

*Gigartina alveata*  
*Gigartina atropurpurea*  
*Gigartina laingii*  
*Gigartina macrocarpa*  
*Glaphrymenia pustulosa*  
*Grateloupia intestinalis*  
*Grateloupia urvilleana*  
*Griffithsia traversii*  
*Haliptilon roseum*  
*Halymenia latifolia*  
*Helminthocladia australis*  
*Hildenbrandia* sp.  
*Hummbrella hydra*  
*Hymenena variolosa*  
*Jania micrarthrodia*  
*Jania novae-zelandiae*  
*Laurencia distichophylla*  
*Laurencia gracilis*  
*Laurencia thyrsoifera*  
*Liagora harveyana*  
*Lithophyllum carpophyllii*  
*Lithothamnion calcareum*  
*Lomentaria umbellata*  
*Lophurella caespitosa*  
*Melanthalia abscissa*  
*Metamorphe colensoi*  
*Nemalion helminthoides*  
*Nesophila hoggardii*  
*Nothogenia pulvinata*  
*Osmundaria colensoi*  
*Pachymenia lusoria*  
*Peyssonnelia rugosa*  
*Placentophora colensoi*  
*Plocamium cartilagineum*  
*Plocamium cirrhosum*  
*Polysiphonia sertularioides*  
*Porphyra coleana*  
*Pseudoscinaia* sp.  
*Pterocladia lucida*

*Pteroclatiella capillacea*  
*Pterosiphonia pennata*  
*Ptilonia mooreana*  
*Rhizopogonia asperata*  
*Rhodochorton purpureum*  
*Rhodophyllis membranacea*  
*Rhodymenia sonderi*  
*Sarcothalia circumcincta*  
*Sarcothalia marginifera*  
*Schizymenia novae-zelandiae*  
*Scinaia firma*  
*Tsengia feredayae*

#### Brown algae

*Bachelotia antillarum*  
*Carpomitra costata*  
*Carpophyllum angustifolium*  
*Carpophyllum flexuosum*  
*Carpophyllum maschalocarpum*  
*Carpophyllum plumosum*  
*Colpomenia sinuosa*  
*Cystophora retroflexa*  
*Cystophora torulosa*  
*Dictyota dichotoma*  
*Durvillaea antarctica*  
*Ecklonia radiata*  
*Ectocarpus siliculosus*  
*Endarachne (Petalonia) binghamiae*  
*Dictyota dichotoma*  
*Glossophora kunthii*  
*Halopteris virgata*  
*Hormosira banksii*  
*Landsburgia quercifolia*  
*Leathesia difformis*  
*Lessonia variegata*  
*Myriogloea intestinalis*

*Notheia anomala*  
*Perithalia capillaris*  
*Portphillipia australis*  
*Ralfsia verrucosa*  
*Sargassum sinclairii*  
*Scytosiphon lomentaria*  
*Scytothamnus australis*  
*Splachnidium rugosum*  
*Tinocladia novaezelandiae*  
*Undaria pinnatifida*  
*Xiphophora chondrophylla*  
*Zonaria turneriana*

#### Green algae

*Caulerpa flexilis*  
*Caulerpa geminata*  
*Chaetomorpha ligustica*  
*Cladophora herpestica*  
*Codium convolutum*  
*Codium cranwelliae*  
*Codium fragile* subsp. *tomentosoides*  
*Derbesia novae-zelandiae* (incl. *Halicystis phase*)  
*Microdictyon mutabile*  
*Microdictyon umbilicatum*  
*Pedobesia clavaeformis*  
*Ulva procera*  
*Ulva pertusa*  
*Wittrockiella salina*

#### Blue-green algae (Cyanobacteria)

*Lyngbya majuscula*  
*Placoma vesiculosum* (*Entophysalis deusta*)  
*Rivularia* sp.

## Webb Creek, Kauaeranga Valley, Coromandel Forest Park

John Smith-Dodsworth

On the 18 April 2009 a good turnout of 30 members met at the last car park, altitude 160 m, in the upper Kauaeranga Valley inland from Thames, in ideal conditions, cool and overcast with little wind. The group was: Tricia Aspin, Romily Atkinson, Peter Atkinson, Tom Atkinson, Colleen Brewer, Matthew Brewer, Warren Brewer, Jan Butcher, Colleen Crampton, Gael Donaghy, Marcel Horvath, Peter Hutton, Graeme Jane, Helen Lyons, Christine Major, Elaine Marshall, Barrie McLeay, Gretta McLeay, Carol McSweeney, Garry McSweeney, Helen Preston-Jones, Juliet Richmond, Chevelle Sands, Trinia Smith, John Smith-Dodsworth (leader), Harold Waite, Alison Wesley, Mike Wilcox, Tony Williams, Maureen Young.

Starting off at 10 am we went along the main track up the valley over the first crossing of the river. The numerous trees of *Pittosporum eugenioides* at first, between the carparks, had been planted. The first tree to attract interest were the numbers of very large northern rata trees (*Metrosideros robusta*) with the upper branches covered in epiphytes and one with two large shining broadleaf trees (*Griselinia lucida*) as epiphytes in the upper branches. Also near the river crossing was the first clump of *Loxosoma cunninghamii* to be seen and some *Pseudopanax laetus*, both of which were of great interest to many. Branching off the main track, up the Webb Creek Track, we climbed

steadily up the hill, at an easy (botanist's) pace, the surrounding bush containing many trees of *Pittosporum huttonianum*, which was new to some members. Here and there were plants of *Celmisia adamsii* subsp. *adamsii*, with a few plants still in flower further up the track, and the first sightings of *Brachyglottis myrianthos* caused a lot of interest, although later the novelty wore off when it became very common along the more shaded bank sides.

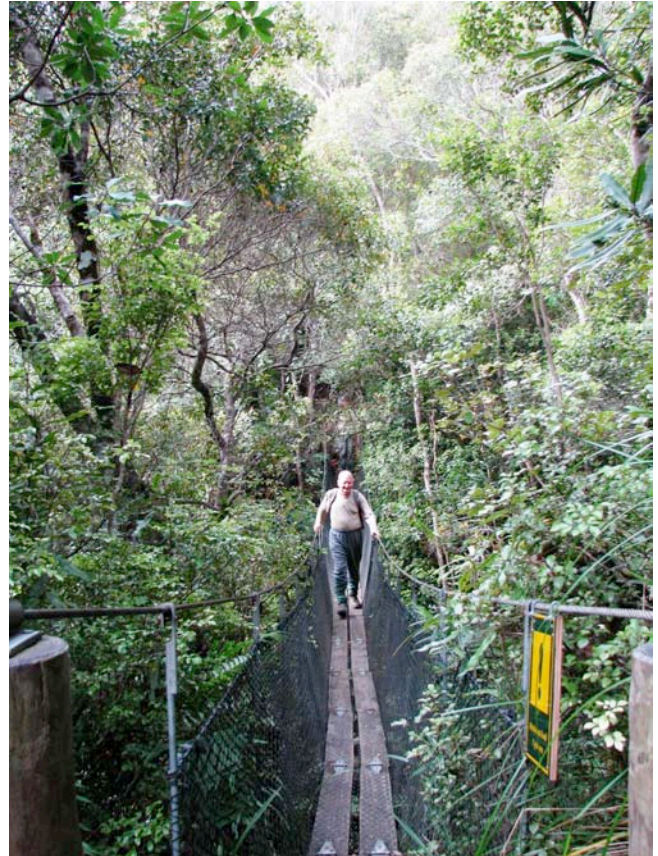


**Fig. 1. Webb Creek, Kauaeranga Valley, 18 April 2009. Photo: M.D. Wilcox.**

We had lunch at the last crossing of Webb Creek, close to where a good patch of *Lindsaea viridis* grows on rocks in the creek, although several plants had been previously seen on the track side, and a plant of *Olearia townsonii* caused interest close to the lunch spot with larger shrubs appearing further up the hill. Damp banks had abundant river daisy (*Anaphalioides trinervis*), and there were a few good patches of king moss (*Dawsonia superba*). On one steep, open bank, comb fern (*Schizaea fistulosa*) was very common, and one very small, miserable plant of *Archeria racemosa*, was something quite new to most. In the same area much interest was given to the many small rosettes of *Drosera spatulata*, which dotted the open, sterile bank, where nothing else would grow, except *Schizaea* and *Lycopodiella lateralis*.

The track climbs steeply after this among a lot of *Weinmannia silvicola*, *Hebe macrocarpa*, *Corokia buddleioides*, *Toronia toru*, *Leionema nudum*, and *Pseudopanax discolor*, and most were very interested

to see one tree of *Halocarpus kirkii* growing a few metres off the track, with both juvenile and adult foliage, very different from each other, and further up there was a small tree of *Lepidothamnus intermedius*, both of them the only ones we saw close by. Fine examples of *Metrosideros albiflora* were much admired, and there were occasional ramarama (*Lophomyrtus bullata*). *Loxsoma cunninghamii* continued in abundance beside the track.



**Fig. 2. Peter Hutton crossing a swing bridge over Webb Creek, Kauaeranga Valley, 18 April 2009. Photo: M.D. Wilcox.**

Monocots were prominent throughout the walk, starting with nikau (*Rhopalostylis sapida*) at lower elevations, then with *Cordyline banksii*, *Freycinetia banksii*, *Dianella nigra*, *Gahnia xanthocarpa*, *Astelia trinervis* and *Machaerina sinclairii* prevalent in the middle and upper stages, and *Chionochloa conspicua* subsp. *cunninghamii*, *Libertia micrantha* and *Phormium cookianum* more local.

Close to a very large kauri stump one small tree of *Phyllocladus toatoa* was spotted by Mike Wilcox, the only one we saw, and near it tawari (*Ixerba brexioides*), broadleaf (*Griselinia littoralis*), *Quintinia serrata* and *Pseudopanax colensoi*. This was at the head of Webb Creek and the track here goes through scrubby manuka on near level ground, which we followed through to the Hydro Camp site, height 520 m, where the track branches to the Pinnacles and the Billy Goat tracks. Here we rested for a while before we decided, with time getting late, to start our descent and return to the car park at our own speed.



**Fig. 3. *Pseudopanax laetus*. 18 April 2009. Photo: M.D. Wilcox.**



**Fig. 4. *Brachyglottis myrianthos*. 18 April 2009. Photo: M.D. Wilcox.**



**Fig. 5. *Celmisia adamsii*. 18 April 2009. Photo: M.D. Wilcox.**



**Fig. 6. Chevelle Sands with *Loxsoma cunninghamii*. 18 April 2009. Photo: M.D. Wilcox.**

Here at the Hydro Camp, there were several tomtits (miromiro), flying around, which were good to see, the only other birds in evidence being the sound of bellbirds further down. We got back down to the cars at about 4 pm after a very interesting and pleasant day, during which many plants new to many of the members were seen, with a few new records being added to the list for the area.

**Species list: Plants of the Webb Creek and Billy Goat tracks, including the Pinnacles; Waiwhakaurunga (Kauaeranga) valley.**

Based on lists by: J. Smith-Dodsworth 9/2/90, 13/8/95, amended 2/5/08, 11/11/08; Rotorua Bot Soc 11/11/90; and additional records by Auckland Bot Soc 18/4/09 (marked "ABS" in the list below)

\* = adventive species

**Clubmosses**

*Huperzia varia*  
*Lycopodiella cernua*  
*Lycopodiella lateralis*  
*Lycopodium deuterodensum*  
*Lycopodium volubile*

**Ferns**

*Adiantum cunninghamii*  
*Adiantum viridescens* ABS  
*Asplenium bulbiferum*  
*Asplenium flaccidum*  
*Asplenium oblongifolium*  
*Asplenium polyodon*  
*Blechnum chambersii*  
*Blechnum colensoi*  
*Blechnum discolor*  
*Blechnum filiforme*  
*Blechnum fluviatile*  
*Blechnum fraseri*  
*Blechnum novae-zelandiae*  
*Cardiomanes reniforme*  
*Ctenopteris heterophylla*  
*Cyathea dealbata*  
*Cyathea medullaris*  
*Cyathea smithii*  
*Dicksonia squarrosa*  
*Gleichenia dicarpa*  
*Grammitis billardierei*  
*Grammitis ciliata*  
*Histiopteris incisa*  
*Hymenophyllum demissum*  
*Hymenophyllum dilatatum*  
*Hymenophyllum flabellatum*  
*Hymenophyllum frankliniae*  
*Hymenophyllum lyallii*  
*Hymenophyllum multifidum*  
*Hymenophyllum rarum*  
*Hymenophyllum revolutum*  
*Hymenophyllum sanguinolentum*  
*Hypolepis rufobarbata*  
*Lastreopsis glabella*  
*Lastreopsis hispida*  
*Leptopteris hymenophylloides*  
*Lindsaea linearis*  
*Lindsaea trichomanoides*  
*Lindsaea viridis*  
*Loxogramme dictyopteris*  
*Loxosoma cunninghamii*  
*Lygodium articulatum*  
*Microsorium pustulatum*  
*Microsorium scandens*  
*Paesia scaberula*  
*Pneumatopteris pennigera*

*Pteridium esculentum*  
*Pteris macilenta*  
*Pteris tremula*  
*Schizaea fistulosa*  
*Sticherus cunninghamii*  
*Trichomanes elongatum*  
*Trichomanes venosum*  
*Tmesipteris elongata*  
*Tmesipteris lanceolata*

**Conifers**

*Agathis australis*  
*Dacrycarpus dacrydioides* ABS  
*Dacrydium cupressinum*  
*Halocarpus kirkii*  
*Lagarostrobos colensoi*  
*Lepidothamnus intermedius*  
*Phyllocladus toatoa* ABS  
*Podocarpus hallii* (*P. cunninghamii*) ABS  
*Prumnopitys ferrugineus*  
*Prumnopitys taxifolius* (juvs. only)

**Dicot trees, shrubs and climbers**

*Alseuosmia macrophylla*  
*Archeria racemosa* (juvs. only)  
*Aristotelia serrata*  
*Ascarina lucida* ABS  
*Beilschmiedia tawa*  
*Brachyglottis kirkii* var. *angustior*  
*Brachyglottis myrianthos*  
*Brachyglottis repanda*  
*Carpodetus serratus*  
*Clematis paniculata*  
*Coprosma colensoi*  
*Coprosma dodonaefolia*  
*Coprosma grandiflora*  
*Coprosma lucida*  
*Coprosma robusta*  
*Coprosma tenuicaulis* ABS  
*Coriaria arborea*  
*Corokia buddleoides* var. *linearis*  
*Dracophyllum latifolium*  
*Dracophyllum patens*  
*Dracophyllum traversii*  
*Dysoxylum spectabile*  
*Elaeocarpus dentatus*  
*Fuchsia excorticata* ABS  
*Gaultheria antipoda*  
*Gaultheria paniculata*  
*Griselinia littoralis*  
*Griselinia lucida*  
*Hebe macrocarpa*  
*Hebe pubescens* subsp. *pubescens*  
*Hebe stricta* var. *stricta*

*Hedycarya arborea*  
*Helichrysum lanceolatum*  
*Ixerba brexioides*  
*Knightia excelsa*  
*Kunzea ericoides*  
*Laurelia novae-zelandiae* ABS  
*Leionema nudum*  
*Leptospermum scoparium*  
*Leucopogon fasciculatus*  
*Leycesteria formosa*\*  
*Lophomyrtus bullata*  
*Melicytus lanceolatus*  
*Melicytus ramiflorus*  
*Macropiper excelsa*  
*Metrosideros albiflora*  
*Metrosideros diffusa*  
*Metrosideros fulgens*  
*Metrosideros perforata*  
*Metrosideros robusta*  
*Metrosideros umbellata*  
*Myrsine australis* ABS  
*Myrsine salicina* ABS  
*Muehlenbeckia australis*  
*Nestegis lanceolata*  
*Olearia rani*  
*Olearia townsonii*  
*Parsonsia capsularis*  
*Pimelea longifolia*  
*Pittosporum eugenioides* ABS  
*Pittosporum huttonianum*  
*Pomaderris kumeraho*  
*Pseudopanax arboreus*  
*Pseudopanax colensoi*  
*Pseudopanax discolor*  
*Pseudopanax laetus*  
*Quintinia serrata*  
*Rhabdothamnus solandri*  
*Rubus cissoides*  
*Rubus fruticosus* agg.\*  
*Schefflera digitata*  
*Toronia toru*  
*Ulex europaeus*\*  
*Weinmannia silvicola*

#### Dicot. herbs

*Acaena anserinifolia* ABS  
*Anagallis arvensis* var. *arvensis*\*  
*Anaphalioides trinervis*  
*Callitriche muelleri*  
*Cardamine* sp.  
*Celmisia adamsii* var. *adamsii*  
*Centaurium erythraea*\*  
*Centella uniflora*  
*Cirsium vulgare*\*  
*Conyza sumatrensis*\*  
*Dichondra repens* ABS  
*Drosera auriculata*  
*Drosera binata*  
*Drosera spathulata*  
*Epilobium rotundifolium* ABS  
*Euchiton sphaericus*

*Gamochaeta coarctata*\*  
*Galium divaricatum*\*  
*Geranium robertianum*\*  
*Gonocarpus micranthus* ABS  
*Haloragis erecta*  
*Hydrocotyle dissecta*  
*Hydrocotyle moschata*  
*Hypochaeris radicata*\*  
*Linum bienne*\* ABS  
*Lobelia anceps*  
*Lotus pedunculatus*\*  
*Lotus suaveolens*\*  
*Lythrum hyssopifolium*\*  
*Nertera depressa*  
*Oxalis corniculata*\*  
*Phytolacca octandra*\*  
*Plantago australis*\*  
*Plantago lanceolata*\*  
*Prunella vulgaris* \*  
*Pseudognaphalium luteoalbum*  
*Ranunculus reflexus*  
*Ranunculus repens*\*  
*Senecio bipinnatisectus*\*  
*Senecio jacobaea*\*  
*Solanum aviculare*  
*Solanum americanum*  
*Sonchus asper*\*  
*Trifolium repens*\* ABS  
*Urtica incisa*  
*Viola filicaulis*  
*Wahlenbergia violacea*

#### Monocots

*Agrostis capillaris*\*  
*Aira caryophyllea*\*  
*Anthoxanthum odoratum*\*  
*Astelia solandri*  
*Astelia trinervis*  
*Axonopus fissifolius*\*  
*Baumea rubiginosa*  
*Carex dissita*  
*Carex lambertiana*  
*Carex ochrosaccus* ABS  
*Carex maorica*  
*Carex solandri* ABS  
*Chionochloa conspicua* subsp. *cunninghamii*  
*Collospermum hastatum*  
*Cordyline banksii*  
*Cortaderia fulvida*  
*Cortaderia selloana*\*  
*Corybas cheesemanii*  
*Cyperus eragrostis*\*  
*Dactylis glomerata*\*  
*Deyeuxia avenoides* ABS  
*Dianella nigra*  
*Diplodium trullifolium*  
*Drymoanthus adversus*  
*Earina autumnalis*  
*Earina mucronata*  
*Echinopogon ovatus* ABS  
*Eleocharis gracilis*

*Entolasia marginata*\* ABS  
*Freycinetia banksii*  
*Gahnia lacera*  
*Gahnia setifolia*  
*Gahnia xanthocarpa*  
*Holcus lanatus*\*  
*Ichthyostomum pygmaeum*  
*Isachne globosa* ABS  
*Isolepis inundatus*  
*Juncus articulatus*\*  
*Juncus effusus*\* ABS  
*Juncus planifolius*  
*Juncus tenuis*\*  
*Libertia grandiflora* ABS  
*Libertia micrantha*  
*Linguella puberula*  
*Machaerina sinclairii*  
*Microlaena avenacea*  
*Morelotia affinis*  
*Nematoceras acuminatum*  
*Nematoceras macranthum*

*Nematoceras* sp. "Kaimai"  
*Oplismenus hirtellus* var. *imbecillis*  
*Paspalum dilatatum*\*  
*Paspalum urvillei*\*  
*Petalochilus (Caladenia)* sp.  
*Phormium cookianum*  
*Plumatichilos tasmanicum*  
*Pterostylis banksii*  
*Rhopalostylis sapida*  
*Ripogonum scandens*  
*Rytidosperma gracile*  
*Schedonorus arundinaceus*\*  
*Schoenus maschalinus*  
*Schoenus tendo*  
*Simpliglottis (Chiloglottis) cornuta*  
*Singularybas oblonga* ABS  
*Thelymitra carnea*  
*Thelymitra longifolia*  
*Typha orientalis* ABS  
*Uncinia uncinata*  
*Winika cunninghamii* ABS

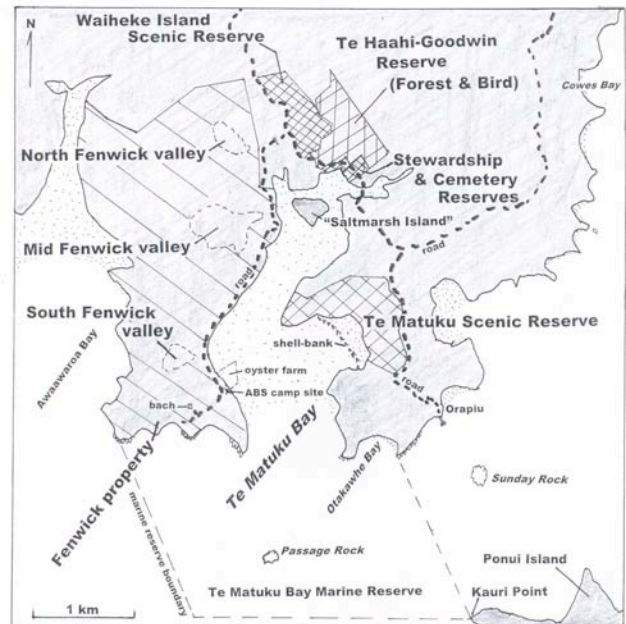
## Te Matuku Bay catchment, Waiheke Island (ABS camp, January 1994)

Ewen K. Cameron

### Introduction

The first botanical account of the Waiheke Island was by Kirk (1878) when he recorded forests being cleared for pasture, frequent burning of fern and open manuka (*Leptospermum scoparium*) country, and the destruction of forest by constant browsing of cattle. He also mentioned tooth-leaved beech [hard beech, *Nothofagus truncata*] occurring in "considerable quantity at sea level, occasionally of large size" and that kauri [*Agathis australis*] "was formerly plentiful at several localities, but has become extremely rare." Fitzgibbon & Slaven (1988) documented the remaining important habitats, and scored Te Matuku Bay and adjacent land highly for protection. Management Plans, with plant species lists, have been published for the three Forest & Bird reserves on the island. These include the Te Haahi-Goodwin Reserve at the head of Te Matuku Bay (Slaven 1986, revised by White 2000). The Auckland Botanical Society (ABS) surveyed most of the forested catchment of Te Matuku Bay in January 1994 and an account of this visit is reported below. In 1994 Whakanewha (247 ha) was purchased and developed into a Regional Park by the Auckland Regional Council – ABS visited it in November 2001 and published a full account of its natural history, including a species list (Wilcox et al. 2002). In 2002 Auckland City Council (ACC) surveyed the vegetation and flora of the whole of Waiheke Island. Several specimens from that survey were deposited in the Auckland Museum herbarium (AK), but no report has been located. The biota of the small islets adjacent to Waiheke were described by Lee

(1999) and the vascular floras of the islands off Waiheke Island's southwest coast were described



**Fig. 1. Location of Te Matuku Bay, south-eastern Waiheke Island and areas surveyed by the Auckland Botanical Society. Drawn by EKC.**

recently (Cameron et al. 2007). Hayward et al. (1997) surveyed the intertidal biota of Te Matuku Bay, and the Te Matuku Marine Reserve (690 ha) was gazetted in August 2005. This reserve includes the whole of the Bay, out past Passage Rock and across to Kauri Point on Ponui Island (see Fig. 1). In 2001 when a mining