

**Monocotyledonous lianes**

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

**Sedges**

<i>Baumea juncea</i>	
<i>Carex breviculmis</i>	
<i>Carex dissita</i>	
* <i>Carex divulsa</i>	
<i>Carex flagellifera</i>	
<i>Carex lambertiana</i>	
<i>Carex ochrosaccus</i>	
<i>Carex solandri</i>	
* <i>Cyperus eragrostis</i>	
<i>Cyperus ustulatus</i>	coastal cutty grass
<i>Ficinia nodosa</i>	wiwi; leafless sedge
<i>Gahnia lacera</i>	
<i>Gahnia setifolia</i>	
<i>Isolepis cernua</i>	
<i>Lepidosperma filiforme</i>	
<i>Machaerina sinclairii</i>	broad-leaved sedge
<i>Schoenus maschalinus</i>	
<i>Uncinia uncinata</i>	watu

**Rushes and allied plants**

* <i>Juncus articulatus</i>	jointed rush
* <i>Juncus effusus</i>	soft rush
<i>Juncus pallidus</i>	wi
* <i>Juncus tenuis</i>	

**Grasses**

* <i>Agrostis capillaris</i>	browntop
* <i>Aira caryophyllea</i>	silvery hair grass
* <i>Aira praecox</i>	early hair grass
* <i>Anthoxanthum odoratum</i>	sweet vernal
* <i>Briza maxima</i>	quaking grass
* <i>Bromus willdenowii</i>	prairie grass
* <i>Cortaderia selloana</i>	pampas
<i>Cortaderia splendens</i>	coastal toetoe
* <i>Dactylis glomerata</i>	cocksfoot

<i>Dichelachne crinita</i>	long-hair plume grass
* <i>Holcus lanatus</i>	Yorkshire fog
<i>Lachnagrostis billardierei</i>	sand wind grass
* <i>Lolium perene</i>	perennial ryegrass
<i>Microlaena avenacea</i>	bush rice grass; oat grass
<i>Microlaena stipoides</i>	forest rice grass
<i>Oplismenus hirtellus</i> ssp. <i>imbecillis</i>	oat grass
* <i>Paspalum dilatatum</i>	paspalum
* <i>Pennisetum clandestinum</i>	kikuyu
* <i>Poa annua</i>	annual poa
* <i>Polypogon fugax</i>	
<i>Rytidosperma biannulare</i>	
<i>Rytidosperma gracile</i>	forest fairy grass
* <i>Rytidosperma penicillatum</i>	
* <i>Sieglingia decumbens</i>	heath grass
* <i>Schedonorus arundinaceus</i>	tall fescue
* <i>Sporobolus africanus</i>	needle grass; rats tail
<i>Zoysia pauciflora</i>	

**Remaining Monocotyledonous herbs**

* <i>Allium vineale</i>	wild onion
<i>Arthropodium cirratum</i>	rengarenga lily
<i>Astelia banksii</i>	wharawhara; shore astelia
<i>Astelia fragrans</i>	bushflax; kakaha
<i>Astelia solandri</i>	kowharawhara
<i>Astelia trinervia</i>	
<i>Collospermum hastatum</i>	kahakaha
* <i>Lilium formosanum</i>	
<i>Phormium tenax</i>	flax

**Orchids**

<i>Acianthus sinclairii</i>	heart-leaf orchid
<i>Corybas macranthus</i>	
<i>Drymoanthus adversus</i>	
<i>Earina mucronata</i>	spring orchid; peka-a-waka
<i>Microtis parviflora</i>	
<i>Microtis unifolia</i>	onion orchid
<i>Thelymitra longifolia</i>	white sun orchid
<i>Winika cunninghamii</i>	bamboo orchid

## Labour Weekend Camp 2006: Puketotara and Oneriri Peninsulas, Otamatea Ecological District, Kaipara

Jenny Lux, Maureen Young, Jan Butcher and Helen Cogle

### Introduction

As well as enjoying the customary Auckland Botanical Society (ABS) conviviality, the goal for this long weekend's field trip was to explore, collect and document some forest remnants on an under-botanised part of the Kaipara Harbour coastline. During the summer of 2005/2006 I participated in reconnaissance survey (using binoculars only) of the Northland part of the Otamatea Ecological District

(Brook 1996) which identified 209 significant natural areas (Lux & Beadel 2006), however there were very few botanical records for any of them. Botanists appear to have largely overlooked this area, with an average of only three indigenous plant specimens per decade lodged at the Auckland Museum Herbarium.

Our Saturday and Monday field trips were to Timber Bay Bush, one of 25 significant natural areas on the Puketotara Peninsula. Our main reason for choosing to botanise this particular bush remnant was to assist the Walden family (owners of Oneriri Station which covers most of peninsula) who have a strong interest in it, and have entered into a partnership with Northland Regional Council to protect it through fencing and pest control. This is the first such initiative in Otamatea Ecological District. Another

reason was that it is one of the largest remnants on the peninsula (126 ha) and appears to be one of the most diverse.

Our Sunday field trip was to a QEII covenant owned by Katherine and Edward Goldsmith on the western side of the Oneriri Peninsula. Here too there are private initiatives towards ecological restoration which we were keen to support.

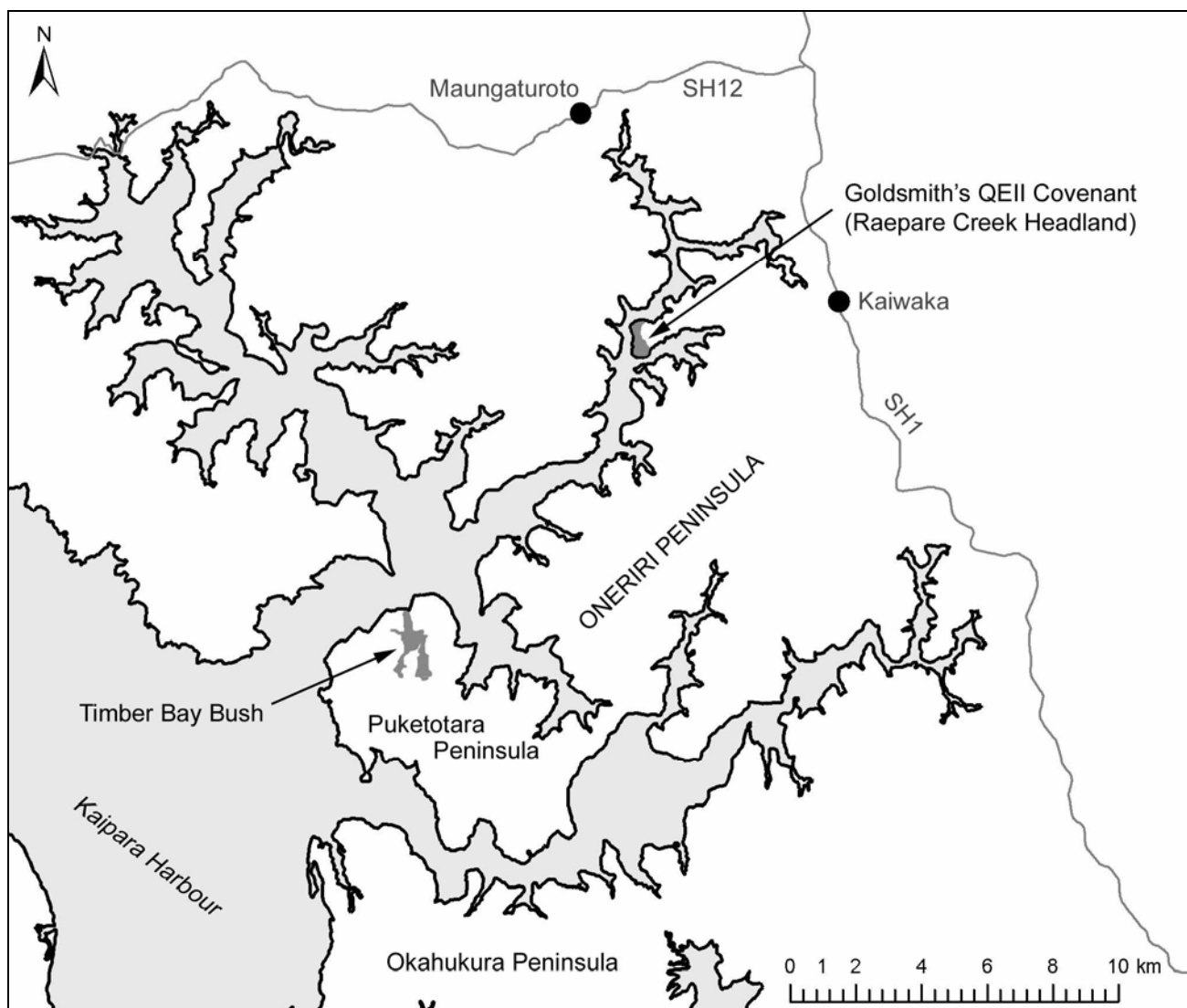


Fig. 1. Location of the two field trip sites: Timber Bay Bush on the Puketotara Peninsula, and Goldsmith's QEII Covenant on the Oneriri Peninsula, both on the inner Kaipara Harbour coastline.

### Saturday 21 October Timber Bay Bush

The team for Saturday's outing included the following Bot Soccers: Jenny Lux, Jan Butcher, Lisa Clapperton, Brian Cumber, Helen and Marcel Lyons, Alistair MacArthur, Stella and John Rowe, Maureen Young, Helen Cogle, Shirley Tomlinson and Doug Sheppard. We also invited enthusiastic locals Toni and Ron Morrison from Takahoa Bay to come along. Ron was armed with an old children's hard-cover volume with absorbent paper (brought along by Maureen for pressing plants in the field), John Rowe got the GPS

### Jenny Lux and Jan Butcher

and Jenny took the plant tags and notebook. With these implements we set forth to investigate, enjoy and document Timber Bay Bush which extends from near the trig at Hargreaves Run some 2 km out to the coast.

No sooner had we entered the grazed gully head did we find a 'regionally significant' plant species (as per DoC 2006); an adult swamp maire (*Syzygium maire*) growing amongst mahoe (*Melicactus ramiflorus*),

pigeonwood (*Hedycarea arborea*) and kanuka (*Kunzea* aff. *ericoides*). A wild turkey was nesting underneath a silver fern (*Cyathea dealbata*), trying hard not to be noticed, but could not escape the Rowes' keen birding eyes (see full avifauna list in Appendix 2). Here, as in the countryside all around, the matai (*Prumnopitys taxifolia*) was bearing a great display of yellow male cones.

We descended into a small wetland dominated by raupo (*Typha orientalis*), where we found small populations of *Ranunculus urvilleanus*, *Epilobium rotundifolium* and *Hypolepis distans*. A small spindly tree growing in the middle of the raupo attracted attention, and we found it to be a *Coprosma robusta* x *propinqua* hybrid. Soon the forest cover increased and we could choose between the moist forest of nikau (*Rhopalostylis sapida*) and kohekohe (*Dysoxylum spectabile*) in Waikanai Stream gully, or kauri (*Agathis australis*) ricker forest on the steep, infertile clay slopes above. In the latter we found a spot with no fewer than 11 orchid species growing in very close proximity – in only 2 or 3 square metres (*Acianthus sinclairii*, *Petalochilus* sp., *Simpliglottis cornuta*, *Cyrtostylis oblonga*, *Diplodium alobulum*, *Diplodium trullifolium*, *Microtis unifolia*, *Pterostylis agathicola*, *Pterostylis graminea*, *Singulariobas oblongus*, *Thelymitra* sp.).

Whilst checking out a Kirk's tree daisy (*Brachyglottis kirkii* var. *angustior*), Maureen announced she would give a bottle of whiskey to the first person to spy *Adelopetalum tuberculatum*. This spurred Helen C. on, and within a few minutes she had spotted her plants on the flaking bark of a young kauri. *A. tuberculatum* is currently listed as "At Risk, Sparse" by de Lange *et al.* (2004), and this was the first time many of us had seen it. Down in the gully the *Pterostylis banksii* were luxuriant, with their flower heads often up to 350 mm, and there were so many we had to be careful where we walked. A total of 17 orchid species were recorded in this remnant (see full indigenous plant species list in Table 1). By lunchtime we had progressed only about a quarter of the way to the beach, so after taking nourishment we had to pick up the pace.

Brian spied a young kawaka (*Libocedrus plumosa*) but we did not see a mature tree. A few fallen kahakaha or widow-makers (*Collospermum hastatum*) were inspected and some small plants of *Pittosporum cornifolium* were found to be amongst them. There appeared to be a few young *Alseuosmia quercifolia* attempting to grow, but these were all nibbled off, so we did not see anything much above 15cm.

As we sidled around the increasingly steep-sided watercourse there were several patches of the spider orchid *Nematoceras trilobum* in the deep shade of the

tangled undergrowth. We saw a few white petals of *Clematis paniculata* on the ground but were delighted to find *Clematis cunninghamii* with copious pale yellow flowers on it. We reached a bush edge by 4pm where Alistair, Shirley, Ron and Toni left us. Later Toni told me by telephone that it was "one of the best days we have had in years". The rest of the party continued down to Timber Bay. During our afternoon tea we had the perfect position: a soft carpet of long grass in the sun, with a view over a diverse and multi-coloured canopy of kowhai, kahikatea, karaka, kanuka, taraire and puriri.

The mouth of the Waikanai Stream is unfortunately dominated by the exotic sharp rush (*Juncus acutus*) (which was as tall as us and very spiky!), and there are patches of the invasive grass *Spartina alterniflora* extending approximately 50m inland. We thought we had found *Hebe macrocarpa* at the base of the tall sedimentary coastal cliffs, but this was later determined to be *H. x affinis* by Peter de Lange. *H. x affinis* is a hybrid between *H. macrocarpa* and *H. stricta* which Cheeseman first described from headlands in the Waitemata and Manukau Harbours, which compared with *H. macrocarpa* has 'leaves smaller, 2-4 in. long. Racemes shorter, 3-5 in.; flowers smaller, white. Capsules 1/5-1/4 in., twice as long as the calyx' (Allan 1961).

Timber Bay looks out towards Tinopai and Pakaurangi Point over an area of water known as 'The Funnel' because the water rushes through as it drains two large arms of the Kaipara Harbour (the Arapaoa River and the Otamatea River). On the Puketotara side of The Funnel the coastline is heavily modified with gorse scrub and pasture being the main vegetation, however there is a narrow fringe of old pohutukawa trees remaining on the cliffs extending some 4 km along the coast.

We made our way back up via the open farmland and Maureen found red pondweed (*Potamogeton cheesemani*) in a small dam with rather scummy water. Kanuka was collected from the paddock, where it was just coming into bud, and these specimens were later identified by Peter de Lange as *Kunzea* aff. *ericoides* (b) (AK 297672, AK 297673). One of the paddocks we walked across going back up to the Hargreaves Run trig was full of Australian sedge (*Carex longibrachiata*). As we came back to the bush line, and cut through on a formed farm track, *Parsonia capsularis* was collected in flower, and some mature trees of toru (*Toronia toru*) were admired.

After our meal that evening in the shearers' quarters two activities dominated the gathering: botanical scrabble (no winners, just praise for the best botanical words) and plant pressing.

## Sunday 22 October Goldsmith QEII Covenant

Maureen Young

This day's outing was to QEII covenanted bush situated between the Otamatea River and Raepare Creek, on the west coast of the Oneriri Peninsula. Owned by Katherine and Edward Goldsmith, this property of c.40 ha encompasses a headland of regenerating bush which has been fenced for at least 14 years. It is approached by a private road a couple of km south-west of Ranganui Road, which gives access through an eco-village set up by a group of permaculture enthusiasts. Three additional ABS members joined us for the day (Elaine Marshall, Kristy Hall and Colleen Crampton), and Marijke Valkenburg and Ruffy from the eco-village guided us in the morning.

The forest is a broadleaf/podocarp mix, with karaka, kohekohe, puriri, plentiful totara, a few big kahikatea, and scattered kauri. Some kauri were logged in the 1980s. The most noticeable feature is the vigorously regenerating undergrowth, which is so dense in parts it is often difficult to move through, in contrast to the lack of undergrowth seen in 1994 (Maureen visited this covenant shortly after it was purchased by the Goldsmiths). In places mamangi (*Coprosma arborea*), mapou (*Myrsine australis*), and lemonwood (*Pittosporum eugenioides*) are the main components. The plentiful lemonwood is a real feature, showing beautifully the broad, flat, dull, buttery-yellow leaves seen on the northern form of this tree, so unlike the form sold by plant nurseries. In other places young nikau form an almost impenetrable barrier, whereas karaka (*Corynocarpus laevigatus*) and kohekohe seedlings abound elsewhere.

The fresh new growth on the kowhai trees generated plenty of discussion, with *Sophora chathamica* finally being decided on as the diagnosis. The flowering libertia was *L. ixioides*, and a good patch of the creeping fern, *Arthropteris tenella*, was admired.

Unlike the bush visited on the previous day, orchids did not feature greatly, though we did finally come across some nice *Pterostylis banksii*, and a few other species. Again, in contrast to the previous day, it is *Adiantum viridescens* with extremely large healthy fronds, rather than *A. fulvum*, which grows there. Without a professional botanist to fall back on, we

Additional notes by Katherine Goldsmith in a letter to Jenny Lux:

"We acquired the bush covenant some 15 or 16 years ago from a farmer who had read of our buying Marunui in Mangawhai to save it. He had cattle and sheep grazing over some 500 acres, and to his own shame, had sold off some six massive kauris for their timber to pay off his debts. The contractors never paid him and smuggled out the kauri. He heard of us and contacted us, "Were we interested in the 'block of

were on our own when it came to identifying the *Carex* species, but they were at a good stage of development to allow us to practise our skills.

Surprisingly, coastal species are rather lacking. Thick swards of the introduced grass, *Paspalum vaginatum*, preclude the growth of the usual little saltmarsh plants, and the dreaded sharp rush, *Juncus acutus*, completes the invasion. No pohutukawa (*Metrosideros excelsa*) or coastal fivefinger (*Pseudopanax lessonii*) was seen, though there are hybrids between *P. crassifolius* and *P. lessonii*. A small wetland at a creek mouth contains a little raupo, *Baumea articulata* and *Eleocharis acuta*, with an occasional saltmarsh ribbonwood (*Plagianthus divaricatus*) that has managed to defy the sharp rush. The small patch of *Ranunculus acaulis* that was seen growing on a clay bank in 1994 was not relocated.

See checklist of indigenous plants in this covenant in Appendix 1.



**Fig. 2. Group photo at Goldsmith QEII covenant. Top: Jenny Lux; middle row (from left): Lisa Clapperton, Stella Rowe, Colleen Crampton, Elaine Marshall, Kristy Hall, Doug Sheppard, John Rowe; bottom row: Marcel Lyons, Helen Lyons, Helen Cogle, Maureen Young, Jan Butcher, Shirley Tomlinson, Brian Cumber.**

bush' at the end of his property?" It was magic and had huge potential for preservation, so I bought it on the spot.

We fenced it and my lawyer, Simon Reeves organised the rather convoluted right of way, Queen's Chain, and the QEII Trust. I have had a chap in to poison off the possums but have not done this for two years. Need I

say the re-growth has been phenomenal. Ten years ago the undergrowth was non-existent because of cattle and sheep grazing.

The farmer then offered us the entire farm eventually, but we turned it down as impractical for us, and put him in touch with Reinhold who conceived the Eco-village. Instead I bought a 'buffer-zone' from him, a further 40 acres, between the bush and the 'village'. I

have in mind to have/allow a native bird release/breeding programme at some stage.

On the trunks of some of the riparian kauris, one can still see the marks of chains of the ships that apparently used to dock to remove the trees - long before the harbour silted up. The area where the large kauris were logged is found in the middle of the property, now curiously colonised by a veritable young *Cordyline* grove."

### Monday 23 October Timber Bay Bush (eastern side)

Helen Cogle

We were all excited at the prospect of exploring a different forest type on the Monday morning – dry kauri ricker ridges with impoverished soil – and adding to the already impressive species list compiled on Saturday (Appendix 1).

Overnight rain had eased to drizzly showers by the time nine intrepid Bot Soccers donned wet weather gear and set off to explore a bush remnant on the north-eastern coast of Puketotara Peninsula.

At times we followed cattle tracks or the trails blazed by possum poisoners, but we otherwise struggled

through *Gleichenia dicarpa*, sliding on *Schoenus tendo*, trying to avoid prickly hakea (*Hakea sericea*) and gorse. We were rewarded with some little treasures and spent time learning a few new names after recent changes. Unfortunately, some orchid species couldn't be positively identified because the flowers were either immature, or had been nipped off by bugs or bunnies.

After two and a half hours of being wet (but not cold), we headed back to base camp for lunch, then packed and cleaned up ready to head back to civilisation in typical long weekend traffic.

#### Acknowledgements

We are very grateful to the Walden family for providing accommodation and permission to explore parts of Oneriri Station. We hope that this article will be of use to you in your efforts to restore Puketotara Peninsula. Thanks to Trevor Kehely for looking after us on site. We would also like to thank the Goldsmiths for giving us permission to botanise in their QEII Covenant, and Marijke Valkenburg for showing us around. Many thanks to Alistair MacArthur for building plant presses to handle our specimens, Ewen Cameron and Peter de Lange for identifying them, and to Ewen Cameron and Mei Nee Lee of Auckland Museum Herbarium for receiving and cataloguing them.

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**Appendix 1: Checklist of Indigenous Vascular Plant Species for Timber Bay Bush, Puketotara Peninsula, and Goldsmith QEII Covenant, Oneriri Peninsula.**

Timber Bay Bush map ref: NZMS 260 Q09/273490; list compiled by Auckland Botanical Society, 21 October 2006.

Goldsmith's QEII Covenant map ref: NZMS 260 Q08/340570; list compiled by Maureen Young, 13 March 1994 & 6 November 1998 & ABS 22 October 2006.

AK number = Auckland Museum Herbarium accession number for specimens collected during the field trip.

\* = judging by known distributions, this could be *Petalochilus alatus*, *Petalochilus bartlettii*, *Petalochilus minor* or *Stegostyla atradenia*, all formerly *Caladenia* spp.

Ferns & Fern Allies		AK number	Timber Bay Bush	Goldsmith QEII Covenant
<i>Adiantum cunninghamii</i>	maidenhair fern	299244	x	x
<i>Adiantum diaphanum</i>	maidenhair fern			x
<i>Adiantum fulvum</i>	maidenhair fern		x	
<i>Adiantum hispidulum</i>	maidenhair fern	299246	x	x
<i>Adiantum viridescens</i>	maidenhair fern	299245		x
<i>Anarthropteris lanceolata</i>	lance fern		x	
<i>Arthropteris tenella</i>		299259		x
<i>Asplenium bulbiferum</i>	hen and chicken fern		x	
<i>Asplenium flaccidum</i>	makawe		x	x
<i>Asplenium gracillimum</i>		299235, 299252	x	x
<i>Asplenium lamprophyllum</i>				x
<i>Asplenium oblongifolium</i>	shining spleenwort; huruhuruwhenua		x	x
<i>Asplenium polyodon</i>	sickle spleenwort		x	x
<i>Blechnum chambersii</i>			x	
<i>Blechnum filiforme</i>	thread fern	299251	x	x
<i>Blechnum fraseri</i>			x	
<i>Blechnum membranaceum</i>			x	x
<i>Blechnum novae-zelandiae</i>	kiokio		x	x
<i>Ctenopteris heterophylla</i>			x	
<i>Cyathea dealbata</i>	ponga; silver fern		x	x
<i>Cyathea medullaris</i>	mamaku; black tree fern		x	x
<i>Deparia petersenii</i>			x	x
<i>Doodia australis</i>	rasp fern		x	x
<i>Gleichenia dicarpa</i>	tangle fern		x	
<i>Gleichenia microphylla</i>	tangle fern		x	
<i>Histiopteris incisa</i>			x	x
<i>Huperzia varia</i>			x	x
<i>Hymenophyllum demissum</i>			x	x
<i>Hymenophyllum flabellatum</i>			x	
<i>Hymenophyllum sanguinolentum</i>				x
<i>Hymenophyllum revolutum</i>			x	x
<i>Hypolepis ambigua</i>				x
<i>Hypolepis distans</i>		299222	x	
<i>Lastreopsis glabella</i>			x	
<i>Lastreopsis hispida</i>	hairy fern		x	
<i>Lastreopsis microsora</i>			x	x
<i>Lindsaea linearis</i>			x	x
<i>Lindsaea trichomanoides</i>			x	x
<i>Lycopodium deuterodensum</i>			x	
<i>Lygodium articulatum</i>	mangemange		x	x
<i>Microsorium pustulatum</i>	kowaowao; hound's tongue fern		x	x

<i>Microsorium scandens</i>	mokimoki; fragrant fern		x	x
<i>Paesia scaberula</i>	ring fern; scented fern		x	x
<i>Pellaea rotundifolia</i>	button fern			x
<i>Pneumatopteris pennigera</i>	gully fern	299260, 299261	x	x
<i>Polystichum neozelandicum</i>		299254		x
<i>Pteridium esculentum</i>	rarahu; bracken		x	x
<i>Pteris macilentata</i>			x	x
<i>Pteris tremula</i>	shaking brake		x	x
<i>Pyrrosia eleagnifolia</i>	leather-leaf fern		x	x
<i>Schizaea fistulosa</i>			x	
<i>Tmesipteris elongata</i>			x	
<i>Tmesipteris lanceolata</i>			x	x
<i>Tmesipteris sigmatifolia</i>		299270	x	
<i>Trichomanes elongatum</i>			x	

<b>Gymnosperms</b>		<b>AK number</b>	<b>Timber Bay Bush</b>	<b>Goldsmith QEII Covenant</b>
<i>Agathis australis</i>	kauri		x	x
<i>Dacrycarpus dacrydioides</i>	kahikatea		x	x
<i>Dacrydium cupressinum</i>	rimu		x	x
<i>Libocedrus plumosa</i>	kawaka		x	
<i>Phyllocladus trichomanoides</i>	tanekaha		x	x
<i>Podocarpus totara</i>	totara		x	x
<i>Prumnopitys ferruginea</i>	miro		x	x
<i>Prumnopitys taxifolia</i>	matai	299241	x	x

<b>Dicotyledons</b>		<b>AK number</b>	<b>Timber Bay Bush</b>	<b>Goldsmith QEII Covenant</b>
<i>Alectryon excelsus</i>	titoki		x	x
<i>Alseuosmia quercifolia</i>			x	
<i>Apium prostratum</i>	NZ celery		x	
<i>Aristotelia serrata</i>	makomako		x	
<i>Avicennia marina</i>	mangrove; manawa		x	x
<i>Beilschmiedia tarairi</i>	taraire	AK299255	x	x
<i>Beilschmiedia tawa</i>	tawa		x	x
<i>Brachyglottis kirkii</i> var. <i>angustior</i>	Kirk's tree daisy		x	
<i>Brachyglottis repanda</i>	rangiora		x	
<i>Callitriche muelleri</i>			x	x
<i>Calystegia sepium</i>	pink bindweed		x	x
<i>Carmichaelia australis</i>	NZ broom	299233	x	
<i>Carpodetus serratus</i>	putaputaweta		x	x
<i>Centella uniflora</i>			x	x
<i>Clematis cunninghamii</i>		299229, 299264	x	x
<i>Clematis paniculata</i>			x	x
<i>Coprosma arborea</i>	mamangi		x	x
<i>Coprosma areolata</i>			x	x
<i>Coprosma grandifolia</i>	kanono		x	
<i>Coprosma lucida</i>	shining karamu		x	
<i>Coprosma macrocarpa</i>				x
<i>Coprosma rhamnoides</i>			x	x
<i>Coprosma robusta</i>	karamu	299253	x	x
<i>Coprosma robusta</i> x <i>C. propinqua</i>		299238	x	x
<i>Coprosma spathulata</i>			x	x
<i>Corynocarpus laevigatus</i>	karaka		x	x

<i>Cotula coronopifolia</i>	bachelor's button		x	
<i>Dichondra repens</i>			x	x
<i>Drosera auriculata</i>	sundew		x	
<i>Dysoxylum spectabile</i>	kohekohe		x	x
<i>Elaeocarpus dentatus</i>	hinau		x	x
<i>Elatostema rugosum</i>	parataniwha		x	
<i>Epilobium rotundifolium*</i>	round-leaved willowherb	299221	x	
<i>Geniostoma ligustrifolium</i>	hangehange	299250	x	x
<i>Geranium homeanum</i>				x
<i>Gonocarpus incanus</i>			x	
<i>Griselinia lucida</i>	puka		x	x
<i>Haloragis erecta</i>				x
<i>Hebe x affinis*</i>		299263	x	
<i>Hebe stricta</i>	koromiko			x
<i>Hedycarya arborea</i>	pigeonwood; porokaiwhiri	299230	x	x
<i>Knightia excelsa</i>	rewarewa		x	x
<i>Kunzea ericoides</i>	kanuka		x	x
<i>Kunzea aff. ericoides*</i>	kanuka	297672	x	
<i>Lagenifera pumila</i>		299274	x	x
<i>Laurelia novae-zelandiae</i>	pukatea		x	x
<i>Leptospermum scoparium</i>	manuka		x	x
<i>Leucopogon fasciculatus</i>	mingimingi		x	x
<i>Leucopogon fraseri</i>			x	
<i>Lobelia anceps</i>			x	x
<i>Macropiper excelsum</i>	kawakawa		x	x
<i>Melicytus ramiflorus</i>	mahoe		x	x
<i>Metrosideros diffusa</i>			x	x
<i>Metrosideros excelsa</i>	pohutukawa		x	
<i>Metrosideros fulgens</i>			x	x
<i>Metrosideros perforata</i>			x	x
<i>Mida salicifolia</i>			x	
<i>Muehlenbeckia australis</i>				x
<i>Muehlenbeckia complexa</i>	pohuehue		x	x
<i>Myrsine australis</i>	mapou		x	x
<i>Nertera depressa</i>				x
<i>Nertera dichondrifolia</i>				x
<i>Nestegis lanceolata</i>	white maire		x	x
<i>Olearia furfuracea</i>	akepiro		x	x
<i>Olearia rani</i>	heketara		x	
<i>Parsonsia capsularis</i>	NZ jasmine	299262	x	
<i>Parsonsia heterophylla</i>	NZ jasmine		x	x
<i>Passiflora tetrandra</i>	NZ passionfruit			x
<i>Pennantia corymbosa</i>	kaikomako			x
<i>Persicaria decipiens</i>	native willow weed		x	
<i>Pittosporum cornifolium</i>		297729	x	
<i>Pittosporum eugenioides</i>	lemonwood; tarata		x	x
<i>Pittosporum tenuifolium</i>	kohuhu		x	
<i>Plagianthus divaricatus</i>	saltmarsh ribbonwood		x	x
<i>Pomaderris amoena</i>			x	
<i>Pomaderris kumeraho</i>	kumarahou		x	
<i>Pseudopanax arboreus</i>	five-finger		x	
<i>Pseudopanax crassifolius</i>	lancewood; horoeka		x	x
<i>Pseudopanax crassifolius x P. lessonii</i>	lancewood x houpara hybrid			x
<i>Ranunculus acaulis</i>				x
<i>Ranunculus reflexus</i>			x	x
<i>Ranunculus urvilleanus</i>		299227	x	
<i>Rhabdothamnus solandri</i>	taurepo	299240	x	
<i>Rubus australis</i>	bush lawyer			x



<i>Rubus cissoides</i>	bush lawyer		x	
<i>Senecio minimus</i>		297671		x
<i>Schefflera digitata</i>	pate		x	
<i>Sophora chathamica</i>	kowhai	299232 299268	x	
<i>Streblus heterophyllus</i>	turepo; small-leaved milk tree		x	x
<i>Syzygium maire</i>	swamp maire; maire tawake		x	
<i>Toronia toru</i>	toru		x	
<i>Vitex lucens</i>	puriri		x	x
<i>Wahlenbergia violacea</i>				x

Monocotyledons		AK number	Timber Bay Bush	Goldsmith QEII Covenant
<i>Acianthus sinclairii</i>			x	x
<i>Adelopetalum tuberculatum</i>			x	
<i>Apodasmia similis</i>	oioi			x
<i>Astelia banksii</i>			x	
<i>Astelia solandri</i>			x	x
<i>Astelia trinervia</i>	kauri grass		x	
<i>Austrostipa stipoides</i>			x	
<i>Baumea articulata</i>				x
<i>Baumea juncea</i>				x
<i>Baumea teretifolia</i>			x	
<i>Carex dissita</i>		299237, 299243	x	x
<i>Carex inversa</i>				x
<i>Carex lambertiana</i>		299249	x	
<i>Carex lessoniana</i>		299258		x
<i>Carex ochrosaccus</i>		299231, 299248	x	x
<i>Carex secta</i>			x	
<i>Carex solandri</i>		299236, 299247 299257	x	x
<i>Carex virgata</i>			x	x
<i>Collospermum hastatum</i>	kahakaha		x	x
<i>Cordyline australis</i>	ti kouka; cabbage tree		x	x
<i>Cordyline banksii</i>	ti ngahere; forest cabbage tree		x	x
<i>Cyperus ustulatus</i>				x
<i>Cyrtostylis oblonga</i>			x	
<i>Dianella nigra</i>	turutu		x	x
<i>Diplodium alobulum</i>		299265	x	x
<i>Diplodium trullifolium</i>			x	
<i>Drymoanthus adversus</i>				x
<i>Earina mucronata</i>			x	x
<i>Echinopogon ovatus</i>				x
<i>Eleocharis acuta</i>	sharp spike-sedge	299226	x	x
<i>Ficinia nodosa</i>	knobby clubrush		x	x
<i>Freycinetia banksii</i>	kiekie		x	x
<i>Gahnia lacera</i>			x	x
<i>Gahnia pauciflora</i>		299234	x	x
<i>Gahnia setifolia</i>				x
<i>Gahnia xanthocarpa</i>			x	x
<i>Ichthyostomum pygmaeum</i>			x	
<i>Isolepis cernua</i>				x
<i>Isolepis inundata</i>		299256		x

<i>Isolepis reticularis</i>			x	x
<i>Juncus kraussii</i> var. <i>australiensis</i>	sea rush			x
<i>Juncus planifolius</i>			x	
<i>Juncus sarophorus</i>			x	
<i>Lepidosperma australe</i>			x	
<i>Libertia ixioides</i>		299220		x
<i>Microlaena avenacea</i>			x	
<i>Microlaena stipoides</i>			x	x
<i>Microtis unifolia</i>			x	x
<i>Nematoceras macranthum</i>		299271	x	
<i>Nematoceras trilobum</i>		299269	x	x
<i>Oplismenus hirtellus</i> subsp. <i>imbecillis</i>			x	x
<i>Orthoceras novae-zeelandiae</i>			x	
<i>Phormium tenax</i>	harakeke; NZ flax		x	x
<i>Petalochilus</i> sp.*			x	
<i>Poa anceps</i>			x	
<i>Potamogeton cheesemanii</i>	red pondweed	299223	x	
<i>Pterostylis agathicola</i>		299277	x	x
<i>Pterostylis banksii</i>		299273, 299266	x	x
<i>Pterostylis graminea</i>		299275, 299267	x	x
<i>Rhopalostylis sapida</i>	nikau		x	x
<i>Ripogonum scandens</i>	kareao; supplejack		x	x
<i>Schoenus maschalinus</i>			x	
<i>Schoenus tendo</i>		299228	x	
<i>Simpliglottis cornuta</i>		299276	x	
<i>Singularybas oblongus</i>			x	
<i>Thelymitra</i> sp.	sun orchid		x	
<i>Typha orientalis</i>	raupo		x	x
<i>Uncinia banksii</i>			x	x
<i>Uncinia uncinata</i>			x	x
<i>Uncinia zotovii</i>				x

Pest plant specimens (adventive)	AK number	Timber Bay Bush	Goldsmith QEII Covenant
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<i>Ageratina riparia</i>	mist flower	299239	x
<i>Spartina alterniflora</i>	spartina	297725	x

## Appendix 2: Birds observed at Puketotara Peninsula and Oneriri Peninsula.

Observed by John and Stella Rowe during the Auckland Botanical Society Labour Weekend Camp, 21-23 October 2006.

\* = exotic species.

Current threat classes for indigenous species from Hitchmough *et al.* (2007).

Listed in OSNZ checklist order (Turbott 1990); threat listing follows Hitchmough *et al.* (2007).

Latin name	Common names	Threat class
<i>Morus serrator</i>	takapu, Australasian gannet	not threatened
<i>Phalacrocorax carbo novaehollandiae</i>	kawau; black shag	Sparse
<i>Phalacrocorax varius varius</i>	karuhiruhi; pied shag	not threatened
<i>Ardea novaehollandiae</i>	white-faced heron	not threatened
<i>Cygnus atratus</i>	black swan	not threatened
<i>Tadorna variegata</i>	putangitangi; paradise shelduck	not threatened
* <i>Anas platyrhynchos</i>	mallard	
<i>Circus approximans</i>	kahu; Australasian harrier	not threatened
* <i>Synoicus ypsilophorus</i>	brown quail	
* <i>Phasianus colchicus</i>	pheasant	

* <i>Pavo cristatus</i>	peafowl	
* <i>Meleagris gallopavo</i>	wild turkey	
<i>Porphyrio porphyrio melanotus</i>	pukeko	not threatened
<i>Haematopus ostralegus</i>	torea, pied oystercatcher	not threatened
<i>Vanellus miles</i>	spur-winged plover	not threatened
<i>Larus dominicanus dominicanus</i>	karoro; southern black-backed gull	not threatened
<i>Sterna caspia</i>	taranui; Caspian tern	Nationally Vulnerable
<i>Sterna striata striata</i>	tara; white-fronted tern	Gradual Decline
<i>Hemiphaga novaeseelandiae</i>	kukupa; kereru; New Zealand pigeon	Gradual Decline
* <i>Platycercus eximius</i>	eastern rosella	
<i>Chrysococcyx lucidus lucidus</i>	pipiwharau; shining cuckoo	not threatened
<i>Ninox novaeseelandiae</i>	ruru; morepork	not threatened
<i>Todiramphus sanctus</i>	kotare; kingfisher	not threatened
* <i>Alauda arvensis</i>	skylark	
<i>Hirundo tahitica neoxena</i>	welcome swallow	not threatened
* <i>Turdus merula</i>	blackbird	
<i>Gerygone igata</i>	riroriro; grey warbler	not threatened
<i>Rhipidura fuliginosa placabilis</i>	piwakawaka, fantail	not threatened
<i>Zosterops lateralis</i>	silveryeye; tauhou	not threatened
<i>Prothemadera novaeseelandiae novaeseelandiae</i>	tui	not threatened
* <i>Emberiza citrinella</i>	yellowhammer	
* <i>Fringilla coelebs</i>	chaffinch	
* <i>Carduelis carduelis</i>	goldfinch	
* <i>Passer domesticus</i>	house sparrow	
* <i>Sturnus vulgaris</i>	starling	
* <i>Gymnorhina tibicen</i>	Australian magpie	

## THE 20<sup>TH</sup> NZ FUNGAL FORAY, WESTPORT, May 2006

Petra White

### Introduction

The New Zealand Fungal Foray is an annual event held in May each year at a different site in the country. It is intended for both amateur and professional mycologists. The amateurs range from members of the public with a general interest in natural history, to photographers, to gastronomes, to those with an extensive knowledge on New Zealand's fungi.

Initiated in 1986 with a foray at Kauaeranga Valley, Coromandel Peninsula, the event has since been held in such varying places as Tangihua, the Catlins, Wanganui, Ruatahuna, Haast and Nelson. After last year's foray at Ohakune 438 fungi collections representing 298 taxa were deposited into the PDD national collection. Three collections were of species currently listed as Nationally Critical by the Department of Conservation (DoC) (*Hitchmough et al* 2007) (*Ramaria junquilleovortex*, *Squamanita squarrolosa*, *Russula littoralis*), and 67 collections representing 44 taxa were of records flagged as Data Deficient. The list is published on the FUNNZ (Fungal Network of New Zealand) website.

The 20<sup>th</sup> annual NZ Fungal Foray was held in 2006 from 7-13 May at the University of Canterbury Field

Station in Westport. There were 66 professional and amateur mycologists staying for various durations during the week. We had visitors from Austria, Australia, Thailand, Sweden, England, Tasmania, Japan and USA.

Each day's foraying involved collecting in the field and then identifying our finds back at the Field Centre, labeling them and displaying them on tables set aside for the purpose. Many of the collections were then dried to take back to the Landcare Research herbarium in Auckland (PDD). I worked with Shaun Pennycook to record information on identified species directly onto computer. Additionally, photographs were taken of 425 images of 165 taxa. Many of the taxa had no previous captured image. This process is part of the FUNNZ tracking system, instituted for the first time at this Foray.

This was my fourth Foray and the first foray in which I didn't go alone. I had my boyfriend, Malcolm Greenway, with me. Malcolm had no previous experience with fungi but is a keen photographer, so I knew he would fit right in.