



ASSOCIATION OF

S.G.A.P. Fern Study Group

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The mention made in the June 1996 Newsletter that Calder Chaffey had agreed to rewrite the manuscript and act as writer / editor of the long talked about Fern Book, has evoked some interest. Most members who have made their views known, expressed pleasure at the news that the book might yet be published. A few have also aired their impatience. These members indicated they would like to help provide information and slides for possible inclusion in the book but need to know exactly what is required.

At this stage it is still unclear what will be required. Calder has already prepared a good deal of material for Part 1 of the book. This comprises general material about ferns and about growing ferns and is expected to be illustrated with suitable photographs and such things as potting mixes, fern houses, etc. Calder has also prepared a proposed format for Part 2 which deals with each family, genus and species of Australian ferns.

Calder has done all his work in between a series of holidays and he is currently enjoying a trip among the West Australian flora. He is due home in early September and a meeting has been tentatively arranged between Calder, Gordon Brooks (Chairman of SGAP-Publishing Committee) and prospective publisher, Kangaroo Press. In recent discussions, Kangaroo Press expressed pleasure that an appropriately equipped person has taken charge of the project. They have been keen for us to proceed with the book, they liked the material but said that to be viable the various sections should be rewritten in a consistent manner and the contents expanded.

What hasn't been agreed yet, is the extent of the proposed expansion of the books contents. Calder has estimated that a comprehensive treatment of all species and supported by photographs would run to two volumes. Kangaroo Press have asked to be shown what can be fitted into one volume up to 500 pages - something like the book they published for SGAP "Native Plants of the Sydney District" by Fairley & Moore.

So at this stage, we cannot be prescriptive about the support needed from members. However, it is apparent that the book will include a reasonably in-depth coverage of all Australian species that are well known in cultivation. That would mean around 100 ferns. So in due course, Calder will be seeking help with information and slides for at least 100 species - any of species in general cultivation, other than Blechnum, Drynaria and Platycerium species for which material is already in hand.. Calder's address in "Redfox", 13 Acacia Street, Wollongbar, 2477. I am sure he would like to hear from you.

FERNS IN GARDEN DESIGN

Continuing on from the March 1996 Newsletter, the following are further ferns considered valuable in garden design.

Calochlaena dubia

This is a large fern and needs room to spread. However for a big garden or planted where there is space, Calochlaena dubia (formerly Culcita dubia), has it all - hardy, tolerates the poorest of soils, requires practically no maintenance and is very attractive. It is native to Queensland, NSW, Victoria and Tasmania.

Form: Upright and can form large colonies spreading by means of underground rhizome.
Its lacy, much divided fronds are a distinctive yellow green.

Size: 1.5m. and can be taller in sheltered positions.

Soil Type: Not fussy although at its best when grown in a reasonably loamy soil.

Aspect: Will withstand a good deal of sun if grown away from hot winds.

Watering: Tolerates relatively dry conditions but will benefit from periodic soaking.

Christella dentata

Occurs in all mainland States. Tufted fern with a very short creeping rhizome forming tussocks. This is a quick growing tough fern, very easily propagated from spore or divided and transplanted. However, more so than most other ferns, Christella dentata requires old fronds to be removed regularly to maintain neat appearance.

Form: Erect tufted fern with dark green, bipinnatifid fronds.

Size: Up 90 cm tall.

Soil Type: Will grow in almost any soil.

Aspect: Very hardy but better with some protection from sun and strong winds.

Watering: Once established will withstand dry conditions.

Cyathea australis

This is probably the most common tree fern in the Eastern mainland States and one of the tallest. Stipe bases are covered by small rounded nodules - tubercles. Stipes are persistent on the upper trunk. At the base the trunk can be more than 1 m wide in diameter. Cyathea australis occurs in Queensland, NSW, Victoria and Tasmania.

Form: A tall tree fern with broad, green, much divided fronds and persistent stipes, the bases of which are covered by glossy brown scales.

Size: Up to 12m.

Soil Type: Adapts to a wide range of condition but best in a loamy, acid soil.

Aspect: Will tolerate a good deal of sun if kept reasonably moist and protected from desiccating winds.

Watering: Appreciates periodic good, deep soaking.

Cyathea cooperi

In nature, Cyathea cooperi occurs in Queensland and NSW. There are several different forms sold but all have the distinctive oval scars left on the upper trunk after shedding fronds. Cyathea cooperi is inclined to be frost tender until properly established when it becomes hardy in the extreme. It will withstand full sun if protected from hot winds and given some moisture. This is a very fast growing fern, it propagates readily from spore and especially in warmer areas, should not be planted adjacent to natural bushland where it can become a weed.

Form: A tall tree fern with slim clean trunk topped by mid-green lacy fronds.

Size: Up to 12m.

Soil Type: Adapts to most soils if mulched to preserve moisture.

Aspect: Will tolerate full sun if protected from desiccating winds.

Watering: Seldom necessary once established.

Davallia pyxidata

This is the most widespread Australian species of the popular Hares Foot genus. It is found in Queensland, NSW and to a lesser extent in Victoria, usually on tree trunks or growing in rock crevices. Davallia pyxidata is hardy and easily propagated from pieces of its long creeping, often erect, surface rhizome. Fronds are broad, finely divided and somewhat leathery especially in exposed positions but are softer and paler when sheltered and kept moist. It makes an attractive display when grown in a large hanging basket, sometimes covering the entire basket..

Form: Epiphytic or rupestral has a long creeping rhizome. Large, bright green, three or four pinnate fronds.

Size: Up to 80 cm tall.

Soil Type: Grow on a log, or rock in composted leaf litter or in a basket in a coarse well drained mixture.

Aspect: Hardy if given good drainage and planted in a fairly protected position.

Water: In a protected position, only requires watering in the driest of periods.

Dennstaedtia davallioides

Distribution Queensland, NSW, Victoria and Norfolk Island. Rhizome creeping and much branched. Fronds are erect but tend to droop near the tips. It is a soft delicate looking fern with finely divided fronds but is tenacious and will spread quickly to nearby gardens if not restrained. In some areas, at times it may suffer damage from caterpillars.

Form: Large lacy fronds borne erect on long stiff, reddish brown stipes.

Size: Up to 1.5 m in favourable conditions, but usually around 1 m.

Soil Type: Will grow in most soils if well mulched.

Aspect: Very hardy but best in a cool area with some protection from sun and wind.

Watering: Very hardy but appearance improved when given occasional good soaking.

Dicksonia antarctica

Probably the most popular tree fern in cultivation, many of which have come from the bush, a reflection on the ease with which it may be transplanted. It makes a great tub plant but fronds require plenty of room. The dark green (paler under), oblong shaped fronds are a notable sight as they emerge in a flush of new growth. From Queensland, NSW, Victoria and Tasmania. Although large, it is one of the most suitable tree ferns for growing in a pot adapting well to the restricted space for its root system.

Form: A popular tree fern distinguished by its large fibrous trunk, and huge spreading crown of fronds. The stipes are smooth but at the base are covered with brownish hairs..

Size: Up to 12m tall.

Soil Type: Will tolerate a range of soils given adequate moisture and mulching..

Aspect: Requires a cool moist protected position

Watering: Keep well watered especially in hot weather.



Re "A Member's Fern" - see page 12. Upper part of fronds,
at left Asplenium pteridoides, at right A. surragatum.

MID- NORTH COAST FERN STUDY OUTING
JUNE 1996

P: Papinbarra
W. R.: Wilson's River

	P	W.R.		P	W.R.
<i>Adiantum formosum</i>	X		<i>Doodia aspera</i>	X	X
<i>Adiantum silvaticum</i>	X	X	<i>Doodia caudata</i>	X	
<i>Arachniodes aristata</i>	X		<i>Grammitis billardieri</i>		X
<i>Arthropteris beckleri</i>	X	X	<i>Histopteris incisa</i>		X
<i>Arthropteris tenella</i>	X	X	<i>Hypolepis glandulifera</i>	X	
<i>Asplenium attenuatum</i>		X	<i>Hypolepis muelleri</i>		X
<i>Asplenium australasicum</i>	X	X	<i>Lastreopsis acuminata</i>	X	X
<i>Asplenium flabellifolium</i>		X	<i>Lastreopsis decomposita</i>	X	X
<i>Asplenium polyodon</i>	X	X	<i>Lastreopsis microsora</i>	X	X
<i>Blechnum camfieldii</i>		X	<i>Lunathyrium petersenii</i>	X	X
<i>Blechnum cartilagineum</i>	X	X	<i>Macroglea caudata</i>		X
<i>Blechnum minus</i>	X		<i>Microsorum scandens</i>	X	X
<i>Blechnum nudum</i>		X	<i>Pellaea falcata</i>	X	X
<i>Blechnum patersonii</i>	X	X	<i>Platycerium bifurcatum</i>	X	X
<i>Blechnum wattsii</i>		X	<i>Platycerium superbum</i>	X	
<i>Calochlaena dubia (Culcita)</i>	X	X	<i>Pteridium esculentum</i>		X
<i>Christella dentata</i>	X	X	<i>Pteris tremula</i>	X	X
<i>Cyathea australis</i>	X	X	<i>Pteris umbrosa</i>	X	X
<i>Cyathea leichhardtiana</i>	X	X	<i>Pyrrosia confluens</i>	X	X
<i>Davallia pyxidata</i>	X	X	<i>Pyrrosia rupestris</i>	X	
<i>Dennstaedtia davallioides</i>	X	X	<i>Sticherus flabellatus</i>		X
<i>Dictymia brownii</i>		X	<i>Sticherus lobatus</i>		X
<i>Diplazium australe</i>	X	X	<i>Todea barbara</i>		X

Notes from the Mid North Coast

Compiled by Steve Clemesha

For our outing on 1st and 2nd June, 1996 our group went to Pappinbarra Field Study Centre and the Wilson River, both of which are about one and a half hours drive north west of Wauchopoe.

There are a significant number of ferns in and around the cleared area at Pappinbarra Field Study Centre. On large red cedar trees both *Platycerium bifurcatum* and *P. superbum* grow and so do healthy, strong clumps of *Pyrrosia confluens* and a number of orchid species.

On the margin of the forest and near a former orchard, large areas of *Hypolepis glandulifera* grew. They appear to be slowing down the regeneration of forest over former cleared land.

Most of the tracks in the area follow the creek and the main track crosses it five times. Because of recent heavy rain, most of the stepping stones were under water which meant we had to wade across. The water was absolutely freezing.

Lastreopsis microsora grew under rainforests. Where there was a bit more light *L. decomposita* grew. *Arthropteris beckleri*, *A. tenella* and *Phymatosorus scandens* scrambled over some trees and shrubs. *Doodia aspera* and *D. caudata* were seen but they were not close together and there were no hybrids.

Asplenium australasicum was present mostly high on trees but some were low down and on fallen trees. One large plant appeared to be intermediate between *A. australasicum* and *A. harmanii*. The fairly narrow fronds had a long narrow basal part turning in at the base. A young plant under it had the same form. It seems that when *A. australasicum* is grown in shade it takes on *harmanii* characteristics. *A. harmanii* was not present in the area.

That evening we decided we would go to the Wilson River the next day as the only other walks at Pappinbarra likely to be rich in ferns were beyond where we had already walked. This meant five freezing creek crossings going and the same five coming back.

In the morning we drove to Wilson River. The main walk in this beautiful area is to a waterfall. This was very spectacular with a lot of water going over it. Along the track to it *Cyathea leichardtiana* was plentiful and some were very tall and slender. All the plants close enough to look at had pale coloured scales, unlike those at the Border Ranges which were reddish brown on many of the plants. We saw only two *Cyathea australis* though more were present higher up on the hill.

Sticherus lobatus grew with *Blechnum wattsii* as it often does. *S. flabellatus* grew beside the river in a few places.

The form of *Blechnum camfieldii* that grows beside streams was present near the river where it got plenty of light.

Hypolepis muelleri grew beside the parking area. This is another fern that likes plenty of light.

Asplenium attenuatum was plentiful on rocks near the falls. A few patches of *Macroglea caudata* grew on some *Cyathea leichardtiana*. This is a common host for it.

Only a few *Todea barbara* were seen and they had not developed trunks. In areas where they do, filmy ferns and *Tmesipteris* often are present.

Arthropteris beckleri grew close to the ground on large roots of trees. In some places it was mixed with *A. tenella*. *A. beckleri* made small fronds except when it climbed trees when it made longer ones. I have never seen it produce fertile fronds except on the larger fronds and it is difficult to get them to do this in cultivation though they are easy to grow if they are kept in a terrarium or under a bottle until they make new roots.

MID-NORTH COAST FERN STUDY
OUTING TO CENTRAL COAST, 25-26 MARCH 1996

M : Muir's Lookout & Wishing Well

S : Somersby Falls

G : Grrakool

	<u>M</u>	<u>S</u>	<u>G</u>
<i>Adiantum aethiopicum</i>	X	X	X
<i>Adiantum diaphanum</i>	X		
<i>Adiantum formosum</i>	X		
<i>Adiantum hispidulum</i>	X	X	X
<i>Adiantum silvaticum</i>	X		
<i>Arthropteris beckleri</i>	X		
<i>Arthropteris tenella</i>	X		
<i>Asplenium australasicum</i>	X		
<i>Asplenium flabellifolium</i>	X	X	X
<i>Blechnum ambiguum</i>		X	X
<i>Blechnum camfieldii</i>			X
<i>Blechnum cartilagineum</i>	X	X	X
<i>Blechnum gregsonii</i>		X	
<i>Blechnum nudum</i>	X	X	
<i>Blechnum patersonii</i>	X		
<i>Blechnum wattsii</i>		X	
<i>Calochlaena dubia (Culcita)</i>	X	X	X
<i>Cheilanthes sieberi</i>	X		
<i>Christella dentata</i>		X	X
<i>Cyathea australis</i>	X		X
<i>Cyathea cooperi</i>		X	X
<i>Cyathea leichhardtiana</i>	X		
<i>Davallia pyxidata</i>		X	
<i>Diplazium australe</i>		X	
<i>Doodia aspera</i>	X		
<i>Doodia caudata</i>	X	X	
<i>Gleichenia dicarpa</i>		X	X
<i>Gleichenia microphylla</i>		X	X

	<u>M</u>	<u>S</u>	<u>G</u>
<i>Gleichenia rupestris</i>		X	X
<i>Grammitis billardieri</i>	X	X	
<i>Grammitis stenophylla</i>			X
<i>Histiopteris incisa</i>	X	X	X
<i>Hymenophyllum cupressiforme</i>	X	X	X
<i>Hypolepis glandulifera</i>	X		
<i>Hypolepis muelleri</i>		X	X
<i>Lastreopsis acuminata</i>	X		
<i>Lastreopsis decomposita</i>	X		
<i>Lastreopsis microsora</i>	X		
<i>Lindsaea linearis</i>			X
<i>Lindsaea microphylla</i>	X		X
<i>Lunathyrium petersenii</i>			X
<i>Lycopodium laterale</i>			X
<i>Microsorum scandens</i>	X		
<i>Pellaea falcata</i>	X	X	
<i>Pellaea paradoxa</i>	X		
<i>Platycerium bifurcatum</i>	X	X	
<i>Polystichum australiense</i>	X		
<i>Psilotum nudum</i>		X	X
<i>Pteridium esculentum</i>	X	X	X
<i>Pteris tremula</i>	X		X
<i>Pyrrosia rupestris</i>	X	X	
<i>Schizaea rupestris</i>		X	X
<i>Selaginella uliginosa</i>			X
<i>Sticherus flabellatus</i>		X	X
<i>Tmesipteris truncata</i>		X	X
<i>Todea barbara</i>	X	X	X

A most pleasant and interesting outing 'down south', with scenic locations and several fern species we don't usually come across. Many thanks to Bea and Roy for efficient organisation and warm hospitality.

Notes on the Mid North Coast Group's Visit
to the Central Coast on 25th-26th March, 1996
Compiled by Steve Clemesha

Our group visited the Central Coast for the second time but we visited different areas to last time. First we went to the Wishing Well Walk in the Wattagan Mountains and then to Muir's Lookout.

The Wishing Well Walk was an interesting one. We saw all 5 of NSW Adiantum species growing at various places along the walk, each preferring a slightly different habitat. Arthropteris tenella and A. beckleri grew in the rainforest sections of the walk. Polystichum australiense was present. This species is very plentiful on the Central Coast but seems rare or absent on the North Coast. Old records have been recorded from there but our members have never seen it.

After this walk we drove to Muir's Lookout and tried to pick out landmarks we could see.

The next day we went to Somersby Falls. An abundance of ferns grew there. Blechnum ambiguum was easy to identify as it had fertile fronds. These are about 1/3 the width of the barren fronds. Psilotum nudum was present in rock crevices as was Tmesipteris truncata. More plants of this were seen further down the creek on large plants of Todea barbara. Schizaea rupestris grows on wet rocks. This species is plentiful in the area and also in parts of the Blue Mountains. It also is found in the Glenreagh area NW of Coffs Harbour. In all its habitats it grows in wet places on rocks in sandstone country.

On crossing the creek we found Blechnum gregsonii. This was easy to recognise as its pinnae are falcate and more pointed than those of its relatives B. ambiguum and B. wattsii. In addition to this fertile fronds were present. These are almost as wide as the barren ones.

Recently I have found this species at Carrington Falls SW of Wollongong. Again I recognized it by the falcate pointed pinnae and fertile fronds were present also. I am sending specimens of this from both localities to the NSW National Herbarium as it formerly was known only from a few localities in the upper Blue Mountains.

Our final fern visit that day was to Girrakool National Park. Schizaea rupestris and Blechnum ambiguum again were present. B. ambiguum is another sandstone fern. It grows from this area to the Sydney sandstone and Blue Mountains and there also are populations of it at Glenreagh and the Blackdown Tableland in Central Queensland.

An unexpected find in this area was a patch of Blechnum camfieldii near the creek. This normally grows in low lying swampy country near the sea but on an earlier trip we found it near the top of Comboyne Mountain.

After our walk at Girrakool we looked at aboriginal rock carvings nearby. We then drove to a larger area of aboriginal carvings near Kariong.

We also had a look at Bea & Roy Duncan's ferns. We were very impressed with Roy's Cyathea cunninghamii which has grown through the roof. We put a ladder to it and checked it for spores. There was an old fertile frond but no mature or developing spores. The plant is about 6 metres tall and only has been planted there for about 10 years. Evidently the species is a fairly fast grower.

We thank Bea and Roy for the efficient organisation and their warm, friendly hospitality.

Our next outing is to Papinbarra on the 1st and 2nd June. Ring Charlie Charters for details - (065) 86 1088

An improved Fern Potting Mix

by Calder Chaffey

Having read about the technical properties of Zeolite it was decided to try it in a fern potting mix. Experiments were based on adding Zeolite to a basic and well tried formula. The mix chosen was:

Coarse river sand	1 part by volume
Perlite "500"	1 part by volume
Peat Moss	1 part by volume

This has been used for a long time and gives good results with ferns. To the above mixture Zeolite (chips 0.5-2 mm) was added, 1 part by volume. The resulting mixture therefore contained 25% by volume of each component.

As small plants of *Adiantum aethiopicum* about 10 cm high were available, these were used in a trial to test the potting mix. This fern likes a growing medium slightly alkaline, pH 7.5-8. A batch of the original mixture and the new mixture containing Zeolite were both adjusted to pH 7.5 with dolomite, using a standard colorific test kit for pH, available at nursery supply shops. Several 25 cm plastic pots were filled, an equal number with each mix. Each potfull of mix was tipped out separately and 15 gm of "Osmocote, Indoor, Courtyard and Balconies" was added and thoroughly mixed. The mix was then replaced in the pot. This ensured exactly the same amount of the fertilizer in each pot. Six pots of each mix were potted up with one *Adiantum aethiopicum* fern. As a side experiment 30 gm of old blood and bone was added to each of three extra pots of each mix. Also 30 gm of Dynamic Lifter was added to each of three extra pots of each mix. In each of these a fern was planted. All pots were placed in a shadehouse in 40% shade.

In six months the *Adiantum aethiopicum* had filled each pot and reached a height of about 30 cm. However it was obvious that there was more vigorous growth and 5 to 7 cm more height in those grown in the mix containing Zeolite. There was no noticeable difference in those grown with the blood and bone or Dynamic Lifter.

The makers claim that Zeolite has a high cation exchange capacity (CEC) with the ability to increase the CEC of the mixture. It also reduced nutrient losses by leaching, particularly ammonium and potassium and supplies calcium and potassium to the plant. It is specially noted that to obtain these benefits 2-10% vol/vol is necessary. Zeolite also has a high water absorbency, 65% weight for weight, retains water and allows fast rewetting. It is also claimed that 20% by volume encourages root growth and reduces clumping of roots around the perimeter.

In the above experiment each pot, which contained 25% Zeolite by volume, showed improved fern growth. This amount of Zeolite falls well within the concentration which the makers suggest for the maximum benefits. In view of the results it is well worth trying the use of . in other potting mixes and for other ferns.

TALLAGULLA, BRISBANE - LIST OF FERNS IDENTIFIED - 3 DECEMBER 1995
 (A report on the outing was included in the December '95 Newsletter)

<u>Genus</u>	<u>Species</u>	<u>Family</u>	<u>Comments</u>
Adiantum	aethiopicum	Adiantaceae	Natural
Adiantum	formosum	Adiantaceae	Natural?
Adiantum	hispidulum	Adiantaceae	Natural
Amphineuron	opulentum.	Thelypteridaceae	
Arachniodes	aristata	Aspidiaceae	
Asplenium	australasicum	Aspleniaceae	
Asplenium	australasicum	Aspleniaceae	LHI- birdsnes
Asplenium	bulbiferum	Aspleniaceae	
Asplenium	milnei	Aspleniaceae	LHI
Asplenium	polyodon	Aspleniaceae	
Belvisia	mucronata	Polypodiaceae	
Blechnum	cartilagineum	Blechnaceae	
Blechnum	indicum	Blechnaceae	
Blechnum	nudum	Blechnaceae	
Blechnum	wattsii	Blechnaceae	
Blechnum	whelanii	Blechnaceae	
Cheilanthes	distans	Sinopteridaceae	Natural
Christella	dentata	Thelypteridaceae	Natural-weed
Christella	hispidula	Thelypteridaceae	Natural
Colysis	sayeri	Polypodiaceae	
Cyathea	brownii	Cyatheaceae	Norfolk I.
Cyathea	cooperi	Cyatheaceae	
Cyathea	robusta	Cyatheaceae	L.H.I.
Davallia	pyxidata	Davalliaceae	
Dennstaedtia	davallioides	Dennstaedtiaceae	
Dicksonia	antarctica	Dicksoniaceae	
Dicksonia	herbertii?	Dicksoniaceae	
Dictymia	brownii	Polypodiaceae	
Diplazium	australe	Athyriaceae	
Diplazium	dietrichianum	Athyriaceae	
Diplazium	queenslandicum?	Athyriaceae	
Doodia	aspera	Blechnaceae	natural?
Doodia	caudata	Blechnaceae	
Doodia	media	Blechnaceae	
Doryopteris	concolor	Sinopteridaceae	
Drynaria	rigidula	Polypodiaceae	Natural
Drynaria	rigidula 'Whitei'	Polypodiaceae	
Histiopteris	incisa	Dennstaedtiaceae	
Hypolepis	muelleri	Dennstaedtiaceae	
Lastreopsis	decomposita	Aspidiaceae	
Lastreopsis	marginans	Aspidiaceae	
Lastreopsis	microsora	Aspidiaceae	
Lastreopsis	munita	Aspidaceae	
Lygodium	japonicum	Schizaeaceae	
Macrothelypteris	torresiana	Thelypteridaceae	
Microsorum	grossum	Polypodiaceae	
Microsorum	punctatum	Polypodiaceae	
Microsorum	pustulatum	Polypodiaceae	=M.diversifo)
Microsorum	scandens	Polypodiaceae	
Nephrolepis	cordifolia	Nephrolepidaceae	
Nephrolepis	hirsutula?	Nephrolepidaceae	
Ophioglossum	pendulum	Ophioglossaceae	
Pellaea	falcata var. falcata	Sinopteridaceae	
Pellaea	falcata var. nana	Sinopteridaceae	
Pellaea	paradoxa	Sinopteridaceae	

<i>Platycerium</i>	<i>bifurcatum</i>	<i>Polypodiaceae</i>
<i>Platycerium</i>	<i>hillii</i>	<i>Polypodiaceae</i>
<i>Platycerium</i>	<i>superbum</i>	<i>Polypodiaceae</i>
<i>Platycerium</i>	<i>veitchii</i>	<i>Polypodiaceae</i>
<i>Polystichum</i>	<i>australiense</i>	<i>Aspidiaceae</i>
<i>Psilotum</i>	<i>nudum</i>	<i>Psilotaceae</i>
<i>Pteris</i>	<i>tremula</i>	<i>Pteridaceae</i>
<i>Pteris</i>	<i>umbrosa</i>	<i>Pteridaceae</i>
<i>Pteris</i>	<i>vittata</i>	<i>Pteridaceae</i>
<i>Pyrrosia</i>	<i>confluens</i>	<i>Polypodiaceae</i>
<i>Pyrrosia</i>	<i>longifolia</i>	<i>Polypodiaceae</i>
<i>Pyrrosia</i>	<i>rupestris</i>	<i>Polypodiaceae</i>
<i>Rumohra</i>	<i>adiantiformis</i>	<i>Davalliaceae</i>
<i>Schellolepis</i>	<i>subauriculata</i>	<i>Polypodiaceae</i>
<i>Stenochlaena</i>	<i>palustris</i>	<i>Blechnaceae</i>
<i>Tectaria</i>	<i>muelleri</i>	<i>Aspidaceae</i>
<i>Todea</i>	<i>barbara</i>	<i>Osmundaceae</i>
* <i>Blechnum</i>	<i>brasiliense</i>	<i>Blechnaceae</i>
* <i>Blechnum</i>	<i>gibbum</i>	<i>Blechnaceae</i>
* <i>Blechnum</i>	<i>moorei?</i>	<i>Blechnaceae</i>
* <i>Cyathea</i>	<i>dealbata</i>	<i>Cyatheaceae</i>
* <i>Nephrolepis</i>	<i>falcata f.furcans?</i>	<i>Nephrolepidaceae</i>
* <i>Pellaea</i>	<i>viridis</i>	<i>sinopteridaceae</i>
* <i>Polypodium</i>	<i>angustifolium</i>	<i>Polypodiaceae</i>
* <i>Pteris</i>	<i>cretica'albo-lineata</i>	<i>Pteridaceae</i>
* <i>Selaginella</i>	<i>kraussiana</i>	<i>Selaginellaceae</i>
* <i>Tectaria</i>	<i>gemmifera</i>	<i>Aspidiaceae</i>
		Natural
		exotic
		exotic
		exotic
		N.Z.
		exotic

NOTES FROM SOUTH EASTERN QUEENSLANDReport on Outing to Paradise Creek Gorge, 21 July, 1996

The day was sunny, with a cold South Westerly wind. Our small group of 11, (7 members and 4 guests), headed out from Gatton on the Mt. Sylvia road. The gorge is on private property and the last kilometres of track were a bit of a challenge for some of our vehicles. We found that inside the gorge was another world, largely protected from the wind. It was a treat to wander down stream and have lunch in this relatively untouched spot. Although the creek was low, there were masses of ferns and fertile clumps of *Psilotum nudum* on large sandstone boulders in the creek as well as other ferns in favoured spots up the sides of the gorge. Ferns seen were: *Adiantum aethiopicum*, *Adiantum formosum*, *Adiantum hispidulum* (including the "ground cover" form), *Asplenium attenuatum*, *Christella dentata*, *Dictymia brownii*, *Doodia aspera*, *Doodia caudata*, *Lastreopsois decomposita*, *Lindseae microphylla*, *Pellea falcata* var.*nana*, *Pellea paradoxa*, *Pteris tremula*, *Pyrrosia confluens* and *Pyrrosia rupestris*.

It was a bonus, near the Gatton turn off in the morning, to see a large flock of Magpie Geese grazing in a section of ploughed paddock.

FERNS FOR SALE

The following is an extract taken from a letter from a long time member, Lorraine Boulter of 3 Samuel Place St Clair, 2759.

"I am writing to you to ask if any of your members would be interested in a sale of my fern collection. It dismays me that I have to do this, because I am very fond of my collection and have built it up over a number of years.

The reason I am doing this, is I am finding it impossible to give them the attention they need, my hands and arms are so bad I am having difficulty even watering the ferns. I have lost a lot because of neglect.

They are mostly large baskets and the prices would be \$12, \$10, \$8 and \$6. They are Asplenium, Histiopteris, Microsorum, Schizaea (in a bottle), Drynaria, Adiantum, Arthropteris, Blechnum, Cheilanthes, Christella, Davallia, Pyrrosia, Schellolepis, Diplazium, Doodia, Humata, Pteris, Stenochlaena and others."

Lorraine ended her letter by saying that an appropriate time for anyone interested to contact her, would be towards the end of September. Lorraine's phone number is (02) 9670 2930. I am sure all members wish Lorraine better health for the future and success in selling what is obviously an excellent collection of Australian ferns.

NOTES FROM THE SYDNEY AREA

Report of Meeting at Yagoona, 23 June 1996

There were 23 members present on a fine but terribly windy day. Following a short business session Geoff Long related a little of his and Ann's recent visit to Christmas Island. In company with Calder Chaffey, Geoff said that despite receiving only minimal local assistance, they succeeded in locating about 25 of the 31 fern species recorded for the Island. One of the species not sighted has not been recorded for more than 90 years, another grows only in the tallest trees. Among the ferns sighted were Psilotum nudum (widespread), Pteris tripartita, Microlepia speluncae and Microsorum punctatum. Geoff said that looking at the ferns in some places on the Island, they could easily have imagined that they were in North Queensland.

A Members Fern - Asplenium surragatum

In presenting "A Member's Fern" Geoff explained that he had acquired it at a SGAP Fern Sales Day about 10 years ago. It was labelled Asplenium pteridoides, a Lord Howe Island native. For several years he called it A. pteridoides and proudly showed it off as such to his visitors who included Study Group members. Recently, however, with the aid of "Flora of Australia" he keyed it out and found that he actually possessed Asplenium surragatum.

Asplenium surragatum is another Lord Howe Island native. Geoff said his had proven to be terribly easy to grow. Geoff's plant is in a large pot kept under shade cloth but in a position where it receives morning sun. It is a very attractive fern with dark green shiny fronds about 60 cm long and 25 cm wide. The pinnae margins are deeply cut - which distinguishes it from A. pteridoides. The fertile and sterile fronds are similar in size.

Do You Have Any Good Fern Slides?

In a cameo performance, Fred Johnston treated us to a short slide show. Fred showed a selection of slides that he has collected for the proposed new audio visual "Ferns in the Garden". The proposal is to feature ferns that are reasonably available from fern nurseries and ferns that can be grown by Mr and Mrs Average Gardener. Fred included a few slides to illustrate the how not to photograph ferns and it seems that it is easier to grow ferns than photograph them.

In addition to slides of the more common Australian ferns in cultivation, Fred wants views of fern garden settings. If you are able to help Fred's search for good fern slides, please phone Fred at (02) 9651 1144.

Tree Ferns of Lord Howe & Norfolk Islands

Peter concluded the day with the final session on Tree Ferns, on this occasion dealing with the two from Norfolk Island and four from Lord Howe Island. A key that he used proved somewhat unsatisfactory because of the difficulty discerning the characteristics used.

Cyathea australis is one of the two tree ferns native of Norfolk Island. Peter had discussed Cyathea australis at our February meeting. A brief description of each of the other five species follows.

Cyathea brevipinna This tree fern is distinctive because of its very short stipes that give an overlap of fronds and a compact appearance. The stipes are covered densely with reddish brown hairs. The trunk rarely exceeds 3 m tall. It is slow growing and requires good light, protection from wind and plenty of moisture - conditions not easily found in most Australian gardens.

Cyathea brownii This is a Norfolk Island native species. in the Sphaeropteris Group. The trunk has clean oval spots left by fallen fronds and superficially resembles a very vigorous form of Cyathea cooperi. The stipe bases and the top of the trunk are covered by light brown scales, whereas the scales on Cyathea cooperi are of two types.. An attractive robust fern, Cyathea brownii grows very quickly and once established tolerates a fair amount of sun if kept moist.

Cyathea howeana

A feature of this Lord Howe Island endemic is the dramatic flush of unfurling croziers. Fronds are shed cleanly leaving a distinctive pattern of scars on the 3 m high slender trunk. Scales at the base of stipes are small, triangular and few in number. The light green lamina is lacy, tripinnate or tripinnatifid.. Requires protection from strong sun and wind and plenty of moisture.

Cyathea macarthurii

Endemic to Lord Howe Island and one of its most common tree ferns. Long dark hairs around the base of stipes and persistent fronds partly cover the 4 m high trunk. The somewhat untidy appearance of the trunk contrasts with the attractive lamina which is three times divided and lacy. It grows readily in a well protected fairly moist position.

Cyathea robusta This is another fern in the Sphaeropteris Group. It is endemic to Lord Howe Island and is one of the two most widespread of the Island's tree ferns. Stipes are persistent in the upper part of the trunk which grows 4 to 5 m tall. The inner portion of the stipes bases, particularly those on new growth, are covered by masses of dense white scales

In cultivation Cyathea robusta is quite hardy if given protection from sun and wind and kept well watered.

Our thanks to hosts for the day , Kyrill and Dorothy Taylor, Our comfort was attended to in every way. A special vote of thanks too, to Roy and Bea Duncan. We have become accustomed to their generous distribution of oranges to all members at meetings around this part of the year. However, on this occasion, Kyrill's wheelbarrow had to be presssed into service to ferry the vast number of oranges (plus lemons and mandarins) from the Duncan's van to the meeting place. Thank you Bea and Roy for your generosity.

Report of Outing to Matcham, 13 July 1996

Being a member of the Fern Study Group provides opportunities to go to interesting, special places that one is otherwise unlikely to ever visit. On this occasion. thanks to the generosity of Dot and Graham Camp 21 of us enjoyed their unique and beautiful property at Matcham just north of Gosford.

The Camp's property is set amid 70 acres of barely touched forest and woodland. A pre-lunch walk took us across the top of a long ridge frequented by lyre birds such is the unspoilt nature of the place. Ferns noticed on this walk were Cheilanthes sieberi, Pellaea falcata, Platycerium bifurcatum, Davallia pyxidata. and Pyrrosia rupestris. After lunch Dot led the more energetic group along a path down a steep incline to follow the course of a creek amid rainforest species. Additional ferns sighted on this walk were Adiantum aethiopicum, A.diphyanum, A.formosum, A.hispidulum, A.silvaticum, Asplenium australasicum, Blechnum cartilagineum, B.patersonii, Calochlaena dubia, Cyathea australis, C.leichhardtiana, Dicksonia antarctica, Doodia aspera, D.caudata, Histiopteris incisa, Hypolepis muelleri, Lastreopsis acuminata, L.microsora, Lindsaea microphylla, Microsorum scandens, Pellaea falcata var. nana, P.paradoxa, Polystichum australiense, Pteris tremula, Pterideum esculentum and Todea barbara. A very steep walk out of the valley followed but no one complained, all enthralled by the superb piece of bush. We were pleased to note signs that Graham is winning the war against the weeds with only a few patches of lantana noticeably marring the surroundings. Our thanks to the Camps for their thoughtful preparation for our visit and for their many kindnesses on the day.

FORTHCOMING EVENTS : IN THE SYDNEY REGION

Saturday 14 September 1996, Outing to Wheeny Creek

From Sydney travel along Bells Line of Road until Kurmond, turn right into Comeroy Road. After 8 km road divides, don't take Blaxland Road keep to the left towards Upper Colo until reaching Wheeny Creek. Meet at the Creek, there is a Toilet Block to the right. Arrive from 9.30 am for a 10 o'clock sharp start. Easy walk but bring a towel as we may have to paddle to cross the Creek. Carry lunch and water. Enquires to Peter 9625 8705.

Saturday 19 October 1996, Outing to Newnes

Meet from 9.30 am at Clarence Railway Station on the Zig Zag Line ready to move off in convoy at 10 o'clock sharp. Travel by car to the start of the walk along the old coach road. The planned walk is short and relatively easy through a scenic area. A few may want a longer walk via the Glow Worm Tunnel, bring a torch if this is your intention. Carry lunch and water. Enquires to Peter 9625 8705.

Sunday 10 November 1996, Meeting at Dural

Our hosts' Pat Kenyon & Ted Newman's property is situated at 1057 Old Northern Road, Dural. Enter from private road on the right just 2 km past Dural Post Office (the last street passed on the left is Wyoming Road). Bring lunch and a plate for afternoon tea. In lieu of the usual meeting format, Peter is to lead a discussion on "The Cultivation of Ferns". Enquires to Pat 9651 2765.

Sunday 1 December 1996, Meeting at Kenthurst

We meet from 11 am for our end of year get-together at the home of Tamara & Ian Cox, 5 Ivy Place, Kenthurst. Please contact Tamara as early as possible to advise what you will bring towards the pooled lunch. Bring own crockery and cutlery and in keeping with the festive season, a gift (limit \$5) or several according to the number in your party. Enquires to Tamara 9654 2533.

FORTHCOMING EVENTS : IN THE MID NORTH COAST, NSW.

Week End 14 / 15 September 1996, Outing to Lower Creek

Lower Creek is about 76 km west of Kempsey. For details of this or other enquiries about the Group phone Phil Amery or Julie McIntyre on (065) 617 280.

FORTHCOMING EVENTS : IN SOUTH EAST QUEENSLAND

Sunday 1 September 1996, Meeting at McGregor

Meet at 9.30 am at McGregor High School, Mc Gregor. Enter at the Springfield Street Gate. Topic (1) Final Arrangements for the Fern Study Group display at the SGAP Annual Flower Show, Redeemer Lutheran College, Rochedale on the 7 & 8 September 1996. (2) Discussion topic - "Fern Oddities and Allies".

Sunday 20 October 1996, Excursion Mapleton

Mapleton Forest Drive. Meet at the "Lily Pond" Park at Mapleton at 9.30 am. For further particulars ring Peter Bostock (07) 3202 6983 or Geoff Goadby (07) 3374 1946.

Sunday 1 December 1996, Breakup Function

Meet at Graham Nosworthy's home, 69 Grandview Road, Pullenvale. Bring fern or suitable gift for exchange and ideas for next year's meetings and excursions.

For any other information regarding South East Queensland events phone Peter Bostock (07) 3202 6983 or Irene Cullen on (07) 3273 1055.

FERN REQUEST FOR GREVILLEA PARK

Ray Brown, the driving force behind the creation of the magnificent Illawarra Grevillea Park at Bulli, is finalising development of a rainforest area at the Park. Amongst other things Ray is also Curator of the living collection for the Grevillea Study Group.

The rainforest area features walkways winding through natural forest leading to the escarpment. Ray has mentioned that he would like to make plantings of ferns along the walkways. It's possible that Fern Study Group members may have surplus ferns they would be willing to donate for this purpose. Ray has no preference for particular species as long as the ferns are Australian.

If anyone could help they could phone Ian Cox on (02) 9654 2533. Ian will co-ordinate the collection and delivery of the ferns.

DEADLINE FOR COPY

Contributions to the Newsletter are always more than welcome. Articles for our next edition should reach the Secretary by no later than 15 November 1996.

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