

A.N.P.S.A. Fern Study Group

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Membership subscriptions for 2013-2014 are now due. You should receive details of your current financial status with us on a slip accompanying this newsletter if you receive it by post, or in the body of the email if you receive it by email. See the back page of this newsletter for more detail.

Program for the Sydney Region

Peter Hind

Saturday 19 October, Meet from about 11 am at the home of Peter and Margret Hind,

Discussion re. a possible handout leaflet for our group as an aid to recruit new members. Study of how we cultivate our ferns if time permits. Our fern collection is looking good at the moment and worth wandering around to see how they are growing.

Saturday 16 November, Meet at Margaret and Peter Olde`s Country Residence

No study, please bring a plate to share & as usual we will look around the fern collection and plantings.

December 2012 and January 2013 – No Meetings, - MERRY CHRISTMAS.

Saturday 15 February 2014, Meet from about 11 am at the home of Peter and Margret Hind,

Study of Australian *Asplenium* species cultivated in Sydney and also the *Asplenium* spp. native of temperate Australia.

Saturday 15 March Meet about 10.30 a.m. at the fernery in the Royal Botanic Gardens, Sydney. Bring picnic lunch if you wish and it's best to use public transport. Martin Place and St James are the nearest Railway stations. I will be leading us around the fern collection. Contact me, Peter Hind, if you need more information.

All outings are subject to weather conditions being favourable.

Program for South-east Queensland Region

Dan Johnston / Peter Bostock

Monday, 14th October to Friday, 18th October, 2013: Excursion to Bunya Mountains, south-east Queensland. Two chalets (Mai and Tuggan-Tuggan, 4 bedrooms each) have been booked for this week, each capable of sleeping up to 22! At this stage we have spare rooms available. Contact Peter Bostock if you would like to join us. Cost would be about around \$50/room per night for accommodation.

See <http://bunyamountains.com/accommodation/mai> for information about the accommodation.

Thursday, 7th November, 2013. Visit to the Queensland Herbarium at the Botanic Gardens at Mt Coot-tha in Brisbane. Meet in the foyer at 1:30 pm. The meeting will not extend beyond 4 pm.

Sunday, 1st December, 2013. Christmas meeting and plant swap, Rod Pattison's residence,
Meet at 9:30 am.

Sunday, 2nd February, 2013. Meet at 9:30 am at Peter Bostock's home
to be advised.

Topic:

APS NSW Event of Interest

Australian Plant Society November gathering- visitors are welcome

APS NSW

The Parramatta Hills District Group will be hosting the next APS NSW gathering at Samuel Gilbert Public School on Saturday the 9th of November 2013. The school have wonderful native plant gardens, the product of a close relationship between the school community and members of our group. We think it is well worth the visit and encourage visitors to participate in other activities available on the day (program below).

MORNING ACTIVITIES (10AM – 12PM)

a) An open garden at 10 Murrills Cres., Baulkham Hills for morning tea with its owners Alan and Jean Wright

OR

b) A guided bushwalk at Fred Caterson Reserve (please meet your guide Jennifer Farrer at the Samuel Gilbert School at 10AM*)

OR

c) Participate in mystery plant identification activities in the school grounds from 10 AM, morning tea will be provided

LUNCH (12PM – 1PM)

Lunch at seating locations in the school grounds. Either bring along your own packed lunch or purchase food available from several shops in the adjacent Knightsbridge Shopping Centre.

AFTERNOON ACTIVITIES (1PM – 3PM)

Talk by Kylie Stocks from Verdigris Fern Nursery on "Gardening with ferns—a fern for any location" (1–2 PM, Samuel Gilbert Public School)

From 2 PM afternoon tea will be provided at the school. There will also be plant sales and lots of conversation!

'Gardening with Ferns - a fern for any location'

Ferns grow everywhere from the Arctic Circle to the Desert. Some come from ancient families, while some developed more recently. As with flowering plants, the most important thing about gardening with ferns is to choose the right fern for your environment. Kylie and Dwayne Stocks operate Verdigris, a nursery specialising in ferns. Join them on a journey of discovery, and learn about the huge variety and the range of differing conditions enjoyed by Australian ferns. Open yourself to the potential of this often under-utilised group of plants.



** Numbers for the Fred Caterson Bushwalk are restricted so we would ask that interested attendees register with Tony Maxwell prior to Nov 9 so that appropriate arrangements can be made. The walk will depart from the school at 10.30 am.*

Sydney Area Meeting Reports

Meeting at the Home of Liz & John Aitken – July, 2013

Dot Camp

On the 20th July 2013, our group visited the beautiful garden of Liz & John Aitken, which was recently featured on the Gardening Australia T.V. show. John is the President of the N.S.W. Australian Plants Society. This well established garden flows down a steep south facing slope, featuring many fabulous ferns protected by an over-head canopy. We thank John for his warm hospitality, which included delicious pumpkin soup!

Kylie gave an overview of *Platycerium* species and their general care. Kylie also helped us unravel the mysteries of the language of botany in understanding the 'preliminaries' of fern species writings. For example: *Platycerium* Desv., (authors name) Mem. (Journal) Soc. Linn. Paris 6, 213 (1827) (where it was

published); from the Greek *platys* (flat or broad), and *keras* (a horn), in reference to the stag's horn-like fertile fronds. To establish the 'keys' botanists need a complete description of a fertile plant (including spore). Multiple observations are necessary for reliable identification. Kylie recommended the following books: *The Language of Botany* by Debenham (published by the A.P.S.) also *A Modern Multilingual Glossary for Taxonomic Pteridology* by David Lellinger.

Growing *Platycteriums* - by Dot Camp with help from the group. We would appreciate any comments from other fern study members.

Mount - directly to tree, basket using an epiphytic mix, board –hardwood or tree fern slab.

- Smaller plants can be attached to an old dead *Platycterium*, pole or fence slab.
- Mount backing: sphagnum moss + compost, paper bark, coconut peat.
- Attach using: fishing line (some will rot), stocking (will rot), wire (will rust), covered wire, glue, staple, plastic hose (for a very large specimen).

General care

- Try to avoid damaging the leaves when you are mounting the fern - the leaves are very delicate.
- Generally - dappled light & good air movement.
- Avoid excessive watering particularly in winter.
- Black spots on the base fronds - plant is too wet.
- South side of a tree is generally the best place for *Platycteriums*.
- The dead pad of fronds at the back of the *Platycterium* protects the roots & acts like a sponge for water. reservoir. So... if removing pups from a *Platycterium* remove them from the top rather than the bottom. Roy Vale describes it as 'pulling the plug' if you remove pups from the bottom.

Pests

- Mealy bug & scale: use Confidor.
- Stag horn beetle: try plugging beetle holes with snail pellets.

Fertiliser

- The nest leaves catch the leaf litter which the plant breaks down to use.
- Needs potassium & calcium.
- Old animal manure or blood & bone.
- Use half strength seaweed fertiliser.
- Bananas can cause rot & attract possums & rats.

P. superbum: Indirect light, sheltered location with protection from wind & direct sun. Do not over-water, particularly in winter.

P. hillii: Fast growing but more sensitive to cold & frost than *P. bifurcatum*. Grows naturally in the lowland wet areas. Top of shield fronds grow flat against the mounting, making it difficult to water. In its natural growing position it is often host to large vicious ants.

P. veitchii: Able to tolerate more sun than other *Platycterium*, and is able to survive long dry periods.

P. bifurcatum: Easy to grow.

A website <http://www.platycterium.co.za/> by Louwrens Opperman & Roy Vail is recommended. Roy believes the shapes of the shields fronds of *Platycterium* show adaptations to the environments where each species lives. He goes on to describe 3 shapes:

- The ball - top closed e.g. *P. hillii*
- The basket - top open e.g. *P. veitchii*
- The ring - forms new plants to the side e.g. *P. coronarium* (exotic)

Excursion to Pierce's Pass – August 2013

Kylie Stocks

It was a cool, windy day when fern study group members arrived at our location in the Blue Mountains. As luck would have it, it was also quite sunny, so we set off at a brisk pace and were soon quite warm.



Leptomeria acida, Native Currant

The flora was mostly open heathland, as evidenced by the presence of *Epacris*, *Banksia* and *Hakea* species. As we progressed, we observed *Pellaea nana* growing on the lower side of the path, and *Asplenium flabellifolium* in the rock crevices. We also saw *Cyathea australis*,

Histiopteris incisa and *Lastreopsis acuminata* on the side of the pathway. Peter Hind noted that it was interesting to see how *Cyathea australis* was beginning to encroach on areas previously occupied by *Todea barbara*.

Further down the path we came across *Blechnum watsii* and *B. ambiguum*. Both these species were throwing out lovely red new foliage. Peter noted that the main way to distinguish between them was that *B. watsii* had scaly stipules, whilst those of *B. ambiguum* were quite smooth.

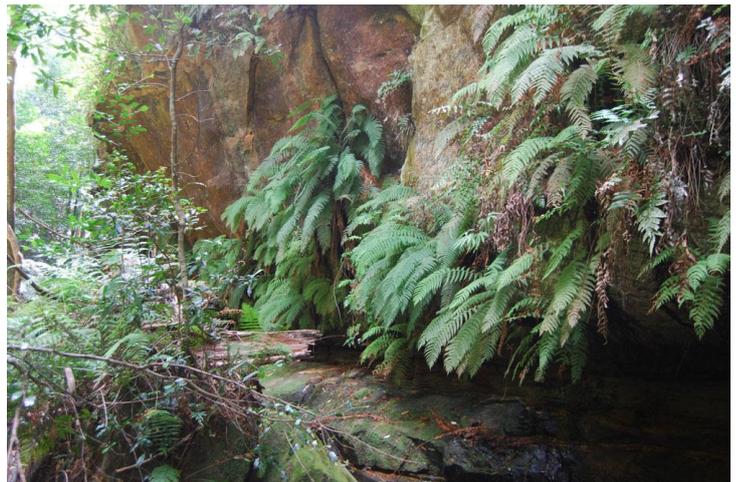
Growing on the trees on the side of the path, and on some of the rock faces, were some nice colonies of *Pyrrosia rupestris* accompanied by *Grammitis stenophylla* which grows in small tufts.



New growth on *Blechnum watsii*

As we reached the creek towards the bottom of the path, there was a noticeable change in the amount of water around. Whilst the top of the path was quite dry, there were sections towards the creek that were quite muddy, despite no recent rainfall.

The creek itself was delightful, although flooding since the previous visit had seen some tree falls and site damage. The creek meandered along through mossy rocks, and was in a very sheltered area which has little wind and high humidity. These conditions are perfect for the otherwise rarely seen *Leptopteris fraseri* to grow in large numbers. *L. fraseri* is a gorgeous fern, but has very thin membranous fronds which desiccate in conditions where there is insufficient moisture. It is seen here growing out of cracks in the walls



surrounding the creek, although there were specimens on the ground with trunks up to about 50 cm high.



Todea barbara

A very high level of humus made for spongy walking, but also helped maintain the humid conditions. We also identified *Hymenophyllum australe* and *H. cupressiforme* in some quantity.

The predominant species of tree fern next to the creek was *Todea barbara*. There were many of these, with large trunks to about one metre high. We were lucky to observe a specimen of *Tmesipteris truncata* growing on a *Todea* trunk.

To the side of the creek we found a specimen of *Asplenium flaccidum* attached to a fallen tree. This species had not previously been found at Pierces Pass.

We were not able to locate some of the species of *Hymenophyllum* which had been found there previously, possibly as a result of the floods mentioned earlier. With considerable searching, we were able to find some of the *Rumohra adiantiformis* colony which had been found previously on a rock face near the creek.

It was an energetic walk back to the carpark, involving many steps and considerable huffing and puffing. But all agreed it was a great day out, and were thoroughly glad they had come along.



Pierce's Pass Fern List and Flora—verified & updated 17 Aug 2013 by P.D. Hind:

Asplenium flabellifolium, *A. flaccidum*, *Blechnum ambiguum*, *B. cartilagineum*, *B. nudum*, *B. wattsi*, *Calochlaena dubia*, *Cyathea australis*, *Gleichenia dicarpa*, *G. microphylla*, *G. rupestris*, *Grammitis stenophylla*, *Histiopteris incisa*, *Hymenophyllum australe*, *H. cupressiforme*, *H. flabellatum*, *H. lyallii*, *Lastreopsis acuminata*, *Leptopteris fraseri*, *Lindsaea linearis*, *L. microphylla*, *Lycopodium deuterodensum*, *L. laterale*, *Pellaea nana*, *Pteridium esculentum*, *Pyrrosia rupestris*, *Rumohra adiantiformis*, *Schizaea bifida*, *Sticherus flabellatus*, *S. lobatus*, *Tmesipteris truncata*, *Todea barbara*.

Other plants sighted in Wet Forest area, including canopy trees: *Acmena smithii*, *Callicoma serratifolia*, *Ceratopetalum apetalum*, *Doryphora sassafras*, *Dracophyllum secundum*, *Drosera binata*, *D. peltata*, *Fieldia australis*, *Libertia pulchella*, *Liparis reflexa*, *Lomatia myricoides*, *Marsdenia suaveolens*, *Smilax glyciphylla*, *Tasmania insipida*, *Tristaniopsis collina*.

Other plants in Dry Forest along track: *Banksia serrata*, *Caustis flexuosa*, *Isopogon anemonifolius*, *Lambertia formosa*, *Leptomeria acida*, *Leucopogon lanceolatus*, *L. setiger*, *Logania albiflora*, *Lomatia silaifolia*, *Persoonia levis*, *Telopea speciosissima*.

There are many other common sandstone flora plants not listed at this time including *Grevillea laurifolia* (near Bells Line Road) and a hanging swamp / *Eucalyptus stricta* area about 100 metres back up the access road.

A pagoda complex is also present with its unique flora, dominated by *Allocasuarina distyla* adjacent to the picnic area.

Excursion to Cabbage Tree Creek, Vale of Avoca Reserve

Steve Lamont

On 21 September 2013, Peter Hind, Bob Coveny (with about 89 years experience with the Sydney Botanic Gardens between them), Horst Mey and I (Steve Lamont) left the car park at the end of Cabbage Tree Road near the Vale of Avoca lookout at Grose Vale. There was no track. Peter led the way straight down into the vale through the bush.

We followed a dry creek bed – often along steep, slippery rocks that were really best navigated on your bottom – until we reached Cabbage Tree Creek. On the way we saw *Blechnum cartilagineum*, *Calochlaena dubia*, *Cheilanthes sieberi*, *Pteridium esculentum*, *Lindsaea linearis*, *L. microphylla*, and an area of rock covered by *Nephrolepis cordifolia* that seems likely to be a recent arrival to the area. At one point, Bob

ended up on the other side of the creek without an easy way back. We kept him in sight and he joined us just after we connected with Cabbage Tree Creek.

There was no track for any significant part of the trip and we crossed over the creek each time we reached an impasse. This area is beautiful – lots of *Blechnum nudum*, *Sticherus flabellatus* and *Adiantum hispidulum* var. *hispidulum*.

We came across a large rock (that wasn't easy to climb over) covered in *Asplenium attenuatum*. A little further on, we found areas of rock and trees covered in *Arthropteris tenella* alongside a grouping of *Adiantum silvaticum* – very attractive.



Lunch spot, Cabbage Tree Creek.
Steve Lamont – front, Horst Mey - back

We stopped for lunch at the junction of Burrellow Creek amongst a group of large boulders.

In the creek areas we also saw *Asplenium flabellifolium*, *Cyathea australis*, *C. cooperi* (something not noted on earlier trips – though this one looked more than a few years old – two plants with approx. 1.5 m trunks were seen), *Davallia pyxidata* (in one small area), *Grammitis stenophylla* and *Hymenophyllum cupressiforme* (these two species suffering from a recent lack of rain), *Doodia aspera*, *D. australis*, *D. caudata*, *Pyrrosia rupestris* and *Todea barbara*.

On the way back, we headed upward before reaching the dry creek bed. It felt (to me at least) like it was almost straight up – more like mountain climbing than bush-

walking. Bob and I were separated from Peter and Horst and arrived back at the car park about 5.00pm. Peter and Horst arrived about half an hour later. During that time, Bob found some *Schizaea bifida*. I had not seen it outside of a book before.

It had been about seven hours of descending and then ascending over small and large rocks, slippery and steep surfaces, over and under fallen trees and logs, through undergrowth and overgrowth, back and forth over creeks and climbing steep, rocky inclines. I'm still sore three days later. Peter has had both hips replaced (one of them twice because he snapped the titanium) and he scaled up and down rocks like a mountain-goat.

Avoca Reserve (mostly Cabbage Tree Creek) Fern List: *Adiantum aethiopicum*, *A. formosum*, *A. hispidulum* var. *hispidulum*, *A. silvaticum*, *Arthropteris tenella*, *Asplenium attenuatum*, *A. flabellifolium*, *Blechnum cartilagineum*, *B. minus*, *B. nudum*, *B. patersonii*, *Calochlaena dubia*, *Cheilanthes distans*, *C. sieberi*, *Christella dentata*, *Cyathea australis*, **C. cooperi* (*2 plants 1.5 m. tall, Sept 2013), *C. leichhardtiana*, *Davallia pyxidata*, *Doodia aspera*, *D. australis*, *D. caudata*, *Gleichenia dicarpa*, *G. microphylla*, *Grammitis stenophylla*, *Histiopteris incisa*, *Hymenophyllum cupressiforme*, *Lastreopsis decomposita*, *L. microsora*, *Lindsaea dimorpha*, *L. linearis*, *L. microphylla*, **Nephrolepis cordifolia* (small infestation on ephemeral side creek), *Pellaea falcata*, *P. nana*, *Platynerium bifurcatum*, *Polystichum australiense*, *Psilotum nudum*, *Pteridium esculentum*, *Pteris umbrosa*, *Pyrrosia rupestris*, *Schizaea bifida*, *Sticherus flabellatus*, *Todea barbara*.

South-East Queensland Meeting Reports

Booloumba Creek – July, 2013

Dan Johnston, fern lists by Peter Woodall

Booloumba Creek is a tributary of Little Yabba Creek which in turn is a tributary of the Mary River. Peter's Creek is a tributary of Booloumba Creek. The creeks drain the Conondale Ranges in the Sunshine Coast hinterland, about 100 km north of Brisbane and 40 km from the coast. Much of the area is now in Conondale Range National Park. The Conondale Range is part of a fairly large, moderately rugged area which has been extensively logged but not otherwise developed. There are quite large planted forests in the area but otherwise it is in quite good condition. Clearly the logging has been done in a fairly sensitive way. It is largely sclerophyll forest (both wet and dry) with substantial areas of rainforest particularly along the creeks. We initially met at the picnic area at the junction of Little Yabba Creek with the Mary River. We were pleased to have Dot Camp from NSW join us for morning tea there. The area along the Mary River has been mostly cleared for farming but there is a small remnant of rainforest on the bank of Little Yabba Creek opposite the picnic area. We initially investigated this area, which has a good graded track and in some parts, a raised boardwalk.

After that we headed west along the Sunday Creek Road which goes to Jimna. We turned left off this into Booloumba Creek Road and within a couple of kilometres stopped at the Peter's Creek parking area on the left. The graded track has a quite short but rather steep descent to the creek, where there is a short loop track. The track like many other Queensland national park tracks had suffered substantially in the floods and winds earlier in the year, but the ferns didn't appear to have suffered much. Members were interested in the ground orchids as well as the ferns, and noted a few species of *Pterostylis* in flower.

We then travelled further along Booloumba Creek Road (glad of our light 4WD vehicles, as the road was rather cut up in parts), to the Booloumba Falls Car Park. From here there is a graded track to the top of Booloumba Falls (not really visible) and the Breadknife (which is visible – a rocky feature, essentially an island in Booloumba Creek at its junction with Peter's Creek). It is about one km from the car park to the falls, and the track generally runs parallel to Booloumba Creek with access at a couple of points. After this walk, we continued back to the main road on Booloumba Creek Road, fording the creek at a couple of places (not deep) where the crossings had been washed out.

Ferns at Yabba Creek, Mary River junction: *Adiantum diaphanum*, *A. formosum*, *A. hispidulum*, *Arthropteris tenella*, *Asplenium australasicum*, *Christella dentata*, *Davallia pyxidata*, *Diplazium assimile*, *D. australe*, *Doodia aspera*, *Lastreopsis marginans*, *L. microsora*, *L. munita*, *Nephrolepis cordifolia*, *Pellaea paradoxa*, *Platynerium superbum*, *Pyrrosia confluens*, *P. rupestris*.

Ferns at Peter's Creek: *Adiantum hispidulum*, *A. silvaticum*, *Arachniodes aristata*, *Asplenium australasicum*, *A. polyodon*, *Blechnum cartilagineum*, *B. nudum*, *B. patersonii*, *B. wattsi*, *Calochlaena dubia*, *Christella dentata*, *Cyathea leichhardtiana*, *Davallia pyxidata*, *Doodia aspera*, *Drynaria rigidula*, *Lastreopsis marginans*, *Microsorium scandens*, *Pellaea nana*, *P. paradoxa*, *Platynerium bifurcatum*, *P. superbum*, *Pteridium esculentum*, *Pyrrosia confluens*, *P. rupestris*, *Sticherus flabellatus*.

Ferns on Booloumba Falls walk: *Adiantum atroviride*, *A. formosum*, *A. hispidulum*, *Arachniodes aristata*, *Blechnum cartilagineum*, *B. nudum*, *Calochlaena dubia*, *Cheilanthes sieberi*, *Christella dentata*, *Cyathea cooperi*, *Davallia pyxidata*, *Doodia aspera*, *D. heterophylla*, *Drynaria rigidula*, *Lastreopsis marginans*, *Macrothelypteris torresiana*, *Microsorium scandens*, *Platynerium bifurcatum*, *Pteridium esculentum*, *Pyrrosia confluens*.

Meeting at Ray and Noreen Baxter's – August, 2013

Dan Johnston / Peter Bostock

Peter Bostock gave us an introduction to the use of online keys to identify ferns, using the Lucid 3 system. Lucid allows keys to be published online, and the main requirement for using them is a suitable web browser with installed Java software. There is an existing key to Australian Tropical Rainforest Plants at <http://www.anbg.gov.au/cpbr/cd-keys/rfk>, which is the culmination of some 50 years of North Qld rainforest keys.

However, this published key does not include ferns, and so a corresponding module for tropical ferns is under development. Peter demonstrated this system and used it to identify a couple of plants brought along by members who did not know what they were. It is not known at this stage how long before the module (being developed at Australian Tropical Herbarium, Cairns) will be available for general use.

Other Articles

White Louse Scale

Tony Clarke

I first must apologise for my tardiness in my reaction to Dot Camps searching article on this subject. On the use of pest oil, I feel that it is effective to an extent BUT all of the affected plant has to be covered and needs to be repeated and is most effective when applied during the warmer months when crawler activity is prevalent. This treatment usually falls down because (as in my case) it's too hot, I haven't got the time, etc. After rain the pest oil becomes diluted (if it is not reapplied to such an extent that it is no longer effective and so the plant is usually reinvaded as there is no residual effect). Like most people I don't like using the strong systemic insecticides that are required for this insidious pest.

Natural predators – I tried this form of control and found it to be quite expensive and completely ineffective. I consulted Bugs for Bugs (Bowen St, Mundubbera, Qld), and they recommended *Chilocorus circumdatus* (a small brownish ladybird type beetle). These were delivered in good condition via Australia Post (at a cost of over \$60) and I released them on a warm November morning. Next day I could only see 3 beetles around the release site and the following day I did not see any. The white louse scale thrived. Perhaps they would be more effective in sub tropical climates but they were certainly ineffective in Newcastle.

Now for the good news, I have found an effective treatment for this pest. It is Imidacloprid (chemical group neonicotinoids). This is present in Confidor but is diluted to such an extent that it only kills on contact. I use a product called Merit-it – contains Imidacloprid but is stronger than Confidor. With my large ferns I apply it at 2 mls/litre (strong enough to be systemic) and apply it by watering can and I find this highly effective and easy to use. I am sure that Confidor tablets would be effective for crows nest ferns (*Aspleniums* usually the first to be attacked). Unfortunately ferns are permanently marked even when the white louse scale is dead. Treatment is best when new spring growth is appearing. Remove the old fronds that are badly marked and place in a sealed garbage bag and bin it. DON'T compost or mulch it. Then apply the chemical (water the day before).

For the first year of using this treatment, I would re-apply in late January, after that you may get away with one application. I have found this treatment highly effective even on large clumps of *Doodia* and *Blechnums* (after watering the day before). For my small ferns and *Platynerium* I apply as a spray. I think that this treatment has to be considered a control but I am sure in a small fern collection white louse scale can be eliminated. Remember to always spray when introducing a new fern that you have bought or been given. It should be noted that Neonicotinoids have been withdrawn in parts of Europe and America as they are thought to be cause of the decline of bees, the bees having foraged pollen from treated plants and taken to their hives. As ferns are not flowering plants I feel that this product can be used on them without bees being affected.

Letter to the Editor

Scrub Turkeys

Ron Wilkins

I sat down to write a note about respiration of ferns, the discussion subject of one of our meetings, when I heard a thump on the roof. I am in a state of great irritation about the brush turkeys that are threatening my fern garden, so I immediately raced out to confront the black beast. The problem began last year with cute little chicks tickling the ground between the ferns. They grew and grew until now they are sizable birds, roaming freely from garden to garden in the area, capable of much destructive activity.

My garden, a small turpentine forest, is on a large block not far from an arm of the Pennant Hills Park. It is very dry in the bush and the birds are finding a better source of food in the local watered gardens. They have rooted out many of my small and delicate ferns and crushed and broken others. They excavate around the roots of trees and tree ferns and throw debris everywhere covering small plants. I have had as many as six of them rooting around in the garden at one time.

The birds are amazing the way they fly from roof to roof and tree to tree then hop down and begin their work with nonchalance. I've become extremely sensitive to their scratching sounds and on hearing one I race out of the house and chase or hose them. A week ago I was chasing one around the swimming pool, prodding it with the leaf strainer when I lost balance and fell fully-clothed in the deep end. When I

eventually dragged myself out, the turkey was standing there, looking at me! I'm truly worried that I'll kill myself chasing the birds around the uneven pathways.

My neighbour has pegged down plastic netting over the susceptible part of her garden. It works until the turkeys find a defect in her cover then they are at it again. To do that would be too big a job for me. I stake the delicate ferns. This helps a bit. I'm caught in a catch 22 situation. If I don't water the ferns they die. If I do water, the turkeys are attracted to the wet patches where grubs and worms are close to the surface. Eventually, of course, they will win. Strong ferns will survive, especially if they clump into a thicket like *Lastreopsis decomposita*, *L. microsora*, *Calochlaena dubia* and the like. Big *Aspleniums*, *Blechnums* and the like will be OK and we will settle down to a species depleted garden. Or maybe remaining foxes in the suburbs will return with a vengeance and teach these black marauders a lesson. I wonder, how is it I could contemplate such a thing.

Editors comment: Scrub turkeys are pretty amazing animals. A couple of years ago, I was most impressed by one when I was working up a tree on our place. (It was a tipuana, which we regard as weeds. I was removing branches prior to felling it and my long extension ladder had probably been there for some time.) Anyway, I looked around and found that a scrub turkey was using the ladder to get up to its night roost, rather than the usual approach of heavy flying from the higher land nearby.

Spore List – September, 2013

Barry White

<i>Adiantum formosum</i> 1/12	<i>Diplazium dameriae</i> 8/13
<i>Adiantum hispidulum</i> 6/12	<i>Diplazium dilatatum</i> 12/10
<i>Amphineuron opulentum</i> 8/13	<i>Diplazium dilatatum</i> × <i>Deparia petersenii</i> subsp. <i>congrua</i> 3/11
<i>Amphineuron queenslandicum</i> 4/12	<i>Doodia australis</i> 6/13
<i>Amphineuron terminans</i> 8/13	<i>Doodia media</i> 6/13
<i>Arachniodes aristata</i> 8/13	<i>Dryopteris sparsa</i> 8/13
# <i>Arachniodes standishii</i> 10/12	<i>Dryopteris wattsii</i> 8/13
<i>Asplenium aethiopicum</i> 10/12	<i>Histiopteris incisa</i> 12/11
<i>Asplenium milnei</i> 10/10	<i>Hypolepis glandulifera</i> 2/13
<i>Asplenium pellucidum</i> 3/11	<i>Hypolepis muelleri</i> 3/12
<i>Blechnum chambersii</i> 4/12	<i>Lastreopsis acuminata</i> 10/12
<i>Blechnum fluviatile</i> 9/11	<i>Lastreopsis decomposita</i> 1/12
<i>Blechnum minus</i> 3/12	<i>Lastreopsis marginans</i> 3/12
<i>Blechnum patersonii</i> 4/11	<i>Lastreopsis microsora</i> 8/13
<i>Blechnum wattsii</i> 3/13	<i>Lastreopsis nephrodioides</i> 4/12
<i>Blechnum wurunuran</i> 7/13	<i>Lastreopsis rufescens</i> 3/11
<i>Bolbitis quoyana</i> 5/13	<i>Lastreopsis tenera</i> 3/11
<i>Chingia australis</i> 11/12	<i>Lastreopsis</i> × <i>Coveniella</i> 5/13
<i>Christella dentata</i> 3/12	<i>Lygodium reticulatum</i> 11/12
<i>Christella parasitica</i> 5/11	<i>Macrothelypteris torresiana</i> 3/13
<i>Christella subpubescens</i> 4/12	<i>Pellaea falcata</i> 1/11
<i>Cyathea australis</i> 1/12	<i>Plesioneuron tuberculatum</i> 5/13
<i>Cyathea baileyana</i> 11/12	<i>Platycterium superbum</i> 8/13
<i>Cyathea brownii</i> 10/12	<i>Pneumatopteris sogerensis</i> 8/13
<i>Cyathea cooperi</i> 7/13	<i>Pneumatopteris costata</i> 6/11
<i>Cyathea cooperi</i> (Blue Stipe) 1/11	<i>Polystichum australiense</i> 6/13
<i>Cyathea cooperi</i> 'Cinnamon' 2/13	<i>Polystichum formosum</i> 6/13
<i>Cyathea exilis</i> 12/12	<i>Polystichum proliferum</i> 12/10
<i>Cyathea leichhardtiana</i> 8/12	<i>Pronophrium asperum</i> 8/13
<i>Cyathea macarthuri</i> 10/10	<i>Psilotum nudum</i> 6/13
# <i>Cyathea medullaris</i> 10/12	<i>Pteris tremula</i> 11/10
<i>Cyathea rebecca</i> crested 8/13	<i>Pteris umbrosa</i> 8/12
<i>Dicksonia antarctica</i> 8/12	<i>Rumohra adiantiformis</i> (native) 4/12
<i>Diplazium australe</i> 6/13	<i>Sphaerostephanos heterocarpus</i> 7/11
<i>Diplazium assimile</i> 7/12	# non-native fern

Thank you to the following spore donors: Don Fuller, Nada Sankowsky.

Fern Study Group Financial Statement, July 1 2012 to June 30, 2013

Dan Johnston, Treasurer

The accounts have been audited. Thanks to Merle Gynther.

ANPSA Fern Study Group Fees for 2013-2014

Dan Johnston, treasurer

The annual subscription to the Fern Study Group is \$5 for a single person or more than one person receiving a single copy of the Fern Group Newsletter. Please note also that membership of an ANPSA affiliated body, such as SGAP (Qld Region) Inc., is a necessary prerequisite for study group membership.

If you get your newsletter by mail, the envelope address and an enclosed note will show your current paid-to date:

- June 2011** Payment of \$15 is now due. Membership will be cancelled if payment is not received before the next newsletter goes out – planned for February.
- June 2012** Payment of \$10 is now due.
- June 2013** Payment of \$5 for the 2013-2014 year is now due.
- June 2014** or later. You have already paid for the coming year.

We accept payments for up to 4 years in advance. i.e. \$20 if you are currently up to date to June 2013.

If you receive your newsletter by email, you will be advised in the body of the email of your paid-to date.

Methods of payment:

- In person at a Queensland group meeting.
- By cheque or money order posted to me:
Dan Johnston,

Please also include the completed form accompanying this newsletter.

Make cheques payable to 'ASGAP Fern Study Group'.

- By electronic bank transfer. You can transfer into our account