



ASSOCIATION of

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

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## A Visit to the Prom

Contributed by Ray Best

A recent visit to Wilson's Promontory with the Fern Group of Victoria, awakened earlier memories of this beautiful and unusual area. In the early years of the Pacific War I was fortunate to be included with a Survey Unit of the Australian Army. This resulted in a posting to Survey Directorate in Kooyong Road, Toorak to prepare mechanical drawings of a mobile camera to be used by the Unit in Pacific mapping and reproduction.

Thus it was that I was introduced to a brilliant engineer, Mr Stanley Wilde and his wife, Millicent of North Melbourne. Both Mr and Mrs Wilde were members of the Victorian Naturalists Club being keen nature lovers. Thus came an early introduction to Sherwood Forest, that magnificent rain forest area so close to Melbourne. Also many references were made to "the Prom" as it was known in the early years. My recent visit awakened these memories; particularly when I realised that the preservation and creation of a National Park for this area was the direct result of many years of campaigning for it to be declared a National Park by the Field Naturalists Club of Victoria. Finally in 1905 this Park was declared so we all owe a great debt to the Field Naturalists Club of Victoria for this achievement and its continued preservation by the Department of Conservation Forests and Lands. One of the first botanists to visit this area was the famous Sir Ferdinand Jacob Henrich von Mueller (Baron) in 1853 who collected seeds and plants for Melbourne Botanical Gardens. Early records of these finds were included in "The Southern Science Monitor" edited then by a Mr French. Some years ago I was able to obtain photo copies of these early records, that have been of immense interest and assistance to me in my study of ferns.

Much of "the Prom" was viciously exploited in the early years, some 250,000 seals were killed and many koalas. Giant timbers were also removed from the rain forest areas including mountain ash, blackwood and myrtle beech. However some sections remain making it a most attractive and effective tourist attraction. Tracks are well defined and

maps are available on the spot covering many interesting walking tracks that are well maintained. Roads to and from are generally in good condition, and excellent accommodation can be arranged. Rather than a detailed coverage of this trip, I would be prepared to recommend a visit to this most Southern portion of Australia for all who may be interested.

Why Wilson's Promontory? It appears that a Mr Wilson was a personal friend of both Bass and Flinders who decided to name it after him.

Thank you Ray for drawing attention to this attractive area. There are many ferns in the Park and our Secretary says it's a place that we must visit. Ray has supplied a map of the Wilson's Promontory National Park and this is printed on the following page. Elsewhere in the Newsletter, Ray has contributed an article on Baron Ferdinand von Mueller complete with one of Ray's brilliant sketches. Again thank you Ray for your contribution.

#### Platynerium bifercatum and its sub-species Contributed by Irene Cullen

The following item of interest arose out of a meeting of the South-East Queensland Group.

Geoff Simmons of Caboolture drew our attention to an article in Laifs Fern Journal Volume 16 No.4, June 1989, titled "A New Variety of Platynerium ssp. willinckii". The fern he describes is from Mt Lewis, Queensland and will be known as var. *venosa*. A number of our members have this fern in their collections.

At our last meeting Peter Bostock brought along further literature on it, including "A Monograph of the Fern Genus Platynerium (Polypodiaceae) 1982", (Hennipman & M.C. Roos). It came as a surprise to many of us to find that all these authors refer to Platyneriums hillii, *veitchii* and *willinckii* as ssp. of Platynerium bifercatum.

Should we be referring to them in like manner? Could we please have comment from our Leader.

#### Leader's Comment:

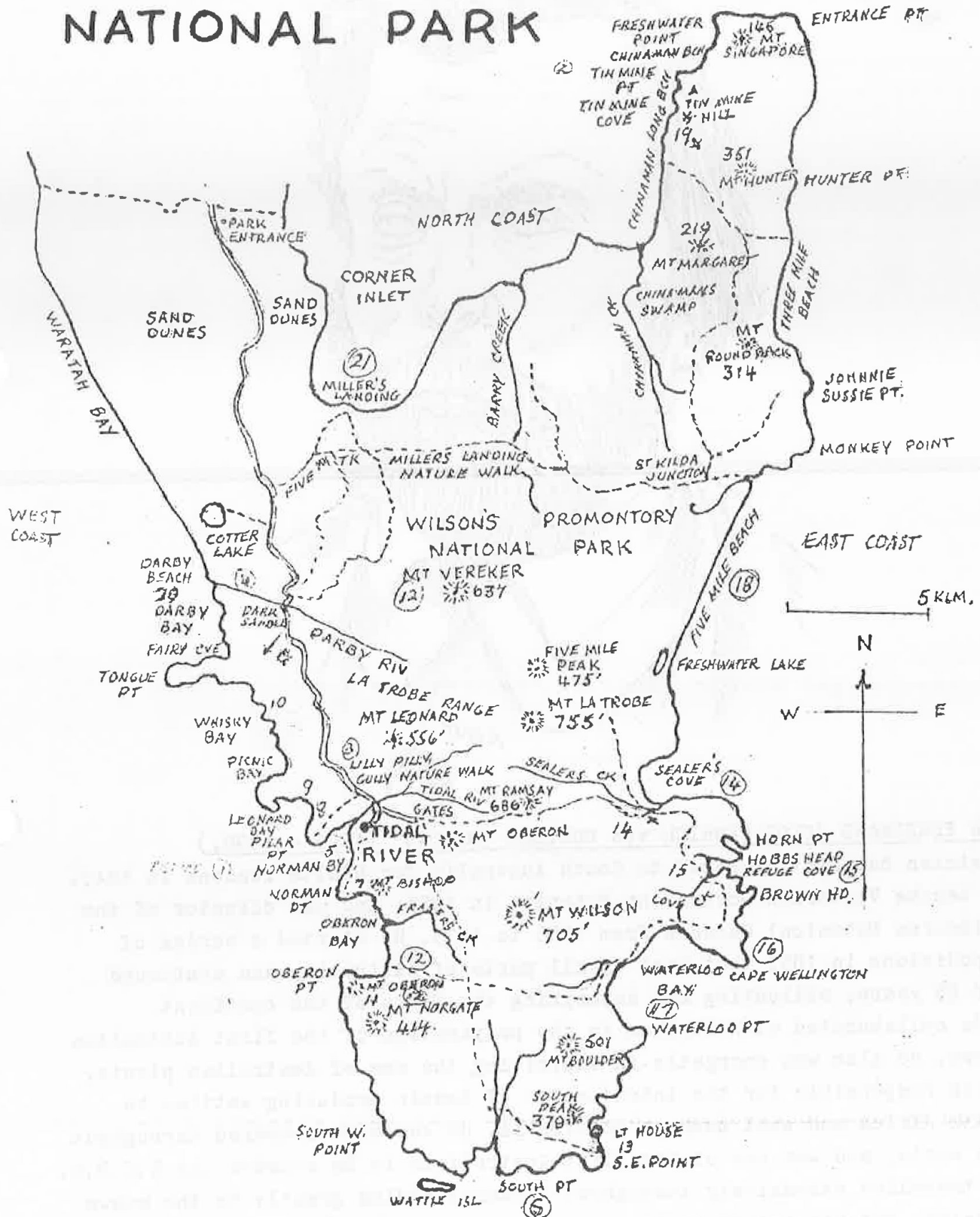
Generally it would be fairly immaterial whether you recognize these plants at specific species or sub-species level.

From my own observation in the field they have distinct habitat preferences. They are in distinct populations with some overlap but hybrids are rarely found in the wild.

I note that C.J. Goudey in "A Handbook of Ferns for Australia & New Zealand", published by Lothian in 1988, refers to the Hennipman & Roos publication and states that,

"The classification may well be accepted by botanists, but is ignored by all growers and lovers of these majestic giants of the jungle".

# WILSON'S PROMONTORY NATIONAL PARK





SIR FERDINAND JOSEPH HENRICH von MUELLER (BARON) (1825 - 1896.)

Austrian botanist migrated to South Australia for health reasons in 1847. He became Victorian Government Botanist in 1853, and was director of the Melbourne Botanical Gardens from 1855 to 1873. He started a series of expeditions in 1853 that went to all parts of Australia, and continued for 25 years, collecting and describing the flora of the continent.

He collaborated with Bentham in the preparation of the first Australian Flora. He also was energetic in exploiting the use of Australian plants, being responsible for the introduction of tannin producing wattles to South Africa and salt bush to California. He was much honoured throughout the world, and was one of the first Australians to be awarded the K.C.M.G. He travelled extensively throughout Victoria adding greatly to the known species, but his interests were not confined to that state. In 1856 he accompanied A.C. Gregory's overland expedition from the Northern Territory to the Eastern Coast of Queensland and found nearly 800 new species of plants. In 1867 and 1877 he travelled in Western Australia and in 1869 he explored the highlands of Southern Tasmania.

Mueller encouraged and assisted other explorers and corresponded with both amateur botanists and plant collectors in the field with European scientists. Collectors sent him plants from all over Australia and he was responsible for making a great number of species. He organised the building of what is now the National Herbarium in Melbourne and raised funds for an expedition to New Guinea.

As a result of his efforts attention was focussed on the value of Acacias and Eucalypts and he held progressive ideas about afforestation. Mueller's numerous publications included the definitive botanical work "Flora Australiensis" (in collaboration with George Bentham). Several species were named after him.

### How to Diagnose a Sick Fern

When a fern growing in a pot lacks health and vigour and looks sick or worse, has the appearance of dying, don't just accept the inevitable. Try to determine what is ailing the fern and take corrective action. If the fern has died carry out a post-mortem, remove it from the pot, examine the root system and the potting mixture. What you find may provide information that will enable avoidance of a similar problem in the future. But a word of warning, some apparently dead ferns miraculously recover, so don't despair too soon. Begin any post-mortem gently without undue disturbance of vital parts until you are sure that there is no life left.

The following symptoms may help diagnose the problem.

- \* Yellowing of fronds  
Often caused by over exposure to the sun or even to reflected strong light. Change pot to a less exposed position or alternatively provide shade cloth or other protection.
- \* Fronds collapse and droop limply on the edge of pot  
Examine potting mixture.
  - a) If a muddy sludge has developed, then there is too little aeration of roots. Problem could be caused by earth worms which are great in the garden soil but a menace in pots, or a poorly drained potting mixture. Remedy by repotting in a more open mixture and without worms.
  - b) If the potting mixture is very open and crumbly, then repot in a more moisture retentive mixture and ensure adequate watering.
- \* One of your successes suddenly loses its "bloom" and new fronds wither  
Check the root ball.
  - a) The roots may have filled and outgrown the pot. This often occurs with fast growing tree ferns such as Cyathea cooperi. Repot into a larger container.
  - b) Root system not developed and sitting in top part of the pot. There may be something nasty in the potting mixture or the mix is too alkaline. Most of our native ferns grow successfully in an acid mixture encouraged by decaying leaves and humus, but a few notably Adiantum capillus-veneris and several of the Pteris species like added lime. Check the conditions that are recommended for the particular fern and adjust the mixture accordingly. Another possibility is that the fern has been over potted, the excessive amount of soil holds too much moisture in proportion to the space occupied by the roots and they are not able to take up enough moisture to keep roots properly aerated.



Report on Outing to Royal National Park, 18 June 1989

The Forest Island Track walk attracted 18 adults and 2 children, the latter found the pace slow. There were many stops with ferns to inspect most of the way. After leaving our cars it took a long time to walk the 500 m. along Lady Carrington Drive to the beginning of the track, in this area there were 12 different fern species sighted including large numbers of Adiantum formosum, Cheilanthes sieberi and Polystichum australiense.

At the start of the Track we passed through a rainforest area where Lastreopsis microsora and L. decomposita were prominent ground ferns and Microsorium scandens, Pyrrosia rupestris and Arthropteris tenella hung on to the tree trunks.

Further along the Track under tall Eucalypts Culcita dubia was the most widespread fern. Near one large patch other large ferns Dennstaedtia davallioides and Hypolepis glandulifera competed for space. Hypolepis muelleri was also noticed a short distance away. It was not until near the end of the walk that we recorded our first filmy fern, Hymenophyllum cupressiforme covering a large rock.

This was an easy, attractive walk on well graded paths, no leeches, and a total of 28 different fern species without searching away from the Track.

Report on Meeting at Gladesville, 23 July 1989

Eighteen members met at Joan Moore's home on a cold and mostly wet day. Our Leader conducted the study on the genus Tectaria, in the Aspidiaceae Family. We noted the general similarity of the sori to that of Polystichum, Lastreopsis and others in that Family.

There are some 200 species of Tectaria world-wide, 4 in Australia all of which are found in North Queensland. None of our natives are bulbiferous, a number of the members present are growing the East African Tectaria gemmifera which does form buds on rachis and mid veins.

Peter brought potted plants of Tectaria brachiata and T. muelleri to the meeting, each was several years old and had been kept in his hot house. Geoff Long also brought a fine T. muelleri to the meeting, he reported having grown it in a pot outdoors. Later we saw Joan's T. muelleri which was in the ground under shade cloth. None of the members present are growing any of the other of our native Tectarias.

Tectaria brachiata and T. siifolia have dimorphic sterile and fertile fronds and they are also somewhat smaller than the other two native Tectaria. The fronds are dull green on T. brachiata while those on T. siifolia are glossy green. The distribution of T. siifolia extends to several parts of the Pacific area but in Australia it has only been located at Iron Range.

Tectaria divexa also only a small known location here in Australia but extends to several Asian countries. Its pinnae are a pale yellow to green colour and is unlike T. muelleri which has fronds that are a shiny green. Peter pointed out the pale pubescent covering on the stipes particularly on the newer fronds. This contrasts with T. divexa which has only a few brown hairs on the stipe.

Unfortunately rain prevented a more leisurely inspection of Joan's outstanding and varied collection of ferns. There were many fine specimens. Planted in the ground under shade cloth there was a large clump of Diplazium dilatatum, Lastreopsis acuminata; in pots Schelliolepis subauriculata, Blechnum wattsi and B. camfieldii. Joan has a huge Leptospermum petersonii which shades a large section of the yard. In this area Microsorium scandens was rampant while a very healthy looking M. diversifolium was climbing up a large Cyathea australis. In the deep shade there was a sizeable clump of Arachniodes aristata. Good plants of Doodia aspera, D. media and D. caudata were noted. But perhaps most admired were Joan's Marsilea angustifolia, M. drummondii and M. mutica, all growing happily in their beds of water contained in open top drums.

Thank you Joan for letting us share your garden and your hospitality and also a special "thank you" to Aunt for all her help on the day.

#### Report on Outing to Mt Katandra, 19 August 1989

Our thanks to Robert Payne and Andrew Sourry who first drew our attention to this attractive location and acted as our guides and provided information on the plants and geology.

Mt Katandra is situated in a Reserve just north of Gosford and is owned by the local Council. The walk traversed rainforest situated in a wide gully between two creeks and climbed through Eucalypt forest to about 170 km above sea level. Twenty took part in the walk, initially descending from the Reserve's picnic area through fairly open forest. Doodia aspera, very common on the day, Pterideum esculentum and Adiantum formosum were the first ferns listed. Then as we approached the rainforest, Lastreopsis microsora was quite widespread, Blechnum cartilagineum, Pteris tremula and Hypolepis muelleri. The last named fern caused some pondering at first until a fertile frond was found and the unprotected sori was noticed away from the margin, easily distinguishing it from all other local Hypolepis sp.

As we entered the closed canopy area we saw Pellaea falcata, numerous Adiantum silvaticum, identifiable by the manner its secondary rachises branch out away from the primary rachis, its long creeping rhizome close to the surface and only 2 to 5 sori to each pinnule. We passed large stands of Culcita dubia and nearby a large hole apparently made by an industrious wombat, and then the first of many Cyathea leichhardtiana, the Prickly (very) Tree Fern.

In a swampy section we found Gleichenia dicarpa, the tall Coral Fern with rachis branches covered with fringed scales and hairs and having pouched pinnule containing two spoangia, Blechnum camfieldii with dark petioles and basal pinnae reduced to auricles, and B. nudum. Our first sighting of Asplenium flabellifolium and Microsorium scandens occurred when we noticed these two ferns growing together in and over an old tree stump.

After marvelling at the root system on two small leaf fig trees, we found Macroglena caudata, the filmy fern with 20 cm long semi-weeping fronds growing on the trunk of Cyathea leichhardtiana. As our Leader pointed out, only on the lower part where the humidity was higher. Then just to the side of the track on top of and alongside large rocks we identified Pellaea falcata var. nana, Blechnum patersonii, Microsorium diversifolium which has leathery fronds and deciduous appressed scales on a fleshy pale green rhizome.

Shortly after this point we left the best part of the rainforest. We'd seen many species of trees and shrubs and several different climbers but had not noticed any Birds Nest or any fern epiphytes in the canopy. We climbed steadily passing Christella dentata, a few Cyathea australis, although C. leichhardtiana was still the dominant tree fern, then almost together Lastreopsis decomposita, Polystichum australiense, Adiantum hispidulum and Davallia pyxidata, and a little further on, Adiantum aethiopicum, a relatively low growing form that we were to observe several times later, and then the dainty Lindsaea microphylla.

On a large rock formation near the left of the track Grammitis sp. Was it G. meridionalis? The general view was yes, the scales on the rhizome were fawn coloured and the stipes were certainly less than 8 cm-- there were several patches of the plant. On the same rock outcrop there was Pellaea paradoxa and many orchids.

After lunch at the picnic area at the top of the mountain Robert and Andrew guided us on a short but steep in places, walk around the base of an almost sheer, high cliff face. Mt Katandra is in a high rainfall zone and receives about 1,600 mm per year and ferns proliferated on the southern side of the rock face. Ferns listed here were Todea barbara Hymenophyllum cupressiforme, its filmy lamina have toothed margins, Blechnum wattsi, it was thriving in the almost peaty soil, B. ambiguum in the rock crevices, but what were those ferns in intermediate positions? Superficially these two Blechnums are very similar. The following is a comparison of some of the main identification features:

Feature	<u>Blechnum ambiguum</u>	<u>Blechnum wattsi</u>
rhizome	short to medium creeping, scales fawn or brown	medium to long creeping dark scales with denticulate margins
fronds	pale green to 60 cm	dark green to 1 m
fertile/ sterile frond	pinnae only 1/3rd to 1/2 as wide	narrow with linear pinnae

Then, after sighting the almost weedy Histiopteris incisa, our eagle-eyed Leader spotted Tmesipteris truncata and Schizaea truncata hanging from a crevice low down in the cliff face and almost covered by Gleichenia rupestris. A short distance away Peter pointed to Lycopodium cernuum. The cliff face carried a most impressive array of both ferns and orchids and is well worth a visit on its own.

The descent was completed at a far more respectable pace, no more ferns to add to our list but a great number of terrestrial orchids among an interesting range of flora and some great views of the surrounding countryside. Perhaps just one distressing note, the sight of deeply eroded paths in many places obviously being accentuated by horses' hooves.

### Red Carpet

A warm welcome to the following new members:

Hugh & Nan Nicholson, The Channon; Cynthia Leech, Forestville; and Christine Smith, Kenthurst; all of New South Wales.



## FORTHCOMING EVENTS IN THE SYDNEY REGION

### From 21 to 24 September 1989, Spring in the Gardens

No regular get together this month, most of our Sydney members will be supporting SGAP's participation in 'Spring in the Gardens' at the Royal Botanic Gardens. If you are able to help on any of the days of the Show or on set-up day on 20 September and have not yet volunteered your services, please contact Moreen phone 528 4881.

### Week End 28-29 October 1989, Visit to Burrendong Arboretum

Our last visit to the Arboretum situated near Wellington, N.S.W., was two years ago. On that occasion we helped finish putting brush cover over the almost one acre extension to the shade area, and planted out ferns. This coming visit is planned as a working bee in conjunction with Sutherland Group. Some Sydney members have indicated an intention to make the trip to Burrendong by van, or alternatively making other private arrangements. A bus has been hired in a special arrangement by courtesy of Bert Bolton Tours, depart Sutherland 6 pm on the Friday, working bee Saturday and part of Sunday morning, then a guided tour of the 160 ha Arboretum and return after lunch Sunday. Accommodation in tents, comfortable air mattresses, all meals supplied and travel costs for an all inclusive \$80, Further details from Moreen phone 528 4881.

### Sunday 5 November 1989, Visit Adelina and Federal Falls

Note change of date for this trip to the Blue Mountains. Meet at Lawson near the Soldiers Memorial from 9.30 for 10 am sharp start. The intended walk actually passes four Falls and there are many ferns to be seen including Blechnum gregsonii. Late lunch at cars. Enquiries to Peter phone 625 8705.

### Saturday 9 December 1989, Christmas Meeting at Dural

For our last meeting of the year we plan a short business session followed by a relaxed Christmas get together at the home of Pat Kenyon and Ted Newman, 1057 Old Northern Road, Dural. Enter property from private road on right hand side exactly 2 km from Dural Post Office. The last street passed on the left is Wyoming Road. The turn to the private road from Old Northern Road is near a crest and on a bend and it is preferable to continue along Old Northern Road for a short distance past the entrance to the private road to a spot beneath power lines where there is ample room for turning. After entering the private road proceed approximately 650 m to the end. Arrive from 11 am. It is proposed that we pool our lunches. Please contact Pat at least a few days prior to the day to advise whether bringing meat, salad, sweets, etc. Pat may be contacted by phone on 651 2765.

### Visitors Most Welcome

All members and their families are very welcome to attend any of our outings or meetings. We especially look forward to greeting visitors to Sydney ( and we know that South East Queensland Group welcome the visitors to their gatherings too ). Do not hesitate to make contact if visiting; if in Sydney Moreen Woollett phone (02) 528 4881, or if in South East Queensland Irene Cullen phone (07) 341 4272.

FORTHCOMING EVENTS IN THE SOUTH EAST QUEENSLAND REGION

Week end 9-10 September 1989, Fern Study Display

The Queensland Region S.G.A.P. Flower Show, Redeemer College, at 745 Rochedale Road, Rochedale.

Sunday 22 October 1989 Excursion Currumbin

Visit to John Bolger's, Tomewin Road, Currumbin. If seasonal weather is dry, excursion will be cancelled. (Yes correct.....if dry, then cancelled. Could only happen to fernies!).

Sunday 26 November 1989, Meeting at Mt Glorious

9.30 am. Final meeting for year at Joyce & Alan Ward's home, Fahey Road, Mt Glorious. Bring lunch, members will conduct a fern sale. This way we hope to help new members to increase their collections.

Wanted to Buy (or Exchange)

Our member Rod Pattison would like to acquire the following ferns:

Asplenium flabellifolium (Large Form)

Asplenium parvum

Blechnum nudum "Furcans"

Sticherus flabellatus compactum.

Rod has written, "I am preparing a book for publication covering new Australian ferns, particularly varieties, forms and the like and would be interested in corresponding with other members who have ferns which could be included in the book."

Rod's address is: P.O. Box 567, Rochedale South, Queensland, 4123.

Potting Mixture

There are more formulae for potting mixes than there are varieties of ferns. A simple formulae is equal parts of good loamy top soil, coarse sand and peat moss. Aim for a free draining mixture which retains moisture. For small quantities it may be more convenient to use a good commercial potting mix but to be really satisfactory it is usually necessary to add peat moss to the mixture, approximately a further 10 to 15 per cent by volume.

Contributions More Than Wecomed!

Articles for publication in the Newsletter are always eagerly received. Please forward articles to the Secretary at the address shown on the front page of the Newsletter or phone Moreen on (02) 528 4881. Closing date for contributions to our next Newsletter is 15 November 1989.