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S.G.A.P. Fern Study Group

Newsletter

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HON. TREASURER: Faye Low, 151 Raglan Street, Mosman. 2088.
SPORE BANK: Sylvia Garlick, 3 Valleyview Cres. Engadine 2233

Dear Members,

Our first big outing for this year was a trip to the Burrendong Arboretum. The fourteen members present got to work, in the Tropical Shade Area, and trimmed the tree ferns and other ground ferns which had been badly attacked by thrip. There was a lot of weeding to be done, but many hands soon had the area looking nice and tidy. Hazel and Peter Althofer were pleased with the result, as with their work load, they were not able to do this work.

I recently received a letter from Mr Harris, Chairman of the Burrendong Arboretum Association, who informed me, Dr. Kneen of the University of New South Wales, who is doing the plans, estimated the cost of the structure for the extension to the Tropical Shade Area would be between \$25,000 and \$30,000. A price of \$11,400 has been quoted for the cables and fittings; Dr. Kneen has estimated the cost of the concrete anchor blocks, reinforcement and steel anchor plates at \$8,600 and other costs such as cyclone netting, fencing wire, board and lodging for volunteer workers and incidental expenses at \$5,000 plus. There is already \$5,000 odd in hand for the project and if a further \$10,000 can be raised the Association probably would be able to underwrite the remainder of the cost from its own funds.

Mr Harris also thanked the members of the Fern Study Group for the work done recently among the ferns in the existing Shade area.

We were all very shocked and saddened to hear of the death of Gerry Parker as she and George had intended to be at Burrendong with the group.

Gerry was a foundation member and a Leader of the Fern Study Group. A lot of members would have seen the excellent audio-visual work which she and George produced, on native ferns. I came to have a tremendous respect for Gerry, and felt I could call on her for assistance and good advice at any time. I will have many happy memories of her.

Recently, at the invitation of Patricia and Don Mactavish, I visited Tamworth and showed slides of, and talked about ferns to members of the Tamworth area. A few nights later I had the privilege of being asked to repeat the performance for a class of horticultural students from the Technical College. It was great to meet the local members and realise there is such an interest in native ferns.

This was also an opportunity to visit some of the fine collections of members' ferns.

A fine collection of pressed fern fronds was presented by Bill Hardin at the Tamworth gathering. These were mounted on large sheets of thin cardboard and represented a complete collection of native ferns found in the Nowendoc State Forest, which is about halfway between Tamworth and Taree in New South Wales. Bill also intends to photograph each fern and attach the photo to the relevant sheet of that frond pressing.

I think we will be hearing some more from this group in the future.

A very enthusiastic group of members from Newcastle area got together recently and made plans for periodical visits, as a group, to the homes of other members to look at their ferns and their methods of growing ferns. The Group has arranged to mount an exhibition of native ferns at the Society for Growing Australian Native Plants' Exhibition to be held at the College of Advanced Education, Rankin Drive on 15th and 16th September, 1984. Volunteers will be needed to assist on these days. Good specimen ferns would be of assistance for the display.

Members at Newcastle are a short distance from the Newcastle State Forests, which are to the west and south west of the city. These forests have many sub-tropical rainforest gullies and gorges which are abundant with ferns. There are many walking tracks and picnic areas.

The November 1984 outing for the Sydney Group will be to the Watagan State Forest, on 10th and 11th. We hope to see all the Newcastle members on this visit.

Addie Lee has been in hospital but I am pleased to report she is home again and with John's tender loving care is recovering nicely and she hopes to be with us on our next outing.

More news to hand, Molly and Bill Murray are in their new home at Ulong and all the recent rain filled the tank with lovely fresh water.

On Sunday 29th April, we spent a most enjoyable day at the home of Judy and John Marley, where members enjoyed looking through the large collection of ferns. There were some lovely ferns for sale. Thank you Judy and John.

Irene Cullen, South East Queensland Group advises they are progressing and will be studying adiantums at their next meeting. The Group is going to put on a display of Australian ferns at the S. G. A. P. Queensland Region Wildflower Spectacular to be held in September, 1984. Keep up the good work, Irene.

Barbara Setchell brought a small group of people to Sydney, recently, and found time to call for a look at our fern collection. Barbara has since informed me she now has a very enthusiastic group at Canberra, with two new members. Thank you Barbara.

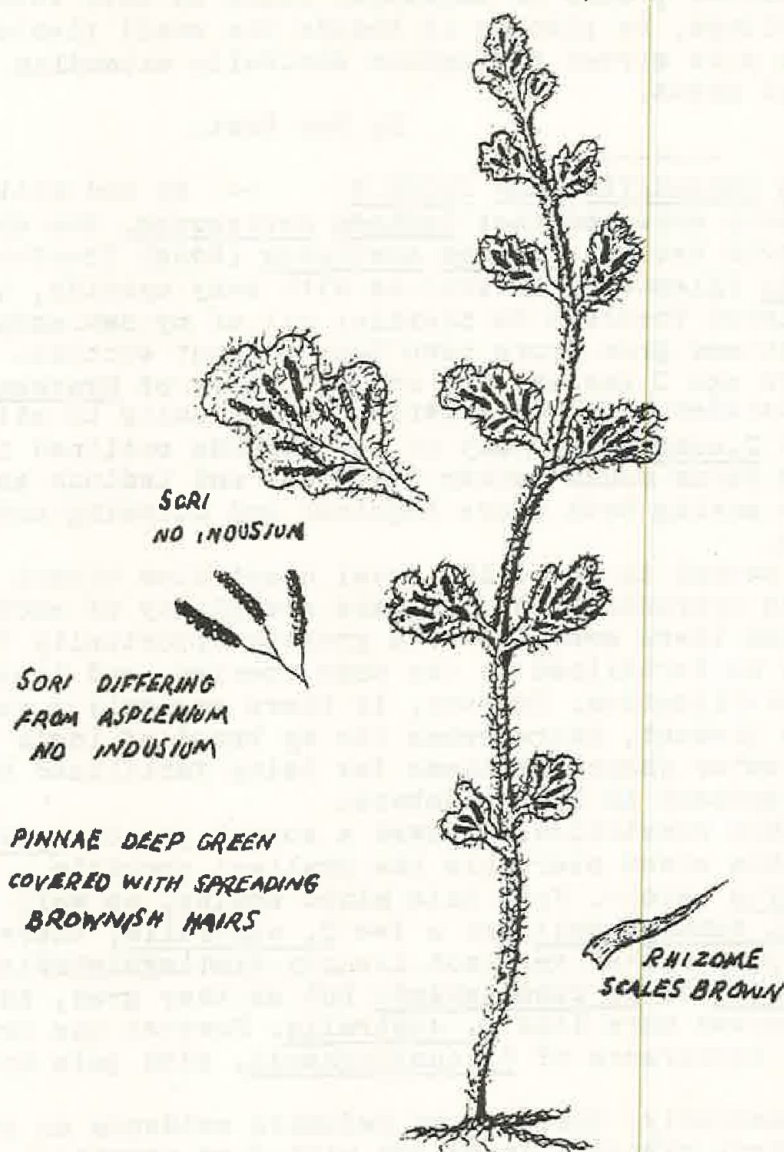
RED CARPET.

We wish to extend a warm welcome to the following new members--

DID YOU KNOW.

One teaspoon lysol, 2 cups of water mixed together, dab or spray around boots to stop leaches.

PLEUROSORUS RUTIFOLIUS (R. BROWN) FÉE. 1852.
 FAMILY :- ASPLENIACEAE.
 ("THE BLANKET FERN")



Recently I received an interesting letter from a young fern enthusiast from Western Australia, who as party to studies for a Diploma of Horticulture wrote to me for information concerning an unusual fern found in the wheatland area of Western Australia; where often there is no rain for 6 months.

The request was for a full description of the fern, information concerning a possible dormancy period during the dry season and also guide lines for propagation and cultivation. The fern concerned being *Pleurosorus rutifolius*.

Unfortunately I had never grown a plant of this species nor did I have a plant in my collection. So any details had to come from fern literature in my library. The title "Resurrection Fern" had been mentioned, so I explained that the only ferns to my knowledge carrying this title were *Selaginella lepidophylla* and *Polypodium polypodioides*; both of these being exotics.

Australian species of *Cheilanthes* do appear to suffer in dry periods or times of excessive cold or intense heat only to recover remarkably when normal temperate conditions return. In a controlled environment *Cheilanthes* will remain evergreen for the life period of the plant if not subjected to excess watering or high humidity. This appears to be the same with *Pleurosorus rutifolius*, from the literature I have available. In the Cocoparra Range near Griffith in New South Wales there is a type with larger pinnae referred to as *Pleurosorus subglandulosus* (Hooker & Greville) Tindale. However it appears that the *subglandulosus* refers to glandular hairs; but as both glandular and non-glandular hairs have been found on specimens of *P. rutifolius*; possibly it is the same fern.

(continued next page.).

Pleurosorus rutifolius (continued)

Another point is that most records of this species state that it is usually found in a rocky situation, or growing between rocks; so possibly it may have a lithophytic tendency, I suggested that in its cultivation pieces of sandstone could be used when planting out sporelings, by placing it beside the small plants.

This fern is wide spread throughout Australia extending into the drier arid areas.

By Ray Best.

CYATHEA MARCESCENS PROPAGATED FROM SPORE ? --- By Rod Hill.

It is generally accepted that Cyathea marcescens, the skirted Treefern, is a hybrid between Cyathea Australis (Rough Treefern) and C. cunninghamii (Slender Treefern). As with many hybrids, it seems that the Skirted Treefern is sterile; all of my own many attempts to collect and grow spore have been without success.

Several years ago I was able to collect spore of Cyathea cunninghamii and decided this was a perfect opportunity to attempt to cross this with C. australis. Many of the methods outlined in text books for crossing ferns sound rather technical and tedious and so I opted for simply sowing both spore together and allowing nature to take its course.

However, it seemed to me sowing equal quantities of each parent would not encourage hybridization. If there are plenty of each parent present, then there seems to be a greater opportunity for each prothallus to be fertilized by the same species, and less chance of cross fertilization. However, if there are only a very few of one species present, there seems (to my brand of logic anyway) to be a greater chance of these few being fertilized by the other species present in large numbers.

Armed with this conviction, I sowed a normal pot of Cyathea cunninghamii and then sowed over this the smallest possible amount of C. australis spore. From this mixed sowing, as well as large numbers of C. cunninghamii and a few C. australis, there were a handful of plants that were not clearly distinguishable as either C. australis or C. cunninghamii but as they grew, the fronds seemed to become more like C. australis. However the crowns seem to retain the appearance of C. cunninghamii, with pale scales and dark stipes.

Although botanically, there is no definite evidence as yet that these are in fact hybrids, in my own mind I am convinced that some plants from this mixed sowing are neither Cyathea australis nor Cyathea cunninghamii and I am certain these will prove eventually to be Cyathea marcescens.

Being a hybrid, C. marcescens has a very limited natural distribution, and is virtually not available commercially. So, I hope I can encourage many members to do something towards conservation of this rare treefern and attempt to grow some from spore.

SPORE BANK.

The following alterations apply to the spore list printed in the December, 1983, newsletter;

Add

Blechnum chambersii
 Christella dentata
 Lastreopsis hispida.

DID YOU KNOW.

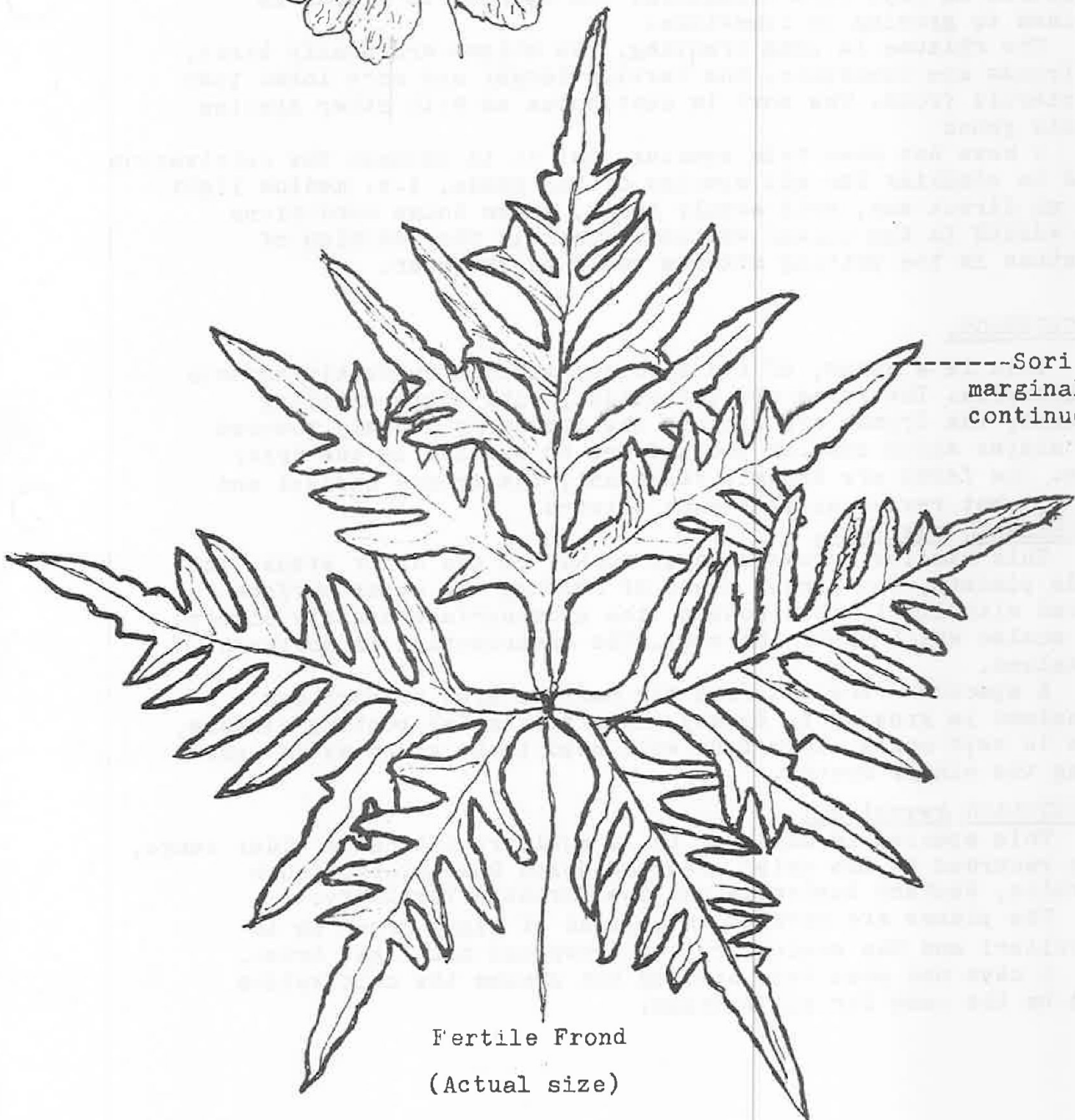
Snails will not damage ferns if sawdust is sprinkled about.
 Snails cannot crawl over sawdust.

Family - Sinopteridaceae.

Doryopteris concolor (Langsd. et Fisch.) Kuhn.



----- Sterile frond
(Actual size)



-----Sori
marginal.
continuous

Fertile Frond
(Actual size)

DORYOPTERIS.

This genus of about 35 species is found mainly in tropical America. Two species have been found in Queensland.

These ferns can be easily recognised by the palm shaped fronds. The sori is continuous along the margin of the frond and is covered by the thin reflexed edge of the pinnae.

DORYOPTERIS concolor.

This is a small terrestrial or lithophytic fern usually found growing on rocks in creeks and gullies or under low scrub along the banks.

The rhizome is short creeping, the stipes black and shiny usually crowded, the fronds erect, bright green and markedly dimorphic. The fern ranges from northern to southern Queensland, but is now very rare in the southern part.

This species is easily raised from spore but is found to be difficult to keep growing. Many plants, some up to 5cm high have wilted and died, for no apparent reason, whilst others growing under the very same conditions have flourished.

Under cultivation, in Sydney, ferns of this species are growing in terrestrial potting mixture, which is kept evenly moist. Extra heating is needed during the winter months.

DORYOPTERIS ludens.

This species is distributed from northern India southwards through Malaysia to New Guinea. The fern has recently been discovered on Cape York Peninsula. The species in Malaya is confined to growing on limestone.

The rhizome is long creeping, the stipes are nearly black, the fronds are dimorphic, the fertile larger and more lobed than the sterile frond. The sori is continuous as with other species of this genus

I have not seen this species, but it is assumed the cultivation would be similar for all species of the genus, i.e. medium light with no direct sun, soil evenly moist, green house conditions with warmth in the colder weather. Possibly the addition of limestone in the potting mixture would be in order.

PARACETERACH.

This is a genus, of two species, which is evidently endemic to Australia. The ferns are terrestrial, with short creeping rhizomes, the fronds are pinnate the pinnae is densely covered with scales which enables the species to survive in the drier areas. The ferns are drought resistant, the fronds shrivel and curl up but revive quickly when watered.

PARACETERACH muelleri.

This species grows amongst rocks in the drier areas. The fronds pinnate, the pinnae ovate or oblong, the upper surface covered with light brown scales, the undersurface densely covered with scales which cover the sori. The distribution is northern Queensland.

A specimen received from the Mareeba area of Northern Queensland is growing in Sydney, in a terrestrial potting mixture, which is kept moist. This fern will need to be given extra heat during the winter months.

PARACETERACH reynoldsii.

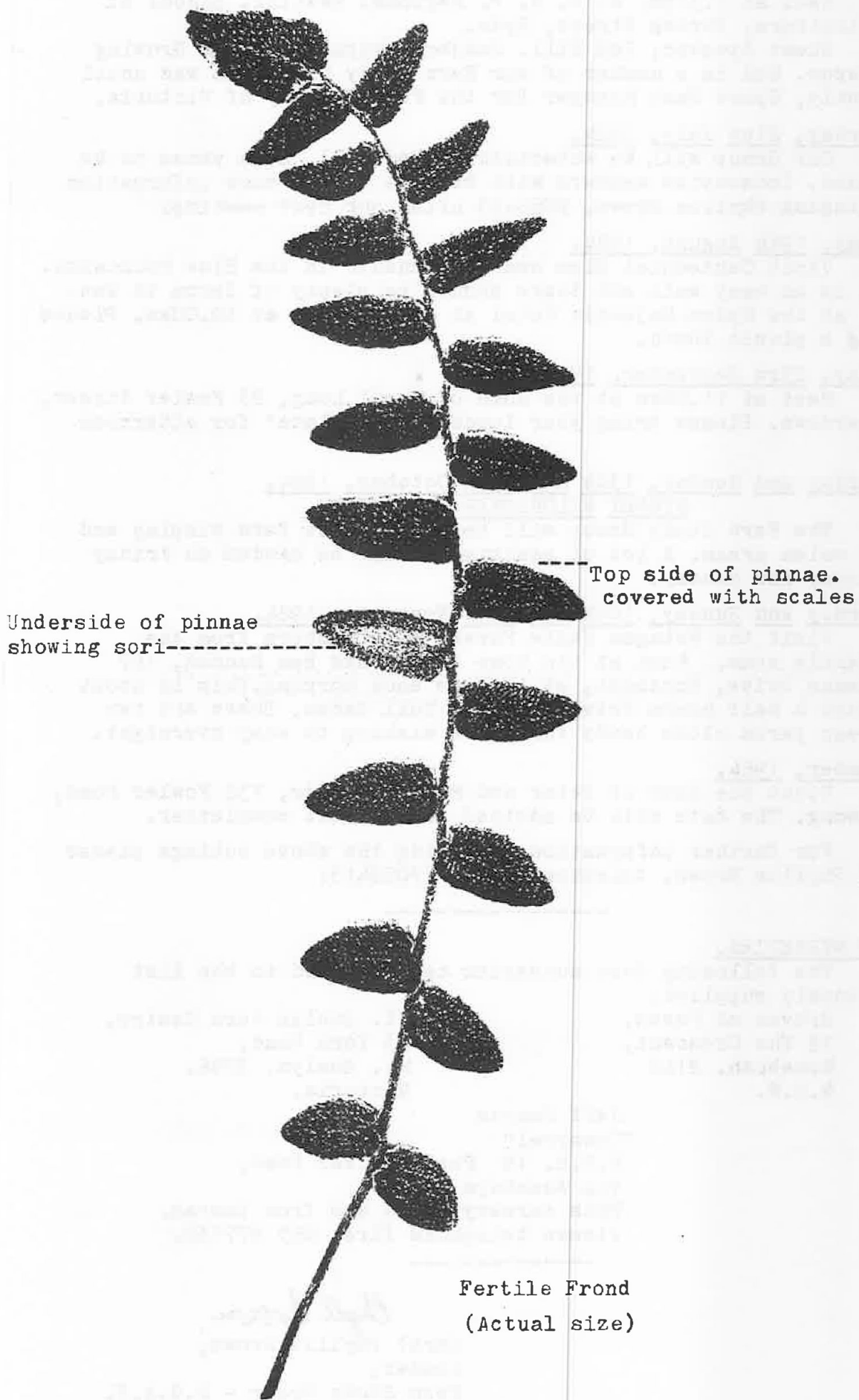
This species is similar to *P. muelleri* but has a wider range, being recorded in the drier areas of North Queensland, South Australia, Western Australia and the Northern Territory.

The pinnae are dark green instead of light green as in *P. muelleri* and the scales are red brown and not light brown.

I have not seen this species but assume the cultivation would be the same for all species.

Family - Hemionitidaceae

Paraceterach muelleri (Hook.) Copel.



PROGRAMME.Sunday, 17th June, 1984.

Meet at 11.00am at the home of Sylvia Garlick, 3 Valleyview Crescent, off Caldarra Avenue, Engadine. Please bring your lunch and a 'plate' for afternoon tea.

Friday, 20th July, 1984.

Meet at 7.30pm, S. G. A. P. Regional Meeting, School of Horticulture, Parkes Street, Ryde.

Guest Speaker, Rod Hill. Subject Propagation and Growing of Ferns. Rod is a member of our Fern Study Group and was until recently, Spore Bank Manager for the Fern Society of Victoria.

Saturday, 21st July, 1984.

Our Group will be entertaining Rod Hill, at a venue to be decided. Interested members will be able to get more information by ringing Phyllis Brown, 7056413 after our next meeting.

Sunday, 19th August, 1984.

Visit Centennial Glen near Blackheath in the Blue Mountains. This is an easy walk and there should be plenty of ferns to see. Meet at the Hydro Majestic Hotel at Medlow Bath at 10.00am. Please bring a picnic lunch.

Sunday, 23rd September, 1984.

Meet at 11.00am at the home of Geoff Long, 23 Fowler Street, Camperdown. Please bring your lunch and a 'plate' for afternoon tea.

Saturday and Sunday, 13th and 14th October, 1984.SYDNEY WILDFLOWER EXHIBITION.

The Fern Study Group will be manning the fern display and fern sales areas. A lot of assistance will be needed on Friday Saturday and Sunday.

Saturday and Sunday, 10th and 11th November, 1984.

Visit the Watagan State Forest with members from the Newcastle area. Meet at the home of Roy and Bea Duncan, 167 Freemans Drive, Morisset, at 10.30am each morning. This is about one and a half hours drive from the Toll Gates. There are two caravan parks close handy for those wishing to stay overnight.

December, 1984.

Visit the home of Peter and Margaret Olde, 138 Fowler Road, Illawong. The date will be advised in the next newsletter.

For further information regarding the above outings please ring Phyllis Brown, telephone number 7056413.

FERN NURSERIES.

The following fern nurseries can be added to the list previously supplied;

Groves of Ferns,
18 The Crescent,
Homebush. 2140
N.S.W.

Mt. Evelyn Fern Centre,
63 York Road,
Mt. Evelyn. 3796.
Victoria.

Jeff Harris

"Cowarral"

R.M.B. 19 Forbes River Road,
Via Wauchope. N.S.W.

This nursery is 14 kms from Yarras.

Please telephone first 065 877132.

Phyll Brown

(Mrs) Phyllis Brown,
Leader,
Fern Study Group - S.G.A.P.