

30 JUN 1989

ASSOCIATION of

*S. G. A. P. Fern Study Group*



*Newsletter*      *Number* 45

ISSN 0811-5311      DATE - JUNE 1989

"REGISTERED BY AUSTRALIA POST - PUBLICATION  
NUMBER NBH 3809."

\*\*\*\*\*

- LEADER: Peter Hind, 41 Miller Street, Mount Druitt, 2770
- SECRETARY: Moreen Woollett, 3 Currawang Place, Como West, 2226
- TREASURER: Joan Moore, 2 Gannet Street, Gladesville, 2111
- SPORE BANK: Jenny Thompson, 2 Albion Place, Engadine, 2233

\*\*\*\*\*

REPORT ON GROWERS' EXPERIENCES

Thank you members who provided details of results achieved with ferns purchased at the September 1988 Wildflower Exhibition in Bankstown. A summary of results recorded appears later in this Newsletter. Kyrell Taylor of the Sydney suburb of Yagoona prepared a narrative report with detail and style and rather than risk losing subtle meanings in the process of summarising, Kyrell's report is given in full as follows:

Lycopodium phlegmaria When first met the fern was already too big for its boots! Its early growth had exceeded its habitat; the 3" pot being much too small for it so its habit was to act stupid and to keep falling over. I thought "hang that fern" and that I did! Into a basket it went after I had specially prepared its new cradle; side wires were pushed aside, all raw galvanized wire likely to come into contact with the stems were wrapped in fibre glass cloth (same material as basket liners) and plant was inclined on its side (not upright) the original root ball formed in the pot was not disturbed but a mixture of sand, commercial potting mix and added peat moss was packed around the root ball filling the remainder of the basket. Hanging in a completely sheltered area this plant has THRIVED and far exceeds its original indications and my expectations. Never over watered and never allowed to dry out this specimen, shows all indications of outliving its owner and outgrowing its basket.

Lycopodium proliferum Though subjected to treatment equal to its cousin this species maintains the reputation attributed to it by many expert observers, that is, a weak growing species of straggly form and oh so slow growing. Yes, it is alive but frustrating in its performance! Maybe we witness with this species one of those tediously slow but persistent natures that indicates a great inner strength else how has this group survived!

Pteris tripartita Long and weak stipes with an overweight "head" almost suggested I should stake this gangling plantlet. I resisted the urge to control its form and placed it in a much oversized pot hoping it would grow in strength and remain undisturbed in that location for a few

years. I prepared a mixture of sandy pot mix but added a "hat full" of dried chopped papyrus (Cyperus papyrus) stalks and a deal of coconut fibre. I have deduced that the papyrus stalk holds moisture well and breaks down slowly thereby surviving two functions! Our plant made little progress in the fern house and looked to be taking a long time to die. Shock treatment was my next decision: into the ground under a Eucalyptus robusta in a raised bed made up of chopped brambles, leaf mould and vegetable peelings and Eureka! Sturdy growth has come to the plant, its "tripartita" nature being very obvious. A healthy green colour confirms its good condition and I am confident of it attaining stature consistent with its species.

Colysis sayeri Maybe its a matter of third time lucky but more substantial reasons must exist explaining the beautiful growth growth exhibited by this fern. Yes, it was a healthy child to start with but so were the two previous specimens which under similar conditions failed soon after introduction to my latticed fern house. One of that scrambling group which includes Microsorium scandens, this Sayeri plant has vigorous rhizome growth reaching beyond its 10" basket and a plentiful stipe production. I feel that it has responded to the very loose and fibrous medium which provides its bed and belies its reputation as "slow to establish". As yet it has not faced a Sydney winter and so its natural environment of tropical rainforest may indeed be missed this coming season. I intend to make sure that it is not subject to draught and has broken shelter overhead. This is a rewarding plant and thus far has exceeded expectations.

Microsorium superficiale An average plant for a 4" pot to start with, the growth since being transferred to a coarse mixture basket has been less than spectacular. I cannot imagine it ever growing into a "large clump" as is their reported nature. Some marauding beetle or such like has attacked some of the fronds but would not have slowed its growth drastically. Text book reports of this being an easy species to grow may indeed be correct but the rate of growth requires a philosophical outlook which this grower lacks! Not completely unhappy this plant has produced typical sori pattern and has numerous empty stumps on the rhizome from whence expended fronds have been ejected.

Pyrrosia lanceolata Although hanging in a basket and feeding in a coarse mixture since being taken from its 4" pot I feel that it could have done better for this plant which has achieved moderate growth maybe less water (hard to achieve these last four months) and being placed in a medium more akin to its natural habitat would have spurred a more satisfactory performance. I shall look for a portion of dead tree fern trunk or even a piece of "charcoaled" tree trunk to transfer it to. I fancy this species needs to use its rhizome to search for moisture rather than having a damp though porous medium close and always at hand as it were.

Note: All specimens reported on have had similar feeding treatment at relocating time and since. For example, a small amount of powdered blood and bone mixed into the growing medium and two sprayed applications of Fish Emulsion Fertilizer again on the growing medium.

#### Notes from reports by other members

Asplenium australasicum Two reports. One fern still in original small pot, one in ground in raised bed under tree cover. Both looking good.

Belvisia mucronata One in ground, Fair. One on half buried log in moist shaded area spreading slowly.

Blechnum cartilaginum Two reports, both ferns planted in ground under large trees. One fern good, one fern barely existing and large portions of some fronds have turned black.

Bolbitis quoyana One in ground in fern house looking very healthy. One in ground in moist shaded position very little growth.

Colysis ampla Planted on shaded rock ledge, making steady progress spreading up moist rock face.

Colysis sayeri One dead in original pot. One planted on large rock in moist shaded area, spreading slowly.

Cyathea rebecca Two reports ferns planted in ground under shade of trees, slow but looking healthy. One report potted on and new fronds appearing.

Cyathea robertsiana One potted on but now dead. Maybe dried too much. One died in its original small pot probably due to irregular watering. One in ground and looks fantastic, trunk not much bigger but fronds have trebled, planted in shady reasonably moist position.

Davallia denticulata One in pot just alive. one in soil on large rock in shade and spreading slowly.

Davallia pyxidata Still in pot and just alive.

Davallia solida One potted up and kept indoors in well lighted area. Has grown slowly but is looking exceptionally good. One planted in ground on rock under shade, slow but looking good.

Doryopteris concolor One in ground looks healthy but not much bigger. One in ground in fairly dry area and part shaded, growing slowly.

Drynaria rigidula One potted on to coconut fibre lined basket. Some portions with brown scale and these infected fronds removed. Applied half strength Aquasol twice during February / March. Looks fairly good with 6 fronds and six nest leaves and rhizome is also growing well. One potted on and is growing well.

Lastreopsis microsora Planted in ground under shade of tree, spreading quickly and looking good.

Lastreopsis grayii One died in pot. One planted under shade of tree in well mulched soil and watered regularly. Slow but looking good.

Lastreopsis tenera Planted in well shaded area and kept moist. Growing slowly.

Lycopodium phlegmaria Still in same small pot, it appears healthy and is just putting on some new growth.

Lycopodium proliferum One left in small pot, applied half strength Aquasol in February. Looks green and healthy, has five fronds in various stages but seems to grow very slowly. One planted in soil on rock ledge under shady tree, has doubled in size. Recently placed pot under end of one branch hoping that it grows on.

Lycopodium squarrosum Planted in soil on rock shelf in deep shade, good growth and looking healthy.

Pyrrosia lanceolata One planted on rocks in moist shady area, never happy dropped fronds and eventually died . One potted on to a larger pot some of the fronds look a bit yellowish but fertile are green. Plant hasn't grown much. One potted on, dropped a number of fronds, now appears to be growing again. One looks very healthy still in original pot.

Pyrrosia longifolia One planted on rock in moist deeply shaded area, has grown slowly but looks good. One potted on some fronds look a bit yellowish and fern doesn't seem to have grown much. One potted on growing well with many new fronds. One transferred to large hanging basket is spreading.

#### FORTHCOMING EVENTS IN THE SOUTH EAST QUEENSLAND AREA

##### Sunday 4 June 1989, Meeting at Bellbowrie

Meeting at 9.30 am at Peter Bostock's home, 59 Limosa Street, Bellbowrie. Bring fern for identification.

##### Sunday 14 July 1989, meeting at Nathan

Meet at 9.30am at Doug and Kath Johnson's home, 104a Bankside Street, Nathan. Study *Lastreopsis*. Also bring list of ferns you have that may be suitable for our Fern Display at the S.G.A.P. Show in September.

#### RED CARPET

A warm welcome is extended to the following new members:

Dr.C.H.Chaffey; Wollongbar; Mrs H.Ellis, Maitland; Ms C.Gierke, Sherwood; Mr. J.Lynne, Lowmead; Mr.K.Rathie, Yeerongpilly.

#### THE FRAGRANT FERN

Contributed by Kyrell Taylor

On opening my old copy of "Jones and Clemesha" after several weeks and turning to the page dealing with Microsorium scandens where I had placed part of a fertile frond from that species, and which is quite dry, I had waft up to me the most delicate of fragrances--unmistakable and delightful. This experience was also noted by my wife Dorothy, who has no knowledge of the old contention whether M.scandens does or does not have a perfume. Press and dry out such a frond and be as delighted and convinced as I was.

#### DEADLINE FOR COPY

Our thanks to Kyrell Taylor for the contributions that he made to this Newsletter. Thank you too Ray Best for providing so much detail about Helminthostachys zeylanica, and to all others who shared their experiences of growing particular ferns. Articles for publication are always welcomed especially items dealing with propagating or cultivating our native ferns. Copy for the September Newsletter should be received by the Secretary no later than 15 August 1989.

Helminthostachys zeylanica--are you out there?

The following letter was received from Ray Best and is included here in the hope that someone is able to meet Ray's request. Ray of course would be well known to most members as the author of the book "Growing Ferns" and was responsible for the excellent propagation notes and sketches which we provide to all new members.

Experiencing some difficulty relative to an unusual Australian native fern species, and realising the access we now have to many authorities, I had the following request to make. One Australian native species that I do not have a specimen of is *Helminthostachys zeylanica*. Attempts at spore growing have failed with me in this case; probably due to the fact that the gametophytes are sub-terranean and have a mycorrhizal association. In writing any fern species up I like to have an actual plant of my own to work from. So I was wondering if it was possible to obtain a live specimen from one of the members or native nurserys.

As details of classification appear to differ amongst authors perhaps a little clarification here also would assist.

In this regard I notice in

CLIFFORD AND CONSTANTINE (POSSIBLE CLASSIFICATION FROM M.TINSDALE)

We have:- Family:- POLYPODIOPHYTA

Subfamily:- (POLYPODIATAE - OPHIOGLOSSIDAE.)

( New spelling and grouping of titles in Australia)

THEN FROM :- " A NEW GENERIC SEQUENCE " CRABBE JERMY AND MICKEL.

WE HAVE FAMILY:- LYCOPODIACEAE.

AND YET AGAIN FROM ROLLA AND ALICE TRYON FAMILY:-OPHIOGLOSSACEAE.

COMPRISING THREE GROUPS 1 HELMINTHOSTACHYS KAULF.

2 OPHIOGLOSSUM LINNAEUS.

3 BOTRYCHIUM SWARTZ.

WHILE AUDREY PIGGOTT IN " FERNS OF MALAYA IN COLOUR "

USES THE CLASSIFICATION :- OPHIOGLOSSACEAE.

(POSSIBLY ALL RELATIVELY CORRECT IF SOMEWHAT CONFUSING R.B.)

Being a one off species world wide as well as a unique Australian native has contributed to my interest. Hoping you can help me.

HELMINTHOSTACHYS KAULFUSS.

As some confusion seemed to exist concerning classification amongst botanists themselves, I decided to include their decisions. Obviously being one of the most primitive species this is easily understood as grouping titles families have different applications and are possibly all correct relatively. So here I prefer to leave the decision to the reader. R.B.

1. From JERMY, CRABBE, & MICKEL. " A NEW GENERIC SEQUENCE "  
Now in general use world wide.

HELMINTHOSTACHYS ZEYLANICA KAULFUSS. FAMILY:-LYCOPODIACEAE.

2. From CLIFFORD AND CONSTANTINE (M.TIN DALE AUSTRALIA)  
FAMILY:-POLYPODIOPHYTA. SUBFAMILY:- (POLYPODIATAE:- OPHIOGLOSSIDAE.

3. From:- TRYON & TRYON (AMERICAN)  
CLASSIFICATION:- FAMILY OPHIOGLOSSACEAE  
COMPRISING THREE GROUPS 1 HELMINTHOSTACHYS KAULF.  
2 OPHIOGLOSSUM LINNAEUS.  
3 BOTRYCHIUM SWARTZ.

---

HELMINTHOSTACHYS

One species world wide, a very primitive fern much older than the early fossils. Has primitive characteristics such as, large massive sporangia with many fine spores; that have a mycorrhizal relation and subterranean gametophytes and a tendency to variation.

---

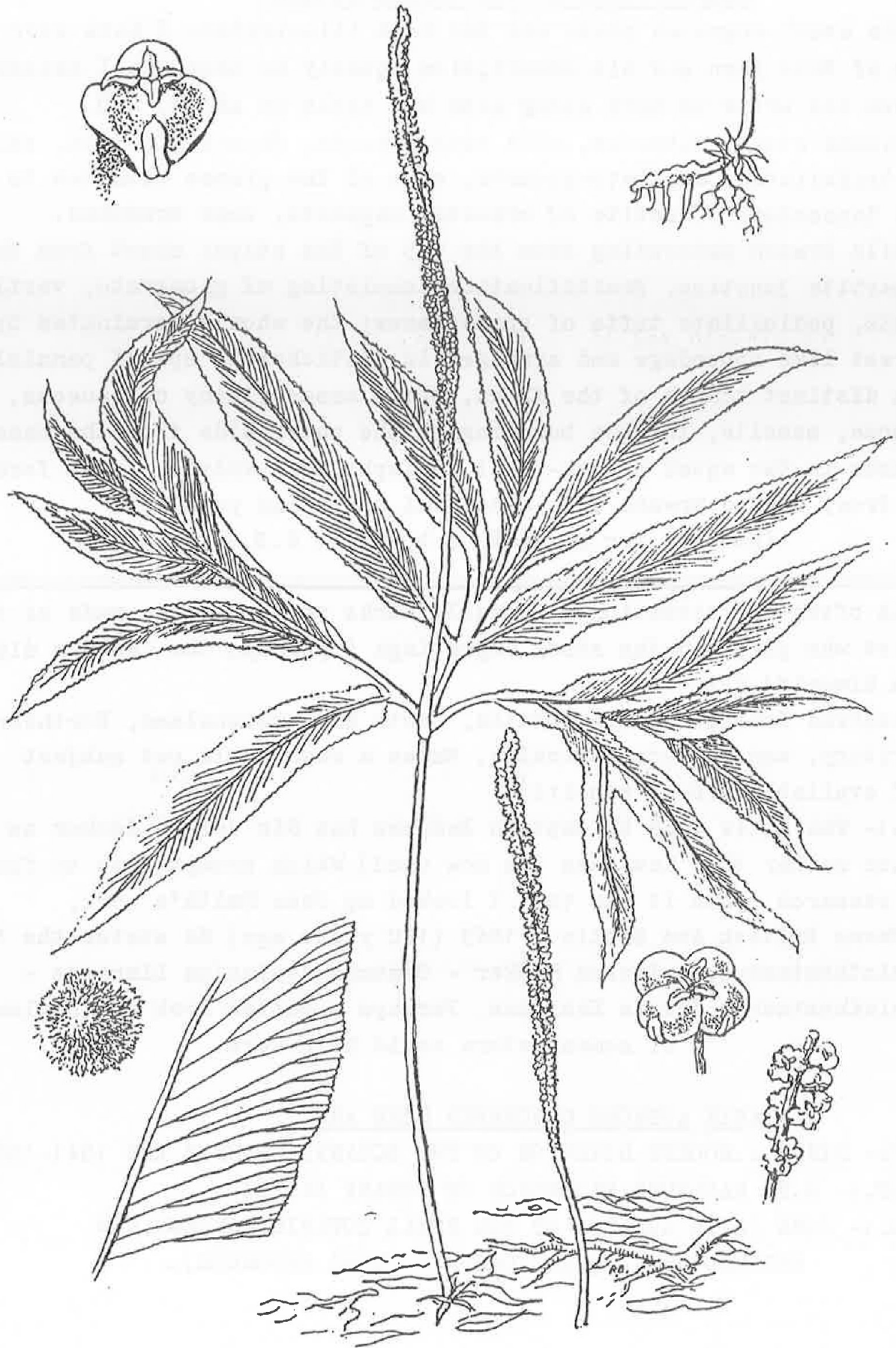
HELMINTHOSTACHYS ZEYLANICA KAULFUSS.

My original plant (Long since dead) was I assume removed from its natural location. Unfortunately the spores are not easy in propagation, possibly due to the subterranean gametophytes and the mycorrhizal association. In researching this fern the best and earliest records came from Captain Beddome's Ferns of Southern India His early title then was (Officiating Conservator Of Forests) which would be possibly better understood today; if not truly appreciated.

A little note at the start of this collection of works amused me somewhat so I have included it here.

NOTICE

As a limited number of copies only will be printed subscribers are requested to send their names and addresses to the author, at the office of "The Conservator of Forests, and to pay an advance of six rupees for three numbers. (Finance was a problem even at this early time) R.B.



*HELMINTHOSTACHYS ZEYLANICA HOOKER.*

HELMINTHOSTACHYS ZEYLANICA HOOKER.

As the steel engraved plate was the best illustration I have ever seen of this fern and his description equally as thorough I decided to use his write up here along with his title as above. R.B.

" Rhizome stout, tuberous, with coarse roots, fronds glabrous, shining trifoliately digitato-pinnate, each of the pinnae with two to five lanceolate or entire or crenated segments, some branched. Fertile branch proceeding from the top of the stipe; erect from the tripartite junction. Fruitification consisting of glomerate, verticillate, pedicillate tufts of spore cases; the whorls terminated by a crest like appendage and arranged in distichous spiked pannicles on a distinct branch of the frond, spore cases fleshy coriaceous, globose, sessile, inverse bursting on the outer side from the base upwards in two equal or sub-equal hemispherical valves. Veins forked and free, angled upward from a central costa and parallel."

(Not bad for an amateur botanist R.B.)

---

As is often the situation with early works no mention is made of the artist who prepared the steel engravings ( perhaps the Captain did them himself) R.B.

Widespread India, Asia, Australia, North East Queensland, Northern Territory, and Western Australia. Makes a reasonable pot subject (if available) frost sensitive.

N.B.:- The title used by Captain Beddome has Sir Joseph Hooker as the author rather than Kaulfuss (as now used) which prompted me to further research. Thus it was that I looked up John Smith's work,

" Ferns British And Exotic " 1869 (120 years ago) He states the title  
25 Helminthostachys zeylanica Hooker - Osmunda zeylanica Linnaeus -  
Helminthostachys dulcis Kaulfuss. Perhaps a better look at the laws  
of nomenclature could help here.

EARLY AUTHORS CONCERNED HERE ARE

HOOK:- SIR W.J.HOOKER DIRECTOR OF THE BOTANIC GARDENS KEW 1841-1865

KAULF.:- G.F. KAULFUSS PROFESSOR OF BOTANY LEIPSIK.

J.SM.:- JOHN SMITH CURATOR OF THE ROYAL BOTANIC GARDENS KEW  
RETIRED 1864. (SIR JOSEPH HOOKER'S RECORDER).



Report on Outing to Mt. Wilson 26 February 1989

Seventeen attended the last of our outings for the summer, held in the Blue Mountains to avoid the heat. The day was overcast and most wore coats as we set out on the short loop walk through thick rainforest.

A large patch of Polystichum was one of the first challenges for the identifiers, almost instantly saw the pale border on the brown scale taken from the base of the stipe, this suggested P. proliferum. As we descended close to the creek tree ferns Cyathea australis and Dicksonia antarctica were prominent and on many of the trunks of the latter the filmy ferns for the day, the distinctive Polyphlebium venosum with hair growing out of sorus with cylindrical involucre. Our Leader pointed out two Microsorium with similar scrambling habit, M. diversifolium with glossy light green lamina and fleshy grey green rhizome with appressed scales, while M. scandens had dark green lamina and wiry dark rhizome with scales away from the surface.

There were large stands of Blechnum nudum and B. patersonii while Peter was finally able to convince even the sceptics that Lastreopsis acuminata was the most prominent member of that genus present. Other ferns more easily recognised included Asplenium bulbiferum and A. flaccidum and the beautiful Leptopteris frazeri on erect woody trunks growing close to where the creek cascaded over rocks. Nearby growing on the trunk of a large Dicksonia antarctica was Tmesipteris billardieri with long pendent fronds and synangium with pointed lobes.

On the way out the highlight was probably seeing the large patch of the tall soft looking Allantodea australe. In all 27 different species of ferns were identified and we were assured by our Leader that many more could have been found in this attractive area if we had explored a short distance from the path.

Report on Meeting at Cambridge Gardens 18 March 1989

The get-together was held at the home of Max Forth and was attended by eighteen members. Much admired was Max's extensive collection of native and exotic ferns housed in a large shade house built only 3 years ago. The attractive layout within the shade area reflected the owner's artistic leaning. The pathway meandered through and around the shadehouse and even included a small bridge for added interest.

The healthy nature of the ferns was an obvious feature, particularly striking being two Platycerum bifercatum suspended from the roof in large circular clumps, an handsome P. superbum, a fine Adiantum diap-hanum with rhizomes protruding from the sides and bottom of the basket, Asplenium aethiopicum and two lush Cyathea cooperii rapidly heading for the top of the shadehouse canopy.

The study session dealt with the local Selaginella and Lycopodium. Peter explained that the two groups are easily separated as the Selaginella tend to be flat whereas the Lycopods have 3-dimensional fronds. Less obvious the Selaginella have a ligule at the base of leaf and this is absent in the Lycopods.

The description by Peter indicated the following features of the local Selaginella:

| <u>Feature</u> | <u>S. gracillima</u>                         | <u>S. kraussiana</u>                      | <u>S. uliginosa</u>                            |
|----------------|--|---|--|
| Leaves         | All alike                                    | Two kinds, a row of small leaves at top   | All alike                                      |
| Rhizome        | Tufted & shallowly embedded, an annual plant | Perennial                                 | Perennial, deeply buried                       |
| Distribution   | East Coast including Tasmania                | Exotic, naturalised in Q., NSW, V. & S.A. | All States except S.A.                         |
| Sporangia      | Spread along the stem, not in cones          | Narrow cones on lateral branches          | At tips of branches loosely grouped into cones |

S. kraussiana, a native of Africa and of the Azores is probably growing in fern collections owned by all members in Sydney. Apart from Joan Moore, members present at the meeting are not growing the other two Selaginella, although in the past Phyll Dawes had grown S. uliginosa successfully. Joan Moore supplied the following details which she had recorded about growing S. uliginosa.

- 1) Piece taken in 1978; lasted in bowl in shadehouse until 5/80
- 2) Pieces dug up and put into pot 5/80, kept in shadehouse. One grew about 4 inches then died 2/81.
- 3) Purchased 8/85 good specimen. Potted on immediately to a bowl on bench in shadehouse. O.K. 3/88.
- 4) Received in an ice cream dish 9/86. Placed in another bowl on bench. Later something else like a baby shoot came up 3/88. Not growing so well.
- 5) Since 3/88 the mysterious shoot produced buds but was entirely eaten. Not dead 3/89 put both bits (3) & (4) together in a large bowl as neither very well.

Only Lycopodium cernum, L. laterale and L. deuterodensum can be found in the bush in the Sydney Region, but Peter briefly described all six NSW Lycopods. All are terrestrial except L. myrtifolium which usually grows in cracks in rocks and sometimes on tree ferns. Sporangia is in axils of terminal leaves, the leaves are up to 15mm long which is more than twice as long as the leaves of other NSW species.

L. australianum is from the alpine regions of NSW, Victoria and Tasmania. It has not been seen locally. It has crowded leaves and is erect in habit.

L. cernum has leaves that are all similar, the erect compact stroboli is always terminal. It is often found in roadside cuttings where it competes with Gleichenia. It is a plant that may have benefited from the past 200 years because the sites in steep cuttings are more common than in nature.

L. deuterodensum erect much branched leaves dimorphic, numerous stroboli are always terminal on branches.

L. fastigiatum is found in mountain areas, leaves all similar, erect, long clubs on almost leafless stems.

L. laterale. Foliage leaves and sporophyll leaves differ, cones present while stroboli are lateral on stems.

None of the members present reported growing any of the N.S.W. Lycopods. Peter pointed out that apart from their interesting and different appearance, all have the advantage of not requiring glasshouse conditions.

#### Notes on Outing to Newnes on 15 April 1989

After assembling at Clarence near the western side of the Blue Mountains, 22 of us set off in convoy over rough gravel road making our first stop to inspect a patch of almost alpine heath.

It was a perfect autumn day but the pot-holed road reduced our speed and some in the party were thinking of lunch even before completing the rather tricky car shuffle which left one half of the cars within a kilometre or so of the glow worm tunnel entrance, this point was to be the end of the walk. We lunched near where we commenced our trek approximately 5 km further back and higher up the mountain. The descent between towers of dark weathered sandstone was a visual delight and all the while our Leader kept us in awe of his knowledge and acute observation as he pointed out numerous rare plants.

We joyfully greeted a small clump of Cheilanthes sieberi growing on a rock ledge. There was less joy as we passed Pteridium esculentum then patches of Culcita dubia and the dainty Lindsaea microphylla. On a steep moss covered rock face we saw Asplenium flabellifolium, Hymenophyllum cupressiforme, a filmy distinguished by its toothed margins and wiry rachis, Pyrrosia ruprestis and nearby Sticherus lobatus. There were numerous Todea barbara, easily the most frequently observed fern on the day, Blechnum cartilaginium and Cyathea australis.

Close to the tunnel entrance there were Blechnum nudum in many sizes and situations, heavy rain earlier in the week providing examples that demonstrated how it came to be known as the Fishbone Water Fern, B. ambignum, Grammitis billardieri and Histiopteris incisa. Then by torch light we proceeded through the 1 km long rail tunnel abandoned over 65 years ago. Countless glow worms, the predatory larvae of a certain midge, emitting light resulting from oxidation of chemical compounds - a phenomenon no less wondrous and a sight not unlike a starry lit heaven.

Outside the far end of the tunnel a spray of water fell over a small forest of Dicksonia antarctica, on the trunks of some of these Polyphlebium venosum and we noticed a patch of Tmesipteris, but it was too wet to ask our Leader to identify the species. Against the rock wall there were many young Leptopteris fraseri, with very attractive thin lacy fronds. In the ground nearby there was a small patch of Lastreopteris microsora. The walk further along the creek and on the escarpment, the route of the long deserted railway gave us great views over the green valley far below but only one more fern for our list, Blechnum watsii.

We retraced our steps through the tunnel and completed the short walk to the cars sighting more ferns including Gleichenia microphylla. Happily the car shuffle succeeded and although <sup>4</sup>of us did not survive what proved to be a long day without sickness and injury, the general consensus was that we had been privileged to visit a beautiful area of unique flora and scenery. Our thanks to Peter for showing us how to get there and the way home.

Meeting at Jannali on 14 May 1989

Wet weather all through the week but the rain kept away for this visit to Elaine and Ken Arnold's attractive and very well kept garden. Outstanding ferns were a feature, to name just a few: a large Todea barbara and Sticherus flabellatus at the front, and at the rear Lygodium japonicum completely covering an awning post and many self sown smaller plants nearby, a rounded large Platyserium superbum clinging to a rock face, Adiantum formosum and A.aethiopicum. Two Cyathea cooperi evoked interest, one 20 year old specimen with a thinnish trunk had developed an almost S bend as it wound its way past the awning. The other C.cooperi as a mature plant, had been dug up two years ago and moved from another part of the garden. This tree fern showed by its now stunted fronds, only about 1m long, and the reduction in size of the top 20cm of its 3m high trunk, how it had survived by adapting its growth in line with the loss of part of its root system.

The Arnolds two shade houses were filled with many spectacular ferns in pots and baskets. There were several Adiantum caudatum evidence of Elaine's successful potting on of the buds taken from the extended rachis, a super Belvisia mucronata and an equally impressive Doodia caudata var laminosa with 0.5m long strappy fronds.

The Arnolds attributed some of their success to "Rich Gro" fern fertilizer a product that they unearthed during a recent visit to West Australia and which is now available from some nurseries in Sydney.

The business session consisted of the 9 members present discussing ferns that had been most successful and a few that had failed. Notes on some of the ferns discussed follow:

Drynaria rigidula Planted under canopy of tall trees wedged in a rock shelf. Took a while to establish but has thrived and spread since, nest leaves developed within two years.

Microsorium scandens Prolific lateral growth in basket (1 member said that these had not been successful in a basket for her) planted out on the eastern side of a Eucalypt 18 months ago. Plant is now 4 feet up tree and growth excellent. Other members also reported success with M.scandens either in rock shelf and climbing rock face or in ground growing over rocks.

Microsorium diversifolium Survived in sheltered position among rocks but six years on still had not progressed to climbing,

Psilotum nudum Small plant discovered among pile of sandstone that had been brought into the garden. Planted into concrete pot and has flourished. Numerous pieces taken from the plant over the years and potted on in an open mixture with dolomite added.

Adiantum philippense A success kept in a pot in shade house for winter and treated occasionally with a slurry made up of half lime and half dolomite.

Lastreopsis tenera Failed in pots.

Diplazium dilatatum Tried in three places in ground and poor results until finally moved where it doesn't get much sun, although it is exposed to wind. Has grown to 1m and is spreading. The clayey soil is watered frequently but plant gets plenty of competition from nearby trees.

Todea barbara The Arnold's specimen was proof of successful cultivation. Some other members reported slow growth and poor results. Constant moisture and some exposure to the sun were identified as possible reasons for better performance.

FORTHCOMING EVENTS IN THE SYDNEY REGION

\* Sunday 18 June 1989, Outing to Royal National Park

Our Plan is to walk the Forest Island Track through some of the best rainforest in the Sydney area and open forest on a loop trail of approximately 5km. Easy walking on well made tracks with ferns most of the way. Meet at 9.30am in Bertrand Stevens Drive opposite entrance to Lady Carrington Drive. Parking available in disused quarry. Prompt start no later than 10 o'clock essential to avoid having to carry lunches. After the walk we expect to lunch at the picnic area at Upper Causeway about 1km drive from our starting point. Enquiries to Moreen 528 4881.

\* Sunday 23 July 1989, Meeting at Gladesville

Visit to Joan MOore's home at 2 Gannet Street, Gladesville. Business to commence sharp at 11 O'clock. Our study for the day is the native Tectaria species. Bring lunch and plate for afternoon tea. Enquiries to Joan 817 5487.

\* Saturday 19 August 1989, visit to Mt. Katandra

For details and map refer to last page of Newsletter.

SOUTH EAST QUEENSLAND REPORT

In the March 1989 Newsletter it was mentioned that member Cliff Ritchie had almost lost much of his wonderful collection after having used fowl manure as an extra to his potting mixture. It was thought that the problem was not directly due to the fowl manure. The article should then have stated "but from toxins used to kill borers." Apparently wood shavings had been picked up with the fowl manure.

The March 1989 Newsletter also gave details of a potting mixture used by Cliff Ritchie with outstanding results. Cliff wishes to impress that this particular mixture is mainly to give young ferns a quick growth start, they then need to be potted into a more substantial potting mix.

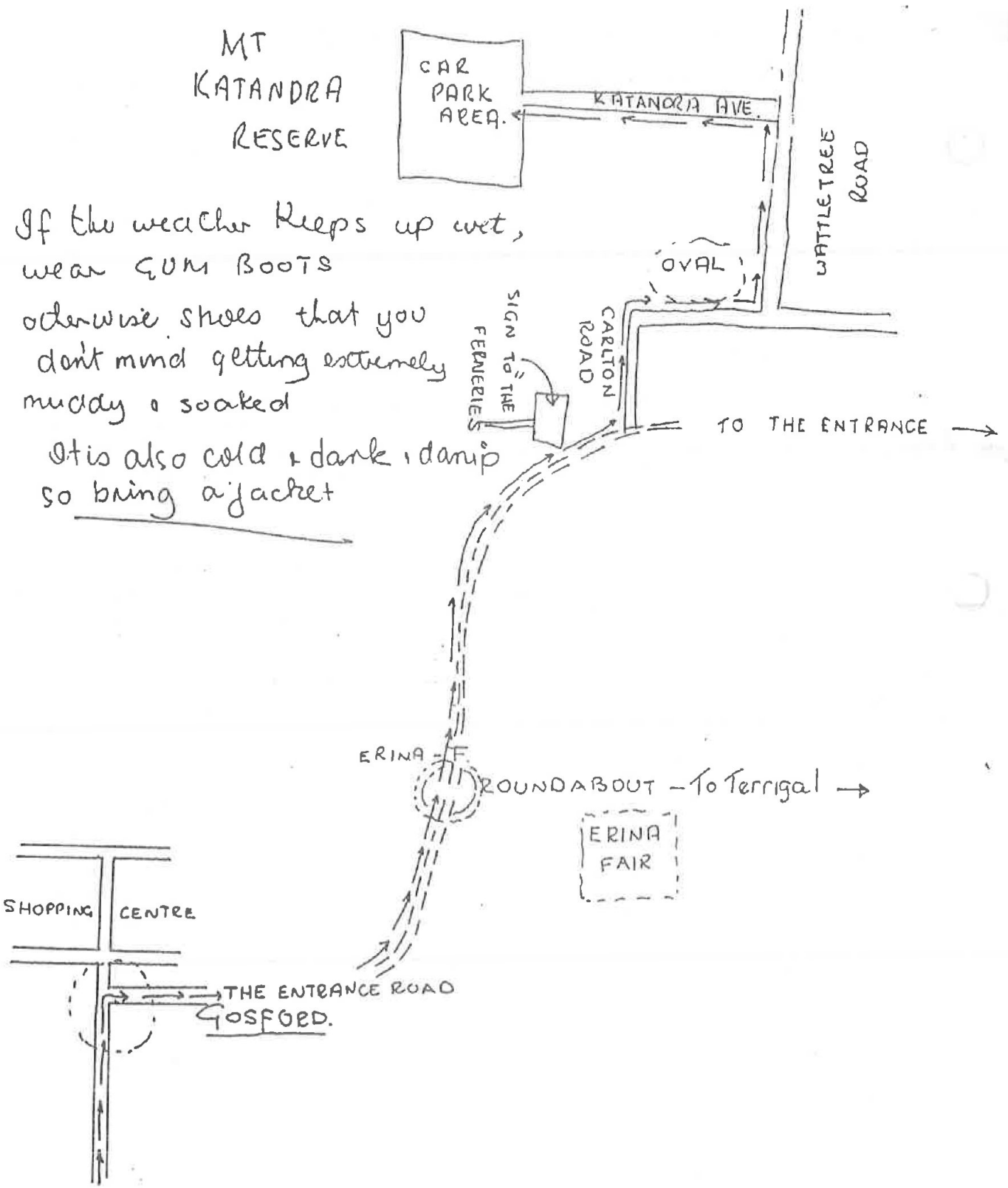
(Our thanks to Cliff for his advice and sorry that we didn't get it right first time -Ed.)

Irene Cullen reports as follows:

If the old adage "make haste slowly" still holds, our Lastreopsis key will be a winner. Despite our slow progress members are keen to keep on trying to find a simple and workable key. We met as pre arranged at Cliff Rithcies . Once again our visit to Wards at Mt Glorious was washed out. All are hoping for fair weather for Sunday 14 May, when Lloyd Bird will lead us on an excursion. Jan Glazebrook has compiled a FERN REGISTER for members of South East Queensland. Members will give Jan a list of their ferns and also nominate ferns which they are willing to swap with other members. The register will be available for perusal at meetings. We trust this will enable members to increase their collections. For members who are only starting collections, we suggest they approach the owners of the ferns they would like and negotiate to purchase or request spore when available.

Saturday 19 August 1989: Visit to Mount Katandra

Two locals Robert Payne and Andrew Soury have kindly offered to show the ferny area around Mount Katandra Reserve. Macroglena caudata which some of us missed at Gaspers Creek is on the list. Meet at the car park area as shown on the sketch below. The first walk will commence at 10 o'clock sharp. After lunch at the cars it is planned to return via Pearl Beach where in a twenty minute walk Robert has identified twenty different ferns. Enquiries to Moreen 528 4881.



If the weather keeps up wet,  
wear GUM BOOTS

otherwise shoes that you  
don't mind getting extremely  
muddy & soaked

It is also cold & dark & damp  
so bring a jacket