - Atkinson Reserve and the Titirangi Primary School bush, 20 August 2011

Sandra Jones and Mike Wilcox

Attendance (34): Chris Ashton, Jan Butcher, Ewen Cameron, Liz Collison (graduate student visitor from UK), Brian Cumber, Pam Dale, Melanie Dixon, Gael Donaghy, Frances Duff, Rhys Gardner, Anne Gaskett, Leslie Haines, Richard Hursthouse, Peter Hutton, Graeme Jane, Sandra Jones (leader), John Lambert, Mei Nee Lee, Christine Major, Elaine Marshall, Phillip Moll, Sharon Osman, Joanne Peace, Margaret Peart, Juliet Richmond, Lance Salt, Josh Salter, Matthew Swinburne, Shirley Tomlinson, Val Tomlinson, Alison Wesley, Mike Wilcox, Tony Williams, Maureen Young.

At the Titirangi School: Teachers: Don Morrison, Carol Yates. Neighbourhood care person: Karen Mann. Bot Soc: our group plus Melissa Marler. Year 5 children: Carlos Brown, Brook Harper, Summerose Kennedy, Joe Smith, Isobel Turenhout, Tyrone Wood.

The original plan, as it was announced in the News-sheet, had to be modified on the day because time, and the logistics of ferrying 35 people between locations, got the better of us. Unfortunately our planned visit to Rahui Kahika Reserve had to be abandoned. We began the day at the top of the Zig Zag Track in Atkinson Reserve (Fig. 1) and botanized our way down to the end of the formed track where it

meets Titirangi Beach Road. From here we walked 5 minutes along the road to the beach picnic area for lunch (Fig. 2), before heading back up the hill to meet some pupils and their teachers at the Titirangi Primary School in Atkinson Road at 1pm. By 2.30pm we were back down on Titirangi Beach Road at the bottom end of Zig Zag Track to continue our walk through the eastern section of the reserve down to the beach. This track is not marked on maps and although it is easy to follow it is very muddy in parts.

Atkinson Reserve

The Titirangi Botanic Reserve (later to become known as the Atkinson Reserve) was gifted by Henry Atkinson to the city of Auckland as a public park in 1901, although it was not formally opened until 1914. The reserve runs down a valley from Park Road to Paturoa Bay/Titirangi Beach.

This bush reserve is one of twenty-one areas recommended for protection as a Priority Vegetation Site in the Waitakere Ecological District Survey Report for the Protected Natural Areas Programme (ARC 1993). The lowland kauri-kanuka (*Agathis australis-Kunzea ericoides*) forest on the lower slopes, where kauri is emerging through kanuka, is classified as the "Best and only" example of this ecology unit

surveyed. The puriri (*Vitex lucens*) composite forest further up the valley is classified as "Best in District". Fortunately, conservation protection status was already high because the Reserve was part of the ARC's Centennial Memorial Park, and it is now part of the greater Auckland Council's Reserves network.

The snail fauna of the reserve was surveyed by Jim Goulstone in the early 1980s and he recorded a "particular richness of species in that small gully leading down to Titirangi Beach". Forty seven species in total, many only 1-2mm in size, were recorded from five collection sites. Twenty seven of these species were found in just two litres of leaf mould from under a very old rimu (Goulstone 1983).



Fig. 1. Descending the Zigzag Track, Atkinson Reserve. Photo: Philip Moll, 20 Aug 2011.

The majority of this reserve is in as near to its original (pre-European) state as one could expect to find any small remnant of forest close to habitation, surrounded by housing, and in an area heavily milled before and at the turn of the twentieth century. In fact, in the early 1900s much of Titirangi had been converted from forest to farmland. It is therefore both a surprise and pleasure to come upon a number of large old rimu (*Dacrydium cupressinum*) and fine stands of kahikatea (*Dacrycarpus dacrydioides*) along the track that follows the stream as it wends its way down to the beach. The larger trees, rimu in particular, are covered in epiphytes, such as puka (*Griselinia lucida*), *Pittosporum cornifolium*, an elegant shrub that hangs from the branches or forks of large forest trees, and a number of species of perching orchids (*Winika cunninghamii*, *Earina mucronata*, *Drymoanthus adversus* (Fig. 3), and not forgetting one of the tiniest orchids of all, *Ichthyostomum pygmaeum*). Other forest trees are well represented, including tawa (*Beilschmiedia tawa*), miro (*Prumnopitys ferruginea*), tanekaha (*Phyllocladus trichomanoides*), puriri and, of course, kauri. *Metrosideros carminea*, which, in 1980, was considered to be a threatened species New Zealand-wide (Given 1981) but is now classified as 'Non Threatened', is found in a number of bush locations

around the Titirangi area, and it occurs in Atkinson Reserve on the track side and off-track in the lower section of the valley. (Fig 4)

Although the track is well-graded and metalled, the damp and humid rain forest environment creates a great habitat for ferns, mosses, liverworts and native plants that like wet places, such as parataniwha (*Elatostema rugosum*), a member of the nettle family but one which doesn't have stinging hairs (Fig.5). It forms solid masses of large pink and brown leaves on the stream banks (Fig.6 JS 8541waterfall). Pukatea (*Laurelia novae-zelandiae*), a tall forest tree that likes to have its roots in water-logged soil, can be found in good numbers towards the bottom end of the valley. Other smaller trees and shrubs of interest include the tree fuchsia (*Fuchsia excorticata*) (Fig.7), kohekohe (*Dysoxylum spectabile*), the terrestrial variety of Kirk's daisy (*Brachyglottis kirkii* var. *angustior*), mida (*Mida salicifolia*), milk tree (*Streblus heterophylla*) (Fig.8), kowhai (*Sophora microphylla*), nikau palm (*Rhopalostylis sapida*), rewarewa (*Knightia excelsa*) and tree ferns. Another shrub, easily overlooked until Spring, when its flowers draw the passer-by's attention by the sheer strength of its beautiful perfume, is *Alseuosmia macrophylla*.



Fig. 2. Lunch on the grass, near Titirangi Beach. Photo: Joshua Salter, 20 Aug 2011.

Two-thirds of the way down the valley the reserve extends across the road and the track soon enters an entirely different habitat. This is regenerating forest, and is in significant part dominated by kauri rickers. Mosses, particularly the milk moss (*Leucobryum candidum*), carpet the forest floor in some places. Ground orchids favour this habitat (Figs. 9 & 10). In season, a number of species of *Pterostylis* and *Diplodinium* (the hooded orchids), *Nematoceras*, *Singularlybas* and *Corybas* (the spider orchids), *Acianthus*, *Caladenia* and *Simpliglottis* may be found here. Two species of the delicate *Lindsaea* genus and the comb ferns (*Schizaea*) are typically associated with kauri forest so it is no surprise to come upon them here. Of particular interest is a well-established

'pohutu-rata' (*Metrosideros excelsa* × *M. robusta*) using a nikau as its host. It is already over-topping the nikau in its quest for light above the surrounding forest. (Figs. 11 & 12). The uncommon fork fern, *Tmesipteris sigmatifolia*, is also found in this part of the reserve, where it occurs on tree fern trunks. (Fig.13).

Weeds present a management problem, particularly around the edges of the reserve, and in the medium to long term pose a serious threat to the quality of the bush. In common with the rest of Titirangi, the worst of the offenders are Kahili ginger (*Hedychium gardnerianum*) and wandering Jew (*Tradescantia fluminensis*). Along the tracksides the ubiquitous African club moss, *Selaginella kraussiana*, a fern ally from the African continent, is well-established. Climbing asparagus (*Asparagus scandens*) is stealthily creeping in at various spots around the periphery of the bush and *Bartlettina sordida* is a problem in a couple of areas. Particularly in the lower eastern section of the reserve there are many seedling and some juvenile loquats (*Eriobotrya japonica*) and, more recently, Taiwan cherry (*Prunus campanulata*) seedlings are appearing in large numbers beneath the canopy.



Fig. 15. *Passiflora tetrandra* vines on a nikau trunk, Titirangi Primary School Bush. Photo: Joshua Salter, 20 Aug 2011.

Tirirangi Primary School bush

Mike Wilcox

We were very impressed with the children's enthusiasm (Fig. 14) and the work Don Morrison has been doing with the weeds. The highlight of this bush is the piece of swamp forest containing a splendid grove of swamp maire (*Syzygium maire*), pukatea and, in places, kahikatea. Other trees of note are numerous large kanuka, some rimu and puriri, a good number of five-finger (*Pseudopanax arboreus*), karaka (*Corynocarpus laevigatus*) and pigeonwood (*Hedycarya arborea*), and a nice specimen of tree fuchsia. Two 5m tall kawaka (*Libocedrus plumosa*) appeared to be natural, although in the school ground itself there were several obviously planted ones.

Some very robust lianes were determined to be native jasmine (*Parsonsia heterophylla*), though native passion vine (*Passiflora tetrandra*) was also present (Fig. 15).

The weed situation in this bush is severe. In places the ground is carpeted with wandering Jew, African club-moss and plectranthus (*Plectranthus ciliatus*), and damp gullies have a good deal of Kahili ginger with clumps of bartlettina. Lilly pilly or acmena (*Syzygium smithii*) was common throughout as seedlings and advancing saplings, and one was found growing epiphytically on a ponga (*Cyathea dealbata*).

References

- Given, David R. 1981: *Rare and Endangered Plants of New Zealand*. A.H. & A.W. Reed Ltd, Wellington. p.59.
 Goulstone, J.F. 1983: Waitakere Landsnails. Poirieria, Conchology Section, Auckland Institute and Museum 13: 1-69.



Fig. 3. *Drymoanthus adversus* with bud stem. Photo: Philip Moll, 20 Aug 2011.



Fig. 4. *Metrosideros carminea*. Note hairs. Photo: Sandra Jones, 20 Aug 2011.



Fig. 5. *Elatostema rugosum* flowers. Photo: Joshua Salter, 20 Aug 2011.

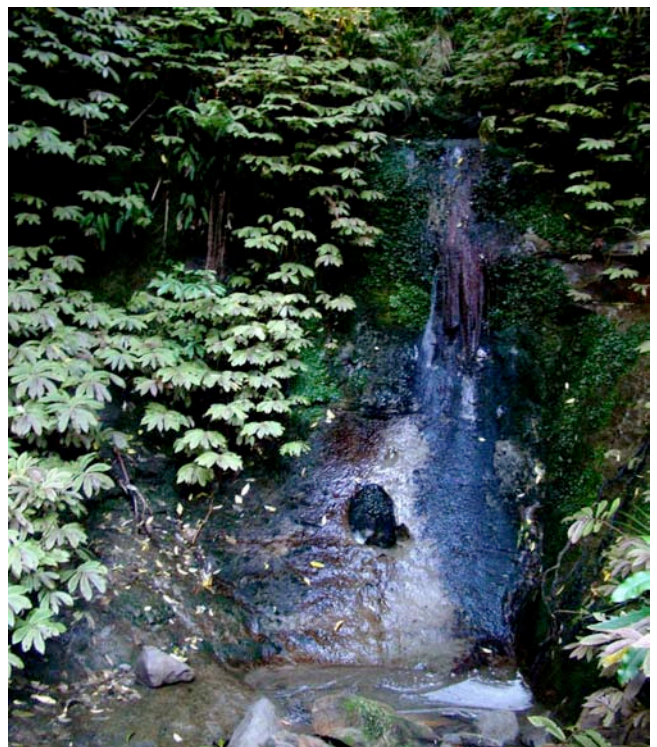


Fig. 6. *Elatostema rugosum* beside waterfall on Zigzag Track. Photo: Joshua Salter, 20 Aug 2011.



Fig. 7. *Fuchsia excorticata*. Photo: Philip Moll, 20 Aug 2011.



Fig. 8. *Streblus heterophyllus*, juvenile leaves. Photo: Philip Moll, 20 Aug 2011.



Fig. 9. *Diplodium trullifolium* and *Acianthus sinclairii*. Photo: Joshua Salter, 20 Aug 2011.



Fig. 10. *Diplodium alobulum* Photo: Joshua Salter, 20 Aug 2011.



Fig. 11. *Metrosideros excelsa* × *M. robusta* and its nikau host, in 1982. Photo: Sandra Jones.



Fig. 12. *Metrosideros excelsa* × *M. robusta* and its nikau host, in 2002. Photo: Sandra Jones.



Fig. 13. *Tmesipteris sigmatifolia*. Photo: Sandra Jones, 20 Aug 2011.



Fig. 14. Mike Wilcox and pupils at Titirangi Primary School. Photo: Philip Moll, 20 Aug 2011.

Appendix: Species list for Atkinson Reserve, Titirangi.

Species list for the main tracks (Zig Zag Track, and the un-named track through the eastern section down to Titirangi Beach). Compiled by Sandra Jones for Auckland Botanical Society field trip 20 Aug 2011, with new records added on the day marked (ABS). Other species found in the reserve (e.g. *Astelia nervosa*, *Syzygium maire*, *Uncinia zotovii*, *Melicytus macrophyllus*) are not included in the list because they were not recorded on the main track.

FERNS & FERN ALLIES

Adiantum cunninghamii
Adiantum fulvum
Adiantum viridescens
Asplenium bulbiferum
Asplenium flaccidum
Asplenium lamprophyllum
Asplenium oblongifolium
Asplenium polyodon
Blechnum chambersii
Blechnum filiforme
Blechnum fraseri
Blechnum membranaceum
Blechnum novae zelandiae
Cardiomanes reniforme
Ctenopteris heterophylla
Cyathea dealbata
Cyathea medullaris
Dicksonia squarrosa
Doodia australis (ABS)
Histiopteris incisa
Huperzia varia
Hymenophyllum demissum
Hymenophyllum dilatatum
Hymenophyllum flabellatum
Hymenophyllum revolutum
Hymenophyllum sanguinolentum
Lastreopsis glabella
Lastreopsis hispida
Leptopteris hymenophylloides
Lindsaea linearis
Lindsaea trichomanoides
Loxogramme dictyopteris
Lycopodium deuterodensum
Lygodium articulatum
Microsorium pustulatum
Microsorium scandens
Paesia scaberula
Pneumatopteris pennigera
Pteris macilenta
Pteris tremula
Ptisana salicina (probably self-sown
from garden above)
Pyrrosia eleagnifolia
Schizaea fistulosa
Tmesipteris elongata
Tmesipteris lanceolata
Tmesipteris sigmatifolia
Tmesipteris tannensis
Trichomanes elongatum
Trichomanes venosum

GYMNOSPERMS

Agathis australis
Dacrycarpus dacrydioides
Dacrydium cupressinum
Phyllocladus trichomanoides
Podocarpus totara (seedling) (ABS)
Prumnopitys ferruginea
Prumnopitys taxifolia

DICOTYLEDONS

Alectryon excelsus
Alseuosmia macrophylla
Aristotelia serrata
Beilschmiedia tawa
Brachyglottis kirkii var *angustior*
Brachyglottis repanda
Carmichaelia australis
Carpodetus serratus
Centella uniflora
Clematis paniculata
Coprosma arborea
Coprosma grandifolia
Coprosma lucida
Coprosma macrocarpa (ABS)
Coprosma rhamnoides
Coprosma robusta
Coprosma spathulata
Coriaria arborea (ABS)
Corokia buddleioides
Corynocarpus laevigatus
Drosera auriculata
Dysoxylum spectabile
Elaeocarpus dentatus
Elatostema rugosum
Epilobium sp.
Fuchsia excorticata
Geniostoma ligustrifolium
Gonocarpus incanus
Griselinia lucida
Hedycarya arborea
Hoheria populnea
Knightia excelsa
Kunzea ericoides
Laurelia novae-zelandiae
Leptecophylla juniperina (ABS)
Leucopogon fasciculatus
Macropiper excelsum
Melicope ternata
Melicytus ramiflorus
Metrosideros carminea
Metrosideros diffusa

Metrosideros excelsa × *M. robusta*
Metrosideros fulgens
Metrosideros perforata
Metrosideros robusta
Mida salicifolia
Myrsine australis
Myrsine salicina
Nertera dichondrifolia
Nestegis lanceolata
Olearia furfuracea (ABS)
Olearia rani
Parsonsia ?heterophylla
Passiflora tetrandra
Pittosporum cornifolium
Pittosporum eugeniooides
Pittosporum tenuifolium
Pomaderris phyllicifolia
Pseudopanax arboreus
Pseudopanax crassifolius
Ranunculus reflexus
Rhabdothamnus solandri
Rubus australis
Rubus cissoides
Schefflera digitata
Sophora microphylla
Streblus heterophyllus
Toronia toru
Vitex lucens

MONOCOTS excl. grasses & orchids

Astelia banksii
Astelia solandri
Astelia trinervia
Carex dissita (ABS)
Carex lambertiana (ABS)
Carex solandri (ABS)
Collopermum hastatum

Cordyline australis
Cordyline banksii
Cordyline pumilio
Dianella nigra
Freycinetia banksii
Gahnia lacera
Gahnia pauciflora
Gahnia setifolia
Isolepis reticularis
Rhopalostylis sapida
Morelotia affinis
Ripogonum scandens
Schoenus maschalinus
Uncinia banksii
Uncinia uncinata

ORCHIDS

Acianthus sinclairii
Caladenia [carnea]
Diplodidium alobulum
Diplodidium brumalum
Diplodidium trullifolium
Drymoanthus adversus
Earina mucronata
Ichthyostomum pygmaeum
Nematoceras trilobum
Pterostylis agathicola
Pterostylis banksii
Simpliglottis cornuta
Singularybas oblongus
Winika cunninghamii

GRASSES

Microlaena avenacea
Microlaena stipoides
Oplismenus hirtellus

Whangarei Weekend, 17-18 September 2011

Maureen Young

Whangarei is rather too far for Aucklanders to travel for a normal monthly day trip, so for the September field trip a booking was made at the Whangarei Youth Hostel and several members stayed over-night for a weekend's botanising. Northern members, Lisa Forester from Northland Regional Council (NRC) and Andrew Townsend, the Department of Conservation (DoC) botanist for Northland, were our leaders. This was also an opportunity for more northerly members and friends to attend a Bot Soc trip.

Saturday 17 September - Maungatapere Mountain

Trip participants: Sara Brill (NRC), Jan Butcher, Lisa Forester (NRC), Sharen Graham, Leslie Haines, Penny

& Steve Palmer, Helen Preston Jones, Laura Shaft (NRC), Doug Sheppard, Val Tomlinson, Andrew Townsend (DoC), Maureen Young.

Maungatapere Mountain (359 m; approximately 10 km SW of Whangarei) is classified as ecologically significant in the Protected Natural Area Programme (PNAP) report for the Whangarei Ecological District (Manning 2001). It is the only volcanic cone in this area to have a complete forest cover, and is renowned for the swamp forest in the crater. It is in a mixture of private ownership and public land (administered by DoC as a scenic reserve). Thirty hectares (42%) is protected by QE II open space covenants, 22 ha. (31%) is protected as a scenic