

# FERN SOCIETY OF VICTORIA NEWSLETTER

Volume 34, Number 3  
May/June 2012





# Fern Society of Victoria Inc.

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## Objectives of the Fern Society of Victoria

To bring together persons interested in ferns and allied plants

To promote the gathering and dissemination of information about ferns

To stimulate public interest in ferns

To promote the conservation of ferns and their habitats

## Office bearers

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<b>Committee members</b>	Mirini Lang 9886 6109, Gay Stagoll 9844 1558, Brenda Girdlestone 9390 7073, Warren Simpson 0419 594 524,		

## Subscriptions

<b>Single</b>	\$17.00
<b>Pensioner/student</b>	\$14.00
<b>Family</b>	\$19.00
<b>Pensioner family</b>	\$16.00
<b>Overseas</b>	\$25.00 (overseas subscription

payments by international bank cheque in \$Aus, by airmail please)

**Subscriptions fall due on 1 July each year**

## Meeting venues

The Kevin Heinze Garden Centre, 39 Wetherby Road, Doncaster [Melway 47 H1]

Other meetings as advertised in this Newsletter

## Timetable for evening general meetings

**7:30** Pre-meeting activities – sale of ferns, spore, books, merchandise and special effort tickets. Also library loans and lots of conversation.

**8:00** General meeting

**8:15** Workshops and demonstrations

**9:15** Fern identification and pathology, special effort draw

**9:45** Workshops and demonstrations

**10:00** Close

Opinions expressed in this Newsletter are the personal views of the authors and are not necessarily endorsed by the Society, nor does mention of a product constitute endorsement.

# Forthcoming meetings — Fern Society of Victoria

7:30 pm Thursday 17 May 2012

Don Fuller leading a discussion on fern maintenance.

Location: Kevin Heinze Centre, Doncaster (see inside cover for details)

Fern competition: *Asplenium*

7:30 pm Thursday 21 June 2012

Barry Stagoll: Ponds and water in the garden

Location: Kevin Heinze Centre, Doncaster (see inside cover for details)

Fern competition: Any water-related ferns (eg *Blechnum* spp)

**See the Calendar of Events on page 14 for details of meetings for July and beyond**



Cover image: Garden fork 25 m high in a giant *Eucalyptus regnans* in Tasmania (see Fern High Climbers article on pages 8-10). Photo: Brett Mifsud.

Above: Endeavour Fern Gully on the Mornington Peninsula, Victoria. Photo: Barry Stagoll.



## President's Note

The late March excursion to Endeavour Fern Gully proved most worthwhile and interesting for the members who participated, although only a small number did so. We were ably hosted for our visit by Gillian Tolley, who as a National Trust volunteer at the property facilitated our visit, and her colleague Pat Jemmet. (Greg Holding provided me with the contact details for Gillian, and I would also like to acknowledge his help in setting things up for us).

Having not had any detailed background on the site prior to our visit we were most impressed to find that the Gully is replete with ferns, comprising many species, in a very beautiful forest setting which also contains a great many species of interesting flowering plants, fungi, and wildlife.

There is a considerable length of boardwalk which feeds on to a walking track through the Gully. There is a very substantial population of *Cyathea australis* and *Dicksonia antarctica* treeferns on the property, and evident beyond its boundary are very numerous additional ferns of these species.

We can highly recommend a visit to this site. Check with the National Trust of Victoria for details of access times, etc. (their website is a convenient option).

We have indicated the intention to schedule a number of excursions in this year's calendar of FSV activities (with the next one due before this Newsletter arrives with members). If you haven't participated previously, be assured that you'll get a good welcome if you come along.

*Barry Stagoll*



Left to right: Pat Jemmet, Ray Turner, Gillian Tolley, Barry & Gay Stagoll at the Endeavour Fern Gully Excursion. Pat & Gillian hosted the FSV visit on behalf of the National Trust of Victoria. Photo: Eva Kowal.



## Editor's Note

If all goes according to plan, the issue of the Newsletter you are reading now will be printed in full colour throughout. The Committee are very interested to hear your comments for and against this initiative. At the moment we are only doing full colour for this issue, and the additional cost for doing that works out at less than \$1 per member. If we were to print every issue in full colour, that would roughly double the Society's printing costs, which would go up to ~\$2,000 per annum. We could fund that by spending a little of our cash reserves, or by putting up membership fees by a few dollars. My opinion is that printing every issue in full colour may be a little extravagant, and it may be difficult to generate sufficient content to justify that every issue. But I do think a "bumper edition" in colour throughout once or twice per year might be a good compromise, assuming that we can assemble sufficient articles and photographs. Another favoured (and more affordable) option is to have a colour centrefold (pages 7-10) in every issue. Your thoughts on this will be very important as the Committee considers the issue, so please take the time to use the contact details on the inside cover of this issue and let one of us know. Or come along to a meeting and be part of a discussion.



Observant readers will notice a couple of changes in the advertisements in this issue. Chris Goudey has asked that his Austral Ferns advertisement be withdrawn from this and future issues. A new advertiser appears in the form of Snap Printing, Heidelberg, who have been printing our Newsletter for many years now with complete reliability. If, occasionally, the Newsletter reaches your letterbox a little later than usual (as will be the case this month, I fear), that is invariably my fault alone. I hope no-one finds the advertisements intrusive; they are not numerous and they do defray significantly from the cost of producing and distributing the Newsletter. Please support our advertisers with your custom and by word of mouth when you can.

Having plenty of interesting material in hand to publish has made it a pleasure putting this issue of the Newsletter together. I hope all members enjoy the articles also, and thanks so much to the contributors. Coming up in future issues I've been promised at least one book review and I have in hand another informative article by Keith Hutchinson and some wonderful photographs of Madagascar ferns (and wildlife) provided last year by Ken Harris after his talk on his trip to Madagascar. Keep the contributions coming.

*Robin Wilson*

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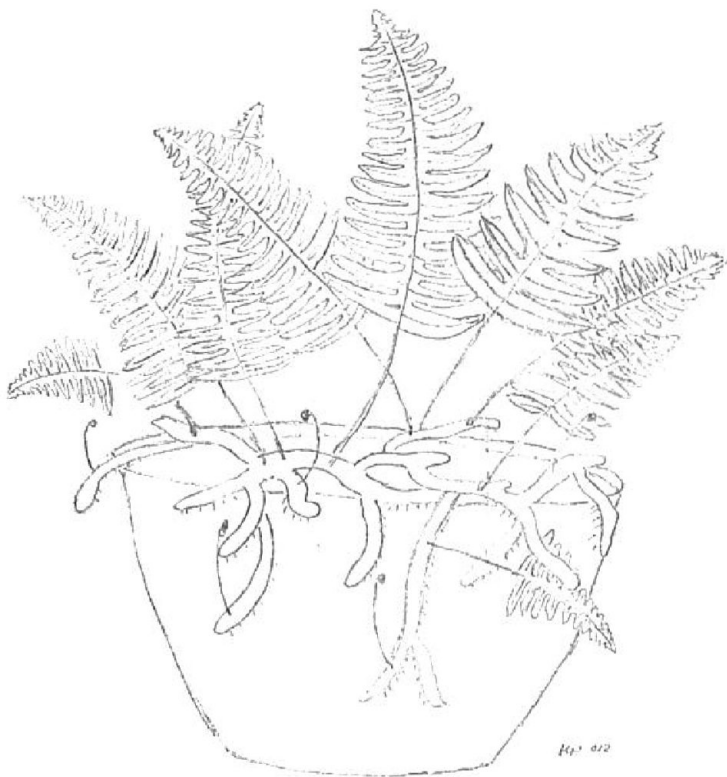


# My Favourite Ferns

Keith Hutchinson

## No. 10 *Polypodium formosanum*

I have this interesting fern growing in a pot on a table in our sunroom and it creates some interest when friends visit. The green rhizome with smooth greenish white bloom is unique in appearance, giving the name Grub Fern or Caterpillar Fern. It is native to Taiwan, China and Japan. Many of the other 75 or so known *Polypodium* species are found in Asia, Europe and the British Isles. Not at all difficult to grow, even in cool areas, *Polypodium formosanum* can be divided in spring, with new fronds appearing in summer and autumn. As with most epiphytes, it needs an open potting mix with good drainage. A must for every fern lover.



*Polypodium formosanum*. Left, drawing by Keith Hutchinson; below, the Editor's plant in a hanging basket. Photo: Robin Wilson.





Endeavour Fern Gully, Red Hill, Mornington Peninsula  
List of fern species from Fern Society of Victoria excursion,  
31 March 2012  
Barry Stagoll

The following species were noted during our excursion. Thanks to Secretary Barry White who prepared the core of the following list. A few of the fern species were not included on the list recorded by the National Trust prior to our visit.

*Adiantum aethiopicum*  
*Blechnum cartilagineum*  
*Blechnum fluviatile*  
*Blechnum minus*  
*Blechnum nudum*  
*Blechnum wattsii*



Ferns lurk below. Endeavour Fern Gully on the Mornington Peninsula. Photo: Barry Stagoll.

*Calochlaena dubia*  
*Cyathea australis*  
*Dicksonia antarctica*  
*Histiopteris incisa*  
*Hypolepis muelleri*  
*Lindsaea linearis*  
*Microsorium pustulatum*  
*Pteridium esculentum*



*Microsorium pustulatum* at the Endeavour Fern Gully on the Mornington Peninsula. Photo: Barry White.

## Boolarra Plants

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# Fern High Climbers

Brett Mifsud

Tucked away, hidden high up in some of the world's tallest tree species, some very hardy ferns flourish. It is often the case that these epiphytic ferns are totally absent from the forest floor, especially in the tropical and sub tropical forests. Here the extreme humidity and low light at ground level prohibit the growth of many epiphytic fern species. However, up in the canopy some branches are literally covered in birds nests, basket ferns, elk and stag ferns and many other ferns (as anyone who has visited the forests of North East NSW and coastal Queensland will have witnessed). I have been lucky enough to have climbed up to 80m in the canopy of some huge tropical trees in Sabah, a

province of Malaysian Borneo. High up in the canopy, the diversity of climbers, epiphytic ferns and orchids is astounding. In some trees it seemed as if these extra plants would add almost double the weight the branches had to support. However, in these jungles of Sabah, the diversity of ferns on the forest floor in mature rainforest was often quite low. In fact ferns were most likely to be seen along river and creeks in the open or colonising areas that had recently been disturbed.

In some temperate forests, epiphytic ferns can also be found flourishing high above the forest floor. However, in trees such as Californian Redwoods in



Some basket ferns and vines 80 m up a giant Dipterocarp in Sabah, Borneo. Photo: Brett Mifsud.



## Fern High Climbers (continued)

California and *Eucalyptus regnans* in Tasmania, it often takes centuries before individual trees develop the necessary architecture and branch size to support the humus layer necessary for ferns to take hold. This is especially the case in *Eucalyptus regnans*, because as they shed their thin bark annually, a fern can only take hold in an

area where the tree has either rotted, or had accumulated some humus in a giant fork. Ferns I have found high up in *Eucalyptus regnans* include: *Rumohra adiantiformis*, *Phymatosorus diversifolium*, a species of *Hypolepis* and even some *Dicksonia antarctica* in some lower forks.



A specimen of *Platycerium*, 65 m up in a giant Dipterocarp in Sabah, Borneo. Photo: Brett Mifsud.



## Fern High Climbers (continued)

In the higher rainfall zone of the Californian Redwoods, the species of fern that commonly colonised branch forks high up in the canopy is the *Polypodium scolieri*. In older trees, these fern 'mats' can get huge and support whole

ecosystems high up in the canopy that include a whole range of invertebrates and even salamanders.



Reverse side of *Polypodium scolieri* frond up a Californian Redwood. Photo: Brett Mifsud.



Tree fern (unknown *Cyathea* sp.) from Sabah, Borneo. Photo: Brett Mifsud.

### The Bush House Nursery

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# *Asplenium bulbiferum* complex

Barry White

The fern which is commonly sold as *Asplenium bulbiferum* (Hen and Chicken Fern) is not such. It is in fact a sterile hybrid between the New Zealand *Asplenium bulbiferum* subspecies *bulbiferum* and *Asplenium dimorphum* from Norfolk Island. New Zealand botanists have given the name *Asplenium x lucrosum* to the hybrid. It is not a naturally occurring hybrid as the parents do not co-exist.

The hybrid *Asplenium x lucrosum* is thought to have come about in England back in the 1820s when both of the presumed parents were already present. It is not known whether the hybrid occurred as a chance event, or whether it was by deliberate attempts at hybridization which were popular at the time. It has since been widely distributed under the name of *Asplenium bulbiferum*. Its ability to produce many bulbils has greatly facilitated its distribution. The Latin epithet now applied to it "lucrosum" means profitable or gainful referring to its value to the nursery industry.

Will the name "*Asplenium x lucrosum*" be taken up by the nursery industry? Probably not, the fern will undoubtedly continue to be sold under the common name of Hen and Chicken Fern and as *Asplenium bulbiferum*.

The true *Asplenium bulbiferum* occurs naturally in Australia and in New Zealand. It is divided into two subspecies. The one which occurs in Australia is now called *Asplenium bulbiferum* subspecies *gracillimum*. This subspecies is also present in New Zealand, whereas *Asplenium bulbiferum* ssp. *bulbiferum* occurs only in New Zealand.

There are sufficient differences between the two subspecies that it has been suggested that they be given separate species names. One New Zealand botanist has suggested that the Australian form be given the name *Asplenium gracillimum* and the New Zealand form be called *Asplenium bulbiferum*.



*Asplenium dimorphum* (left); *Asplenium x lucrosum* (right). Photos: Barry White.



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## Asplenium bulbiferum complex (continued)

“Maori Princess” and “Island Beauty” both distributed by Chris Goudey are also hybrids from the N.Z. *Asplenium bulbiferum* ssp. *bulbiferum*. The first was a naturally occurring hybrid with *Asplenium oblongifolium*, whereas the latter was deliberately produced by Chris using spore from the New Zealand fern and from *Asplenium surrogatum* from Lord Howe Island. Both hybrids are very attractive and continue to produce plentiful bulbils.

Further Reading “The Strange Case of *Asplenium bulbiferum*” by Graham Ackers in the Pteridologist published by the British Pteridological Society 2011.

The differences between the two forms according to the New Zealand botanists are listed in the table on the following page.



*Asplenium bulbiferum* as illustrated by Hooker in *Icones Plantarum* (1847). Hooker's material for this illustration came from New Zealand, and judging from the plentiful bulbils this specimen should be considered *Asplenium bulbiferum bulbiferum*. [The addition of this image and comment is from the editor, not Barry White.]



## *Asplenium bulbiferum* complex (continued)

### Differences between the two forms.

Character	<i>Asplenium bulbiferum</i> ssp. <i>bulbiferum</i>	<i>Asplenium bulbiferum</i> ssp. <i>gracillimum</i>
Cytology	Tetraploid	Octoploid
Frond size	Larger	Smaller
Frond colour	Pale green	Darker green
Stipe scales	Short, pointed, ovate or triangular	Long tapering tips
Spores	Smaller	Larger
Bulbils	Normally plentiful	Scarce
Habitat	Damp valley floors	Drier areas, often epiphytic
Distribution	New Zealand, although largely absent from the east of the South Island	New Zealand; Australia: New South Wales, Victoria, Tasmania



*A. bulbiferum bulbiferum* (left); *A. bulbiferum gracillimum* (right). Photos: Barry White.



## 2012 Calendar of events — Fern Society of Victoria

7:30 pm Thursday 17 May 2012

Don Fuller leading a discussion on fern maintenance.

Location: Kevin Heinze Centre, Doncaster (see inside cover for details)

Fern competition: *Asplenium*

7:30 pm Thursday 21 June 2012

Barry Stagoll: Ponds and water in the garden

Location: Kevin Heinze Centre, Doncaster (see inside cover for details)

Fern competition: Any water-related fern (eg *Blechnum* spp)

7:30 pm Thursday 19 July 2012

Terry Turney: [topic to be advised]

Location: Kevin Heinze Centre, Doncaster (see inside cover for details)

Fern competition: to be advised in the next newsletter

Events for August and beyond will be advised in future newsletters



Another view of the Endeavour Fern Gully on the Mornington Peninsula, Victoria. Photo: Barry Stagoll.



## Fern Society of Victoria Spore Bank

Fern spore is free to members of the Fern Society of Victoria who donate spore. Otherwise the cost is members 50 cents per sample, non-members \$1, plus \$1.00 to cover postage and handling. Available at meetings or by mail from Barry White, 34 Noble Way, Sunbury, Vic. 3429 Australia, Ph. (03) 9740 2724. There is no charge for spore for overseas members, however to cover postage two International Reply Coupons would be appreciated; or alternatively spore may be exchanged. International Reply Coupons are being phased out in favour of PayPal via the FSV website. Overseas non-members may purchase spore at three packets for each International Reply Coupon, plus two coupons per order to cover postage and handling. There is a limit of 20 packets per order. Some spores are in short supply please include alternatives. Queries can be emailed to: Barry White [barry\\_white1@msn.com.au](mailto:barry_white1@msn.com.au). The following list is current as of February 2012, but consult the web page at <http://home.vicnet.net.au/~fernsvic/Sporlist.html> for updates and for details of payment options for spore purchases. Thank you to the spore donors who are listed on the web page.

<i>Acrostichum speciosum</i> 4/09	<i>Cyathea exilis</i> 6/11	<i>Ophioglossum pendulum</i> 7/08
<i>Adiantum concinnum</i> 4/11	<i>Cyathea felina</i> 10/08	<i>Paesia scaberula</i> 1/12
<i>Adiantum formosum</i> 1/12	<i>Cyathea howeana</i> 10/10	<i>Pellaea cordata</i> 7/09
<i>Aleuritopteris kuhnii</i> 6/10	<i>Cyathea macarthuri</i> 10/10	<i>Pellaea falcata</i> 1/11
<i>Amphineuron opulentum</i> 4/10	<i>Cyathea medullaris</i> 11/08	<i>Pellaea hastata</i> 5/10
<i>Anemia phyllitides</i> 6/09	<i>Cyathea robusta</i> 9/10	<i>Pellaea viridis</i> 1/08
<i>Anemia tomentosa</i> 8/08	<i>Cyathea rebecca</i> (crested) 9/10	<i>Pityrogramma calomelanos</i> 8/11
<i>Angiopteris evecta</i> 11/09	<i>Cyrtomium caryotideum</i> 8/10	<i>Platycterium bifurcatum</i> 4/11
<i>Arachniodes aristata</i> 11/10	<i>Cyrtomium fortunei</i> 6/10	<i>Platycterium superbum</i> 4/08
<i>Arachniodes mutica</i> 10/08	<i>Dicksonia antarctica</i> 9/10	<i>Platycterium veitchii</i> 1/11
<i>Arachniodes standishii</i> 8/11	<i>Diplazium australe</i> 1/12	<i>Pleioneuron tuberculatus</i> 1/11
<i>Asplenium milnei</i> 10/10	<i>Diplazium assimile</i> 6/09	<i>Pneumatopteris sogerensis</i> 12/08
<i>Asplenium nidus</i> 5/08	<i>Diplazium dilatatum</i> 12/10	<i>Pneumatopteris costata</i> 6/11
<i>Asplenium nidus</i> cv.5/08	<i>Diplazium dilatatum</i> x <i>Deparia</i>	<i>Polystichum aculeatum</i> 7/09
<i>Asplenium pellucidum</i> 3/11	<i>petersenii</i> v. <i>congrua</i> 3/11	<i>Polystichum australiense</i> 2/12
<i>Athyrium filix-femina</i> (red stipe) 12/10	<i>Doodia australis</i> 1/12	<i>Polystichum formosum</i> 2/12
<i>Athyrium otophorum</i> 1/12	<i>Dryopteris affinis</i> 'Cristata' /08	<i>Polystichum proliferum</i> 12/10
<i>Blechnum ambiguum</i> 1/08	<i>Dryopteris erythrosora</i> 1/12	<i>Polystichum retroso-paleacum</i> 12/11
<i>Blechnum braziliense</i> 1/12	<i>Dryopteris guanchica</i> 11/11	<i>Polystichum whiteleggei</i> 10/10
<i>Blechnum chambersii</i> 9/11	<i>Dryopteris sieboldii</i> 3/11	<i>Polystichum xiphophyllum</i> 3/08
<i>Blechnum discolor</i> 8/11	<i>Dryopteris sparsa</i> 5/11	<i>Pronephrium asperum</i> 1/11
<i>Blechnum fluviatile</i> 9/11	<i>Gymnocarpium oyamense</i> 6/11	<i>Pteris aspericaulis</i> 8/10
<i>Blechnum spicant</i> 1/12	<i>Histiopteris incisa</i> 12/11	<i>Pteris biaurita</i> 4/11
<i>Blechnum patersonii</i> 4/11	<i>Hypolepis glandulifera</i> 1/12	<i>Pteris dentata</i> 12/10
<i>Blechnum wattsii</i> 9/11	<i>Lastreopsis acuminata</i> 4/11	<i>Pteris hendersonii</i> 12/10
<i>Blechnum wurunurum</i> 7/11	<i>Lastreopsis decomposita</i> 1/12	<i>Pteris pacifica</i> 6/10
<i>Chingia australis</i> 6/11	<i>Lastreopsis marginans</i> 5/11	<i>Pteris stenopylla</i> 4/11
<i>Christella hispidula</i> /09	<i>Lastreopsis microsora</i> 6/10	<i>Pteris tremula</i> 11/10
<i>Christella parasitica</i> 5/11	<i>Lastreopsis nephrodioides</i> 10/10	<i>Pteris umbrosa</i> 1/12
<i>Christella subpubescens</i> 12/08	<i>Lastreopsis rufescens</i> 3/11	<i>Revwattsii fragile</i> 3/11
<i>Cyathea australis</i> 1/12	<i>Lastreopsis tenera</i> 3/11	<i>Rumohra adiantiformis</i> (Cape form) 2/08
<i>Cyathea baileyana</i> 3/11	<i>Lygodium japonicum</i> 2/10	<i>Sphaerostephanos heterocarpus</i> 7/08
<i>Cyathea cooperi</i> 1/09	<i>Macrothelypteris polypodioides</i> 1/11	<i>Thelypteris patens</i> 9/09
<i>Cyathea cooperi</i> (Blue Stipe) 1/11	<i>Macrothelypteris torresiana</i> 6/10	
<i>Cyathea cooperi</i> 'Brentwood' 3/08	<i>Microlepis firma</i> 1/12	
<i>Cyathea cooperi</i> 'Cinnamon' 4/11	<i>Microsorium punctatum</i> 1/09	



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