ASSOCIATION of

. A.P. Fern Study Group



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SPORE BANK:

Jenny Thompson, 2 Albion Place, Engadine, 2233

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## INVITATION

The following is the text of an invitation which has been extended to all members of the Fern Study Group.

#### BURRENDONG ARBORETUM

OPENING OF ADDITIONS TO TROPICAL SHADE AREA BY HON. G.B.WEST, M.P. MINISTER FOR TOURISM, LANDS AND FORESTS AND MEMBER FOR ORANGE.



The Burrendong Arboretum Association and Arboretum Trust extends an invitation to

Members of the A S G A P Fern Study Group

to attend the ceremony which will be held on site at 10.30 am on Sunday, 14 October 1990 and willbe

followed by morning tea and an open day.

Burrendong Arboretum

RSVP 28.9.90 to

K. Frappell, Regional Director, Lands Office, P.O. Box 865, Dubbo, 2830 or phone: (068) 811431

If you are able to attend notify Mr Frappell or let Moreen know and she will relay your acceptance.

For your T.V. Diary: Television viewers see something of Burrendong in a short segment in the Quantum programme expected to be screened by ABN2 at 8 pm on Wednesday 14 September 1990.

A living museum of Australian plants

#### More of Burrendong

A good deal of our Group's efforts over the past 15 years has been devoted to the fern collection established at the Burrendong Arboretum. Accordingly, it is hoped that many members will be able to accept the invitation to attend the official opening of the Shade Area.

At the August get-together of members in the Sydney area, it was decided to make a donation to the Arboretum of \$3,000 raised through fern sales and raffles.

For those who know Burrendong, the name Althofer is synonymous with the Arboretum. George Althofer, its foremost visionary, was largely responsible for the Arboretum happening; Peter Althofer was also there at its inception and has stayed with it ever since, including more than 25 years as its foremost worker; while Hazel Althofer, Peter's loyal companion and great recorder and propagator of plants has also devoted many years to the Arboretum's survival and growth.

Peter was mainly responsible for conceiving, constructing and developing the Arboretum's tropical shade area covering about half of one hectare. It was Peter who inspired the development of the Arboretum's huge collection of more than 80 different species of Australian native ferns. Peter's admirers and friends make up a legion and all were saddened to learn of his recent hospitalisation. Peter is currently receiving further medical attention in Sydney. All would want to support Peter and wish him well in his battle towards restoration of good health. It is expected that Peter will be back at the Arboretum for the official opening of the extensions to the shade area on 14 October. Seeing Peter there will delight most of us even more than the important function on that day.

In order to enhance the appearance of the shade area for the official opening, a small group of members plan a working bee there in the few days prior to the opening, culminating in weeding, cleaning up on Saturday 13 October. More volunteers are certainly required to help achieve the task. If you can spare a day or more to work on the project your assistance would be greatly appreciated. You should bring hand tools, gloves, etc, for weeding, even a mattock if you are really energetic. Of course you should stay and attend the opening of the shade area too. Basic accommodation is available in an unfurnished cottage which has stove and hot showers but you would require a sleeping bag or bedding. More details from Moreen, phone (02) 528 4881.

#### Thank You Contributors & Now for Some Bad News

A special thank you is extended to four contributors to this edition. Firstly, to Irene Cullen who is our voice from the North - or from the South-East if you happen to be in Queensland. We are grateful to you Irene for regularly informing us of the get-togethers planned and enjoyed in the 'Sunshine State'. On this occasion Irene has expanded her usual report of an outing and we like it! Keep up the good work.

Thank you Jan Glazebrook for your excellent report of an excursion to Tomewin, obviously a very special spot. This was Jan's first article for our Newsletter and we eagerly await more. It was especially interesting hearing of <a href="Preumatopteris sogerensis">Preumatopteris sogerensis</a>. Does anyone out there have it in cultivation?

The third contribution is from Betty Rymer, N.S.W. Region's busy Manager of Exhibitions. Betty has written about the ferns in her patch of bush at Kenthurst, a North Western suburb of Sydney. Betty and husband Eric have an interesting array of plants surrounding their home and in their 2 ha backyard there is a variety of Ierns. Betty has included a sketch of the fronds of several of her ferns to illustrate the diverse shapes. Use it to test your skill at identification. When first shown the sketch I failed the test, but a later check of Betty's sketch against ferns depicted in authoritative publications demonstrated the accuracy of Betty's drawings.

Finally, thank you Calder Chaffey for allowing us to use another of the series of articles on "Ferns of the Rainforest" which were originally printed in the Far North Coast Newsletter. Calder's articles are always worthy of careful reading. On this occasion he writes about some unusual members of the Asplenium genus. "Article (5)" mentioned by Calder refers to the article published in our June 1990 Newsletter.

Now for the bad news! Our Leader with the concurrence of those present at the August get-together in Sydney, has decided that the subscription to the Fern Study Group Newsletter should increase for next year to \$4. Remember that our subscriptions are payable on a calendar year basis, so the new rate applies from subscriptions due in January 1991. The renewal subscription notices will be posted out with our next Newsletter.

## Calling All Members in Vicinity of Forster to Coffs Harbour

Keen fernies in the Mid North Coast area would like to arrange a series of get-togethers in their locality. There is great benefit to learning and in in pleasure, in meeting with like minded people to exchange ideas and information about propagating and growing ferns. There are also many ferny areas in the region worthy of visits. Anyone interested in knowing more about these planned gatherings, please contact either Phyll Brown (065) 544 158 or Charlie Chartres (065) 856 296.

#### Red Carpet

A warm welcome is extended to new members:

Mrs J.A. Lawrence of Burnie, Tasmania, Mr & Mrs I. Cox of Castle Hill, N.S.W., Mr R.N. Lee of Canterbury, Victoria.

# The British Pteridological Society... 100 Not Out.

We are pleased to be able to publish the following letter and information received from Jennifer Ide, Secretary of the Organising Committee for the Symposium being held as part of the B.T.S. forthcoming Centenary.

"I am writing on behalf of the British Pteridological Society which is celebrating its centenary in 1991. We are holding an International Symposium and organising a tour of gardens with fern collections as part of our celebratory programme. We would like to request that, if at all possible, a notice about these events be placed in the next edition of the Newsletter of your Group, please. The necessary information is on the enclosed copy of a poster.

The Organising Committee for the Symposium is Clive Jermy (Programme Secretary), Barry Thomas, Anthony Pigott and Jennifer Ide (Organising Secretary), whilst Martin Rickard is responsible for the gardens tour.

The venue for the Symposium is very close to The National History Museum in London, which may well be an added incentive for some people!"

# British Pteridological Society CENTENARY SYMPOSIUM AND GARDEN TOUR

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# AN INTERNATIONAL SYMPOSIUM

ON

# PROPAGATION AND CULTURE OF PTERIDOPHYTES

Imperial College, London, U.K. 8-11 JULY 1991

Sessions will centre upon the diversity of ferns and their allies in the wild, and their potential for horticulture; the role of living collections in education, horticulture and conservation; the application of applied research (including micropropagation) to commercial growing.

for further information write to:

Jennifer Ide, Roehampton Institute of Higher Education
Whitelands College, West Hill, Putney, SW15 3SN.

or telephone 081-788 8268.

# CENTENARY NATIONAL TOUR

OF

## BRITISH GARDENS WITH HARDY FERN COLLECTIONS

#### 13-19 JULY 1991

A conducted tour of about fifteen British gardens, both public and private, holding national and international living collections of ferns. Starting from London, travelling by coach to gardens in South Wales, Devon, West Midlands and the English Lake District, a tour that will be of special interest to taxonomists, growers and gardeners.

for further details write to:

Martin Rickard, The Old Rectory, Leinthall Starkes

Near Ludlow, Shropshire, SY8 2HP.

Walking around my bush I am amazed at the number of ferns I can find and what is more I can put a name to them.

This last year we have been busy eliminating a weed infested area. It is a slope with blackbutts, turpentine and pittosporums overhead. The ferns are coming back very quickly. Now there is a lovely bank of pale green Adiantum aethiopicum and between the rocks large patches of Pellaea falcata. Adiantum hispidulum always appears peeping from the bottoms of the rocks looking glorious with pinkish new growth and Culcita dubia growing in masses with its tufted habit, thick stipes and long pale green fronds. Culcita grows all the way down to the creek and along the creek, mixed with Pteridium esculentum. Towards the bottom of the hill Blechnum cartilaginium appears and along the creek, Cyathea australis.

I was delighted to find Asplenium flabellifolium appearing in a deep rock crack in the newly cleared area - I am helping this along by adding a little more. Also in this same area a small Platycerium bifurcatum has appeared. I know of one large plant down on the rocks near the stream - do these babies come from this large one or are they from those near the house?

In the damp runs <u>Gleichenia microphylla</u> can be found. Much of the Sticherus died when we had several very dry years and maybe more houses altered the flow of water, but it can still be found in a few spots. In the cleared area a lovely patch of <u>Cheilanthes sp</u> is appearing. In some of the damper areas <u>Lindsaea microphylla</u> is found. One area is covered with the large dark green moss <u>Dawsonia</u> and <u>Lindsaea linearis</u> and <u>L. microphylla</u> grow among it making a lovely colour contrast.

Further on the sides of the stream become steeper and here more tree ferns and <u>Todea barbara</u> some with massive trunks attached to the rocky sides. Now <u>Blechnum nudum</u>, these must go under water when we get huge rainfalls. Also a fern I think maybe <u>Christella dentata</u>.

Two ferns that have become almost weeds in the garden are Pteris tremula and Hypolepis muelleri. Pteris tremula makes superb plants and looks very attractive - Eric is always praising it. It dies in the dry but is there again when the rain comes. The spores germinate in great masses but the number that survive is really very small - thank goodness I say, or it would be like the trifids and overtake us. It certainly is a fern that has easily germinated spores. Hypolepis muelleri is quite different, it covers big areas and the tiniest piece of rhizome grows. I often wonder why we go to lengths to grow all the unusual and difficult plants - a challenge I guess but these local ones are so attractive and show great variation in shape and colour.

I remember when we came from England I was thrilled to find we had a bit of land with huge rocks on it but it is only since joining the Fern Study Group that I can put a name to the ferns and this gives me a real sense of achievement. There is always something new and something more to learn in the bush. Let's try and keep some of this beautiful bushland around Sydney.

Drawings: I've tried to put together a selection showing a range of shapes and patterns. Couldn't draw some of the ferns.





ASPLENIUM - SPLEENWORTS Family - ASPLENIACEAE.

Several ferns of the genus Asplenium which will grow in the north east of N. S. W. and in your rain forest gardens have already been discussed. Finally we shall consider three ferns, unusual and beautiful which can be grown with little effort. Two are found in this area, the other in N. Queensland. Note that the characteristics of Asplenium were covered in article (5) and these apply here.

C. UNUSUAL SPLEENWORTS.

a. Asplenlum polyodon- Mare's Tail Fern.

This fern exists in a number of forms but here we are only interested in the pinnate form. It has a creeping rhizome with brown scales. Stipes are dark brown or black with fronds up to 1 m. in length and usually pendent. Pinnae to 100 mm in length and serrated. Sori about 10 mm long transverse and slightly curved.

It is usually an epiphyte growing in elk and staghorn masses and often on rotting logs. It is common in the rain forest and can easily be grown in similar situations in the garden. It can also be grown in an open mixture in hanging baskets where its pendent form makes it an excellent specimen-hence its common name. Distribution is N. Queensland to S. Victoria, New Zealand, New Guinea and Asia.

b. Asplenium flaccidum- Weeping Spleenwort.

The rhizome is short creeping with black scales, rhachis black at the base becoming greener as it ascends. The fronds are bipinnate and pendent. The sorus is long (10 mm) and one to each pinna along its medial edge.

This fern is usually found growing on trees or rocks in the rain forest and again due to its pendent nature makes a good basket plant. Like several other members of Asplenium there is a lot of variation. Distribution is from S. Queensland to Tasmania, New Zealand and some Pacific Islands.

c. Asplenlum laserpitilfollum- Johnston River Fern.

Tufted Rhizome with curly brown scales. Stipes are black with glossy bright green fronds to 1.5 m in length and tripinnate or quadripinnate. The sori are up to 10 mm long and one to each pinna.

This is a very beautiful and interesting tern. The type from which A. laserpitiifolium was originally described occurs in the Seychelles. There is a lot of variation and allied species occur in Asia and Western Malaysia. The Australian form is found in N. Queensland and often grows in association with Asplenium nidus. It grows in the lowland wet rain forests in the ground, rotting logs, cracks in rocks or in other epiphytic ferns such as staghorns. It makes an excellent pot fern or under storey plant but likes a lot of light and plenty of fertiliser. Feed three times yearly with blood and bone and two weekly with half strength aguasol in the growing period. It is easy to grow in N.E. N.S.W. but must be in a frost free area. Its beauty is well described by Jones & Clemesha- "The long, broad, shiny, deeply dissected fronds arch or weep from trees, rocks or other epiphytes, such as bird's-nest ferns, making an unforgettable sight."

GLOSSARY

BIPINMATE- having paired leaflets- divided to a secondary rhachis

PENDENT- hanging down

PINNA- primary segment of a divided leaf

PINNATE- frond with leaflets on either side of the rhachis

RHACHIS- the main axis or mid rib of the frond

### That Ray Best Again!

How very lucky are those that know Ray Best. Not only is Ray so knowledgeable, he is willing to share his wisdom and experience with others. We are very fortunate that ferns are one of Ray's special interests. The following extract from a letter sent to Ray from one of our newer members, Ed Brown of Florida, is just another illustration of Ray's generosity and helpfulness.

Ed's letter to us was published in our March 1990 Newsletter and he was particularly interested in our tree ferns, cycads and palms which tolerate some frost and colder weather. Ed was seeking correspondents and was willing to contribute spore or plants.

Ed Brown's address is 10712 Lippizan Drive, Jacksonville, Florida 32257, United States of America.

Ed has written to Ray as follows:

I received your letter and photos. I was overwhelmed by the pictures and thank you so much for them. I shall go through my files when I return to Florida and see what pictures that I can send to you. You are exactly right about the names. I write these letters usually on the road in circumstances where I do not have a reference book to check spellings. I spell the species name from memory and my memory is quite a bit below photographic.

I thank you for the C. muelleri spores. I recieved your letter the day before the trip. I plan to sow the spore once return. While I am out on the island, I shall attempt to locate some spore of interesting species for you.

I wanted to ask you about the cold tolerance of the tree ferns at your fern gully. In the article you wrote you mentioned that C. muelleri, C. medullaris, C. australis, C. brownii, D. squarrosa, and D. fibrosa survived freezes to -6 C (or thereabouts as best I can remember). Where these plants covered or protected? Did all of these species survive or outside in lath houses. I have several of the D. fibrosa and D. squarrosa that I plan to set out side to see what they will take. Any thing that you could tell me would certainly add to my confidence.

I'm sorry that you cannot travel. We have been fortunate in that we have had a few good years so that we have been able to save the resources for a trip. We have so many plants that (it is completely out of control) it is a major undertaking to leave the place for a few days. My wifes brother and his wife have been kind enough to house sit for us and water the plants while we are gone.

I have been quite pleased with the reception to my offer in the journal for correspondance. I have had several people return correspondance and this overt friendliness has certainly touched me. In the states here Australians have the good reputation of being extremely friendly and outgoing folks. I know this is largely due to some of your movies that find their way here but it is really true. One of these days I would like to visit your country and meet you and some of your country men.

Best Wishes,

Elu Brown

## Advice from America. Extracts taken from South Florida Fern Society N/L.

When to Spray It used to be that our growers would spray their pesticides on a regular schedule, preventative maintenance so to speak. Nowadays, with the concern for ecology and contamination of our water supply, most growers only spray when they see a pest problem. And some only spray the individual plant with the problem, not the whole area. This helps prevent a toxicity level from building up in the plant or the soil and also keep some pests and fungi from developing strains resistant to your sprays. In the same vein, many of us like using natural methods for controlling Much is being done in this field and we are constantly being provided with new products to control our pests which are naturally found in nature, so they aren't harmful to our environment when we apply them The following are some suggestions if you,d like to try a to our ferns. more environmentally safe way of controlling pests! Snails and Slugs - night feeders, follow the slime trail and either pick them off individually or bury a stale bottle of beer half way in the soil (they're attracted to the beer and then drown) . Caterpillars and Worms - any product that has the ingredient of Bacillus thuringiensis in it. It's a naturally occurring bacteria which, when ingested by the caterpillar, causes it to stop feeding and die. not harmful to earth worms or any beneficial insects. Aphids, Mealy Bugs, Mites and Scale (juvenile stage) - a forceful syringing of water mixed with ordinary dish soap. You can chase most sucking insects off this way. Fungus - prevention is the best course here. Use loose, easily draining soil mixes so the plant won't be sitting in a soggy mess. Trim off old,

DON'T over water!

Roaches and Ants - Borax powder (you can find it at Chemists) spread around pathways and routes that these pests might take to your ferns.

crowd your plants too close together, give them room to breathe.

spent fronds so they won't be left sitting on the soil surface. Don't

# Notes on Meeting at Epping on 16 June 1990

There were 25 members at Rose Bach's home, a cold day but able to be enjoyed outside amongst the surrounding garden dripping with ferns. Rose has something for all fern fanciers to admire, tree ferns, many ground ferns looking vigorous enough to only ever require a little trimming and restraint, masses of ferns and oddities in well constructed rockeries and in baskets, pots and terraniums.

At least one member begged to be allowed back for a closer, more leisurely view of some of Rose's special ferns - such an inspection would be necessary to observe her varied collection which included plants of Leptopteris fraseri.

In two previous sessions Peter had discussed Blechnums of Tasmania and of North Queensland. There are eleven species of Blechnum in the Sydney area and these are very well described, although the language is somewhat technical, in "Flora of the Sydney Region" by Beadle, Carolin and Evans. That publication also contains a key to the identification of the area's Blechnums, but again the key requires a fair knowledge of botanical terms for its use.

Peter had developed a simplified key and used it to demonstrate the identification features of this group of Blechnums. A copy of Peter's key follows.

## Key to Blechnums of Sydney District

| Fronds not dimorphic<br>Fronds dimorphic   | 2<br>4                  |
|--|-------------------------|
| Pinnae (at middle of frond) attached by broad bases Pinnae (at middle of frond) stalked  | B. cartilagineum        |
| Rhizome erect and articulated Rhizome creeping frond pendant (not articulated)   | B. indicum B. gregsonii |
| Fronds simple to lobed Fronds regularly pinnate  | B. patersonii           |
| Pinnae attached by broad bases<br>Pinnae stalked in middle of frond  | 6<br>8                  |
| Rhizome wiry medium to long creeping Rhizome tufted often short trunk  | B. penna-marina<br>7    |
| Sterile pinnae margins entire<br>Sterile pinnae margins crenate  | B. nudum B. chambersii  |
| Lower sterile pinnae rounded to auricles<br>Lower sterile pinnae not as above  | 9<br>10                 |
| Lower pinnae prominately auriculate,<br>sterile pinnae +/- crowded<br>Lower pinnae reduced in size and only<br>occasionally auriculate   | B. camfieldii B. minus  |
| Rhizome scales brown to fawn, woody long creeping rhizome, circinnate buds, plants not freely branching Rhizome scales dark brown or black with pale border, plants +/- tufted forming | B. ambiguum B. wattsii  |
| extensive colonies by stolons  | D. Wallsii              |

#### Notes on Visit to Somersby Fall: on 15 July 1990

Sixteen members participated in this Central Coast outing on a sunny Winters day. On a previous visit in August 1988 we were without our Leader. On this occasion with Peter to lead us and more time we were able to venture further downstream but still didn't manage to search all the area.

Well made steps down the steep descent from the car parking area facilitated entry into the chasm below the Falls but progress was punctuated by many stops. There was a delay opposite a large stand of Gleichenia rupestris with flat pinnules and glaucous lower surface, easily distinguished from the nearby clumps of the more commonly encountered Gleichenia dicarpa which has rounded pouched pinnules and obvious hairs and scales along the secondary rachis.

Blechnum ambiguum growing in rock crevices was confidently identified after seeing the non-fleshy circinnate buds on long thin rhizomes.

Later, when we reached the area near the base of the Falls our certainty of identification was shaken as we examined others among nearby Blechnum wattsii and B. Minus without always being able to tell clearly whether rhizomes were creeping or tufted. None of the ferns studied could be identified as B. camfieldi lacking the often conspicuous features, large auricles of pinnae towards the lowest part of the frond and prominent dark tubercules on stipes of mature fronds. Later study of the rhizome scales confirmed Peter's on the spot identifications.

Three different fern oddities were seen. Just a few plants of the ancient Psilotum nudum with its skeleton like wiry stems, but Schizaea rupestris was common in the rock crevices. This Schizaea is the smallest of the genus in the Sydney area and the only one without revolute margins on its fronds. The third of the oddities was Tmesipteris truncata distinguished by the lower portion of stems being ridged on all sides, a feature not easy to detect under dripping overhanging rock faces, but also observed growing on the base of Todea barbara.

The slippery rocks and spray of water from overhead ledges in some places together with the varying standard of footwear worn by members and their degree of foothardiness, tended to keep us apart in small groups which is not good for communication and shared learning. But Somersby Falls is full of interest for fern lovers and in all 32 different species were located in a walk of less than 500 m.

#### Notes on Meeting at Dural on 26 August 1990

Our hosts were Norma and Fred Johnston at their home in a glorious bush setting over looking a steep gorge. First time visitors there were enthralled at the lovely setting and splendid Australian bush garden. The wattles were stunning, Boronias, Eriostemons and many other plantings blended superbly with the picturesque, rugged landscape. During the day the many Grevilleas attracted a host of small birds including Yellow Robins and Eastern Spinebills.

There were many ferns and in a number of cases, it was difficult to determine which had been planted and which were part of the original flora of the area - and that's a feature that many of us strive to achieve with our plantings. The large clumps of a vigorous Adiantum hispidulum are apparently native there, most of the many tree ferns and a great Platycerium superbum evidently aren't, the tree ferns included a fine Cyathea australis, while as for Pellaea falcata it was anyone's guess. Towards the bottom of the Johnston's property there is a large stand of Sticherus flabellatus, many SGAPers have often seen fronds of this particular fern in floral displays at Rogion and Parramatta & Hills Group Exhibitions, but time constraints prevented an inspection on this occasion.

Peter conducted the study session on the genus Nephrolepis which he said in Australia comprised six native species while one introduced species had naturalised. This exotic was N. exaltata, a hardy fern with many varieties widely included in fern collections. N. exaltata has rather wide pinnules and its coarse rhizome tends to creep a lot and it can become a dreadful weed in the garden. All the native Nephrolepis spp extend beyond Australia, most to the Pacific islands and Asia.

 $\underline{\text{N. cordifolia}}$  was the only member of the genus truly widespread in Australia and it was the only one native to N.S.W. where it grows on the North Coast. It is easily distinguished from all other natives because

it is the only one that develops tubers. Peter had brought several potted specimens to the meeting including N. cordifolia from both Mount Lewis and Terania Creek which showed considerable variation. The distinctive features of N. hirsutula are its crowded deeply lobed pinnae and the marginal sori. A coarse fern it is almost a weed in North Eastern Queensland. N. auriculata syn N. biserrata is another vigorous fern. Its large glossy lime-green pinnae are not lobed at the base and the sori are set well in away from the margin. N. acutifolia in North Eastern Queensland grows among rocks in fairly exposed positions. It has narrow fronds to about 1 m and it is markedly dimorphic. The sori is continuous elongated along the margin of the pinnae. N. obliterata is found in North Queensland and in Northern parts of Western Australia. It is described as having hairy pinnule but this feature was not altogether clear on at least one of the plants brought to the meeting. The fertile pinnae grows to 1.5 cm wide while the sterile pinnac is almost twice as wide and the margins are deeply crenate. Lastly, N. radicans var cavernicola. This variety is only known from round Chillagoe and as suggested by its name, is generally found around caves. The fronds grow to about 1 m, have crenate margins and sori which is situated only a short distance from the margin.

# Forthcoming Events in the Sydney Region

Note; There has been a change of dates for the outing to Galah Mountain, both from date published in the previous Newsletter and the one discussed at our August get-together.

#### Week 17 to 23 September 1990, Spring in the Gardens

This Royal Botanic Garden's extravaganza is again N.S.W. Region's major public activity of the year with plant sales and displays including what Betty describes as a "walk around" rainforest. Offers of the loan of ferns appropriate to the rainforest setting would be most appreciated. Volunteer helpers are also wanted for each day of the Show and also for the set-up on the week end prior and pull-down late on 23 September. Offers of assistance and enquiries to Betty on (02) 654 1831.

#### Saturday 24 November 1990, Outing to Mount Galah

This excursion was originally planned for October and then early in November, so please check any diary references. Peter says that the walk in this attractive area should be relatively easy and drier with the onset of warmer weather. Meet at 9.30 am at Clarence Railway Station on the Zig Zag Line, this is on the Bells Line of Road, ready for 10 am sharp start. We will travel in car convoy to the beginning of the walk. The track is reasonable but somewhat steep and can be slippery so wear appropriate footwear. Take a back pack as we will need to carry our lunch. Enquiries to Peter 625 8705.

#### Sunday 2 December 1990, End of Year Function at Dural

Our hosts are Pat Kenyon and Ted Newman, how could it be otherwise after enjoying such a "funtastic" day there this time last year! The address is 1057 Old Northern Road, Dural and you enter from private road on right hand side exactly 2 km from Dural Post Office. The last street passed on the left is Wyoming Road. The turn to the private road from Old Northern Road is near a crest and it is preferable to continue along Old Northern Road for a short distance to a spot beneath power lines

where there is room for turning. Enter private road and proceed about 650 m.

Arrive from 11 am. We are to pool lunches, please contact Pat prior to the day to discuss whether bringing meat, salad, sweets, etc. In keeping with tradition for these functions, bring a gift and receive a gift. If bringing a visitor please remember you should provide an additional gift to avoid embarrassment. Price of gifts less than \$5. Enquiries to Pat phone 651 2765.

## Saturday 23 February 1991, Outing to Carrington Falls

#### Sunday 24 March 1991, Meeting at Collaroy Plateau

#### FORTHCOMING EVENTS IN SOUTH EASTERN QUEENSLAND

## Week-end 15 & 16 September 1990, Fern Display, Qld Region Flower Show

Meet 3.30 pm Friday 14 September to set up display at the Redeemer Lutheran College, Rochedale Road, ROchedale.

#### Sunday 7 October 1990, Excursion to Tomewin

Meet 9.30 am at Olsen's Bird Sanctuary, then 10 am at John Bolger's property, Tomewin Road, Currumbin.

## Sunday 4 November 1990, Final Meeting for Year

Meet at Joyce Ward's property Fahey Road, Mt Glorious. Bring lunch and fern for exchange.

## Report on Visit to Home of Geoff Simmons, Elimbah

Seventeen members from Fern Study South Eastern Queensland met at Geoff Simmons home on Sunday, 5 August and were treated to an excellent talk with practical demonstration on raising ferns from spore by Geoff. He demonstrated his method by using Platycerium superbum as an example.

He showed his technique right through from collecting the spore, separataing spore from its debris; the sowing of spore on to moist jiffy pots set in small containers; small sporophytes pricked into trays; 5cm plants mounted on foam basket liner and in varying sizes to full grown ferns. All products of his own propagation.

Geoff doesn't pretend his method is infallible but it is a method the home enthusiast can handle. It is to be hoped that soon we will all be able to read an article by him on this method with photo illustrations. (Ed: In our next Newsletter there will be a full report on the book on Australian Ferns which the Study Group is in the progress of producing).

Members also enjoyed looking at Geoff's shade house. He grows Hoyas using the "moss ball" method. The ball consists of two small wire hanging baskets, lined with spagnum moss filled with potting mix and drainage material, then clipped firmly together. He also gave us the idea of using these for displaying ferns such as Platycerium and others.

Then we admired his garden of three years, planted on a hillside. Looking down on it from the broad patio, we saw the ingenious way he has landscaped his garden to accommodate his vast collection of Cycads. The five beds make up the Southern Cross - yes there are points on the stars as well. Congratulations Geoff, and our thanks to you for a memorable day.

Irene Cullen.

#### An Excursion to Tomewin 15/7/90

After two previous attempts to visit the Tomewin area, near the Qld/ NSW border were cancelled because of the weather, 9 SE Qld fern study group members, John Bolger, John Lever and his friend Barry (an expert on rainforest plants) had a perfect day to see John Lever's 125 acres of rainforest.

Since the 1940's when John's family acquired the property, no clearing or logging has taken place. The trees on the upper slopes were reasonably young and healthy specimens. The diversity of species was enormous, with several rare and uncommon rainforest trees growing there. Lepiderima pulchella, Ardisia beckleri, Citronella moorei, Akania lucens, Randia benthamiana and Helicia ferruginea were among the trees identified by Barry.

The first ferns to greet us as we stepped through the Lantana on the road verge were small plants of Cyathea australis. As we proceeded down the steep slope we came across Adiantum hispidulum and A. diaphanum, Blechnum cartilagineum, Doodia aspera, D. heterophylla and D. caudata, Lastreopsis marginans, L. microsora and L. munita and Davallia pyxidata.

On one section of the track where the bank had been cut away, Arthropteris beckleri had found it's niche.

Down in the stony creek bed, where it was much damper, Microsorum scandens and Arthropteris tenella scrambled up the tree trunks. Here the big trees were hosts to Platycerium superbum, Asplenium polyodon and Asplenium australasicum.

The highlight of the day for me was seeing the giant creek ferns, Pneumatopteris sogerensis growing near the creek edge. Also in the same area grew Diplazium dilatatum and the lacier D. australe. The spore pattern on both Diplazium species was very distinctive, with the sori along the veins in elongated V's.

Lastreopsis smithiana was also growing in the creek bed, and Pellaea falcata var. nana made pretty rosettes on the damp rocks.

Adiantum aethiopicum was at home among the boulders and on a drier bank a colony of Asplenium attenuatum with each plant attached to its progeny created some interest.

Proceeding up the other side of the creek, we found Arachniodes aristata and Pteris tremula. Cyathea leichardtiana (prickly tree fern) was common here and an odd Cyathea cooperii was seen.

Finally hunger persuaded us to turn around and climb back up to the cars for lunch. The morning had certainly whetted our appetites to see more of the interesting and diverse flora of this area. John is hoping to interest the Dept. of National Parks and Wildlife in purchasing his 125 acres. I for one would like to see such a valuable area preserved for others to enjoy.

Jan Glazebrook