

## PATAUA ISLAND SCIENTIFIC RESERVE AND OPOTIKI DOMAIN FIELD TRIP

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On 8 August 2010, 16 members of the Rotorua Botanical Society and locals from Ohiwa Care Group gathered at Ruatuna Road to botanise the Pataua Island Scientific Reserve. This 22 ha DOC Reserve, just a short walk through mangroves off Ruatuna Road on the eastern side of Ohiwa Harbour, is a reserve set aside to protect an example of estuarine wetlands contiguous with indigenous forest and scrub forest around Ohiwa Harbour and mangrove communities near their southern limit (Beadel 1994).

The reserve has been visited infrequently by botanists. The vegetation and flora has been well documented in the West Gisborne report of the Biological Survey of Reserves Report (Clarkson and Regnier 1989) with a vegetation map and vascular plant species list produced.

We entered the reserve across the mudflats at low tide through the mangrove scrub and made our way along the northern edge of the island walking around the high tide mark. Upon reaching the northern tip of the island we came across some large pohutukawa trees, obviously some of the remnants of the original forest. Following the coastline south from here we came across many more huge specimens overhanging the sea. Most were festooned with abundant epiphytes of *Earina mucronata* and *Collospermum hastatum*. Common ferns and fern allies hanging from them included *Huperzia varia*, *Asplenium flaccidum* and *A. oblongifolium*.

We stopped to debate senecios on the cliffs and *Sonchus*, which turned out to be *Sonchus asper* rather than the possible *S. kirkii* we had hoped for (Jo Bonner *pers. comm.*). Further around the south-west coastline we came across an area dominated by salt marsh comprised of *Olearia solandri* with *Coprosma propinqua*, and saltmarsh ribbonwood

(*Plagianthus divaricatus*) over an understorey of *Baumea juncea*, oioi (*Apodasmia similis*) and sea rush (*Juncus kraussii* subsp. *australiensis*).

Behind this area of saltmarsh was a very wet gully, damp after the previous nights rainfall. In this we found at least half a dozen large kahikatea (*Dacrycarpus dacrydioides*) trees and a large number of seedlings. A dense area of supplejack (*Ripogonum scandens*) was also present. Several large shrubs of *Carmichaelia australis* were also seen on the edge of the wetland. At the southern tip of the island we stopped for lunch on the edge of another area of saltmarsh. This area also had a few large kahikatea trees and some small nikau (*Rhopalostylis sapida*) on the edge of the wetland. Several fernbird were heard in this area of saltmarsh. A miro (*Prumnopitys ferruginea*) and totara (*Podocarpus totara*) seedling were noted here and in one other place on the island, and there were several large old hawthorn (*Crataegus monogyna*) trees.

After skirting this area of saltmarsh the party inadvertently split (again) and headed up separate gullies into the kanuka-rewarewa forest on the ridge. One party came across both orchids *Drymoanthus adversus* and *Ichthyostomum pygmaeum* on rewarewa. Both parties regrouped and headed north-west along the main ridge. The forest along here consisted of large old kanuka trees and rewarewa. The canopy was relatively open in places and windfalls were common. *Adiantum cunninghamii* was common in the understorey along with tawa seedlings, despite only one midsized tawa tree seen on the island. Understorey species included abundant *Coprosma lucida*, rangiora and mapou (*Myrsine australis*). We came across some vegetation plots further along the ridge before turning and heading back to the mangrove scrub and back to the car. No nationally threatened species were noted on the island. *Pimelea tomentosa* previously recorded by Clarkson and Regnier (1989), which is likely to still be present in this forest type on the ridges, was not seen.

Despite abundant weed sources on the nearby mainland few weed species were noted on the island – only an occasional barberry, hawthorn, sweet briar, gorse, wild ginger, and woolly nightshade plant were noted and mostly removed. A small stand of old black

wattle (*Acacia mearnsii*) survives on the north-eastern margin and a small patch of cherry seedlings and a Chinese privet seedling were also removed from this area. The only weed species relatively common is sea couch (*Elytrigia pycnantha*), which is abundant around the island margins amongst saltmarsh, as it is in much of Ohiwa Harbour. Apart from these weed species the remainder of the vegetation successional processes appear to be continuing uninterrupted. No sign of possums or ungulates were noted and it would be worth confirming if possums are still present on the island.

As well as tawa a range of puriri seedlings and several karaka seedlings were noted. More evidence that birds have introduced podocarp species to the island could be seen in the increase in podocarp seedlings. Only kahikatea and rimu were noted in 1989 by Clarkson and Regnier (1989). On this visit tanekaha, totara and miro were noted, indicating what would comprise the future climax forest of the island. Several coastal species were notably sparse or absent from the coastal vegetation of the island, including houpara and karo, for reasons unknown.

In summary the island vegetation lived up to its scientific reserve status. Pataua is an excellent example of advanced older secondary forest with minimal threats and modification along with some excellent examples of remnant large pohutukawa trees on its northern coastal margins.

With a few hours left in the day the remainder of the group headed further around the harbour to Ohiwa Domain. This is a small coastal forest remnant near the Ohiwa Motor Camp. It consists of a large area near the road frontage that has been revegetated and includes a stream valley. Much of the remainder is young regenerating scrub with a mix of indigenous and exotic species. The original forest remnants are a short walk into the reserve and consist of at least two gullies which lead from a large cliff. The area around the cliff contains some large pohutukawa specimens while the two gully systems contain original forest with large puriri specimens. The group had time to briefly explore the two gullies and bases of the cliffs and vegetation around the waterfall that cascaded



<i>Lycopodium deuterodensum</i>	puakarimu
<i>Microsorium pustulatum</i>	hounds tongue fern
<i>Microsorium scandens</i>	
<i>Pneumatopteris pennigera</i>	pakau
<i>Polystichum wawranum</i>	pikopiko, shield fern
<i>Pteridium esculentum</i>	rarahu (bracken)
<i>Pteris comans</i> x <i>P. macilenta</i>	
<i>Pteris macilenta</i>	sweet fern
<i>Pteris tremula</i>	shaking brake
<i>Pyrrosia eleagnifolia</i>	leather-leaf fern
<i>Tmesipteris elongata</i>	fork fern
<i>Tmesipteris lanceolata</i>	fork fern
<i>Tmesipteris sigmatifolia</i>	
<i>Trichomanes venosum</i>	veined filmy fern

### Gymnosperms

<i>Dacrycarpus dacrydioides</i>	kahikatea
<i>Dacrydium cupressinum</i>	rimu
<i>Phyllocladus trichomanoides</i>	
<i>Podocarpus totara</i> var. <i>totara</i>	
<i>Prumnopitys ferruginea</i>	miro

### Dicots

* <i>Acacia mearnsii</i>	black wattle
* <i>Anagallis arvensis</i>	scarlet pimpernel
<i>Avicennia marina</i> subsp. <i>australasica</i>	manawe, mangrove
<i>Beilschmiedia tawa</i>	tawa
* <i>Berberis glaucocarpa</i>	barberry
<i>Brachyglottis repanda</i>	rangiora
<i>Calystegia sepium</i> subsp. <i>roseata</i>	pohue
<i>Calystegia tuguriorum</i>	
<i>Carmichaelia australis</i>	makaka, maukoro
<i>Carpodetus serratus</i>	putaputaweta
* <i>Cirsium vulgare</i>	Scotch thistle
<i>Clematis cunninghamii</i>	ngakau-kiore
<i>Clematis foetida</i>	akakaiku
* <i>Conyza sumatrensis</i>	fleabane
<i>Coprosma areolata</i>	
<i>Coprosma grandifolia</i>	kanono
<i>Coprosma lucida</i>	karamu
<i>Coprosma propinqua</i> x <i>C. robusta</i>	
<i>Coprosma propinqua</i>	mingimingi
<i>Coprosma rhamnoides</i>	
<i>Coprosma robusta</i>	karamu

<i>Coprosma rotundifolia</i>	
<i>Coprosma tenuicaulis</i>	hukihuki
<i>Coriaria arborea</i>	tutu
<i>Corynocarpus laevigatus</i>	karaka
* <i>Cotoneaster glaucophyllus</i> f. <i>serotina</i>	
* <i>Crataegus monogyna</i>	hawthorn
<i>Dichondra repens</i>	Mercury Bay weed
<i>Dysoxylum spectabil</i>	kohekohe
* <i>Eriobotrya japonica</i>	loquat
<i>Fuchsia excorticata</i>	kotukutuku
* <i>Galium aparine</i>	cleavers
<i>Galium propinquum</i>	marsh bedstraw
<i>Gaultheria antipoda</i>	snowberry
<i>Geniostoma ligustrifolium</i>	hangehange
<i>Haloragis erecta</i>	toatoa
<i>Hebe stricta</i> var. <i>stricta</i>	koromiko
<i>Hedycarya arborea</i>	porokaiwhiri
* <i>Hypochoeris radicata</i>	catsear
* <i>Jacobaea vulgaris</i>	ragwort
<i>Knightia excelsus</i>	rewarewa
<i>Kunzea ericoides</i> var. <i>ericoides</i>	kanuka
<i>Leptecophylla juniperina</i>	prickly mingimingi
<i>Leptospermum scoparium</i>	manuka
<i>Leucopogon fasciculatus</i>	mingimingi
* <i>Ligustrum sinense</i>	Chinese privet
<i>Litsea calicaris</i>	mangaeo
<i>Lobelia anceps</i>	punakuru
<i>Lophomyrtus bullata</i>	
* <i>Lotus pedunculatus</i>	lotus
<i>Macropiper excelsum</i> var. <i>excelsum</i>	kawakawa
<i>Melicytus ramiflorus</i> subsp. <i>ramiflorus</i>	mahoe
<i>Metrosideros diffusa</i>	
<i>Metrosideros excelsa</i>	pohutukawa
<i>Metrosideros excelsa</i> x <i>M. robusta</i>	
<i>Metrosideros perforata</i>	aka
<i>Muehlenbeckia australis</i>	
<i>Muehlenbeckia complexa</i>	
<i>Myrsine australis</i>	mapou
<i>Olearia furfuracea</i>	
<i>Olearia rami</i> var. <i>colorata</i>	heketara
<i>Olearia solandri</i>	
* <i>Oxalis incarnata</i>	
<i>Parsonsia capsularis</i>	akakioire
<i>Parsonsia heterophylla</i>	akakaikioire

* <i>Phytolacca octandra</i>	inkweed
<i>Pimelea tomentosa</i>	
<i>Pittosporum tenuifolium</i>	kohuhu
<i>Plagianthus divaricatus</i>	marsh ribbonwood
* <i>Plantago lanceolata</i>	narrow-leaved plantain
<i>Pomaderris amoena</i>	monoao
* <i>Prunella vulgaris</i>	selfheal
* <i>Prunus campanulata</i>	cherry
<i>Pseudopanax arboreus</i>	five finger
<i>Pseudopanax crassifolius</i>	lancewood
<i>Pseudopanax crassifolius</i> × <i>P. lessonii</i>	
<i>Pseudopanax lessonii</i>	
* <i>Ranunculus repens</i>	creeping buttercup
* <i>Rosa rubiginosa</i>	sweer briar
<i>Rubus cissoides</i>	tataramoa
<i>Rubus fruticosus</i>	blackberry
<i>Samolus repens</i>	makaokao
<i>Sarcocornia quinqueflora</i> var. <i>quinqueflora</i>	glasswort
<i>Schefflera digitata</i>	pate
<i>Selliera radicans</i>	remuremu
* <i>Senecio bipinnatisectus</i>	Australian fireweed
<i>Senecio hispidulus</i>	fireweed
<i>Senecio minimus</i>	fireweed
* <i>Solanum mauritianum</i>	woolly nightshade
<i>Solanum nodiflorum</i>	small flowered nightshade
* <i>Sonchus asper</i>	prickly puha
* <i>Stellaria media</i> subsp. <i>media</i>	chickweed
* <i>Ulex europaeus</i>	gorse
<i>Weinmannia racemosa</i>	kamahi, tawhero

### Monocots

<i>Acianthus sinclairii</i>	
<i>Apodasmia similis</i>	oioi
<i>Austrostipa stipoides</i>	
<i>Baumea articulata</i>	
<i>Baumea juncea</i>	
<i>Baumea tenax</i>	
<i>Bolboschoenus medianus</i>	
<i>Carex dissita</i>	
<i>Carex flagellifera</i>	manaia
<i>Carex geminata</i> agg.	rautahi
<i>Carex lambertiana</i>	
<i>Carex secta</i>	
<i>Carex virgata</i>	purei

<i>Collospermum hastatum</i>	kahakaha
<i>Cordyline australis</i>	ti kouka
<i>Corybas trilobus</i>	
<i>Cyperus ustulatus</i>	toetoe upokotangata
* <i>Dactylis glomerata</i>	cocksfoot
<i>Deyeuxia billardierei</i>	perehia
<i>Dianella nigra</i>	turutu
<i>Dichelachne crinita</i>	patiti
<i>Drymoanthus adversus</i>	green fleshy orchid
<i>Earina mucronata</i>	peka-a-waka
<i>Eleocharis acuta</i>	sharp spike sedge
* <i>Elytrigia pycnantha</i>	sea couch
<i>Ficinia nodosa</i>	wiwi
<i>Freycinetia banksii</i>	kiekie
<i>Gabnia pauciflora</i>	takahikahi
<i>Gabnia setifolia</i>	mapere
* <i>Hedychium gardnerianum</i>	wild ginger
* <i>Holcus lanatus</i>	Yorkshire fog
<i>Ichthyostomum pygmaeum</i>	
<i>Isachne globosa</i>	swamp millet
<i>Isolepis cernua</i>	
* <i>Isolepis marginata</i>	
<i>Isolepis reticularis</i>	
* <i>Juncus effusus</i>	wi (sea rush)
<i>Juncus kraussii</i>	South American rush
<i>Juncus sarophorus</i>	
<i>Lachnagrostis billardierei</i>	
<i>Machaerina sinclairii</i>	tuhara
<i>Microlaena stipoides</i>	patiti
<i>Morelotia affinis</i>	puka
<i>Oplismenus imbecillus</i>	
* <i>Paspalum dilatatum</i>	paspalum
<i>Phormium cookianum</i> subsp. <i>hookeri</i>	wharariki, coastal flax
<i>Phormium tenax</i>	harakeke, flax
<i>Poa anceps</i> var. <i>anceps</i>	
* <i>Poa annua</i>	
* <i>Poa trivialis</i>	rough stalked meadow grass
<i>Rhopalostylis sapida</i>	
<i>Ripogonum scandens</i>	
<i>Rytidosperma gracile</i>	forest fairy grass
* <i>Schedonorus arundinacea</i>	tall fescue
<i>Schoenoplectus pungens</i>	three-square
<i>Schoenoplectus tabernaemontani</i>	lake clubrush, kapungawha
<i>Schoenus maschalinus</i>	

*Schoenus tendo*  
*Typha orientalis*  
*Uncinia ferruginea*  
*Uncinia uncinata*  
*Winika cunninghamii*  
*Zostera muelleri*

raupo

kamu, matau a Maui

winika

eel grass



*Freycinetia banksii* in fruit on Pataua Island (Photo: John Hobbs)