



A. S. G. A. P. Fern Study Group

Newsletter Number 113

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From the Leader...

Peter Bostock

Just back at work full-time after my earlier sick leave, and then side-lined again for the whole of June after surgery for a detached retina. It isn't my best year. So once again, I'm producing what started out, at least, as a smallish newsletter, and somewhat later than I had previously planned.

Thanks to Claire and also to Merle, Lorna and the others who kept checklists, compared notes and took photos during recent excursions. Digital photographs can help to identify problem ferns, particularly when we cannot take specimens. I refer of course to the images sent to me for identification after I missed out on the Mt Mee excursion, and later on, the Baroon Pocket walk.

Program for the Sydney Region

Peter Hind

Saturday 28th July 2007. Meet 10a.m. at the Ourimbah Rest area at the Ourimbah Interchange. From Sydney travel along the F3 & take the first left at the Ourimbah round-a-bout, the rest area is on the left. After morning tea we then travel about 10 min by car to access the Palm Grove Nature Reserve. This Reserve for Native Flora is on the Central Coast and is part of the Great North Walk. The first 10 minutes of the walk is very steep and then levels to an even terrain through a lovely fern & rainforest area to Ourimbah Creek. Contact Dot on (02) 4367 6368 or 0415 512 511 if you need more information.

Saturday 18th August 2007. Meet at about 11 am in the parking area at the Sir Joseph Banks Native Garden, off Bates Drive, Kareela. Coming from the north turn right into Bates Drive from the Princes Highway, about 3.5 km after crossing the Georges River bridge. The entrance to the gardens is on the left, on the rise about 1 km from the turnoff.

Saturday 15th September 2007. Meet from about 10.30 am. At the Mt Keira Scout Camp area. Just before the main road from Sydney begins the final descent to Wollongong, there is a well marked right turn to Mt Keira—follow this, pass the left turn to the Mt Keira Lookout then watch for the right turn further down the steep descent to the Scout camp parking area.

Saturday 20th October 2007. Meet from about 11 am at the Bankstown Native Garden, Sylvan Grove, off Henry Lawson Drive at Picnic Point.

Saturday 17th November 2007. Meet from about 11 am at the home of Peter and Margaret Hind, 41 Miller Street, Mt Druitt. We plan to study the genus *Asplenium*.

Sunday 2nd December 2007. CHRISTMAS PARTY and GARDEN VISIT, again combined with the GREVILLEA STUDY GROUP. Meet at Margaret and Peter Olde's at 140 Russell Lane, Oakdale at 11 am. Ring Margaret on 4659 6598 to discuss what to bring, or if lost on the way there.

If coming from the north, drive along M5 Motorway past Campbelltown exits – take Narellan Road (Mt Annan) turnoff, then stay in right hand lane to Narellan not Bulli. Continue along Narellan Road, past Mt Annan (in left lane eventually), then veer left onto the Camden bypass just before Narellan. Not far past Elderslie turnoff is a set of lights to Camden – take the NEXT turn right to Burragorang Dam. Continue along Burragorang Road past Mt Hunter, Glenmore and The Oaks. When you see a sign on the right to

Belimbla Park, IMMEDIATELY take that left into Binalong Road. Continue to the end of Binalong Road and turn right into Russell Lane. We are on the left just past Foxes Hollow – 140 – “Silky Oaks”.

There will be no meetings of the Sydney group in December 2007 and January 2008

Saturday 16th February 2008. Meet 11 am at the home of Kyrill Taylor, 16 Elizabeth Crescent, Yagoona. At this meeting we need to discuss our program for the next few months at least, so please come along charged with plenty of ideas and enthusiasm.

Program for the South-east Queensland Region

Peter Bostock

Sunday 5th August 2007. Meet at Irene Cullen’s residence, Unit 3, ‘Robertson Park’, 7 Braddock St, Robertson at 9:30 am to discuss aquatic ferns (and future excursions and meetings!).

There will be no formal meeting in September 2007. Instead, members are asked to supply ferns for our display at the Spring Show in mid September.

Meetings for October, November and December 2007 have yet to be decided. Please contact the Leader for details closer to the date. Please note there will be no meeting in January 2008.

Background Information For Palm Grove Nature Reserve (Sydney Chapter Excursion 28th July)

Extract from the Latham Report—National Parks Association of New South Wales Web-page (<http://www.npansw.org.au/web/conservation/Latham/report.htm>)

Proposed additions to the Ourimbah Creek Nature Reserve [now Palm Grove Nature Reserve]

Dry Rainforest

Dry rainforest is usually very simple structurally and floristically, but a more complex form is found at Palm Grove on the sides and tops of dry rocky ridges. This is of scientific interest to the district because it is very restricted in distribution and little is known of the reasons for its presence and distribution. It occurs only in small pockets dominated by Brush Bloodwood (*Baloghia inophylla*), Cockspur Thorn (*Maclura cochinchinensis*) and *Tetrastigma nitens*. A pronounced vine component is also present. In the Upper Ourimbah Creek Valley dry rainforest is intermixed with warm temperate rainforest (Payne 1993 pp.4, 9, 10 & 11).

Dry rainforest is inadequately conserved in the region. One of the region's two most important types of dry rainforest is the Brown Myrtle (*Choricarpia leptopetala*) alliance found in the Ourimbah Creek Valley and not represented at all in the region's reserves (ibid p.25).

Palm Grove Rainforest

The Palm Grove rainforest is found in the Mill Creek catchment and is the most significant rainforest in the region. Unlike gully rainforests, it is generally confined to the southern side of the range and is of the *Caldcluvia – Schizomeria* alliance dominated by Crab Apple (*Schizomeria ovata*), Soft Corkwood (*Caldcluvia paniculosa*), Sassafras (*Doryphora sassafras*), Brown Beech (*Cryptocarya glaucescens*) and Guioa (*Guioa semiglauca*). It includes up to 28 dominant canopy tree species, where the gully rainforests of the Coachwood (*Ceratopetalum apetalum*) alliance have up to 18 species only. The Palm Grove rainforest is also unusual in containing at least 18 emergent Giant Strangler Figs (*Ficus obliqua*), which are normally found only as loners (Payne 1993, p. 9 and Sourry 1992, p. 3). See Appendix 4 of Payne 1993 for a vegetation species list for Palm Grove.

This rainforest is the only known example of its type in the region and is not represented at all in permanent reserves.

Payne, R. (of Andrews, Neil Architects, Planners and Landscape Consultants) 1993. *A Proposal for Protection of Remnant Rainforest in the Gosford and Wyong Areas*. Report prepared for the National Parks Association of NSW Inc under the 'Save the Bush' grants program administered by the Australian Nature Conservation Agency. NPA.

Sourry, A. 1992. *Ourimbah Creek Nature Reserve Proposal*. Report prepared for the National Parks Association of NSW.

South-east Queensland Meeting Report, April 2007

Claire Shackel

The majority of the Brisbane members of the Fern Study Group met at Arafura Street on 1st April. The topic of the day was to see and discuss the survival of sporelings potted on by members in March 2006. These included *Adiantum silvaticum*, *Asplenium difforme*, *A. pellucidum*, *A. simplicifrons*, *Blechnum nudum*, *Cyathea exilis*, *Dictymia brownii*, *Microsorium scandens* and *Revwattsia fragilis*.

More than half of the sporelings taken, survived which was a much higher rate than I had experienced. A contributing factor could have been that the tops were removed from the bottles between two and four weeks before the meeting, thus allowing hardening off of the plants. It had been my practice to find an overgrown bottle and pot on immediately. Growth was poor in a number of the plants brought to the meeting. Unfortunately many of the ferns were divided up into individual plants causing considerable root disturbance. If two or three plants were left in a clump (as commercial growers do) a better looking pot may have been obtained sooner.

In 2006 members brought their own potting mix with the hope there would be some feed back as to the most suitable type. There was no evidence that any of the mixes were superior. The one member who had potted the ferns on to larger pots had some very nice specimen to display. The extreme weather conditions has made the keeping of ferns at optimum water levels impossible and some ferns showed both over watering and under watering symptoms on the same plant.

Most members were able to replace lost plants and members not present in 2006 were able to go home with a collection of sporelings. *Doodia dissecta* (sourced from the Spore Bank) was one of the new ferns available as was five to seven year old *Platynerium veitchii* that were still only 3–4cm high. Over the years, different methods have been tried for growing *P. veitchii*; it has been very reluctant to produce nest fronds. The most successful method so far has been in the top of a semicircular hanging basket.

Excursion to Mt Mee — Somerset Trail

Claire Shackel

On Sunday 4th March, six Queensland members met at the Gantry Picnic area with the intention of walking the 13 km Somerset Trail circuit. The group was unusually small as a number of the members felt it would be too arduous. The weather was hot and Julie Major had a big 4WD and a permit to traverse the forestry roads so it did not take much persuading to opt for a motorised tour of the area.

The road traversed open forest country with a heath understorey that varied considerably in content. Some area were dominated by pea type plants especially *Pultenaea*, others by a *Restionaceae* type plant and closer to the escarpment there were grassy areas with patches of *Calochlaena dubia* and *Pteridium esculentum*.

At one of these areas, the group scattered and found *Blechnum cartilagineum* (very drought affected), *Doodia caudata*, tiny fronds of *Lindsaea linearis* among the grass and one frond of *Botrychium*. After proceeding to the top of the escarpment the party clambered over rocky outcrops. Here *Drynaria rigidula* and *Platynerium bifurcatum* clung to the rocks with patches of *Cheilanthes sieberi* in the exposed depressions. *Adiantum atroviride* and *A. hispidulum* grew in the more protected areas under the rock overhangs. At one of the lookouts there was a large dense patch of *Pellaea paradoxa*. There was very little water to be seen in the Somerset Dam catchment from any of the lookouts visited. *Lomandra confertifolia* made unusual lime green clumps on some of the rocky outcrops. Away from the escarpment edge, a *Cyathea australis* grew close to the road and more could be seen in the moister areas below the escarpment.

Although the road went in and out of steep gullies, only one contained water. In this moist oasis *Gleichenia dicarpa*, *Sticherus flabellatus* [see photo on page 6] and a single plant of *Todea barbara* were seen. *Lindsaea microphylla* grew in the drier areas above the creek and a plant of *Lygodium microphyllum* protruded from the bridge.

At various places the road crossed the Somerset Trail walking track but all agreed driving was the way to go. Thanks, Julie!

Report of S.E. Qld Chapter Labour Day weekend at Kyogle, NSW Claire Shackel

For the Queensland Labour Day long weekend (5th to 7th May), thirteen members of the S.E. Qld chapter met in Kyogle on Friday afternoon. Most attendees travelled the Lions Road from Innisplain. The Queensland side of the border was very drought stricken but on crossing over the mountain gap into New South Wales, the country improved markedly.

On Saturday morning the party travelled to Bar Mountain in the Border Ranges National Park. The Bar Mountain Circuit was a rough often steep track and some members did not attempt the walk. There were a large number of ferns (35) to be seen including the filmy ferns *Cephalomanes caudatum* and *Hymenophyllum flabellatum*. Climbing ferns covered the trunks of the understorey shrubs and *Asplenium australasicum* festooned the tall trees, often with *Asplenium polyodon* colonising their bases. Large numbers also littered the rainforest floor, including numerous *Lastreopsis silvestris*. Also of interest was a rock covered by a plant that appeared to be half way between *Arthropteris beckleri* and *A. tenella*, possibly a hybrid. In the main party's absence, the other members investigated the Beech Glade and the Falcorostrum Loop where *Grammitis billardierei* was added to the list. A more extensive patch of the putative *A. beckleri/tenella* cross was found on the Loop track. *Platyserium superbum* appeared to be absent from this environment.

Sunday's outing was to the Murray Scrub Track in Toonumbar National Park. *Botrychium australe* was seen in the grass at the track entrance. A similar variety of ferns were seen as on Saturday although *Crepidomanes vitiense* was seen for the first time. *Diplazium assimile* was common and was an attractive lacy fern, while a robust form of *Lastreopsis munita* formed dense patches of shiny fronds. After lunch, the Iron Pot Loop was investigated and *Cyathea cooperi* was a new addition to the list. The dominant epiphyte in this area was *P. superbum* and they covered the high branches of rainforest trees in great numbers. On the way home a stop at Sherwood Lookout revealed a dense patch of *Asplenium flabellifolium* on the road embankment. Here also was the only sighting of *Cyathea australis* as well more *Botrychium australe*.

After packing up on Monday morning the convey of cars travelled to Brindle Creek in the Border Range National Park. The Red Cedar and Helmholtzia Loops were walked and some new ferns not common in south-east Queensland were seen e.g. *Diplazium dilatatum*, *Blechnum watsii* and *Pteris comans*. *Asplenium australasicum* was again the dominant epiphyte, with *A. polyodon* also featuring..

The photo on the front cover of Calder Chaffey's book "Field Guide to Australian Ferns" was taken at Brindle Creek and is a guide to the wonderful diversity of fern of this area. The weekend was very enjoyable and a total of 60 fern species were seen. [**Postscript by PDB:** I finally identified the small filmy fern seen on at least one old beech tree at Red Cedar Loop as *Hymenophyllum australe*.]

FERN NAME	A	B	C	D	E	F	G
<i>Adiantum diaphanum</i>	x			x			
<i>Adiantum formosum</i>	x			x	x		
<i>Adiantum hispidulum</i> var. <i>hispidulum</i>					x		
<i>Adiantum hispidulum</i> var. <i>hypoglaucum</i>					x		
<i>Adiantum silvaticum</i>							x
<i>Arthropteris beckleri</i>	x		x				x
<i>Arthropteris beckleri</i> × <i>A. tenella</i>	x		x				
<i>Arthropteris tenella</i>	x		x	x			
<i>Asplenium australasicum</i>	x		x	x	x		x
<i>Asplenium flabellifolium</i>	x						
<i>Asplenium harmanii</i>	x		x				
<i>Asplenium polyodon</i>	x	x		x			x
<i>Blechnum cartilagineum</i>	x		x	x		x	x
<i>Blechnum nudum</i>							x
<i>Blechnum patersonii</i> subsp. <i>patersonii</i>	x		x				x
<i>Blechnum watsii</i>							x
<i>Botrychium australe</i>				x		x	
<i>Calochlaena dubia</i>						x	
<i>Cephalomanes caudatum</i>	x						x

FERN NAME	A	B	C	D	E	F	G
<i>Christella dentata</i>				x	x		
<i>Crepidomanes vitiense</i>				x			
<i>Cyathea australis</i>						x	
<i>Cyathea cooperi</i>	x				x		x
<i>Cyathea leichhardtiana</i>	x	x	x				x
<i>Davallia solida</i> var. <i>pyxidata</i>	x			x	x		x
<i>Dennstaedtia davallioides</i>	x				x		x
<i>Deparia petersenii</i> subsp. <i>congrua</i>					x		x
<i>Dicksonia youngiae</i>	x						x
<i>Dictymia brownii</i>	x	x			x		x
<i>Diplazium assimile</i>	x			x			x
<i>Diplazium australe</i>				x			x
<i>Diplazium dilatatum</i>							x
<i>Doodia aspera</i>	x			x	x	x	
<i>Doodia australis</i>	x						
<i>Doodia caudata</i>					x		
<i>Grammitis billardierei</i>		x	x				
<i>Histiopteris incisa</i>				x			x
<i>Hymenophyllum cupressiforme</i>							x
<i>Hymenophyllum flabellatum</i>	x		x				x
<i>Hymenophyllum australe</i>							x
<i>Hypolepis glandulifera</i>	x			x	x		x
<i>Hypolepis muelleri</i>				x			x
<i>Lastreopsis decomposita</i>				x			
<i>Lastreopsis marginans</i>	x						
<i>Lastreopsis microsora</i>	x	x	x	x			x
<i>Lastreopsis munita</i>				x			
<i>Lastreopsis silvestris</i>	x	x	x				
<i>Lastreopsis smithiana</i>	x		x				x
<i>Microsorium scandens</i>	x	x	x	x			x
<i>Pellaea nana</i>	x		x	x			x
<i>Platycterium bifurcatum</i>	x				x		x
<i>Platycterium superbum</i>				x	x		x
<i>Polystichum</i>	x						
<i>Pteridium esculentum</i>				x	x	x	
<i>Pteris comans</i>							x
<i>Pteris tremula</i>				x	x		
<i>Pteris umbrosa</i>	x			x	x		
<i>Pyrrrosia confluens</i> var. <i>confluens</i>	x			x	x		
<i>Pyrrrosia rupestris</i>	x	x	x	x	x	x	x
<i>Todea barbara</i>	x		x				x
<i>Vittaria</i>							x

KEY TO LOCATIONS:

- A. Bar Mountain Circuit, Border Ranges National Park
- B. Beech Glade, Border Ranges National Park
- C. Falcorostrum Loop, Border Ranges National Park
- D. Murray Scrub Track, Toonumbar National Park
- E. Iron Pot Loop, Toonumbar National Park
- F. Sherwood Lookout on return from Toonumbar National Park
- G. Brindle Creek - Cedar & Helmholtzia Loops, Border Ranges National Park

Baroon Pocket Outing Fern List (S.E. Qld chapter, 1st July 2007)

Claire Shackel

Adiantum diaphanum
Adiantum formosum
Adiantum hispidulum
Adiantum hispidulum var. *hypoglaucum*
Adiantum silvaticum
Arachniodes aristata
Arthropteris beckleri
Asplenium attenuatum
Asplenium australasicum
Asplenium flabellifolium
Asplenium polyodon
Blechnum cartilagineum
Calochlaena dubia
Cephalomanes caudatum
Cheilanthes distans
Cheilanthes sieberi
Christella dentata
Cyathea australis
Cyathea cooperi
Cyathea leichhardtiana

Davallia pyxidata
Dennstaedtia davallioides
Doodia aspera
Doodia caudata
Doodia heterophylla
Hypolepis glandulifera
Hypolepis muelleri
Lastreopsis marginans
Lindsaea microphylla
Microsorium scandens
Nephrolepis cordifolia
Pellaea nana
Platynerium bifurcatum
Platynerium superbum
Psilotum nudum
Pteridium esculentum
Pyrrhosia rupestris
Sticherus flabellatus
Vittaria ensiformis

Photo 1. *Sticherus flabellatus* at Mt Mee (photo: Merle & Geoff Goadby)



June 2007 meeting at Rod Pattison's residence, Rochedale

Claire Shackel

With the forced absence of our leader and the member who requested the subject, the discussion on *Doodia* lacked authority. The interest of the day was the first sighting for most members of a living *Isoetes*. All agreed it looked like any other reedy plant that grows on the edge of swamps. There was one leaf showing swelling at the base.

Specimens of *Doodia* that fitted the key were displayed and discussed including three forms of *Doodia caudata* — the normal form, a minute form with fronds 2-6 cm long and a spreading fragile form from the Carnarvon area. Attempts to grow *D. maxima* from two apparently good spore sources with no results gives weight to the belief that it is a *Doodia aspera*/*Blechnum cartilagineum* cross. In an area at Canungra where *D. aspera* and *D. caudata* are abundant, a number of plants have been collected that fit the description of *D. australis* suggesting this might also be a cross.

After the discussion, Rod took the group on a tour of his garden and showed us an enormous array of *Doodias* that do not fit the keys. The form of *D. dissecta* that has been grown from spore bank spore is a very fragile type like the Carnarvon form of *D. caudata*, while the form Rod grows is more robust and superficially like a *Cheilanthes*. Rod has always on the look-out for ferns that are tasselled or where the pinnae margins are lobed or toothed. He showed the group specimens of *Doodia* with these variations. There were also a number of ferns that appeared to be hybrids between *Doodias* and *Blechnums* confirming the closeness of these two genera.

Postscript

Peter Bostock

The *Isoetes* mentioned above was obtained from Grace Lithgow's property near Chinchilla on the Darling Downs. Some 26 years ago, the Lithgows submitted a specimen to the Queensland Herbarium, and it was subsequently identified as *Isoetes drummondii* subsp. *drummondii*. The plants grow ephemerally in melon-holes (gilgai) and at the time of collection in May this year were beginning to succumb to dwindling water levels. The plant is still alive, as I write this. It is sitting in a small cup, with a centimeter or so of muddy water in the base, in my shadehouse. I am hoping that I can keep it alive long enough to obtain spores.

Currently, as far as I know, this location at Chinchilla is the only officially recorded site of *Isoetes drummondii* in Queensland. But this is not unusual for *Isoetes* collections! The Herbarium has only 6 or 7 specimens for the three species reported for the State.

ASGAP Fern Study Group Financial Statement – 1 July 2006 to 30 June 2007

	\$
Initial balance	5843.62
Plus Membership fees	355.00
Term deposit interest	136.07
Qld flower show appearance	50.00
Donations	20.00
Subtotal	6404.69
Less Newsletter production	387.04
Bank Charges	9.80
Final Balance	6007.85

\$5000.00 is held as a term deposit and the remainder is in a Society Cheque Account, both with the Commonwealth Bank.

Dan Johnston, Treasurer.

Deadline for copy for the next newsletter (send to Peter Bostock by email or post): October 22nd, 2007

REMINDER: annual fee for financial year 2007–2008 is now due.

The address label will show your current paid-to date:

- June 2006** You are already 1 year **in arrears** - please pay \$10 to remain current
- June 2007** Subscription of \$5 due for period July 2006 to June 2007
- June 2008** You are a financial member, paid up until 30 June 2008 - nothing to pay!
- June 2009** You are 1 year in credit, paid up until 30 June 2009 - definitely nothing to pay!

Please send your subs to Dan Johnston, 9 Ryhope St, BUDERIM, Qld 4556

Form for renewal of subscription and change of address or other details:

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