

ASSOCIATION of

S.G.A.P. Fern Study Group

Newsletter *Number* 67

SO.A.P. OLD REGION
MEMBER

ISSN 0811-5311

DATE - DECEMBER 1994

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FERNS IN GARDEN DESIGN

Some time ago, Diana Snape Leader of the ASGAP Garden Design Group, asked Study Groups to list plants (in our case ferns) that are valuable for garden design. In endeavouring to help Diana, some information was gathered together and is recorded here. In the past our Group has paid little attention to questions of design even though several of our Study Group members are obviously interested in the subject and have joined the Garden Design Study Group. It is an important area that needs to be developed and all members are invited to make a contribution to our store of knowledge by advising their thoughts on the subject of ferns in garden design and / or providing comments regarding the suitability or otherwise of particular fern species.

Design in gardens like most things is either good or bad depending on personal preference but obviously a well designed garden will be perceived as such by the majority of viewers. To be considered "well designed" gardens probably need to exhibit the following features:

- Be of attractive or pleasing appearance
- Look natural or complementary to the environment
- Suit a range of out of doors uses
- Be relatively easy to maintain.

One of the challenges in gardening is to maintain form and appearance of the garden without it being an all time consuming occupation. This is not easy because the garden is a living entity, It grows and matures, fades and has to be renewed. Of course, there are many attractive gardens based largely on annuals - and such gardens have their appeal and place in the order of things, but they demand a lot of time and energy to maintain. A well designed garden has a certain stability and permanency and in any case, for most gardeners annual renewal of their garden is not an enticing prospect. Ferns once settled in the right spot endure beyond the cycle of seasons.

Ferns come in such variety that they offer enormous possibilities in design and capacity to fill various niches in the garden. Ferns range from tiny filmy ferns to giant tree ferns, terrestrial ferns, epiphytes, some that live in trees and on rocks, climbers, others that live in parched desert-like conditions, some which thrive in bogs and some that float on water. But the Garden Design Study Group is seeking a list of ferns for "ordinary" garden conditions. The use of a shade house may be the very best way to display a wide variety of ferns but for this project we are simply interested in ferns which merit a place in gardens and grow without requiring special care.

It seems that the ferns to be included should:

- be reliable and amenable to cultivation
- be attractive in form and appearance
- not be prone to pests and disease
- be available from nurseries.

A worthwhile approach is to grow our plants as in nature. We should use ferns that fit into garden aspects similar to those in which they evolved. Ferns are a natural for a shady position, a frequently wet area, the dark corner or to cover a moist rock face. Keep the garden design in harmony with what is natural in the Australian bush, don't struggle against nature. In two popular garden themes, those featuring pools of water and mini pseudo rainforests, ferns are not just an integral part, but the ideal bonding that ties the garden together and greatly enhances the atmosphere of coolness and serene tranquillity.

We begin our list of ferns considered to be valuable in garden design with comments on one fern species, Adiantum aethiopicum. Hopefully, with suggestions from other members, more ferns will be listed next Newsletter.

Adiantum aethiopicum has to be one of the most popular and widely used ferns but it can easily be confused with some of the numerous cultivars of Adiantum raddianum. This latter fern has fewer scales and has notable stilt-like roots elevating it above the soil level. Adiantum aethiopicum is hardy and tolerant of a great range of climates and can spread quickly by way of underground rhizomes. It grows into large clumps and can be invasive if not confined to its garden situation with a log, rock barrier or the edge of a path. But this is not necessarily a negative trait, it provides opportunities to pot up the invasive piece of rhizome and accompanying fronds - it forms an excellent potted or basket specimen.

Form: Rhizome creeping and much branched, forms large clumps

Size: 25 to 50 cm tall

Soil Type: Moist, rocky sites:

Aspect: Semi protected - resents total shade

Watering: Likes plenty of moisture but not on its fronds.

FERNS FOR SALE - A Thank You

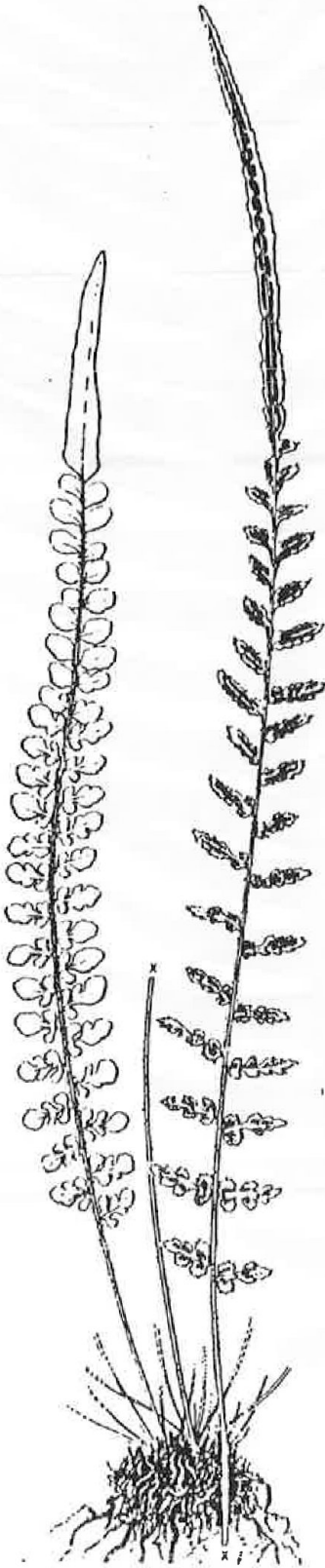
Our June 1994 Newsletter carried a plea for assistance in getting ferns for sale by SGAP-Central Coast Group at the Annual Spring Festival at Kariong on 8 to 11 September 1994. Despite the short notice several members generously donated ferns to the project. Notable among these was the approximately 30 Blechnum nudum provided by Tamara and Ian Cox (Ed: the story surrounding the propagation of those ferns should be worthy of an article sometime?). In all 110 ferns were donated and assembled at the home of Ted Newman and Pat Kenyon and from there dispatched to the Central Coast together with our new display material and photos. The display resulted from the work of two talented members, Jean Hope who provided a wonderful painting of the life cycle of a fern and Cynthia Leech who prepared a thoroughly professional-looking poster. A sincere thank you to Jean, Cynthia, Tamara, Ian, Pat, Ted and all others who contributed to the success of the project.



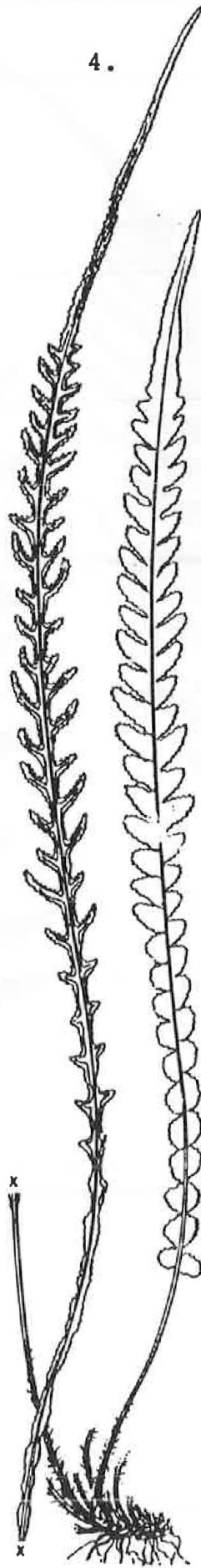
Doodia sp.
(Collected by P.Hind)



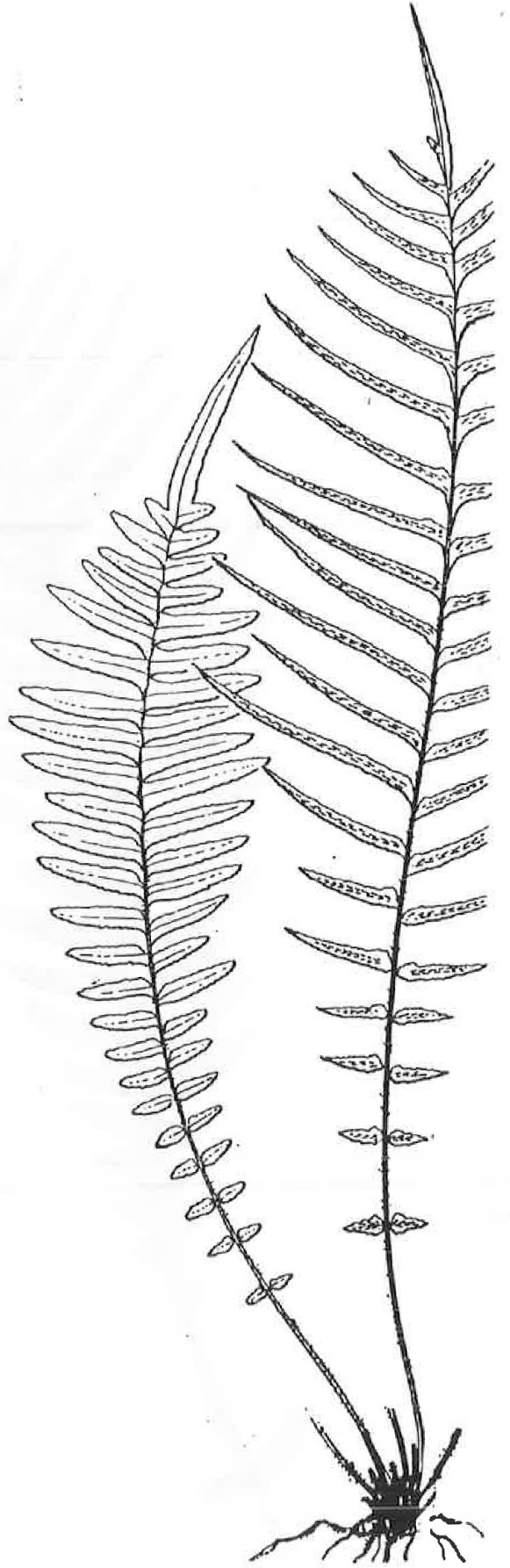
Doodia aspera



Doodia caudata var. triloba



Doodia heterophylla



Doodia squarrosa

Drawings taken from "Ferns of Queensland" by S.B. Andrews
Published by Queensland Department of Primary Industries.

FORTHCOMING EVENTS : IN THE SYDNEY REGIONSaturday 3 December 1994 Christmas Function at Kenthurst.

Meet from 11 am for our festive season gathering at the home of Tamara and Ian Cox, 5 Ivy Place, Kenthurst - park at house. If not already done so, please make urgent contact with Tamara on 654 2533 to indicate what you intend contributing towards the pooled lunch. Bring own crockery and cutlery and in keeping with tradition, a gift (or several according to the number in your party).

Saturday 18 February 1995, Meeting at Mt Druitt

Meet from 12 noon at the home of Margaret and Peter Hind, 41 Miller Street, Mt Druitt. Formal proceedings commences at 1 o'clock. It is hoped that Gillean Dunk, author of "Ferns for the Home and Garden" may be in Sydney at this time and if she is able to join us for the day we propose to let her take over, otherwise Peter will lead study of Schizaeaceae. "A Member's Fern" will be presented by Allan Woollett. Enquiries to Peter 625 8705.

Saturday 18 March 1995, Outing to Lawson

Meet from 9.30 am ready to move off at 10 sharp on short walk to Fairy Falls & Dantes Glen. If travelling from Sydney along Great Western Highway turn right and cross bridge over railway just before Lawson Railway Station (San Jose Ave), turn left, then first right and then first left leads directly to Picnic Area and our meeting spot just opposite Fairy Falls. Enquiries to Peter 625 8705.

Sunday 9 April 1995, Meeting at Dural

Meet from 11 am at the home of Norma and Fred Johnston, 18 Taylor Road, Dural. Study Session commences at 12 noon Peter leading discussion on Parkeriaceae and Platyozomataceae. "A Member's Fern" will be presented by Fred Johnston.

FORTHCOMING EVENTS : IN THE MID NORTH COAST , N.S.W.

For details about forthcoming events contact Charlie Charters, phone (065) 85 6296

FORTHCOMING EVENTS : IN SOUTH EASTERN QUEENSLANDSunday 5 February 1995, Meeting at Bellbowrie

Meet from 9.30 am at Peter and Pat Bostock's home 59 Limosa Street, Bellbowrie. Subject will be "Potting And Dividing Ferns".

Sunday 5 March 1995, Outing to Ravensbourne

Excursion to Jim and Betty Johnson's property, Ravensbourne. meet at 9.30 am at Ravensbourne National Park.

Weekend 29-30 April 1995, Outing to Cooloola

Reserve the date - Further information next Newsletter.

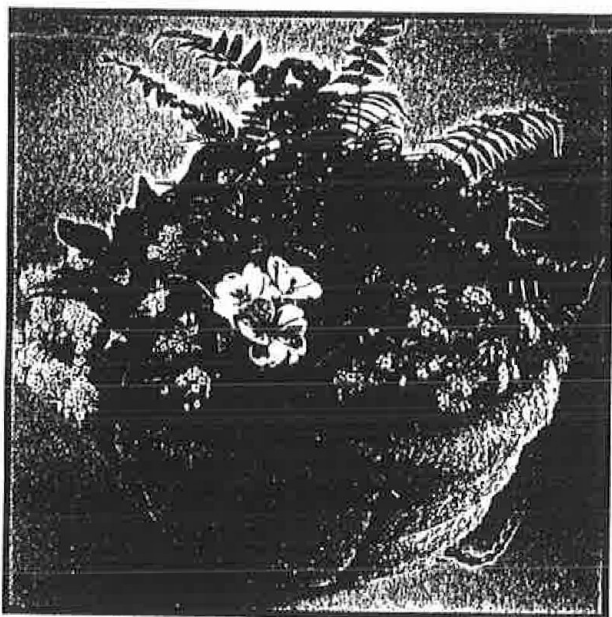
SUBSCRIPTIONS DUE

The annual subscription for the 1995 calendar year falls due on 1 January 1995. The annual fee of \$4 covers full membership to members of SGAP. To non-SGAP members, the \$4 provides the Newsletter only with no other entitlements. Please pay subscription to our Treasurer, Miss Joan Moore, 2 Gannet Street, Gladesville, 2111.

NEW!

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The Woolrich basket liners have been strongly recommended by at least one member who vowed never to again look at bark or coir products. It is pleasing to be able to promote quality made in Australia goods produced by an Australian company - even though the original Arthur Yates did come to us via England and New Zealand! Incidentally, Yates generously sponsored the 1994 SGAP-N.S.W. Winter Garden Festival. The liners come in four sizes from 250 mm to 400 mm and retail for around \$4 to \$8 each.

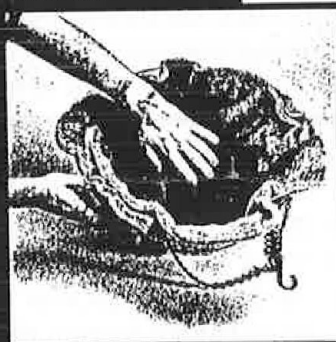
DEADLINE FOR COPY

Articles and information for our Newsletter are always needed and much appreciated. Items for the next issue should be received by the Secretary by no later than 15 February 1995.

STEP 1.



STEP 2.



STEP 3.



STEP 4.



TO CREATE THE PERFECT HANGING BASKET USING YATES WOOLRICH HANGING BASKET LINERS, JUST FOLLOW THESE SIMPLE STEPS:-

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- ◆ IF DESIRED FEED THE EDGE OF THE LINER UNDER THE TOP RUNG OF THE BASKET AND FOLD BACK OVER INTO THE BASKET. COVER WITH HANGING BASKET POTTING MIX AND FIRM DOWN TO KEEP THE LINER IN PLACE.

- ◆ TOP UP WITH HANGING BASKET POTTING MIX
- ◆ WHEN COMPLETE, WATER THE BASKET AND DISPLAY.
- ◆ WOOLRICH LINERS COME IN 2 DECORATOR COLOURS, FEDERATION GREEN AND EARTH AND ARE AVAILABLE FROM ALL GOOD NURSERY AND HARDWARE STORES.

WHEN DO FERNS SPORE ?

One of our Victorian members, Barry White, has made a significant contribution to our record of the times when spore are ripe for collection and propagation. Barry is currently President of the Fern Society of Victoria Inc. and obviously has an enviable collection. Barry wrote as follows:

“Attached are my records on time of spore collection. All collections were screened out and yielded useful spore.”

Barry supplied details of collections from his suburban Melbourne garden and from Rippon Lea and Nunawading Gardens in Melbourne, Beauchamp Falls and Melba Gully in the Otway Ranges, Acherton Way, Murrindindi and Healesville north east of Melbourne and Glen Nayook which is about 70 km east of Melbourne. A summary of the data supplied by Barry follows - in the interest of space, the individual places of collection have not been shown here.

Adiantum formosum July; Adiantum hispidulum June; Arthropteris tenella May;
Asplenium australasicum April, June, August (2); Asplenium bulbiferum April;
Asplenium milnei April, June, July, September; Asplenium obtusatum March, July;
Blechnum cartilagineum January, April; Blechnum chambersii April, September, October,
November; Blechnum fluviatile April, May, September, October; Blechnum indicum January;
Blechnum minus April; Blechnum nudum May, October; Blechnum orientale March, July;
Blechnum watsii April (2), May, October, November; Blechnum watsii X minus March;
Christella dentata May; Culcita dubia April; Cyathea australis January, February, March (2),
April (3), May, July; Cyathea cooperii January (2), February (2), March, October;
Cyathea howeana March, April; Cyathea leichhardtiana September; Cyathea macarthuri March;
Cyathea robertsiana March (2); Cyathea woollsiana March; Cystopteris filix-fragilis (June);
Dicksonia antarctica February, March (3), April, May; Dicksonia herbertii March, October;
Dicksonia youngiae October; Diplazium australe May; Doodia aspera January (2); Doodia
maxima January, February; Hypolepis distans January; Hypolepis glandulifera January,
November; Lastreopsis hispida March; Lastreopsis tineroensis February;
Marattia salicina March; Microsorium scandens February; Pellaea falcata January, March,
October, November; Pellaea falcata var. nana March, June, October;
Polystichum formosum March (2), June, July; Polystichum proliferum June, October;
Polystichum whiteleggii December; Pteris tremula January; Pteris umbrosa January, March,
July; Pteris vittata January; Rumohra adiantiformis January, March (2), May, June;
Sticherus tener May.

Ed: Our thanks to Barry for providing so much detail. The apparent success in growing Doodia maxima from spore is of great interest in view of comments made on this species in our September 1994 Newsletter. Barry's records show the spore was collected in two different years from ferns growing at his property at West Essendon.

THE FERN STUDY GROUP AUDIO VISUAL

One of our members, Fred Johnston, who is responsible for the SGAP-N.S.W. library of audio visuals and their slide collection, recently discussed with some of our members, the possibility of remaking our current audio visual. It is not exactly current as it was compiled about 14 years ago and has existed in its present 80 slide format for about 10 years. The consensus of the discussion

was that the Group should support preparation of a new audio visual of , on Fred's advice, approximately 120 slides (about 30 minutes). It is proposed to discuss the matter further at the Sydney end-of-year get-together on 3 December 1994. During the day it is hoped to decide on a list of ferns suitable for growing in gardens in the Sydney Region. If you are attending the December meeting, please bring to the meeting a list of ferns which you consider would be suitable.

A YET TO BE DESCRIBED DOODIA SPECIES

Reference is made to the photo copy of the *Doodia* sp. shown on the left hand side of the ferns photo copied on page 3 of this Newsletter. The copy was taken from a frond of a potted specimen brought to our November meeting. Peter collected this fern in the early 1980's at two different sites in the Wiangerie State Forest west of Kyogle, Peter told us the ferns were growing in alluvial soil on near vertical basalt banks. The sori of the fern is in a single row at an angle (not parallel) to the margin). The basal pair of pinnae, unlike that of *Doodia aspera*, also shown in the page 3 photo copy, are not free but connected to the pinna higher on the rachis. This species is also much less rough (less asperous) than *Doodia aspera*, the only species to which it appears to be closely allied.

A MEMBERS FERN - *Arachniodes aristata*

Presented by Joan Moore

Joan explained to our September meeting that she bought her favourite fern in a small pot at the 1984 SGAP Exhibition. A year later when four or five fronds had developed, she planted it out in a fairly dark part of her garden. Although described in books as being long creeping, Joan's fern after ten years still only covers an area about 1 m by 0.5 m. The rhizome is surprisingly thick and tough. The fronds are dark, shiny and very attractive. Joan told us that her fern gets brown patches on the fronds and thought this may be due to dryness. The name *Arachniodes* means spider, while the species name *aristata* refers to the pinna having a stiff bristle like tip. Nevertheless, Joan said that the pinnules are not nearly as prickly as say the *Polystichums*.

Arachniodes aristata somewhat resembles a *Lastreopsis* species but the rachis ridges are not continuous with the leaf margins which are not thickened. Reference to this difference evoked animated discussion which was not resolved to the satisfaction of all despite Les supplying a sample *Lastreopsis* for comparison. Joan also mentioned the distinctive manner in which the *Arachniodes* fronds unfurl - somewhat in the manner of a *Pellaea* sp. Joan said *Arachniodes aristata* grows for her without any particular attention.

REPORT - Meeting at Blacktown, 24 September 1994

Peter concluded our study of *Doodias* by describing the three species found on the sandstone plateau area of Queensland just south of the tropics, some extending to the South-east corner of that State and just over the border in North-eastern N.S.W.

Doodia caudata var. *triloba* differs from the typical variety in having the pinnules on the lower part of the frond divided into three lobes, these pinnae making it appear bipinnatifid. The pinnae are free except for its laminose tip and sori are rarely separate. It is a fern that favours drier conditions and Peter attributed over watering to the loss of his plant.

The fronds of Doodia squarrosa are markedly dimorphic, the fertile fronds being up to 10 cm wide in the middle and this and its long narrow pinnae with drawn out apex make it distinctive. It favours shady creek banks. Although recorded as extending to N.S.W. Peter indicated that he had not seen it growing this side of the Queensland border. Doodia heterophylla, an uncommon fern also favours shady areas but is mostly found among rocks. It is dimorphic with fronds are up to 45 cm long but only about 4 cm wide.

None of the members present at the meeting were growing either Doodia squarrosa or Doodia heterophylla. We wondered how widely they are grown by Queensland members and would appreciate hearing from anyone with experience of their cultivation.

REPORT - Outing to Mooney Mooney Creek, 5 October 1994

Twelve members made this easy walk along Mooney Mooney Creek on a fine spring day - but oh the bush was dry! Although only a relatively small number of species were found, ferns were numerous. Blechnum cartilagineum in particular showed amazing growth in the dry conditions that have pertained since the disastrous January 1994 fires. A couple of non-fern highlights included good stands of the rare Grevillea shiressi, numerous little rock orchids Dendrobium linguiforme covered in its distinctive white flowers and finally, goannas in all sizes.

In order of first sightings, the following ferns were identified: Hypolepis muelleri, Pteridium esculentum, Histiopteris incisa, Adiantum aethiopicum, Blechnum cartilagineum, Pellaea falcata var. nana, Pellaea falcata, Adiantum hispidulum, Calocholaena dubia, Lindsaea microphylla, Doodia aspera, Cyathea australis, Asplenium flabellifolium, Gleichenia dicarpa, Sticherus flabellatum, Blechnum nudum, Todea barbara, Davallia pyxidata, Polystichum proliferum, Platyserium bifurcatum and Cyathea cooperi.

REPORT - Meeting at Caringbah, 19 November 1994

Our thanks to Ailsa and Maurice Haenke for hosting this meeting held in the midst of their attractive garden. There were 23 members present. Our study topic was Australian members of the Osmundaceae Family. Peter explained that there are only two genera - Todea, consisting of one species Todea barbara, and Leptopteris, which contrary to what most members present thought, consists of more than Leptopteris fraseri. The other Leptopteris are L. moorei, a very rare fern from Mt Gower on Lord Howe Island and a recently reported species from Mt Bellenden Ker, North Queensland. We determined to concentrate on just Todea barbara and Leptopteris fraseri fronds of which Peter had brought to the meeting.

The Osmundaceae are an ancient family of ferns, they have large sporangia which are not grouped but scattered on the underside of the fronds; they have no indusia. The two genera being studied are readily separated, the key in the "Flora of N.S.W." doing so by dividing mature fronds into leathery with stomates present = Todea, and membranous fronds, stomates absent = Leptopteris. With the help of a sketch, Peter reminded us that a stomate is a pore between two guard cells situated on the outer layer of cells (in this case of the frond) and through which gases diffuse.

We weren't able to see the stomates with our hand lens and Peter suggested a better diagnostic feature for use in the field - Todea fronds are glabrous, whereas Leptopteris fronds (lamina) are hairy. This feature was easily seen. We were also able to see the stipules at the base of the stipes although in the case of the small Leptopteris specimen that was handed around, this again required a hand lens, in Todea the stipules were easily discerned.



Todea barbara is distributed in all Eastern States and South Australia, New Zealand and South Africa. It is being grown by most members present at the meeting and some have raised it from spore despite these having a viability measured in hours. Apart from Peter, of those present, only Rose appears to have managed to grow Leptopteris fraseri successfully. Essential requirements include a well sheltered position and plenty of moisture to maintain its filmy fronds. Distribution is confined to Queensland and N.S.W. mainly in the mountain ranges.

NOTES FROM SOUTH EASTERN QUEENSLAND

Our Fern Group Display at the Annual Queensland Flower Show in September, was again one of the popular exhibits, despite very much missing Cliff Ritchie and his truck load of ferns. Our thanks to Peter Bostock who shouldered responsibility for the organising and the carting of most of our ferns. Also to Lindsay Smith who never fails to help set up. It was a credit to the members who also pitched in, for they are all very involved in other displays.

Our advertised weekend to Cooloola National Park had to be cancelled because of the threat of bush fires. A hastily arranged outing to the Beerwah Field Study Centre took its place on the Sunday. Fourteen members were able to attend. On the first walk around the Centre and nearby creek tracks, eighteen ferns were recorded. They included Lindsaea ensifolia, L. fraseri and L. incisa. On a pool in the almost dry creek was an Azolla, probably A. filiculoides. After lunch we drove across the road to the scientific area. Here we saw very interesting regrowth, following a controlled burn. Ferns, seven in all, were coming back among colourful Wallum wildflowers. Blechnum indicum looked particularly lush and attractive in new foliage. The unfolding fronds of Gleichenia dicarpa were popping up every where, as were fronds of Lycopodiella cernua (formerly Lycopodium cernuum). At the edge of the burn, we saw both Schizaea bifida and S. dichotoma.

Our Group meet for an end of year social afternoon at Russell and Irene Cullen's home on Sunday 20 November. We send Season's Greetings to the many friends we have made through Fern Study, from Queensland's north throughout the southern States - yes that includes you Tasmania, and some we know from the West.

Ed: Thank you Irene Cullen for reporting Queensland news. Enquiries or information regarding South-eastern Queensland activities may be made to Irene on (07) 273 1055.

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