## THE FERN SOCIETY

OFVICTORIA

Inc.

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## NEWSLETTER

VOLUME 11, Number 8, August 1989

#### FERN SOCIETY OF VICTORIA Inc.

Postal Address: P.O. Box 45,

Heidelberg West, Victoria, Australia, 3081

#### Office Bearers:

President: Robert Lee Ph. - 836 1528 Immed. Past Pres.: Keith Hutchinson - 45 2997 Vice-Presidents: John Oliver - 879 1976 Terry Turney - 211 8169 Treasurer: Albert Ward - 459 4392 Treasurer:

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Spore Bank Manager:

Barry White - 337 9793

Membership Secretary:

John Oliver - 879 1976

Editor:

Terry Turney - 211 8169

Book Sales:

Derek Griffiths - 336 3157 8 Susan Court, East Keilor, Vic., 3033

Subscriptions: single - \$13.00 (Pensioner/Student -\$9.00);

Family - \$16.00 (Pensioners - \$11.00); Overseas - A\$25.00 (by Airmail). (Subscriptions fall due on 1st July each year)

#### President's Message:

The Herbarium Hall is now back in use after the completion of building works and we plan to use this as the regular venue for our monthly meetings, beginning this month.

The first part of the evening on the 10th August will be devoted to our 10th Annual General Meeting and the election of office bearers for the coming year. Our August General Meeting to follow will, as mentioned in recent Newsletters, be a function to celebrate the 10th Anniversary of the Society. A general outline of the plan for the evening was given in 'Society News' on p.10 of the July Newsletter.

This included requests to bring along a contribution of food for supper and any photos or other memorabilia of the activities of the Society that you may have (preferably suitable for display on a table or notice board). It would also be appropriate to have the hall decorated with members' ferns for the occasion, so please try to bring one of your favourites for display.

Don't forget to bring also the butts of any raffle tickets you have sold or purchased (and a bit of extra cash to pay your membership subscription if you have not yet renewed!!).

continued....



#### **NEXT MEETING**

ANNUAL NEXT MEETING
at 7.30 p.m., Thursday, 10th August
at the Herbarium, Botanic Gardens
Birdwood Ave, South Yarra
followed by our
10th Anniversary Meeting

#### PROGRAM:

7:30 p.m.

- Book Sales Spore Bank Library Loans

Special Effort Ticket Returns/Sales Membership Suscription Renewals

8:00 p.m.

- Annual General Meeting Agenda:

- i) Minutes of 1988 A.G.M.
- ii) Report from the President.
- iii) Treasure's financial report. =
- iv) Election of office bearers for 1989/90.
- v) General Business.

8:45 p.m.

August Birthday Celebrations

?:?? p.m.

Close

#### Presidents Message Continued....

Special invitations to the August meeting have been sent to a number of people who played a significant part in the early activities of the Society but who are now either not members or do not attend meetings regularly. We hope that many of these will be able to join us to renew old friendships.

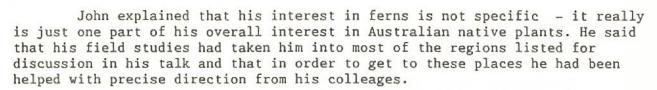
Our September meeting will feature a talk by Dr. Jack Harris on "Ferns Through The Ages."

Best regards Bob Lee.

#### SPEAKER REPORT - July General Meeting

Topic - Victorian Ferns

Speaker - John Eichler



In the matter of statistics John said that there are roughly 120 species of ferns in Victoria, 40% of which are either rare or very rare. It was on this 40% that he focussed attention. He used common names throughout.

The fern population here occupies a very wide range of habitats. Whilst most ferns are concentrated in moist fern gullies and rain forest jungles, many of the rarer species are to be found in rocky coastal, rocky alpine, snow plain, dry inland, swamps and aquatic situations. Many of the fern species which are rare in Victoria are much more plentiful in New South Wales and Queensland but are often found in totally different environments. For example:-

| Fern Species   | Habitat in Victoria  | Habitat in New South Wales   |
|----------------|--|--|
| Cup Hares Foot | Rock crevices on dry cliff<br>faces exposed to the north<br>the north in the Nth Grampians | High up in rain forest trees<br>usually growing on the backs<br>of elk,stags & birdsnest ferns |

The following is a list of the fern species presented in a screening of colour slide photographs:

Fern Species

Notes

Japanese Lady Fern

Oval Wedge Fern Prickly Tree Fern Slender Tree Fern

Black Stem Maidenhair

Moonwort Lunavior Annual Fern

4. gormosus

Netted Brake

Bristly Shield Fern

Venus Maidenhair

Narrow Filmy Fern ranum Weeping Spleenwort

As Alaccidein

21, capillers venens

Limited to rivers and creeks in the Howe Ranges and at Murrindal - often associated with congested jungle vegetation.

In moist rocky areas - Wilsons Promontory. Jungle Vegetation - Bruthen area.

Wet protected areas - Otways, South Gippsland, Wilsons Promontory.

Sandy creek and river banks - East Gippsland - Cann River.

Rock crevices in limestone - Murrindal - Buchan. World wide distribution - snow plains to 1400 metres. Rock overhangs north of Dividing Range - dies down in hot weather and regrows in Winter.

Moist protected gullies on Mornington Peninsula and in the Dandenong Ranges.

On myrtle beech and decaying tree fern trunks in deeply protected gullies - Otways and Beenac areas. One known plant on line rocks in a gully on the Mornington Peninsula.

On myrtle beech trees in wet gully situations. In protected situations - epiphytic on trees and tree ferns in the Otway and in the Strezlecki range.

# Fir Club Moss Wedge Water Fern Woolly Cloak Fern Lime Fern Long Club Moss Brittle Bladder Fern Alpine Finger Fern Ausrtal Moonwort Maidenhair Sleenwort Wedge Water Fern

Alpine Filmy Fern Rough Maidenhair Jungle Bristle Fern

Spreading Club Moss

Swamp Fern

Common Spleenwort

Shore Spleenwort

Binung ella dentala

Broad Shield Fern

Lacey Wedge Fern

Oval Fork Fern

Tmeschleris ovala

#### Notes

Restricted to Protected gorges in the Strezlecki range.

On rocks in dry situations in north west Victoria. On limestone close to lime water creeks.

Portland region.

The largest Victoria tassel fern - Otways and south and east of the State.

Restricted to alpine areas - grows on rock faces dripping with water.

Grows on rock faces in alpine areas. A tiny fern with fronds just one centimetre in length.

Limit - snow plains and woodlands - alpine situations Grows on moist rock faces in central alpine areas to 1100 metres.

Above the snow line on Mount Baw Baw.

In moist protected situations at Brysons Gorge.

Has flattened leaflets - grows above the snow line on Bogong High Plains and Mount Baw Baw.

Grows at a lower altitude than the snow plains in

Grows at a lower altitude than the snow plains in sub alpine bogs.

Grows on wet rocks in sub alpine situations.

Grows - East Gippsland in jungle gully type vegetation Grows on rough tree fern trunks along water courses in East Gippsland.

Is found above high tide level on coastal cliffs in eastern Gippsland.

Not at all common - most likely to be found on sub alpine limestone in East Gippsland.

One occurrence only in Victoria near Murrindal near a creek carrying lime water.

Somewhat like Mother Shield Fern but is harsher more shiny and covered in scaly hairs. Grows on rocks in eastern Gippsland.

Common along the east coast of Australia just reaching into east Gippsland.

An epiphyte on tree fern trunks in situations through Gippsland as far west as Melbourne.

A supplement to the talk was an excellent display of the above specimens. The display was provided to illustrate physical structure, actual plant size and in some cases the arrangement of sori on fertile fronds.

Doug Thomas moved a vote of thanks to John on behalf of Members, complementing him on the excellence of his presentation. The remarks were endorsed with enthusiastic audience applause.



written by Doug Thomas

#### Sori Patterns Close-Up

#### by Barry White

Barry is the Society's Spore Bank Manager and was formerly manager of our Book Sales. The following is a summary of the talk given by Barry at the Society's May 1989 General Meeting. He structured his talk on a screening of highly magnified colour slides. By this means he was able to illustrate very clearly the means by which ferns reproduce their spores and how the sori vary in shape and composition through the different genera. He focussed attention on the following structural elements:

- (a) Spore a vegetative reproductive cell which does not contain an embryo.
- (b) Sporangium (plural sporangia) a case or capsule in which the spores grow. Up to 64 spores per capsule.
- (c) Sorus (plural sori) a cluster of sporangia.
- (d) Indusium (plural indusia) the membrane covering and protecting the sorus.
- (e) False indusium depends on tissue at leaf margins to form a protective covering for the sori.

#### Examples of different soral patterns:

- Nephrolepis cordifolia the generic name, Nephrolepis, arises from the shape of the indusium. It means "kidneyshaped" in Latin.
- Adiantum capillus veneris the sori are rectangular in shape and are protected by a false indusium on the margins of the pinnae.
- A. capillus veneris 'imbricatum'- the cultivar name literally means "overlapping like tiles on a roof". Like its parent, it has a false indusium.
- A. raddianum 'variegated' the sori are also reniform or kidneyshaped.
- A. micropinnulum this has only one sorus per pinnule.
- A. hispidulum a typical fertile frond produces more than ten sori on each pinnule. It too has a false indusium.
- A. hispidulum 'whiteii' similar to its parent, but produces 13 sori per pinnule and shows hairs protruding through the sporangia a rare growth habit for Adiantum.
- Pellaea falcata 'nana' sporangia are on the edge of the pinnule and a false indusium.

- Dicksonia antarctica sori on edge of pinnule only one sorus per lobe - a false indusium in the early stages of growth and then a true indusium later on. The sorus is spherical and splits open around its centre (called the "annulus") to eject spores.
- Cyathea cooperi sori are closer to mid-line than in Dicksonia. No obvious indusium (called "exindusate").
- Blechnum pattersoni the fertile fronds are much reduced in size in most Blechnum species and the sori continuous and linear. The word "dimorphic" describes this. However, B. cartilagineum is the exception to this in Victoria, this sterile and fertile frond being approximately the same size.
- B. orientalis sporangia are formed along the mid-line of the fertile frond. the indusium opens in the middle.
- B. punctilatum This fern from South Africa does not obey the "Blechnum rule". The sporangia are not arranged in a continuous line parallel to the mid-rib of the pinnule. In this one species the line is interrupted as is found in the related genus, Doodia.
- Pteris hendersonii sporangia around the margins of the fertile pinnae, protected by a false indusium, which fold in at the edge of the pinnule.
- Pteridium esculentum this fern also has marginal sori. Although 'esculentum' really means 'edible', this fern contains numerous toxic compounds. It is often a killer of grazing animals if their diet exceeds 25% of this plant.

#### FERN FORUM:

An enquiry as to fertiliser for established tree ferns has led to information from several members who mainly suggest semi rotted compost or leaf mould spread around the root area to a depth of 3 inches or 7 centimetres. Our Austral King fern - Todea Barbara, which occurs in all eastern states, responds well to this treatment. The only other species in this genus was shown at our July meeting by Chris Goudey, a very attractive specimen, which is endemic to New Guinea.

A hint on our Common Maidenhair - Adiantum Aethiopicum is to leave it outside where it belongs and it will thrive. Bye fern-ow, John H.

#### COUNTRY MEMBERS:

Although meetings are in Melbourne, our Society is statewide and larger. We have many outer suburban or country members within 1 or 2 hours drive from Melbourne who may have a garden area large enough to accommodate members for an hour or so.

If you would like us to visit you, please contact me with directions and we'll make a day to suit you. I sincerely hope any host will gain as much knowledge and enjoyment as members do at our monthly meetings.

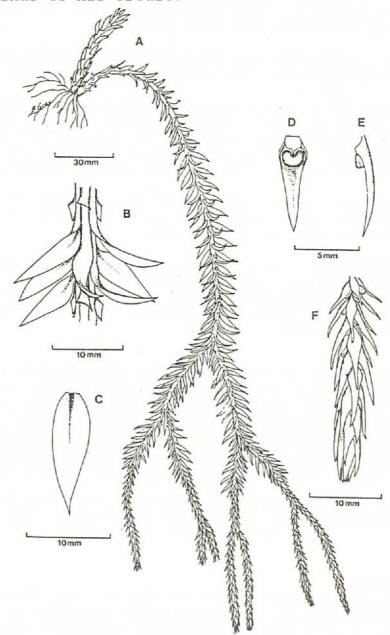
Please contact John Hodges, 13 Erica Court Nth Blackburn 3130.

#### New Fern Species from Australia - Part 4

Lycopodium lockyeri (D.Jones):

This species grows as an epiphyte on trees and rocks in rainforest in N.E. Qld, between Windsor Tableland and the Lamb Range, above 1000 metres. Its hanging stems, growing to 40 cm long, bear some resemblance to L. carinatum, but differ in having dark green, thinner textured leaves, which are not keeled.

The species name acknowledges Mr Reg Lockyer, a log buyer from Ravenshoe, who discovered this species and has many other notable fern finds to his credit.



Thanks are extended to David Jones for permission to reproduce details from his publication with B. Gray in Austrobaileya, 2(2), 126-130 (1985).

#### SOCIETY NEWS:

#### New Members:

A warm welcome is extended to the following new members to the Society:

Mrs Dawn Jackson of Mount Waverley

#### Our Sympathy:

We extend our sympathy to Rod McConichie and family on the recent passing away of Joan, wife, mum and an esteemed member of our Society.

#### From the July Meeting:

Highlights of the ferns offered for sale at the June meeting were:

Asplenium Inequilaterate, A. Gemmiferum, A. Bulbiferum x Obtusatum A. Boltonii, A. Lividium, Arachniodes Standishi, Asplenium Livdum, Asp. Lyallii, Asp. Flaccidum X Bulbiferum, Davallia Pxidata, Wotholaena Sinuak, Pellaea Falcek cv. Silver Dwarf (?) Cyathea Cooperi Poltpodium Scouleri, Blechnum Spicant, Polystichum Aculestum Grandiceps and Pteris Microptera

#### Special Effort Winners:

Last month's winners were:

Joel Macher, Marg Radley, George Smith, Anne Bryant, Barry Gesthuizen and Joel Macher again, "Lucky Ducks"

#### Membership Fees:

Don't forget to renew your membership for 1989/90. Remember that in order to receive your September Newsletter your fees must have been paid.



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"Goodness from the sea'

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- \* Made from fresh growing seaweed.
- \* Ideally suited for ferns
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4/375 Bayswater Rd., Bayswater. Vic. 3153. P.O. BOX 302, Bayswater, Vic. 3153. Tel. Melb. (03) 720 2200

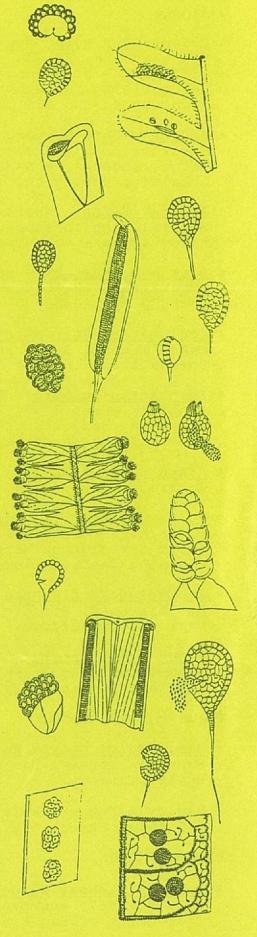
#### SPORE BANK

Ordering: The following spore is free to those who donate spore. Otherwise, members - 20 cents each, non-members - 50 cents. Available at meetings or by mail from Barry White, 24 Ruby Street, West Essendon, Victoria, 3040 (Ph: 337 9793). Please add \$1.00 for p. & p. Ther is no charge for overseas members, but to cover postage 2 International reply Cupons would be appreciated.

| ADIAN<br>ADIAN<br>ADIAN<br>ADIAN | TUM lady supreme<br>TUM raddianum cv.pacottii<br>TUM raddianum 'Crested majus'<br>TUM raddianum 'Gracillimum'<br>TUM raddianum 'Grandiceps' | 3/87 3/87                             |           |   |
|----------------------------------|---|---------------------------------------|-----------|---|
| ADIAN<br>ADIAN<br>ANEMI          | TUM raddianum 'Grossum' TUM raddianum cv. elegans TUM raddianum gracillimum A mexicana A phyllitidis  |                                       | Section 1 |   |
| ARACH<br>ASPLE<br>ASPLE<br>ASPLE | NIODES foliosa  | 10/88<br>6/86<br>8/86<br>1/87         |           |   |
| ASPLE<br>ASPLE<br>ATHYR<br>ATHYR | NIUM trichomanes<br>NIUM trichomanes 'incisum'<br>IUM elegans<br>IUM filix-femina 'cristata'  | 1/86<br>6/86<br>3/89<br>/86           |           |   |
| BELVI<br>BLECH<br>BLECH<br>BLECH | SIA mucronata SIA platyrynches NUM brazieliense cv.cristata NUM capense NUM discolor  | 3/86<br>6/87<br>2/89<br>10/88<br>2/89 |           | 00                                      |
| BLECH<br>BLECH<br>BLECH          | NUM fluviatile<br>NUM gibbum<br>NUM giganteum<br>NUM minus<br>NUM punctulatum   | 3/89<br>2/89<br>3/86<br>3/86<br>5/88  | Samp Samp |   |
| CHEIL<br>CHRIS<br>CIBOT<br>CULCI | ANTHES multifida<br>TELLA guenziana<br>TUM schiedei<br>TA dubia   | 2/89<br>10/88<br>11/86<br>4/86        |           |   |
| CYATH<br>CYATH<br>CYATH          | EA australis EA brownii EA cooperi EA cooperi (black scales) EA cooperi (glaucous)  | 4/88<br>2/86<br>2/89<br>2/86<br>/86   |           | ALL |
| CYATH<br>CYATH<br>CYATH<br>CYATH | EA dealbata<br>EA medullaris<br>EA sp. (New Guinea)<br>EA vieillardii(New Caledonia)<br>MIUM falcatum                                       | 6/88<br>3/87<br>2/86                  |           |   |
| CYRTC                            | MIUM falcatum x caryotideum<br>PTERIS dickieana<br>ONIA antarctica  | /86<br>7/86<br>2/89                   |           |   |
|                                  |   |                                       |           |   |

#### SPORE BANK

| DICKSONIA fibrosa                             | 3/86 |
|---|------|
| DICKSONIA herbertii                           | 3/89 |
| DICKSONIA lanata                              | /86  |
| DIPLAZIUM australe                            | 3/87 |
| DOODIA maxima                                 | 2/89 |
| DORYOPTERIS pedata                            | 2/87 |
| DRYANARIA rigidula                            | 4/86 |
| DRYOPTERIS affinis 'polydactyla'              | /87  |
| DRYOPTERIS carthusiana (crested)              | 3/86 |
| DRYOPTERIS dilatata 'lepidota'                | 2/87 |
| DRYOPTERIS filix-mas 'cristata'               | 3/86 |
| DRYOPTERIS filix-mas 'grandiceps'             | 3/86 |
| DRYOPTERIS inequalis                          | 4/87 |
| DRYOPTERIS sp. "Korean Crown Fern"            | 3/89 |
| HYPOLEPIS rugosula                            | 3/87 |
| LASTREOPSIS acuminata                         | 6/88 |
| LASTREOPSIS calantha                          | 3/86 |
| LASTREOPSIS smithiana                         | 2/89 |
|   | 4/87 |
| LUNATHYRIUM japonicum<br>MICROLEPIA speluncae | 3/86 |
|   | 2/87 |
| MICROLEPIA strigosa                           |      |
| MICROSORIUM scandens                          | 2/89 |
| ONOCLEA sensibilis                            | 6/86 |
| PAESIA scaberula                              | 7/86 |
| PELLAEA rotundifolia                          | 2/87 |
| PELLAEA viridis                               | /86  |
| PHYLLITIS scolopendrium (small)               | /87  |
| PITYROGRAMMA chrysophylla                     | 3/86 |
| PLATYCERIUM sp. (Timor)                       | /87  |
| PLATYCERIUM bifurcatum                        | 3/87 |
| PLATYCERIUM hillii                            | 4/86 |
| PLATYCERIUM superbum                          | 2/89 |
| POLYPODIUM vulgare                            | 4/86 |
| POLYSTICHUM andersonii                        | 2/89 |
| POLYSTICHUM echinatum                         | 2/87 |
| POLYSTICHUM formosum                          | 3/87 |
| POLYSTICHUM munitum                           | 4/88 |
| POLYSTICHUM retro-paleaceum                   | 3/86 |
| POLYSTICHUM setiferum                         |      |
| 'plumosum cristata'                           | 2/89 |
| PTERIS lincata                                | 2/89 |
| PTERIS biaurita                               | 3/86 |
| PTERIS cretica 'parkerii'                     | 3/87 |
| PTERIS hendersonii                            | 2/89 |
| PTERIS quadaurita cv.argyraea                 | 3/89 |
| PTERIS semipinnata                            | 2/89 |
| PTERIS tremula                                | 3/89 |
| PTERIS tricolor                               | 3/87 |
| PTERIS vittata                                | 3/87 |
| PTERIS wallichiana                            | 2/88 |
| RUMOHRA adiantiformis (S.Africa)              | 3/88 |
| SADLERIA pallida                              | 3/89 |
| STICHERUS tener                               | 2/89 |
| THELYPTERIS patens var.lepida                 | 2/89 |
| WOODWARDIA fimbriata                          | /86  |
| WOODWARDIA IIMDIIata                          | 100  |
|   |      |



#### BUYERS' GUIDE TO NURSERIES Victoria:

- \* Allans Flat Plant Farm Retail.
  Tomkins Lane, Allans Flat, 3691, Ph:(060) 27 1375.
  (25Km south of Wodonga on the Yackandandah Road)
  Specializing in ferns and indoor plants. Open daily, except Wednesdays, and all public holidays.
- \* Andrew's Fern Nursery Retail
  Cosgrove Road, Invergordon, 3636, Ph:(058) 65 5369.
  Large range of ferns for beginners and collectors. Open daily, inculding public holidays, except Saturdays.
- \* <u>Austral Ferns</u> Wholesale Propagators. Ph:(052) 82 3084. Specializing in supplying retail nurseries with a wide range of hardy ferns no tubes.
- \* Beasley's Nursery Retail. 195 Warrandyte Road, Doncaster East, 3109. Ph:(03) 844 3355.
- \* <u>Cool Waters Fern Nursery</u> Wholesale Fern Propagators. Beech Forest, 3237, Ph:(052) 37 3283. Specializing in cool climate native ferns.
- \* Fern Acres Nursery Retail.
  Kinglake West, 3757, Ph:(057) 86 5481.
  (On main road, opposite Kinglake West Primary School).
  Specializing in stags, elks and birdsnest ferns.
- \* <u>"Fern Glen"</u> Wholesale and Retail. Visitors welcome. Garfield North, 3814, Ph:(056) 29 2375.
- \* R. & M. Fletcher's Fern Nursery Retail.
  62 Walker Road, Seville, 3139, Ph:(059) 64 4680.
  (Look for sign on Warburton Highway, 300m east of Seville Shopping Centre. Closed Tues. except on public holidays).
- \* Mt Evelyn Fern Centre Retail.
  63 York Road, Mt. Evelyn, 3796, Ph:(03) 736 1729.
  Mail orders welcome.
- \* Ridge Road Fernery Wholesale and Retail. Weeaproinah, 3237, Ph:(052) 35 9383. Specializing in Otway native ferns.

#### New South Wales:

- \* <u>Jim & Beryl Geekie Fern Nursery</u> Retail. 6 Nelson Street, Thornleigh, 2120, Ph:(02) 484 2684. By appointment.
- \* Marley's Ferns Retail.
  5 Seaview Street, Mt. Kuring-gai, 2080, Ph:(02) 457 9168.

#### Queensland:

\* Moran's Highway Nursery - Wholesale and Retail. P.O. Box 467, Woombye, 4559, Ph:(071) 42 1613. (1Km north of Big Pinapple. Turn right into Kell Road).