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#### PRESIDENT'S MESSAGE:

### Dear Member,

Rod Hill was Guest Speaker at the General Meeting, October 11, 1984. Rod's address and colour slides had been thoughtfully prepared and very well presented. A large audience was highly appreciative of the feature.

The title of Rod's talk was "Ferns of the Blue Mountains of New South Wales". In this, Rod took us into areas which many of us did not know existed. Streams, encumbent waterfalls, rainforests, gorges and of course an abundant association of fern communities were well described.

Rod explained the identification of several species of ferns by use of his photographs. Specimens of three different species with fertile and barren fronds of each laid side by side and then photographed. These photographs clearly showed the structural differences.

This was an absorbing, interesting and entertaining presentation. Thank you Rod. Also at the October meeting we welcomed two new Librarians - Sue Hitchen and David Radford, a new Property Steward - John Oliver and an assistant for Special Effort organization - Joy Horman.

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Next Meeting: Chris Goudey will be Guest Speaker at the November General Meeting. Chris will speak on "Ferns of Lord Howe Island" and will screen colour slides to illustrate the nature and expectation of the place for Members who will attend the Fern Society tour in May, 1985. It will also serve to show those who are unable to tour, just what they will miss.

Date: 8th November, 1984 Place: Burnley Horticultural College Hall, Swan Street, Burnley Time: 8.00 p.m.

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Continued on next page



CHRIS GOUDEY WILL BE THE GUEST SPEAKER AT THE NOVEMBER GENERAL MEETING - 8TH NOVEMBER, AT 8 P.M., BURNLEY HORTICULTURAL COLLEGE HALL. HIS SUBJECT WILL BE "FERNS OF LORD HOWE ISLAND"

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# The Winners:

Lindsay Brown Mac Stidston Gay Stagoll Kath Brown and Betty Duncan

were the winners of Special Effort prizes at the October meeting. Five very well grown ferns were the trophies. Congratulations Members.

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### Royal Agricultural Show - 1984

The Fern Society was once again a successful entrant and contributor to the Melbourne Royal Show in September. The Society's exhibit won second prize in its section and was beautifully presented. It was supplied and arranged by Bill Taylor and Albert Jenkins to whom we owe sincerest thanks.

Thank you also to all those Members who supervised the exhibit, answered queries from Show visitors and acted as sales people for the 1984 Fern Journal. The exhibit put the public spotlight squarely on the Fern Society. It was an effective public relations exercise.

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# Christmas Meeting Reminder: Our organisers need:

- (a) Donations of items suitable for a Christmas Hamper.
- (b) A plate of sandwiches or cakes for the supper (Ladies and Gentlemen)
- (c) One or two of your potted ferns for hall decoration.

Any help you can give will be appreciated. A good response will make this a totally enjoyable function. Country and interstate Members, please organise yourselves to be in Melbourne on that night. It would be great to meet you. Thursday, December 12 is the date to mark up.

> With kindest regards, DOUG THOMAS

## **OBITUARY:**

Mr. Les Trevillyan, a foundation Member of this Society, has died.

The total Membership joins to offer sincere sympathy to Mrs. Win Trevillyan and her family at this time.

## FERNS OF THE BLUE MOUNTAINS Speaker: ROD HILL

To our early pioneers, the Blue Mountains, rising 1000m from the coastal plains about 65km west of Sydney, presented an impenetrable barrier to settlement for 25 years.

In 1813, Blaxland, Lawson and Wentworth conquered the mountains and within two years a road had been constructed, opening up rich grazing land in the Bathurst area. The Great Western Highway follows essentially the same route over the mountains, passing along the top of a long sandstone plateau. Most of the townships in the Blue Mountains - Katoomba and Blackheath being probably the best known straddle the highway and within a few kilometres of the highway on either side, sheer cliffs drop 300m to the valleys below.

The infertile sandy soils of the plateau tops support a vast wealth of native wildflowers, including banksias, waratahs, trigger plants, flannel flowers, mountain devils (with seed pods resembling a dog's head with long pointed horns) and numerous ground orchids, to name a few. As well as wildflowers, a few interesting ferns are also to be seen on the tops, including the screw fern, Lindsaea linearis and its close relative, the very dainty and delicate L. microphylla. Also fairly common is the Bushy Clubmoss, related to the epiphytic tassel ferns, Lycopodium deuterodensum, forming dense groves of miniature "fir trees" in places.

Because of their height, the Blue Mountains have quite a high rainfall, and the run-off from the plateau cascades over the edge to form many spectacular waterfalls. The constant flow of water has eroded the soft sandstone edges of the plateau into fascinating rocky formations and has carved sheltered gullies, deep canyons and immense valleys which support patches of sub-tropical rainforest, and of course, an abundance of ferns.

In the lower valleys, <u>Microsorium scandens</u> and <u>Pyrrosia rupestris</u> cover rocks and trees. <u>Lastreopsis microsora</u> forms extensive patches in the deep mulch on the forest floor, interspersed with frequent clumps of <u>Polystichum australiense</u>. This fern is somewhat similar in general appearance to our own <u>P. proliferum</u>, also propagating by bulbils, but with a rather sparse crown and very pointed tips on the pinnules. <u>Sticherus lobatus</u> and <u>S. flabellatus</u> are both common, especially on moist cliff faces where more light is available.

On some of the higher slopes, you may encounter impressive stands of <u>Cyathea australis</u>, some reaching astounding heights, and carpets of <u>Doodia aspera</u>, their bright red new fronds making an unforgettable sight. Extensive clumps of <u>Todea barbara</u> and numerous species of <u>Blechnum line many of the creek banks</u>.

The Blue Mountains are a hiker's paradise, and the whole area is a maze of well used tracks, many of them dating back to the 1890s. The variety of hikes is endless, but wherever you hike in the mountains you will encounter an abundance of ferns in a wide variety of habitats. Many of the tracks in the Katoomba-Blackheath area are set out in an excellent booklet "How to See the Blue Mountains" by Jim Smith. This is available in the Mountains and is a must for anyone intending to spend any time in the area.

Three hikes that are, in my mind, among the most spectacular in the mountains are described briefly below:

#### National Pass:

From the "Conservation Hut" at the Valley of the Waters Reserve (near Wentworth Falls) a track descends to the beautiful Lodard Falls set amidst lush ferns. Below the falls, the National Pass track takes you several kilometres along a ledge in the middle of a sheer cliff face to the middle of Wentworth Falls. The track then climbs to the cliff tops up a series of steep steps carved out of the sheer rock face. From the top, there are numerous tracks leading to spectacular lookouts and back to the starting point. The complete circuit takes a full day but the waterfalls at either end of the National Pass could be investigated separately for those interested in shorter hikes.

# Grand Canyon

From the Evans Lookout Road near Blackheath, a track descends through Neate's Glen, a particularly lush and ferny gully, into the main canyon. The track in the canyon may wind along narrow ledges high above the creek where the crevice is only a few metres wide or descend right down to the creek banks in places where the canyon is wider. Ferns abound throughout, especially the beautiful Crepe Fern, Leptopteris fraseri. This delicate fern grows only in the wettest and most sheltered gullies and resembles the filmy ferns in the texture of its fronds (small plants being easily mistaken for <u>Hymenophyllum</u> <u>australe</u>). However, this fern grows much larger than the filmy ferns, with fronds commonly reaching two metres and occasional plants forming metre high trunks. The track eventually climbs steeply to Evan's Lookout.

Again this is a full day's walk, but Neate's Glen would make an interesting shorter walk on its own.

#### Wall's Ledge:

This area can be investigated as a full day hike from Blackheath or as a series of shorter hikes from the end of Centennial Glen Road.

Some of the features worth visiting are the cliff face ledges, Wall's Ledge and Collier's Causeway, and the ferny gullies and waterfalls of Porter's Pass, The Grotto and Centennial Glen.

Throughout this area, fan-ferns and coral ferns abound, with the three mainland <u>Gleichenias</u> growing side by side. <u>Blechnum ambiguum</u>, <u>B. gregsonii</u> and <u>B. wattsii</u> may also be compared and contrasted here. All have similar barren growth but can be readily distinguished by examining fertile fronds. In <u>B. gregsonii</u>, fertile pinnae are similar to the barren but with sori in thin lines on either side of the midrib. <u>B. wattsii</u> has fertile pinnae reduced completely to the sori and <u>B. ambiguum</u> has fertile pinnae partly reduced but still has some leaf blade beyond the sori.

The observant hunter may also find the tiny <u>Schizaea rupestris</u> growing like clumps of grass on most rocks, and the slender clubmoss, <u>Lycopodium laterale</u> on moist cliff faces.

I have mentioned only a small fraction of the places to see and the ferns to be encountered in the Blue Mountains in the hope of tempting others to seek out the delights of this region for themselves.

# RAIN FORESTS AND FERN GULLIES (Continued from October Newsletter)

I propose to wind up the notes on this series within the next couple of months. To expedite this, I will present only brief notes on the places of interest yet to be covered. Please be assured that the change to brevity in no way detracts from the beauty and fern potential of any of these places.

## Queensland

## 1. Kondalilla National Park:

Located between Montville and Flaxton, about fifteen kilometres south west of Nambour. The Park is part of the beautiful Blackall Range with Kondalilla Falls, sixty metres (200 feet) sheer drop of water from the Obi Creek being a spectacular attraction. There are about five kilometres of walking tracks through cool rainforest and sight seeing vantage points.

The fern communities are abundant and the species varied and interesting. Take care at the top of the falls; it could get slippery in certain conditions.

## 2. Cunningham's Gap National Park:

On the Cunningham Highway, fifty kilometres east of Warwick, this Park lies in the Great Dividing Range. It is highlighted by a saddle or pass between Mount Cordeaux on one side and Mount Mitchell on the other.

There are good views of the surrounding countryside whilst in the rain forest the ferns, epiphytic orchids, native birds and rainforest tress are beautifully abundant. A total of twenty three kilometres of walking tracks are beautifully abundant. A total of twenty kilometres of walking tracks are provided. Camping and caravan park is on the western side of the Park. Other accommodation at Warwick and Stanthorpe.

## 3. Ravensbourne National Park:

Forty-seven kilometres north east of Toowoomba. Graded walks through rainforest up to 4.2 kilometres are constructed and features include an extensive fern and palm population. Sightseeing is also rewarding.

It is also well worth the effort to take a scenic drive from the Park to the township of Esk. Excellent specimens of forest trees, palms and tree ferns will be seen along the way. Accommodation at Crows Nest or Toowoomba.

## 4. Mount Tamborine Parks:

Located in the McPherson Range forty seven kilometres west of Oxenford. The places of interest are represented by several small parks: Cedar Creek Falls (Drynaria Rigidulum (oak leaf fern) is established here on rocks), Joalah Falls (Rainforest and walks which follow the creek), Macrozamia Grove and Palm Grove (various palms). Each has excellent facilities for picnicking. Accommodation at Tamborine or Eagle Heights.

5. <u>Natural Arch National Park</u> is a small but interesting Park quite near to the Lamington National Park. Its main attractions are a natural rock bridge and Cave Creek Falls. A cave underneath the bridge is home for a glow worm community.

The area is rainforest with many fern species flourishing in the region of the falls. Of special interest is the presence of the toughest fern of them all; Nephrolepis Cordifolia. In the falls area, it will be seen growing beautifully on the moist rock faces of the gorge. Because of this environment, frond size is small compared to that of the species grown in our sheltered collections.

Picnic facilities only at this Park. Approach through Murwillumbah in New South Wales to Chillingham then proceed to the Park. In Queensland, drive south from Oxenford to Advancetown then down the Numinbah Valley until the Park is reached.

### OTWAYS TOUR

The details have now been finalised for the Fern Society tour to the Otway Ranges. The coach will depart from the Gas & Fuel Corporation, Flinders Street, Melbourne at 8.00 a.m. on November 17th and return on the 18th. All meals will be provided except the evening meal which we can buy at Apollo Bay. Our accommodation will be at the Bay Pine Motel on the Saturday night.

We will visit: Erskin Falls, the Grey River Scenic Reserve, Turtons Track, Mait's Rest, Melba Gully; Triplet Falls and two large Fern Nurseries, as well as one of our country members, Owen McColl (no need for sleeping bags).

There are still a few seats left, if you are interested see me at the November meeting.

# ALL MONEY MUST BE PAID AT THE NOVEMBER MEETING

CHRIS GOUDEY

#### LORD HOWE ISLAND TOUR

At the next meeting I will be giving a talk on Ferns of Lord Howe Island.

Everyone who has booked for this tour is invited to attend a short meeting in one of the classrooms commencing at 7.00 p.m. on the night of the November meeting. I can give you more details on the tour and answer any queries that you may have.

#### CHRIS GOUDEY

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SPORE LIST - NOVEMBER :

Spore samples may be purchased at monthly meetings, or by sending a list of your requirements with 20 cents for each species requested plus 50 cents for packaging and postage to Mr. W. Bright, 520 Burke Road, Camberwell 3124.

A cheque made payable to "The Fern Society of Victoria" is the preferred method of payment for spore. Postage stamps in 30, 10 and 5 cent denominations may also be forwarded for small orders. Please allow two to three weeks for postage.

Many species are still available from the list published in the newsletter, but if ordering from this list, please include a supplementary list in case some species are depleted.

Instructions on propagation from spore are also available for an extra 10 cents.

NOVEMBER SPOKE LIST

(\*) INDICATES SPECIES IN SHORT SUPPLY (N) INDICATES NATIVE AUSTRALIAN SPECIES ADIANTUM AETHIOPICUM(5-04) COMMON MAIDENHAIR N CAPILLUS-VENERIS(12-83) VENUS-HAIR FERN N CAUDATUM(3-84) x TRAILING MAIDENHAIR CONCINNUM:EDWINI1:(11 B3) \* FORMOSUM(3-84) BLACK STEM N ROUGH MAIDENHALR N # HTSPIDULUM(3-84) PATENS(10-83) PERUVIANUM(3-84) SILVER DOLLAR RADDIANUM(3-83) DELTA MAIDENHAIR RADDIANUM :CRESTED MAJUS: (6-84) RADDIANUM :ELECANS: (3-83) RADDIANUM :FRITZ LUTH: (6-84) RADDIANUM : GRACILLIMUh: (3-84) RADDIANUM :LEGRAND MORGAN: (12-83) RADDIANUM :MICROPINNULUM: (3-84) RADDIANUM : OCEAN WAVL: (3-84) RADDIANUM :OLD LACE: (2-84) RADDIANUM :PACIFIC MAID: (2-84) ¥ RADDIANUM :VICTORIA/S ELEGANS: (3-84) ADIANUMTENERUM :GLORIOSUM GREEN(3-84) × ADIANTUM TENERUM :SLEEPING BEAUTY:(1-84) TENERUM :PINK SLEEPING BEAUTY:(4-84) \* TRAPEZIFORME : BRASILIENSE: (3-84) DIAMOND HAIDENHAIR \* N SP:(S:E:QLD)(3-84) AMPHINEURON OPULENTUM(2-04) N ANENIA MEXICANA(12-83) FLOWERING HOLLY-FERN PHYLLITIDIS(?) N ARACHNIODES ARISTATA(3-83) PRICKLY SHIELD-FERN ARISTATA VARIEGATA(2-84) . SIMPLICIOR (7) × ASPLENIUM BULBIFERUM(NATIVE)(3-84) MOTHER SPLEENWORT NX BULBIFERUM (NZ) (3-84) MOTHER SPLEENWORT ¥ THREE IN ONE FERN DIMORPHUN(10-83) FLABELLIFOLIUM(3-84) N× NECKLACE FERN N\* TRICHOMANES(3-83) COMMON SPLEENWORT ATHYMUM FILIX-FEMINA(2-84) ATHYRIUM NIPONICUM :PICTUM: (3-84) JAPANESE PAINTED FERN N× BLECHNUM AMBIGUUM(1-83) CARTILAGINEUM(12-83) GRISTLE FERN N CHAMBERSII(2-84) LANCE WATER-FERN N DISCOLOR(4-84) CROWN FERN N FLUVIATILE(2-84) RAY WATER-FERN GIBBUM(4-84) DWARF TREE-FERN H GREGSONII(1-83) MINUS(2-84) SOFT WATER-FERN N NUDUN(1-84) FISHBONE WATER-FERN N NUDUM :FURCANS: (6-83) N OCCIDENTALE(3-84) HANMOCK FERN . STRAP WATER-FERN N× PATERSONII(5-84) ALPINE WATER-FERN PENNA-MARINA(3-83) N\* \* REVOLUTUM(?) × TABULARE(?) VULCANICUM(4-84) WEDGE WATER-FERN N× HARD WATER-FERN N WATTSI1(2-84) CHEILANTHES TENUIFOLIA (3-83) N ROCK FERN CHRISTELLA DENTATA(3-83) N BINUNG PARASITICA(1-84) N COLYSIS SAYER1(2-84) N× CONIOGRAMME INTERNEDIA(?) CONIDGRAMME FRAXINEA:MT SARAWAHET(?) \* CTENITIS SLOANEI (3-84) FLORIDA TREE FERN \* N CULCITA DUBIA(3-83) COMMON GROUND-FERN CYATHEA AUSTRALIS(1-84) ROUGH TREE-FERN N N\* BAILEYANA(8-83) WIG TREE-FERN BROWNII(1-84) N COOPERI(1-84) COIN-SPOT TREE-FERN N COOPERI:BLACK SCALES: (2-84) COIN-SPOT TREE-FERN CUNNINGHAMII(2-84) SLENDER TREE-FERN N DEALBATA(1-84) SILVER TREE-FERN PRICKLY TREE-FERN N LEICHHARDTIANA(2-84) N HARCESCENS (CUNNINGHAMII-AUSTRALIS MIX) (3-84) BLACK TREE-FERN MEDULLARIS(3-84)

8

. SP:(LARGE/MALAYSIA)(10-82) SP: (NEW GUINEA) (2-84) CYCLOSORUS TRUNCATUS(3-84) CYRTOMIUM FALCATUR(3 64) CYSTOPTERIS FILIX-FRAGILIS(2-83) HR DAVALLIA PYXIDATA(2.04) N SOLIDA :RUFFLED ORIGINATCO 04) × DENNSTAEDTIA DAVALLIOIDES(3-84) N# DICKSONIA ANTARCTICA(2-84) N FIBROSA(11-03) LANATA(10-83) SQUARROSA(3-84) N YOUNGIAE(S:QLD FORM)(12-83) DIPLAZIUM ASSIMILE(10-83) N N AUSTRALE(2-84) N# DOODIA ASPERA(3-84) N× CAUDATA(2-83) MAXIMA(5-84) N N HEDIA(3-84) DORYOPTERIS PEDATA(10-83) DRYOPTERIS ATRATA(1-84) ERYTHROSORA(4-84) GYMNOSORUS(3-83) SP:(FILIX-MAS)(3-84) SP:(MIXED)(3-83) SP(12-83) × SP-2(2-84) HUMATA GRIFFITHIANA(5-84) HYPOLEPIS PUNCTATA(3-84) N LASTREOPSIS ACUMINATA(2-84) N N HISPIDA(4-84) N# HICROSORA(4-84) N MUNITA(8-83) NH SHITHIANA(2-83) SP:(3 DIFFERENT SPECIES)(9-83) N SP:(6-UNKNOWN SPECIES)(9-83) N LUNATHYRIUM JAPONICUM(5-84) N LYGODIUM MICROPHYLLUM(5-84) MARATTIA SP: (SALICIFOLIA) (6-83) NK MICROSORIUM DIVERSIFOLIUM(2-84) PARKSTI(2-84) × NEPHROLEPIS CORDIFOLIA :PLUMOSA?: (10-83) EASTERN ZIMBABWE GIANT: (?) OPHIOGLOSSUM PENDULUM(6-64) N# PELLAEA FALCATA(3-83) NK FALCATA NANA(11-83) N PARADOXA(11-83) N VIRIDIS(8-82) PHYLLITIS SCOLOPENDRIUM(3-84) \* PLATYCERIUM SUPERBUM(2-64) PLEUROSORUS RUTIFOLIUS(8-83) NK N POLYPODIUM ANGUSTIFOLIUM(4-84) AUREUM(3-84) AUREUM : MANDAIANUM: (6-84) FORMOSANUH(12-83) POLYSTICHUM AUSTRALIENSE(10-83) N FORMOSUM(12-83) N PROLIFERUM(12-83) N SETIFERUM: CULTIVAR: (2-04) TSUS-SIMENSE(4-84) PTERIS COMANS(2-84) N CRETICA :ALBOLINEATA: (12-83) N\* ENSIFORMIS(10-83) HENDERSONII(2-84) HACILENTA(4-84) HULTIFIDA(2-84) × SEMIPINNATA(2-84) N TREMULA(2-84) UMBROSA(10-83) N VITTATA(4-84) N RUMOHRA ADIANTIFORMIS(CAPE FORM) (2-84) ADIANTIFORMIS(NATIVE)(2-84) N SCYPHULARIA PENTAPHYLLA(4-84) THELYPTERIS PATENS :LEPIDA:(?) × TODEA BARBARA(12-83) N

SMI1H11(4-84)

HARE/S FOOT FERN LACY GROUND-FERN SOFT TREE-FERN WHEKI-PONGA WHEKI BRISTLY TREE-FERN AUSTRAL LADY-FERN PRICKLY RASP-FERN SMALL RASP-FERN GIANT RASP FERN COMMON RASP-FERN HAND FERN SHAGGY SHIELD FERN AUTUMN FERN (MALE FERN) DOWNY GROUND FERN SHINY SHIELD-FERN BRISTLY SHIELD-FERN CREEPING SHIELD-FERN JAPANESE LADY-FERN CLIMBING MAIDENHAIR KANGAROO FERN . RIBBON FERN SICKLE FERN DWARF SICKLE-FERN HART/S-TONGUE FERN STAGHORN FERN NARROW LEAF STRAP FERN GOLDEN POLYPODY GRUB FERN BROAD SHIELD-FERN MOTHER SHIELD-FERN TSUS-SIMA HOLLY-FERN NETTED BRAKE RIBBON BRAKE SLENDER BRAKE

HOLLY FERN

BRITTLE BLADDER-FERN

NEW ZEALAND BRAKE SPIDER BRAKE

TENDER BRAKE JUNGLE BRAKE CHINESE BRAKE LEATHER FERN LEATHERY SHIELD-FERN BLACK CATERPILLAR FERN

KING FERN

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The Executive Committee regrets that due to the increasing cost of producing the monthly newsletter, with a 20% Sales Tax and the increase of postage, together with the hire of Burnley Hall each month, we must raise our annual subscription fees as follows:

> Singles: \$12.00 Family: \$15.00 Pensioner Single: \$8.00 Pensioner Married: \$10.00

The new subscription rates are effective immediately.

BERNADETTE BLACKSTOCK

The Fern Society of Victoria wishes to extend a warm welcome to those people who have joined their ranks over the past few months.

Mrs. D.M. Wilson, 12 Moorina Crescent, Chigwell 7011 Mr. N.W. Littler, 43 Birkalla Street, Bulimba 4171 Mr. & Mrs. R. Purden, 5 Binney Street, Sandy Bay 7005 Mr. B.C. Jefferies, Cnr. Darling & Glennie Sts., Drayton, Toowoomba 4350 Mrs. E. Slade, R.M.B. 1461, Peats Ridge via Gosford 2250 Mrs. S. Gillis, 39 Ingham Avenue, Five Dock 2046 Dr. Ben Adler, Depart. of Microbiology, Monash Uni., Parkville 3168 Peter J. Beck, 2 Carroll Road, Highton 3216 Mrs. Ron Kelly, 4 O'Brien Street, Mooroopna 3629 Mr. Ken Kennedy, 22 Cambridge Road, Mt. Dandenong 3767 Prue Newbery, 26 Turner Street, Glen Iris 3146 Lyn Eagleston, 134 Victoria Road, East Hawthorn 3123 N.J. Ryan, 48 Collard Drive, Diamond Creek 3089 J.T. Barrett, 9 Charles Street, Ascot Vale 3032 Mr. Warren Pike, R.M.B. 206, Pike Road, Baldivis 6167 Mrs. Virginia Mackin, 30 Loder Street, Atherton 4883 Mr. & Mrs. Terry Walker, RMB 2035, Colac 3250 Janet Snorrason, 15 Forster Avenue, East Malvern 3145 Philip Wilkinson, 53 McArthur Road, East Ivanhoe 3079 Arthur & Carol Stroud, Barrier Reef Nursery, Bruce Highway, Deeral 4861 John Brookes, 30 Howell Drive, Mt. Waverley 3149 Ms. E. Duxbury, 62 Kiora Street, Laverton 3028 Bob & Therese Moon, Agricultural Research Institute, Wagga Wagga 2650 Mavis & Stewart Mair, Box 339, Moe 3825 Cherie L. Wilson, P.O. Nox 153, Balaclava 3183 Dr. D.R. Denton, Lot 15 Pine Grove Road, Woombye 4559 Miss Joanne Hawksworth, 40 Moncur Avenue, Springvale 3171

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# MAIDENHAIR FERNS IN CULTIVATION by C.J. Goudey

For the first time, a book covering the growing habits and conditions and propagation details of maidenhair ferns from around the world is available.

This book which definitively describes the maidenhair fern, is the result of years of study, search and practical application on the part of the author. Through correspondence with overseas fern authorities he has collected details of the plants which grow in many different countries including the U.K. and the U.S.A.

A full description of each species is given, plus its natural habitat, ideal growing conditions and best propagation methods. Advice on how to successfully eliminate pests and treat diseases is included and historical data about the plants is an informative bonus.

Ever-increasing interest in Maidenhair ferns has led to a demand for a book of depth and detail, with plenty of illustrations. This book will meet that demand, with its accurate text, over 400 coloured illustrations covering up to 180 species and cultivars, a world map of originating countries together with a complete list showing the World distribution of the genus Adiantum. (Approx. 350 pages).

This unique publication will be produced in mid 1985 and will be available through the Fern Society, it will retail at \$49.95 but will be available to members at \$36.00 plus postage. Your order would assure you of early copies as soon as the book is available. A \$5.00 deposit is required with each order.

#### A GUIDE TO HARDY FERNS by Richard Rush

Richard Rush has grown ferns for several years and now has a large collection of species and varieties in his small garden in Ilford, Essex. In this book he lists over 600 species and varieties which he believes have potential horticultural value for the cool temprate zone especially Western Europe and North America. Each entry is annotated with world distribution, bibliographical references to description and illustrations, ecological/horticultural requirements, growth habit and variations. A comprehensive Introduction and discussion on categories of hardiness enables the maximum use of this book. (Appox. 72 pages)

This book is available to Fern Society members for \$5.00 plus 75 cents postage, Victoria and 85 cents Interstate.

A Selection of Items from Newsletters Vol 1 by Fern Study Group S.G.A.P.

This 51 page booklet is made up from a selection of items from the Fern Study Group Newsletters Nos. 2 - 20. It is available to Fern Society Members for \$2.00 plus 60 cents postage, Victoria and 65 cents postage, Interstate.

Please write to: Lorraine Goudey R.M.B. 1175 LARA VIC. 3212

# DISCUSSION OF BUILDING GLASSHOUSES by Barry Stagoll

There are seven main areas of Plant Requirements to consider when Planning a glasshouse. These are:

- 1. Light
- 2. Temperature control
- 3. Air
- 4. Moisture
- 5. Plant accommodation
- 6. Underfoot conditions
- Heating (if cold-intolerant plants are to be grown).

In addition there is a further area which merits thought in your planning, namely:

8. The appearance and durability of your glasshouse.

Numerous inter-dependencies exist between these requirements. The final design you come up with and its execution will necessarily involve some compromises.

I will look in turn at each of the areas nominated and offer some comments and experience. For the purposes of this discussion I assume that you are prepared to consider building a glasshouse rather than merely assembling a proprietary kit house. Although there are some quite satisfactory proprietary houses on the market they inevitably involve a fairly expensive solution to the problem of providing plant shelter, and they do not always provide optimum growing conditions without modification. Their advantages are, first, that the basic design and materials are decided for you, and second, that they do not usually require much expenditure of effort to assemble (or, in fact, to disassemble should there be a need to do so in the future). If you are thinking of acquiring such a product, this discussion may be useful to assist in weighing up its suitability for growing ferns, and the degree of modification which may be required, if it is to be applied successfully to this use.

#### LIGHT

Design considerations:

- \* position
- \* choice of light admitting materials

Most useful garden plants need plenty of light to grow well, and whilst ferns are generally categorised as "shade-loving" plants, they are no exception and will not usually do well in deep shade. So the choice of location for your glasshouse is important to ensure an adequate level of light. It will be no disadvantage if the location does not receive full northern light, but it should not be heavily shaded from other directions.

Excepting for economy, and perhaps essentially temporary structures, products such as "Corflute" and flexible plastic sheeting (whether reinforced or non-reinforced) are not recommended, although they are relatively cheap. The choice should be made between the traditional material, i.e. horticultural glass and fibreglass sheeting.

Glass is quite expensive, particularly as you must include the cost of additional structural materials required to accommodate its use, and the need in most situations to provide screening from direct sun (see comment under next heading). As an approximate cost you may be looking at around \$2.00 per square foot to use glass. Amongst its advantages, it can be used to produce a very attractive structure, the contents of which you can see in their full glory from a vantage point outside.

Fibreglass is the preferred material for most applications. It is cheaper than glass and less demanding when it comes to structural design and workmanship being lighter, flexible, easy to cut and attach, and obtainable in large sheets. Cost varies upwards from around 50 cents per square foot. It is available in a range of colours as well as clear sheet, and both corrugated and flat versions. A particularly useful product now available is continuous fibreglass sheeting, sold in widths up to 3 metres, and in virtually unlimited lengths. This provides savings on fixings, reduces joins which could admit draughts or increase the likelihood of wind damage, and is much easier to attach in windy conditions (as it can be unrolled progressively to avoid catching the wind).

An interesting, although expensive, product is a double-walled acrylic sheet called Acriflute. This is obtainable in clear and white versions. It is worth considering as a durable walling material for heated houses, as the air trapped between the inner and outer walls provides quite a good degree of insulation. Cost is around \$2.10 per square foot. It can be attached by similar methods to those used for fibreglass (i.e. screws or nails with rubber or combination rubber/ metal grummets).

#### TEMPERATURE CONTROL

Design considerations:

- \* height
- \* shading

A common drawback of proprietary houses is their limited height. If you build a house for yourself this is almost the most important dimension to get right. If you provide a good height you will not only be able to accommodate hanging baskets without undue conflict with plants below (the weight of baskets will also influence the overall structural design), but most important, you will reduce the variability of the air temperature because of the larger volume of air included. In the hottest weather, there will be better opportunity for hot air to congregate high, away from the ferns. In cold weather, with vents closed the air inside will adjust relatively slowly to the outside temperature because of its volume. If possible, try to provide a minimum of 9 feet of average ceiling height.

Ideally, the house will not permit direct sun to strike the ferns inside. Clear glass or fibreglass would actually increase the burning power of the sun if unshielded. Shading may be achieved by a variety of means.

Colouration of fibreglass can be effective. However, the green, blue and similarly densely-coloured sheets are not preferred, as they do not admit sufficient light, and alter the appearance of plants considerably. White sheets can provide quite a good degree of protection from burning. I suggest them as the preferred means of covering the areas of the house which will take heavy sunlight. Glasshouse paint is a long-used method. Rather than use whitewash, which must be reapplied each year (perhaps more than once in some conditions), a durable glasshouse paint, such as that sold under the "Eden" label, can be used. It is quite expensive (around \$14/litre?) but lasts a number of seasons, and has the useful property of becoming clear, thus admitting maximum light, when wet by rain.

Even with the surfaces exposed to the sun coloured or painted, you may find it necessary to provide added shading (particularly if the roof height is limited) to control overheating. Fixed wooden lath screening such as used for some shadehouses would be one alternative, but bulky to construct and offering no flexibility in use. Split bamboo screens suspended under the roof (otherwise they would be quickly damaged by the elements) are another - but not very satisfactory as they will have more effect in lowering the light level than in holding down the temperature.

The only really satisfactory solution is likely to be weatherresistant shadecloth (the knitted rather than the woven type durability). This should be suspended on a suitable frame, at least 4 inches clear of the roof or wall surface, so as to break up the sun's rays effectively before they reach the house and also allow air movement between shadecloth and surface. The ideal is a method of mounting the shadecloth which allows it to be adjusted depending on the season, but fixed shadecloth is in order providing it does not make the house too dark in winter.

Natural shading can be employed in some circumstances. This is one matter which should receive some weight in your deliberations on siting the house. For instance, deciduous trees on the northern and western sides may be effectively used to help contain summer temperatures whilst not impeding winter light.

Inevitably once your house is installed you will need to monitor temperatures, and you may have to make some adjustments to shading arrangements. You should consider buying a maximum/minimum glasshouse thermometer to assist you in this.

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(To be continued in next issue)

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THE FERN FARM Kangaroo Flat 3555 Retail. Phone: (054) 478 807

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BEASLEY'S NURSERY 195 Warrandyte Road Doncaster East. Phone: 844 3335

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VALENTINES FERNERY 80 - 81 Wells Road, Seaford. Map Reference: Melway 99H1 Please enter Wells Road through Patterson Lakes

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MORANS HIGHWAY NURSERY Box 47, Woombye 4559 1 km north of Big Pineapple Turn right into Kell Road, Woombye. Wholesale & Retail Phone: (071) 42 1613

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FERN NURSERY 6 Nelson Street, Thornleigh 2120 Wholesale & Retail Phone: 84 2684

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	DIARY DATES
Thursday November 8th	Chris Goudey - "Ferns of Lord Howe Island"
Thursday December 13th	Fern Forum and Christmas Meeting
Second Second	

NOTE: In the event of a power strike on the evening of any meeting, we regret that the meeting must be cancelled.

VENUE OF MEETINGS: Burnley Horticultural School Hall, Burnley

TIME OF MEETINGS: 8 p.m.

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PREPARED AND PRINTED FOR THE FERN SOCIETY OF VICTORIA



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