



ASSOCIATION OF

S. G. A. P. Fern Study Group

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VALE RAY BEST

All who knew Ray Best would have been saddened at word of his passing in February. Although frail in the recent years, Ray enjoyed reasonable health until the last and died peacefully aged 84 years. Here was a man who was a legend in his own time among fern lovers. Ray never failed to respond positively and cheerfully to the numerous requests our Group made of him. We marvelled at his knowledge of all things and the power of his intellect. His drawing and paintings of ferns are brilliant in their detail and clarity. His book "Growing Ferns" published seventeen years ago is still one of the finest introductions to the subject. But so much of his work has not been published, so much of his knowledge has been lost with his passing. We have lost a treasure, a remarkable man and a staunch supporter of our cause. We wish to convey to Marie our sincere sympathy. Our thanks to John & Judy Marley for preparing the following obituary.

Sadly we say farewell to Ray Best, the Don Quixote of the world of ferns. Ray spent his life dedicated to the pursuit of botanical truth. He took to task many botanists when in disagreement with identification. Each quest taking hours of research and many heated letters and discussion with the foe. His line drawings so perfect will be a constant reminder of this great artistic talent and love of ferns.

Ray with Marie by his side played host to fern friends and members of S.G.A.P. Fern Study Group at their lovely home and wandering around the garden. Despite in more recent years failing health and the devastation of the garden by bush fire, undaunted, he continued the quest.

Our introduction to Ray and Marie was a visit to discuss ferns published in his book "Growing Ferns." After three hours of head reeling with this foreign language, we were unsure of our ability to learn this language. That was twenty years ago and despite still learning, his friendship support and knowledge to us, and other novices, will never be forgotten.

To Marie and family from all fern members, and we can say with a surety international fern friends and colleagues, best wishes and our deepest sympathy.

PLATYCERIUM SPP. AS EPIPHYTES

Contributed by Geoff Simmons

The common wisdom is that epiphytes are non-parasitic. But it is worthwhile giving further thought to the association between ferns of the genus *Platycerium* and the trees on which they grow.

In nurseries, staghorns can be seen growing on various materials such as wooden planks, terracotta plaques and in some cases foam plastic slabs. Sometimes plants will be seen growing on brick walls and in other odd sites. Experience with placing *P. hilli* plants on aluminium security mesh with mulch mats behind was far from successful confirming a thought that a solid backboard was more than an inert companion to the ferns.

What are the factors that could come into play in forests where these ferns occur naturally

1. Insulation: If the fern is backed by the trunk of a tree or located in a fork surrounded by branches and leaf litter, the fern will be insulated from the temperature extremes and the environment will be more constant.
2. Moisture: Rainfall may fall directly onto the fronds and water may run down the trunk, branches or leaves. In addition evaporation from water at ground level increases the humidity and at night condensate may form. If the bark of the tree is water retentive, moisture will be available to the fern for longer periods.
3. Stability: The ability of staghorns to clasp the base behind it and form a close fitting association produces a stable situation less likely to be disturbed by wind and storms. Another function of the tree may be to provide protection from sun and hail.
4. Nutrition: The action of the bark in holding dust, bird or insect excreta and of flaking off is a major reservoir of nutrients. Additional minerals and organic matter is washed down from the canopy above - this includes dead leaves and other small pieces of vegetable matter.
5. Microflora associations: These are not generally thought of in relation to *Platycerium*s. There doesn't seem to be any reports that bacteria, algae, mosses or fungi growing in the fern mass have been studied or whether they play a part in the initial germination of the spore or in the subsequent growth. The microflora could be detrimental or advantageous.

The above factors are part of the background information that will lead to good cultivation practices when staghorns are grown in shadehouses or other artificial situations. My attempt to grow *P. hilli* on mesh and mulch mat clearly doesn't satisfy the totality of natural growing conditions.

WANTED TO BUY TREE FERNS

We have an enquiry from France, someone wanting to import a large range of tree ferns. Ten plants of various species are required including most of the Australian *Cyathea* and *Dicksonia* species. The ferns are required quickly. Moreen has suggested a few growers but apparently when contacted, they were not willing to export their ferns. If you know of any grower who may be interested in supplying the tree ferns, please contact the Secretary who will give you a copy of the list of requested ferns and other details of the enquiry.

FOR SALE

The Longs are building a new house and have to sell up!

1. Fowler Street, Camperdown

Arguably the best house in Camperdown!

- * Easy walking distance to Sydney University, Royal Prince Alfred Hospital, etc.
- * Built in 1888 - 2 owners
- * Renovations and extensions by the architects Viv Fraser (The Wharf and Nimrod) and Jerry Furzer (Civil & Civic)
- * Prize winning low maintenance garden - Landscape architectural design
- * On street closure, joined to park. Quiet cul-de-sac, corner block
- * 4 large bedrooms
- * 4 large entertaining rooms - drawing, lounge, dining and family / TV all connected via French doors to huge expanse of private outdoor entertaining space
- * Original fireplace
- * Large Kitchen : Laundry : Bathroom x 2
- * Garage / radio operated door; workshop space : rear lane access
- * 3 km from G.P.O.

2. 'Bolwarra'

The ultimate hide in the sub-tropical Foxground rainforest between Gerringong and Berry and yet ten minutes from golf / beach. Resident lyre bird, Australian thrush, whip bird, cat bird, etc. Lantana eradicated. Rehabilitation over 3 years has produced an outstanding example of the Natural Habitat Garden indistinguishable from the natural rainforest. Paths, rest areas and a creek pool have been constructed using the natural stone of the area. A flora list containing 137 species is available. The house is full of light despite being deep in the forest. Upstairs it has a mezzanine and family bedroom (4 beds). Downstairs is a huge lounge / dining / kitchen, master bedroom with ensuite, bathroom and large deck. Area 4,000 sq. m (1 acre). Gas provides energy for hot water, cooking, refrigeration and the gentle mellowness of gas lighting. Warm comes from the sandstone fireplace fitted with a Chiminee Phillipe firebox. All weather road access. One hour south of Waterfall. (Royal National Park) by road.

A wonderful weekender for the overloaded person with an affinity for nature. Special price consideration will be given to those who wish to preserve and further develop the concept of this garden.

N.B. Both properties available by private sale but agent enquiries welcome. Price on application. If not previously sold will be auctioned October 1997. Telephone (02) 9519 5522, Fax (02) 9516 4214, e-mail galong@ozemail.com.au.

Ed. Geoff Long made the Group a generous donation to have the preceding advertisement included. He need not have bothered as we would have happily published it anyway. It would be doing a great service bringing "Bolwarra" to the attention of one of our members able to indulge him or her self. Rainforest enthusiasts fortunate enough to have visited this "ultimate hide" would be sorely tempted to make it their own! The perfect setting of the property, its ideal harmony with the lush rainforest, is surely unique. We only hope that the lucky buyer gives it the love and care extended by Geoff and Ann.

WILDFLOWER SOCIETY SPRING FLING

No not another advertisement - just an important notice for anyone fortunate enough to be in Perth on Sunday 14 September 1997. The Spring Fling is an opportunity to enjoy West Australia's wonderful wildflowers and birdlife. There will be displays, demonstrations and guided walks through Perry Lakes and Bold Park. The venue, Perry House, 71 Oceanic Drive, Floreat Park is the home of the Wildflower Society and the RAOU. To be held from 9.30 am to 4.00 pm. Enquiries phone (09) 389 7979.

HELP FOR CALDER CHAFFEY

We last heard from Calder at the beginning of April when he wrote, referring to the appeal for help published in our March Newsletter, as follows:

"The fern people have been very conscientious, I have about 30 replies already, from all over Australia. With enough information, such as this, country wide, it is hoped to put together specific recommendations of where each fern may be grown and what special conditions may be necessary. Where I have holes I shall go out and question fern growers.

The first draft is finished. I am now revising, rewriting and checking data. Information from the survey has to be added. It looks like some 300 pages and about 186 ferns. Now I have to get photographs. I leave in a week for central and north Queensland. May be able to take some photos and I want to meet some contacts there. I shall be away for a few weeks. I have been through the fern photos you sent and selected some which would be suitable for the book. There are still a lot to go, about 135 in fact. I shall be trying to take what I can but I thought you may be able to locate some members who may have some of them. I am enclosing the list of wants hoping you may locate some."

A copy of the list provided by Calder appears in this Newsletter. Can you please help? Any slides or photos that you consider might be suitable should be given to the Secretary, or forwarded direct to Calder at "Red Fox", 13 Acacia Street, Wollongbar, 2477.

Please ensure that any contributions are clearly marked with your name so photos used may be acknowledged, and those not required, returned.

Photo Needed

Can you provide Calder Chaffey with a good photo of any of these ferns? For details of how you can help, see separate article this Newsletter.

Achrostichum	speciosum		
Adiantum	capillus-veneris		
Adiantum	diaphanum		
Adiantum	hispidulum var. pubescens		
Adiantum	hispidulum var. whitei		
Adiantum	philippense		
Adiantum	silvaticum		
Ampelopteris	prolifera		
Amphineuron	opulentum		
Amphineuron	queenslandicum		
Arachniodes	aristata		
Arthropteris	beckleri		
Asplenium	aethiopicum		
Asplenium	attenuatum var attenuatum		
Asplenium	attenuatum var indivisum		
Asplenium	attenuatum var multilobum		
Asplenium	attenuatum var schneiderae		
Asplenium	bulbiferum		
Asplenium	flabellifolium		
Asplenium	goudeyi		
Asplenium	harmanii		
Asplenium	laserpitiifolium		
Asplenium	milnei		
Asplenium	nidus		
Asplenium	obtusatum		
Asplenium	paleaceum		
Asplenium	pteridoides		
Asplenium	surrogatum		
Asplenium	terrestre		
Azolla	filiculoides		
Azolla	pinnata		
Belvisia	micronata		
Botrychium	australe		
Callipteris	prolifera		
Ceratopteris	cornuta		
Ceratopteris	thalictroides		
Christella	arida		
Christella	dentata		
Christella	hispidula		
Christella	parasitica		
Coveniella	poecilophlebia		
Cyathea	baileyana		
Cyathea	celebica		
Cyathea	cooperi		
Cyathea	cunninghamii		
Cyathea	leichhardtiana		
Cyathea	macarthurii		
Cyathea	marcescens		
Cyathea	rebecca		
Cyathea	robertsiana		
Cyathea	robusta		
Cyathea	woollsiana		
Cyclosorus	interruptus		
Davallia	pyxidata		
Dennstaedtea	davallioides		
Deparia (Lunathyrium)		petersenii subsp.	
		congrur	
		Dicksonia	youngiae
		Diplazium	assimile
		Diplazium	australe
		Diplazium	deitrichianum
		Diplazium	dilatatum
		Diplazium	queenslandicum
		Doodia	caudata var caudata forma trilobax
		Doodia	caudata var caudata
		Doodia	caudata var. laminosa
		Doodia	heterophylla
		Doodia	maxima
		Doodia	media
		Doodia	media subsp australis
		Drynaria	rigidula X D. sparsisora
		Humata	repens
		Huperzia	phlegmaria
		Huperzia	proliferum
		Huperzia	squarrosum
		Hypolepis	glandulifera
		Hypolepis	muelleri
		Hypolepis	rugosula
		Hypolepis	tenuifolia
		Lastreopsis	acuminata
		Lastreopsis	decomposita
		Lastreopsis	hispidula
		Lastreopsis	marginans
		Lastreopsis	microsora
		Lastreopsis	munita
		Lastreopsis	rufescens
		Lastreopsis	tenera
		Lastreopsis	wurunuran
		Lygodium	flexuosum
		Lygodium	microphyllum
		Lygodium	reticulatum
		Macrothelypteris	polypodioides
		Macrothelypteris	torresiana
		Marsilea	drummondii
		Marsilea	hirsuta
		Marsilea	mutica
		Microlepia	speluncae
		Nephrolepis	cordifolia
		Nephrolepis	hirsutula
		Nephrolepis	obliterata
		Ophioglossum	lusitanicum
		Ophioglossum	reticulatum
		Pellaea	falcata v nana
		Pellaea	paradoxa
		Phymatosorus	diversifolius
		Phymatosorus	grossus
		Phymatosorus	punctatus
		Phymatosorus	pustulatus subsp. howensis
		Phymatosorus	scandens
		Phymatosorus	scolopendria
		Pleurosorus	rutifolius
		Pneumatopteris	sogerensis

Ferns - Photos Needed (Continued)

Pteris	ensiformis	Polystichum	australiense	Schellolepis	percussa
Pteris	tremula	Polystichum	fallax	Schellolepis	subauriculata
Pteris	tripartita	Polystichum	formosum	Selaginella	brisbanensis
Pteris	umbrosa	Pronephrium	asperum	Sphaerostephanos	unitus
Pteris	vittata	Pronephrium	triphyllum	Stenochlaena	palustris
Pyrrosia	dielsii	Psilotum	nudum	Thelypteris	confluens
Pyrrosia	longifolia	Pteridium	esculentum	Vittaria	elongata
Rumohra	adiantiformis	Pteridium	revolutum	Vittaria	ensiformis

N.S.W. MID NORTH COAST REPORT

Outing to Swan's Crossing & Kooloobung Creek, 22-23 March 1997

by Steve Clemesha

Our visit to Swan's Crossing was not our first, but last time we didn't have time to walk over all its tracks. The area is a popular one for day outings from Wauchope and Port Macquarie as it has nice swimming holes, walks and a picnic area.

Most of the walks follow the creek and there are sections of rainforest and Eucalypt forests. With these differing habitats there were different ferns and we saw a total of 42 different fern species. Blechnum nudum and minus grew close together and almost in the creek. We seldom see B. minus on the coast. It is more of a fern of higher, colder country. B. nudum seems equally at home in both climates.

The next day we went to Kooloobung Creek in the middle of Port Macquarie. Much of this area is a wetland and board-walks have been built to allow access. We expected to find few ferns but there were a few small areas of natural bush in the reserve and we found a total of 22 species of ferns. One which we seldom see was Cyclosorus interruptus. This grew in wet mud among reeds and would be hard to get to without the board-walk. It is a species that grows in coastal swamps and that is why we seldom see it.

Part of the area was bordered by suburbia and some people had dumped garden refuse in the reserve including lawn clippings, succulents and Nephrolepis cordifolia, unless perhaps a spore drifted in from someone's garden.

Another part of the area was natural bush. Part of the area near this was being regenerated by planting of native trees and shrubs and among them was a Polystichum proliferum. This plant was a long way from home as it usually is only seen at high elevation on the tablelands.

A few Cyathea cooperi were seen. Our Group has noticed a few of these come up in gardens and areas of disturbed bush near settlement. Also a patch grew in south west West Australia. This is not a reason to regard it as a potential weed. For every "feral" cooperi, there would be a thousand lantana, bitou bush, blackberry, etc. Even a plant of Platycterium bifurcatum and an Asplenium australasicum grew in this area. Water birds were seen in the more open parts of the swamp. The people of Port Macquarie are fortunate to have this mostly natural area in the middle of their town.

Swan's Crossing & Kooloobung Creek

S : Swan's Crossing K : Kooloobung Creek X* : species introduced to local area or escapes

	S	K		S	K
Adiantum aethiopicum		X	Doodia caudata	X	
Adiantum hispidulum	X	X	Gleichenia dicarpa	X	X
Adiantum silvaticum	X	X	Grammitis billardieri	X	X
Arachniodes aristata	X		Grammitis stenophylla	X	
Arthropteris tenella	X		Histiopteris incisa	X	X
Asplenium australasicum	X	X	Hymenophyllum cupressiforme	X	
Asplenium flabellifolium	X		Hypolepis glandulifera	X	
Asplenium polyodon	X		Hypolepis muelleri	X	X
Blechnum cartilagineum	X	X	Lastreopsis decomposita	X	
Blechnum indicum		X	Lastreopsis microsora	X	
Blechnum minus	X		Lindsaea microphylla	X	
Blechnum nudum	X		Lunathyrium petersenii	X	X
Blechnum patersonii	X		Nephrolepis cordifolia	X	X*
Blechnum watsii	X		Pellaea falcata	X	
Calochlaena dubia (Culcita)	X	X	Pellaea paradoxa	X	
Christella dentata	X	X	Platycterium bifurcatum	X	X
Cyathea australis	X	X	Platycterium superbum	X	
Cyathea cooperi		X	Polystichum proliferum		X*
Cyathea leichhardtiana	X		Pteridium esculentum	X	X
Cyclosorus interruptus		X	Pteris tremula	X	
Davallia pyxidata	X		Pyrrosia confluens	X	X
Diplazium australe	X		Sticherus flabellatus	X	
Doodia aspera	X	X	Vittaria elongata	X	

Report on Outing to Mt. Mee State Forest, 8 March 1997

Contributed by Merle Goadby

The Group met with members of the Rain Forest Study Group in the parking area beside the Dayboro Swimming pool where we were entertained by the antics of the yellow tailed black cockatoos feeding in the trees. Fourteen people then proceeded to the Gantry picnic area in the Mt Mee State Forest. Our leisurely morning walk was in the Piccabeen Circuit. In some sections, the understory was dominated by the beautiful shiny Arachnioides aristata. Lastreopsis marginans was also a delight in some parts. At lunch we enjoyed a social visit from Forest Ranger Andrew, well known to members of the Pine Rivers Branch.

In the afternoon we enjoyed the Mill Rainforest Walk. Lastreopsis marginans again was notable and we saw some beautiful epiphytic ferns, high in old rainforest trees. Creek banks afforded habitat for more species. In all, it was a very enjoyable outing, with little indication of the strong winds on the coast.

Ferns Seen on Outing to Mt. Mee State Forest, 8 March 1997

P: Piccabeen Walk

M: Mill Rainforest Walk

	P	M
<i>Adiantum aethiopicum</i>		x
<i>Adiantum diaphanum</i>		x
<i>Adiantum formosum</i>	x	x
<i>Adiantum hispidulum</i>	x	x
<i>Arachniodes aristata</i>	x	
<i>Arthropteris tenella</i>		x
<i>Asplenium attenuatum</i>		x
<i>Asplenium australasicum</i>		x
<i>Asplenium polyodon</i>		x
<i>Blechnum cartilagineum</i>	x	
<i>Calochlaena dubia</i>	x	x
<i>Davallia pyxidata</i>	x	x
<i>Diplazium australe</i>		x
<i>Doodia aspera</i>	x	x
<i>Hypolepis glandulifera (=punctata)</i>		x
<i>Hypolepis muelleri</i>	x	
<i>Lastreopsis decomposita</i>	x	x
<i>Lastreopsis marginans</i>	x	x
<i>Lastreopsis munita</i>		x
<i>Ophioglossum pendulun</i>		x
<i>Pellaea falcata var nana</i>		x
<i>Platycterium bifurcatum</i>	x	x
<i>Platycterium superbum</i>		x
<i>Pteridium esculentum</i>	x	x
<i>Pyrrosia confluens</i>	x	
<i>Pyrrosia rupestris</i>		x

A Further Visit to Mt. Mee State Forest, 12 March 1997

Shortly after the above outing, the Wallum Study Group visited a different section of the State Forest to see mountain heath. Five members of the Fern Study Group were present on that outing. We noted some further fern species. These included *Cheilanthes* spp., *Cyathea australis*, *Lindsaea microphylla*, *Gleichenia dicarpa*, *Schizaea bifida* and *Sticherus flabellatus*. Fine specimens of *Blechnum nudum*, and *Todea barbara* were growing in a shaded creek gully. Later, on a short drive on the Forestry Roads.

Mt. Mee State Forest is on the Northern end of the D'Aguuler Range. It covers a number of different habitats. It is possible that further investigation could increase the count of fern species to a figure approaching the total found in the Brisbane Forest.

Report on Outing to Nambour, 6 April 1997

Contributed by Irene Cullen

Twelve members drove to Gerry Kortekaas's home to visit his unique garden. Gerry is a courageous man. Suffering the aftermath of a stroke, which has left him paralysed in his right leg and arm, he has taught himself to walk again. We were aware of this, but what we didn't expect to see, was the steepness of his hillside garden. It is best described as a tropical jungle with contoured walking paths. Gerry grows a wide variety of ferns both native and exotic, which he has growing in the garden and a small fernery. A spectacular Ophioglossum pendulum hung from one of the trees. It was the first sighting for many of us of the handsome Adiantum hispidulum var. hypoglaucom. When the tour was finished, we adjourned to the nearby Koala Park for lunch, then visited Moran's Nursery. Here we were able to buy ferns to increase our collections. A very pleasant day.

Report on Outing to Elimbah, 4 May 1997

Contributed by Irene Cullen

Ten members braved the showery weather to visit Geoff Simmons garden. It was a late start as some of us became lost. The improvements Geoff has made since we visited seven years ago, was amazing. Landscaped on virtually solid rock on a hillside, the result plainly shows that a combination of hard work and a creative and an artistic ability has gone into this showpiece. Consider also, less than two and a half years ago a bush fire swept across it, taking almost all but his home. He gave us all a plan of his garden, containing 22 sub-sections, including of course a fern section. He showed us his spore trials, using easy to handle peat jiffy pots and passed around many interesting extracts on fern propagation which he copied from various overseas publications. Unfortunately, there is a copyright on these. During a break in the weather we hurried off to tour the garden. The fern area was still without a tree canopy to shade it, but with the help of pipe structures and shade cloth, the area showed promise. After a somewhat late lunch, we were invited to raid his lemon and lime trees. The fire had left only bare branches. With many thanks and compliments we left the delightful garden.

SUBSCRIPTIONS OVERDUE

If we have shown a red cross in the space opposite, its because our records suggest that the 1997 subscription of \$5 has not yet been paid. The 1997 subscription to the Fern Study Group was due and payable in January. Full membership of the Study Group is only given to persons who are financial members of the Society for Growing Australian Plants. Otherwise payment of the subscription gives an entitlement to the Newsletter only. Please remit direct to our Treasurer, Joan Moore - address shown at the head of the Newsletter.

FORTHCOMING EVENTS : IN THE MID NORTH COAST, NSW.

For details of the above events contact Charlie Charters, phone (065) 86 1088.

SYDNEY REGION REPORT

Report of Outing to Picnic Point, 15 March 1997

Our visit to Sylvan Grove Native Plant Reserve attracted 14 members. A fifteenth, Robert Miller, gave up his morning to guide us around this beautiful haven - truly a place worthy of a suburb named Picnic Point. The Reserve is a great credit to Bankstown City Council and Robert and his helpers. Long may it flourish! Apart from the display at the Royal Botanic Gardens, the Reserve holds what is probably Sydney's finest public collection of ferns. Members marvelled at the healthy appearance of the ferns and their growth since our visit of (would you believe?) nine years ago.

Report on Meeting at Mount Druitt, 20 April 1997

Our thanks to Margaret and Peter Hind for hosting our meeting in their home and mini-botanical garden. What an amazing array of plants Peter has and a name and story to go with each. Eighteen participated in the study session, led by Peter and dealing with *Nephrolepis*. We had looked at this genus some 7 years ago - September 1990 Newsletter. As Peter explained, "Ferns of Queensland" by S.B. Andrews contains a useful description and a key to the six species native to Australia. All of these *Nephrolepis* species extend to countries outside Australia.

A seventh species *Nephrolepis exaltata*, though generally thought not to occur naturally in Australia has certainly naturalised in various parts of Australia, including through the neighbours fence! Literally dozens of cultivars have been developed. *N. exaltata* is quite similar in appearance to *N. cordifolia* and both frequently produce fleshy tubers along the runners from the rhizome. Both are extremely hardy ferns. How do we tell them apart? From the species we viewed at the meeting, the margins of the pinnules differed. On *N. exaltata* the margins were serrate (sharp teeth) to almost crenate (teeth rounded), while those of *N. cordifolia* were crenate (teeth rounded) to shallowly crenate. Definitely a case of use your hand lens! *N. cordifolia* is found in north east N.S.W., Queensland and the Northern Territory.

N. cordifolia has pinnae that are less than 4 cm wide. Apart from *N. exaltata*, two of the other species have narrow pinnules, firstly, *N. radicans* var. *cavernicola*, found only in the Chillagoe district in Queensland. Peter told us of collecting it from crevices in the roof and walls of limestone caves inhabited by paper wasps. The lamina reaches around 1 m, the stipe is rather short. Other features - sori just in from margins, the margins are crenate and this species does not develop tubers.

N. acutifolia is the other species with narrow fronds, these are covered in fine hairs when young. The sori is distinctive, linear and situated along the margins. The lamina grows to about 1 m. The sterile fronds are much narrower than those that are fertile. It grows naturally in North East Queensland. Peter showed us a small potted plant, other members at the meeting did not have it in cultivation.

Two of the Australian *Nephrolepis* with wider fronds, the pinnae of each more than 4 cm long, *N. auriculata*, syn *N. biserrata* and *N. hirsutula* are common in cultivation and are hardy and invasive. Both ferns grow in Queensland and West Australia. In "Ferns of Queensland" the distinctive feature given for *N. hirsutula* is the pinnae which has a long pointed lobe at the base on the upper side. On *N. auriculata* the pinnae is not, or hardly lobed. Where fertile fronds are present, identification is easier. On *N. auriculata* the sori is set well in from the margin, while on *N. hirsutula* the sori is very close to the edge of the pinnae. The remaining species with wide fronds is *N. obliterated* and it too has similar reniform sori close to the margin. However unlike *N. hirsutula*, the pinnae on *N. obliterated* is not lobed. *N. obliterated* can be found in North Eastern Queensland, across the north of the Northern Territory and West Australia.

The day concluded with Jim Lundie telling us of a favourite fern, *Colysis ampla*. Jim admitted that it was not a particular favourite. Most of his ferns are planted in the ground so he had to search for something in a pot that he could bring to the meeting. The chosen plant was an outstandingly well grown species covering all the top and spreading wide and far down over the 10 " pot. Jim said his reference book mentioned that *Colysis ampla* required humidity. However his plant survived quite happily outdoors under shade cloth and without any particular attention. The fern has not been fertilised but Jim has periodically added soil from his worm farm. The fern had been bought in a tumbler from Beryl Geekie about 10 years ago.

Jim explained that his reference book indicated that *Colysis ampla* might be confused with *Microsorium scandens*. Although in the same Polypodiaceae Family and with scrambling fronds that spread over trees and rocks, the fronds of the two ferns brought to the meeting, readily showed they are from different species. *Colysis ampla* has thin fronds with very obvious and distinctive, reticulate venation. Jones & Clemesha in "Australian Ferns & Fern Allies" describe the sori as being "in a long zigzag line radiating across the leaf." It is stated as being common in North Queensland especially along rocky creek banks but Jim had not seen it there. However, Jim said he did find *Colysis sayeri*, which paradoxically, is said to be uncommon.

FORTHCOMING EVENTS : IN SOUTH EAST QUEENSLAND

Sunday 1 June 1997, Excursion to Mt Tamborine

Meet 9.30 am. at the top Cedar Creek car park.

Sunday 6 July 1997, Excursion into Ugly Gully

Meet 9.30 am. at the convenience store Mt Crosby Road.

Sunday 3 August 1997, Meeting at Algester

Meet 9.30 am. at Irene Cullen's home. Make arrangements for Fern Display at Flower Show and discuss *Lastreopsis*.

Friday 12 September 1997.

Set up Fern Display at Queensland Region Flower Show. To be held at Redeemer College, Rochedale..

Sunday 19 October 1997, Excursion to Ravensbourne National Park

Meet 9.30 am. at the top Carpark.

Sunday 7 December 1997, End of Year Break-up

For information regarding activities or meetings, please contact Peter Bostock phone (07) 3202 6983 or Irene Cullen on (07) 3273 1055.

FORTHCOMING EVENTS : IN THE SYDNEY REGION

Sunday 15 June 1997, Outing / Planting Day at Bulli

A day to help Ray Brown and his small band of enthusiasts with the development of the already splendid Illawarra Grevillea Park. We are to donate and plant Australian native ferns in the rainforest area. Ian Cox has been collecting ferns but more are needed.

Members are asked to bring ferns and tools for the planting. Meet from 10 am. Bring lunch and hot water if required. After lunch there will be an opportunity to see the exciting Grevillea collection and a few ferns already there. Enquires to Ian Cox (02) 9654 2533

Sunday 20 July 1997, Meeting at Kenthurst

Arrive any time after 11 o'clock, at Betty & Eric Rymer's home, 48 Annangrove Road, Kenthurst. Bring a pair of sturdy shoes if you wish to accept an invitation to explore the Rymer's extensive property. Study topic "Fern Identification Made Easier" to commence at 1 pm sharp. Pat Kenyon (subject to her twisted arm recovering) will present "A Favourite Fern." Enquires to Betty (02) 9625 8705

Friday, Saturday - Sunday 15-17 August 1997, Exhibition Rouse Hill

No meeting or outing this month, the above are the dates for the 1997 Native Plant & Garden Spectacular at Rouse Hill. Volunteers needed, if you have not already offered help and are able to do so, please contact our Secretary, Moreen, or direct to the SGAP Office (02) 9621 3437.

Sunday 21 September 1997, Outing to Mt. Wilson

Drive past Mt. Wilson Post Office and take right hand turn. Meet at park opposite Chimney Cottage. Arrive from 9.30 am for start at 10 sharp. A short slow walk around the circular Waterfall Track. Lunch at cars. Enquires to Peter (02) 9635 8705.

Sunday 19 October 1997, Meeting at Como

Arrive any time after 11 am at the home of Moreen & Allan Woollett, 3 Currawang Place, Como West. The day's Study subject will be the NSW Cheilanthes spp. Meeting commences sharp at 1 pm. Enquiries to Moreen (02) 9528 4881.

FERNS IN GARDEN DESIGN

Continuing on from the March 1997 Newsletter, the following are further ferns considered valuable in garden design

Lastreopsis microsora

Grows commonly in the Eastern Australian mainland where it is often the most noticeable plant on the rainforest floor and along streams in more open forest. Found growing in nature in Queensland, NSW & Victoria.

Form: Erect with rather large, lacy, pale green fronds. Bears distinctive whitish hairs on stipes and rachises. Spreads by long creeping rhizome but is easily controlled.

Size: Fronds up to 80 cm. tall.

Soil Type: Will grow in most light, friable soils.

Aspect: Requires position that is shaded or having only morning and late afternoon sun.

Water: In suitable protected area only requires watering in the driest of periods.

Microlepia speluncae

A handsome easily grown fern, notable for wide, bright looking, pale green fronds. From Queensland, Northern Territory & West Australia

Form: Erect with broad, fine and lacy fronds. Spreads by long creeping rhizome but is easily controlled.

Size: Fronds up to 1.2 m long.

Soil Type: Will grow in most well mulched soils.

Aspect: Hardy but should have at least half shade for best appearance. Although from the tropics will stand light frosts.

Water: Seldom necessary in a protected position if kept well mulched..

Microsorium punctatum (Syn. Phymatosorus punctatus)

Leathery pale almost yellowish green fronds. From Eastern Queensland. Makes a good specimen in a pot or large basket in an open mixture.

Form: Erect, simple undivided frond. Spreads slowly by under ground rhizome.

Size: Fronds up to 1.2 m long and from 4 to 10 cm wide.

Soil Type: Grow on half submerged log or rocks in well composted soil. Avoid heavy soils and poorly drained situations.

Aspect: Will tolerate a good deal of sun in fact prefers bright light conditions and is best in warm position. It is frost sensitive.

Water: Hardy seldom requires watering.

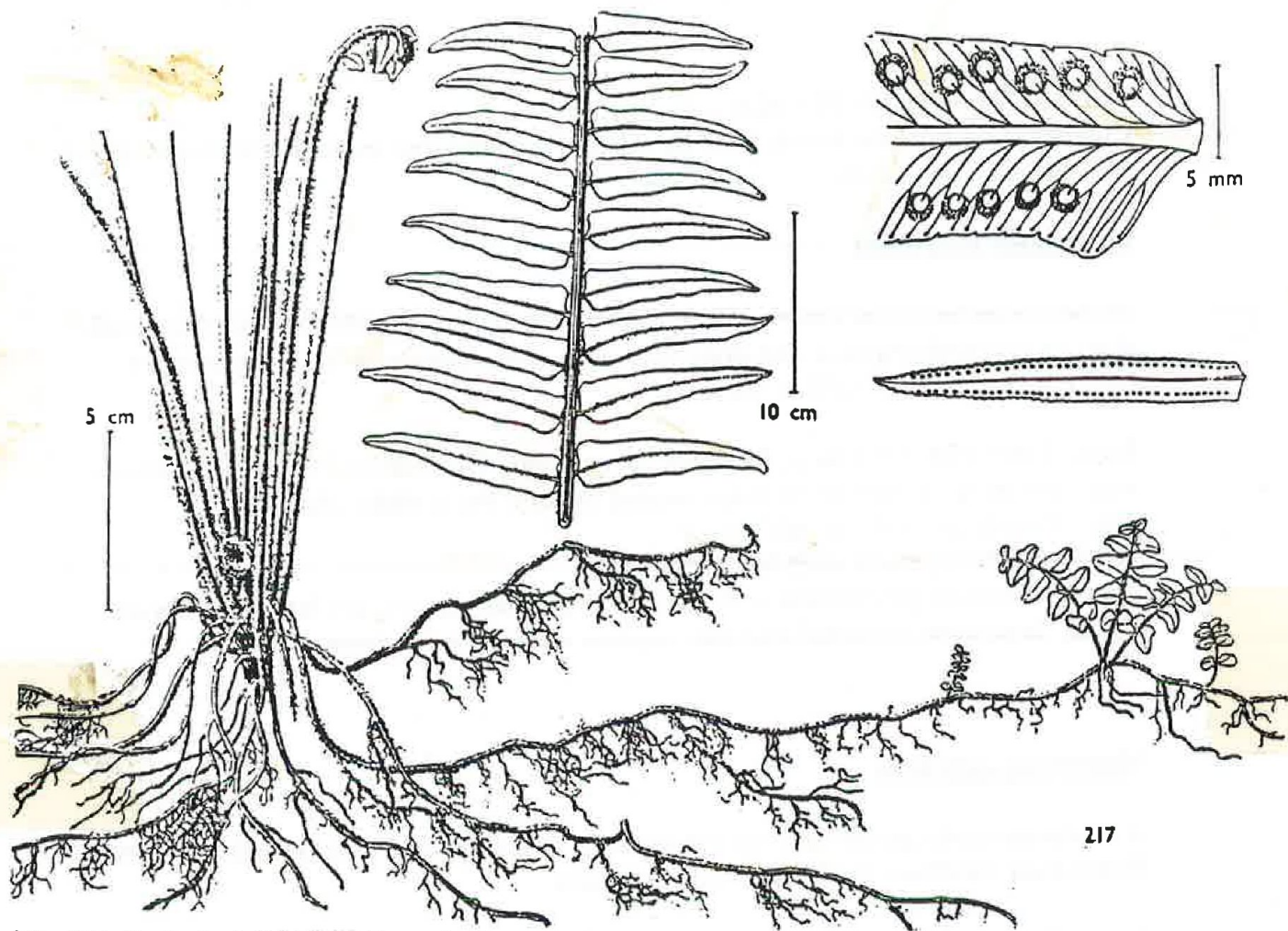


Fig. 217. *Nephrolepis biserrata*. Base of old plant showing runners bearing new leafy stems and roots; part of a sterile frond; on right, a fertile pinna and part of a fertile pinna showing venation and sori.

Nephrolepis biserrata Drawing taken from "Flora of Malaya" by R.E. Holttum

Copy for Newsletter

Contributions to the Newsletter are always gratefully received. Our thanks to those who contributed to this edition. Copy for the next issue should be received by the Secretary by no later than 15 August 1997

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