



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

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From the editor

Dan Johnston

We have had a substantial response to the request for information on whether people preferred to receive the newsletter as hard copy or by email. Of those who responded, the majority requested email. I believe the response was strong enough to justify producing an email version as well as a hard copy version. It is my intention at this stage that the two will be substantially the same, although the email recipients may get some colour illustrations assuming the file requirements are OK. In my opinion, the cost of colour copying rules out colour for the hard copy newsletter.

No decision has yet been made on email and hardcopy subscription rates for the future.

I intend to distribute this newsletter by email to those who indicated a preference for that. If you receive this by email and would also like a paper version, let me know and I will post that as well.

Thanks to all the contributors to this newsletter. Some of the articles have been in our inbox for some time but hopefully have not lost their relevance. Sorry about the delay in getting them into print. I now have no material pending, so keep those reports and articles coming in! In case anyone who hasn't been there is wondering about the relevance of Noreen and Ray's article on the Carnarvon Gorge floods to ferns, I'll point out that this gorge is something of an oasis in central Queensland and while most noted for its spectacular sandstone formations, the vegetation including ferns is also very memorable. The Moss Garden and Angiopteris Ravine particularly come to mind.

I expect to put out the next newsletter in late March to April, but don't wait till then to submit articles.

Forthcoming Events in the Sydney Region

Peter Hind

Saturday 13 December, CHRISTMAS LUNCH, at "Hawks on Second" (A part of the Ryde-Eastwood Leagues Club). Arrive from 11 am. for lunch at 12 noon.

All you can eat buffet. Cost \$13.50, Seniors \$12.0 cash only, no credit card facility.

I have booked a table for us in my name.

The club is on Second Avenue at Eastwood, off Ryedale Road.

Contact me Peter Hind on (02) 96258705 if you need more information.

January – No Meeting.

Saturday 21 February, Meet from about 11 am at the home of Peter and Margret Hind,
By popular request we plan to revisit *Adiantum* species. Phone (02) 96258705

Saturday 21 March, Meet about 10 am in the main street of Robertson, if you have passed the “Big (rusty) Potato” on your left, turn around and go back into town. We plan to visit the “Robertson Rainforest Reserve” a short drive from town and then to the Fitzroy Falls area. Steve Lamont would like to show us a ferny area here.

Bring Picnic lunch and water. No really long walks are planned, but wear suitable walking shoes, sunscreen, hat etc. If the weather is bad consider it cancelled.

April – no formal meeting. Those who wish may join the visiting British Pteridological Society outings, whilst they are in Sydney for a few days. They plan to spend most of this part of their Australian trip in the Blue Mountains. Their Sydney Itinerary (dates and places) has yet to be decided.

Saturday 16 May, Meet from about 11 am. at the home of Ron and Paula Wilkins,
Best to park in nearby Cheltenham Road and walk in. Study to be decided.

All outings are subject to weather conditions being favourable.

Program for South-east Queensland Region

Dan Johnston

Sunday, 7th December, 2008. Meeting at 9:30am at Rod Pattison’s home at
for Christmas Party and Plant swap.

Sunday, February 1st, 2009. Meeting at 9:30am at Peter Bostock’s home at
topic to be decided.

Sydney Region Meeting Reports

The Royal Botanic Gardens, Sydney

Dot Camp

Peter took us on a guided tour through the fernery & pyramid gardens at the Royal Botanic Gardens, Sydney on the 6th August, 2008. The fernery is an attractive structure housing many Australian & exotic ferns in a beautiful setting, with the massive *Angiopteris evecta* dominating the central water feature. Some of the unusual Australian ferns seen were a *Tmesipteris* growing on the trunk of a *Todea barbara*, numerous species of tree ferns including a beautiful group of *Cyathea rebecca* with trunks to 3m., and the wig fern *Cyathea baileyana*. Among the exotics we saw an impressive *Cibotium barometz*. Sadly some robust ferns such as *Dennstaedtia davalloides* have taken over areas & grown over more interesting ferns leaving the plant labelling incorrect. In the glass pyramid we were able to see many Queensland ferns growing that we would not normally see, such as *Drynaria quercifolia*, *D. sparsisora*, *Ophioglossum pendulum*, *Callipteris prolifera*, and *Asplenium nidus*.

Strickland Forest Falls

Dot Camp

For our September meeting the Sydney group of the Fern Study Society travelled to Strickland State Forest, located about 15 minutes north west of Gosford or 15 minutes from the F3 at Ourimbah. We chose Strickland Forest Falls walk which is an easy loop track that sets off through the Gynea lillies and flowering heath plants, then descends to a gully rainforest with spectacular rock formations, orchids and of course many ferns. We were all excited to find *Asplenium polyodon* and *Asplenium attenuatum* being ferns not commonly seen in this area. We were also treated to many flowering *Grevillea oldei* plants, named after our F.S. member Margaret’s husband Peter. This was an interesting & enjoyable walk.

Ferns & fern allies seen on this walk were - *Adiantum diaphanum*, *Adiantum silvaticum*, *Asplenium australasicum*, *Asplenium attenuatum*, *Asplenium flabellifolium*, *Asplenium polyodon*, *Blechnum cartilagineum*, *Blechnum patersonii*, *Blechnum wattsii*, *Calochlaena dubia*, *Cyathea leichhardtiana*, *Davallia solida* var. *pyxidata*, *Doodia aspera*, *Gleichenia dicarpa*, *Gleichenia microphylla*, *Gleichenia rupestris*, *Grammitis stenophylla*, *Histiopteris incisa*, *Lastreopsis decomposita*, *Lindsaea*

linearis, *Lindsaea microphylla*, *Lycopodium deuterodensum*, *Microsorium scandens*, *Pellaea falcata* [formerly *Pellaea falcata* var. *falcata*], *Platynerium bifurcatum*, *Pteridium esculentum*, *Pyrrosia rupestris*, *Schizaea bifida*, *Schizaea rupestris*, *Sticherus flabellatus* and *Todea barbara*.

South East Queensland Meeting Report

Julie Major's Property

Claire Shackel

On the 2nd November, twelve members of the Queensland fern study group met at Julie Major's property at
After morning tea, the group walked around the property and followed a track up into an adjoining Council Reserve.

A gully flows through the property and there was a Piccabeen palm grove in the bottom. The sides of the gully were covered with many rainforest species and Julie has planted more local species along the edge. After crossing the gully, the track climbed steeply and the vegetation changed to vine scrub/open forest with *Doodia aspera* and *Pellaea paradoxa* being the dominant ferns. As the track went higher a more protected area saw the return of the rainforest trees and *Platyneriums* clung to the large rocks that formed a broken cliff line.

On returning to the valley floor, the group walked around the rainforest area where the majority of the ferns grew and Julie has planted some extras. The Buderim area is home to *Doodia heterophylla* and there were many plants scattered over the area.

Adiantum hispidulum var. *hispidulum*, *Adiantum hispidulum* var. *hypoglaucum*, *Arachniodes aristata*, *Asplenium australasicum*, *Blechnum camfieldii**, *Blechnum cartilageum*, *Blechnum indicum*, *Calochlaena dubia*, *Christella dentata*, *Christella parasitica*, *Cyathea cooperi**, *Davallia pyxidata*, *Dicranopteris linearis**, *Doodia aspera*, *Doodia heterophylla*, *Drynaria rigidula**, *Hypolepis muelleri*, *Lindsaea ensifolia*, *Lygodium microphyllum*, *Microsorium punctatum*#, *Nephrolepis cordifolia*#, *Pellaea paradoxa*, *Platynerium bifurcatum*, *Platynerium superbum*, *Pteridium esculentum*, *Pteris tremula*, *Pyrrosia confluens*, *Pyrrosia rupestris* and *Todea barbara**.

The ferns marked with * have been planted and those with # are weeds.

Carnarvon Gorge Flood Damage

Noreen and Ray Baxter

Throughout the early hours of 16 February 2007 Carnarvon Gorge and surrounding shelf country received about 100mm of rain which caused a flash flood in the Gorge. The water flowing from further up the Gorge caused a log jam near Big Bend and dammed the water to an estimated height of 18 metres. When it did burst the water dammed up again near crossing No 12 to a height of about 12 metres before it again bursting. The large volume of flood waters rushing down Carnarvon Creek scoured out the dense stands of *Allocasaurina* and other vegetation from the creek bed and from both sides of the creek. The flood waters caused an estimated \$1million worth of damage to camp facilities and to 28 stepping stone crossings and three bridges along an 11km section of the gorge. Prior to the flood the creek near the Moss Garden was about five metres wide but is now 130 metres wide. Although most of the small plants along the creek were either washed away or covered by debris some managed to survive. Fortunately, the vegetation in the side gorges, the Moss Garden and the Amphitheatre were not affected. The Amphitheatre, which had been closed for three years, now has a new easily negotiable staircase.

As Queensland Parks and Wildlife Service manager James Newman said: "From an environmental point of view, it has been reborn. It's absolutely spectacular and environmentally just what the doctor ordered. "There are seven different types of sandstone in the gorge and with the trees washed away, you can see wide vistas of colour, from pinks through to oranges," he said. Newman said: "The flood extensively damaged the main walking track and day-use area. Reconstruction and repair work has begun but it will be some time before rangers complete the works." However, by the time we visited the Gorge in late October 2007, most of the reconstruction work had been completed but it will be some considerable time before the shrubs and ferns get re established along the new creek bank lines.



A typical view of the general condition along the creek

Davallia* versus *Platycterium

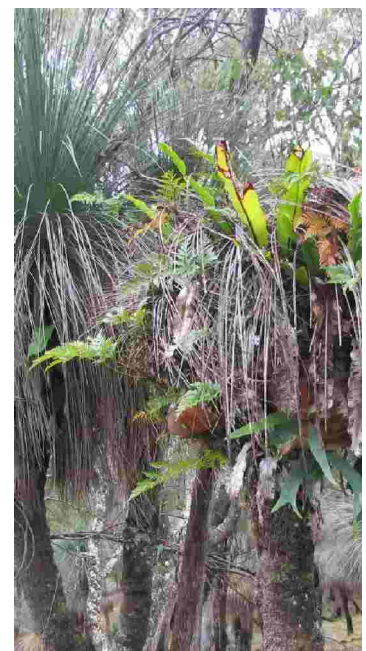
Claire Shackel

There was a belief that when *Davallia pyxidata* invades an elkhorn, *Platycterium bifurcatum*, the *Davallia* eventually kills the elk. About 15 years ago I started to test this theory. As the *Davallia* became larger and invaded the elk it became increasingly difficult to keep the water up to the plants. In the extreme drought conditions the *Davallia* dropped its leaves and recovered quickly after rain. The elk seems to have suffered more permanent damage and has not recovered its previous vigor.

At the family farm at Canungra a base of a decaying birds nest fern was found covered with *Pyrrosia rupestris*. The lump was planted in a hanging basket and started to develop into an attractive plant. Three plantlets of *Davallia pyxidata* came up in the peaty material and were allowed to grow. As they grew larger the *Pyrrosia* started to suffer and it was impossible even with weekly soakings to keep the water up to the basket.

On removing the *Davallia* plants to a separate basket the *Pyrrosia* became healthy again.

It appears *Davallia pyxidata* is a very thirsty fern and has the ability to grab any water that is available to the detriment of its companions. More observations need to be taken to see how much and how quickly the fleshy rhizome responds to weather conditions.



Davallia in competition near Mt Huntley, Qld.

Lastreopsis Planting

Ron Wilkins

With the advent of autumn and a good rainfall moistening the ground I decided to plant out my collection of *Lastreopsis*. You cannot buy *Lastreopsis* from native plant nurseries around Sydney. It's a pity. Find a residual patch of rainforest and *Lastreopsis* will be there in abundance, but only a couple of species. My collection of about 10 specimens of six species (I'm looking for more) was built up from gifts of rhizomes from Joan Moore, Peter Hind and Geoff and Anne Long. I planted them amongst other ferns and the softening effect of the *Lastreopsis* was immediately obvious. They are now delighting in their new freedom and throwing out new fronds. The clumping habit of these plants, their soft foliage and contrasting new and old growth colours make them superb horticultural subjects. Other ferns such as *Dennstaedtia davallioides* and *Hypolepis* sp. performing much the same function tend to excessive weediness in Sydney and they do not compare with *Lastreopsis* for beauty. As a characteristic element of our rainforest flora they deserve better recognition in home gardens.



A Story in the First Person

Arthropteris

Kyrill Taylor

Just call me tenella

Kyrill Taylor speaking to the Sydney group of the Fern Study Group told something of my recent past (some twelve years) but I have a bigger story to tell __

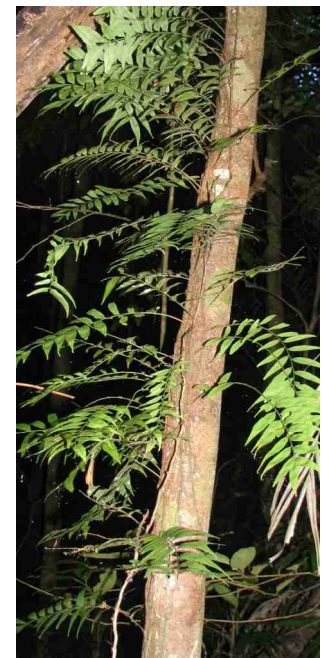
Currently I am holding on by my finger nails (rhizome actually) to a craggy piece of *Eucalyptus sideroxylon* bark which is not altogether to my liking. I know he cannot put a whole hunk of sandstone in a hanging basket so I must do with what is available. K.T. praises me for my persistence, but I do crave something more akin to my long past history of damp wall covering. I have close relatives enjoying the comforts and nourishments which come from a great sandstone wall in the Illawarra escarpment and I know that I would be a much more desirable example if I only had a chance.

K.T. rarely ever offers me sustenance although I know he is concerned for my welfare – “bring them up tough” is probably his motto – more help and less talk on his part would help!

Just look at my retarded pinnule growth, the reluctance of my rhizomes to reach out – where is the adventitious style of my species?

I know that I have the makings of a far more handsome fern than I now am, that I could climb rock walls, blanket fallen logs, more than compete with the mosses and those specialised filmy ferns.

Trauma, that is my real problem I guess – when K.T. first adopted me I sulked around for years – I still shudder when I think of that media he placed me in – so alien to my nature – and that piece of ironbark he expected me to immediately climb – what a hide the man had or maybe he was just unthinking.



When will I ever develop those rows of lime dots so conspicuous on the lamina of other members of my family. By now I should have sori but nowhere on the ends of my veins are there any signs of the normal exindusiate or reniform or peltate indusium – spores bilateral, oblong or globose, or any other shape would please me greatly – Gosh!

Just surviving with the “care” I have had is enough without trying to recreate myself under these conditions.

I wonder would my sister *beckleri* of the Sydney region have fared any better here?

With all I must say things could be worse. I am never parched for water, I'm protected from the harshest of sunlight, I do have my own basket and maybe, just maybe, K.T. will have learnt something from listening to other “Fernies” who recently visited our lattice protected shadehouse – to quote an old saying “While I live I'll grow”— not such a comforting thought after all when I remember the end of that *Ficus* on the Razorback Range.

Fern Society of Victoria Spore Bank

Barry White

Ordering: Fern spore is free to members of the Fern Society of Victoria who donate spore. Otherwise the cost is members 20 cents per sample, non-members 50 cents, plus \$1.00 to cover postage and handling. Available at meetings or by mail from Barry White,

There is no charge for spore for overseas members, however to cover postage two International Reply Coupons would be appreciated; or alternatively spore may be exchanged. International Reply Coupons can be purchased at most Post Offices. Overseas non-members may purchase spore at three packets for each International Reply Coupon, plus two coupons per order to cover postage and handling. Alternatively spore exchange can be considered. There is a limit of 20 packets per order. As some spores are in short supply please include alternatives. Queries can be emailed to:

Spore List (Updated Sept 2008)

<i>Adiantum formosum</i> 3/08	<i>Cyathea felina</i> 2/07	1' 10/07
<i>Adiantum pedatum</i> 2/07	<i>Cyathea gleichenioides</i> 2/07	<i>Platynerium bifurcatum</i> 'Hula Hands' 10/07
<i>Amphineuron opulentum</i> 4/08	<i>Cyathea incisoserrata</i> /07	<i>Platynerium bifurcatum</i> 'Venosum' (Mt. Lewis) 10/07
<i>Anemia phyllitides</i> 6/06	<i>Cyathea intermedia</i> 2/07	<i>Platynerium hillii</i> 12/06
<i>Anemia tomentosa</i> 8/08	<i>Cyathea lunulata</i> /07	<i>Platynerium superbum</i> 4/08
<i>Arachniodes aristata</i> 11/06	<i>Cyathea robertsiana</i> 7/08	<i>Platynerium veitchii</i> 10/07
<i>Asplenium aethiopicum</i> 12/07	<i>Cyrtomium caryotideum</i> 5/06	<i>Pneumatopteris sogerensis</i> 3/08
<i>Asplenium flabellifolium</i> 11/06	<i>Cyrtomium falcatum</i> 'Butterfieldii' 3/08	<i>Pneumatopteris costata</i> 7/08
<i>Athyrium filix-femina</i> 07/06	<i>Dicksonia antarctica</i> 8/08	<i>Polypodium formosum</i> 10/07
<i>Athyrium filix-femina</i> (red stipe) 3/08	<i>Dicksonia fibrosa</i> 10/07	<i>Polypodium interjectum</i> 3/08
<i>Athyrium niponicum</i> 'Pictum' 2/08	<i>Diplazium australe</i> 4/08	<i>Polystichum aculeatum</i> 06/06
<i>Athyrium otophorum</i> 4/08	<i>Diplazium dilatatum</i> 8/06	<i>Polystichum australiense</i> 3/08
<i>Blechnum ambiguum</i> 1/08	<i>Dryopteris affinis</i> 'Cristata' /08	<i>Polystichum formosum</i> 3/08
<i>Blechnum braziliense</i> 3/08	<i>Dryopteris crassirhizoma</i> 3/06	<i>Polystichum proliferum</i> 4/06
<i>Blechnum cartilagineum</i> 2/08	<i>Dryopteris filix-mas</i> 11/06	<i>Polystichum retroso-paleacum</i> /08
<i>Blechnum chambersii</i> 9/07	<i>Dryopteris sieboldii</i> 12/06	<i>Polystichum setiferum</i> 07/06
<i>Blechnum discolor</i> 08/06	<i>Dryopteris wallichiana</i> 3/08	<i>Polystichum setiferum</i> 'Congestum' 12/07
<i>Blechnum fluviatile</i> 9/07	<i>Gymnocarpium oyamense</i> 8/08	<i>Polystichum tsus-simense</i> 3/06
<i>Blechnum procerum</i> 2/07	<i>Hypolepis rugosula</i> 2/07	<i>Polystichum vestitum</i> 2/07
<i>Blechnum spicant</i> 7/08	<i>Lastreopsis acuminata</i> 3/08	<i>Polystichum xiphophyllum</i> 3/08
<i>Blechnum watsii</i> 4/06	<i>Lastreopsis decomposita</i> 12/06	<i>Pronephrium asperum</i> 2/07
<i>Cheilanthes alabamensis</i> /06	<i>Lastreopsis glabella</i> 4/07	<i>Pteris biaurita</i> 3/08
<i>Cheilanthes kuhnii</i> 1/06	<i>Lastreopsis hispida</i> 11/06	<i>Pteris cretica</i> 'Wimsettii' 1/06
<i>Christella dentata</i> 3/06	<i>Lastreopsis marginans</i> 1/07	<i>Pteris hendersonii</i> /06
<i>Cibotium schiedei</i> 1/07	<i>Nephrolepis exaltata</i> 7/08	<i>Pteris quadriaurita</i> 3/07
<i>Cyathea australis</i> 4/08	<i>Nephrolepis falcata</i> 3/08	<i>Pteris sp.</i> (Nepal) 3/07
<i>Cyathea baileyana</i> 7/08	<i>Ophioglossum opulentum</i> 7/08	<i>Pteris umbrosa</i> /08
<i>Cyathea brownii</i> /07	<i>Oreopteris limbosperma</i> 08/06	<i>Pyrrosia lingua</i> 'Variegata' 5/06
<i>Cyathea cooperi</i> 1/07	<i>Pellaea sagittata</i> 3/07	<i>Revwattsii fragile</i> 7/08
<i>Cyathea cooperi</i> (blue stipe) 1/07	<i>Pellaea viridis</i> 1/08	
<i>Cyathea cooperi</i> 'Brentwood' 3/08	<i>Platynerium bifurcatum</i> 'Fosters No	
<i>Cyathea cunninghamii</i> /07		

Rumohra adiantiformis (Cape form)
2/08

Rumohra adiantiformis (native) 4/06
Sphaerostephanos heterocarpus 7/08

Stenochlaena palustris 2/07
Thelypteris navarrensis 1/07

Thank you to the following spore donors: Marco Calvimonte, Brenda Girdlestone, Don Fuller, Arlen Hill, Lorraine Deppeler, Warren Simpson, Nada Sankowsky, Sheila Tiffin, Ton de Waard, Amaury Graulich, Werner Neumeuller, Frank Hardung, Kylie Stocks, Neville Crawford, Richard Brinckmann, Wendy Johnston, Claire Schackel and Crosby Chase.

Recent Fern Literature

Peter Bostock

Murdock, A.G. (2008). A taxonomic revision of the eusporangiate fern family Marattiaceae, with description of a new genus *Ptisana*. *Taxon* 57(3): 737–755.

This paper continues Andrew Murdock's studies in Marattiaceae [in Australia the family is often split into two: Angiopteridaceae and Marattiaceae]. To quote the author: "*Marattia* as traditionally defined is paraphyletic, and is split here into three morphologically distinct and monophyletic genera: *Marattia* in the strict sense is restricted to the Neotropics and Hawaii; *Eupodium*, a distinctive Neotropical genus that has not been recognized by recent authors, is resurrected; and a newly described genus *Ptisana* comprises the Paleotropical species". The paraphyly occurs in *Marattia* as presently circumscribed because, according to Murdock's analysis, the Hawaiian and certain neotropical *Marattia* species are more closely related to *Angiopteris*, than to the remaining *Marattia* species. If this treatment is adopted, then *Ptisana* will contain some 20 species; the three native species are listed below:

Ptisana oreades: tropical [eastern] Australia, from McIlwraith Range south to Eungella near Mackay (but see comment under *salicina*). *Note*: – questionably distinct from *P. obesa* from New Guinea [PDB: if considered the same species, the older name *P. obesa* would apply!]

Ptisana salicina: Norfolk Island, New Zealand, New Caledonia, Cook Islands, Austral Islands, Society Islands, Marquesas Islands. Some collections from the Eungella Range of [Queensland,] Australia may be this species. *Note*. – This species is retained in a broad sense here, but likely encompasses several distinct taxa, and is closely related to *P. smithii* of Vanuatu, Fiji, Samoa, Tonga.

Ptisana howeana: Lord Howe Island.

Parris, B.S. (2007). Five new genera and three new species of Grammitidaceae (Filicales) and the re-establishment of *Oreogrammitis*. *Gardens Bulletin, Singapore* 58(2): 233–274.

Barbara's revision of Grammitidaceae continues apace, and in this paper some further changes to Australian species are made. The transfer of species of *Ctenopteris* is necessary because that name is a superfluous generic name for *Prosaptia*. The scope of the genus *Grammitis* has been redefined and now applies only to the type of the genus and a small group of species with black-margined fronds closely related to the type species.

The new genus *Ctenopterella* includes the following Australian species: *Ctenopterella blechnoides* (formerly *Ctenopteris blechnoides*) and *Ctenopterella gordonii* (*Ctenopteris gordonii*). The reinstated genus *Oreogrammitis* includes five local species: *Oreogrammitis albosetosa* (formerly *Grammitis albosetosa*), *O. leonardii* (*G. leonardii*), *O. queenslandica* (*G. queenslandica*), *O. reinwardtii* (*G. reinwardtii*) and *O. wurunuran* (*G. wurunuran*). Finally, the new genus *Tomophyllum* includes the endemic north Queensland species, *Tomophyllum walleri* (formerly *Ctenopteris walleri*).