



# Waikato Botanical Society Inc.

## NEWSLETTER

### No. 28, October 2008

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## UPCOMING EVENTS 2008

In the event of bad weather, please contact the trip leader on the morning of field trips if you are unsure if they will go ahead and don't want a wasted trip to the meeting point. It is always helpful to notify the trip leader of your intention to attend a trip in case you are late to the meeting point or for any last minute change of plan. Please be prepared on all trips with your own lunch, drink, sturdy footwear, and clothes for all seasons. We encourage carpooling for longer distances and suggest a contribution is made toward petrol costs for the driver.

- **Pokaiora clearing, Waihaha, Pureora Forest Park And *Teucriidium* survey, Mapara Scenic Reserve: Saturday 8th and Sunday 9th November** (please note later meeting time on Saturday due to Election day!)  
**Saturday:** The Pokaiora clearings are an excellent example of a typical frost flat ecosystem dominated by *Dracophyllum subulatum* and show a great example of forest ecotones grading into *Phyllocladus alpinus* before changing into the large podocarp forest Pureora is so famous for. The walk in to the clearings is only an hour where we will be looking out for plants such as *Pimelea tomentosa*, *Melicytus flexuosus*

and *Calluna vulgaris*. On the walk in plants such as *Dactylanthus*, *Coriaria plumosa* and *Ourisia macrophylla* can also be seen.

**Sunday:** Thomas would like to conduct a survey for the threatened shrub species *Teucrium parvifolium* in Mapara Scenic Reserve. It has not been seen at the site since 1984 when a herbarium specimen was collected. Waikato Botanical Society members are invited to assist with a thorough search at Mapara to determine whether it is extinct at the site or not.

**Meet:** Saturday, 11am @ D.o.C office in Te Kuiti (78 Taupiri St, beside the liquor store by the shearing statue.) OR 12pm @ Pureora Field Centre OR 1pm at Waihaha track start, Western Bays Rd.

Sunday, 10am Mapara Scenic Reserve, Mapara Road. (take SH4, then turn right onto Tikitiki Road. Mapara Road is the first on the right)

**Contact:** Thomas Emmitt 07 878 1055 (wk) or 07 878 3437 (hm), email: [temmitt@doc.govt.nz](mailto:temmitt@doc.govt.nz)

**Accommodation:** Please let Thomas know ASAP if you are interested in travelling by DoC van from Te Kuiti or overnight accommodation. The DOC cabins in Pureora village are fairly central to both locations and can be booked for Friday and Saturday nights for \$12 per person. Cooking facilities, cutlery and crockery, fridge etc provided, shared toilet/shower block. Bring own sleeping bag, pillow. Otherwise tents can be pitched at nearby campsite.

- **\*\*NEW EVENT\*\* Film Presentation: Eden the Inside Story. Thursday 4th December**  
Lecture theatre L1, L Block, Gate 1, Knighton Road, University of Waikato. Drinks and nibbles from 6.30pm, film and presentation by Robin Kewell 7pm-8.30pm. Entry \$5 waged, \$2 students and unwaged (children under 12yrs free). Reservation details to be advised shortly, for further information (see below) or please contact Liz email: [eg3@waikato.ac.nz](mailto:eg3@waikato.ac.nz) or ph 07 838 4205 (wk) 07 846 0965 (a/h).
- **Te Tapui Scenic Reserve, near Matamata (combined trip with Rotorua Botanical Society): Saturday 6<sup>th</sup> December**  
An easy walk to the top of the hill - 500 metres above sea level. Good views of the Kaimai Ranges and surrounding Waikato. Return via loop track. The forest is mainly tawa, kohekohe, rewarewa and pukatea with scattered rimu, rata, miro, Halls totara, tanekaha and toatoa. Undergrowth is fuchsia, wineberry, mahoe, rangiora, and kawakawa.  
Grade: Easy  
**Meet:** 10:00 AM at the Matamata Information Centre. 45 Broadway, Matamata. Or 10:15 AM at the track entrance on Piakonui Road.  
**Contact:** Kerry Jones ph 07 855 9700 (hm) 07 858 1055 (wk) 027 747 0733 (mob) or email [kmjones@doc.govt.nz](mailto:kmjones@doc.govt.nz)

# NEWS

## Eden Project Film Presentation



The Botanical Society has organised a special end of year event which looks to be a most interesting talk and film thanks to Robin Kewell who now lives in Auckland.

A film presentation by award winning documentary film-maker Robin Kewell giving an insider's view of how the Eden Project in Cornwall (UK) came about. The Eden Project is an educational charity which has successfully resulted in the transformation of a derelict clay pit into a "Garden of Eden", an educational facility with huge greenhouses or "biomes" showcasing plants and landscapes from around the world.

Robin Kewell started filming the Eden Project in 1998 and has been documenting the Eden Project up to the present day. Out of over 4000 hours of filmed footage this presentation shows some of the behind the scenes events, it shows how Tim Smit and the small dedicated team managed to convince many others to turn a dream into a reality, with historic footage of the pit when it was a working clay pit, when McAlpines started work on transforming a moonscape into a "Garden of Eden". Showing the pit stabilisation, the landscaping, the procurement and planning for the plants, the pests and diseases, the tears and the triumphs, the construction of the World's biggest greenhouses and the logistics of running the place once open. The continuous problems of funding and convincing people that this was a dream coming true, despite the nightmares. This is the story of those people who made Eden happen and who shaped it into what it is today, this presentation is by someone who was privileged enough to be there throughout the creation of what has been described as the "Eighth Wonder of the World".

## Wetland Guide Book: an update

Recently six of us got together to fill in some of the blanks for the Wetland Plant Field Guide. The afternoon was relatively successful, with reasonable progress being made on the sedges, amongst other groups. Our efforts involved drawing together information from sources such as the New Zealand flora (Volumes 1-5, which are available online at the Landcare Research website – [www.LandcareResearch.co.nz](http://www.LandcareResearch.co.nz)) and the New Zealand Plant

Conservation Network website ([www.NZPCN.org](http://www.NZPCN.org)), as well as assorted guide books. The aim was to draw together information that might be relevant for the field guide, for later editing and assembly. We still need more help with developing the latest Botanical Society project - a user-friendly Freshwater Wetland Plant Guide. Could YOU help source and write plant descriptions, high quality photos and drawings. You don't need to be an expert just enthusiastic and able to access reference material such as books and websites. We are looking for people to gather information on trees, rushes, sedges and herbs – plants such as kahikatea, swamp maire and flax. There is an easy to use spreadsheet and a list of the information we think would be useful and Monica can help with any troubleshooting. We are also interested in any advice or contacts you may have for publication and/or graphic design assistance.

If you would like to be involved in production of the field guide please contact Monica Peters tel. 858 3725 email: [monica.peters@landcare.org.nz](mailto:monica.peters@landcare.org.nz).

## Threatened Plant Garden Update

The committee decided to commission some signage for the garden with most of the DoC Community Conservation funding received this year. We are starting with individual species signs which will give a brief species description and provide useful information such as species distribution and threats along with some illustrations. We are using the interpretation and design skills of Sonia Frimmell ('What's the Story?') who has come up with an end product which should be contemporary and eye-catching and long-lived too. The first signs will be for *Hebe speciosa*, *Carmichaelia williamsii* and *Sporadanthus ferrugineus*. Ultimately we hope to commission a larger interpretive sign for the garden also and will be applying for further funding to support this.

The plants in the garden have grown well over the winter and we hope to get some more seed collected and growing over the coming summer. Thank you to the folks who have helped out with weeding and planting so far, let's keep up the good work!

Liz Overdyck

## Threatened Plant Profile

*Carmichaelia williamsii* Kirk

Williams Broom, Giant-flowered broom

Threat Category: Nationally Endangered

Qualifier: Human Induced

Family: Fabaceae

Distribution: Endemic. North Island only, where it is known mainly from northern offshore islands (particularly the Poor Knights and Alderman Islands) to East Cape. On the mainland it is now known from only two small remnant populations near East Cape.



**Habitat:** A strictly coastal species of open forest, scrub, cliff faces and talus slopes.

**Features:** Erect to suberect, spreading, usually leafless shrub up to 2-4 x 2-4 m. Branches are stout, rather woody, ascending or spreading with flattened, grooved yellow-green brachlets (cladodes) 8-12 mm wide. Leaves present only on seedlings and reversion shoots or shaded cladodes of adult plants. 1-3 foliate with terminal leaflet larger than lateral leaflets. Leaves on cladodes are reduced to scales. Flowers in clusters of up to 6, each flower up to 30mm long. Pods are dark brown-black, up to 30mm long with 5-15 seeds per pod, seeds dull red to orange-red usually mottled with black

**Similar Taxa:** This is the only yellow-flowered native New Zealand broom, and may be distinguished from the common introduced broom (*Cytisus scoparius*) by the non-leafy, light green, much wider, flattened branches, the larger, pale-yellow flowers with purple or red veins, and the late-winter flowering habit.

**Flowering:** From July and October, though sporadic flowering may occur throughout the year.

**Fruiting:** Throughout the year.

**Threats:** Flowers, fruits and seed are palatable to rats. Some populations are at risk from coastal erosion. Plants tend to be short-lived, and are often inflicted with lemon tree borer (*Oeomona hirta*). Because the species is principally bird-pollinated, by New Zealand honeyeaters, the loss of these pollinators may affect reproductive effort.

Source: NZPCN website and Brandon et al. 2004 Threatened plants of Waikato Conservancy, Department of Conservation

## **Botanising 2009**

The committee is now putting together the Waikato Botanical Society programme of events for next year. If you have any ideas for trips, talks or events you would like to take or be taken on then please let us know ASAP. All contributions welcome. Contact Liz Overdyck [eg3@waikato.ac.nz](mailto:eg3@waikato.ac.nz)

## **NOTICES**

### **Weedfree trust call for photographs**

The Weedfree Trust is currently developing a DOC Biodiversity Advice Fund project to produce a free resource for land care and Restoration groups throughout NZ. The aim is to create a database of images lodged on the NZPCN website in such a way that they can be downloaded as Hi Res PDF files that could then be translated into hard copy field guides by individuals, landcare groups, local or regional Councils. The initial emphasis is on small seedlings up to 10cm high that are easily overlooked in weed follow up and as a result are often left behind (weeds) or pulled out by mistake (natives). The project aims to cover all 13 or so regions in NZ and we are looking initially at the top 30/40 invasive weeds and restoration natives in each region.

However, the ultimate goal is to have seedling images of as many of our native flora as is practical. The project will also compliment this with as many seedlings of environmental weeds as possible. The initial focus is on higher plants but images of any plant seedlings would be welcomed.

For details of image specifications contact Neil Henderson Weedfree Waitakere Trust, Keep Waitakere Beautiful Trust (info@weedfree.org.nz)

## FIELD TRIP REPORTS

### 19<sup>th</sup> April 2008 Hangatiki Wetland Trip, Waitomo

The day started off with a short wander over private farmland to access the wetland where several dead cows had been dumped over the fence (not a pleasant start). *Gratiola nana* & *sexdentata*, *Dactyloctenium aegyptium* and King Fern (*Marrattia salicina*) have all been recorded in the reserve but were not relocated during this visit. There is still a healthy population of King Fern in the reserve but we did not make it as far as the site.

The hills surrounding the wetland were dominated by Manuka (*Leptospermum scoparium* var. *scoparium*) and Rewarewa (*Knightsia excelsa*) and the under storey was thick, the forest obviously benefitting from the recent new fence and goat control in and around the reserve. Very little disturbance by animals was seen apart from some old pig rooting close to the dead cows. Only one willow was found during the trip. (An attempt was made to pull it out but it was well rooted and will provide me with an excuse to go back).

*Gratiola nana* and *sexdentata* had not been seen in the reserve since the early 80's and references placed them at the entrance to the reserve on the fence line border, the site was very open and dominated by exotic grasses, unfortunately they were not relocated during this visit.

A brilliant day was had by all and we all enjoyed walking through a wetland that was, for a change not dominated by willows and other weeds.

Thomas Emmitt

### The Vascular Flora of Hangatiki Scenic Reserve, Waitomo.

Compiled by the Waikato Botanical Society 19<sup>th</sup> April 2008.

Key \* exotic

#### Clubmosses

*Lycopodium volubile*

#### Ferns & Fork Fern

*Asplenium bulbiferum*

*Asplenium flaccidum*

*Asplenium polyodon*

*Blechnum chambersii*

*Blechnum fluviatile*

Pikopiko

Hanging Spleenwort

Sickle Spleenwort

Rereti

Kiwikiwi

<i>Cyathea dealbata</i>	Ponga
<i>Dicksonia squarrosa</i>	Wheki
<i>Gleichenia microphylla</i>	Carrier Tangle Fern
<i>Hymenophyllum sanguinolentum</i>	Filmy Fern
<i>Lastreopsis hispida</i>	Hairy Fern
<i>Leptopteris hymenophylloides</i>	Heruheru
<i>Pteridium esculentum</i>	Rarauhe
<i>Microsorium pustulatum</i> subsp. <i>pustulatum</i>	Kowauwau
<i>Microsorium scandens</i>	Mokimoki
<i>Paesia scaberulus</i>	Ring Fern
<i>Pneumatopteris pennigera</i>	Piupiu
<i>Tmesipteris</i> sp.	Fork Fern

### Conifers

<i>Dacrycarpus dacrydioides</i>	Kahikatea
<i>Prumnopitys taxifolia</i>	Matai

### Dicotyledons

<i>Aristolelia serrata</i>	Makomako
<i>Beilschmedia tawa</i>	Tawa
<i>Brachyglottis repanda</i>	Rangiora
<i>Carpodetus serrata</i>	Putaputaweta
<i>Coprosma grandifolia</i>	Kanono
<i>Coprosma propinqua</i> var. <i>propinqua</i>	Mingimingi
<i>Coprosma tenuicaulis</i>	Swamp Coprosma
<i>Coprosma tenuifolia</i>	Wavy leaved Coprosma
<i>Cortaderia fulvida</i>	Toetoe
<i>Leptecophylla juniperina</i> subsp. <i>juniperina</i>	Mingimingi
<i>Erica lusitanica</i> *	Spanish Heath
<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	Hangehange
<i>Hedycarya arborea</i>	Porokaiwhiri
<i>Hierochloe equisetata</i>	Holy Grass
<i>Knightea excelsa</i>	Rewarewa
<i>Leucopogon fasciculatus</i>	Mingimingi
<i>Litsea calicaris</i>	Mangeo
<i>Lotus pedunculatus</i> *	Lotus
<i>Macropiper exselsum</i>	Kawakawa
<i>Melicytus ramiflorus</i>	Mahoe
<i>Metrosideros perforata</i>	White Rata
<i>Myrsine australis</i>	Mapou
<i>Nertera dichondrifolia</i>	
<i>Olearia rani</i>	Heketara
<i>Prunella vulgaris</i> *	Self Heal
<i>Pseudopanax crassifolius</i>	Horoeka
<i>Ranunculus flammula</i> *	Spearwort
<i>Ranunculus repens</i> *	Buttercup
<i>Rosa</i> sp. *	Wild Rose
<i>Rubus cissioides</i>	Tataramoa
<i>Scefflera digitata</i>	Pate
<i>Weimannia racimosa</i>	Kamaha

### Monocots

<i>Astelia grandis</i>	Swamp Astelia
<i>Baumea rubiginosa</i>	
<i>Baumea tenax</i>	
<i>Baumea teretifolia</i>	Pakihi sedge
<i>Carex maorica</i>	Maori sedge
<i>Cordyline australis</i>	Ti kouka
<i>Dianella nigra</i>	Turutu

<i>Drymoanthus adversus</i>	Swamp Millet
<i>Isachne globosa</i>	
<i>Lepidosperma australe</i>	
<i>Microlaena avenacea</i>	Bush Rice Grass
<i>Parsonsia heterophylla</i>	
<i>Phormium tenax</i>	Harakeke
<i>Ripogonum scandens</i>	Kareao
<i>Rhipalostylis sapida</i>	Nikau
<i>Typha orientalis</i>	Raupo

## 11<sup>th</sup> May 2008 Limestone Downs, Port Waikato

Limestone Downs seemed to strike a chord with many people with (30) participants including some from Auckland and Rotorua Bot Socs. Perhaps it was the limestone substrate or just the little visited locality. Our trip leader Gerry Kessels had already explored the area as part of a work project investigating sites for a wind farm and had a good knowledge of the area. The party was shuttled across the farm tracks and three 4-wheel drives ventured as far as they dared. We then traversed the edge of the bush area for about 2 km before entering forest.

Serious botanising began when we left the farm boundary and began to walk through the heavily modified coastal forest. There were many small rimu, miro tanekaha and kahikatea often emerging from an irregular canopy of mahoe, pigeonwood and tawa along with many rewarewa and hinau. Coastal elements here included scattered puriri, kohekohe (just breaking into flower) and mangeo. The forest was very diverse and rich in ferns but keikei and supplejack kept us close to the farm track. As always the maire drew debate about which with the consensus deciding on *Nestegis lanceolata*.

After the lunch break, a side track to a fenced research plot in a ricker kauri stand provided a different aspect especially as we continued down the rather open ridge mostly under young kauri. Here the greater light proved suitable for orchids such as the epiphytic carpets of *Bulbophyllum pygmaeum* and the terrestrial winter flowering *Pterostylis trullifolia* and *Acianthus sinclairii*. On the way down through the kauri stand, as we pursued a mob of goats, a fine kaiwaka was spotted and drew considerable attention. Other plants of interest here were scattered *Quintinia* and the native honeysuckle, spring flowering and heavily scented but not yet in bud - *Alseuosmia macrophylla*.

Along the stream at the slope foot the harmless nettle *Elatostemma rugosa* was present but no doubt reduced by goats and deer alike. Here too milk tree was quite common, easily identified by the occasional violin shaped leaves. Across the stream a sole taraire was spotted after a seedling was seen - a rare plant this far south. A large diameter smooth climber stem also provided debate and was soon determined to be the native passion vine (it's typically the largest of climber stems sprawling on the forest floor).



From here the party divided in two, one group returned the same way and the second ventured upstream (by GPS) to the next main ridge. New plants of interest here was a kowhai (probably *Sophora chathamica*) spotted because of the small leaflets on the ground, and the shiny *Asplenium lamprophyllum*.  
Graeme Jane and Gael Donaghy

**Limestone Downs bush species list**    **Map: R13 Grid Ref: 26699 64143**  
**Author: G Jane, G Donaghy & ABS**    **Visit Date: 11.5.08**

Psilopsids, Lycopods & Quillworts

*Huperzia varia*  
*Lycopodium deuterodensum*  
*Lycopodium volubile*  
*Tmesipteris elongata*  
*Tmesipteris lanceolata*

Ferns

*Adiantum cunninghamii*  
*Asplenium bulbiferum*  
*Asplenium flaccidum*  
*Asplenium lamprophyllum*  
*Asplenium oblongifolium*  
*Asplenium polyodon*  
*Blechnum chambersii*  
*Blechnum discolor*  
*Blechnum filiforme*  
*Blechnum fluviatile*  
*Blechnum fraseri*  
*Blechnum membranaceum*  
*Blechnum novae-zelandiae*  
*Blechnum vulcanicum*  
*Cardiomanes reniforme*  
*Cyathea dealbata*  
*Cyathea medullaris*  
*Cyathea smithii*  
*Dicksonia squarrosa*  
*Hymenophyllum demissum*  
*Hymenophyllum dilatatum*  
*Hymenophyllum flabellatum*  
*Hymenophyllum rarum*  
*Hymenophyllum revolutum*  
*Hymenophyllum sanguinolentum*  
*Lastreopsis glabella*  
*Lastreopsis hispida*  
*Leptopteris hymenophylloides*  
*Loxogramme dictyopteris*  
*Lygodium articulatum*  
*Microsorium pustulatum*  
\* *Osmunda regalis*  
*Paesia scaberula*  
*Pneumatopteris pennigera*  
*Pteridium esculentum*  
*Pteris macilenta*  
*Pyrrosia eleagnifolia*  
*Rumohra adiantiformis*  
*Trichomanes elongatum*  
*Trichomanes venosum*

Gymnosperm trees and shrubs

*Agathis australis*  
*Dacrycarpus dacrydioides*  
*Dacrydium cupressinum*  
*Libocedrus plumosa*  
*Phyllocladus trichomanoides*  
*Podocarpus hallii*  
*Prumnopitys ferruginea*

Dicotyledonous trees and shrubs

*Alseuosmia macrophylla*  
*Beilschmiedia tarairi*  
*Beilschmiedia tawa*  
*Brachyglottis repanda* var.  
*repanda*  
*Carpodetus serratus*  
*Coprosma arborea*  
*Coprosma areolata*  
*Coprosma grandifolia*  
*Coprosma lucida* var. *lucida*  
*Coprosma rhamnoides*  
*Coprosma robusta*  
*Dysoxylum spectabile*  
*Elaeocarpus dentatus* var.  
*dentatus*  
*Geniostoma rupestre* var.  
*ligustrifolium*  
*Griselinia lucida*  
*Hedycarya arborea*  
*Knightia excelsa*  
*Kunzea ericoides* var. *ericoides*  
*Laurelia novae-zelandiae*  
*Leptospermum scoparium*  
*Leucopogon fasciculatus*  
*Litsea calicaris*  
*Macropiper excelsum* ssp.  
*excelsum*  
*Melicytus ramiflorus* ssp.  
*ramiflorus*  
*Metrosideros robusta*  
*Myrsine australis*  
*Nestegis lanceolata*  
*Olearia furfuracea*  
*Olearia rani* var. *rani*  
*Pseudopanax arboreus*  
*Pseudopanax crassifolius*  
*Quintinia serrata*  
*Schefflera digitata*  
*Sophora chathamica*

<i>Streblus heterophyllus</i>	<i>Ripogonum scandens</i>
<i>Vitex lucens</i>	
Dicotyledonous lianes and related trailing plants	Sedges
<i>Clematis paniculata</i>	<i>Carex "geminata large"</i>
<i>Metrosideros fulgens</i>	<i>Carex dissita</i>
<i>Metrosideros perforata</i>	<i>Carex flagellifera</i>
<i>Parsonsia heterophylla</i>	<i>Carex lambertiana</i>
<i>Passiflora tetrandra</i>	* <i>Carex longebrachiata</i>
<i>Rubus cissoides</i>	<i>Carex solandri</i>
	<i>Carex virgata</i>
Daisy-like herbs	* <i>Cyperus eragrostis</i>
* <i>Cirsium arvense</i>	<i>Gahnia lacera</i>
* <i>Cirsium vulgare</i>	<i>Gahnia pauciflora</i>
* <i>Erigeron karvinskianus</i>	<i>Gahnia setifolia</i>
<i>Euchiton involucratus</i>	<i>Schoenus maschalinus</i>
<i>Euchiton limosus</i>	<i>Uncinia banksii</i>
* <i>Gamochaeta coarctata</i>	<i>Uncinia ferruginea</i>
* <i>Hypochaeris (INVALID) radicata</i>	<i>Uncinia gracilentia</i>
<i>Microseris scapigera</i>	<i>Uncinia uncinata</i>
* <i>Senecio bipinnatisectus</i>	
Dicotyledonous herbs other than Composites	Rushes and allied plants
<i>Acaena anserinifolia</i>	<i>Juncus australis</i>
<i>Centella uniflora</i>	<i>Juncus edgariae</i>
* <i>Digitalis purpurea</i>	* <i>Juncus effusus var. effusus</i>
<i>Elatostema rugosum</i>	<i>Juncus prismatocarpus</i>
<i>Galium propinquum</i>	* <i>Juncus tenuis</i>
<i>Gonocarpus incanus</i>	
<i>Hydrocotyle dissecta</i>	Grasses
<i>Leptostigma setulosum</i>	* <i>Agrostis capillaris</i>
<i>Lobelia anceps</i>	* <i>Aira caryophyllea ssp. caryophyllea</i>
* <i>Lotus pedunculatus</i>	* <i>Axonopus fissifolius</i>
* <i>Mentha pulegium</i>	* <i>Cortaderia selloana</i>
<i>Nertera depressa</i>	* <i>Eragrostis brownii</i>
<i>Nertera dichondrifolia</i>	<i>Microlaena avenacea</i>
* <i>Plantago australis</i>	<i>Microlaena stipoides</i>
* <i>Prunella vulgaris</i>	<i>Oplismenus hirtellus ssp. imbecillis</i>
* <i>Ranunculus repens</i>	* <i>Paspalum dilatatum</i>
* <i>Sison amomum</i>	* <i>Sporobolus africanus</i>
* <i>Trifolium repens</i>	
* <i>Veronica plebeia</i>	Remaining Monocotyledonous herbs
Monocotyledonous trees and shrubs	<i>Astelia solandri</i>
<i>Cordyline banksii</i>	<i>Collospermum hastatum</i>
<i>Rhopalostylis sapida</i>	<i>Collospermum microspermum</i>
Monocotyledonous lianes	Orchids
<i>Freycinetia banksii</i>	<i>Acianthus sinclairii</i>
	<i>Bulbophyllum pygmaeum</i>
	<i>Earina mucronata</i>
	<i>Pterostylis trullifolia</i>



*A tired bunch after botanising at Limestone Downs (several including Graeme and Gael having already started the long trip home!).*

**12<sup>th</sup> July 2008**

### **Field trip to Lake Serpentine east**

On July 12, a very hardy but small group of us set out to explore Lake Serpentine east, the margins of which are progressively being restored through Waipa DC, DoC, NZ Landcare Trust, NIWA with on ground support from local landowners and community volunteers. The weather was appalling so the visit was more of a brief overview of the lakes' ecological significance and the work currently underway. As one of the best remaining examples of the region's peat lakes, and therefore a priority lake, plenty is happening and planned for the future. There are trials being carried out to determine best practices for translocating *Sporadanthus ferrugineus*, an infiltration filter situated between the lake and surrounding farmland using wetland plants, riparian zone and forest remnant enhancement planting, largely carried out by a volunteer groups. There are plans to create better public access as few peat lakes in the Waikato have tracks or open spaces for visitors. Due to the rain, we returned to the university early minus any planned species lists for some lunch and the Field Guide workshop.

Monica Peters

**Sunday 27<sup>th</sup> July**  
**Hauraki Remnants**

Unfortunately we had to cancel this trip due to severe weather conditions, i.e. the floodplains were flooding, and we hope to run this trip in the future.

**7<sup>th</sup> September 2008**

### **Fitzgerald Glade (Tukorehe Scenic Reserve) Conservation Week Trip**

On the 7<sup>th</sup> September about 25 people turned up to the Fitzgerald Glade trip. The trip coincided with the beginning of conservation week. Fitzgerald Glade

is a 46 hectare reserve managed by South Waikato District Council. Its one of the places that you speed through admiring how close the bush is to road edge. However the reserve is rarely visited. It was great to see a few school aged children joining in.



The first thing that surprised me on entering the bush was the number of nikau palms. These aren't visible from the road.

John Hobbs stopped and pointed out some of the local flora



It didn't take long till we started coming across this fern I hadn't seen before –

*Arthropteris tenella*

A bit further along we started finding *Streblus banksii* with its leaves like a violin.



In the middle of the reserve we came across a large matai tree. We theorised on why it hadn't been logged and came to the conclusion that the distorted wood round the base would not have made good timber

Doug, Graeme and Gayle debating what the epiphytes were.

In places the forest floor was covered in umbrella moss

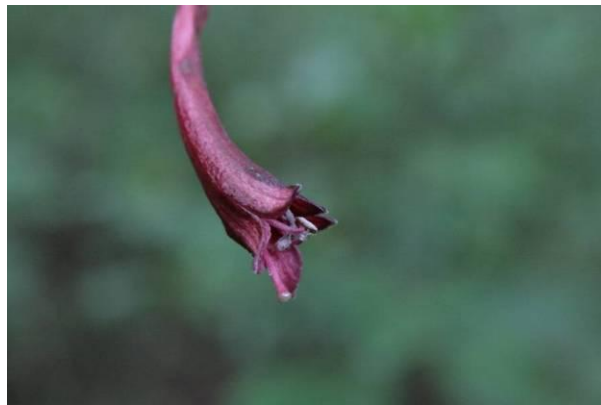


There were several large puketea growing back off the road.



The reserve is not receiving any possum control and this really showed up on some trees.

We were keeping an eye out for *Alseuosmia* in flower. We found some on the south side of the road.



Tradescantia has spread all along the road side and into the bush in places and we did find some ivy at the eastern end by the Cafe but other than that the reserve was surprisingly weed free. We finished up about 2:30 and headed home. Thanks to John Hobbs for organising and leading the trip. Kerry Jones.

## **Botanical Notes**

### **A brief summary of the flora of the Perhentian Islands**

In August, Norman and I had an opportunity to visit Pulau Perhentian Besar, one of a small cluster of islands located in the South China Sea a short boat trip from the coast of north eastern Malaysia. Despite tourism being the islands' economic mainstay, development is limited to various forms of accommodation strung along several (but thankfully not all) beaches. There are no cars or roads - just a couple of walking tracks through the forest linking beaches on side of the island to beaches on the other.

Aside from the white sand beaches and remnant coral reefs which draw the tourists, much of the coastline is a jumble of vast granite boulders. The coastal vegetation variously sprouting between, clinging to, and overhanging the boulders comprised large trees with extravagantly sized seeds ideal for floating away to establish elsewhere; ephemeral bat pollinated flowers with large soft stamens littering the sand after a night's blooming, pandanus type palms with seeds prized by squirrels. There was an abundance of fern species - close cousins to lygodium along with some very familiar looking lycopodium species . Nephrolepis created a thick band of vegetation along the upper sides of the boulders, with orchids colonising shadier boulders in the lee of some large trees. Tall, spreading Casurina's provided a striking "boulevard" at the top of the beach. Cycads occupied coastal fringes. In the forest we saw some vigorous displays of cauliforous flowering, but most striking were the fruit trees around the accommodation - starfruit and cempedak trees. The latter produces fragrant (or stinky) rugby ball sized fruit, very similar to jack fruit. It is prized by monkeys, squirrels and people alike. Deep fried in batter, the fruit is creamy, rich and the edible kernel like a giant peanut. Noisy fruit bats scattered small green mangos on the ground while the smaller bats, appearing in the afternoon dined on insects, flitting around in the same erratic way a fantail would when following you through the forest. The forest structure is at once utterly familiar and then unfamiliar once the forest creatures make their presence felt – monitor lizards (some over 2 metres long), curious flying lemurs looking much like folded umbrellas hanging in trees; swarms of ants clicking warnings, snakes and the loud crash of monkeys moving through the canopy. Always confusing is not knowing what occurs naturally and what has been introduced, let alone how modified the forest is - then again that's all part of the novelty of exploring new territories.

Monica Peters