Trip Report: Te Kauri, Kawhia, Anniversary Weekend, 26 – 29 January 2007

Maureen Young (co-ordinator)

Once again the comfortable lodge belonging to the Hamilton Junior Naturalists was the base for our Anniversary Weekend camp (ABS last visited there in January 2000). This time the Te Kauri Scenic Reserve (see indigenous vascular flora checklist by Peter de Lange below) was only used for short walks, as the main object of the trip was for Peter de Lange to lead us to one of the limestone outcrops in the Awaroa Valley. Here we hoped to see *Hebe scopulorum,* the *Hebe* that is endemic to a few such knolls in this very restricted area. One of our party, John Kendrick, was a member of the group that originally found this plant in 1961.

The participants were: Jan Butcher, Janeen Collings, Bev Davidson, Geoff Davidson, Peter de Lange (leader), Ken Haydock, Wyne Johns, John Kendrick, Alastair McArthur, Jeff McCauley, John Millett, Ian Paterson, Nicola Paterson, Vivienne Paterson, Helen Preston Jones, Carol Ralph, CJ Ralph, Juliet Richmond, John Rowe, Stella Rowe, Pat Seyb, David Smith, Alison Wesley, Maureen Young (co-leader).

The Great Awaroa Ambush

Vivienne Paterson

"It will be a long day" warned Peter as he described our objective for Saturday. After an early 8.15 am departure, 50 km and an hour of winding roads, we parked our cars near a farmhouse off Mahoe Road, south of Te Kauri Lodge. From this high point of about 430 m a.s.l. we had magnificent views to the north west of three high peaks used, it is said on advice given by Kupe to the Tainui canoe navigators to locate Kawhia Harbour: Otuatakahi (Knob or Else Rock) (497 m a.s.l.), Ngawhakatara, (The Lady), (421 m a.s.l.), and Hauturukanekeneke (The Dome) (460 m a.s.l.). Peter pointed out our destination, Rock Peak (Omarama) (520 m a.s.l.), in the Rock Peak Scenic Reserve, and explained our mission - to compile a species list for the Department of Conservation (DoC), and see the uncommon Awaroa hebe, *Hebe scopulorum* (scopulorum = "of the crags") at one of its more accessible habitats.

The Awaroa hebe is known from only seven sites within a small area SE of Kawhia, on the tors and mesa of the Orahiri limestone formation of the Te Kuiti Group. It is the only vascular plant endemic to the western Waikato. With permission from the landowner (Ken Scott) to cross farmland to reach the reserve, we headed down a long farm track to the source of the Otuatakahi Stream. *Pseudopanax laetus* was seen beside the track, and Peter pointed out some carmine rata (*Metrosideros carminea*).

Beside the stream was much flowering *Pratia angulata* – this had also been seen in abundance growing along the roadside. From the stream bed it was up....and up... Seven years ago the goats had been removed so it was now very overgrown compared to Peter's previous visit in October 2000, but lots of bush crashing on a steep climb had the benefit of slowing us down and providing lots of botanising opportunities. On the lower slopes especially we enjoyed *Rhabdothamnus solandri* flowering, and here we saw the first of many tree ferns of the species *Cyathea cunninghamii* and *C. smithii. Metrosideros colensoi* and *Hoheria sexstylosa* are species that Aucklanders have to travel to see.

A group of people appeared to be gazing at their boots, but no, it was a cryptic little population of *Botrychium biforme*. In a tiny clearing our leader's suggestion that "We should look for ...." was interrupted by, "There are *Ophioglossum coriaceum* under our feet". Any day with both *Botrychium* and *Ophioglossum* has to be a good day. In another small grassy clearing the characteristic robust spikes and huge dark glumes of *Uncinia ferruginea* were learned. *Blechnum nigrum* and *B. colensoi* were both seen.

A flowering *Earina* caused some discussion – was it *E. aestivalis?* It was too late to see other orchids in flower, but we saw plants of *E. autumnalis, Winika cunninghamii, Nematoceras iridescens, Thelymitra* sp., and *Pterostylis cardiostigma*. The latter orchid was identified by the orange/red stripes on the ovary.

Lunch was eaten after a strenuous cliff climb involving stomping on Geoff Davidson, Jeff McCauley and Peter de Lange's backs, on a nice sunny spur amongst masses of kidney fern and filmy ferns. After lunch it was only a "short climb" through head high tangles of *Metrosideros fulgens* threaded with *Rubus cissoides* to the limestone tor.

Before reaching our destination there was much blood letting, but also *Quintinia serrata,* about five trees of *Pseudowintera axillaris,* and some bushes of *Hebe corriganii* – "If you believe in it," said Peter. "It is only *H. macrocarpa* with a cold (a sinus)." Around the tor were *Griselinia littoralis, Libertia grandiflora, L. ixioides, Phormium cookianum* subsp. *hookeri, Machaerina sinclairii,* and *Lagenifera pumila.* At last, there was our goal for the day, a little plant growing in the cracks in the limestone tor, *Hebe scopulorum,* with leaves that had a sinus and were glaucous on the back

and with rounded ends. Some green fruit showed that the inflorescences were branched and that the flowers had once been pedicellate. In similar cracks was a *Asplenium lyallii* exhibiting the frond form which Peter said was the basis of Colenso's *Asplenium anomodum*, that is with the fronds less divided than those usually seen in *A. lyallii*. A fine patch of robust fern fronds turned out to be *Blechnum triangularifolium.*

Some of us sidled around the base of the limestone outcrop and others climbed up the nearly vertical crag to enjoy the magnificent 360-degree view on the 1m^2 summit rock. From there Peter pointed out the six other known Awaroa hebe sites.

After my comment about it being harder to navigate downhill as it is easy to miss the right spur, and our leader's comment "I don't bother using a compass I know where I am", we retraced our steps – almost! Well – our new route was an opportunity for more exciting finds – *parataniwha, parataniwha, parataniwha*. The favourite plant was supple jack – as we auditioned for "Jane" and "Tarzan". Amazingly, we all reached the stream in one piece, despite some spectacular, scary sliding and bruising.

The detour had a bonus. Fossils were found in the Otuatakahi stream as we followed it back to our starting point. These were a rare ammonite, *Aulacitasphinctoides brouii*, and the mussel-like *Inoceramus.* It was a long hot haul up the farm track to our cars. On the way Ian found a strange cylindrical rock – it turned out to be part of the fossilised beak ("guard") of a *Belemnite*, an ancient Mesozoic squid. All these fossils are markers for the Puaoroan stage of the Jurassic.

Those of us slower ones were very grateful to the dedicated rostered cooks who "raced" back to have dinner ready when we straggled in about 7.30pm. A long but fantastic day.

Rakaunui Scenic Reserve & Awaroa Scenic Reserve

Alison Wesley

This being the second day of our anniversary weekend camp at Te Kauri Lodge, we commenced leisurely after the previous day's strenuous activity. The route to the wetland was similar to the day before, but turning into Rakaunui Road off Te Hauturu Road. The weather improved substantially into a sunny warm day after an initial shower of rain.

Peter de Lange, who was guiding us for the second day, warned us that we were going to get muddy feet if we were going to follow him to see the interesting plants. Peter therefore led us into the wetland via the freshwater section. There was a natural demarcation where the water became salt, from the bright green of *Bolboschoenus medianus* to the dark green of *Apodasmia similis*. *Baumea juncea* was also seen but was never a dominant species. *Schoenoplectus tabernaemontani* was common along the margins, together with raupo where fresh water mixed with the salt marsh.

We walked to the far side of the wetland through a large amount of *Bolboschoenus medianus* until Peter was able to show us a few plants of *Leptinella tenella*, but a little further on, a very thick and dominant mass of this uncommon plant was found. It was light green and was notable for the completely toothed lobes of each leaf. *L. dioica* was also seen, this species with barely toothed leaves. Other small herbs found amongst the *Bolboschoenus* included *Crassula ruamahanga*, *Apium* "white denticles", *Cotula coronopifolia*, *Cardamine* aff *corymbosa*, and *Mimulus repens,* an uncommon herb not seen in the western Waikato before, but known from Spirits Bay, Traherne Island, Puhinui, and Miranda.

On the edges of the wetland were *Plagianthus divaricatus, Podocarpus totara,* and *Coprosma propinqua* and abundant *Earina aestivalis* in full flower*. Sophora chathamica* was the dominant kowhai but one tree of *S. microphylla* was identified, and we also saw a single *Astelia grandis* uncommon in the area.

At the far side of the wetland the introduced grass *Spartina alterniflora* had spread along the margins for a considerable distance. (Three weeks after our visit it is pleasing to note that on our recommendation DoC staff from the Waikato Conservancy eradicated the *Spartina*).

After successfully negotiating through the *Bolboschoenus* with no one becoming particularly wet, a decision was made to return to the starting place to rejoin some members who had preferred not to risk themselves in the bog. To do this it was necessary to cross the stream, which had appeared to be a major obstruction. Our intrepid leader walked through the stream and then crossed the muddy expanse, which proved the undoing of several members. I, myself, required the assistance of a male member of the party to pull my feet from the thick mud and I completed the crossing by walking along a drainage route, where the mud wasn't so deep. The most sensible member of the party, Juliet Richmond, avoided the major expanse of mud and traversed through the reeds, which prevented sinking deeply. Our leader was not deterred by the soggy, muddy conditions and headed out again to search for the uncommon *Carex litorosa*. This search was, however, unsuccessful.

It was disappointing to find two plants of *Osmunda regalis,* which were removed. *Osmunda* has become

widespread throughout Waikato swamps. Other plants seen were *Lilaeopsis novae-zelandiae, Triglochin striata, Selliera radicans, Samolus repens, Lobelia anceps,* and we also some saw *Schoenoplectus pungens.*

After lunch eaten on the margins of the swamp we drove to the Awaroa Scenic Reserve, and inspected a small portion of that large reserve – a section of alluvial forest beside the Awaroa River. First we stopped by the side of the road to view *Fuchsia perscandens* (which is very uncommon in this area), and then wandered through the forest to try to find a rare, and possibly extinct *Ganoderma*, a large bracket fungus previously collected from this area about four times in the late 1960's early 1970's. *Urtica ferox* and *U. incisa* had to be identified and avoided. Throughout our time in this forest we were amazed at the frequency of pukatea and also their enormous size.

Some members of our group took an alternative walk with John Kendrick along the Manuka, Waikuku and Sheep Tracks in order to look for birds, and also to view *Ophioglossum petiolatum*. Bellbirds were heard at the "campsite" and whiteheads were seen and heard by them at the Waikuku Stream at lunchtime.

Waikuku Route, Te Kauri Park Scenic Reserve

Pat Seyb

The third day dawned rather wettish-looking from rain in the night, and there were clouds about when we started a bit after 9 am. The numbers were somewhat depleted by people returning home or doing their own thing, so 13 people descended to the Waikuku Stream by the Manuka Track of many steps, to a magical area of podocarp forest on the valley floor. On the way down we saw, among other things, *Lycopodium deuterodensum* and *Gahnia pauciflora,* which is smaller than the tall *G. xanthocarpa* that will cut your ears off. *Gahnia pauciflora* has lovely orange nuts that we tried to break our teeth on. There also was a very fine *Cordyline banksii*, and we looked at the arrangement of the shiny leaves of *Mida salicifolia*. Among the numerous tanekaha we saw two specimens that would have made great masts of an improbably large boat. The track then meandered beside the clear stream. The other side from the track had a number of small bluffs and other interesting rock formations, and occasional *Blechnum colensoi* was seen. There was one cave on our side that had *Blechnum chambersii* growing about the opening. There were a few very big trunks of rimu and kahikatea near the track. We had to put on our raincoats around here, for the first time this weekend. It was interesting to see the orchid *Drymoanthus adversus*, and there was a beautiful, large *Pterostylis banksii*. The highlight of this track is the patch of the nationally endangered fern, *Ophioglossum petiolatum*, growing among the trunks of rimu and kahikatea with *Nertera villosa*. An exclosure fence has been put around the plot for protection from animals, but *Selaginella kraussiana* has unfortunately begun to creep under the fence, and may in time displace the *Ophioglossum* if not attended to. Alongside the river, near the picnic clearing, was a group of *Dicksonia fibrosa,* which you can think of as Maori maidens in fully fronded skirts. At the top of the Sheep Track, where you come out onto farmland, it was nice and sunny and we could see part of the Kawhia Harbour. So ended a very inspiring walk. Thanks to all concerned for a great Anniversary Weekend.

Indigenous Vascular Flora of Te Kauri Scenic Reserve

Compiled from numerous visits made by P. J. de Lange during the 1970s – 2007. Vouchers for many of these records are lodged at the Allan Herbarium (CHR), Auckland War Memorial Museum Herbarium (AK), University of Waikato Herbarium (WAIK) and Te Papa Tongarewa Museum of New Zealand Herbarium (WELT).

Abbreviations.

(unc) = Uncommon (i.e. less than 10 plants seen)
* = exotic species

Clubmosses (5)

Huperzia varia
Lycopodiella cernua (unc)
Lycopodium deuterodensum
L. scariosum
L. volubile

Ferns & Fork ferns (102)

Adiantum aethiopicum (unc)
A. cunninghamii
A. diaphanum (unc)
A. fulvum (unc)
A. hispidulum
A. viridescens (unc)
Asplenium bulbiferum
A. gracillimum
A. flaccidum
A. hookerianum (unc)
A. lamprophyllum
A. oblongifolium
A. polyodon
A. bulbiferum × *A. flaccidum* (unc)
A. bulbiferum × *A. hookerianum* (unc)
A. bulbiferum × *A. oblongifolium* (unc)

A. oblongifolium × *A. flaccidum* (unc)
A. hookerianum × *A. flaccidum* (unc)
Azolla filiculoides
Blechnum chambersii
B. colensoi
B. discolor
B. filiforme
B. fluviatile
B. fraseri (unc)
B. membranaceum
B. minus
B. nigrum (unc)
B. novae-zelandiae
B. procerum
B. triangularifolium
B. vulcanicum (unc)
Botrychium biforme (unc)
Cardiomanes reniforme
Cyathea cunninghamii
C. dealbata
C. medullaris
C. smithii
Ctenopteris heterophylla
Deparia petersenii (incl. *D. tenuifolia*)
Dicksonia fibrosa (unc)
D. squarrosa
Diplazium australe
Doodia australis (unc)
Grammitis billardierei (unc)
G. ciliata
G. pseudociliata (unc)
Histiopteris incisa
Hymenophyllum demissum
H. dilatatum
H. flabellatum
H. flexuosum (unc)
H. frankliniae
H. multifidum
H. rarum
H. revolutum
H. sanguinolentum
H. scabrum (unc)
Hypolepis ambigua
H. distans
H. lactea (unc)
H. rufobarbata (unc)
Hypolepis ambigua × *H. rufobarbata* (unc)
Lastreopsis glabella
L. hispida
L. microsora subsp. *pentangularis* (unc)
Leptolepia novae-zelandiae (unc)
Leptopteris hymenophyllioides
Lindsaea linearis (unc)
L. trichomanoides
L. viridis (unc)
Loxogramme dictyopteris
Lygodium articulatum
Marattia salicina (unc)
Microsorum pustulatum
M. scandens
Ophioglossum coriaceum (unc)
O. petiolatum (unc)
Paesia scaberula
Pellaea falcata s.s (unc)
P. rotundifolia
Pneumatopteris pennigera
Polystichum neozelandicum
P. silvaticum (unc)
Polystichum wawranum
Pteridium esculentum
Pteris pendula (auct. *P. maclienta* of Allan 1961)
P. maclienta (auct. *P. saxatilis* of Carse 1929) (unc)
P. tremula
Pyrrosia eleagnifolia
Rumohra adiantiformis
Schizaea dichotoma (unc)
S. fistulosa (unc)
Sticherus cunninghamii
Tmesipteris elongata
T. lanceolata
T. tannensis
Trichomanes elongatum
T. endlicherianum
T. strictum (unc)
T. venosum

Gymnosperms (10)

Agathis australis (unc)
Dacrycarpus dacrydioides
Dacrydium cupressinum
Libocedrus plumosa (unc)
Phyllocladus trichomanoides
Podocarpus cunninghamii
P. totara
P. cunninghamii × *P. totara*
Prumnopitys ferruginea
P. taxifolia

Dicotyledonous Trees & Shrubs (81)

Alectryon excelsus
Alseuosmia macrophylla
Aristotelia serrata
Beilschmiedia tawa
Brachyglottis kirkii s.s (unc)
B. repanda
Carmichaelia australis
Coprosma arborea (unc)
C. areolata
C. grandifolia
C. lucida
C. propinqua
C. rhamnoides
C. robusta
C. spathulata (unc)
C. tenuicaulis
C. propinqua × *C. robusta*
Coriaria arborea
Corynocarpus laevigatus
Dodonaea viscosa
Dracophyllum sinclairii (unc)
Dysoxylum spectabile
Elaeocarpus dentatus
Entelea arborescens
Fuchsia excorticata
F. ×*colensoi*
Gaultheria antipoda
Geniostoma ligustrifolium
Griselinia lucida
Hebe corriganii (unc)
H. macrocarpa s.s
H. stricta
H. macrocarpa s.s × *H. stricta* (*H.* ×*affinis*)
Hedycarya arborea
Hoheria sexstylosa
Ixerba brexioides (unc)
Knightia excelsa

Korthalsella salicornioides (unc)
Kunzea aff. *ericoides* (common sp)
Laurelia novae-zelandiae
Leionema nudum (unc)
Leptospermum scoparium
Leucopogon fasciculatus
L. fraseri
Litsea calicaris
Lophomyrtus bullata
Macropiper excelsum
Melicope ternata (unc)
Melicytus lanceolatus (unc)
M. ramiflorus
Metrosideros robusta
Mida salicifolia (unc)
Myrsine australis
M. salicina (unc)
Nestegis cunninghamii (unc)
N. lanceolata
N. montana (unc)
Olearia rani var. *colorata*
Pennantia corymbosa
Pimelea tomentosa
Pittosporum cornifolium (unc)
P. eugenoides (unc)
P. huttonianum
P. tenuifolium subsp. *colensoi* (unc)
P. tenuifolium subsp. *tenuifolium*
Pomaderris amoena
P. kumeraho
Pseudopanax arboreus
P. crassifolius
P. laetus (unc)
Pseudowintera axillaris (unc)
Quintinia serrata
Rhabdothamnus solandri
Schefflera digitata
Solanum aviculare var. *albiflorum* (unc)
Solanum aviculare var. *aviculare* (unc)
Streblus heterophyllus
Syzygium maire
Toronia toru (unc)
Vitex lucens (unc)
Weinmannia racemosa s.s

Dicotyledonous Hemiparasites & Parasites (2)
Dactylanthus taylori (unc)
Ileostylus micranthus (unc)

Monocotyledonous Trees & Shrubs (5)
Cordyline australis
C. banksii
C. pumilio (unc)
C. australis × *C. banksii* (unc)
Rhopalostylis sapida

Dicotyledonous Lianes & Scrambling Plants (17)
Calystegia sepium subsp. *roseata*
C. turguriorum
Clematis cunninghamii (unc)
C. foetida
C. forsterii s.s (unc)
C. paniculata
Fuchsia perscandens (unc)
Metrosideros carminea
M. colensoi
M. diffusa
M. fulgens
M. perforata
Muehlenbeckia australis
Rubus australis
R. cissoides s.s
R. schmidelioides
Tetragonia implexicoma

Monocotyledonous Lianes (2)
Freycinetia banksii
Ripogonum scandens

Grasses (17)
Cortaderia fulvida
C. splendens (unc)
Deyeuxia avenoides (incl. gracile and robust forms)
D. quadriseta (unc)
Dichelachne crinita
Echinopogon ovatus
Elymus multiflorus (unc)
Lachnagrostis filiformis
Microlaena avenacea
M. stipoides
Oplismenus imbecillus
Poa anceps
P. pusilla
Rytidosperma buchananii (unc)
R. gracilis
R. unarede
Trisetum arduanum (unc)

Orchids (44)
Acianthus sinclairiii
Adelopetalum tuberculatum (unc)
Corunastylis nuda (unc)
C. pumila (unc)
Corybas cheesemanii (unc)
Cyrtostylis oblonga (unc)
Diplodium alobulum
D. brumalum (unc)
D. trullifolium
Drymoanthus adversus
Earina autumnalis
E. mucronata
Gastrodia minor (unc)
G. aff. *sesamoides* (a) (unc) (column long, flowers pale cream spotted brown or pink, unscented)
G. aff seasamoides (b) (unc) (column long, flowers greenish-yellow, strongly *Freesia* scented)
Ichthyostomum pygmaeum
Microtis parviflora (unc)
M. unifolia
Nematoceras acuminatum
N. hypogaeum (unc)
N. iridescens
N. macranthum
N. orbiculatum (unc)
N. papa (unc)
N. trilobum agg. (common June/July flowering taxon)
N. trilobum agg. (minute, sessile leaved plant of sandstone/limestone bluffs)
N. trilobum agg. (unc) ("round leaf" of St George et al. 2005)
N. aff. *rivulare* (*Corybas* "whiskers" of Irwin 1994) (unc)
Orthoceras novae-zeelandiae
Petalochilus bartlettii (unc)
Petalochilus minor (incl. *P. chlorostylus*)
Pterostylis agathicola (unc)
P. banksii

P. cardiostigma (unc)
P. aff. *banksii* (unc) (November-December flowering taxon; plants small, leaves broad, erect not overtopping galea, galea large, pale cream with pale green stripes, lateral sepals short, more or less erect, labellum brown twisted at apex)
P. aff. *graminea* (tall narrow-leaved plant of kauri forest, galea slightly drooping)
Singularybas oblongus
Stegostyla atradenia (unc)
Thelymitra carnea (unc)
T. colensoi
T. pulchella (unc)
T. longifolia s.s (autogamous)
T. × *dentata* (unc)
Winika cunninghamii

Rushes (6)

Juncus australis
J. edgariae
J. pallidus
J. planifolius
J. sarophorus
Luzula picta

Sedges (37)

Baumea rubiginosa
Carex breviculmis (unc)
C. dissita
C. fascicularis (unc)
C. inversa
C. lambertiana
C. lessoniana
C. maorica
C. secta
C. solandri
C. virgata
Eleocharis acuta
E. gracilis
E. sphacelata
Ficinia nodosa
Isolepis distigmatosa
I. inundata
I. prolifer
I. reticularis
Gahnia lacera
G. pauciflora
G. setifolia
G. xanthocarpa
Lepidosperma australe (unc)
Machaerina sinclairii
Morelotia affinis
Schoenoplectus tabernaemontani (unc)
Schoenus apogon
S. maschalinus
S. tendo
Uncinia banksii
U. distans
U. ferruginea
U. gracilenta (unc)
U. laxiflora (unc)
U. uncinata
U. zotovii

Monocotyledonous herbs (other than Grasses, Orchids, Rushes and Sedges) (15)

Arthropodium candidum (unc)
Astelia fragrans
A. solandri
A. trinervia
Collospermum hastatum
C. microspermum
Dianella nigra
Lemna minor
Libertia grandiflora (unc)
L. ixioides
Phormium cookianum
P. tenax
Sparganium subglobosum
Thismia rodwayi (unc)
Typha orientalis

Dicotyledonous Composite Herbs (16)

Anaphalioides trinervis
Euchiton audax
E. collinus
E. delicatus (unc)
E. involucratus
E. limosus
E. sphaericus
Lagenifera pumila
Pseudognaphalium luteo-album agg. (*P.* "lowland")
Senecio biserratus (unc)
S. glomeratus
S. hispidulus
S. lautus (unc)
S. minimus
S. quadridentatus
* *S. bipinnatisectus* × *S. hispidulus*

Dicotyledonous Herbs (except Composites) (57)

Acaenia anserinifolia
A. novae-zelandiae
A. anserinifolia × *A. novae-zelandiae* (unc)
Cardamine aff. *corymbosa* (common weedy species, leaves grey-green, flowers minute)
C. aff. *debilis* ("long style" of Pritchard 1954)
Centella uniflora
Dichondra repens
Drosera binata
D. auriculata
Elatine gratioloides (unc)
Elatostema rugosum
Epilobium billardierianum s.s (unc)
E. chionanthum
E. nerteroides
E. nummularifolium
E. palladiflorum (unc)
E. pedunculare
E. pubens
E. rotundifolium
Galium propinquum
Geranium brevicaule (unc)
G. potentillioides (unc)
Gonocarpus incanus
G. micranthus
Gratiola sexdentata (unc)
Hydrocotyle dissecta
H. elongata
H. heteromeria
H. microphylla
H. moschata s.s
H. pterocarpa
H. novae-zelandiae s.s
H. sp. *(H. moschata* var. *parviflora*)
Hypericum aff. *japonicum* (*H. japonicum* auct. N.Z.

authors non *H. japonicum* Thunb.)
Leptostigma setulosum
Lobelia anceps
Nertera depressa
N. dichondrifolia
N. villosa
Oxalis exilis
O. magellanica
O. rubens
Parietaria debilis
Peperomia urvilleana
Plectranthus parviflorus (unc)
Pratia angulata
P. angulata × *P. perpusilla* (unc)
Ranunculus amphitrichus
R. macropus (unc)
R. reflexus
R. amphitrichus x *R. macropus* (unc)
R. urvilleanus (unc)
Stellaria parviflora
Solanum americanum
Urtica incisa (unc)
Veronica plebeia (unc)
Wahlenbergia violacea

TOTAL: 416 taxa

Field trip: Mt Tamahunga, 17 February 2007

Maureen Young

At 439 m. a.s.l.. Tamahunga (also known as "the Dome") is the highest point in the Rodney Range, and its double peak is a well-known landmark. On the higher of the two peaks is a meteorological microwave station, and on the lower peak (436 m. a.s.l.), is a helipad used for servicing the station. Although there are some small outcrops of Ti Point basalts nearby, Tamahunga is composed of hard, indurated sandstone. A section of the Te Araroa Walkway, from Omaha Valley Road to Rodney Road, passes over the crest.

Bot Soc last visited Tamahunga (Omaha Ecological Area) on a wet day in June 1991. This trip was not written up, but an article by Young (1993) outlined some of the botanical history, a few of the plants, the poor state of the forest due to the heavy infestation of goats, and a species list. Lately a hunter has been employed in the forest, and to date he has removed 1000 goats and 36 pigs (Thelma Wilson, Department of Conservation, *pers. comm.*). Although the vegetation along the track showed much sign of browsing, there were also some seedlings getting a start, indicating that the pressure has been taken off to a certain degree.

The view from the Omaha Valley carpark shows that the forest has a mix of podocarp/broadleaf species, with very little kauri. Some fine heads of northern rata emerge above the general vegetation. Seen from close up the rata trees look to be in good health, an indication that the possums are being controlled. The track to the summit follows a south-facing ridge, and common species on the lower slopes are *Hoheria populnea, Clematis cunninghamii* and both *Libertia grandiflora* and *L. ixioides.* These latter two were in fruit, making them easy to differentiate. Moore (1967) noted a strange chromosome number from a single *L. grandiflora* sample taken from Tamahunga, and Dan Blanchon from Unitec School of Natural Sciences is looking into this (Dan Blanchon, *pers.comm.*). Some young trees of *Streblus* had the intermediate sized leaves that suggest the hybrid, *S. banksii* x *S. heterophyllus*.

In places the ground cover consisted largely of goat-induced swards of *Microlaena avenacea.* A band of taraire part way up the hill provided a happy hunting ground for those interested in relocating the insignificant little orchid, *Danhatchia australis,* which had been noted there in December 2001. Sharp eyes picked up two plants, at this late date looking less conspicuous than ever. The capsules had shed seeds and the stems were withered. On stopping at a rocky outcrop to look at the view over a gully, a population of *Melicope simplex* was noted. About this point tawa (*Beilschmiedia tawa*) began to make an appearance.

Where the steep slopes levelled out somewhat, large kanuka (*Kunzea* aff. *ericoides*) trees indicated that the forest had been burned here maybe 150 years ago. This correlated with the documented 1860s occupation of the peak by Maori who had escaped imprisonment on Kawau Island after the Waikato Land Wars. We postulated that this could have been the site of their camp. Thomas Kirk visited the prisoners in the company of a local resident, and he made Great Omaha the type locality for *Astelia trinervia.* To our party this now seems a strange decision, as there was very little of this species in the area. However, the few plants we saw were compared with *A. solandri, Collospermum hastatum,* and the *Collospermum microspermum* that had begun to make an appearance at the higher altitude. Also appearing at this point were *Blechnum procerum, Cyathea smithii* and *Raukaua edgerleyi*.

A visit to the microwave station resulted in Anne and Gorakh putting their detection skills to good use and relocating *Hymenophyllum lyallii* and *H. flexuosum.* Beyond the station were more plants of *Raukaua edgerleyi*, all epiphytic on tree ferns, and showing the range of leaf forms from the lobed trifoliate juveniles to the single adult leaves. It was surprising to see several good trees of pukatea (*Laurelia novae-zelandiae*) growing at this high point.

The second peak was then explored, with Brian adding two new ferns, *Lastreopsis glabella* and *Deparia*