



**Waikato Botanical Society Inc.**

# NEWSLETTER

No. 27, April 2008

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## UPCOMING EVENTS

- **Supper and discussion on the wetland guide book**, Monday 26th May at 7.30pm, 27 Matai St, Maeroa, Hamilton. All members are welcome.
- **Gully Boat trip**. Sat 24 May dep. from Ham Gardens, 1.5hour trip up the Waikato River travelling upstream (past Hammond Bush). This is part of the up and coming HCC gully programme. The cost is \$20pp. Register at the Waikato Centre for Continuing Education 858 5229

## NEWS

### **Wetland Guide Book: an update**

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 (or Cilla) can help with any troubleshooting. We are also interested in any advice or contacts you may have for publication and/or graphic design assistance.

We will be having a meeting to discuss the fieldguide on Monday 26th May at 7.30pm, 27 Matai St, Maeroa, Hamilton. All members are welcome.

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

## Threatened Plant Garden Update

We have secured further funding this year from the DOC Community Conservation fund to extend our irrigation, landscaping and planting efforts in the threatened plant collection. Last year the University donated some large rocks for the garden which were made into a retaining wall at a working bee by a few, but determined and creative individuals. New plants continue to be added to the collection with the most recent planting of *Sporadanthus ferrugineus*, cane rush, in early March. We have recently added some coastal plants behind the new retaining wall, including: *Olearia pachyphylla*, *Carmichaelia williamsii* and *Myosotis spathulata* with some *Lepidium oleraceum*, *Leptinella tenella* and *Pimelea arenaria* plants still to be put out this winter. We have also replanted some of the *Rorippa divaricata* and *Picris burbridgei* grown from last years seed.

**Liz Overdyck**

## Threatened Plant Profile: *Sporadanthus ferrugineus*

**Status:** Range restricted

**Qualifier:** CD, ST, HI

**Family:** Restionaceae

**Distribution:** Endemic to New Zealand, now only in the Waikato (but formerly as far north as Kaitaia)

**Habitat:** Lowland, oligotrophic restiad bogs



**Features:** Robust, dioecious perennial, 1–6 m high, forming dense rafts. Rhizome 10-15 mm diameter, horizontal, branched. Culms up to 6 m tall, 10-15 mm diameter, brittle, rigid, upright, terete to subterete, smooth or slightly grooved, glaucous green when young, maturing red-brown or yellow-brown; branched in upper  $\frac{2}{3}$ ; branches numerous, slender, firm, flexible, upright; basal 140-200 mm of culm conspicuously swollen with soft, spongy, light brown tissue. Culm base with 3-7 loosely appressed, overlapping scales; scales 10-50 × 15-40 mm, ovate to broadly ovate, coriaceous, light brown to

brown, apex rounded and mucronate. Leaves along culm solitary, distant, tightly appressed; ovate to broadly ovate, brown to dark brown, fading to grey. Inflorescence a terminal panicle up to 150 mm long, red-brown, upright to spreading, sometimes drooping; male inflorescence dense, crowded; female inflorescence sparse, diffuse. Flowers pedicellate to almost sessile. Tepals 6, in 2 whorls. Male flowers with 3 stamens; anthers cream, pollen yellow; pistil rudimentary. Female flowers with 1 pistil; style, pink, papillose on upper surface, decurrent with ovary on lower surface. Fruit 1.2-1.5 × 0.5-0.7 mm, narrowly ellipsoid, sides dark brown, suture light brown to cream-brown, surmounted by persistent, long style; dehiscent along lower suture. Seed 0.7-0.8 × 0.5-0.6 mm, shortly oblong to broadly ovate, light orange-brown when fresh fading to light brown.

**Similar species:** It is distinguished from *Sporadanthus traversii* by the culms which are 10-15 mm cf. 1-5 mm; tepals not keeled, mucronate, rather than keeled and acuminate, and 2-3 mm cf. 4-6 mm long; by the dehiscent ellipsoid rather than oblong-ellipsoid fruit, 1.0-1.5 mm cf. 3.0-3.5 mm long; and seeds which are 0.7-0.8 × 0.5-0.6 mm cf. 1.2-1.5 × 0.9-1.0 mm long.

**Flowering:** October- December

**Fruiting:** November-January

**Threats:** Threatened in the past by wetland drainage, which eliminated the species from 95% of its known range by 1970. Today confined to Torehape, Kopouatai and Moanatuatua. Of these Moanatuatua is no longer a truly viable, functioning system and Torehape is being restored, but only Kopouatai truly preserves the *Sporadanthus* dominated raised bog ecosystem intact (pictured, M. Peters). All three populations remain highly vulnerable to fire

**Source:** [www.nzpcn.org.nz](http://www.nzpcn.org.nz)

**Further reading:** de Lange, P.J.; Heenan, P.B.; Clarkson, B.D.; Clarkson, B.R. 1999: Taxonomy, ecology, and conservation of *Sporadanthus* (Restionaceae) in New Zealand. New Zealand Journal of Botany 37: 413-431

## AWARDS

### National Recognition for Waikato Plant Conservation

Wayne Bennett of Ngaruawahia was recognised for his native plant conservation efforts by the New Zealand Plant Conservation Network at their AGM in October 2007. Wayne received the 'Individual Award' for his efforts to lift the profile of ecological restoration and eco-sourcing in the Waikato. The judges said the award recognised a vast accumulation of knowledge on native plant propagation, fruiting and flowering phenology and restoration planting. Wayne received an Audrey Eagle print of the recently extinct mistletoe *Trilepidia adamsii* (last recorded in the Waikato) at an award ceremony in

Hamilton in December. The Waikato Botanical Society is proud to have been a nominee for Wayne along with the Waikato Biodiversity Forum and the Department of Conservation Waikato Conservancy.



Wayne with wife Sue and daughter Julia, receiving NZPCN award from Waikato Conservator Greg Martin, Department of Conservation, Hamilton, December 2007.

### **Waikato University Student Prizes 2007**

The Waikato Botanical Society graduate prize of \$250 has been awarded to Mieke Kapa for top marks in the Plant Ecology Masters level paper. Mieke is currently doing research for her Masters thesis on the ecology of the wetland plant *Eleocharis sphacelata*, also known as kuta or bamboo spike-sedge.

The Society's undergraduate prize of \$200 for the Flora of New Zealand summer course has been awarded to top student Helen Jonas.

Both recipients receive a years membership to the society as well as a cash prize. Congratulations.

### **Tom Moss Student Award in Bryology**

Tom Moss was an active member of the Wellington Botanical Society for many years, and was a participant in the very first John Child Bryophyte Workshop in 1983. He helped to organise the second Workshop at Akatarawa in 1984 and attended every year after that until the Kaikoura Workshop of 1993.

To commemorate his name, his contribution to New Zealand botany, and his particular interest in bryology, a Trust Fund was established following discussion at the 2006 John Child Bryophyte Workshop. It is administered by the Wellington Botanical Society. The *Tom Moss Student Award in Bryology*

provides a small annual prize for the best student contribution to New Zealand bryology.

The first Award will be made at the John Child Bryophyte Workshop that will be held in December 2008 in the Catlins Region of SE Otago. Contributions that would qualify for the Award include:-

- A student presentation at the Workshop relating to New Zealand bryology.
- A paper relating to New Zealand bryology . Only one application per student will be accepted (i.e. either a presentation or a publication).

This can be published, or accepted for publication, or a significant unpublished report. This should be published or written in the twelve months immediately prior to the Workshop and submitted for judging by 1 Nov 2008 (see below). It is not necessary to attend the workshop where a paper is submitted for consideration.

Contributions are invited and will be considered from any student enrolled for a B.Sc., M.Sc., Ph.D., or equivalent degree in the twelve months immediately prior to the Workshop. Students may be enrolled in a New Zealand or overseas university, and may include work on overseas bryophytes as long as the work relates in some significant way to New Zealand bryology.

An Award of \$150 will be made by a panel of three judges attending the Workshop and appointed by the Wellington Botanical Society. The panel may reserve the right to make no award if there are no suitable contributions.

Publications for consideration should be submitted with a covering letter to Tom Moss Student Award, Wellington Botanical Society, PO Box 10 412, Wellington 6143 by 1 November 2008. Students intending to make a qualifying presentation at the Workshop should indicate this when they enrol for the Workshop. .

Further information about the Award may be obtained from Dr Patrick Brownsey, Te Papa, P.O. Box 467, Wellington (04 381 7135; email [patb@tepapa.govt.nz](mailto:patb@tepapa.govt.nz)).

# FIELD TRIP REPORTS

**Saturday 13 October 2007**  
**Tawarau Forest, Northern King Country**

Seventeen botanists turned up at the Were Road end for this trip into Tawarau Gorge. The track began by following the Tawarau River through farmland. The first stop was a large dead (*Litsea*??) tree down by the river that was laden with flowering *Earina autumnalis*.

Once the stile off the farm was reached it didn't take long for people to slow down to the botanists crawl. The track followed what looked like an old pack track with the river on one side of the track and steep limestone bluffs on the other. Every so often there were dark gullies with ferns, mosses, large areas of *Elatostema rugosum* and the occasional waterfall.

Of particular interest were the ferns that were growing in and around the shady limestone outcrops including *Adiantum cunninghamii*, *Blechnum colensoi*, *Blechnum chambersii*, *Lastreopsis hispida*, *Pellaea rotundifolia*, *Polystichum wawranum* and many filmy ferns (*Hymenophyllum* sp.).



It was a good time of the year for spotting orchids, the edge of the track having dense patches of *Corybas* and *Pterostylis* (pictured below).



The *Clematis foetida* was out in flower on the forest edge and so was the native *Oxalis magellanica* (pictured below).



There were some patches of dense *Tradescantia* in places growing on the track and down near the river. Chinese privet that were seen got the 'seek and destroy' treatment, although some larger shrubs were left in rather inaccessible spots in the gorge.

Some highlights of the day were a group of large *Pseudopanax laetus* trees and a large Pittosporum tree overhanging the track that was likely to be *Pittosporum huttonianum* (pictured).



The return journey was best for looking at the spectacular limestone outcrops and we just had to imagine what botanical interests might occur on those precipitous bluffs.

Thanks to all those that turned up and made the trip a success. We were lucky with the weather.

Ferns seen in Tawarau gorge:

*Adiantum cunninghamii*  
*Asplenium bulbiferum*  
*Asplenium flaccidum*  
*Asplenium polyodon*  
*Blechnum chambersii*  
*Blechnum colensoi*  
*Blechnum discolor*  
*Blechnum filiforme*  
*Blechnum fluviatile*  
*Blechnum novae-zelandiae*  
*Cyathea medullaris*  
*Cyathea smithii*  
*Dicksonia squarrosa*  
*Diplazium australe*  
*Histiopteris incisa*  
*Hurperzia varia*  
*Hymenophyllum demissum*  
*Hymenophyllum dilatatum*  
*Hymenophyllum ferrugineum*

*Hymenophyllum flabellatum*  
*Hymenophyllum multifidum*  
*Hymenophyllum rarum*  
*Hymenophyllum revolutum*  
*Hymenophyllum sanguinolentum*  
*Lastreopsis hispida*  
*Leptopteris hymenophylloides*  
*Lycopodium volubile*  
*Microsorium pustulatum*  
*Microsorium scandens*  
*Paesia scaberula*  
*Pellaea rotundifolia*  
*Pneumatopteris pennigera*  
*Polystichum wawranum*  
*Pteridium esculentum*  
*Pteris macilentata*  
*Pyrrhosia eleagnifolia*  
*Rumohra adiantiformis*  
*Tmesipteris elongata*  
*Trichomanes reniforme*  
*Trichomanes venosum*

Other native plants recorded on the gorge track:

*Alseuosmia macrophylla*  
*Aristotelia serrata*  
*Beilschmedia tawa*  
*Brachyglottis repanda*  
*Carex geminata*  
*Clematis foetida*  
*Coprosma grandiflora*  
*Coprosma propinqua*  
*Cordyline banksii*  
*Elatostema rugosum*  
*Geniostoma rupestre*  
*Gaultheria antipoda*  
**Kerry Jones**

*Laurelia novae-zealandiae*  
*Litsea calicaris*  
*Macropiper excelsum*  
*Olearia rani*  
*Oxalis magellanica*  
*Passiflora tetrandra*  
*Pennantia corymbosa*  
*Phormium cookianum*  
*Pittosporum huttonianum*  
*Podocarpus totara*  
*Pseudopanax laetus*  
*Quintina serrata*  
*Rhabdothamnus solandri*  
*Ripogonum scandens*  
*Rubus cissiodes*  
*Urtica incisa*

### **Saturday 10 November 2007 Opuatia wetland**

A small group met up on a hot Saturday to botanise the northern end of the Opuatia wetland. After a short walk down a fenced race which marked the boundary between private land and the regional council block, we hit the wetland itself.

The previous season's willow control operation which was largely confined to the mineralised swamp margins had left a swathe of dead vegetation with a fairly depauperate understory. *Coprosma tenericaulis* was one of the few species to have survived. Once we entered the peat bog, dominated by wire rush (*Empodisma minus*) with *Gleichenia microphylla* and sedges, our attention was diverted to which *Baumea* was which...



Liz, Andrea, Chris and Jan.



*Baumea arthropylla*, *B. teretifolia*, *B. rubiginosa* and the more distinctive *B. tenax* were seen. Determinations were aided by Jan and her amazing notebook.



*Baumea teretifolia*

Manuka carr were dotted about the peat bog on the higher, drier parts and included other shrub species such as *Epacris pauciflora* and *Coprosma propinqua* x *robusta* hybrids.

As we emerged on the western side of the wetland the vegetation became a little more interesting. We discovered a nice patch of the chronically threatened swamp buttercup *Ranunculus macropus*. *Tetraria capillaris* and the chronically threatened *Schoenus carsei* were determined from the *Baumea tenax*.

Introduced *Myriophyllum aquaticum* (parrots feather) and native milfoil *Myriophyllum propinquum* grew along side each other in pools with the native red azolla, *Azolla filiculoides*. The highly invasive reed sweetgrass, *Glyceria maxima*, was seen in the swamp amongst the milfoils and drifting out to the pasture. It is likely to expand its distribution with the willow canopy removal which will be at the expense of the native herbs that occupy that zone. *Sparganium subglobosum* in early bud in rough pasture confused everyone.

As we were heading for home another population of *Schoenus carsei* was found under unsprayed willow. Unexpectedly, our first sighting of the invasive royal fern (*Osmunda regalis*) which is abundant in the swamp margins further south, occurred during the last five minutes of the walk. The only casualty was one of Kerry's sunglasses lenses. If only there'd been a pirate theme...

**Andrea Brandon**



Kerry

**Sunday 2 December 2007**  
**Kakahu Stream Kauris, Kaimai-Mamaku Forest Park**

A few Waikato members joined the Rotorua Botanical Society on this trip arranged by Paul Cashmore. We ventured by 4WD across Arataha Farms lead kindly by owner Jeanette Hollymans. We entered the Kaimai-Mamaku Forest Park and followed a rough, marked track upstream through lush supplejack-ridden gullies and treefern river terraces before heading up a ridge to find the remnant southernmost naturally occurring 'kauris'. On closer inspection this would appear to be only one large kauri as far as we could find. Vegetation surrounding the kauri was a diverse mix of large podocarps and broadleaved trees. After lunch by a small waterfall we returned to the farm and had time to explore a grazed large kahikatea stand where we gathered a comprehensive species list. This included many pasture species but a range of native seedlings, ferns, epiphytes and lianes, the list will be useful for future reference after planned fencing of the remnant.

(for further details on this trip see upcoming Rotorua Botanical Society Journal article by P. Cashmore)

**Liz Overdyck**

**26 January 2008**  
**Awaroa Scenic Reserve**

We started the day at the southern end of Awaroa Scenic Reserve with the purpose of searching for the rare *Ganoderma 'Awaroa'*. *Ganoderma 'Awaroa'* is a threatened species of bracket fungi which is specific to pukatea. This species is only known from around Pirongia and the Awaroa Valley and only three specimens have ever been collected.

We were lucky enough that Peter Buchanan had brought a herbarium specimen for us to look at and work out what we were searching for. *G. 'Awaroa'* has a shiny upper surface which is often obscured by the numerous spores which cover it giving powdered look. The other species have a dull upper surface. After only a short walk we had found some bracket fungus growing on various dead logs but unfortunately they all turned out to be common bracket fungi. There were other species records for this area that we were keeping an eye out for as well such as *Peraxilla tetrapetala* and *Ophioglossum petiolatum* but we didn't quite make it to the Mangakotukutuku stream where these species had been previously sighted.

After lunch we headed further up the road to search a likely spot with lots of large pukatea where the day ended with a bit of excitement with Peter finding what he thought to be the *Ganoderma* we were looking for growing on a pukatea (*Laurelia novae-zelandiae*). The specimen was found quite close to the road and where it is suspected the original specimens were collected from. Unfortunately on closer inspection under the microscope it turned out to be *Phellinus robustus*. But the consolation was that this was a new host record - *P. robustus* is a fairly common species, but it's not previously been recorded on pukatea.

A great day of exploring was had by all and we may have another trip such as this in the future as there is a lot of area to cover. Also a special thanks to Peter for bringing down the herbarium specimen.  
**Thomas Emmitt**



## Saturday 23 February 2008 Matarangi Coastal Wetland

A good portion of the February trip to the Matarangi wetland (Whangapoua harbour, Coromandel peninsula) took place in the local café over hot coffees due to the torrential rain outside. The drought meanwhile continued in other parts of the region...

Hamish Kendal and Meg Graeme (both local ecologists and trip organisers) provided a useful virtual tour of the wetland aided by a laptop with detailed 3D map software. This allowed us to see both landowner boundaries and physical location, which then led to a discussion on potential impacts from forestry in the upper part of the catchment as well as threats posed by subdivision for housing adjacent to the wetland. With the rain persisting, a handful of us ventured past the township's oxidation ponds which currently provide the best access to the site. The wetland grades from fresh to saline. Although eucalypts form the dominant canopy tree in freshwater areas, the understory is surprisingly intact and extremely dense. Some of the species we spotted as we walked around the edges included *Baumea rubiginosa*, *B. teretifolia*, *B. juncea*, *B. articulata*, *Juncus pallidus*, *Schoenus tendo*, *Gleichenia dicarpa*, *Dianella nigra* as well as *Coprosma tenuicaulis*, *Geniostoma ligustrifolium* var. *ligustrifolium*, *Myrsine australis*, *Leptospermum scoparium* and the occasional *Cordyline australis* and *Dicksonia squarrosa*.

While continued development of surrounding land poses a threat to the wetland, it may also provide an opportunity. Matarangi township has a fascinating "backyard" that remains largely unexplored. With subdivision imminent, various ideas for restoration were thrown around by the group. Boardwalks could be used to draw visitors into the wetland and would provide a dramatically contrasting visitor experience to the open spaces of the ocean beach just a few hundred meters away. However to minimise disturbance, this should be kept to the edge of the wetland linking in with the continuation of the walkway from the spit and boat ramp. The eucalypts could be felled or poisoned where suitable. Other weeds such as pampas and wild cats could be controlled to enhance the wetland.

**Monica Peters**

## March 5 2008 *Sporadanthus* planting and BBQ Talks by Bev Clarkson and Monica Peters

*Sporadanthus ferrugineus* – a potential to be used for further restoration projects within its former range in Waikato.

A successful talk has been held by Waikato Botanical Society. Bev Clarkson and Monica Peters gave vivid presentations for their work on *Sporadanthus ferrugineus* and *Empodisma minus* in peat bogs. Bev outlined the successional sequences for plant communities in wetland and stated good reasons for why *Sporadanthus ferrugineus* is so special. One of the fundamental functions for this plant is peat forming, so it plays a key function

in peat bog development. Monica Peters used some Lake sites in the Waikato region as examples to explain the environment change from Farmland to wetland. This work is very impressive.

Afterwards we had a great working bee planting *Sporadanthus ferrugineus* in the threatened plant garden in the biology glasshouses and have a lovely barbeque there. Thanks to Norm Mason and many others for helping to dig the ground for planting and Oliver Overdyck's great help for preparing the barbeque. Hope those *Sporadanthus ferrugineus* are growing well there. It was a lovely activity and good opportunity to catch up for members.

**Yanbin Deng**



Norm planting the *Sporadanthus*.

### **March 23 2008 Lake Ngaroto vegetation survey**

On Easter Sunday, Liz Overdyck and Monica Peters met at one of the Waikato Region's most popular peat lakes to carry out a vegetation survey. Tony Roxburgh (Waipa DC) joined later. The lake is one of the more than 30 shallow peat lakes in the region, formed as the Waikato River changed its course and successive eruptions altered local topography. The lake is situated 19 kilometres south of Hamilton City, and has a surface area of about 108 ha. It has a maximum depth of 4 m and an average depth of less than 2 m. Like many of the lakes, Ngaroto is hypertrophic and suffers from algal blooms. The now turbid waters were once clear and tea coloured (on account of the peat) and hosted a unique assemblage of native aquatic species including *Chara corallina*, *Myriophyllum triphyllum*, *Nitella hookeri/cristata* and *Potamogeton ochreatus*. These species are no longer present in the lake due to the combined influences of nutrient inputs from farming, the clearing of riparian vegetation, introductions of pest fish and lowered lake levels through

drainage. The lake and reserve presents multiple challenges for land managers; the lake is a valuable recreational asset (used for sailing, rowing, picnicking, duck shooting, jogging,) an important cultural site (the distinctive statue Uenuku was found in the lake, and numerous pa sites are situated around the lake edges), and provides habitat for secretive wetland birds.

Large scale restoration efforts were begun in 1995 (see case study at [www.mfe.govt.nz](http://www.mfe.govt.nz)) with the clearing of weeds (mainly gorse and blackberry) and bulk planting of manuka. After a hiatus, restoration look set to continue with a more strategic and long term approach to planting, pest and weed management. Currently, the understory is beginning to regenerate in some areas while in others, the ground remains bare due to the dense shade. The manuka is beginning to die off in places due to insect damage. Some stands of willow (*Salix cinerea* and *S. fragilis*) remain.

The first baseline vegetation survey was carried out in 1994 by Paul Champion and Mary de Winton (both NIWA) and the second by the WBS. The key changes we noted (aside from a biodiversity boost provided by recent community plantings) were increases in fern and sedge diversity. Native ferns now include: *Asplenium oblongifolium*, *Blechnum fluviatile*, *B. novaezelandiae*, *Cyathea dealbata*, *C. medularis*, *Dicksonia fibrosa*, *D. squarrosa*, *Doodia australis*, *Histiopteris incise*, *Hypolepis ambigua*, *H. distans*, *Paesia scaberula*, *Pteridium esculentum*, *Pteris comans*, *P. macilenta*. The invasive exotic *Osmunda regalis* is very localised.

Native sedges include *Baumea articulata*, *B. rubiginosa*, *B. tenax*, *Carex lessoniana*, *C. geminate*, *C. maorica*, *C. secta*, and *C. virgata*.



Photo: *Lycopus europaeus*. A weed gaining a strong foot hold in the Waikato is *Lycopus europaeus* (gypsywort) which spreads rapidly and can form dense stands of vegetation, overtopping species e.g. *Carex secta*. Though it dies down in winter this species is vigorous and tolerant of light shade.

**April 2 2008**  
**Flora in a Frozen Land (AGM TALK)**

Dr. Catherine Beard has travelled to Antarctica 7 times to assist in University of Waikato and international research programmes. Catherine's talk and spectacular images of broad landscapes, plant and animal life had the Waikato BotSoc members quietly awed. Catherine also provided an excellent context to what it takes to do research in the challenging climate of the lower latitudes: the logistics of travelling from one remote place to another and the risks involved; the rigorous criteria to minimise environmental impacts; the simple cramped sleeping, eating, socialising and laboratory spaces; and the joy and the frustration of the weather.

Plant life is surprisingly diverse, comprising both cosmopolitan and endemic genera. The Antarctic flora includes some 250 lichens, 100 mosses, 25-30 liverworts, around 700 terrestrial and aquatic algal species, and an unknown number of (mostly microscopic) fungi. Only two vascular plants have been recorded, both from the peninsular which arcs up to South America. The characteristic fauna is concentrated around the coastal areas (fish, whales, seals, and vast colonies of penguins) while further inland life is much reduced. In this harsh environment only minute red legged spider mites and springtails survive by combing mosses for algae and bacteria. Only 2% of the continent is ice free and part of the work Catherine was doing involved mapping the vegetation and looking at species associations in these areas. There are for example, some interesting relationships to penguin colonies – certain species of lichen thrive on the edges of these high ammonia (and very smelly) environments. Other research included collecting lichen and moss samples for further taxonomic study, investigating plant performance in response to light levels, moisture and temperature, and crustose lichen growth rates. The latter is extremely slow – a mere 6mm per century. This makes the “larger” lichens southern equivalents of the mighty long lived podocarps. Catherine also showed an image of an endolithic lichen, uniquely adapted to the harsh conditions by growing as a pale green band inside a rock. She describes the environment “as getting under your skin” and certainly for the viewers Catherine provided us with a unique insight into a landscape few of us will have the opportunity to visit.

**Monica Peters**



## Waikato Botanical Society Programme 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. If you are interested in carpooling from Hamilton for any trips also contact Liz Grove [eg3@waikato.ac.nz](mailto:eg3@waikato.ac.nz) or ph 846 0965.

Please note yet another new university venue for our two evening talks.

### **Sunday 1 June: Field Trip and Working Bee**

#### **A.J. Seeley Reserve**

Dr Seeley bought this Hamilton gully in 1960 when it was all in grass, and grazed it before planting the 5.5 acres with mostly native plants. Dr Seeley did all of the restoration work himself and his gully is a good example of how Hamilton's gullies could look. Gifted to the city by Dr Seeley this is now a Hamilton City Council Reserve. After visiting the gully we will return to the University for a Working Bee in the threatened plant garden. Please bring gloves, old clothes and boots for weeding, planting and propagating activities. Meet: 9.45 am at Waikato University Gate 9, Hillcrest Rd. Contact: Liz Overdyck (nee Grove) ph 846 0965 (hm) [eg3@waikato.ac.nz](mailto:eg3@waikato.ac.nz)

### **Sunday 27 July: Field Trip**

#### **Hauraki Remnants**

A visit to remnants of the Hauraki Plains once magnificent kahikatea forest and what is left of the salt meadow on the banks of the Waihou River.

Frank Speedy Memorial Reserve- This kahikatea-*Cordyline* forest remnant south of Ngatea is an area gifted by the Speedy family that was part of the homestead reserve but is now a public road side rest area. It is an area that has been passed a million times but probably never really looked at, and includes some hybrids between two *Melicytus* species.

From here a 10 min. drive to the Kopu Bridge, and a short walk along the mangrove fringe of the Waihou River. Heading downstream beside the tidal edge, allows a chance to look at salt tolerant plants away from the tall fescue that dominates this area. Meet: 9.30am Frank Speedy Memorial Reserve SH2, 2km south of Ngatea. Contact: Doug Ashby [dj.ashby@xtra.co.nz](mailto:dj.ashby@xtra.co.nz) ph 07 862 4706.

### **Sunday 7 September: Field Trip**

#### **Fitzgerald Glade**

A visit to a well known native forest remnant on the western side of the Mamaku Plateau that everyone has driven through on SH5 but few have stopped to take a closer look. Common species include tawa, mangeao, rewarewa, pukatea, and strangely, masses of young nikau and *Arthropteris tenella*. Also lots of supplejack. A good chance to produce an up-to-date species list from a rarely botanised scenic reserve. Tukorehe Scenic Reserve, SH 5, Mamaku Plateau (combined trip with Rotorua Botanical Society).



Grade: Medium. Meet: 9.15am Fitzgerald Glade tearooms, SH 5. Contact: John Hobbs ph 07 348 6620 [jffhobbs@paradise.net.nz](mailto:jffhobbs@paradise.net.nz)

**Sunday 28 September: Working Bee** **Threatened Plant Garden**

A working bee in the threatened plant garden, details to be advised closer to date. Please bring gloves, old clothes and boots for weeding, planting and propagating activities. Meet: 9.45 am at Waikato University Gate 9, Hillcrest Rd. Contact: Liz Overdyck (nee Grove) ph 846 0965 [eg3@waikato.ac.nz](mailto:eg3@waikato.ac.nz)

**Sunday 12 October: Field Trip** **Miranda Coast, Firth of Thames**

The Miranda wetlands are internationally recognised for their importance as a wildlife refuge and there are some interesting plants there too! We will start at the Miranda Shorebird Centre to look at the facility and exhibits plus the wetland created around the Centre. A short drive north of the Centre will bring us to the "famous" road side Miranda mistletoe *Ileostylus micranthus*, discovered a few years ago after road workers nearly destroyed the host plant. Continuing north and through Kaiua on to the Waharau Regional Park Reserve, we can look at the flora of the eastern side of the Hunua range that overlooks the Firth of Thames if time allows. Meet: 9.30am Miranda Shorebird Centre, just north of Miranda township, East Coast Rd. Contact: Doug Ashby [dj.ashby@xtra.co.nz](mailto:dj.ashby@xtra.co.nz) ph 07 862 4706

**Saturday 8 November: Field Trip** **Pureora Forest Park**

The Pokaiora clearings at Waihaha in Pureora Forest Park 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. Meet: Waihaha Track car park 10 a.m. Western Bays Road. Contact: Thomas 07 878 1055 (wk) or 07 878 3437 (hm).

**Saturday 6 December: Field Trip** **Te Tapui Scenic Reserve**

This scenic reserve, near Matamata, is 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. Combined trip with Rotorua Botanical Society. 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) 07 838 3363 (wk) [kmjones@doc.govt.nz](mailto:kmjones@doc.govt.nz)

## WAIKATO BOTANICAL SOCIETY AGM MINUTES

2 April 2008

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**Present:** Liz Overdyck, Catherine Beard, Jan Hoverd, Monica Peters, Norman Mason, Paul and Kay Etheridge, Wynne Johns, Betty Seddon, Stella and John Rowe, Katherine Hay, Angela and Rodney Sharp, Yanbin Deng

**Apologies:** Kerry Jones, Bruce Clarkson, Jane Hart, Janica Amoore, Cilla McAllum

**Location:** S.1.01, Waikato University

**Start time:** 7.10pm

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### Presidents Report

Prepared by Liz Overdyck (nee Grove), current WBS President.

#### *General*

- Good turn out for field trips
- WBS nominated Wayne Bennett (Ecosourced Waikato) for NZPCN (NZ Plant Conservation Network) national award which he received in December
- Next 'big project' is a field guide for the lowland freshwater wetlands plants of the Waikato aimed at community groups. Help from WBS members is sought for compiling information and images to aid species ID

#### *Threatened Plants Garden*

- Small numbers continue to come to the working bees
- Further funding from DoC will go towards extending irrigation
- Waikato University donated some rocks for landscaping
- *Sporodanthus* cane rush added in March
- Nearby shed may be removed this year and possible labelling for the plants added

#### *Prizes*

- Two annual Waikato University prizes (undergraduate – reduced by \$50, and graduate)
- WINTEC prize (\$200)
- NIWA school science fair prize will continue to be sponsored

#### *WBS Committee changes*

- Andrea Brandon has stepped down as secretary (3 yrs) and has taking up a position with the MfE in Wellington
- Janica Amoore has stepped down as treasurer (2 yrs) as she is returning to Taranaki. Janica also reorganised the newsletter files last year

- Jane Hart as a committee member down due to other commitments
- Lynne Baxter has stepped down as a committee member
- Cilla McAllum has stepped down as newsletter editor, though will remain on the committee,

*Memberships and subscriptions*

- Current membership steady in 2007 with 62 paid up members (68 in 2006)
- Several more subs and book sales from the DoC and Taupo Native Plant stands at the Field Days June 2007
- Benefit of NZAEE (NZ Association of Environmental Education) membership will be discussed by the committee
- NZPCN and Environment Centre memberships will continue

**Previous minutes:**

Minutes from the last AGM were circulated to Catherine Beard, Monica Peters and Jan Hoverd. Liz Overdyck moved that they be accepted as a true and accurate record, seconded by Catherine. Motion carried.

**Matters arising:** None

**Financial Report:**

Jan Butcher, current Treasurer summarised the Financial Report.

- The finances are in a healthy state
- Funds will be invested in a rolling 30 day term deposit (amount to be decided by the committee)

Jan Butcher moved that the financial report be accepted, seconded by Liz Overdyck. Motion carried.

**Election of Officers:**

President	Liz Overdyck (Wynne Johns/Betty Seddon)
Secretary	Monica Peters (Liz Overdyck/Norman Mason)
Treasurer	Jan Butcher (Liz Overdyck/Betty Seddon)
Committee	Bruce Clarkson (Liz Overdyck/Andrea Brandon) Catherine Beard (Liz Overdyck/Jan Hoverd) Norman Mason (Monica Peters/Catherine Beard) Cilla McAllum (Liz Overdyck/Norman Mason)

**Other business:** None

Meeting closed at 7.30

## PRESIDENTS REPORT 2008

### Waikato Botanical Society

Another year has sped by with a variety of field trips and events for the society.

Our programme continues to be mainly fieldtrips with some evening talks and working bees. The turnout for many fieldtrips has been very healthy (although not on public holiday weekends, we have learnt). Thank you to all trip organisers and also to report writers for the newsletter, these write-ups provide a valuable botanical resource and I know many people enjoy reading about the trips when they are unable to attend themselves. We continue to attract small numbers to threatened plant garden working bees which is enhanced by combining with a local field trip.

The native threatened plant garden is taking shape slowly. We have secured further funding from the DOC community conservation fund to extend our irrigation, landscaping and planting efforts. The University donated some large rocks for the garden which were made into a retaining wall at a working bee by a few, but determined and creative, individuals. New plants continue to be added to the collection with the most recent planting of *Sporodanthus* cane rush in early March. We hope the site will be opened up this year with the removal of the shed, at which point it would be good to introduce some formal labelling for the garden and plan for an official opening.

The society continues to award two Waikato University prizes annually at undergraduate and graduate level. The undergraduate prize was reduced by \$50 this year to allow a Wintec prize of \$200 to be established. We also sponsored our regular botanically related prize at the NIWA school science fair. Botany of the Waikato books are still being sold in small numbers to students and others. Advertising at Field days in the DOC stand and Taupo Native Plant Nursery stand returned a few memberships and book sales for the society.

We have continued subscriptions to NZAEE (NZ Assoc. for Environmental Education), Environment Centre and NZPCN (NZ Plant Conservation Network). The committee has had some debate over the benefits we get from NZAEE and we may look into the value of this membership this year. The other two memberships keep us in the loop with national botanical news and local environmental issues. The society is pleased to have nominated Wayne Bennett of Ngaruawahia for an NZPCN national award last year which he received in December. The award recognises Wayne's personal and professional efforts for native plant conservation and has certainly raised the profile of the Waikato region for eco-sourced restoration.

As a society we are losing several valuable people from the committee this year and they each deserve thanks for their individual efforts. Andrea has stepped down as secretary after 3 years, she has done a great job and we wish her well in her new appointment in Wellington. Janica resigns from the committee also after 3 years, two as treasurer and last year reorganising our filing system for botanical newsletters, we wish her well with her move back to Taranaki. Jane Hart has done a great job of handling email lists and notifications for the society, we have made good connections with other botanical societies and related organisations increasing the flow of information. Jane is stepping down from the committee due to other commitments and we thank her very much for all her hard work over the last 3

years despite being a long-distance committee member. There is now increased potential for a Taranaki sub-group of the Waikato Botanical Society and we will keep in touch with Jane and Janica about this idea. Lynne is resigning from the committee and we thank her for her help with the threatened plant garden. Cilla will be stepping down from editing the newsletter which she has done a great job of for the last year and a bit.

I must also acknowledge the contributions of Bruce, Monica and Catherine to the committee this year and I look forward to their enthusiasm and involvement for the year to come. Jan Butcher has thankfully stepped in as treasurer this year and is keeping the books in good order. Membership has been steady in 2007 we had 62 paid up members, down from 68 in the previous year.

Our committee this year started to think about the next 'big project' for the society and the favoured idea is to create a publication on Waikato's wetland plants. We have concentrated on the idea of a regional field guide which is user-friendly with illustrations suitable for use by students, community restoration groups etc...The committee has so far developed a format for the information to be in the guide with information on some species already included. It won't be a fast process to undertake such a project voluntarily and to keep the momentum going we will be calling on help from the society membership to develop the guide further this year.

**Liz Overdyck (nee Grove)**

# **WAIKATO BOTANICAL SOCIETY**

## **Income and Expenditure Account for year to 28 February 2008**

### **General Funds to 28 Feb 2008 to 28 Feb 2007**

#### **Income**

Donations	45.00	35.00
Subscriptions	745.00	828.00
Interest cheque account	26.37	32.82
Term deposit	755.00	540.49
Book Sales (50)	750.00	993.00
Postage and handling	<u>55.00</u>	<u>-----</u>
	2,376.37	2,429.31

#### **Expenditure**

Advertising	-----	31.40
General	-----	258.00
Stamps and Stationary	23.65	40.19
Catering	170.53	-----
Scholarships/Memberships (see note)	491.25	591.25
Threatened plant garden	-----	42.36
Bad Debt	<u>-----</u>	<u>30.70</u>
	685.43	993.90

<u>Excess Income over Expenditure for year</u>	<u>1,690.94</u>	<u>1,435.41</u>
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Amount (Bad debt) deducted in error last year

Under expenses \$30.70	30.70	
Opening balance as at 1.March 2007	5,261.64	
Excess income to 28 Feb 2008	<u>1,690.94</u>	
Balance as at 28 February 2008	<u>6,983.28</u>	

### **Statement of Financial Position as at 28 February 2008**

Represented by

General Funds (cheque account)	6,983.28	5,261.64
Term Deposit (1 year term – matures 30.Oct)	<u>10,000.00</u>	<u>10,000.00</u>
	16,983.28	15,261.64

#### **ASSETS**

Represented by

Botany of Waikato Books	(891)	14,202.54	(941)	14,999.54
(value based on cost \$15.94)				

note from above - Scholarships/Memberships

NZ PCN 2 yr subs 2007, 2008	100.00	-----
Waikato Uni – grad. Prize	250.00	500.00
NIWA School Science Fair prize	50.00	-----
NZ AEE sub	35.00	35.00
Environment Centre Hamilton sub	<u>56.25</u>	<u>56.25</u>
	491.25	591.25