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S.G.A.P. Fern Study Group

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Dear Members.

Our August meeting was an outing to the Blue Mountains and I am very pleased to say that one of our members who enjoyed the day has taken the trouble to write an account of the outing which appears later in this newsletter.

Our September meeting was at the home of Geoff and Anne Long at Camperdown, where we had lunch in a lovely courtyard and afterwards discussed the ferns which are growing in a small but very attractive setting. Thank you Anne and Geoff for having us.

We were invited by local members of the Fern Study Group to attend the Newcastle S.G.A.P. Group's 9th Annual Wildflower Exhibition which was held on 15th and 16th of September. An excellent display of ferns was arranged by the members. Visitors were amazed at the number of native ferns available. Bea and Roy Duncan, Lyn Millington, Peter Tomkins and Tony Clarke all did a fine job talking to the many visitors and verbally "selling" them native ferns. I hope the success of this exhibition will encourage a lot more members to assist with the next exhibition.

The event of the year for Sydney members was, of course, the S.G.A.P. New South Wales 1984 Wildflower Exhibition held at Castle Hill showground on 13th and 14th October.

The timber structure, 5 metres long, 3 metres wide and 1.5 metres high was used again this year. It was erected on the Thursday prior to the exhibition with the expert assistance of David Garlick.

The fern display was beautifully and professionally arranged by Sue Montgomery, with ferns supplied by the Sydney Royal Botanic Gardens, Nurseryman Keith Wallace, who supplied an outstanding specimen in a hanging basket of *Davallia Solida*, and members of the Fern Study Group. Thank you, to all members who helped with the display.

Early Friday morning, a hired two tonne truck complete with a driver, arrived to transport all the ferns to Castle Hill showground. With the assistance of Kyrill Taylor we soon had the truck fully loaded and on the way. Arthur Sharp very kindly took the large *Platycerium superbum* to the exhibition and afterwards delivered it to the winner of the raffle, who was Mr. Steel of Wentworthville with yellow ticket C99.

At the previous exhibitions, the ferns for sale have been displayed in buildings, undercover. This year the plant sales were in the open arena of the showground, without any buildings. However, Mr Alan Carnovale from Greenhouse World, came to the rescue by generously loaning and erecting three shade houses to protect the ferns from the hot sun and drying winds. Many thanks to Mr. Carnovale for his assistance.

The fern sales were again very successful. Visitors were impressed with the large variety of native ferns presented for sale. There were 79 different species representing 37 genera. All species offered for sale have been grown in the Sydney area, some of the North Queensland ferns needing some heating during the winter months.

I want to thank the following members who ably assisted Viv in the fern sales area; Judy and John Marley, Bea and Roy Duncan (Newcastle), Joyce Sacco and Beryl Geekie. They all did an excellent job under hot dry conditions.

Those famous raffle ticket sellers, Dr. Geoff Long and his wife Anne, who sold 300 raffle tickets in two hours, I think Geoff could be in the wrong profession.

We were delighted to have Molly and Bill Murray with us again for a short time. Molly kept her 'hand in' by selling some raffle tickets. A pleasant surprise was a visit from Queensland members Irene and Russel Cullen who had a day at the show and afterwards called at our home. Irene has promised to keep us up to date with the happenings in her area. Other interstate members were John and Pauline Green from the Mount Evelyn Fern Centre who supplied some of the cold climate ferns. They came from Victoria to see how we organised the ferns for our exhibition.

The fern sales would not have such a success without the full support of the suppliers, who, in some instances, held the ferns for over six months, including the winter season and then delivered the plants in good condition at the time of the sale. Many thanks to Carol and Arthur Stroud, Barrier Reef Nursery, Cairns, Iris and David Liddle, Mareeba Queensland, and Elaine and Ian Slade of Peats Ridge. Elaine and Ian assisted in the sales area and Ian was later given the honour of judging the native orchids.

There were many more Fern Study Group members at the exhibition who were involved in other work associated with the Wildflower exhibition and could not give their time to the fern section.

I hope next year we will get the same generous support from our members and possibly other nurseries may have native ferns for sale.

Unfortunately our excursion to the Wattagan Mountains had to be cancelled. About twelve inches of rain fell during the week prior to the outing, which flooded the mountains and made the forest roads impassable. We hope to make the trip at a future date

The good news to hand is that a group of our members, in South East Queensland, meet regularly at each others homes and also have excursions, usually on the third Sunday of each month.

Any other members living in the area or interstate visitors are cordially invited to join the activities. For more information ring Joyce Ward (07) 2890147 or Irene Cullen (07) 3414272. Thank you Irene for your news item and I hope that members from other states will let me have some news no matter how small the item.

I have met some very nice members by using our membership list when travelling interstate, and have had visits from members from other states.

Faye Low has resigned from the position of Hon. Treasurer after quite a few years in the position. Thank you Faye for a job well done and I hope you will be able to relax a little more with your family.

A warm welcome to Margaret Olde our new treasurer and I'm sure she will carry on from where Faye has left off.

PROGRAMME.

Sunday, 17th February, 1985.

Meet, at 11.00am at the home of Phyllis and Viv. Brown, 254 Edgar Street, Condell Park. Please bring your lunch and a 'plate' for afternoon tea.

Saturday and Sunday, 23rd. and 24th. March, 1985.

Burrendong Arboretum, Tropical Shade Area.

Members are requested to make their own accommodation arrangements. At the caravan park there are 'on-site' caravans which need to be reserved. There are 76 drive through powered caravan sites which cannot be reserved and are issued on first come basis.

Reservations for the caravans can be made by telephone to Manager State Recreation Area, Burrendong Dam, Mumbil. 2820, (068)467435

There will be a bar-b-que at the caravan park on Saturday night.

CULTURAL NOTES - FERNS

By Arthur Stroud, Barrier Reef
Nursery, Deeral, North
Queensland.

Ground Ferns in General and North Queensland Natives in Particular.
pH.

We have found our best results have been achieved since we lowered our own pH to around 5. (This does not necessarily include Maiden Hairs as we have not grown these in any quantity and are not fully in tune with their requirements).

Problems encountered with higher pH were; lack of vigorous growth; susceptibility to fungal attack and browning of foliage.

Epiphytic Ferns.

All epiphytes prefer a more open mix than ground ferns and like to be kept on the drier side. More of these ferns die from overwatering than from dry conditions. High humidity is a general requirement for their well being. This can easily be achieved by keeping the floor of the bush house watered during dry periods.

Potting Mix. (For all Ferns).

Should be light, well aerated and moisture retentive, but free draining. When the pot is filled you should be able to water heavily (i.e. large volume at low pressure) and the surplus should immediately disappear from the surface. If this does not occur, it indicates insufficient air spaces in the mix, and optimum growth will not be achieved.

We have found ferns should be well watered before potting on into moistened mix. It is important that the crown of the fern should not be covered with the mix and the fern should be settled into the mix by shaking the pot, rather than firming. Ferns planted in this manner should not be watered heavily as this compacts the mix and removes air spaces as well as nutrients. A light periodic spraying of the foliage for a few days is all that is required to stop the plant and mix from drying out. Tubes potted on in this manner will establish themselves more speedily than if kept sodden. If old soil is removed from the roots when potting on, some of the fine hair roots will be destroyed and the plant will be unable to take up as much water as before and the spraying over the fronds will be of more benefit than a saturated mix which may lead to fungal or bacterial attack of the damaged roots.

Our Potting Mix.

| | |
|----------------------|------------------------------------|
| One part peatmoss | 1 kg Plantosan 4D per cubic metre. |
| Two parts sedge peat | " |
| Two parts rice hulls | " |
| | 500g Blood and bone " |
| | 500g Superphosphate " |
| | 100g Iron Chelate " |

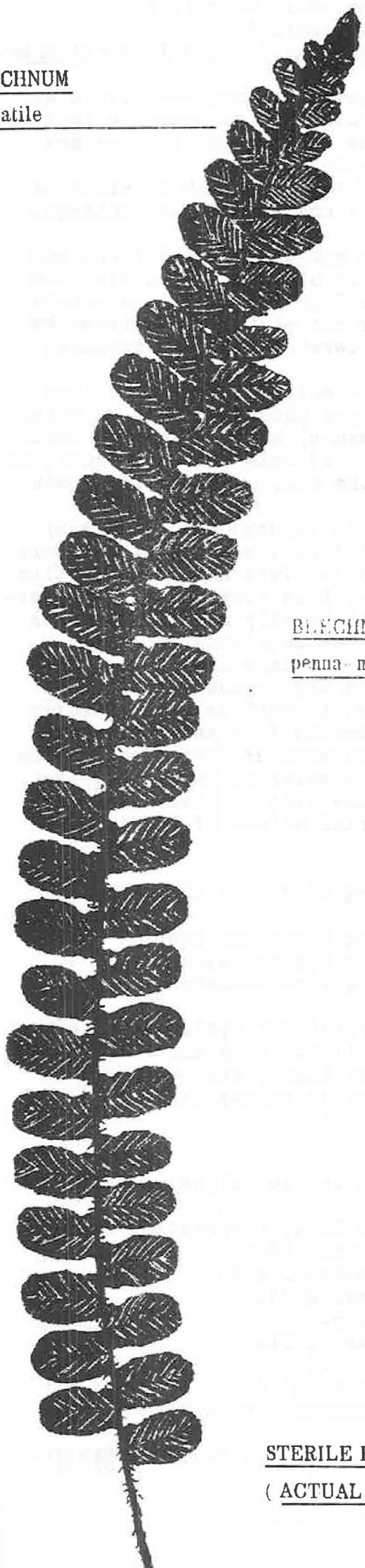
Light.

Correct light is also most important for optimum growth. Whilst most ferns will survive in dim light, they all respond better in strong, filtered, or indirect light, and some grow in full sun. Water requirements are higher in strong light.

RED CARPET.

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

BLECHNUM
fluviatile



BLECHNUM
chambersii



BLECHNUM
penna-marina



STERILE FRONDS
(ACTUAL SIZE)

FAMILY - Blechnaceae Linnaeus.

GENUS - *Blechnum*

(Bleck'num)

This is a large genus of about 180 species, the majority occur in the Southern Hemisphere. There are about 18 species found growing naturally in Australia.

The ferns are mainly terrestrial, growing in wet situations (the common name of water fern has been given to this genus). The fronds are generally dimorphic, probably two exceptions. The fertile fronds are much narrower than the sterile ones. The sori is formed in a continuous row on each side of the midrib.

The three species illustrated in this newsletter are found growing in the colder states and in higher altitudes.

Blechnum chambersii

This fern was previously known as *Lomaria lanceolata* and was first introduced into the Kew Royal Gardens, from Tasmania and New Zealand, in 1833.

The rhizome is short creeping, the fronds semi erect, lanceolate with the middle pinnae the longest, pinnatifid, dark green in colour. This fern is plentiful in Victoria and Tasmania growing in wet soil on creek banks in sheltered conditions.

This species will grow in the ground, in pots, under shade house conditions in the Sydney area.

Blechnum fluviatile.

The rhizome is tufted, producing underground stolons. The fronds light green up to 60 cm long, spreading to form a rosette, the fertile fronds erect shorter and narrower than the sterile ones. The pinnae of the sterile fronds are short, oblong and attached by the broad bases to the rhachis.

A beautiful specimen of this fern, with fronds 60cm long was seen growing at the base of Mt. Wellington, Tasmania.

The species grows in similar conditions to *B. chambersii* but will grow at higher altitudes.

This fern will grow in the Sydney area under cultivation, in the ground under shade.

Blechnum penna-marina.

This is the smallest species of *Blechnum* growing in Australia.

The rhizome is slender, short creeping, the fronds semi erect growing to about 15cm long. The fertile fronds taller with narrower pinnae. This fern grows in a matted ground-cover. It has been seen growing in icy waters in the streams of Mount Kosciusko and in sphagnum moss on the highlands of central coast of New South Wales.

Two colonies of *B. penna-marina* are growing under cultivation in a Tropical Rainforest Area at the Burrendong Arboretum near Wellington in Central West of New South Wales. One group has been planted under full shade on the wet bank of a waterway which runs through the area. The other lot has been planted on a dry shale bank with lightly filtered shade.

This fern is being grown in the ground under shade in the Sydney area.

Blechnum penna-marina is found growing naturally in New South Wales, Victoria, Tasmania, New Zealand and South America. A species *B. penna-marina* subspecies *alpinum* is listed in "A Guide to Hardy Ferns" by Richard Rush as being found in the same areas as *B. penna-marina* with the exception of Australian States. It is suggested the subspecies may also grow in this country. The subspecies is similar *B. penna-marina* but the fertile fronds do not have the long stipe and the pinnae are more crowded.

A crested form of *Blechnum penna-marina* has been found but there does not appear to be any record of sightings in Australia.

The following extract, from the October, 1984, Burrendong Arboretum Brigge, is of considerable interest to members of the Fern Study Group ;-

BURRENDONG ARBORETUM
PROPOSED EXTENSION TO THE TROPICAL SHADE AREA.

Estimate of costs.

| | |
|--|-----------------|
| Anchor blocks - steel reinforcement & fittings | \$ 2044 |
| Roof cables & fittings | \$ 13622 |
| Anchor blocks - concrete (45 cubic metres) | \$ 5438 |
| Hinge joint mesh for covering (20 rolls) | \$ 2800 |
| Cost of materials | \$ 23904 |
| Hire of cement pump | \$ 700 |
| Hire of vibrator | \$ 55 |
| Freight | \$ 300 |
| Board & Lodging volunteer workers | \$ 4140 |
| Sundries & Contingencies | \$ 901 |
| Cost of Construction | \$ 6096 |
| <u>Estimated Total Cost of Project</u> | <u>\$ 30000</u> |

As before we shall endeavour to have the actual work done on a voluntary basis.

The reasons for building this new Shade Area are three:
(1) The existing Area is full of plants, (2) we are continuing to get, from our collectors, a lot of valuable plant material which, for its satisfactory growth, can only be grown under such a structure, and (3) public appreciation of the present Shade Area indicates that the growing of such plants under such conditions at Burrendong is fulfilling a public requirement.

This new Shade Area will be about four times the size of the original one. The suspended roof will cover an area of approximately 4000 square metres, about an acre of ground, and will be, at the highest point about 30 feet above ground level. This will enable relatively tall plants to be grown under it.

We already have received donations in excess of \$3000 for this project but we need more.

If you would like to help in the construction of this new Shade Area by making a donation would you please send it to our Hon. Treasurer Mr K. Holmes, "Noonee-Nyrang" Gulgong Road, Wellington. N.S.W. 2820 and indicate that it is specifically for the T.S.A. (Tropical Shade Area). Any donations will be extremely helpful and very welcome."

The following donations, to the new Tropical Shade Area, have been received and acknowledged, in the Brigge.

| | | | |
|---------------------|-----------|--------------------|-----------|
| "Newcastle S.G.A.P. | \$ 200-00 | Warringah S.G.A.P. | \$ 200-00 |
| B. & C. Fraser | \$ 20-00 | Peach family | \$ 5-80 |
| R. Pogonaski | \$ 10-00 | A. Bondanic | \$ 10-00 |
| Anonymous | \$ 20-00 | | |

These contributions are very greatly appreciated.
Published by courtesy of the Burrendong Arboretum Brigge.

Old Chinese Proverb.

If you want to be happy for an hour, get drunk,
If you want to be happy for three days, get married,
If you want to be happy for eight days, kill your pig and eat it,
If you want to be happy for ever, make a fernery.

DID YOU KNOW.

The following advice has been supplied by a Queensland member;--
"The Forestry Commission in Queensland does not muck around with 'light fingered' types - it is \$2000-00 fine and confiscation of vehicle, if caught."

AN EXCURSION TO A FEW NATIVE FERN GLADES IN THE BLUE MOUNTAINS -
AUGUST 1984.

Led by Phyll Brown, members met at the Hydro Majestic Hotel at Medlow Bath on the Great Western Highway (which virtually follows the original path of Blaxland, Wentworth and Lawson the pioneers who made the first crossing of the Blue mountains). Cars proceeded up the highway to Blackheath, crossing the railway line to the Shipley Megalong road, turning off Shipley road to Centennial Glen. Unfortunately a cold and vicious wind greeted us; walking carefully to avoid being blown off the track we observed many large stands of *Gleichenia microphylla*. Other areas of the mountains feature mostly *Gleichenia dicarpa*. Here also beneath and protected by the *Gleichenia* were several plants of *Lycopodium laterale*, *Blechnum wattsii* and *Blechnum ambiguum* were present in moist protected positions. Here also in dry situations were *Lindsaea linearis* and *Lindsaea microphylla*, both of these ferns tenacious in nature are difficult in cultivation. As the wind became unbearable we returned to the Megalong road which descends rapidly down a deep gorge which follows the course of Pulpit Hill Creek. This is one of the earliest roads to penetrate to the valley floor. One side of the road is flanked by enormous overhanging sandstone cliffs, the opposite side is rugged but less precipitous. About half way down both sides are surrounded by rain forest with many tree ferns, *Dicksonia antarctica*, *Cyathea australis* now *Alsophila australis* and *Todea barbara*.

We stopped to inspect this fern rich area; both Pulpit Hill Creek and Back Creek that run adjacent to the road carry crystal clear water which never ceases to run (possibly fed by a spring). Growing in profusion were *Blechnum wattsii*, *Blechnum nudum*, also a crested species of *Blechnum nudum*, *Blechnum cartilagineum*, *Doodia aspera*, *Doodia caudata*, *Doodia media*, *Pyrrosia rupestris*, *Microsorum scandens*, *Microsorum diversifolium*, *Lastreopsis acuminata*, *Polystichum proliferum*, *Polystichum australiense*, *Pellaea falcata*, *Pellaea falcata* var. *nana*, *Asplenium flaccidum*, *Histiopteris incisa*, *Sticherus flabellatus* and many species of Filmy ferns.

Fortunately this area was protected from the wind by the steep gully walls creating the ideal condition for the growth of so many native species.

One major problem with this road to Megalong Valley is that it is just wide enough for cars to pass but leaves little provision for parking. Fortunately just past this rain forest area a track leads from the right hand side of the road that allows reasonable parking. Then a short walk up allows a close inspection of the ferns.

It may be of interest that one of the first pioneers to reach the valley floor at Megalong was the bushranger Porter. I understand he had two methods using a very sure footed horse. On one such route he left the Western Highway at Explorers Tree just beyond Katoomba (Marked at the time of the crossing) and proceeded down a waterfall. He then followed Megalong Creek on what could only be described as a crash course until it joined Coxs River. This he continued down to the junction of the Wollondilly River and the then Warragamba River, then up the Wollondilly to camp in Burragorang Valley. Later proceeding out of the upper reaches of the valley to hold up coaches on the Southern Highway.

Having traversed these routes as a lad made me realise how much the later development of these valleys was spurred by men like Porter.

About the time of my first trips, four pioneer families had farms in the Burragorang Valley:- James, Quigs, Maxwell's and Pippins. Warragamba Dam now covers this area with water to four and one third times the capacity of Sydney Harbour. One wonders how these pioneer families felt when forced to leave this once magnificent valley.

WANTED.

One bale of sphagnum moss.

If anyone can help would you please contact Arthur Sharp,
20 Kirby Street, Rydalmere. N.S.W. 2116.

Our last meeting for this year, was a delightful day, spent at the home of Margaret and Peter Olde at Illawong.

Two weeks ago a bushfire came perilously close to the house but did not cause any serious damage. Members were given a guided tour of the lovely native garden and fern house by the official tour guide, Sylvia Garlick.

All members enjoyed themselves with lots of fine food and drinks plus ferns, baskets and liners donated by members. Every one went home with a present.

We were very pleased to have George Parker with us, as he has now moved to his new home at 23 Dungaruba Road, Broadwater.

It was decided at the meeting to donate \$1000-00 to the Tropical Shade Area at the Burrendong Arboretum.

The first meeting for 1985 will be held at my home, and I hope to see as many of the 110 Sydney members as can possibly attend.

If there are any transport problems please telephone me on 7056413. There could be a member coming from your area who could give you a lift, also Bankstown railway station is quite close.

I want to thank you all very much for your help and support during the year, which I hope you have enjoyed.

I want to wish our members in all states, a very happy and peaceful Christmas and New Year and if you are travelling on the roads, please take care.

MERRY CHRISTMAS

Phyll Brown

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

