

S.G.A.P. FERN STUDY GROUP - NEWSLETTER

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SPORE BANK: Phyll Brown  
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Dear Members,

Early in July, George and Gerry Parker held a preview of their newly completed slide-show on ferns, the purpose of the evening was to offer constructive criticism or to suggest possible changes to the show, neither of which were thought necessary. The screening of over two-hundred slides, synchronised with a taped narrative, runs for forty-two minutes and is expedited by alternating two projectors and operators. Deliberately avoiding a technical approach it promotes the idea of including more ferns into gardens, courtyards and natural bush settings. One segment illustrates the ease with which ferns may be propagated, firstly by division, then from bulbils and several slides show the method of growing from spore used by our Spore Bank Curator, Phyll Brown. We saw ferns growing in different gardens, in bush-houses and in the wild. The ancient *Angiopteris evecta* in its much depleted terrain, the handsome *Acrostichum speciosum* with a close up of the very specialised upper pinnae bearing massed sporangia on the undersurface, (the *Acrostichoid* condition), while a study of massed *Blechnum* ferns showing a dramatic flush of pink and red new growth, elicited murmurs of appreciation from the audience.

Congratulations to Gerry and George for photographing and editing this valuable production.

S.G.A.P. is making a copy of the slide show to screen at Wildflower exhibitions, the copy will remain in Fern Study Group keeping, to be sent on loan to interstate or country regions upon request and under certain conditions. The original has been screened at the Newcastle Regional meeting, at the Manly Group meeting and the Parkers were immediately booked by John Lee for a showing at the Harbourside meeting in March, 1983.

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Mrs. Olive Leckie, who is well known for her work at the Stony Range Flora Reserve at Dee Why near Sydney and a long time member of our Study Group, has donated yet another twenty dollars to be spent on plants for the Shade Area at Burrendong. Mrs. Leckie's donation was used to buy thirty *Pteris vittata* ferns. As the species is considered to be both hardy and attractive and presently represented in the area by one plant only, it was thought that a small colony of the plants with their long, dark, pinnate fronds would contrast with the softer green of ferns planted nearby.

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It is always a pleasure to receive a letter from someone wishing to join our Group, particularly when they send news of ferns from different areas. One such letter to arrive was from Ross Scott of Kenilworth Queensland which included the following article.....

"LYCOPODIUMS AND LAMINGTON NATIONAL PARK"

Fortunate indeed is the enthusiast who has walked through this Botanist's paradise in the Ranges of the Queensland - New South Wales border. Here is the fascinating Macpherson overlap, the only place in the world where sub-tropical rainforest merges with the cool temperate Beech forests as the altitude increases. It is not surprising that nearly one quarter of the fern species of Australia are found here. The 1200 metre summits have their groves of *Dicksonia youngiae* and glades of *Lastreopsis silvestris*. The recent discovery of two more species demonstrates that there is always something new.

The Lycopodium story really started a number of years ago when Rose O'Reilly, a member of the family that pioneered the area before the National Park was gazetted, declared "There are Tassel Ferns on Mount Bethongabel!" The Botanists, with the all too common display of male superiority thought "Now what would she know about Tassel ferns?" and no check was made.

This wasn't a sensible reaction, as all the O'Reillys know their Ranges and their botany. Rose discovered the sole remaining blazed tree from Surveyor Roberts border survey of 1864, the marking CCCXXX over the broad arrow, is still clearly visible today.

Nine months ago, news went around the fern fraternity that a tassel fern had been found at Lamington and later a second specimen came to light.

One was growing on a root in a vertical bank where the graded path was cut out. There were two stems, unbranched about 10cm long, leaves crowded together, very fine and dark green, about 12mm long. Pendant in habit, there were no strobili or sporophylls present. Two dead stems with leaves still attached were part of the plant and seemed to indicate that it was mature. However, in view of the small size of the plant and absence of sporophylls, no section was removed and identification is not yet clear. It may prove to be *Myrtifolium*.

The other specimen was definitely tassel fern "a la North Queensland". It grew on a rock, arching upwards at 45° then curving downwards, about 25cm long, leaves mid green, acute, about 20mm long. There were three stems present, branched but no strobili.

The sporophylls were oval, bright yellow and held at the base of the leaves towards the growing shoot. A stem is held in the Queensland Herbarium awaiting an identity. As that stem represents 30% of the plant it is hoped that no other Botanists pass that way and that there is a good germination of the spores that the plant may be releasing right now.

Ross Scott.

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I would like to mention here that Ray Best supplies some of the plants bought for Burrendong. As well as a generous discount we have the added bonus of knowing that the ferns are well grown.

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FERNS IN LANDSCAPING:

By John Lee

Many people grow ferns in containers in fern houses, glass houses, shade houses. However in their natural state ferns grow out-of doors and providing the situation is suitable, ferns can be grown as garden subjects and can play a significant part in a landscaping scheme.

I am not presenting myself as an authority on ferns but the Lees' experience in growing ferns under garden conditions may prove interesting.

SITUATION:

Our rugged block of land slopes very steeply to the south and had lots of overhead shade from large trees and from houses along the top (northerly) side of the block. The shade varies from 100% to 50% according to location and season, be it winter or summer.

The slope has many rock outcrops and is strewn with floaters. There was a shallow covering of sandy soil and some leaf mould. The soil was classed by the Department of Agriculture as "poor gully soil" and has a Ph. of 5.00.

LANDSCAPING:

Logs and rocks were used to retain soil and to check the downward rush of water in storms. The logs were drawn across the slope and were held in position with pegs driven in on the downward side. Rocks were used, intermingled with the logs, where the rocks could be moved. The depth of soil was increased on the uphill side of the rocks and logs by the addition of compost and sand, creating areas where ferns could be planted.

(Prior to ferns we had tried sun-loving shrubs, such as grevilleas - many from W.A. but the growth was poor and the failure rate was high due insufficient sun).

There was no drainage problem, but there was a "storm-water" problem in the very heavy storms that plague Sydney gardeners four or five times each year as a rule. The placing of the logs and rocks across the slope tends to check the downward rush of storm-water, and we have a few stone surface drains at strategic points to cope with the rush of water in a deluge.

OUR BEGINNING WITH FERNS:

We tried growing ferns in containers in a small shade house but we are not consistent and patient enough in providing the care and attention that ferns in containers require. After some losses due probably to neglect and possibly wind stress, wife decided to try the remaining ferns in the garden. Perhaps she was influenced by fact that the block had large patches of Sticherus flabellatus (Shiny Fan Fern or Umbrella Fern) and bracken on it when we moved in. So we planted our ferns out in the garden in selected areas.

SITE PREPARATION:

Generally the site for each fern is prepared by digging the soil over and incorporating peat moss and sand (usually Nepean sand) with the soil. Compost is spread round each fern and a liberal layer of leaf mulch is applied over the compost.

WATERING:

As a general rule ferns are shallow rooting and require more water, more frequently, than most native shrubs.

MAINTENANCE:

Dead fronds are cut off. Weeds eliminated by hand. Mulch renewed - sometimes twice a year. Once per year a dressing compost is given to each fern. Occasionally a spraying of weak Maxicrop is given on the leaves.

RESULTS:

I am not going to suggest that all the ferns we plant grow. We lose a few. A few others stay alive but could be said to be struggling. Perhaps these are the species that require the protection of a glass house. However many species grow so well that we have no hesitation in recommending ferns for a shady position, providing there is reasonable protection from wind.

The growth is not as lush and delicate as the soft growth one would get in a fern house but the effect of ferns growing under trees and shrubs is very pleasing. The garden is restful to walk in and a feeling of serenity and coolness prevails.

SPECIES WHICH HAVE SUCCEEDED:

Commencing with tree ferns, Cyathea cooperii, introduced by my wife, now has to be controlled. A quick count today put the number of Cyathea cooperii at 58. One has grown to about 20 feet high in 8 years. We also have Cyathea australis.

Doodia aspera spreads but could not be classed as a weed. This compact fern with its attractive red fronds at certain periods is an excellent rockery subject and suitable for landscaping in a shady situation.

Diplazium dilatatum has spread about the garden from one original plant. It has not become a weed but we do dig it up and give it away.

Microsorium scandens tends to climb on old logs and stumps.

Davallia pyxidata (Hare's Foot Fern) clings to rocks and dead trees and requires little attention apart from watering.

Todea barbara (King Fern) grows in a couple of situations. Growth is slow with this one but plants look healthy.

Polystichum australiense grows very easily. This species seems to be confined, in its natural state, to New South Wales.

Asplenium nidus (Birds Nest Fern), Asplenium bulbiferum (Mother Spleenwort), Asplenium flabellifolium (Necklace Fern) all grow satisfactorily.

Gleichenia microphylla (Coral Fern) have only one clump but it is doing nicely.

Blechnum cartilagineum (Gristle Fern), Blechnum minus (Soft Water Fern) grows luxuriantly.

Culcita dubia (Common Ground Fern) grows without any site preparation.

Lastreopsis microsora (Creeping Shield Fern) is an excellent landscaping subject for taking charge of a small patch.

Adiantum hispidulum (Rough Maidenhair) and Adiantum formosum (Giant Maidenhair) do not present any problem.

SPECIES WHICH HAVE TO BE CONTROLLED:

Adiantum aethiopicum (Common Maidenhair Fern) has to be dug out and composted.

Hypolepis muelleri (Harsh Ground Fern) runs everywhere - rhizome is close to surface and it is easily pulled out for the compost heap.

Sticherus flabellatus (Fan Fern) has to be checked.



During winter several of our members travelled to Queensland. Viv Brown, one of the lucky people recalls some of the highlights of his trip.

"Accompanied by Joyce and Mick Sacco, Phyllis and I set off in mid June for a months holiday, it was planned as a sight-seeing tour as well as to provide an opportunity to observe ferns in the natural environment. Our travels took us to Daintree (Nth. Qld.) and then to most of the native fern nurseries south of Brisbane.

A rail excursion from Cairns to Kuranda proved well worthwhile, Kuranda Station is practically obscured by hanging baskets and containers of native ferns and orchids, we spent a pleasant and informative half hour discussing native ferns with the display curator.

In the streets of Cairns (and other northern towns) most of the trees are completely covered by *Pyrossia longifolia*. Taller trees close to the towns and in the parks are host to *Asplenium nidus*, *A. polyodon*, (pinnate form) *Drynaria rigidula* and *Platycerium hillii*.

A sight worth seeing, for southern collectors, are two large specimens of *Drynaria rigidula* growing on tree trunks outside the Cairns Courthouse, the ferns completely surround the stumps and measure a metre high by over a metre in diameter. The mass of brown papery nest fronds on each plant is an amazing spectacle.

On a trip to the Mossman Gorge we sighted *Antrophyum reticulatum* (ox tongue) on rocks, *Pronephrium asperum* and *P. triphyllum* growing in grass at the picnic area and fine specimens of *Platycerium superbum* high in the rainforest trees.

In a park at Innisfail we saw *Psilotum nudum* growing in trees but the rare species *P. complanatum* was seen only in private collections. Taking the Palmerston Highway from Innisfail to the Atherton Tablelands we saw *Angiopteris evecta* (rare) *Marattia salicina*, the giant scrambling fern *Diplopterygium longissimum*, *Belvisia mucronata*, *Cyathea rebecca*, *Blechnum orientale* and in a dry road cutting protected by a heavy cover of grass grew a large colony of *Lycopodium cernuum* (Qld. coral fern).

The country was experiencing a very dry period and the heaviest frosts in thirty years had blackened most of the Tablelands. *Pteridoblechnum neglectum* was on show in a nursery near Mareeba but not for sale, it is difficult to buy many of the native ferns sought after by collectors, as the nurseries receive little demand for that which grows so abundantly nearby. *Drynaria* and *Pyrossia* species are regarded as weeds as is the naturalised *Pityrogramma calomelands* (silver fern).

I have mentioned just a few of the many species we saw in the wild and in private collections but to list all the ferns and localities would make tiresome reading. At Ingham we called on Mrs. Bosworth who showed us her extensive fern collection where among other things of interest *Psilotum nudum* germinates freely among the baskets. We paid a visit to Helen Moriarty of Mt. Glorious near Brisbane who has among her ferns a fine specimen of *Cyathea baileyana*, Helen pointed out the wig-like growth which distinguishes it from the similar *C. rebecca*.

We four wish to sincerely thank all the Queensland members of the Fern Study Group who made us welcome, showed us their collections and offered information which made the trip so enjoyable."

Viv Brown.

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John and Addie Lee also enjoyed a warmer climate while on Dunk Island and in Cairns. John considered that one of the nurseries they visited may be of interest to members.

"While on a holiday in Queensland in June we visited the Lavis Nursery, 34 Duffy Street, Freshwater. 4872. (Freshwater is a suburb of Cairns).

Ted and Thelma Lavis are propagators and wholesale growers of Lycopodiums (Tassel Ferns), and though they grow other species such as Asplenium nidus, Adiantum sp., and Selaginella sp. well, it is fair to say that their Lycopodiums are superb.

The nursery is very orderly, hygienic and efficient and Thelma obviously has a love for her work, she does not bother with botanical names but indicated at least five different tassel ferns, all native.

Though wholesale it is understood that ferns will be freighted by the carton to members but it is suggested that enquiries should be made before ordering.

Members visiting Cairns are recommended to call at the nursery.

It should be noted that some species of Lycopodiums require heat in southern Australia (see Australian Ferns and Fern Allies - Jones and Clemesha)."

John Lee.

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For any of our members travelling to the New South Wales north coast, a new specialist fern nursery has been opened on the Pacific Highway at Tyndale. Tyndale is on the Clarence River about 30 kilometres north of Grafton. The nursery is called Hibiscus Gardens tel.(066)476415 and caters specifically for fern collectors and enthusiasts with the other main line being Hawaiian Hibiscus.

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Les Taylor has been elected as Fern Study Officer, he will plan and conduct a period of study at each meeting. During a trial run in August Les pointed to differences between Blechnum ambiguum and B. gregsonii, ferns which grow on wet sandstone rock faces, and B. wattsi a ground fern similar to the others when juvenile, but much larger in the adult form. B. wattsi has very narrow fertile pinnae, B. ambiguum has fertile pinnae about half the width of sterile pinnae while in B. gregsonii the fertile pinnae is almost as broad as the sterile pinnae. At our October meeting we will study species of Adiantum. The study period will normally begin 30 minutes after the given assembly time.

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West of Sydney ferns in the shade area of the Burrendong Arboretum have weathered a cold winter. During July - August severe frosts on 34 consecutive mornings coupled with a continually dry atmosphere caused only minimal damage. Nephrolepis cordifolia planted outside the canopy suffered frost burn as did perimeter plantings of Christella dentata and Lunathyrium japonicum. Emerging fronds on Blechnum cartilagineum and young Cyathea cooperi ferns planted near the perimeter were slightly damaged. Not so tolerant of the low temperatures were feature plantings

of the broad leaved *Alocasia Macrorrhizos* and the native ginger *Alpinia coerulea*, both were badly burnt. All other plants are in excellent condition. The extreme weather was not average and would not be expected to occur again.

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SPORE BANK:

Acrostichum	aureum	Cyclosorus	interruptus
"	speciosum	Dicksonia	antarctica
Asplenium	bulbiferum	"	youngiae
"	flabellifolium	Diplazium	australe
"	nidus	Lastreopsis	decomposita
Blechnum	ambiguum	"	smithiana
"	articulatum	"	SPP. (Nth. Qld.)
"	cartilagineum	Microlepia	speluncae
"	fluviatile	Ophioglossum	pendulum
"	nudum	Platynerium	superbum
"	occidentale	Polystichum	australiense
"	vulcanicum	"	formosum
Cheilanthes	distans	Psilotum	nudum
Christella	arida	Pteris	umbrosa
"	dentata	Rumohra	adiantiformis
Culcita	dubia	Stenochlaena	palustris
Cyathea	celebica	Taenitis	pinnata
"	cooperi		
"	cunninghamii		
"	rebecca		
"	robertsiana		

Although we have a good collection of spore in the bank I am always happy to receive more so that the supply may be kept fresh. I would like to see more of you try your hand at this method of propagating ferns and would be glad to help you in any way that I could. Members requesting spore please send a stamped and addressed envelope.

Phyll Brown.

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PROGRAMME:

OCTOBER - Sunday 24th - 11a.m. at Jan Fairley's home. Bring your sandwich or salad lunch and a "plate".

NOVEMBER- Saturday 13th & Sunday 14th - A weekend at the Burrendong Arboretum.  
(Some members will arrive on Friday 12th.)

*Molly Murray*  
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(MRS) MOLLY MURRAY - LEADER  
FERN STUDY GROUP - S.G.A.P.