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DEAR MEMBERS:

During September, the New South Wales Regional Flower Show was held at the Peakhurst High School, here, for two days, the heady fragrance of bushland filled the auditorium as thousands of visitors admired the display of Australian Wildflowers.

Our fern exhibit was enhanced by twenty five species not usually seen in the southern States, This group of ferns, on loan from the Reserve Glass-Houses of the Royal Botanic Gardens included - *Microsorium superficiale* and *Pyrrosia longifolia*, both with impressively long fronds; *Pyrrosia lanceolata* with spore elevated on specialised fronds and the rarely sighted *Elaphaglossum callifolium*, showing a text book example of a fertile frond with the underside completely covered with black, crystal-like spore. Ron Newton brought along three immense *Platycterium superbum* ferns and several specimens of *P. bifurcatum*, all of these plants when arranged with the many lovely ferns from the collections of our members made a fine exhibit of interest to both the student and the fancier. The Landscape Contractors Association designed a centrepiece for the show using as the theme "An Australian Native Garden" and "The Year of the Tree", popular materials such as railway sleepers and paving bricks were arranged into a courtyard complete with garden seats and a large potted Eucalypt; part of their planned design, enclosed each side of our structure with an ornamental (?) fence of sawn *Melaleuca* saplings! This unfortunate screen restricted the inviting glimpses of other exhibits usually viewed through our hanging greenery and somewhat reduced the dimension of the exhibition; however this was compensated for by the massed array of flowering plants and individual exhibits focussing on; different species, such as carnivorous plants, different localities, such as Townsville or the Grampians and the many different aspects of growing and propagating Australian native plants.

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Our October meeting, held at the home of John and Jan Fairley high on the Collaroy Plateau, presented such a busy programme that a timetable was drawn up

and surprisingly, we kept to within 30 minutes of our schedule. After morning tea Les Taylor continued with his study sessions, we looked at the Genus Adiantum, comparing several species brought along by members while in the garden Adiantum aethiopicum demonstrated its tenacity and charm by invading raised garden beds and cascading softly from the sandstone rock-walls.

To refresh our understanding of terms commonly used in the literature, Les will give the simple meaning of a few of these words at each meeting. For October they were:-

- RHIZOME Main shoot or root system which can be long creeping as in Adiantum aethiopicum or short creeping as in A. hispidulum.
- SCALES A dry papery flattened structure borne on various parts of a fern.
- STIPES Stem or leaf stalk from the Rhizome to the Lamina.
- LAMINA The expanded part of the frond.
- RHACHIS The main axis of the Lamina or its divisions.
- PINNA - PINNAE (Plural)
- PINNULES Leaves.
- MEMBRANOUS Thin.
- GLABROUS Smooth without hairs.
- HAIRY Bearing hairs.
- HIRSUTE Bearing coarse stiff hairs.
- HISPID Bearing rigid hairs or bristles.

During discussion we agreed, to continue our involvement with the shade area at Burrendong as it moves into Stage Two of development - to sell ferns at the 1983 Regional Flower Show and to ask Margaret Wright to propagate native ferns for Burrendong and for our plant sales.

After lunch we were shown through the glass-house, where among other plants, Jan grows Lycopodiums, Psilotum nudum and ferns which benefit from extra care. Then outdoors to see the hardier ferns growing under the shelter of trees and shrubbery, Microsorium scandens, M. diversifolium, Asplenium australasicum, A. bulbiferum and many tree-ferns; two different Davallias threaded their way through the garden, which, refreshed by morning showers was so inviting that we almost abandoned our timetable. But pressing on, we had a sale of ferns donated by Lindee Anderson; we raffled a large basket of Davallia pyxidata donated by Geoff Edwards; George and Gerry Parker then screened the fern slide show which, followed by afternoon tea on the patio, brought our busy day to a happy end.

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Lindee Anderson writes of her first impressions of Burrendong in this review of our November excursion:

As a newcomer to the Fern Study Group, I visited Burrendong Arboretum for the first time last weekend.

At Burrendong the Fern Study Group has created a fern haven. It is an outstanding achievement. Under the direction of Peter Althofer, Australian ferns and their allies have been planted and are flourishing in a natural shale gully,

carefully carved and moulded into the hillside. Great care and thought has been given to the placement of the different genera to reflect their original environment.

A water course has been planted with *Todea barbara*; a bank of *Asplenium bulbiferum*, intermingles with *Microsorium scandens*, *diversifolium* and *howensii* from Lord Howe Island; *Allantodea australis*, formerly *Diplazium australe*, is growing next to a rustic wooden bridge over the creek; one path is banked with *Polystichum proliferum* and another with many forms of *Adiantum hispidulum*; the *Blechnums* are well represented by *minus*, *indicum*, *cartilagineum*, *nudum*, *wattsii*, *ambiguum* and *whelani*; *Pteris*, *Selaginella*, *Cyathea*, *Dicksonia*, *Drynaria*, *Asplenium*, *Platycterium*, *Lygodium*, *Arachniodes*, *Cheilanthes*, *Pyrrosia*, *Goniophlebium*, *Culcita*, *Davallia*, *Dennstaedtia*, *Doodia*, *Doryopteris*, *Gleichenia*, *Histiopteris*, *Hypolepsis*, *Lastreopsis*, *Macrothelypteris*, *Christella*, *Sticherus*, *Nephrolepsis*, *Pellaea*, *Pronephrium* and *Rumohra* are all well represented.

An extension area is under construction and Peter outlined the plans which incorporate a series of pools; a further gully area following the natural watercourse, is protected on the lower end by a high bank featuring a magnificent rock formation already host to a large colony of *Adiantum aethiopicum*. Peter hopes to install a solar powered pump capable of reticulating water to the head of the stream keeping it flowing.

We were most fortunate to have Peter Hind from the Royal Botanic Gardens positively identify a number of species which may otherwise have been in doubt and to lend his professional opinion on the suitable placement of many new plantings.

There is room at Burrendong to grow every Australian fern. Perhaps the climate is too extreme for some, but many more could be successfully planted. I am personally greatly encouraged to propagate ferns for the new area.....

Lindee Anderson

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Peter Hind brought with him an excellent specimen of *Psilotum nudum* donated by the "Gardens" to the Arboretum. Several ferns presumed to be *Diplazium dilatatum* were identified as *D. esculentum*, native to India and various Pacific Islands, including New Guinea. These were removed, leaving one mature *D. dilatatum* and several sporelings. *Adiantum silvaticum* was discovered growing among *A. hispidulum*; Peter's attention was drawn to the different species by a tighter arching of the fronds.

The much publicised "Kimberley Queen", cloned from *Nephrolepis obliterateda* and promoted as "House Plant of The Year", was accepted as an Australian cultivar and therefore part of the Genus, as was *Nephrolepis cordifolia* Cv. 'Duffii'. *Cheilanthes distans* and *C. sieberi* were identified, they grow naturally among shale outcrops. *Macrothelypteris polypodioides* grown by Margaret Wright was identified and several ferns planted. *Dryopteris carthusiana*, a native of Europe and a weedy pest in gardens, was removed from where it had germinated. Apart from general maintenance and attending to our protective "belt" around the perimeter of the shade area, we will now fill-in sparsely planted sections and improve on the presentation of different species, as stage one is finished. To celebrate

this occasion we enjoyed a social evening with Peter and Hazel Althofer, Felicity and Keith Holmes and Peter Hind, Beatrice and Roy Duncan from Morrisett again joined us bringing our number to twenty, the weather was clement and we declared the weekend an all round success.

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NIGEL HALL of Stockport, England, writing to John Lee, highlights differences between growing ferns in the Northern and Southern Hemispheres.

"Your account of the way you grow ferns (Newsletter 18) was fascinating, but your comments about - for instance - *Adiantum aethiopicum* having to be composted, brings tears to the eyes, we cannot grow it outdoors over here and in consequence it is highly unusual to see it at all. I am also quite jealous of your being able to grow the tree ferns. In the part of England where I live there is no hope at all of ever growing them outdoors, and they are not exactly indoor ferns. I do have some two year old plants of *Dicksonia fibrosa* but no doubt they will either die or grow too large. Further on in your Newsletter I read that *Drynaria* Sp. are weeds, as is *Pityrogramma calomelanos* ---- oh -----, I have several *Pityrogramma* ferns grown from spore but they are not easy to keep. Our summer has well and truly ended everything is dying down and the temperatures are dipping below 40°F at night. Still - I cannot complain - the winter evenings give (or seem to give) more time to write, read and think about ferns.

Nigel Hall."

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RAY BEST, ever intrigued by the nomenclature, has sent us this short article written in a humourous vein.

"THE PROBLEM OF THE CENTIPEDE"

After being bitten by a centipede as a young lad, I proceeded to chop my assailant up into small sections, only to be told by my pal that each piece would develop into another centipede. Even at that time I considered this assumption very doubtful.

Recently, when reading an early work "British Ferns" by Thomas Moore F.L.S. 1863, I came across another problem concerning the centipede. The author, referring to a common British fern, *Scolopendrium vulgare* stated:- 'Scolopendrium is merely an alteration of *Scolopendra*, the scientific name of the centipede and the name is applied from a fancied resemblance between the feet of the centipede and the lines of its fructification.'

Just to put the record straight - *Scolopendrium vulgare* Smith, became *Phyllitis scolopendrium* Linn; Newman. and then *Asplenium scolopendrium* Linnaes.

However, this is a European fern and possibly does not concern us here.

One Australian fern does become included, a recent work covers it under the title *Microsorium scolopendra*, (Burm.f.) Copeland. This time at last the centipede gets its true name!

Once again checking the past of this fern we find that its Basonym (that is,

its original scientific name) was *Polypodium scolopendra*, *Burm.1769. Thence to *Phymatodes scolopendra*, (Burm.) Ching. 1933.

While one recent work claims that *Phymatodes* is the correct prefix, drawing attention to the unusual feature of four rows of sori to each pinna, two on either side of the centre vein; an illustration in another work shows only one row of sori on either side of the mid vein of the Pinna. Obviously some doubt exists in classification as well as description. In addition, yet another recent work defines the term, *Scolopendra*, as parallel marked. Maybe the centipede has disappeared at last!

* Burm:- J. Burman 1706-1779

* Burm. F:- N.L. Burman 1734-1793

Ray Best.

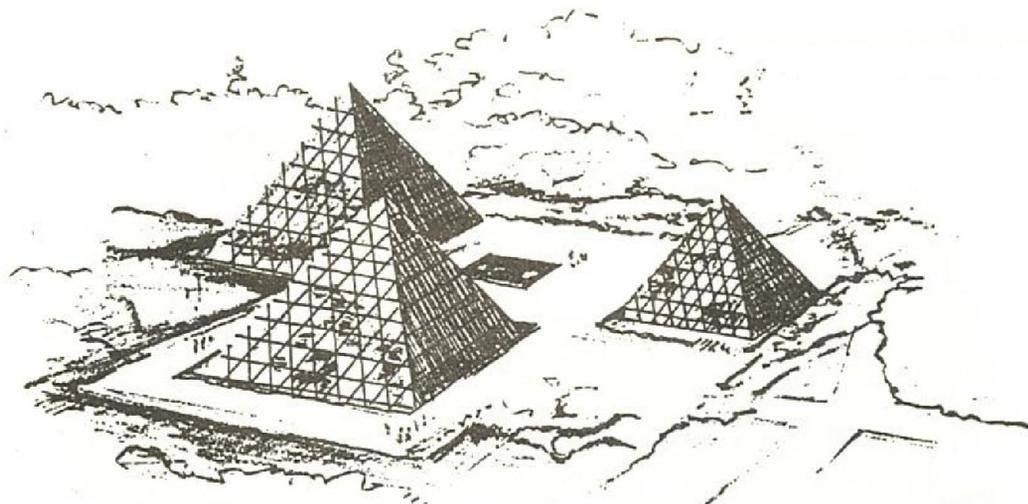
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THE GREAT PYRAMID APPEAL

The axiom "One Picture is worth a thousand words", rang very true for some of us when confronted for the first time by different ferns from Northern Australia. As not many people are able to explore northern rainforests, the Royal Botanic Gardens plan to bring to the public a wide range of tropical plants previously only seen in books or on film.

These plants will be exhibited in a trio of Pyramid Glasshouses, one, already built and in use, will be linked to the other two by underground corridors meeting in a central foyer housing educational displays and aquatic plants. The design will provide for wheelchair access. With three glasshouses it will be possible to display separately, tropical Australian plants, tropical exotics and ferns and fern allies, it will help to avoid the extinction of some endangered species and provide an unrivalled educational experience. When completed the three Pyramids will stand as the only complex of its type in the World. Requiring over \$1M. for completion, the support of the community is needed. To help this project to eventuate a donation may be sent to:

The Great Pyramid Appeal,
Royal Botanic Gardens,
Mrs. Macquarie's Road,
SYDNEY.



PYRAMID GLASSHOUSE COMPLEX

The fern is still the most popular plant to be taken from the rainforest and introduced into the house and garden, although rainforest trees of different species and some of the understorey plants are now being experimented with. ROSS SCOTT of Kenilworth, Queensland tells this story of a giant of the forest.

"I recently took part in an interesting expedition in the wilderness area of the Corondale Ranges which are quite close to where I live. In the early sixties I did a lot of bivouacking in the area with the boy scouts and on one trip we found the "Patriarch" - the grandfather of all Bunya Pines. It measured 22 feet around the base at chest height and the trunk just went up through the rainforest canopy and kept going. Its height was anybody's guess. Last year in September when we dropped in to pay our respects we found that old age had finally had its way and the tree had blown down in a storm. Somebody ruefully suggested that we could now measure its height - 200 feet. We returned with the largest chain saw we could find and cut a slice out of the trunk. It was over 800 years old. The slice is still there wrapped in plastic to keep the borers out, waiting until we can gather a team of "coolies" to carry it out. That is what we will have to be, for it will involve a three hour walk up a rainforest creek, then up the side of the watershed which involves a lift of 500 feet in under a half mile."

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Walking or travelling through the countryside can often lead to the surprise sighting of a fern grown at home, or read of in books. For such rewards some "Fernies" will spare no effort, as indicated in this short extract from a letter. Members may recognise the two intrepid travellers.

Late one afternoon while on holiday in Queensland, we were travelling towards Bundaberg looking for a suitable place to stay the night. As the vehicle was crossing a filthy, murky creek we thought that we had seen ferns growing along the bank, but it was too late to stop and investigate. Next morning we returned, located the area, parked the van and went searching for the ferns. After pushing through waist-high grass, we then waded through boggy, smelly, swamp, climbing over rotted tree branches until finally we came across a very large colony of big *Acrostichum* ferns, possibly *Species aureum*, flourishing along the banks of Splitters Creek on the Bundaberg - Gin Gin Road. We had previously only seen this fern growing in a Hot-House.



BOOKS

In the latest edition of "Flora of the Sydney Region" Beadle, Evans, Carolin, the section on ferns has been revised and updated by Mary Tindale. The book is available through S.G.A.P. book sales.

FLORA OF MALAYSIA: Vol. 2 - FERNS. HOLTUM

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O'Reillys Guest House in the Lamington National Park, Green Mountains Via. Canungra, Queensland, are holding a "Forest Week" from 13th - 20th February, 1983. Study tours will take participants into the rainforest to learn the nature of the specialised plant species and the interdependence between plant and animal communities. The forest week team includes:-

- Bill McDonald from the Queensland Herbarium
 - Meg Lowman, a Botanist from New England University
 - Tom McRae, Entomology Dept. Uni. of Queensland
 - Col Harmen, an expert on native orchids and,
 - Peter O'Reilly will assist with local knowledge
- FOR PARTICULARS - WRITE OR RING 075. 451611

I would like to thank Gwen Hardwick for typing Newsletters 9 to 18 and various other screeds on behalf of our Group. It became inconvenient for Gwen to continue this voluntary task. Her contribution was very much appreciated.

Phyll Brown was besieged by requests for spore following the last Newsletter, with the result that our bank deposit is low. While very pleased with this response, Phyll would now like to ask members to gather spore or fertile fronds and send enclosed in a paper bag to her. A spore list will be printed in the March Newsletter.

PROGRAMME FOR EARLY 1983

- FEBRUARY - SUNDAY 20th: Meet at Lawson near The Soldiers Memorial at 10.00 a.m. Bushwalk and study ferns growing along the way.
- MARCH - SUNDAY 20th : Meet at 10.00 a.m. at the "Fruit Bowl" at Bilpin on the Bell Line Road. Bushwalk in the vicinity of Pierces Pass.
- APRIL - SUNDAY 17th : Meet at 11.00 a.m. at the home of Addie and John Lee, 76 The Bulwark, Castlecrag. Bring your lunch and a "plate" for afternoon tea. We will discuss ferns listed in the Jones & Clemesha book from Ampelopteris through to Arthropteris. Members who have any of these species please bring them along.

I would like to thank Faye Low for her work as our Honourary Treasurer, and John Lee for his work as our Honourary Secretary. Between them they keep track of our membership, pay the bills and post the letters, in fact, perform all the demanding tasks usually associated with managing a group. I would like to thank Lindee Anderson for deciphering my scribbles and typing this letter.

At this time of the year particularly I pause to think of our members in different situations and circumstances linked by a common interest in ferns. I hope that 1983 will bring you good health and contentment and on behalf of our Sydney members wish you the Compliments of the Season.

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