



**THE  
FERN SOCIETY**

**OF  
VICTORIA**

**Inc.**

REGISTERED BY AUSTRALIA POST: PUBLICATION No. VBH3411

**NEWSLETTER**

VOLUME 13, Number 6, July 1991

FERN SOCIETY OF VICTORIA Inc.

POSTAL ADDRESS: P.O. Box 45.  
Heidelberg West. Victoria. Australia. 3081.

OFFICE BEARERS:

PRESIDENT:	Robert Lee	-	Ph. 836 1528
IMM. PAST PRESIDENT:	Keith Hutchinson	-	457 2997
VICE PRESIDENTS:	Terry Turney	-	571 8169
	Barry White	-	337 9793
TREASURER:	Marilyn Wood	-	434 3978
SECRETARY:	Bernadette Thomson	-	399 1587
SPORE BANK MANAGER:	Barry White	-	337 9793
MEMBERSHIP SECRETARY:	John Oliver	-	879 1976
EDITOR:			
BOOK SALES:	Derek Griffiths	-	336 3157

8 Susan Court, E. Keilor. Vic. 3033.

---

SUBSCRIPTIONS: Single - \$15.00 (Pensioner/Student - \$11.00)  
Family - \$18.00 (Pensioners - \$13.00)  
Overseas - A\$30.00 (by Airmail)  
Subscriptions fall due on 1st July each year.

---

PRESIDENT'S MESSAGE:

It is a great pleasure to be able to announce that John Hooper has offered to assist Barry White with the operation of the Spore Bank. John is a new Member who joined the Society at the Fern Show in April and attended his first meeting in June. Thank you, John. I hope you derive great enjoyment from your involvement in this interesting area.

And now all we need is for a few other Members of comparable enthusiasm to nominate for election to the Committee of Management at the Annual General Meeting and our Society is assured of a bright future! Please think about your availability to contribute to the running of your Society. Apart from the formal Committee positions, there are many others which have to be filled to keep the Society functioning. If you would like to help, please talk to one of the members of the present Committee.

The working bees at "Rippon Lea" on 1st July achieved a useful amount of clearing up in the Fernery and made a pleasant social occasion for those present. Many thanks to Jack Barrett, Don Fuller, David Griffiths, Janet McLennan, Barry White and Janet's non-Member friend Christine Lam for their efforts. Conversation during the day brought forth a number of ways in which we could help further with the Fernery to the mutual benefit of the Society, the National Trust and the general public visiting the property. The Committee will follow up on these as soon as possible. Maybe there will be other ideas forthcoming because.....

You will read later in this Newsletter that the Suggestion Box system is to be reinstated in the hope of achieving greater feedback from Members on how they would like the Society to function and develop.

(cont'd opposite)

N E X T M E E T I N G

DATE: Thursday, 18th July, 1991.

TIME: Commencing at 7.30 p.m.

VENUE: The National Herbarium, Royal Botanic Gardens,  
Birdwood Avenue, South Yarra.  
(Melway Directory Ref. 2L A1)

GUEST SPEAKER: Barry White, Vice President and Spore Bank Manager of  
the Fern Society of Victoria.

TOPIC: "The Genus Dryopteris."  
(Please see note below re specimens for illustration.)

MEETING TIMETABLE

7.30 p.m. Pre-Meeting Activities:- Sales of Ferns, Spore, Books  
and Special Effort Tickets ; Library Loans.

8.00 p.m. July General Meeting.

8.30 p.m. Guest Speaker.

9.30 p.m. Fern Identification and Pathology.

9.40 p.m. Special Effort Competition.

9.45 p.m. Supper.

10.00 p.m. Close.

A Request from the Speaker:

Barry would like to have specimens of as many Dryopteris species as possible to illustrate his talk and has requested that Members bring appropriate plants to the Meeting. He has specifically asked if any of the following are available:

Dryopteris borreri	Dryopteris oreades
" caucasia	" sparsa
" hayatae	" wallichiana

and Orachniodes hasseltii.

---oo000oo---

President's Message (cont'd): I do hope this will be used by Members to forward requests and ideas which will guide the Committee in planning the future of our organisation.

Best regards,  
Bob Lee.

SPEAKER REPORT - GENERAL MEETING - 20th JUNE, 1991

Speaker: Dr Tim Entwisle, Botanist at the National Herbarium

Topic: THE RARE AND THREATENED FERNS AND FERN ALLIES OF VICTORIA

In his introduction, Dr Entwisle informed us that he has been working on various groups of plants for the forthcoming Herbarium publication "Flora of Victoria". The volume on ferns is complete except for *Lastreopsis* and should be published in 1993.

Of the 118 species of ferns and fern allies native to Victoria, 47 or 40% are listed in a 1990 publication "Rare or Threatened Plants in Victoria" by Gullan, Cheal and Walsh. These authors ranked the plants in four categories of rareness, which the speaker used in later discussion:

- extinct = presumed to no longer exist anywhere in Victoria.
- endangered = rare and at risk of extinction in this State if management practices are not improved.
- vulnerable = not presently endangered but likely to become so soon.
- rare = not threatened but known from relatively few localities.

Dr Entwisle explained that plants can be classed as rare (in the general sense, not the last of the categories above) for various reasons. Some are locally rare in Victoria but common in other States; others may be truly rare right across their known range. Some may appear rare because of insufficient collecting activity or being overlooked. Plants may also suddenly achieve or lose the status of rareness because of changes in taxonomic judgements which split up or combine species, thereby changing the apparent number of plants in a given species.

The ferns and fern allies listed in "Rare or Threatened Plants of Victoria" were then discussed and illustrated by photographs or line drawings prepared for the coming "Flora of Victoria". The discussion took the form of a tour around the 16 natural regions into which the State has been divided in "Flora of Victoria" on the basis of the similarity of the vegetation within each region.

MALLEE

This region has two rare species found only in the north-west part of the State.

Cheilanthes lasiophylla (Woolly Cloak Fern) - "rare": This fern has scales and hairs all over, hence its common name. It occurs in all States except Tasmania, mainly in the drier west and central regions of Australia, including north-west Victoria. It is not at risk Australia-wide, but has not been seen in the Mallee area for some time. It was recently sighted near Pyramid Hill.

Ophioglossum Polyphyllum (an Adder's Tongue) - "vulnerable": Localised to near Mildura, Hattah Lakes and in the southern part of Wyperfield National Park. It is difficult to find because it does not form colonies and so may be more common than is thought. Again it occurs in all States.

GRAMPIANS

One fern is restricted in Victoria to the Grampians; some others occur only here and in a few other scattered localities.

Asplenium terrestre (no common name) - "rare": Occurs on sandstone in the Victoria Range (Grampians), basalt in Byaduk Caves (south of Hamilton) and granite on Mt Mueller (100 km east of Melbourne). It can be confused with A. bulbiferum (Mother Spleenwort) which, however, has thinner, less leathery fronds, bulbils and usually shorter sori. The distinction is not particularly clear and this species could be easily overlooked. A. terrestre is also found in Tasmania, the Bass Strait Islands and New Zealand.

Psilotum nudum (Skeleton Fork-fern) - "rare": Is weirdly distributed, occurring in the northern Grampians and Mt Arapiles, then jumping to the Ballantyne Hills in East Gippsland. It is also found in N.S.W., Queensland, N.T. and W.A. and in many other countries around the World, so it is not a rare plant. Interestingly, this species is an occasional pot weed in the Royal Botanic Gardens glasshouses.

Lycopodiella serpentina (Bog Clubmoss) - "rare": This plant is better known as Lycopodium serpentinum (see next paragraph). It occurs in the Grampians, the Otways, on French Island and in far East Gippsland, so it is widespread across the State but never common. It also occurs in most other States of Australia and in New Zealand.

The genus Lycopodium has recently been split into three genera which are clearly separated on anatomical, microscopic and chemical criteria but harder to recognise in the field. The genera are

- Huperzia, which has larger leaves and forms discrete plants (not creeping along forming a series of tufts). It includes the species australiana and varia (all species names originally in Lycopodium have continued unchanged and been allocated among the new genera).
- Lycopodiella has smaller leaves and creeps along. It has little-branched stems and strobili not on lateral branches (either terminating main unbranched shoots or sessile and lateral to the stem). It includes the species laterale and serpentina.
- Lycopodium also has small leaves and creeps along but has freely branching stems and strobili terminating branchlets. It includes the species scariosum, deuterodensum and fastigiatum.

Huperzia varia (Long Clubmoss) - "vulnerable": Is also widespread (Grampians, Otways, Wilsons Promontory and East Gippsland) but not common. It occurs along the East Coast, in Tasmania and in New Zealand. Previously called Lycopodium varium.

Davallia pyxidata (Hare's Foot) - "vulnerable": Only known in Victoria from sandstone rocks in the western part of the Grampians. However, it extends up the East Coast into New South Wales and Queensland, where it is quite common, and apparently down into Tasmania. This is a curious disjunction.

Asplenium aethiopicum (Shredded Spleenwort) - "vulnerable": Has a distribution like that of Asplenium terrestre - growing on sandstone in the Grampians (Victoria Range) and on basalt in south-west Victoria. It is also rare in N.S.W. but more common in W.A. and found in all continents of the World. However the eastern Australian

species may be separate from the others and studies are continuing in New Zealand.

#### SOUTH - WEST VICTORIA

Five rare ferns grow in the south-west of the State. Asplenium terrestre has already been mentioned as growing near the Byaduk Caves in the Grampians and east of Melbourne. Two others also extend into eastern Victoria, while two only go a little further eastward into western Victoria.

Asplenium trichomanes (Common Spleenwort) - "rare": An ironic common name for its classification in this State! The fern occurs near Portland and Colac and then jumps across to the north-east. Although there are quite a few collections from the mountains of north-east Victoria, it is considered to be rare for the State. It is found in other Australian States and is common in New Zealand and Europe. There are two sub-species: subspecies quadrivalens is restricted to calcareous rock, while subspecies trichomanes grows on non-calcareous rock. The two have been found on different rock types only a few kilometres apart. Subspecies quadrivalens is less common (probably due to the relative rarity of limestone in Victoria) but can be locally plentiful, e.g. near Buchan.

Asplenium obtusatum (Shore Spleenwort) - "vulnerable": Found on Lady Julia Percy Island, at Portland, Wilsons Promontory and in East Gippsland, usually on coastal rocks within the seaspray zone. It has extraordinary thick leathery fronds which are able to withstand severe dessication and are salt tolerant. It is also found in Tasmania and the Bass Strait Islands.

Pneumatopteris pennigera (Lime Fern) - "vulnerable": Occurs in the Glenelg River region and near Port Campbell, always on calcareous soil. It is found in Tasmania and Queensland and also in New Zealand, but is quite rare in all the Australian states.

Blechnum sp. [King Island/Otways] - "rare": The ferns in this species occur in the Otways and Lower Glenelg. They are similar to B. wattsii but have paler scales on stipes and rachises with narrower, more widely spaced pinnae, which taper more towards the tips. They often have irregularly fragmented and angular margins. This is the species called Blechnum sp. by Jones & Clemesha (1981). There are also B. wattsii's in the east of the State with pale scales, but at this stage they have not been separated from B. wattsii as a species. So the two eastern populations are not classified as rare or threatened, but they represent a distinct variant of B. wattsii whether considered a species or not and should be looked after.

#### OTWAYS

In addition to the Blechnum "King Island" sp., Huperzia varia and Lycopodiella serpentina, six other species occur in the Otways which are considered to be rare or threatened. The first four below are considered to be rare and are found across the State.

Cyathea X marcescens (Skirted Tree-fern) - "rare" and C. cunninghamii (Slender Tree-fern) - "rare": The former is found in the Otways, Eastern Highlands, Gippsland Highlands and East Gippsland, so is quite widespread. It is presumed to be a hybrid between the common

C. australis and the rare C. cunninghamii, so its distribution is limited by the occurrence of the latter species, which is rare in Victoria and throughout Australia. C. X marcescens was once thought to be Victoria's only endemic fern taxon. However, it is now known from Tasmania, again near C. cunninghamii of course, and a single sighting has been reported in south-east New South Wales.

Lastreopsis hispida (Bristly Shield fern) - "rare": Is locally plentiful in the Otways (e.g. Maits Rest) but very rare elsewhere. It occurs in mountains just east of Melbourne and at one locality near Yarram. It has a limited distribution throughout Australia (also in N.S.W. and Tasmania) but is common in New Zealand.

Pteris comans (Netted Brake) - "rare": Occurs in a few localities across the State, starting in the Otways and reaching to Wilsons Promontory and the Gippsland Highlands. It is widespread but localised, though quite common where it does grow. Found also in other States and Pacific countries.

The next two are vulnerable but still found in at least one Victorian locality outside the Otways.

Grammitis magellanica (a Finger Fern) - "vulnerable": This species is distinguished from G. billardieri in having glabrous stipes and sori not reaching the apex. It grows epiphytic in rain forest, usually as a single plant and large colonies are not found. We have one subspecies called nothofageti, which occurs also in Tasmania and New Zealand and so is one of our links with the southern fern floras.

Tmesipteris elongata (a Fork Fern) - "vulnerable": Grows epiphytic on Soft Tree-fern (Dicksonia antarctica), which is very common in Victoria, but T. elongata only occurs in the south-west Otways and Morwell National Park with a very recent sighting at Wilsons Promontory. It is also found in Tasmania and New Zealand.

#### MORNINGTON PENINSULA & WESTERNPORT

Lycopodia serpentilla has already been mentioned as occurring on French Island

Adiantum capillus-veneris (Venus-hair Fern) - "endangered": Was first identified in Victoria in 1981 in the south-east of Cape Schanck Coastal Park and thought to occur only there (in Victoria). However, early this year an earlier Herbarium specimen collected in 1975 at Diamond Hill (7km SSW of Bendigo) was found to be A. capillus-veneris. It had previously been wrongly identified as A. aethiopicum. This fern may turn out to be a garden escape, which of course would make a major change to its status! It is also found in other States and throughout the World, usually restricted to calcareous soils.

(The balance of this talk will be reported in the next Newsletter.)

---oo000oo---

\* \* \* \* \*  
 \* \* \* DON'T FORGET YOUR MEMBERSHIP RENEWAL \* \* \*  
 \* \* \* \* \*

SUGGESTION BOX

The Committee is anxious to have more information from Members on the way they would like the Society to function. To make communication easier, the Suggestion Box system will be resumed as from the July General Meeting.

It is hoped that Members will make active use of this system to pass on their thoughts on how the Society satisfies their needs currently, their ideas for improvement, etc. The Society has been operating for 12 years now and has a correspondingly wide spread in the experience and needs of Members. The Committee would appreciate more guidance on the balance of activities needed to meet these varying requirements. A significant proportion of our Members has had three or fewer years in the Society, so newer Members should not feel any hesitation in expressing their opinions and needs.

Members who are not able to attend Meetings are invited to make contributions by writing to "Suggestion Box", Fern Society of Victoria Inc., P.O. Box 45, Heidelberg West, Victoria 3081. The most informal of notes is all that is required. The Committee guarantees to acknowledge receipt of all suggestions promptly.

---oo000oo---

WELCOME TO NEW MEMBERS

We extend a warm welcome to the following new Members who have joined the Society recently:

Don & Marie Henderson	Greensborough,	Victoria
Coral Lindbeck	Nelsons Plains,	New South Wales
Ivan & Patricia Traverso	Canterbury,	Victoria

We also bid welcome to the members of the San Diego Fern Society, following the recent arrangement of reciprocal membership. Their monthly newsletter "Fern World" will be available through the Library in due course.

---oo000oo---

ITEMS NEEDED FOR NEWSLETTER

Articles such as the one opposite by a well-known author are great as highlights in our Newsletter. However, there is an ongoing need for regular contributions from our own Members to fill these pages.

These do not need to be major articles just summaries, as long or short as you like, of information you have gained from personal experience, reading and other sources. Practically any experience one of us has had with ferns, be it success or failure in cultivation (especially if reasons for failure are known), useful gadgets, findings on a trip to a fern area, social occasions, etc., will be of interest to other Members.

Please send any articles you can contribute to The Editor at our P.O. Box shown inside the front cover or hand them in at meetings.



## HOW TO IDENTIFY A FERN

by Barbara Joe Hoshizaki

(Cont'd from May issue)

### VENATION

The veins in the blade are arranged in a pattern. Are they unbranched or branching? Are the ends connected (netted) or free? In what direction do the veins run? If netted, do the veins enclose smaller veinlets? Are these free or attached?

Typical patterns include simple, forked with free vein ending, netted, or netted with enclosed veinlets. Examples: Polypodium aureum has netted veins with the sporangia at the tip of two included veins. Asplenium have forked veins.

### FROND SHAPE

Is the frond simple? Divided? How many times - once pinnate? -twice pinnate? Or is the margin lobed? Are the sterile and fertile fronds completely different in shape (dimorphic)?

### GROOVES

Often the midrib of the frond is characteristically grooved, so the absence or presence of the groove should be noted. Is the groove continuous? Where does it start? Does it extend into the ribs of the pinnae? This is important when considering Lastreopsis and Ctenitis.

### ILLUSTRATIONS

Cheilanthes farinosa, a Lip Fern from Africa, has marginal sori in discrete clusters. This fern has been changed from one genus to another because botanists cannot agree where it belongs.

Polypodium scolopendrium develops round sori centrally located on the back of the frond.

The California Gold Back Fern shows sporangia scattered along the veins. The yellow powder that covers the back of the frond is a protection. The sporangia are dark, like a sprinkling of pepper along the veins, rather than in clusters. Often there are different stages of maturity evident. Some are black, some brown, some green.

The frond of Hemionitis pinnatifida has netted veins and the sporangia trace this pattern.

Pelapteris peltata is a charming fern that spores easily. It is dimorphic. The fertile frond is rounded and has naked (no indusium) sporangia all over the back. The sterile frond is composed of finger-like lobes. This is a tiny creeping fern from Mexico and is well suited to terrarium culture.

Polypodium (Phlebodium) aureum illustrates netted veins. The round sori are on the ends (free tips) of included veins.

Linear sporangia follow the margins of the leaflets of Pteris longifolia. The margin forms a false indusium. The leaflets of Pteris ferns are sessile, i.e. not stalked.

The Holly Fern, Cyrtomium falcatum, has a peltate umbrella-shaped indusium.

Nephrolepis species, including the Boston ferns, have kidney-shaped indusia.

Davallia fejeensis shows typical elongated tubular indusia with the sori occurring at the ends of free veins (like a goblet with sori bubbling at the top).

Adiantum philippense has the typical false indusium and has dichotomous veining. It is possible to see the initial veins fork, and each forks again and again. Maidenhairs always have dichotomous (forked) veins.

Ferns of the Polystichum genus have eared pinnae, peltate indusia and spiny margins.

Both Platycterium and Pyrrosia have stellate hairs on their blades, but the shape of the plants readily distinguishes one genus from the other. Pyrrosia have round sori that tend to mass.

In addition to the traits mentioned previously, some others that are considered are the kinds of rhizomes and stems, the presence of hairs or scales on the rhizome, and the pattern of the vascular bundles as viewed in a cross section of the stipe or stalk of the fronds. An interesting example of a structure involving the stem is typical of the Marattia genus which has stipules or bracts where the stem joins the rhizome. Boston ferns produce long threadlike structures called stolons that are also a type of stem.

Some ferns are articulate, i.e. they lose the ageing fronds naturally at the point of attachment to the rhizome in the same manner as deciduous leaves drop from a tree. Among these are Nephrolepis, Platycterium, Davallia and Polypodium.

Observing ferns and noting their differences increases the hobbyist's awareness of detail. There may be only slight differences or these may be very marked. Even professional botanists have trouble and may argue among themselves as to which is the best classification or name for a fern. For the beginner, the best advice is: Be persistent - you will soon learn to appreciate each species of fern for its own beauty.

---oo000oo---

#### DAY TRIP TO HEALESVILLE AREA

This trip has now been confirmed for Sunday, 29th September. The places visited will include the original Black Spur road which has not been used by the public since 1939. (It is, however, kept in good condition by the M.M.B.W.)

Travel will be by private car. Details of times, meeting place, lunch arrangements, etc. will be included in the September Newsletter.

FORTHCOMING GENERAL MEETINGS

AUGUST MEETING - ANNUAL GENERAL MEETING

Date: Thursday, 15th August.  
Time: Commencing at 7.30 p.m.  
Venue: The National Herbarium, South Yarra.  
Guest Speaker: Chris Goudey, First President and Honorary Life Member of the Fern Society.  
Topic: Ferns of Zimbabwe and other items of interest from recent visit to Zimbabwe by Chris and Lorraine.

SEPTEMBER MEETING:

Date: Thursday, 19th September.  
Time & Venue: As For August.  
Guest Speaker: Paul Barnett, Leader of the Otways Group of the Society for Growing Australian Plants.  
Topic: Ferns of the Otways.

\* \* \* \* \*  
 \* \* \* DON'T FORGET YOUR MEMBERSHIP RENEWAL \* \* \*  
 \* \* \* \* \*

SPECIAL EFFORT WINNERS

June General Meeting  
 Barry Reece  
 Jenny Stokes  
 Mavis Potter  
 Fran Harrison  
 Don Fuller (2)



**Maxicrop**  
 "Goodness from the sea"

- \* Contains over 60 elements and minerals
- \* Safe and easy to use.
- \* Made from fresh growing seaweed.
- \* Ideally suited for ferns
- \* Maxicrop is available from nurseries and other places where garden products are sold.

**Maxicrop**  
 4/375 Bayswater Rd., Bayswater, Vic. 3153.  
 P.O. BOX 302, Bayswater, Vic. 3153. Tel. Melb. (03) 720 2200

**BUYERS' GUIDE TO NURSERIES:****VICTORIA:**

Allans Flat Plant Farm - Retail.  
Tomkins Lane, Allans Flat, 3691. Ph: (060) 27 1375.  
(25 Km 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,  
including public holidays, except Saturdays.

Austral Ferns - Wholesale Propagators. Ph: (052) 82 3084.  
Specializing in supplying retail nurseries with a wide range of  
hardy ferns - no tubes.

Cool Waters Fern Nursery - Wholesale Fern Propagators.  
Beech Forest, 3237. Ph: (052) 37 3283.  
Specializing in cool climate native ferns.

Dingley Fern Market - Wholesale and Retail. Ph: (03) 551 1868.  
233 Centre Dandenong Road. Dingley. 3172.  
Specializing in Ferns, Palms, Indoor Plants, Orchids and  
Carnivorous Plants. Open daily except Xmas Day.

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.

Fern Glen - 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.  
Weeaprounah, 3237. Ph: (052) 35 9383.  
Specializing in Otway native ferns.

**NEW SOUTH WALES:**

Jim & Beryl Geekie Fern Nursery - Retail.  
6 Nelson Street, Thornleigh, 2120. Ph: (02) 484 2684.  
By appointment.

Marley's Ferns - Retail.  
5 Seaview St., 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.  
(1 Km. north of Big Pineapple. Turn right into Kell Road).