

**FIELD TRIP TO OPAPE AND WHANARUA,
B.O.P. EAST COAST**

Jenny Lux

Saturday

A party of thirteen met in Opotiki on 8 September 2007 and headed in convoy eastwards across the coastal plain to the foot of the headland at Opape. Our focus for the day was a walkway named “Te Huarahi o Tauturangi”, recently opened by the local hapu, Ngai Tama (Whakatohea). It extends c.1 km over rugged greywacke clothed in coastal forest, passing several pa sites on elevated points and culturally significant rocks towards the coast – I am sure there is a lot more to learn about this headland from a cultural point of view, but we did not have the benefit of a local guide and we were mainly here for the botany! Currently the walkway comes to an abrupt end at the crest of the headland, requiring walkers to do an about-turn and head back the same way.

There was a small creek to cross and we then entered the coastal forest, which is a mixture of some older pohutukawa over a younger canopy mamaku, rangiora, rewarewa, kanuka, mapou, kohuhu, heketara, mahoe, houpara, and five finger. Kiokio and *Gabnia lacera* are particularly common in the understorey and the dry cuttings alongside the track are fertile ground for *Pimelea tomentosa*, *Adiantum cunninghamii*, and a few small greenhood orchids, *Diplodidium alobulum*. Steep banks above the track and the drainage ditch below are lush with *Machaerina sinclairii*. We noted several patches of very robust, wide-leaved *Carex geminata* in such ditches. Our first encounter with *Olearia pachyphylla*, the nationally endangered tree daisy which we had hoped to find, was only a few hundred metres into the track. It was growing at about the maximum height of 3 m tall, with large, deep green leaves with bright white, tomentose undersides, and at this time of the year it had only old flower heads from the year before. Over the day we noted that *O. pachyphylla* is an occasional but consistent component of the coastal forest on drier sites (e.g. ridges and spurs), and much more common than mangeao (of which we saw only a few individuals), pukatea and wharangi (of which we only saw one each).

This coastal and lowland species of *Olearia* is endemic to the northern North Island, occurring from Coromandel to East Cape. It now survives only at this location in the Bay of Plenty. Its main threat appears to be goat browse. The type locality for the species is Opape (Allan 1982).



Figure 1: *Olearia pachyphylla* at centre, amongst kanuka (*Kunzea ericoideis*) and harakeke (*Phormium tenax*).

Early on our way up we deviated off the track to an old house site, which had a large stand of *Tetrapanax papyriferus* that had recently been blitzed, probably by weed sprayers. Also around the site were planted *Eucalyptus globulus*, *Elaeagnus x reflexa*, kahili ginger (*Hedychium gardnerianum*) and Japanese wineberry (*Rubus phoenicolasius*). Several pigeonwoods (*Hedycarya arborea*) around the site had reasonable amounts of fruit. Just a bit further on, out at the coast, we came to the edge of a large slip with *Hebe stricta* var. *macroura* and picturesque tufts of wharariki (*Phormium cookianum*). Tim Senior

commented that nearby cliffs had been a grey-faced petrel nesting area in living memory, but this had not been confirmed for many years.

After lunching at the midpoint of the ridge we continued along the walkway admiring more handsome clumps of *Machaerina sinclairii* in flower, frequent *Pimelea tomentosa* and swathes of *Gleichenia microcarpa*. Ngai Tama had planted fifty plants of *Olearia pachyphylla* alongside the track (collected and raised at the Naturally Native nursery by Jo Bonner, who was with us).

Instead of returning via the same track, we bush-whacked up the ridge towards Tarakeha (159m), which was fairly easy-going on the way up. The frequent cow dung probably explained our easy progress through the otherwise thick scrubby gorse (*Ulex europaeus*), mapou (*Myrsine australis*), *Gabnia lacera*, *Lycopodiella cernua*, *Lycopodium deuterodensum*, and frequent *Olearia pachyphylla*. We passed by several “rua” (kumara storage pits) and rounded river stones, all associated with “Rururarama pa” (according to the information panel at the beginning of the walk). Before long we reached the trig and enjoyed magnificent, sunny views eastwards to Haurere, westwards down the long sweep of Hikuwai Beach, and southwards to the bush-clad Urewera and Raukumara Ranges. Because it was already after 3pm, we decided to return via the same ridge, however we must have got side-tracked and actually ended up doing a much more challenging bush-whack back to the track, which enabled us to record a few more species not seen until this point, e.g. puriri (*Vitex lucens*), *Blechnum chambersii* and *Metrosideros fulgens*.

Back at the trailhead we bade farewell to the day-trippers (only two of the crew) and eleven of us headed to Tim Senior’s rented bach on the Tokatea QEII open space covenant, just a few kilometres west of Whanarua Bay. We stopped on the way to see a large pohutukawa-northern rata hybrid (*Metrosideros excelsa* x *M. robusta*) on the side of the road, and a few hard beech (*Nothofagus truncata*) trees on the eastern shore of the Motu River mouth.

Sunday

Tokatea QEII covenant was the perfect setting for a day of coastal botanising in patchy, showery weather. We made three forays out for a couple of hours at a time, punctuated by civilised tea breaks and sandwiches back at the bach. The bach is situated in a little grassy clearing surrounded by kanuka and pohutukawa forest, which cascades off the steep rocks onto a hard-baked rocky shore, with incised intertidal rock platforms, interspersed with waved-formed caves and small, bouldery beaches.

The highlight of our day was seeing the nationally endangered *Carmichaelia williamsii* in full flower on a steep, rocky, north-facing talus slope (Fig. 2). This is a recently found population, one of only two known populations on the mainland, which are both near East Cape. We did not take the time (or the risk) to scale the cliffs in order to make a full population census, however it seemed that over 20 mature plants were in flower. The forest in which *C. williamsii* occurs has a sparse pohutukawa canopy allowing plenty of light to reach a diverse sub-canopy around 1.5-4m tall, which is composed of scattered individuals of *C. williamsii*, *Hebe parviflora*, mahoe (*Melicytus ramiflorus*), mapou, *Hebe stricta* var. *stricta*, hangehange (*Geniostoma rupestre* var. *ligustrifolia*), rangiora (*Brachyglottis repanda*), karaka (*Corynocarpus laevigatus*), manuka (*Leptospermum scoparium*), kawakawa (*Macropiper excelsum* subsp. *excelsum*), wharangi (*Melicope ternata*) and *Helichrysum lanceolatum*. Beneath this there are swathes of *Gabnia lacera* with occasional *Coprosma rhamnoides*, *Astelia solandri*, rengarenga (*Arthropodium cirratum*), hound's tongue fern (*Microsorium pustulatum*), shining spleenwort (*Asplenium oblongifolium*), shaking brake (*Pteris tremula*) and widow-maker (*Collospermum hastatum*).

A few days after the trip we found out that Chris Ecroyd had vouchered a remarkable range extension: *Crassula mataikona*, previously known to occur only as far north as the Taranaki coast (Webb and Sykes 1988), was the tiny succulent that he had fixed his eyes on several times as we scoured the rock crevices in the salt-spray zone.



Figure 2: Flowers of *Carmichaelia williamsii*.

Rotorua Botanical Society is planning to return to this area for a weekend in October 2008, therefore the full species list will be reserved for that trip report.

Our drive back home turned into a ‘spot-that-weed’ extravaganza, with no holds barred in ticking off new records of naturalised species for the Motu Ecological District. One of the most worrying was *Prunus campanulata* around Awanui, which was invading the young manuka-kanuka bush edge over several hundred metres and was vigorously fruiting even this early in September.

ACKNOWLEDGEMENTS

A huge thank you to Tim Senior and Liz Stephenson for inviting us all to stay at Tokatea and for preparing a delicious dinner on Saturday night. John Hobbs took the photographs in Figure 1 and 2 and compiled the species list. Kerry Jones took the photo in Figure 3. Elizabeth Miller and Peter de Lange confirmed the identification of *Crassula*

mataikona. Specimens were lodged at the National Forestry Herbarium (NZFRI) – thanks again to Elizabeth Miller and Chris Ecroyd for taking care of them.

REFERENCES

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Webb C.J. and Sykes W.R. 1988: Flora of New Zealand Volume 4: Naturalised Pteridophytes, Gymnosperms, Dicotyledons. Botany Division, Department of Scientific and Industrial Research, Christchurch.



Figure 3: RBS members exploring the Tokatea coastline.

VASCULAR PLANT SPECIES LIST FOR OPAPE POINT

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Motu Ecological District. Grid reference : X15 994 491

Description of site: Coastal headland

* - adventive, ! - planted

FERN ALLIES

<i>Huperzia varia</i>	hanging clubmoss
<i>Lycopodiella cernua</i>	arching clubmoss
<i>Lycopodium deuterodensum</i>	puakarimu
<i>Tmesipteris elongata</i>	fork fern

FERNS

<i>Adiantum cunninghamii</i>	common maidenhair fern
<i>Asplenium flaccidum</i>	hanging spleenwort
<i>Asplenium oblongifolium</i>	shining spleenwort
<i>Asplenium obtusatum</i>	shore spleenwort
<i>Blechnum chambersii</i>	nini
<i>Blechnum discolor</i>	crown fern
<i>Blechnum filiforme</i>	thread fern
<i>Blechnum fluviatile</i>	kiwakiwa
<i>Blechnum novaezelandiae</i>	kiokio
<i>Cyathea dealbata</i>	silver fern
<i>Cyathea medullaris</i>	mamaku
<i>Dicksonia squarrosa</i>	wheki
<i>Doodia australis</i>	rasp fern
<i>Gleichenia microphylla</i>	tangle fern
<i>Hymenophyllum demissum</i>	irirangi
<i>Hymenophyllum multifidum</i>	filmy fern
<i>Hymenophyllum rarum</i>	filmy fern
<i>Hymenophyllum sanguinolentum</i>	piripiri
<i>Microsorium pustulatum</i>	hounds tongue
<i>Microsorium scandens</i>	fragrant fern
<i>Paesia scaberula</i>	lace fern
<i>Pneumatopteris pennigera</i>	gully fern
<i>Pteridium esculentum</i>	bracken
<i>Pteris macilenta</i>	soft brake fern
<i>Pteris tremula</i>	shaking brake fern
<i>Pyrrosia elaeagnifolia</i>	serpent's tongue fern, leather leaf fern
<i>Trichomanes reniforme</i>	kidney fern

GYMNOSPERMS

<i>Dacrydium cupressinum</i>	rimu
<i>Phyllocladus trichomanoides</i>	tanekaha
* <i>Pinus radiata</i>	radiata pine

DICOT TREES AND SHRUBS

<i>Aristotelia serrata</i>	makomako, wineberry
<i>Beilschmiedia tawa</i>	tawa
<i>Brachyglottis repanda</i>	rangiora
* <i>Buddleja davidii</i>	buddleia
<i>Carpodetus serratus</i>	putaputaweta
<i>Coprosma lucida</i>	shining karamu
<i>Coprosma repens</i>	taupata
<i>Coprosma rhamnoides</i>	
<i>Coprosma robusta</i>	karamu
<i>Coprosma spathulata</i>	
<i>Coriaria arborea</i>	tutu
* <i>Cotoneaster</i> sp.	cotoneaster
<i>Dodonea viscosa</i>	akeake
* <i>Elaeagnus x reflexa</i>	elaegnus
! <i>Eucalyptus globulus</i>	eucalyptus
<i>Fuchsia excorticata</i>	kotukutuku, tree fuchsia
<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	hangechange
<i>Hebe stricta</i> var. <i>macroura</i>	koromiko
<i>Hedycarya arborea</i>	pigeonwood
<i>Knightia excelsa</i>	rewarewa
<i>Kunzea ericoides</i>	kanuka
<i>Laurelia novae-zelandiae</i>	pukatea
<i>Leptospermum scoparium</i>	manuka
<i>Leucopogon fasciculatus</i>	mingimingi
* <i>Ligustrum sinense</i>	Chinese privet
<i>Litsea calicularis</i>	mangeao
<i>Macropiper excelsum</i> subsp. <i>excelsum</i>	kawakawa
<i>Melicope ternata</i>	wharangi
<i>Melicytus ramiflorus</i>	mahoe
<i>Metrosideros excelsa</i>	pohutukawa
<i>Myrsine australis</i>	red matipo
<i>Olearia pachyphylla</i>	
<i>Olearia rani</i> var. <i>colorata</i>	heketara
<i>Pimelea tomentosa</i>	
<i>Pittosporum crassifolium</i>	karo
<i>Pittosporum tenuifolium</i> subsp. <i>tenuifolium</i>	kohuhu
<i>Pomaderris</i> sp. aff. <i>phylicifolia</i>	tauhinu
<i>Pseudopanax arboreus</i>	five-finger

<i>Pseudopanax lessonii</i>	houpara
* <i>Tetrapanax papyriferus</i>	rice-paper plant
* <i>Ulex europaeus</i>	gorse
<i>Vitex lucens</i>	puriri
<i>Weinmannia racemosa</i>	kamahi

DICOT LIANES

<i>Clematis cunninghamii</i>	
* <i>Lonicera japonica</i>	Japanese honeysuckle
<i>Metrosideros carminea</i>	carmine rata
<i>Metrosideros fulgens</i>	
<i>Metrosideros perforata</i>	climbing rata
* <i>Rubus fruticosus</i> agg.	blackberry
* <i>Rubus phoenicolasius</i>	Japanese wineberry

DICOT HERBS

<i>Acaena anserinifolia</i>	bidibid
* <i>Anagallis arvensis</i> subsp. <i>arvensis</i> var. <i>arvensis</i>	scarlet pimpernel
<i>Apium prostratum</i> subsp. <i>prostratum</i> var. <i>filiforme</i>	native celery
* <i>Aster subulatus</i>	sea aster
<i>Callitriche muelleri</i>	
* <i>Calystegia silvatica</i>	great bindweed
<i>Calystegia soldanella</i>	shore bindweed
<i>Calystegia soldanella</i> x <i>C. tuguriorum</i>	
<i>Centella uniflora</i>	
* <i>Cirsium arvense</i>	Californian thistle
* <i>Cirsium palustre</i>	marsh thistle
* <i>Cirsium vulgare</i>	Scotch thistle
* <i>Conyza albida</i>	fleabane
<i>Dichondra repens</i>	Mercury Bay weed
<i>Disphyma australe</i> subsp. <i>australe</i>	ice plant
<i>Drosera peltata</i> subsp. <i>auriculata</i>	sundew
<i>Euchiton involucreatus</i>	
* <i>Fumaria muralis</i>	scrambling fumaria
* <i>Galium aparine</i>	cleavers
* <i>Gamochaeta coarctata</i>	purple cudweed
<i>Geranium potentilloides</i>	
<i>Gonocarpus incanus</i> agg.	
<i>Gonocarpus micranthus</i>	
<i>Haloragis erecta</i>	
<i>Hydrocotyle heteromeria</i>	wax weed
<i>Hydrocotyle microphylla</i>	hydrocotyle
<i>Hydrocotyle moschata</i>	hydrocotyle
* <i>Leontodon taraxacoides</i>	hawkbit

<i>Lobelia anceps</i>	
* <i>Lotus pedunculatus</i>	lotus
* <i>Lotus suaveolens</i>	hairy birdsfoot trefoil
* <i>Mentha pulegium</i>	pennyroyal
* <i>Mentha</i> sp.	mint
* <i>Mentha suaveolens</i>	apple mint
<i>Oxalis exilis</i>	native oxalis
<i>Pelargonium inodorum</i>	
* <i>Phytolacca octandra</i>	inkweed
* <i>Plantago australis</i>	swamp plantain
* <i>Plantago lanceolata</i>	narrow-leaved plantain
* <i>Plantago major</i>	broad-leaved plantain
* <i>Prunella vulgaris</i>	selfheal
<i>Ranunculus acaulis</i>	sand buttercup
* <i>Ranunculus repens</i>	creeping buttercup
* <i>Rumex obtusifolius</i>	broad-leaved dock
<i>Sarcocornia quinqueflora</i>	glasswort
* <i>Senecio bipinnatisectus</i>	Australian fireweed
<i>Senecio hispidulus</i>	fireweed
* <i>Senecio jacobaea</i>	ragwort
<i>Senecio lautus</i> subsp. <i>lautus</i>	shore groundsel
<i>Senecio minimus</i>	fireweed
<i>Solanum americanum</i>	nightshade
* <i>Solanum nigrum</i>	black nightshade
* <i>Solanum pseudocapsicum</i>	Jerusalem cherry
* <i>Sonchus asper</i>	prickly sow thistle
* <i>Sonchus oleraceus</i>	sow thistle
* <i>Stellaria media</i>	chickweed
* <i>Taraxacum officinale</i>	dandelion
* <i>Verbena bonariensis</i>	purple-top

MONOCOT TREES, SHRUBS AND LIANES

<i>Freycinetia banksii</i>	kiekie
<i>Ripogonum scandens</i>	supplejack

ORCHIDS

<i>Acianthus sinclairii</i>	pixie cap
<i>Diplodinium alobulum</i>	greenhood
<i>Diplodinium trullifolium</i>	greenhood
<i>Earina mucronata</i>	peka-a-waka
<i>Microtis unifolia</i>	common onion orchid
<i>Pterostylis banksii</i>	common greenhood
<i>Thelymitra longifolia</i>	common sun orchid

GRASSES

* <i>Agrostis stolonifera</i>	creeping bent
* <i>Aira praecox</i>	early hair grass
* <i>Axonopus fissifolius</i>	narrow-leaved carpet grass
* <i>Bromus willdenowii</i>	prairie grass
* <i>Cortaderia selloana</i>	pampas
<i>Cortaderia</i> sp. (<i>splendens</i> ?)	
* <i>Dactylis glomeratus</i>	cocksfoot
<i>Deyeuxia avenoides</i>	mountain oat grass
<i>Elymus solandri</i>	
* <i>Elytrigia pycnantha</i>	sea couch
* <i>Elytrigia repens</i>	couch
* <i>Festuca</i> sp.	
* <i>Holcus lanatus</i>	Yorkshire fog
<i>Isachne globosa</i>	swamp millet
<i>Lachnagrostis littoralis</i> subsp. <i>littoralis</i>	
<i>Microlaena avenacea</i>	bush rice grass
* <i>Miscanthus nepalensis</i>	Himalayan fairy grass
<i>Oplismenus hirtellus</i> subsp. <i>imbecillis</i>	
* <i>Paspalum dilatatum</i>	paspalum
* <i>Pennisetum clandestinum</i>	kikuyu
<i>Poa anceps</i> subsp. <i>anceps</i>	
<i>Rytidosperma gracile</i>	forest fairy grass
<i>Rytidosperma unarede</i>	cliff fairy grass
* <i>Schedonorus phoenix</i>	tall fescue
* <i>Sporobolus africanus</i>	ratstail

SEDGES

<i>Baumea rubiginosa</i>	
<i>Baumea tenax</i>	
<i>Baumea teretifolia</i>	
<i>Bolboschoenus fluviatilis</i>	marsh clubrush
<i>Bolboschoenus medianus</i>	
<i>Carex breviculmis</i>	
<i>Carex dissita</i>	
<i>Carex geminata</i> "large"	
<i>Carex lambertiana</i>	
<i>Carex maorica</i>	
<i>Carex solandri</i>	
* <i>Cyperus eragrostis</i>	
<i>Cyperus ustulatus</i>	
<i>Ficinia nodosa</i>	knobby clubrush
<i>Gabnia lacera</i>	
<i>Gabnia pauciflora</i>	

<i>Gahnia setifolia</i>	
<i>Isolepis cernua</i>	
<i>Isolepis subtilissima</i>	
<i>Machaerina sinclairii</i>	
<i>Morelotia affinis</i>	
<i>Schoenoplectus tabernaemontani</i>	
<i>Schoenus maschalinus</i>	dwarf bog-rush
<i>Schoenus tendo</i>	
<i>Uncinia banksii</i>	
<i>Uncinia scabra</i>	
<i>Uncinia uncinata</i>	hook sedge

RUSHES

<i>Apodasmia similis</i>	oioi, jointed wire rush
* <i>Juncus bufonius</i> var. <i>bufonius</i>	toad rush
* <i>Juncus effusus</i>	soft rush
<i>Juncus planifolius</i>	
* <i>Juncus tenuis</i> var. <i>tenuis</i>	slender rush

OTHER MONOCOT HERBS

<i>Arthropodium cirratum</i>	rengarenga
<i>Astelia solandri</i>	
<i>Dianella nigra</i>	blueberry
* <i>Hedychium gardnerianum</i>	ginger
<i>Phormium cookianum</i>	wharariki, mountain flax
* <i>Crocasmia x crocosmiiflora</i>	montbretia

REFERENCES

Thorsen M. 2004: Opape Point species list (Department of Conservation - HWKCO 27817, Unpublished).

Jane G.T. 2005: Species List for Opape Point (Unpublished).