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ASSOCIATION of

S. G. A. P. Fern Study Group



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Phyll Brown our redoubtable Leader of a few years ago and now living at Smiths Lakes, together with Charlie Chartes of Wauchope, a long time and thoughtful grower of native ferns, have succeeded in forming the nucleus of a group of members interested in meeting together in their area. It's quite a large area. Jean Hope is another keen "Fernie" who is interested in being part of the group and she lives at Coffs Harbour. The formation of the group is great news and hopefully other SGAP'ers in the Mid North Coast District will want to join with them.

In this Newsletter we are pleased to include a report of the recent exploits of our Mid North Coast members and we trust that they will flourish and have many enjoyaable gatherings.

For most, there are lots of advantages in meeting with others of similar interests, sharing experiences (and plants), improving one's understanding and knowledge and generally having fun. Many of us enjoy searching for fern habitats and there is a good deal of satisfaction in discovering outstanding ferns and maybe species which are not common in the particular area. The easiest way to find the choice fern places is to go along with someone who has been there before.

If you live outside the areas of Sydney, N.S.W. Mid North Coast and South East Queensland, and are interested in participating in fern meetings and outings, let us know. We can advertise your interest in the Newsletter and maybe find others of similar inclination to your own.

Our Newsletters include particulars of meetings and outings planned by the Sydney and South East Queensland groups of members. When the Mid North Coast group is properly organized we hope to publicize its forward program too. By knowing the details of the functions planned, members on holiday or just visiting the area, are able to attend. Remember that members are welcome at any of our groups meetings or outings.

Books!

Fern enthusiasts wanting more information from the written word, have been well served in the past few months.

First there was "Ferns of Queensland" by S,B. Andrews, described as a handbook of the Queensland ferns and fern allies. This 428 page book had quite a long gestation period. Available at last, it is the long looked for authoritative text on the Queensland ferns. The Queensland ferns apparently comprise more than 80% of all the fern species native to Australia.

The book doesn't contain cultivation notes and the descriptions might be a bit technical for the non-botanist. Nevertheless, the keys in the book are good and the drawings very helpful. The book is comprehensive and altogether a must for anyone keenly interested in putting names to the vast majority of the Australian ferns. There is more about this book later in the Newsletter, thanks to a contribution from Ross Scott.

John Mason, Principal of the Horticultural College, in Melbourne, has recently released his book "Growing Ferns". It is a book of 96 pages includes 16 pages in colour and covers both Australian and exotic ferns that are popular in cultivation. Useful information is provided on fern propagation and management, although it is necessarily somewhat general in the coverage of some significant topics. The book does have the great merit of being written in clear, easily digested terms.

The other book just released is Volume 1 of "Flora of New South Wales" edited by Gwen Harden" of the Royal Botanic Gardens. In all there are to be four volumes. Volume 1 covers the classes of vascular plants of most interest to our Group, namely, Psilopsida (fork ferns), Lycopsida (clubmosses and quillworts) and Filicopsida (true ferns). Volume 1 also includes the Cycads, Conifers and the flowering plants of the class Magnolopsida.

Apart from the thrill of getting an up to date State-wide "Flora", the previous one was published in 1893, most pleasing is its language which should be just right for the average SGAP'er. It seems to be a sensible compromise between the full botanical descriptions expected from botanical gardens and the outlines found in popular garden magazines or on plant labels. Each species is illustrated by a sketch highlighting identification features and there are easy to follow keys. Volume 1 consists of 660 pages including 32 colour plates. It is recommended for anyone wanting an authoritative and comprehensive description of all N.S.W. species of fern and fern ally.

All three books are available from SGAP Book Service, P.O. Box 104, Winmalee, 2777.

'Our' Book

What of the book that the Fern Study Group has been helping to write?

The notion that we should produce a series of books on the Australian ferns was first mooted way back in 1984. Bill Payne, Editor of "Australian Plants", was the driving force behind the project.

Bill spoke to our then Leader, Phyll Brown, and attended one of our Sydney get-togethers. The idea of producing our own fern books was greeted with enthusiasm, especially by those not on the Committee which was elected to undertake the project. Work commenced on the *Platyserium*, *Drynaria*, *Blechnum* and *Cheilanthes* species. A questionnaire was sent to members and in due course a number of members made valuable contributions which were collated and typed. Bill Payne persuaded several knowledgeable writers to prepare articles and photographers to contribute slides and arranged the typing of the first draft.

By this time only Margaret Olde of the Committee remained and the Group had a new Leader. Peter had accepted the office of Leader somewhat reluctantly and then only on the understanding that a few of the arm twisting members would relieve him of the tedium of administrative matters. It is not surprising that Peter was not convinced that he was responsible for producing a series of books.

A first meeting of Bill Payne with the Committee by default, Peter, Margaret and Moreen, identified differences in approach. But it wasn't until Bill produced a second draft that Peter's arguments held sway - the book as originally conceived was not good enough. In particular, Peter wasn't prepared to endorse a book encompassing four genera which omitted about one half of the *Blechnum* spp.

"Our" Book has now been enlarged and rewritten for better consistency of presentation and expression. The content of the book is virtually completed and ready for submission to Bill for preparation of another draft manuscript, although the searching continues for better slides and of course the accompanying captions. In particular, a good slide of *Blechnum wurunuran* is needed. We are hoping that Peter will have solved this one as a consequence of his November 1990 trip to North Queensland.

The next draft should only require minor amendment. When satisfactory the manuscript will be submitted for the consideration of the Publishing Committee of SGAP - N.S.W. Region. Barring the unforeseen, we expect that "Our" Book will solve our 1991 Christmas gift giving requirements.

A Word of Caution on Time Release Fertilizers

(Extract from South Florida Fern Society Newsletter)

Some discussion on the time release fertilizers (like Osmocote) indicate that there can be a hazard in using these types of fertilizers because of harmful salt buildup in the soil in the pot. From observation, the only time this seems to be a problem is when the grower has a misting system for their ferns which comes on several times a day. This keeps the little fertilizer balls constantly wet and so constantly releasing their fertilizer. If you have a watering (not misting) system that comes on once a day, its heavier watering helps wash the excess salts right out of the soil and the balls have a chance to dry and stop the release of more fertilizer until the next day. Considering the high cost of these types of fertilizers, it doesn't make much sense to use them where they will be spent out long before they're supposed to anyway.

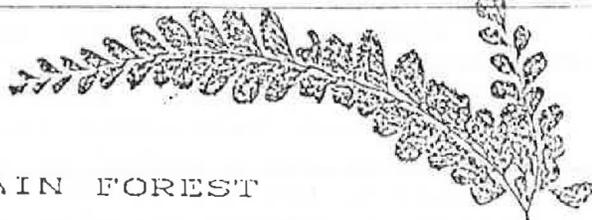
Contributions to the next Newsletter Contributions not only welcome, they are essential. Closing date for next edition 15 February 1991.

The following was extracted from SGAP- Far North Coast Newsletter

FERNS

OF THE RAIN FOREST

CALDER CHAFFEY



CHRISTELLA- BINUNG Family - THELYPTEREDACEAE.

Two ferns which are indigenous to this area and are widespread in our local rain forests are the Binung. They are both beautiful ferns with graceful form.

a. *Christella dentata*.

The rhizome is short-creeping with a dense covering of brown scales. The fronds spread on a tussock which develops into a short trunk in tropical areas. Fronds are dark green, bipinnatifid and grow up to 100 cm in height. The colour darkens as the fronds mature. Pinnae are thin with an auriculate base, lobed and sparsely hairy with some thick orange glandular hairs. The upper five pairs of pinnae are gradually lengthened while the lower ones are gradually reduced. One pair of basal veins unite with the excurrent vein. The sori are on either side of the mid-vein of the lobes and are covered by reniform indusia. Spores are black and bean shaped and easy to grow.

This fern is found on the margins of the rain forest and adjacent eucalypt forests usually growing along water courses or near by. It is easily grown, hardy and suitable for pots, rockeries, in the ground or amongst trees. It will tolerate a good deal of sun and frost. It is very fast growing. Distribution is along the whole east coast, S. Australia and New Zealand.

It was previously classified in the genus *Cyclosorus* and known as *C. nymphales* and *C. dentalus*.

b. *Christella parasitica*.

The rhizome is short-creeping with brown scales. Fronds form a tussock and grow up to 50 cm in height. They are pale green and bipinnatifid. Pinnae are thin and textured, deeply lobed and tapered throughout to end in a tail. The lower ones are not reduced as in *C. dentata*. Sori are covered with a reniform indusia and covered with pointed hairs.

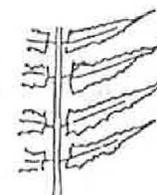
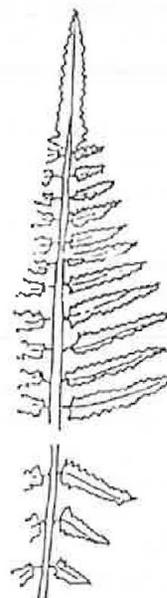
This fern is usually found in similar situations to *C. dentata*. It is also easily grown and the remarks already made about growing *C. dentata* apply here except that it is frost sensitive. Distribution is in Queensland and N.S.W.

Both ferns can be seen in many places in the "Big Scrub" usually where there is plenty of light and near creeks. They are also plentiful in many rain forest remnants around Lismore District.

There is a lot of variation in the two ferns and it is thought that this is due to hybridisation between the two species.

GLOSSARY

- AURICULATE- ear-like appendages
- EXCURRENT- a vein projecting beyond the margin
- INDUSIUM- membrane covering the sorus
- PINNA- primary segment of a divided leaf
- PINNATIFID- once divided with the divisions extending to the rachis
- RENIFORM- kidney shaped
- RHACHIS- the main axis or mid rib of the frond
- SORUS- a cluster of sporangia or spore bearing cases



COLLECTING FERN SPORES

A. R. BUSBY

16 Kirby Corner Road, Canley, Coventry

Collecting fern spores is a relatively straight-forward task as long as a few simple rules are followed. Normal species usually provide normal spores which, when grown on a suitable compost and given a little warmth and light, will germinate readily. Most hybrids produce abortive spores which will not germinate. Hybrid spores are easily recognised, if they are examined at around 100x magnification they will appear white and somewhat wizened. Healthy spores have a uniform shape, often round or similar to the segments of an orange. They will vary in colour according to species: i.e. yellow, black, brown or green.

Spores of Garden Ferns

Hardy ferns in British gardens usually produce their spores from June onwards. When the spore cases are ripe they will appear light brown and often show the colour of the spores inside - *Polypodium* = yellow, *Athyrium* = black, etc. Another indication that the spore cases are ready is that the protective scale, the indusium, will have withered or completely disappeared to give the spore cases room to dehisce. A hand lens, preferably with a 20x magnification, is useful for checking the condition of the spore cases on the frond. Remember, if the spore cases have a ragged appearance and/or if there is lack of spore colour, the spores have probably already dehisced.

In most cases two or three pinnae will provide an ample quantity to sow. Simply place the pinnae in a paper envelope and keep it somewhere warm and dry for a day or two. Never use polythene bags as any trapped moisture will delay or even prevent the spore cases dehisce. After a day or so give the envelope a few flicks with a finger to ensure that the spore cases have opened and that a dusty deposit, including the spores, is in the bottom of the envelope. The pinnae themselves can be discarded. If there are no spores then the pinnae were either picked too late, and the spores have gone, or too soon.

Indoor Ferns

The spores of tender indoor ferns are available almost all the year round, although during the short days of winter fewer fronds are produced. Nevertheless, the technique for collecting hardy fern spores applies equally to indoor ferns.

Cleaning Spores

I do not consider it essential that spores are separated from other sporangial debris but there is always the possibility a contaminant may be introduced and cleanliness is going to increase the chances of a successful spore sowing. To clean the spores brush (I always use an artist's natural bristle paint brush) them onto a sheet of paper. I find newspaper excellent for this, but any type of non-shiny paper can be used. Slowly tip the paper on edge, the heavier sporangial debris will fall off the paper while the much smaller fern spore will adhere to it. A small quantity of spore may be lost but what is left will be more than adequate for most needs. Next, carefully fold the newspaper in two and tap gently, this traps the spores along the crease and they can be brushed onto a crock saucer. (Not plastic as any static electricity present will render the spores uncontrollable.) To sow them, gently brush a small quantity onto the surface of the compost.

The Longevity of Fern Spores

The longevity of fern spores is often discussed between growers and involves much speculation rather than hard fact; certainly, green spore from such genera as *Osmunda* and *Ophioglossum* have a very short life, perhaps a matter of only a few days. However, I often supply spores of *Osmunda* to various parts of the world by airmail post and have never received any complaints concerning lack of germination. The spores of other

genera may remain viable for weeks or perhaps even months. I recommend that we ignore all this and obtain spores as fresh as possible and sow immediately.

Storing Spores

I have one recommendation on this - DON'T! Fern spores are much better off on the surface of the compost rather than languishing in an envelope. Of course, spore from the Society's Spore Exchange have to be stored and because of this the Society cannot guarantee the viability of the spores that are freely given. (But most grow - Ed.)

The Society's Spore Exchange Scheme

When collecting fern spores please do not forget our Spore Exchange Scheme. While collecting one or two pinnae why not press the entire frond between sheets of newspaper? The surplus spores, carefully named and fully labelled, will be gratefully welcomed by the Organiser, Margaret Nimmo-Smith. Even our most common species are in demand by our overseas members.

I wish you every success with your endeavours.

The foregoing article was taken from "Pteridologist" Volume 2, 1990, the journal of the British Pteridological Society. Details of some of the exciting events being held in 1991 to mark the centenary of the B.T.S. were published in our September 1990 Newsletter. Advice in the article "When collecting fern spores please do not forget our Spore Exchange Scheme", is repeated in respect of our Group's Spore Bank. The Spore Bank Curator, Jenny Thompson, is always pleased to receive donations of fresh spore.

Identification of the "other" Dicksonia spp.

Way back in 1987 our Leader led a study session for us on the genus Dicksonia. Of course we all know D. antarctica. The following article taken from the Newsletter of the Victorian Fern Society, gives the definitive description of the two less common native Dicksonia species.

Dicksonia youngiae and D. herbertii are Different

David Jones
National Botanic Gardens, Canberra, ACT

In the Australian Systematic Botany Society Newsletter No.6 1982, Gordon Guymer established that the name Dicksonia herbertii W. Hill was published just prior to D. youngiae C. Moore. This means that D. herbertii W. Hill must take precedence as the correct name for this tree fern if there is only one species involved.

I have studied these tree ferns in various localities from north-eastern NSW to north-eastern QLD and there is no doubt that two distinct species are in fact involved, one in the north and the other in the south. This means that both names mentioned above are applicable since D. herbertii was described from north-eastern QLD and D. youngiae from the Clarence River area of north-eastern NSW. The two species are separated by a gap of some 2000 Km. They can be readily distinguished by the hairs and sheen of the frond surface (summarised in Table) and also have remarkably different growth habits.

Dicksonia youngiae and D. herbertii are Different (con't)

DICKSONIA HERBERTII W.HILL

This species is restricted to highland rainforests of north-eastern Queensland where it grows as scattered individuals or loose colonies, usually in wet, shady situations. It is apparently confined to the ranges and the tablelands between the Johnstone and McLeod rivers within the altitudes of 760 m (in the Lamb Range) to 1600 m near the summit of Mt. Bellender Ker.

Distinguishing Features

The mature fronds of this species are light green but most significantly they are dull with no tendency to shine. The basal pair of pinnae project stiffly into the crown of the fern. The stipe hairs are 2-2.5 cm long and spread stiffly from the surface. They show no tendency to tangle and are very sharp and brittle, readily penetrating the skin and creating irritation. In colour they range from a dull red-brown to a very bright reddish brown.

Growth Habits

Plants develop a fairly stout, solidly anchored trunk which shows no propensity to form lateral growths. Even plants knocked over during roadwork or logging operations will not develop lateral growths although they may continue development from the trunk apex. In colonies of *D. herbertii* sporelings may develop on the fibrous base of the trunk, on rotting logs and rocks or on the bases of other tree ferns such as *Cyathea rebecca* and *C. woollsiana*.

DICKSONIA YOUNGIAE C. MOORE

This species is widely distributed in the moister parts of north-eastern NSW and south-eastern Qld. Its range is from the Mary River in the north to the Richmond River in the south. It occurs from lowland situations near sea-level to mountainous areas above 1400 m (Springbrook and Lamington).

Distinguishing Features

The mature fronds of this species are dark green and with a shiny surface. The basal pair of pinnae spread in the same manner as the others. The stipe hairs are commonly about 1.5 cm long, and are a rich reddish-brown. They are soft and tangled and do not penetrate the skin when handled.

Growth Habit

Plants have an interesting growth habit which is different to *D. herbertii*. Accessory buds develop on the trunk and emerge as short which form two or three small fronds and retain quiescent. The trunk is fairly poorly anchored in the soil and when it falls the accessory growths (as well as the trunk apex) being to develop, take root and creep over the ground forming a series of prostrate trunks. Eventually each will grow upwards at the apex and the interconnecting tissue decays. Thus the species can form localised colonies by an interesting vegetative technique. By carefully backtracking the weathered remains of trunks, the interconnecting system can be exposed. Sporelings are uncommon in colonies of *D. youngiae*.

Dicksonia youngiae and D. herbertii are Different (con't)

Comparison Table

Dicksonia herbertii	Dicksonia youngiae
trunk suckers absent	trunk suckers present
stipe hairs 2-2.5 cm long stiff, brittle, sharp and irritant	stipe hairs 1.5 cm long soft, tangled and non irritant
frond surface dull	frond surface shiny
basal pinnae project into crown.	basal pinnae spreading

The following item was contributed by Ross Scott, Kenilworth.

YOUR GARDEN with Dr RAY LANGD

Finally, fern book updated

FERNS abound in rainforests, scrub margins to watercourses and in some open forests. Queensland has about 400 native species, about 80 per cent of all Australian ferns.

It is nearly 90 years since F. M. Bailey, Government Botanist of earlier times, wrote the *Queensland Flora* in which 229 species were recorded.

Now the recent release of *Ferns of Queensland* by S. B. Andrews has provided an up-to-date, comprehensive account of Queensland's rich fern flora.

It is an authoritative work written in formal botanical style. It

should appeal to naturalists, serious amateur growers, nurserymen with interests in native plants, students, lecturers, professional botanists, fern specialists and conservationists seeking precise data on any native fern species.

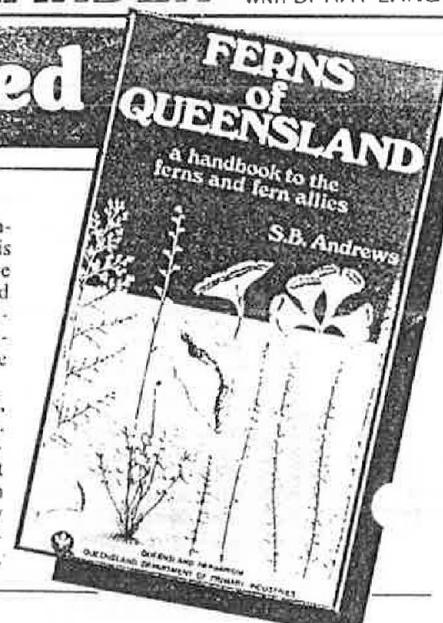
The volume includes an extensive glossary of terms, a pictorial key to major groups of ferns and detailed descriptions of all species.

Good line drawings illustrating important characteristics of the ferns accompany the descriptions and facilitate use of the diagnostic keys to the species. Notes on habitats and geographic distribution

are provided for each species.

This handbook can provide answers to questions of "What fern is that?" insofar as native ferns are concerned. With a hand lens and determination to master the terminology (not really a difficult matter) the identity of members of the fern group can be determined.

The cost of the volume is \$45, packing and postage \$7.50 extra. *Ferns of Queensland* can be obtained from the QDPI Bookshop at 80 Ann Street, Brisbane, from some QDPI country centres or by mail by writing to QDPI Publications, GPO Box 46, Brisbane 4001.



101 Trees of Mackay

Another new book! This one was produced by SGAP-Mackay Group, notable contributors being Irene Champion and Helga Alcock. The descriptions which cover the commonly encountered trees of the Mackay district in clear, simple language, emphasise the main identification features, provide details of distribution and give information on main commercial uses. For each tree there is an accompanying botanically accurate drawing, almost all of which were drawn by Helga Alcock.

Members who received our Newsletters in 1988 would certainly recall Helga's splendid drawings of ferns. "101 Trees of Mackay" is a soft covered book of 124 pages and being around 14 x 20 cm, it fits in a back pack easily. The book seems to be an essential aid to any SGAP-minded visitor to the Mackay area. The book may be obtained from the Secretary, SGAP-Mackay Group, 20 Swift Street, Slade Point, 4740, phone (079) 551 745.

When Are Fern Spore Mature

Our March 1990 Newsletter gave details of a project requiring members to record and report the dates (time of the year) when spore an different species of fern are ready for release.

From recent reports, it appears that the great majority of ferns did not have ripe spore during October/November, although Dictymia brownii, Asplenium australasicum and Christella dentata were notable exceptions as they were bearing mature spore prolifically during those months. Ferns on which spore was not developed fully included many species of Adiantum and Blechnum.

Would members please continue to record their observations and report findings in due course (this is essentially a long term project, so its certainly not too late to start recording, if you haven't begun to do so), or progressively if preferred, to the Secretary.

In John Mason's book "Growing Ferns" (referred to on page 2 of this Newsletter) it is stated that:

"for each species of fern, spore only occurs at a set time of the year"

However, an enquiry of the author brought forth the response that,

"We have been through all of our literature and like you have been unable to find detailed information on the setting of spores for different species."

Report from Sydney Members

Our September get-together took the form of individual members - not the Group as such, supporting N.S.W. Region's participation in the "Spring in the Gardens" Exhibition. The Exhibition and plant sales were conducted for the entire week. Good weather prevailed and Region was rewarded by a net profit of roundly \$11,000 and the two prizes, each of \$1,000 for best exhibit and for floral excellence.

The October outing was to Burrendong Arboretum, a working bee for most of us on the Saturday, but for the whole week for Bea and Roy Duncan. Then on the Sunday we attended the Official Opening of the Shade Area by the Hon. G.B. West, Minister for Lands, Forests and Tourism.

Despite the lack of consistent maintenance, most of the more than 80 species of ferns in the Shade Area are flourishing. Some of us had been observing a small patch of Pleurosorus rutifolius, naturally occurring in the area, and which is now covered by the canopy. We wondered if it would survive - it hasn't, its end possibly hastened by some clearing. However, we were pleased to find small patches emerging on the opposite side of the gully.

Any visit to the Shade Area causes one to marvel at the tremendous feat of construction. The steel canopy was built to the design of Dr P. Kneen of the School of Civil Engineering, University of N.S.W., in conjunction with Professor P. Spooner, then Head of the School of Landscape Architecture of the staff. But the project is very largely the result of the inspiration and hard work of Peter Althofer. Over the past six months, Peter has had major surgery and a long period of medical

treatment. We were delighted to see Peter at the opening, and of course despite his health problem, inevitably Peter was very much part of the working bee.

Following the Official Opening of the Shade Area a letter has been received from the Secretary of the Burrendong Arboretum Association which in part says:

"On behalf of the members of the Burrendong Arboretum Association, I wish to sincerely thank the Fern Study Group for the very generous donation of \$3,000. We greatly appreciate such a wonderful gift as well as all the other donations made by your Group over the years, plus the work as well."

Report on Outing to Galah Mountain 24 November 1990

It was warm in Sydney but cold at Clarence in the Blue Mountains where 12 members assembled and then consolidated into three vehicles for the further 20 km along rough gravel and forest roads. Countless Waratahs, many of us had never seen so brilliant a display, this was to be just one of the floristic highlights of this attractive area of bush.

The walk commenced with a very steep descent. Before beginning we had noted Pteridium esculentum. As we walked and slid downwards we passed Blechnum cartilagineum, B.nudum, Cyathea australis, Culcita dubia, Asplenium flabellifolium and A.bulbiferum. At the floor of the narrow canyon in rainforest dominated by Coachwood, other ferns noted included Dicksonia antarctica, Polyphlebium venosum (on the trunks of Dicksonia and on the side of rocks), Microsorium diversifolium, M.scandens and Leptopteris fraseri. The last named is a beautiful fern and we saw it in all sizes from tiny sporelings - these were confusing to we learners who were looking for mature filmy ferns of about the same size, to lovely specimens with arching fronds of a metre or more long on top of 1 m high trunks. Many were growing in what seemed fairly dry positions and in some sun, but all were well protected from the wind. Other ferns nearby were Pellaea falcata, P. falcata var nana, Todea barbara, Blechnum flaccidum and Lastreopsis acuminata.

Lunchtime was spent on rocks against the steep side of the deep ravine. No one accepted our Leader's suggestion that we could run back to the car for extras. After lunch we located Histiopteris incisa, and with Peter's help, several patches of Rumohra adiantiformis, a fern which is not common around Sydney, then Blechnum patersonii and Grammitis billardieri. Following the course of the creek bed down one gorge, the vegetation was more open and Todea barbara with huge trunks were a feature. Also seen were Blechnum ambiguum and its look a like B.wattsii.

Then the climb back to our cars; but fortunately, it proved less difficult than we had feared at the time of the descent. At the top recovering our breaths, it was agreed that Galah Mountain is a difficult place to visit but we'd like to do it again. How fortunate we are to have a Leader to guide us to seldom visited attractive places in our wonderful bush, and to point out not only all the ferns, but fascinating plants of all types and to put a name to each one.

On the way home, Peter made a short diversion to show us a rock cave with some aboriginal paintings of an age that we could only wonder. Thank you Peter for a memorable day.

Report from the Mid North CoastContributed by Phyll Brown

In September the Mid North Coast SGAP Group held their Wildflower Show at Port Macquarie and invited Charlie Charters and myself to put on a fern display. My first reaction was panic. What have I got to put in a display? So with a shovel and a few pots and bags I took a walk down my gully. I dug up a few ferns and gathered together these and some of my potted things. Charlie did the same and we went off to set up at the venue. We were pretty happy with our small effort and the visitors were very pleased to see the variety we had.

The 28 October was very disappointing to find that Jean Hope from Coffs Harbour was confined to bed with pleurisy and the rest of the party decided not to come. Four of us did get together at Charlie's place at Wauchope and decided to do a walk in a rainforest at Boorganna in the Comboyne area. We walked about 3 km down to the Rawsons Falls and sat down to have our lunch with the fine mist drifting over us. A most delightful place of massive boulders with huge bird nest ferns sitting on rocks and growing on trees. We identified over 30 ferns along the walk as follows: Adiantum diaphanum, A. formosum, A. hispidulum, Cyathea cooperii (one only), C. leichhardtiana, Arachniodes aristata, Arthropteris beckleri, A. tenella, Asplenium australasicum, A. flaberrifolium, A. polydon, Blechnum cartilagineum, B. patersonii, Christella parisitica, Dennstaedtia davallioides, Dictymia brownii, Diplazium assimile, D. australe, Histiopteris incisa, Lastreopsis decomposita, L. microsora, L. munita, Microsorium scandens, Pellaea falcata, P. falcata var nana, P. paradoxa, Platycerium bifurcatum, Polystichum formosum, Pyrrosia rupestris, Pteris tremula and P. umbrosa.

If there are any members between Forster and Coffs Harbour who know of any nice ferny areas where we could spend some time looking for ferns, would you please contact Jean Hope (Coffs Harbour, phone 527 014), Charlie Charters (Wauchope 856 296) or myself (Forster area 544 158).

Report from South Eastern QueenslandContributed by Irene Cullen

Members of the Fern Study Group from South Eastern Queensland were actually involved in three events since our last report was published.

The fern display at the Queensland Region Flower Show at Redeemer College Rochedale in September was outstanding and a credit to all involved. Our thanks especially to Cliff Ritchie who supplied so many well grown plants. Members please try propagating "Can't buy them any where" varieties of our native ferns. The public are hungry for them.

Our second trip to Tomewin on 7 October was well attended by members who were unable to visit on the first occasion and many who just had to come for another look at the unique rainforest in Currumbin Valley. Our list of ferns recorded follows: Adiantum aethiopicum, A. diaphanum, A. hispidulum, A. silvaticum, Arachniodes aristata, Arthropteris beckleri, A. tenella, Asplenium attenuatum, A. australasicum, A. polydon, Blechnum cartilagineum, B. patersonii, Christella dentata, Culcita dubia, Cyathea australis, C. cooperi, C. leichhardtiana, Davallia pyxidata, Diplazium assimile, D. australe, D. dilatatum, Doodia aspera, D. caudata, D. heterophylla, Lastreopsis decomposita, L. marginans, L. microsora, L. munita, L. smithiana, Microsorium scandens, Ophioglossum pendulum, Pellaea falcata var nana, Platycerium bifurcatum, P. superbum, Pneumatopteris sogerensis, Pteris tremula, Pyrrosia confluens and P. rupestris. The area John Lever's property, proposed National Park Reserve, at Tomewin on right of road near Border Gate.

Report from South Eastern Queensland (Continued)

Lastly, the final meeting for the year was a fun affair at Joyce Ward's home at popular Mt Glorious. Joyce led us on a couple of short walks on the mountain after lunch.

FORTHCOMING EVENTSIn South Eastern QueenslandSunday 3 February 1991

Meet 9.30 am, Peter and Pat Bostock's home, 59 Limosa Street, Bellbowrie. Programme "Another Look at Lastreopsis". Also remember subscriptions are due.

Sunday 7 April 1991

An excursion to Brisbane Forest Park led by Peter Bostock. Venue to be detailed at February meeting.

In Sydney AreaSunday 2 December 1990, End of Year Function at Dural

To be held at the home of Pat Kenyon and Ted Newman, 1057 Old Northern Road, Dural. Full directions were published in the September 1990 Newsletter, refer to those, or phone our hosts on 651 2765 for details. Plan to arrive from 11 o'clock. We are to pool lunches, please contact Pat prior to the day to discuss what food you are bringing. In keeping with the season, bring a gift (or several according to the number in your party), price of gift to be under \$5.

Saturday 23 February 1991, Outing at Hazelbrook

Rose Bach has searched out this area for us, Horse Shoe Falls and three others. From Sydney along the Great Western Highway proceed past the Hazelbrook Railway Station until Oakland Road, turn right along Oakla Road, keep left when it divides, meet at Picnic Area. Try to be there at 9.30 for 10 o'clock start (and an early finish). Carry lunch which we can eat near the Falls. For any more directions phone Rose 869 1692.

Sunday 24 March 1991, Meeting at Collaroy Plateau

Meet at the home of Jan and John Fairley, 129 Claudare Street, Collaroy Plateau. The Fairley's home is the second from the Boulevard. Arrive in time for Study Session commencing at 11 o'clock on Psilotum and Ophioglossum. Bring lunch and plate for afternoon tea. For directions contact Jan, phone 971 6132.

Subscriptions Due

Subscriptions for 1991 will be \$4 due at the beginning of the year. Payment should be made to the Treasurer, Joan Moore, 2 Gannet Street, Gladesville, 2111. Overseas membership are \$8 to cover additional cost of postage.