

ASSOCIATION of

S.G.A.P. Fern Study Group

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Goodbye 1989! Year end, a time of accountability.

Barbara Daly, Study Group Coordinator, in a report which is to be presented at the January 1990 Conference of A.S.G.A.P., has written:

"FERNS - Leader since 1987, Peter Hind. Study Group formed in 1975. Monthly meetings are held in Sydney and also Brisbane. The two groups are active with many members. The Newsletter has articles on Propagation by Division, How to Diagnose a Sick Fern, and generally gives members valuable information. There is much to learn from the section dealing with the growers experiences of their different ferns which were purchased at last years Wildflower Exhibition. In all, the Newsletter is well illustrated and is published regularly, thus keeping the many members in touch."

Well we wish the Newsletter was more informative. It would be instructive to know what each member expects to receive from the Study Group. For most members, probably not much is expected, which of course is just about in keeping with the cost of the \$3 annual subscription. As is true of life in general, for the membership to receive more, it must do more, and that costs money usually, and time certainly. But if you really want to promote Aussie ferns and bring more into cultivation, to get improved results with existing species, develop new species or to conserve ferns in their natural habitat - then give it a go. But also tell us about it in the Newsletter, so others know of your efforts and have the opportunity of adding support. In this issue we welcome a new contributor, Calder Chaffey, who has written of "Ferns of the Rainforest". This article is one of a series published in the newsletter of Far North Coast Group of SGAP. We are grateful for approval to publish it here, thank you Calder.

Visit to Burrendong, Week End 28/29 October 1989

This two day sojourn to the Burrendong Arboretum, situated near Wellington, about 400 km North West of Sydney, was arranged in conjunction with Sutherland S.G.A.P. There was a working bee on the Saturday and a tour of the Arboretum's 162 ha on the Sunday morning. Many of the party arrived on the Friday. The Bert Bolton Outback Tour coach, arranged by Sutherland, was delayed by bush fires near Sydney and arrived at 1.30 am Saturday in a howling gale and in near freezing conditions. Fortunately, the Bolton's advance unit had tents erected and hot refreshments waiting.

In spite of the inauspicious start, Saturday was fine, the wind dropped and working conditions were ideal.

The Arboretum has been shamefully neglected by the bureaucracy over recent months. Of course, many of us feared for the Arboretum's future at the time when Peter Althofer, its Superintendent for more than 20 years, retired in 1987. Peter and wife Hazel have provided most of the hard work, the understanding of the property and of the seasonal conditions, as well as knowledge of the plants and their cultivation, vital factors on which the Arboretum has been built. The massive shade area covers over one and a third acres. The second stage of the canopy was completed in 1987 and it is a fitting monument to the Althofers, Jack Harris and others of the small band of the Burrendong Arboretum Association.

Following the resignation in February this year of the Curator who had been appointed to replace Peter Althofer, the Arboretum has been left to operate with only one full time employee. In particular, since June this year, the National Parks and Wildlife Service, itself struggling with its own administrative problems, has intensified the difficulties facing the Arboretum. No doubt this recent neglect by the Service, is also partly as a consequence of an awareness of political moves which suggest that when legal arrangements are completed, responsibility for the Arboretum may be transferred from the Service to the Department of Lands. The Arboretum will continue to suffer until the Government makes and implements its ultimate decision regarding administration and control of the Arboretum.

Meanwhile the lack of recent maintenance was evident by the growth of weeds throughout the shade area, Spraying of weedicide was not feasible and hand removal of weeds was necessary to avoid spray damage to the ferns. Although a number of ferns exhibited signs of exceptional growth, this was more than matched by some of the weeds and in several garden beds, the smaller ferns were completely covered. So the day's task for the working bee was to clear the shade area of weeds. Typically, Peter Althofer was there up front leading the way his quiet exhortation being, "If you see a weed, pull it out". It was amazing how much was achieved by the 38 sets of hands that went to work (about one third of the workers were members of the Fern Study Group). As one visitor to the Arboretum that morning remarked, the sight resembled a swarm of human locusts, At the end of the day the shade area was tidy, ferns were visible throughout and included many that had been transplanted during the day to better positions from which they now have room to spread. There was a veritable mountain of weeds to also signify what had been accomplished.

Most of the ferns planted in the Stage 2 extension two years ago have thrived. the outstanding successes included Cyathea cunninghamiana,

Visit to Burrendong (Continued)

several now 2 m tall, Cyathea leichhardtiana, Microlepis speluncae showing vigorous growth and spreading steadily, and Diplazium sylvaticum. Among the survivors, although not looking altogether happy having just gone through a winter remarkable for the number of heavy frosts, were three plants of Blechnum wurunuran. Among the more significant losses were several Drynaria rigidula. The failure may have resulted from excessive watering, although this was rather surprising as the ferns had been carefully placed on top of several huge rocks to ensure excellent drainage.

In the original canopy area most disappointing was the invasion of large sections by Viola hederacea. Especially in some of the moister parts, this attractive ground cover is a pest, smothering ferns such as Arthropteris tenella, Blechnum penna marina and Doodia caudata, as well as larger ferns. The violets are very difficult to remove away from the ferns once they become entangled. Outstanding successes in the original canopy area were Doodia aspera and Blechnum cartilagenium their attractive pink fronds carpeting extensive areas.

Finally a word about the birds. They are a delight, numerous species can be seen at close quarters and their study alone would amply justify a week end visit from Sydney.

Report on Outing to Lawson, 5 November 1989

What has happened to the Group? Members were actually early on this fine day. With Peter in the lead 15 members descended towards Adelina Falls. Ferns abounded starting with Gleichenia microphylla which proved to be very common throughout the walk, then G. dicarpa and G. rupestris. Blechnum wattsii and its look a like B. ambiguum, then we saw B. gregsonii and our Leader pointed out identification features rhizome short creeping, thin pinnae mostly stalked, somewhat pendulous and fertile fronds almost the same width as the sterile fronds.

We passed many Todea barbara from tiny sporelings to plants with massive trunks, Blechnum nudum, & then Peter drew attention to two oddities, Shizaea rupestris and Lycopodium laterale. Next we saw the dainty Lindsaea microphylla, Blechnum minus, Sticherus lobatus and our first tree fern Cyathea australis. There was a patch of Hypolepis muelleri and then Histiopteris incisa some with 3 m high fronds. The bracken nearby was quite tall too, its botanical name Pteridium esculentum. Right at the Falls and close to the water's spray there were numerous Leptopteris fraseri with delicate, filmy fronds. At this point too many of us admired Libertia pulchella, a member of the Iridaceae Family with white flowers and grass like leaves. On the way to Junction Falls other ferns added to the list were Sticherus tener, Blechnum cartilagenium and Culcita dubia. The latter ferns in particular, showed evidence of the recent long dry spell browning off lush growth that had resulted from the preceeding very wet Autumn and Winter. Then Lastreopsis microsora, there was only one other patch sighted on the day and that on top of a large rock.

We moved on to Federal Falls found Asplenium flabellifolium, Pyrossia rupestris, the tiny filmy Hymenophyllum cupressiforme, Grammitis billardieri and many Blechnum patersonii. Near this point, Peter braved the spray from the Falls and after climbing to a precarious position

Visit to Lawson (Continued)

on slippery rocks, took photos of Blechnum gregsonii, and at the same time pointed out the rare and attractive shrub Calycomis australis, which is a member of the Cunoniaceae Family. Finally we walked to the Catarract Falls, where following some not so athletic leaping to cross the creek, we were able to gain a close up view of a curtain of ferns.

As we climbed away from the Falls and Kyrill thoughtfully waited for others to catch their breath, we admired several Quintinia sieberi which were covered with white flowers. Lunch was very late. but we had seen many ferns. The special award of the day went to Jan and John who negotiated the at times tough track and the countless steps without complaint.

Davallia solida Article and Drawing Contributed by Ray Best

(Our thanks to Ray for the following article and for allowing us to use his fine drawing which appears on the last page of this Newsletter)

DAVALLIA SOLIDA (G.FOSTER) SWARTZ.

FAMILY;- DAVALLIACEAE SUBFAMILY:- DAVALLIOIDEAE.

(DAVALLIA LUCIDA of WALLICH.)

As with many ferns different locations and countrys produce a variety of foliage forms. Mineral rich areas will sometimes produce large healthy specimens in other positions a dwarfing process can occur; so difficulty is often experienced in correctly naming a plant. This is particularly true in relation to the Davallia species, as a result one can often obtain a plant of doubtful identity.

After having grown a number of plants of Davallia solida, the salient feature appears to be the pinna size . Many growers come to recognise species in this manner knowing that Davallia solida has possibly the largest pinna of the family. The pinna are broad and large in most specimens ; one similar Davallia is sometimes called Davallia ornata. However to some botanists this is just a form of solida. So in both drawing and describing this fern I can only present the details of the specimen I have grown that is to my understanding Davallia solida.

Rhizome scales dark brown with woolly edges, broadly based, tapering quickly with a reduced elongated apex; giving a hair like appearance. The blade is triangular and broadly based , pinna have ruffled margins deep green above lighter beneath. Fertile pinnae carry sori on the underside covered by a pouch like indusium on the lobe tips. This indusium is attached at the base and two sides only the top edge is free. When ripe and fertile sporangia dechise their spores only at this top edge. Sporangia have from 14 to 15 annulus cells and is incomplete (see illustration)

One of the largest pinna species of the Davallias very attractive, somewhat difficult in cultivation, sensitive to cold and frost, requiring protection but well worth the effort. Widely distributed Burma, Malaya, the Phillipines, Taiwan, Polynesia and Australia as an epiphyte or lithophyte.

DAVALLIA JOHN SMITH.

FAMILY:- DAVALLIACEAE. SUBFAMILY:- DAVALLIOIDEAE.

NAMED IN HONOUR OF THE 19th CENTURY SWISS BOTANIST EDMUND DAVALL.

Rhizome long creeping, densely covered with scales, in cross section showing an upper and lower large vascular bundle and on either side a semicircular arch of smaller bundles; rhizome scales mostly more or less lanceolate basally peltate or cordate-basifixed, narrowing gradually or abruptly into a slender, often filiform apex. The margins entire, erose or more frequently with teeth, cilia, or hairs; stipes borne in two rows on the rhizome, about as long as the blade, articulate, deciduous highly variable, ranging from hairlike to broad ovate, peltate or basifixed, blade mostly small-medium to larger, deltoid 3 to 5 pinnate, the lowest pinnae usually deltoid, the divisions with unequal bases, the texture firm to leathery, the grooves on the rachis opening into the grooves of the costa, the ultimate segments short-linear to obovate, the veins free reaching the margin or not, the margin weakly cartilaginous, false veins sometimes present, minute short glandular hairs or longer hair like scales sometimes present on the rachis, costa and lamina of young fronds fertile fronds similar to sterile or more contracted the fertile lobes often dilated and apically toothed; sori close to the margin, technically terminal on an obscure, often microscopic veinlet in the fork of two veins, but appearing to be in the fork because the forking veins are usually hidden by the indusium, indusium attached by its base and sides shallowly cup shaped to tubular, the apical edge sometimes extended. From South West Europe, Africa, Asia, Malaysia, Australia, New Zealand and Polynesia. Approximately 40 Species epiphytic and lithophytic or occasionally terrestrial.

OTHER EXOTIC SPECIES ARE

DAVALLIA BULLATA WALLICH EX HOOKER. EAST INDIA, CHINA.

DAVALLIA CANARIENSIS (LINNAEUS) SMITH. CANARY ISLANDS.

DAVALLIA DIVARICATA BLUME. ASIA MALAYA.

DAVALLIA EMBOLOSTEGIA COPELAND. PHILIPPINES BORNEO.

DAVALLIA EPIPHYLLA (G.FOSTER) SPRENGEL. PACIFIC ISLANDS, NEW GUINEA.

DAVALLIA FEJEENSIS HOOKER. FIJI.

DAVALLIA GRIFFITHIANA HOOKER. INDIA, CHINA, TAIWAN.

DAVALLIA MARIESII MOORE EX BAKER. JAPAN, KOREA.

DAVALLIA SOLIDA (G.FOSTER) SWARTZ. ASIA, MALAYSIA, & E.AUSTRALIA.

DAVALLIA TASMANII FIELD. NEW ZEALAND.

DAVALLIA TRICHMANIOIDES BLUME. MALAYA, JAVA, NEW GUINEA.

OTHER RELATED SPECIES ARE:- ARIOSTEGIA, DAVALICIDES, HUMATA, AND SCYPHULARIA.

A Fine Display of Ferns

The Newcastle Group of SGAP held its Annual Wildflower Spectacular on 9-10 September 1989 at a new venue, the Showground at Broadmeadow. All exhibits and sales were housed in two large buildings in spacious and attractive surroundings. The weather was fine and sunny and the show altogether a great advertisement for our native flora.

The main exhibition included a display of ferns featuring hanging baskets at eye level and lower, together with potted ferns including a very large tub of Lastreopsis sp.

The standard of ferns displayed was brilliant and a tribute to their growers, Study Group members Roy Duncan, Tony Clarke and Lyn Millington. The many splendid ferns on show included Davallia denticulata perfectly filling a large hanging basket, Humata repens apparently thriving in an orchid mixture of pine bark, Microsorium punctatum, Asplenium polyodon and a stunningly healthy Belvisia mucronata.

Well done Newcastle SGAPers!

The Fern Dictionary

This little publication of 132 pages, 15 X 22 cm, contains information as to how ferns are named, the pronunciation of fern names, fern genera, fern species names and terms. It is written in simple and non-technical language and therefore is a valuable reference to the learner as well as the professional botanist.

Last year one of our members, Geoff Long, kindly ordered in a number of copies of the "Fern Dictionary" from a contact in the U.S.A. and these are very favourably regarded by the members who purchased them. Geoff has agreed to order further copies if there is sufficient interest. The book is expected to cost around \$12 to \$15 depending on the total number ordered, freight, and exchange rate at the time of delivery.

If you wish to obtain a copy of the "Fern Dictionary" please advise the Secretary (02) 528 4881, before the end of December 1989 so that the number of copies to be purchased can be passed on to Geoff.

Visitors Welcome

Newcastle member, Tony Clarke, has issued an invitation to interested members to call and inspect his fern collection whenever in the vicinity of his home at BELMONT, Please phone Tony (049) 48 6462 before calling and for directions.

Subscriptions Due

Subscriptions to the Fern Study Group are on a calendar year basis and fall due on 1 January for the 1990 year. The yearly subscription of \$3 should be paid to the Treasurer, Miss Joan Moore, 2 Gannet Street, Gladesville, 2111.

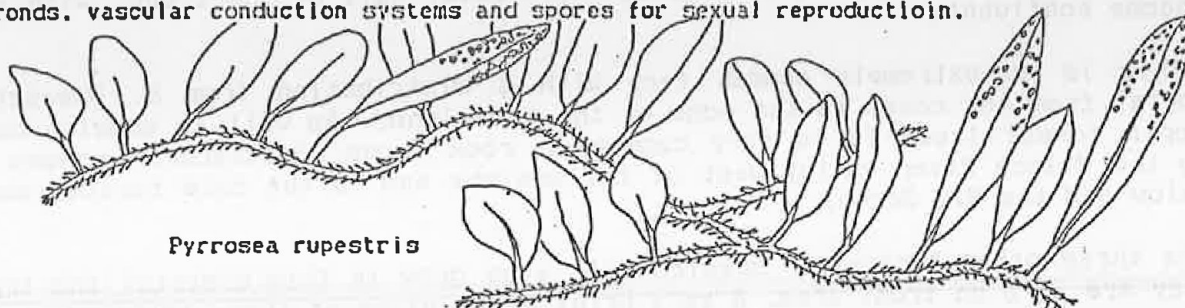
FERNS

OF THE RAIN FOREST
CALDER CHAFFEY



PYRROSIA Family - POLYPODIACEAE

Members of the Genus *Pyrrosia* are amongst the commonest epiphyte ferns in the rain forest or wet sclerophyll forests growing on trees or rocks.. However they are little known and inadequately covered in most fern books. I have often known people refer to a specimen as an orchid, a parasite or even a mistletoe but rarely a fern. But on examination they will be seen to have all the structures of ferns: rhizomes, roots, fronds, vascular conduction systems and spores for sexual reproduction.



Pyrrosia rupestris

The rhizome is creeping, slender, long, often tortuous and persistently scaly. There are usually papery peltate (see Glossary at end) scales at the bases of the fronds. Fronds are attached to the rhizome by a phyllopodia.

Fronds of the Australian species are simple, fleshy with a surface covered with stellate hairs. Some species are dimorphic. Sori are on the ventral surface of the apical half of the fronds.

There are about 100 *Pyrrosia* species most of which occur in tropical Asia with some in Africa and South America while 5 occur in Australia, two of which are very common and wide spread. Both of these occur widely in our north eastern N.S.W. rain forests.

Pyrrosia ferns are very hardy and drought resistant. In times of drought they will shrivel and curl up but after rain they swell and resume their normal appearance. There are two structures which aid these ferns against lack of water. Firstly the fleshy fronds are lined with a layer of large cells which contain little but water. Secondly the surfaces are lined with hairs. These hairs distinguish *Pyrrosia* from all other Polypodioid ferns except *Drymoglossum*. They are stellate in form all over the young fronds and this form usually persists throughout life on the under surfaces. The structure of these hairs is similar to those of *Platynerium* (see News Letter last month- Article "3") and because of this some think the two genera are related. It is therefore easy to see why members of this genus have adapted to survival on rocks or over tree trunks and branches where water is often minimal.

Cultivation of the five Australian species of *Pyrrosia* is very easy. They also make excellent fern house or forest specimens. I have often wondered why they are not grown by more people. It is quite rare to see them in any collection. They can all be grown on slabs and most will even grow on rocks. They can be grown successfully with other epiphytes such as stag, elkhorns, or orchids. They may be cultured in pots or hanging baskets where the potting mix must be very well drained. A good mix is 30% coarse river sand and 70% coarse organic material such as 2 cm pine bark or macadamia shells. However they look their best twining up a log or a tree trunk. When introducing them to branches or trunks make sure the tree is suitable for epiphytic culture. A good rule of thumb is to choose a tree on which is growing moss or lichens, stags, other ferns or orchids.

A. *Pyrrosia confluens*- Robber Fern. Horseshoe Felt Fern.

The rhizome has dark brown scales bordered with short teeth. The fronds may only just be distinguished as dimorphic. The sterile fronds are 8-20 cm long while the fertile fronds are 8-25 cm. This species is distinguished by the sori which are 1.5 mm in diameter and restricted to a horseshoe-like area surrounding the edge of the apex of the fertile frond. As the sori age they become confluent forming a complete horseshoe.

associated with other epiphytes. Occasionally it grows on rock faces. In shade the fronds are long and dark while in the sun they are dwarfed, bleached and leathery.

Distribution is from N. Queensland to north of Newcastle, from sea level to about 1000 m. It also occurs on Lord Howe Island, Norfolk Island and New Caledonia. Excellent specimens can be seen on trees along the road near Bellingen and in many places in the Big Scrub. Also in Keen St., Lismore opposite the Catholic Cathedral.

B. *Pyrrosia rupestris*- Rock Felt Fern.

The rhizome has pale papery scales. The fronds are markedly dimorphic, spoon shaped to elongated with white to reddish stellate hairs sometimes giving the fern a rusty appearance. The sterile fronds are rounded and small, 2-6 cm long and the fertile fronds are narrower and 4-20 cm. Sori are 1-3 cm in diameter and are irregularly distributed in up to 4 rows each side of the midrib in the distal half of the frond. With age they tend to become confluent.

This is an extremely common fern with a distribution from N. Queensland to S.E. Victoria, from the coast to the edge of the tablelands. As well as growing on rain forest and open forest trees it is very common on rock faces. Spectacular masses can be seen along the Wilson River valley west of Mullumbimby and in the rain forest remnants around Bangalow and the Big Scrub.

The three other Australian species will also grow in this district and thrive as long as they are in a no frost area. A very brief description of these follows:

C. *Pyrrosia dellsii*- Silvery Felt Fern.

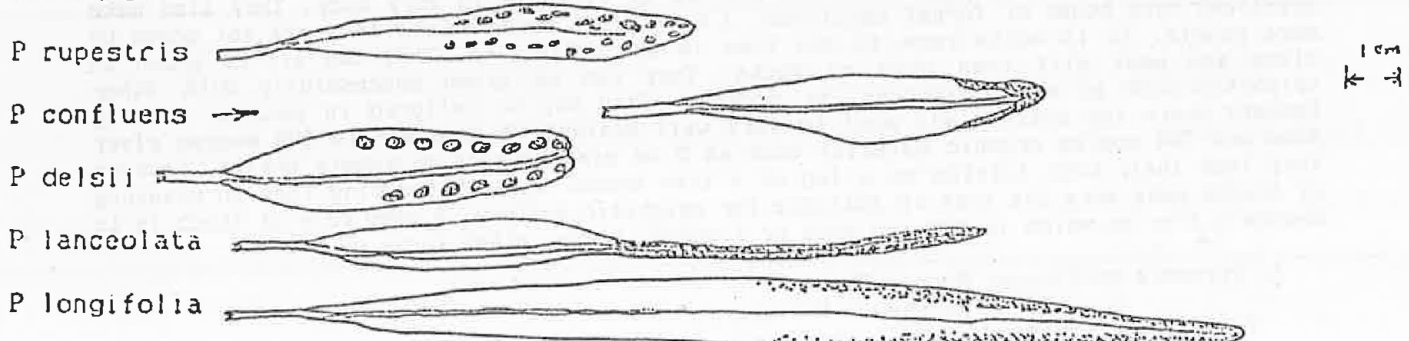
Rhizomes broad and lanceolate, fronds dimorphic, very thick and leathery with silvery stellate hairs, occasionally lobed. Sterile fronds oblong to elongated, 3-8 cm fertile fronds 3-12 cm. Sori 3-5 mm in a regular line each side of the midrib. Confined to S.E. Cape York, Atherton and Evelyn Tableland. It is usually found on trees on the edge of the rain forest.

D. *Pyrrosia lanceolata*.

Long creeping branched rhizome, dimorphic fronds- sterile fronds 5-9 cm usually lanceolate, fertile fronds 10-17 cm and narrower, the distal half tapering abruptly to a linear-caudate structure covered with irregularly crowded elevated sori becoming confluent with age. Confined to N. Queensland and extending to Malaysia, India and S. China.

E. *Pyrrosia longifolia*.

Rhizome long and branched. Fronds very long, dimorphic, silvery-green, thick and leathery, 40-60 cm. Sori 0.5-1.5 m scattered irregularly along the distal half in irregular rows towards the edges. Distribution N.E. Queensland, sea level to 500 m, Malaysia and Polynesia. A good place to see this fern is on the trees along the waterfront of Trinity Bay just north of the wharves of Cairns where it completely covers the whole trunks and branches.



A simple way to identify the five Australian species is by the fertile fronds and distribution of the sori.

Ferns of the Rainforest (Continued)

GLOSSARY

- CAUDATE- resembling a tail
DIMORPHIC- producing two types of fronds
DRYMOGLOSSUM- a genus related to Pyrrosia differing by having linear continuous sori. Six species are distributed from Madagascar through N.E. India and S.E. Asia to New Guinea. There are none in Australia
LANCEOLATE- lance shaped
PELTATE- shield-like, stalk attached near the centre of the frond
PHYLLOPOPIUM- an outgrowth joining the the stipe to the rhizome

Ecofest 1989/90 Courses

Ferns in Northern N.S.W. is one of the courses included in the programme of studies recently advised by the University of New England. Enrolments or any enquiries regarding the Ecofest Programme may be made to the University's North Coast Regional Office at 8 Vernon Street, Coffs Harbour, or write to P.O. Box 1570, Coffs Harbour, 2450. Phone enquiries should be directed to (066) 52 3588.

FERNS IN NORTHERN NSW — UNE Armidale — 10/11 February, 1990

This weekend course will use a workshop approach to learning to recognise and name native ferns and "fern allies". Laboratory sessions will be used to give an insight into structural and recognition features of members of the fern group: added to this will be demonstrations of a typical fern's lifecycle, and the shedding of spores by the unique sporangium splitting mechanism (watched under stereo microscope). A full reference set of NSW fern specimens, (some dry, some fresh) will be available for study. There will be a full day field trip to Softwood Road in Styx River State Forest and Point Lookout, New England National Park to see and recognise ferns in their natural habitat. Participants will be issued with the new *Field Guide to the Ferns and Fern Allies of NSW* by John Williams and Poh Woodland. This provides a simple but accurate way to identify ferns and their relatives, using a breakdown into major distinctive groups and a description of all ferns in each group, with every species illustrated. Fee: \$80.

FORTHCOMING EVENTS IN THE SYDNEY REGION

Saturday 9 December 1989, Christmas Meeting at Dural

There will be a short business session followed by a relaxed gathering at the home of Pat Kenyon and Ted Newman, 1057 Old Northern Road, Dural. 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 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 ample room for turning. Enter private road and proceed about 650 m.

Arrive from 11 am. We are to pool lunches, if you have not already done so, 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 you will receive a gift, but value of gift not to exceed \$4. Pat may be contacted on 651 2765.

Sunday 25 February 1990, Meeting at Collaroy Plateau

Meet at the home of Jan and John Fairley, 129 Claudare Street, Collaroy Plateau. Arrive from 10.30 am, the study session will begin at 11, Peter will lead us on the first of what is to be a series on Blechnums. We will start with the North Queensland species. After the meeting we will move on to nearby Stony Range Reserve for lunch and to inspect ferns and other plants. Bring own drinking utensils, but hot water available at both stops. For directions contact Jan, phone 971 6132.

Saturday 24 March 1990, Outing to Tari Creek (Putty Road)

Yes it is a long way but should be worth the drive and it has been arranged to avoid the heavy Sunday traffic back to Sydney. Peter says that Tari Creek is seldom visited, but this is due to remoteness and not the terrain. The walk is about 5 km along an old logging track and is flat near creek level. It is through largely wet sclerophyll forest (Eucalyptus deanii). There are many orchids in the area and some interesting ferns including unusual forms of Cheilanthes distans and C. sieberi and the rarely encountered Botrychium australe.

Prepare to carry lunch, apparently the creek water is normally alright for drinking. Meet by no later than 9.30 am at the Service Station at Colo Heights on the Putty Road. This Service Station is on the right hand side of the road when proceeding towards Singleton and it has a large parking area for trucks so is convenient for meeting. We will proceed from this meeting place in convoy. Any enquiries for directions contact Peter, phone 625 8705.

Saturday 21 April 1990, Meeting at Kenthurst

Arrive from 12 noon, the meeting to commence at 1 pm at the home of Betty and Eric Rymer, 48 Annangrove Road, Kenthurst. Our study session will deal with Blechnum. More details next Newsletter.

Report from South Eastern Queensland
(Contributed by Irene Cullen)

The fern display at the S.G.A.P. Queensland Flower Show held at the Redeemer College, Rochedale, in September, once again attracted its share of attention and favourable comment. Thanks to all members who supplied ferns and helped erect, man and dismantle our display.

The visit to John Bolger's fern gully at Currumbin was cancelled-- September and October were very dry months. There was no doubt what so ever that our trip would be off.

By the time this goes to print we will have had our last meeting for 1989. All members who belong to the South Eastern Group wish S.G.A.P. fernies where ever you are, a A Happy New Decade of Growing, Study and Comaraderie.

Red Carpet

A warm welcome is extended to our one and only new member this issue, Peter Vaughan of New Lambton Heights.

Subscriptions : 1990

The fee for the 1990 calendar year is \$3. Renewal notice is enclosed with this Newsletter. Please remit fees to the Treasurer, Joan Moore, 2 Gannet Street, Gladesville, N.S.W. , 2111.

Contributions Welcomed

The Newsletter depends on members for information to disseminate to the Group generally. Articles are always gratefully received. Send to the Secretary at the address shown, or phone Moreen on (02) 528 4881.

NABIAC FERN SHED

(The following notes were taken from a recent article in the 'Great Lakes News' and was contributed by Phyll Dawes)

A new industry is so important to any area and especially to new settlers in unimproved districts, offering some means of earning a living, while bringing their holdings into production--so wrote Mr Eric McMaster in a letter written in 1929 in reference to the Australian Botanical Products Ltd which conducted business at 'Glen Ora' farm, NABIAC.

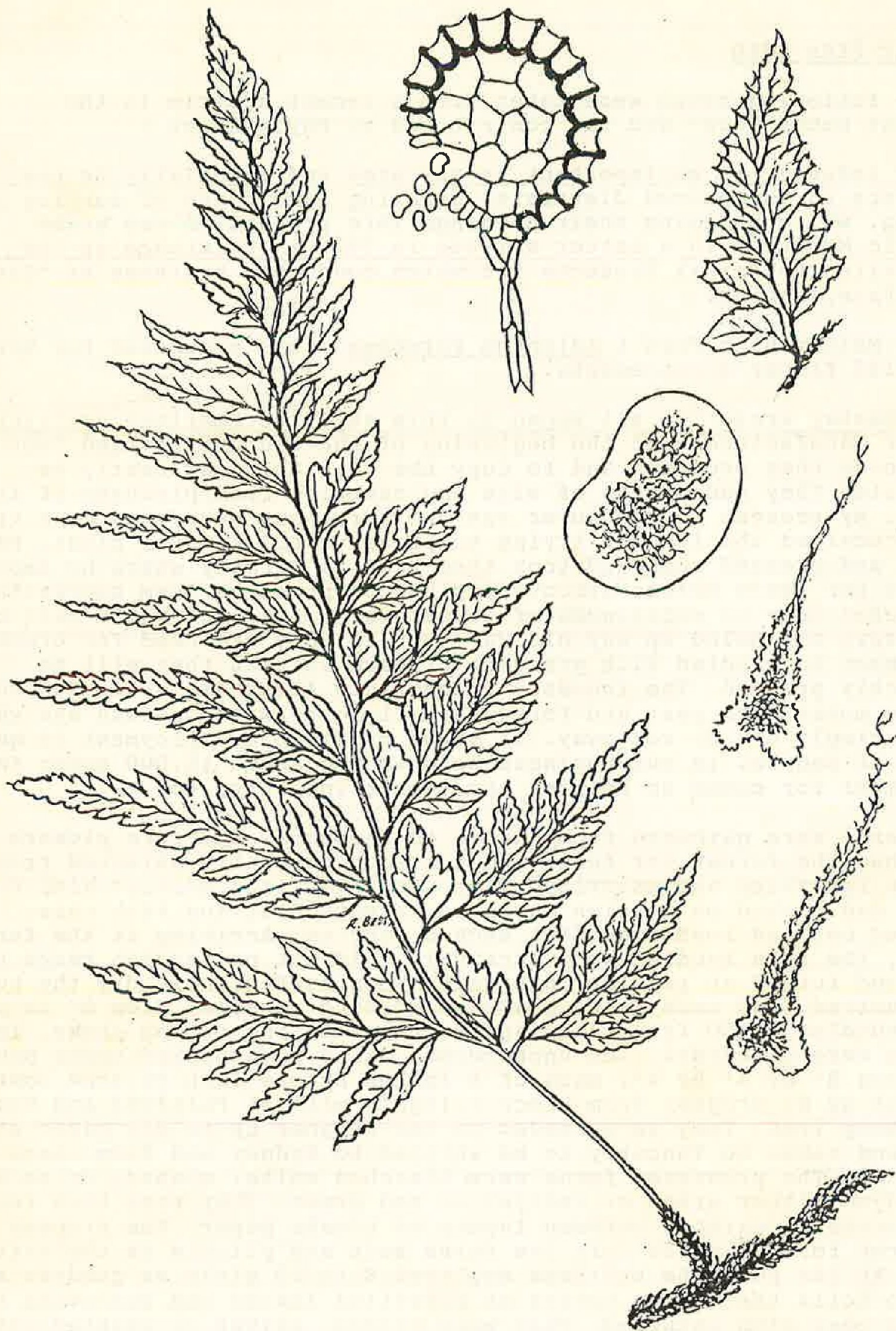
Giant Maiden Hair Fern (Adiantum formosum) was processed for use in dried flower arrangements.

Mr McMaster wrote "It all began in this way. The American Artificial Flower Manufacturers at the beginning of the century started improving the goods they produced and to copy the real thing as nearly as possible. They made these of wire and cambric, from pictures of living plant. My present German buyer saw the ferns out here when on a visit and conceived the idea of trying to preserve the natural plant. He dried and pressed some and took them back to Germany where he experimented for years before discovering how to preserve them successfully. The ferns have no substances of commercial value, and would have been mown down and baled up any old way, but as they are used for ornament, they must be handled with greatest of care so that they will be perfectly pressed. The industry brings into Australia about £20,000 of new money each year and for an article otherwise useless and which would simply die or rot away. It gives profitable employment to quite a lot of people. In our business here we use about 15,000 super feet of timber for cases so helping the timber industry, too."

The ferns were gathered from Karuah to Nambucca. The fern pickers searched the forest for fern, and cut each carefully selected frond chosen for shape and maturity. They were tied into bundles with forest grass and packed on hessian carriers, always flat and with care, then carried out and loaded on flat decked lorries. Arriving at the fern sheds, the fern bundles were carefully laid out on hessian racks to dry, and turned at regular intervals. When sufficiently dry the bundles were untied, and each frond graded according to size, from 8" to 20", into bundles of 50 fronds and again stored on the drying racks. Imperfect fronds were discarded. The unprocessed ferns were packed under pressure in cases 8' by 4' by 4', made of 8 inches by one inch Ti-tree boards brought up by drogher from Breckenridge's mill at Failfod and bound with hoop iron. They were loaded on the drogher up to six cases at a time and taken to Tuncurry to be shipped to Sydney and from there to overseas. The processed ferns were bleached white, washed, dried and then dyed either green or red/yellow and green. They were then resorted and packed in cartons between layers of tissue paper. The process was a secret formula which left the ferns soft and pliable as the natural fern. At its peak the business employed 8 to 10 girls as graders and a man to build the cases. Sprays of Grevillea leaves and Burrawang Palm fronds were also marketed. They were gilded, silver or painted green.

Closing Date for Contributions

Articles for inclusion in our March 1990 Newsletter should be in the hands of our Secretary by no later than 15 February 1990.



DAVALLIA SOLIDA (G. FOSTER) SWARTZ.