. G. A. P. Fern Study Group DATE -ISSN 0811-5311 JUNE. 1986. "REGISTERED BY AUSTRALIA POST - PUBLICATION NUMBER NBH 3809." LEADER: Phyll. Brown, 254 Edgar Street, Condell Park. 2200 SECRETARY: Moreen Woollett, 3 Currawang Pice., Como West 2226 HON. TREASURER: Margaret Olde, 138 Fowler Road, Illawong. 2234. Sylvia Garlick, 3 Valleyview Cres., Engadine, 2233. SPORE BANK: Dear Members, I can't think of a better time to start writing the newsletter than when listening to and watching the beautiful steady rain. It is hoped the rain is spreading far and wide to areas where it is so badly needed. The usual group of members enjoyed the day at Lawson in the Blue Mountains and also when planting ferns in an area of the Joseph Banks garden at Kareela. Over the past year and a half we have become friends with Jan and Noel Laity and their daughter Anne, our chief ticket seller. They have been very active members. The Laitys are returning to their home state of Victoria where they have purchased a bakery business at Colac. We wish them the very best of luck in their new venture. I want to specially thank Jan and Noel for their help at the $E_{\mathbf{X}}$ hibition last year in the construction of the fern exhibition, selling tickets and claening up afterwards. Jan has indicated she hopes to to be back for this years show. We are making a very big effort this year with three prizes in the raffle and all proceeds will go to Burrnedong Arboretum. The first prize will be a 6ft x 6ft shade house valued at \$425-00. Second prize will be a large Platycerium superbum and the third prize a selection of native plants. Tickets will be 50cents each. We won't be sending out books of tickets. Members wanting tickets should send the money plus a self addressed envelope to Moreen Woollett or Phyll Brown. It is requested of members make bulk purchases for groups to supply a full list of the names. The raffle will be drawn at 4.00pm on Sunday 21st, September 1986. The winning prizes will be delivered within the Sydney Metropolitan area. Winners outside this area will need to make their own arrangements for delivery. John and Addie Lee have moved to Unit 12, 5 Hart Street, Lane Cove, 2066 and are looking forward to visits from members of the Group. Phyll Brown. VACANCY - After 22 years as Leader of the Fern Study Group 1 have decided to step down and invite another member to take a turn as Leader. Assisted by a very capable committee the Leader arranges meetings and outings and publishes the newsletter four times a year. Applications for the position should be forwarded Moreen Woollett or Phyll Brown.

Wallangaraugh Forest Drive - Rainforest.

The forest drive starts at the junction of Ireland Timms Road and the Princes Highway, 29 kilometres south of Eden (New South Wales south coast).

The good gravel road is well signposted. At the beginning the drive passes through a fine stand of Silvertop Ash which has recovered from the 1952 fires. Further on a circular trail leads for 2 kilometres through areas which were logged in 1970 and has successfully regenerated.

A patch of better quality forest in a higher rainfall area is next encountered. This contains Messmate, Monkey Gum, White and Yellow Stringybark.

there are impressive views of the Mallacoota Lakes National Park the towns of Mallacoota and Gypsy Point and the Pacific Ocean

After travelling for 26 kilometres Mallacoota Lookout is reached. The lookout is 300 metres above sea level and is located 1 kilometres north of the N. S. W. - Victoria border. From here

Twenty-nine kilometres from the Princes Highway, and located on Maxwells Road is a picnic area which bears the sign "Rainforest 1200 metres". This is the starting point of a walk down into a creek which contains a very large area of cool rain-

The walking path is signposted and drops steeply from the picnic area through colonies of Blechnum cartilagineum, B. nudum Doodia media, D. aspera, Culcita dubia and Pterideum esculentum.

Along the creek bank, close to the water are stands of Blechnum patersonii, Sticherus tener, isolated plants of Allantodea australe, Dennstaedtia davallioides and Histiopteris incisa. Treeferns along the creek were Cyathea australis, C. leichhardtiana and Dicksonia antartica.

Climbing over wet rocks and up the trunks of treeferns were masses of Microscrum scandens, Arthropteris tenella and a few clumps of Pyrrosia rupestris. The treefern trunks were also covered with filmy ferns and a few plants of Tmesipteris species

covered with filmy ferns and a few plants of Tmesipteris species
On the higher banks but still under the canopy of rain
forest trees were Pteris umbrosa, P. tremula, Lastreopsis
accuminata and L. microsora.

This creek area is a very pleasant spot and is an extreme contrast to the surrounding dry hot forest.

The most common tree of the cool rainforest is the Lilly-pilly. Other species found along the streams are Blackwood and Pinkwood.

The drive which continues along Maxwells Road passes through logged areas which alternate with unlogged areas. This pattern of logging is designed to provide a refuge for wildlife reduce soil disturbance and preserve the diversity, and beauty of the forest.

The road passes a stand of Silvertop Ash which has regenerated after the 1939 fires.

The end of the wallangaraugh Forest Drive is at the Scrubby Creek picnic area on the Princes Highway. The round trip from Eden is approximately 120 kilometres.

The names of the trees, information about the regeneration and logging of the forest was obtained from a brochure which is available from the Forestry Commission of New South Wales.

CORRECTION

On page 7 of the March 1986 newsletter in the article "Visit to Mt Wilson" there is an error. The fern genus referred to as Lastreopteris is incorrect, this should be Lastreopsis.

Western Australia - Kings Park and Botanic Gardens.

The following is a letter received from Eleanor Bennett a member from Western Australia.

" I enjoy receiving the Fern Study Group Newsletter and am fascinated and I guess envious of the many interesting excursions the Eastern States can go on.

However, I work as a Display Botanist at Kings Park and Botanic Gardens and thought fern enthusiasts in Western Australia may be interested to know that late last year the Display Glasshouses were opened to the public. One of the glass houses is devoted to ferns, including several species from the south west and Kimberley Region of West Australia. As West Australia has a very small fern flora many of the ferns are from Eastern Australia together with many commonly cultivated cultivars.

In addition to ferns there is a glass house devoted to Kimberley plants, another to Eremaea or dry area plants, and another to carnivorous plants, Pilkara Region, and halophytes.

The glasshouses are arranged around a central courtyard

which has a collection of cycads, swamp and water plants.

The glasshouses are opened every day except Tuesdays
from 10.00am to 4.00pm and I recommend them to the public. The gardens surrounding the area are landscaped and includes collections of Lechenaultia species, Eremophila species and Proteaceae.

If you require a fuller article I am only too happy to write one but thought you may like to make this note in the newsletter"

Thank you Eleanor for your letter. We will be looking forward to further information from you. Members from other states visiting the West should call and see Kings Park and the Botanic Gardens.

Programme.

Sunday, 15th June, 1986.

A visit to Scouts Camp Mt. Keira. Travelling south from Sydney on either the Southern Freeway or the Princes Highway take the Mount Ousley Road. Follow this road for about 9 kilometres, turn left into Mount Keira road, travel for about 4 kilometres. The turnoff to the Scouts Scout is a very sharp turn to the right onto a narrow gravel road. It is about 1 kilometre past the Queen Elizabeth Drive.

Please make your own catering arrangements. The meeting time has been set at 10.00am.

Sunday, 27th July, 1986.

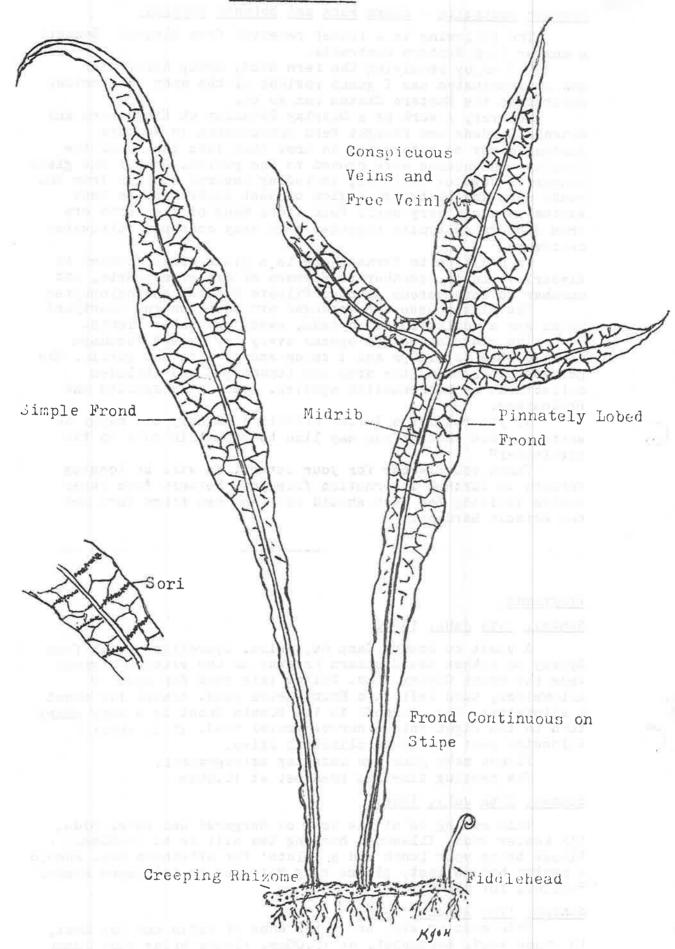
This outing is at the home of Margaret and Peter Olde, 138 Fowler Road, Illawong. Morning tea will be at 10.00am. Please bring your lunch and a 'plate' for afternoon tea. Should a member become lost, please ring Margaret on telephone number 5432242, for directions.

Sunday, 17th August, 1986.

This meeting will be at the home of Marie and Kay Best, 15 Orana Koad, Kenthurst, at 10.00am. Please bring your lunch and a 'plate' for afternoon tea.

For further information regarding these outings please contact Phyllis Brown telephone number (02) 7056413.

COLYSIS AMPLA



COLYSIS AMPLA.

A most attractive, but very difficult species to establish. Worldwide there are about thirty species found ranging from Africa to New Guinea and from Japan through Malaysia to Australia. Two species are found in Australia. Habitat

Colysis ampla is found in dense patches of boulders and trees in the tropical rainforest of North Eastern Queensland, from the coast to an altitude of 1500 metres.

Description The creeping rhizome is up to 1cm thick and covered in numerous brown scales approximately 2-3mm long. A distinguishing feature is the variable dark green fronds that may be simple or pinnately lobed. Very few fronds being of the same shape. The frond continues nearly to the end of the stipe giving the appearance of a narrow wing. Fronds are thin in texture with conspicuous veins and free veinlets. Sori are arranged in a slightly wavy, single line from the midrib to the margin of the leaf and midway between adjacent midveins. Sori are not obviously seen due to the venation markings and must be looked for! Close examination, for the purpose of this description, has revealed spore on the writer's plant that was purchased as a forest collected plant less than twelve months ago.

Growing Conditions
The writer's specimen is grown in a cold glasshouse in the Perth metropolitan area and success has been obtained with a medium light and high humidity. A coarse open potting mix is used. A general purpose fern fertilizer is used at half

strength and applied 3-4 monthly.

A speciman is also growing well in a shadehouse in a Sydney suburb.

Confusing Species

Microsorum scandens, Colysis sayeri. References: Jones, D.L. & Clemesha, S.C. Australian Ferns and Fern Allies, 1981 - Holtuum, R.E. Flora of Malaya, Volume 11 Ferns, 1968. Written by G.J. & K.J. O'Hara for W.A. Fern Society.

Adiantum whitei

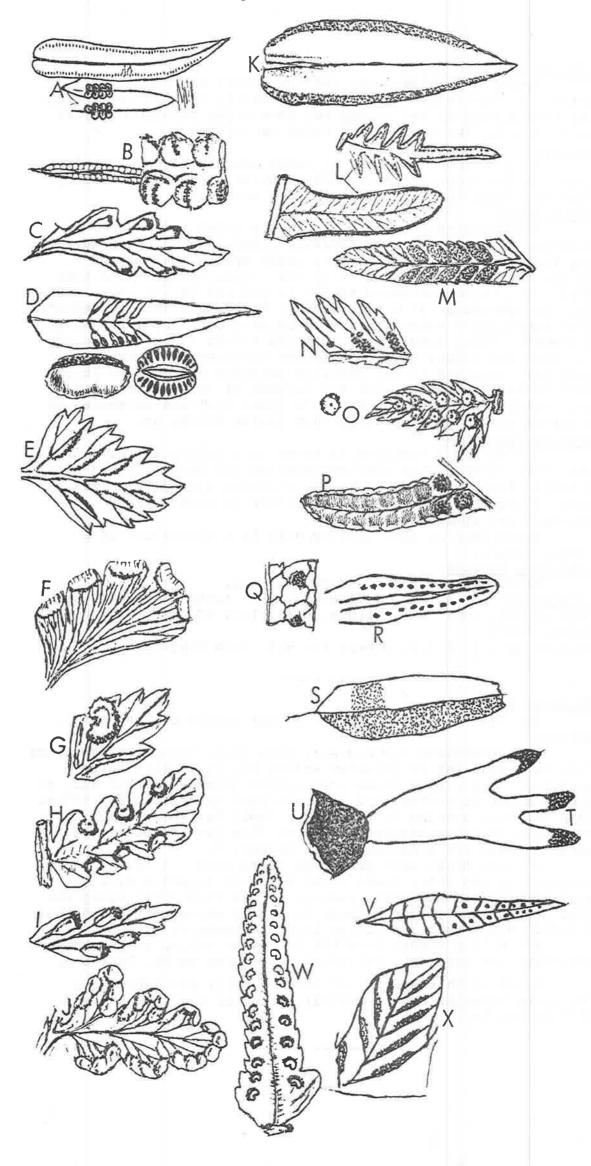
Ray Best a member from the Sydney suburb of Kenthust

writes;
"I understand the S.G.A.P. Fern Study Group in Queensland require a specimen of Adiantum whitei Bailey. I have quite a number of plants here grown from spores provided by Rod Hill or Victoria. He harvested them in South East Queensland and titled them Adiantum species S. E. Qld. In their baby stage they resembled Adiantum diaphanum but now they have developed to maturity they are Adiantum whitei Bailey. "

Phyllis Brown also grew some ferns from the spore supplied by Rod Hill. These ferns labelled Adiantum S.E. Qld were distributed to Sydney members of the Fern Study Group and also sold to the public through the ferns sales section at the S.G.A.P. Wildflower Exhibition held at Peakhurst in 1984.

Rod Hill a member from the Melbourne suburb of Frankston indicated the spore was collected from ferns on Mt. Coot-tha.

Spore of this species of fern is still available from the spore banks of the Fern Study Group and the Fern Society of Victoria Inc.



Key to Selection of Spore Patterns on Opposite Page.

- A. Angiopteris evecta
 B. Ophioglossum
 C. Davallia
 D. Marattia
 M. Todea barbara
 N. Leptopteris
 O. Polystichum
 P. Cyathea

- E. Asplenium Q. Microsorum
- G. Athyrium
- H. Hypolepis
- I. Davallia
- J. Cheilanthes K. Pellaea
- L. Pteris

- F. Adiantum R. Pyrrosia
 - S. Acrostichum
 - T. Platycerium hillii

 - U. Platycerium superbum
 V. Crypsinus simplicissimus
 W. Nephrolepis
 X. Diplazium

Blue Mountains - Outing.

On Sunday, 16th March, 1986, 14 members of the Fern Study Group assembled at the Memorial in Honour Avenue, Lawson. The party then travelled along the Avenue into Broad Street and into the Cataract Falls picnic area. This was the starting point for the days walk.

The well used walking path descended through massive colonies of Gleichenia microphylla and G. dicarpa to a bridge across the creek. On the way down, a lookout constructed to view the gulley gorge was of little due to the regrowth of the trees.

From the creek crossing the path ascended away from the actual watercourse and passed through very dry scrubby country before descending to the gully and the Cataract Falls. Along

the way there were some plants of Lindsaea microphylla.

At Cataract Falls beside the running stream were Blechnum minus, B. nudum, B. ambiguum and B. wattsii whilst under a very wet overhang were numerous B. patersonii and also Asplenium flabellifolium. Downstream could be seen tall Cyathea australis Culcita dubia and lots of Todea barbara and Sticherus lobatus.

The next stop was Federal Falls, where there is a picnic spot complete with tables and seats. The water of the creek tumbled over a very high cliff face on which was growing a good colony of Leptopteris frazerii, in the wet soggy conditions. Blechnum patersonii was present on the wet bank. On the wet slippery rocks were plants of Grammatis species. Other ferns growing here were Blechnum wattsii, B. cartiligineum, Todea barbara, Culcita dubia, Lindsaea microphylla, Sticherus lobatus, Lastreopsis decomposita and Cyathea australis.

The path leading to Federal Falls was retraced to where a branch led to Junction Falls. The falls were apparently so named as this is the junction of two creeks, with a waterfall on each of the creeks, one of which is Lawson Creek. this would be a spectactular sight with both streams in full flood. Similiar ferns were found here as at the other falls.

During this walk there was a lot of discussion relating to the identification of Blechnum wattsii and B. ambiguum which grew in large colonies. The main means of identification was the variation of the width of the fertile fronds with the sterile fronds. Blechnum ferns were closely scrutinised in the search for Blechnum gregsoni which is endemic to the Blue Mountains but is evidently rarely located.

The path out of the gorge is rather steep and twisted and turned on the way to the top. Some of the older members needed a number of rest stops on the way to the top.

It was not until the turnoff to Adelina Falls was passed the top almost reached that a few plants of Blechnum gregsoni were found. These were found growing in a wet soak

alongside the path. There were no other ferns in close vicinity the identification was made in the field (luckily there were fertile fronds present). The fertile fronds were about the same width as the sterile ones, whereas with Blechnum ambiguum the fertile fronds were about 1/3 the width of the sterile ones and Blechnum wattsii the fertile fronds were very narrow.

The walk took longer than expected so after a late lunch, the regular meeting and fern raffle it was time for members to start on the drive down the mountain and home.

Red Carpet.

We wish to extend a warm welcome to the following new members;

Queensland

Mrs. H. Andrews, Lot 1, old North Road, Bray Park. 4500 Victoria

Mrs. D. Beattie, Fernleigh, P. O. Box 15, Wandin North. 3139. Mr. T. Giddings, 27 Kardina St., Belmont, Geelong. 3216

New South Wales.

Mrs. L. Boulter, 3 Samuel Street, St. Clair. 2759. Mr. & Mrs. M. Livermore, 4 Attunga St., Baulkam Hills. 2153.

Joseph Banks Native Garden - Bates Drive, Kareela.

On 27th. April, 1968 a working party of fourteen members, armed with wheel barrows, picks, mattocks, rakes, spades and native ferns, went to work on a selected part of the Joseph Banks Native Garden.

The small section of the garden was made available by the Sutherland Council for development by members of the Fern Study Group, with plantings of suitable native ferns.

It was decided the most effective use of the eighty ferns available would be group plantings of the eight species. The ferns selected for planting grow naturally in the ground and will withstand some direct sun and dry conditions.

Some of the existing ferns which were not native were removed, Treeferns relocated and some Platyceriums attached to trees within the allocated area.

The garden was then terraced in a number of places, boulders and small logs placed in strategic positions, drains provided and the whole area mulched and watered.

The Native Garden is a place well worth visiting. The paths are well made and there are a lot of spaces set aside for picnics and bar-b-ques. The Sutherland Group of the Society for Growing Australian Plants has undertaken the planting and maintenance of large sections of the garden.

The Fern Study Group will hold another working bee at a later date, but members with time available could visit the area and carry out any maintenance to the fern garden.

Spore Bank

Fern spore will be supplied free of charge from the spore bank providing a <u>self</u> addressed stamped envelope is forwarded with the list of requirements.

MUP

FERNS and ALLIED PLANTS OF VICTORIA, TASMANIA and SOUTH AUSTRALIA

with distribution maps for the Victorian species.

BETTY D. DUNCAN

and

GOLDA ISAAC

This handsome book is a reliable field guide for naturalists, an authoritative text for botanists, and an inspiration for professional and amateur gardeners. Illustrated with detailed drawings and Bruce Fuhrer's excellent photographs, the text is comprehensive, the format simple and easy to follow. Of particular value are the maps which show distribution within Victoria, the illustrated key, and the minor keys for specific identification. A chapter by C. J. Goudey and R. L. Hill on propagation and cultivation gives invaluable practical guidance.

CONTENTS: Foreword; Abbreviations; Preface; Acknowledgements; 1 Introduction; 2 Identification; 3 Fork-ferns; 4 Fern allies; 5 Adder's tongue and Moonworts; 6 Combferns; 7 Coralferns and Fan-ferns; 8 Filmy ferns; 9 Tree-ferns; 10 Bracken and other ground ferns; 11 Screw fern and others; 12 The Brakes; 13 Maidenhair and others; 14 Finger ferns; 15 Kangaroo fern and others; 16 Hare's foot; 17 Spleenworts; 18 Lady ferns and others; 19 Shield ferns; 20 Rasp ferns and Water ferns; 21 Water plants; 22 Propagation and cultivation; Bibliography; Glossary; Authors of plant names; Index. 248 x 181 mm. cloth, 272 pp. 8 pp. colour plates; 252 photographs; 122 line drawings; 104 distribution maps.

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Meeting Sunday 18th May, 1986.

The May meeting was held at the home of Phyllis and Viv Brown. The small number present (12) was due to a week of wet and overcast conditions, with some rain falling on the Sunday morning.

After the meeting members strolled through the shade area looking at the large collection of ferns.

Members of the group discussed the means of identification in the field, of three genera of ferns, which are common on

most of the walks and are visually similiar. Lastreopsis - The ridges of the upper surface of the rhachis is continuous with the thickened margin of the pinna. This was clearly evident when a frond of Lastreopsis decomposita was examined under the microscope and with a hand lens. One species where this is not clearly evident is Lastreopsis wallerii. Polystichum - The ridges on the upper surface are never continuous with the margin of the pinna. Two species produce proliferous buds on the tips of fronds, the other two have erect or short creeping rhizomes.

Arachniodes - The ridges on the upper surface of the rhachis are never continuous with the pinna margin, there are no proliferous buds and the rhizomes are long creeping.

These genera are easily distinguishable when growing together, but problems have existed when growing in separate locations.

Phyll Brown.

(Mrs) Phyllis Brown,

Leader,

Fern Study Group.

S.G.A.P.

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