

ASSOCIATION OF

S. G. A. P. Fern Study Group



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- SECRETARY: Moreen Woollett, 3 Currawang Place, Como West, 2226
- TREASURER: Joan Moore, 2 Gannet Street, Gladesville, 2111
- SPORE BANK: Kyrill Taylor, 16 Elizabeth Crescent, Yagoona, 2100

CONTRIBUTIONS TOWARDS "THE BOOK"

Is there any member out there who has not yet completed and returned the questionnaire relating to "Growing Native Australian Ferns" the book that Calder Chaffey is writing for the Study Group? Calder is seeking information on experiences growing Australian native ferns in as wide a range of conditions as possible. The questionnaire included with the March 1997 Newsletter, was designed to elicit responses from as many members as possible. By completing the questionnaire and returning it to Calder (or the Secretary) members can make a positive contribution to the collective membership's primary objective, the study of Australian native ferns. All members are earnestly requested to complete the questionnaire as fully as practicable. This task should not be too onerous and would certainly take far less time than expended on Group affairs each month by our Leader, Secretary or Treasurer. If you have not returned your copy of the questionnaire, please do as exhorted by the ABC Television's Garden Program Presenter and "Go on and bloomin' well do so!" It is still not too late. If you have lost your copy of the questionnaire, contact the Secretary who would be pleased to provide another.

A further reminder - Calder needs photographs of ferns. The June 1997 Newsletter listed the ferns required. Coloured slides, negatives or prints are equally acceptable. If you incur costs in assisting Calder in this matter, do not hesitate to inform the Secretary or Treasurer and reasonable out of pocket expenses will be refunded.

Calder's address is "Red Fox", 13 Acacia St, Wollongbar, 2477. To discuss matters with Calder phone him on (066) 28 1553. Recorded messages may be left in his absence.

Oops - Sorry Geoff!

We say sorry to Geoff Simmons for typographical errors which crept into the "Pros and Cons of Sore Cleansing" article contributed by Geoff to September 1997's Newsletter. One unfortunate error was on page 2 in the comment on the final point listed "Against Separation". The particular point and how it should have appeared are as follows:

"Against Separation:

- * How effective is the method in elimination of non-spore material?
Comment: The tapping method may still leave debris although not visible."

VALE JOYCE WARD

Her many friends and acquaintances were saddened to learn of the death of Joyce Ward. She died in Brisbane on 11 November 1997 after a massive heart attack.

Joyce and husband Allan joined SGAP more than 30 years ago as members of the North Shore Group in Sydney. Both were significant office bearers of both the Group and NSW Region in the years to 1980 when they left to move to Queensland. Their garden was a prize winner in competitions conducted by NSW Region. Joyce was Secretary / Newsletter Editor for North Shore Group for 13 years. For Region she is best remembered as a long serving, redoubtable Show Secretary, a position she first undertook in 1967. As a former associate of those years remarked, "When Joyce Ward had that look in her eye, we knew there was a job to be done and there was no use arguing!"

Ferns were always a special interest and Joyce was one of the earliest members of the Study Group. She was co-author of a small book titled "Ferns" published in 1978. After settling in Brisbane, Joyce was instrumental in forming the South East Queensland Division of the Fern Study Group and continued as an active member until her hospitalisation in the week before her death. Her life's partner, Allan had predeceased her a few years earlier. Joyce frequently made her home available for Fern Study Group functions and was due to do so again for this month's end of year meeting. Joyce will be sadly missed by her many friends and admirers. The Fern Study Group and SGAP have lost a dedicated worker for their ideals. Our sympathy is extended to Joyce's relatives.

FERNS THAT ARE WIDELY AVAILABLE

Betty Rymer has questioned statements in past Newsletters that described certain ferns as being widely available. It is a sad fact that few nurseries, at least in the Sydney area, carry a reasonable range of Australian native ferns. Arising from discussion at our October meeting, it was decided to in future periodically publish in the Newsletter, the names and locations of retail nurseries known to be selling a reasonable range of Australian ferns. If the information is provided to the Secretary, brief details of the range of ferns for sale will be published along with any other salient matters, including whether ferns are supplied by mail order. Those members with nurseries are particularly encouraged to take advantage of this opportunity of free publicity in the Newsletter regarding ferns for sale.

SPORE BANK CURATOR

Our September Newsletter included mention of Kyrill Taylor's decision to relinquish responsibility for care of the Group's Spore Bank. Following suggestions made by Geoff Simmons, Kyrill and others, it has been decided to try a different system of stocking and distributing spore to members. In putting his proposal, Geoff wrote as follows:

"One such system would be specific requests. The request could be placed in the newsletter. Donors could then communicate directly with the person or a liaison officer who is well acquainted with the fern growers, could act as go-between. Some ferns, e.g., Todea have spores with very limited viability and no doubt spores languishing in the spore bank for extended periods don't have much of a chance of producing ferns. Hence direct transfer of spores may produce better results for the person interested in growing ferns from spores."

Another member, Peter Bryant, from Kelvin Grove in Brisbane has also written about the proposal. Peter's letter included the following:

"I have been talking to Irene Cullen about the Spore Bank situation. She faxed me a letter from Geoff Simmons on this matter. I am not sure what the final answer is, but I would be willing to be a spore "co-ordinator" for Southern Queensland and Northern N.S.W. If members in my area were prepared to write to me with a list of spore they were after, and possibly a list of recently harvested spore that they had available - I could put together a listing of "available spore" and "spore wanted" to be published in each issue of the newsletter.

My idea is probably more of a "spore market" than a spore bank. If we had a number of spore co-ordinators throughout Australia then it wouldn't be a huge job for one person. In Queensland we would probably need someone in Far North Queensland, e.g., Atherton Tableland, to cover the genuinely tropical species."

Discussion at our meeting on 19 October, showed a lot of support for the notion of having a central register of the species of mature ferns held by members. However, the practical difficulties of compiling and maintaining what would be a very large data base are somewhat daunting. It was agreed that the system of distributing spore through local area co-ordinators should be tried. This will only be successful if members in the various regions are willing to act as co-ordinators.

Given the offer by Peter Bryant, members in the Brisbane and adjacent areas who are willing to contribute spore if requested, should inform him of those ferns they have from which viable spore may be taken. Members in the South Eastern Queensland area requiring spore should similarly direct their request to Peter Bryant. As indicated in his letter, if Peter is unable to supply the spore from his local contacts, the request will be included in a list of "spore wanted" published in the Newsletter.

Members in areas other than South East Queensland, are asked to advise the Leader on (02) 9625 8705, or the Secretary on (02) 9528 4881, if they would be willing to act as the co-ordinator for their particular area. Our Leader would be pleased to talk to any member with any other positive suggestions relating to this question of the Spore Bank. Meanwhile members in areas outside South Eastern Queensland, who require spore, should send any requests for spore to the Secretary who will arrange for them to be included in the Newsletter.

DISPLAYING BIRD'S -NEST FERN

Contributed by Geoff. Simmons

Previous Newsletters have discussed the various fern species that are useful for Garden Design. An interesting exercise is to devise different ways to display a fern, either as individual plants or multiple planting in larger areas.

How to show off a single or a number of bird's-nest ferns (*Asplenium australasicum*) is an example of such an exercise. Shadehouse conditions put restraints on going about this project, as lack of space and other plants nearby will have an influence on the picture. On the other hand if there is a fernery without shade cloth but vegetation serving the purpose of providing the necessary shade, the scope for variety is greater. My attempts with single plants have not developed enough to comment at this time. However, recently I saw an example of landscaping with bird's-nest ferns on a larger scale that was quite impressive. Other members would know whether it is a frequent design method or not.

An open space area in a south east Queensland town had been planted some time ago with trees that now formed large cover of tracery shade. Under these trees had been planted quite a number of mature bird's-nest ferns about a metre in diameter - spaced evenly over the area with equal space between. This geometrical organised grid pattern produced a very attractive design with a great sense of neatness and space.

Is this example of a pure stand of a single species of fern used for other species?

FERNS IN GARDEN DESIGN

Further to the series in recent Newsletters, the following are other ferns considered of value in garden design.

Platycterium bifurcatum

One of the most widely cultivated ferns in subtropical and tropical regions. From Queensland and NSW. Colloquially the Eikhorn Fern, these grow as bracket epiphytes in rainforests and sometimes more open forests, mostly on tree trunks and branches, but sometimes as lithophytes attached to damp rocks. As well as having fertile fronds, small plants are produced along the margins of the nest leaves increasing the size of the clump.

Form: Usually grown as an epiphyte on a wooden slab securely attached to a tree trunk.

Size: Sterile fronds to around 30 cm long, fertile fronds approximately twice as long but sometimes up to about 90 cm long.

Soil Type: Sterile nest leaves collect decaying matter for the plants nourishment.

Aspect: Extremely hardy in a semi-protected position. Tolerates light frosts.

Water: Not necessary under normal conditions. In extremely dry conditions best given periodic thorough soaking. Avoid frequent light sprinkling.

Platycerium superbum

A very large, impressive fern. A well cared for specimen makes a handsome addition to all but small gardens. A bracket epiphyte, its huge backing fronds extend circular fashion. The fronds become much lobed on top so providing a sizeable area in which to collect decaying leaves and other detritus. From Queensland and NSW rainforests.

Form: Usually mounted on a wooden slab securely attached to a wall or large tree trunk.

Size: Sterile fronds to about 70 cm diameter, fertile fronds to around 160 cm long.

Soil Type: No added soil. Sterile nest leaves collect decaying matter for the plants nourishment.

Aspect: Hardy outdoors in part shade and away from strong wind.

Water: Not necessary under normal conditions. In extremely dry conditions best given periodic thorough soaking. Avoid frequent watering especially in cool weather.

Pteris tremula

A fast growing very adaptable fern. Although having a relatively short life cycle, it is a fern that is easily propagated and frequently volunteers in gardens. Found in all States other than West Australia.

Form: Large, erect much divided fronds from tufted rhizome..

Size: Usually to around 1.5 m long. Can be much smaller or larger depending upon the degree of harshness of the prevailing conditions.

Soil Type: Very easily grown in a variety of soils.

Aspect: Is hardy in most positions. The fronds remain an attractive lime green colour when growing in a sheltered, moist position.

Water: Not necessary under normal conditions.

Pteris vittata

One of the few plants that have benefited from the last 200 years "development" in Australia where it was once regarded as rare. A lover of lime it has naturalised, for example in Sydney, in the cracks of brick and concrete walls and fences. Occurs widely in tropical and warm countries. In Australia, it is native of Queensland, NSW, Victoria, Northern Territory and West Australia..

Form: Erect or slightly arching, dark green, narrow pinnate fronds. Slow growing but forms clumps by means of short creeping rhizome.

Size: Fronds to around 90 cm long.

Soil Type: Open, well limed, rocky mixture.

Aspect: Needs some sun and resents cold conditions.

Water: Given root protection, not necessary under normal conditions.

A MAJOR PEST - SCALE

Scale insects feed on the sap of plants and can cause serious damage to ferns. They tend not to be noticed until secreted under a waxy coating. At that stage they may not be recognised as insects.

This article was prompted by recent experience with one of the more serious type of scale, Pinnapis aspidistrae, commonly referred to as Coconut Scale. The Lothian publication 'Encyclopaedia of Ferns' by David L. Jones, describes this scale as follows:

This tiny scale is a severe and persistent pest of ferns and once established in a collection is difficult to eliminate. The adult female scales have slender covering 1 - 1.5 mm long. This is white, and an infestation has the appearance of desiccated coconut scattered over the fronds. The pest mainly feeds on the underside of fronds and is frequently to be found among the sori of the fronds. It mainly occurs in tropical and subtropical regions, but in temperate areas is a common greenhouse pest.

Despite its tiny size the pest is particularly destructive and an infestation severely debilitates a fern and may even cause its death. The tissue around where the scale feeds yellows, and scattered feeding on a frond results in a mottled appearance. Fronds usually die back. The scales attacks a wide variety of ferns but seems to be particularly fond of species of Asplenium, Platynerium and Tassel Ferns. Birds Nest Ferns (Asplenium australasicum and A. nidus) are very commonly attacked by this pest.

Two months ago, a severe infestation of Coconut Scale was noticed on two large Asplenium australasicum. These were growing on rocks just above soil level in the shade of thick foliated trees. They are about 15 years old. Most of the fully developed fronds were damaged and particularly the older of these had large yellow patches. The scale covered both fertile and sterile fronds. The infestation was too bad and widespread for the best environmentally appropriate treatment, namely removal of scale by hand or by a strong spray of water. It was apparent that stronger measures would be needed. The 'Encyclopaedia of Ferns;' recommended that badly infested plants be burnt and all neighbouring plants be sprayed with dimethoate or a mixture of white oil and maldison.

A visit to the local garden supplier looking for dimethoate resulted in purchase of an alternative product labelled Malascale. Its active constituent is Maldison. All the infected outer fronds of the two ferns were removed and destroyed. At the same time excess old leaves and debris collected in the centre of the ferns were cleared out and the ferns given a good soaking. Incidentally, the accumulation of leaves can sometimes smother emerging new fronds. This is often a problem where Birds Nest Ferns are growing adjacent to deciduous or semi deciduous trees or near Casuarina species. All remaining fronds including several bearing some scale were sprayed thoroughly with 25 ml of Malascale mixed in 2 litres of water. White oil was not used - it clogs up the spray gun! The spraying was repeated one week later. No scale has been sighted since the second spraying. Both ferns are growing strongly and look to have recovered fully from the infestation.

SOUTH EASTERN QUEENSLAND REPORT

Report on Fern Display, September 1997

Contributed by Irene Cullen

South Queensland Group's fern display at the Brisbane Annual Flower Show was very well presented and created much interest. Unfortunately, it was not always "manned" as most of our members are heavily committed in other areas of the Show. The burden of carting and setting up fell heavily on Peter Bostock's shoulders. We were grateful for the use of Cliff Ritchie's ferns. Cliff is out of hospital and slowly recovering. Many thanks to the members who pitched in and helped with the setting up and hauling down of the display.

Outing to Ravensbourne National Park, 19 October 1997

Contributed by Irene Cullen

Eight members and two visitors arrived at the Park only to find that the weather had changed dramatically. It was freezing. Three members came ill prepared for the change. Never mind, we warmed ourselves laughing at Kerry's impromptu poncho - a towel. The first walk had few ferns. Adiantum formosum and Doodia aspera were quite abundant. There were some clumps of Lastreopsis decomposita, while overhead Platyserium bifurcatum was noted.

The second walk took us to the Caves area where A. hispidulum var. hypoglacum grew profusely. Adiantum aethiopicum was also in this area. Further down the slope into the Palm Gully was Pteris tremula, P. umbrosa and Christella dentata. Total count for the Park was sixteen fern species. Doubtless it would have been much higher had we ventured deeper into the gully. Lunch was at Jim Johnson's home. His property is nearby. Then a quick trip down to Jim's lovely creek. There we added Macrothelypteris torresiana to the impressive list we made four years ago. As rain threatened we, all nine, piled into Jim's car for what was a hilarious drive back up the steep slope.

SYDNEY REGION REPORT

Meeting at Como, 19 October 1997

At the beginning of the meeting, Peter reported on the outing planned for September that unfortunately was spoilt by rain on the day. He and Margaret attended but after a "cuppa" and an hour's wait and with rain continuing, Peter said they rightly concluded it was too wet for walking. This misadventure prompted discussion and a motion proposing that members intending to participate in outings be asked to notify the Leader. However, this was not seen as altogether practicable. As an alternative, it was suggested that members should contact the Leader early on the morning of the outing if the weather outlook is uncertain. Generally, meetings at the homes of members will proceed irrespective of the weather. But in the instance of outings, whenever there is the likelihood of significant rain, intending participants should contact Peter (his phone number is 02-9625 8705) in the morning before leaving home.

Fifteen members took part in the study session "NSW Cheilanthes spp." Peter based his instruction on the key from "Flora of New South Wales". There are around 19 species of Cheilanthes in Australia and four of these occur in N.S.W. Three can be seen growing around Sydney, the other, Cheilanthes lasiophylla, is found inland in drier conditions. It does not cross to the eastern side of the Great Dividing Range in N.S.W.

The key separated out C.austrotenuifolia based on its relatively wide lamina, which is glabrous above. The lamina of the other three Cheilanthes species are usually less than 3 cm wide. At its widest point the lamina of C.austrotenuifolia measures from 3 to 10 cm. The base of the stipe of C.austrotenuifolia has a dense covering of transparent scales.

The fronds and stipe of C.sieberi are glabrous, or at least mostly glabrous. This contrasts with C.distans and C.lasiophylla.

The upper surface of the lamina of C.distans has a few simple hairs while the lamina's lower surface and the stipe are covered with scales only. On C.lasiophylla, both surfaces of the lamina have a covering of hairs and these are stellate. The stipe also has stellate hairs and a cover of scales. Using a microscope at the meeting, the samples of C. distans and C. sieberi were found to be most easily identified according to whether or not scales were present on the under surface of the lamina.

Outing to Green Scrub, 15 November 1997

Twelve persons attended for this walk in the Wollemi National Park. Although the day was fine for walking, the overgrown path deterred four of the party from venturing far. Peter led the way for remaining members along relatively level terrain. Ferns sighted initially were Caloclaena dubia, Pteridium esculantum, Lindsaea linearis, Blechnum cartilagineum and Lycopodium deuterodensum. Then a final descent and "push your way through the bush" into the gully of loamy soil, topped with leaf litter and sheltered by a rainforest canopy. Ferns abounded including the Caloclaena and Blechnum species identified earlier. Other ferns noted were Adiantum formosum, Cyathea australis, Diplazium australe, Doodia aspera, Hypolepsis muelleri, Lastreopsis decomposita, L. microsora, Pellaea falcata, P.falcata var. nana, Pteris umbrosa and Pyrrosia rupestris.

After a lunch-time spent with our eyes watching that the leeches did not join in, we followed Peter back to the cars. As ever, we felt privileged to have had a day in the bush with Peter. His incomparable knowledge of the plants is only equalled by his patience with we novices. On this occasion, we were also pleased that he knew the direct route home from such an isolated patch of bush, and pleased to have his ample frame push through the tangled undergrowth before us.

DEADLINE FOR COPY

Contributions to the Newsletter are more than welcome - the success of the Newsletter depends upon them. Copy for the March issue should be forwarded to reach the Secretary by no later than 15 February 1998.

FORTHCOMING EVENTS : IN SOUTH EAST QUEENSLAND

Sunday 7 December 1997, End of Year Break-up

Please note changed arrangements. Contact should be made with Irene Cullen or Peter Bostock for details regarding new venue. The meeting will commence at 9.30 a.m. Bring fern for a Christmas exchange and ideas for 1998 programme.

Sunday 1 February 1998, Meeting at Pullenvale

Meet 9.30 a.m. at Graham Nosworthy's home, 609 Grandview Road, Pullenvale.
Discussion "North Queensland Ferns Growing in Brisbane."

For information regarding activities, please contact Peter Bostock phone (07) 3202 6983 or Irene Cullen on (07) 3273 1055.

FORTHCOMING EVENTS : IN THE MID NORTH COAST, NSW.

For details of the above events contact Charlie Charters, phone (065) 86 1088.

FORTHCOMING EVENTS : IN THE SYDNEY REGION

Sunday 7 December 1997, End of Year Get-Together at Kenthurst

Tamara and Ian Cox will again host our end of year gathering at 5 Ivy Place, Kenthurst. Please contact Tamara (phone 9654 2533) as early as possible to advise what you will contribute towards the pooled lunch. Bring own crockery and cutlery and in keeping with the festive season, a gift (limit \$5) or several according to the number in your party.

Saturday 21 February 1998, Meeting at Blacktown

The venue for this meeting is the home of Tess and Les Taylor, 4 Prospect Street, Blacktown. The study session is "Davallias". Les is something of an authority on this genus and is sure to have some ferns that will tax the identifiers. Arrive from 12 noon, the meeting to commence at 1 pm. Enquiries to the Taylors 9621 5840.

Saturday 21 March 1998, Outing to Fox Ground

Ann and Geoff Long have offered to have us visit their recently acquired property at Fox Ground. Details next Newsletter.

Saturday 18 April 1998, Meeting at Mount Druitt

Meet at the home of Margaret and Peter Hind, 41 Miller Street, Mt. Druitt. Arrive from 12 noon, the meeting to commence at 1 pm. More details next Newsletter.

A KEY TO LASTREOPSIS

In reports from meetings of the South East Queensland Group, mention has been made of work done towards developing a simplified key to the genus *Lastreopsis*. In the September Newsletter, Irene reported:

Once more we tackled the genus Lastreopsis. We have made progress. However, we keep coming up against the same wall, trying to follow published keys to Lastreopsis. As a group, we feel that more emphasis should be placed on the rhizome rather than on a venation plan. We really would like to hear the opinion of our Leader or any other person who has studied the genus. A big problem in using potted plants is there is not enough space to enable long creeping species to grow to their full potential. Some comments please!"

The matter was discussed with Peter and we sympathise with Irene and her group. World-wide there are about 36 species of *Lastreopsis*, fourteen of these occur in Queensland. Here in the Sydney and adjacent region, in the field we only have to deal with *L. acuminata*, *L. decomposita*, *L. hispida* and *L. microsora*. *Arachniodes aristata* is one other fern likely to be confused with these four. Peter suggested that the difficulty of "in the field" identifying *Lastreopsis* species could be simplified if keys were available for geographic areas, for example say, N.S.W., Southern Queensland and North Queensland from the Eungella Range north. Another key might be developed for those species normally in cultivation. Regarding the use of rhizome features, if it comes down to looking at scales on rhizomes, that may be fine for the scientists. However, for our Study Group purposes we would not want to rip up a fern merely for it to be identified.

The "Flora of NSW" contains a key to the eight *Lastreopsis* found in this State. They comprise the four found in the Sydney region plus *L. marginans*, *L. munita*, *L. silvestris* and *L. smithiana*. This key does not use venations as a primary distinguishing feature. We presume Irene's group are basing their study around the key and text of the S.B. Andrews book "Ferns of Queensland". This last named key uses the anadromous lamina towards the apices of the primary pinnae of *L. microsora* as a distinguishing feature. Perhaps other features not related to venations might be developed to distinguish that species.

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