# FERN SOCIETY OF VICTORIA NEWSLETTER Volume 32 Number 2

Volume 32, Number 2 March/April 2010



# Fern Society of Victoria Inc.

ABN 85 086 216 704

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web: http://home.vicnet.net.au/~fernsvic/

# **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

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# **Subscriptions**

Single	\$17.00	Opinions expressed in this					
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Pensioner family	\$16.00	Society, nor does mention of a					
Overseas	\$25.00 (overseas subscription	product constitute endorsement.					
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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

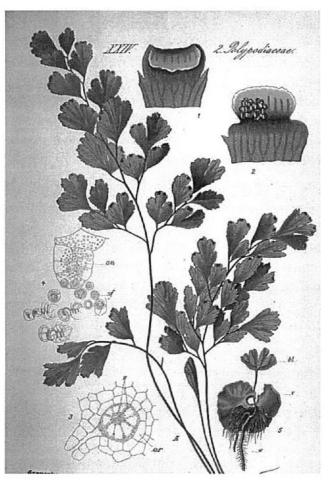
10:00 Close

# Next Meeting

#### Thursday 18 March 2010 Barry Stagoll Ferns (and wildflowers) of Western Australia, and ferns in Brisbane public gardens

Illustrated botanical narrative of journeys Barry and Gay have taken in Western Australia and Brisbane

Fern competition: Adiantum



Adiantum cappillus-veneris (from Thome (1885-1905) "Flora of Germany, Austria and Switzerland"; see article on page 8)

# See page 14 for a calendar of meetings for 2010

Cover image: Asplenium marinum from "The ferns of Great Britain and Ireland" (1857) by Thomas Moore

#### President's Note

Hopefully members have had a somewhat easier time looking after their ferns and gardens over summer than in the previous one, with slightly cooler conditions and somewhat more frequent showers.

But the last couple of years (and the watering restrictions) have not been at all helpful to ferns growing in the outdoors. In our garden, *Dicksonia* numbers have continued to dwindle, although our few cyatheas still carry on. Aside from ferns such as platyceriums and davallias (which continue to prove their tolerance of the dry), and a few species of ground ferns (including native adiantiums), many of those which continue to survive in the outdoors at our place are mere shadows of their former selves – not to dwell on those we have lost. The stress of several difficult years is now telling on those remaining, and they'll need plenty of intensive care still to restore them.

On visits to locations around Melbourne where ferns grow in natural situations, the evidence of stress from the dry years we've had is also evident. At least as this summer comes to an end we can look forward to enjoying easier access to locations further afield where ferns grow naturally than was the case last year following the widespread fire damage.

I should remind members that Mirini and Russell Lang will have their garden open to the public through the Open Garden Scheme on the weekend of March 20 and 21. Mirini wrote about the garden and her ferns in FSV Newsletter Vol 31 No 6. If you'd like to see the garden don't forget to make a visit during the open hours of 10am to 4.30pm during that weekend.

Some weeks back I took a phone enquiry on the subject of possible candidates among ferns for planting in "vertical gardens" (following a visit to our website by the enquirer). After a general discussion, he indicated that he intended to email me with more specific questions but this hasn't eventuated. However, the question was an interesting one, and it set me about "imagining" how ferns might be used in this somewhat novel approach to building a garden or indoor feature with living plants. The general concept is not entirely new, of course. Vertical or near vertical walls of rock or brick have been used in gardens for a long time, and many examples exist where plants have been placed in them (or lodged there by themselves) to create the effect of a natural rockface inhabited by wild plants. In the wild ferns are frequently found growing in such situations, and very often many types of fern (and for that matter, other plants) are more easily and better observed when growing on a vertical face than in the ground. It puts a lot less strain on the knees, and the back, than studying, or just enjoying, small plants growing at ground level!

Anyway, I thought that I would do some more thinking about placing ferns in vertical gardens and write up my thoughts. So I'm off to do this now – perhaps in time to run in this issue? Others may like to contribute their own thoughts on the subject for us to read in future issues.

Barry Stagoll

#### Editor's Note

Greetings readers. This is normally where I apologise for whatever mistakes were unwittingly introduced in the previous Newsletter. Henceforth I shall try to do less of that (and make you work a little harder to find mistakes yourselves). However there is one error in the previous Newsletter that is too important not to make mention of: the excursion to the homes and gardens of members Margaret and Don Fuller and Brenda Girdlestone and John McKenzie was given an incorrect date in the previous Newsletter. As is now stated in the notice on page 6 and on the calendar of events on page 14, this will take place on **Sunday 18 April 2010**. Please don't turn up any other day! The Newsletter you are reading now has a fascinating article by Barry Stagoll on the potential for vertical gardens using ferns. Barry also provided another article on Kells Gardens in Ireland which will appear in the June-July Newsletter. I am prompted yet again to ask you all to contribute articles large or small, and/or photographs, for future newsletters. And thanks to the regular contributors for their contributions.

Robin Wilson

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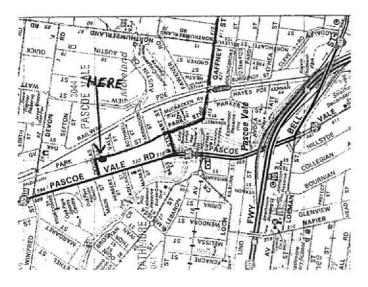
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### April Meeting - Sunday 18th April 2010 Excursion to members' gardens

Our meeting on Sunday April 18t" will take the form of a visit to two gardens of members in the north western suburbs of Pascoe Vale and Taylors Lakes.

The first location is the home of Margaret and Don Fuller at 55 Park Street Pascoe Vale (Mel.Ref. 16-J8). Park Street can be accessed at either Douglas Street Oust around the corner on the west side) or at Stewart Street. For those travelling from the east via Bell\* or Gaffney Streets, Park Street is the street at the very end of Gaffney Street.

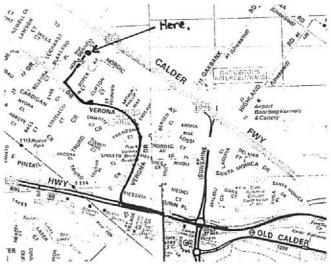


If travelling via Bell Street it is easier and safer to turn right at either Sussex Street (Mel.Ref. D -11) or Cumberland Road (MeLRef.B-11) then left at Gaffney Street rather than use the Citylink offramp.

Please aim to arrive 11-30 - 11-45am.

After viewing ferns and any discussion we will have lunch. This will be BYO food, drinks, eating and drinking utensils. Coffee and tea will be provided and a barbecue is available. A folding chair could be handy. Hopefully some of Jean Boucher's adiantum and nephrolepis ferns will be available for sale.

After lunch, at approx 1-30pm, we will proceed to the home of Brenda Girdlestone and John Mckenzie at 8 MacDonnell Court Taylors Lakes (Mel.Ref. 3-J11). Access to MacDonnell Court is via the northern end of Nordic Avenue which is best reached by leaving the Melton Highway at the traffic lights at Verona Drive. If you can only attend the second visit we should be there before 2-OOpm.



After viewing and discussing the ferns of Brenda and John we will have afternoon tea. Please bring a small plate of food to share.

There is a special invitation to those unable to attend our regular meetings to come along to what should be a great informative and social occasion.



Doodia media, Canberra Botanic Gardens, December 2009 (photo: Robin Wilson)

# Annual subscriptions overdue

Please check the mailing label of your January/February 2010 Newsletter: if your address label had a big blue dot, and if you have not since paid, then your subscriptions is overdue. Please consult the inside cover for the correct subscription amount and post a cheque to the Treasurer straight away.

### Fern Botanical Art - Historical Plates

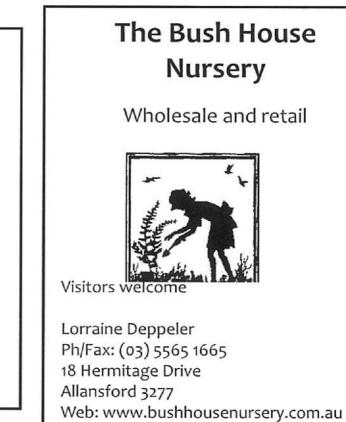
The following note derives from a short piece by Guenther K. Machol for the Fiddlehead Forum, the journal of the American Fern Society

Anyone interested in historical drawings of ferns will likely enjoy the high-resolution, color scans of plates from Thome, "Flora of Germany, Austria and Switzerland", (1885-1905). Among the 572 color drawings are 16 color drawings of ferns, many with fine detail, including *Adiantum*, *Asplenium, Athyrium, Blechnum, Botrychium, Ceterach, Cheilanthes, Cryptogramma, Cystopteris, Marsilea, Matteuccia, Pilularia, Woodsia, Polystichum* and *Phegopteris.* The images were scanned at 300 (and 100) dpi by Dr. Kurt Stueber (www.biolib.de) of the Max Planck Institute for Plant Breeding Research, Cologne, Germany; they are available at the following web site.

http://caliban.mpizkoeln.mpg.de/thome/Alphabetical\_list.html



Atherium filix-femina from Thome's "Flora of Germany, Austrla and Switzerland" (see note this page)



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## Ferny crossword no. 2

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#### ACROSS

3. growing in soil (11)

4. brakes (6)

6. common name of a fern of the genus

Equisetum (9)

7. stage in fern life cycle after germination of spore (10)

9. both fish and ferns often have them (5)

10. genus name of the oak-leaf fern (8)

11. author of 2 volume "A Handbook to Plants in Victoria" (3,6)

13. small bud through which some ferns reproduce asexually (6)

14. all the plant species of a region (5)

15. toothed (7)

#### DOWN

2. First botanist to write about Australian ferns (6,5)

3. Type of insect living in association with potato fern (3)

4. Fiddlehead (7)

9. Species name of most recently described

Australian Sticherus (10)

12. The study of interactions between organisms and their environment (7)

13. A floating fern (6)

16. Part of a divided leaf (4)

(See next Newsletter for the solution)

Solution to crossword from previous Newsletter: ACROSS

1. Pteridophyta; 5. stolon; 6. Elk; 7.

gametophyta; 8. herbarium; 10. nardoo; 11. sporocarp; 13. Adiantum; 14. epiphytic; 15. Nephrolepis; 17. stipe; 18. apex; 19. Linnaeus.

#### DOWN

2. Robert Brown [yes, the crossword only works with a space between the names, that was your editor's mistake, sorry for tripping everyone]; 3. ant; 4. crozier; 9. urceolatus; 12. ecology; 13. Azolla; 16. pinna.

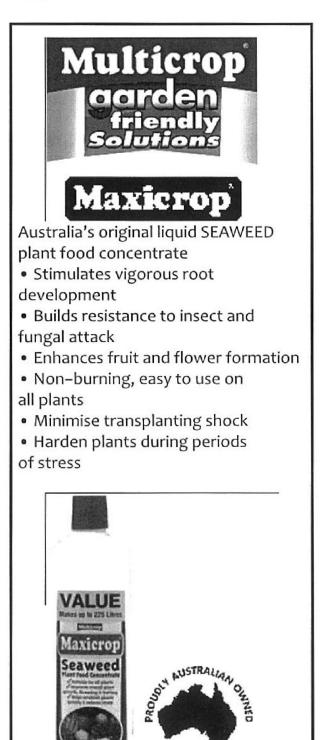
## Potting Mixes and Fertilisers Keith Hutchinson

### This talk was given by Keith at the FSV meeting on 18 Feb 2010, thanks to Mirini Lang for transcribing

The basic ingredient in potting mixes today is composted pine bark fines. Any of the following ingredients can then be added to suit the needs of a particular fern. Percentages provided are just a guide.

- **Composted shredded soft tree fern**. One only has to look at the quality of Fern Acres ferns to know that this is a most important addition. Keeps the mix very open and good for epiphytes.
- German Peatmoss. This was very popular during the sixties and seventies as it has excellent ability to hold nutrients in available form for the plants. It is now imported from Canada and is quite expensive. Add 10% or more to a mix.
- Coir Peat. A good alternative to peatmoss. Imported from Sri Lanka and is sold in a brick form which swells up when soaked in water. Add 10% or more to a mix.
- Perlite or Vermiculite. Can be added to lighten a mix and holds water. Add 10%.
- **Coarse sand.** Helps aerate a mix but is very heavy. Add 10%.
- **Diatomite.** A hi-silica product which enhances the uptake of soluble fertilisers but can cause rotting if overused. Use in small amounts.

(continued next page)



# Potting mixes and fertilisers (continued)

- Saturaid. An excellent addition. Add a teaspoon to a 15cm pot or a dessert spoon to a 20cm pot to help the water permeate throughout the mix.
- Worm castings. If available, these can be an excellent addition to your mix as they have a perfect balance of nutrient which are freely available to plants.

If you have the time to make up your mix, Grow Better Potting mix with 6 black ticks or 6 red ticks (extra additives) is good. It is composted pine bark fines. Use 50%. Beware of potting mixes which haven't been composted properly. They will use up valuable nitrogen.

Fertilisers. Plants need Nitrogen for leaf growth, Phosphorus for root growth and Potash for cell division (get bigger fruit).



Pellaea falcata, Otway Ranges (photo: Robin Wilson)

### Ferns in Vertical Gardens Barry Stagoll

A question put to me on the subject of possible candidates among ferns for planting in "vertical gardens" prompted me to "imagine" how ferns might be used in this somewhat novel approach to building a garden or indoor feature with living plants.

The term 'vertical garden' is relatively new in general use, but the concept as such is not entirely new, of course. Vertical or near vertical walls of rock or brick have been used in gardens for a long time, and many examples exist where plants have been placed in them (or lodged there by themselves) to create the effect of a natural rockface inhabited by wild plants.

In the wild ferns are frequently found growing in such situations, and very often many types of fern (and for that matter, other plants) are more easily and better observed when growing on a vertical face than in the ground. It puts a lot less strain on the knees, and the back, than studying, or just enjoying, small plants growing at ground level!

The overall visual impact of a well-furnished vertical garden can be very engaging. Somewhat reminiscent of a well-grown, fine array of flowering climbers such as clematis, roses, or wisteria on a trellis or wall, but presenting a variety of individual plants of differing forms and textures which obtain their roothold, their nourishment, and their moisture from the vertical surface rather than from the ground below.

The 'masters' of the vertical garden fashion scene command large incomes from the projects they are commissioned to install – typically in large institutional or corporate premises, shopping centres and public spaces, and substantial private residences and gardens. Some of these creations are seriously tall (2 or 3 stories high). The fashion is attested (as by pretty much everything fashionable these days) by the presence of lots of mentions on the internet, as well as in more traditional media such as magazines and books about gardening and landscaping. 'How to' information is also quite widely published – although it seems clear from surveying this that the 'best practice' for building vertical gardens is still under development to a greater extent than other forms of landscaping and horticulture.

Typically, some mesh material (preferably not one vulnerable to rotting or liable to be degraded by oxidisation) is employed to hold the growing media suspended, with plants being inserted behind the mesh through its apertures. Inorganic absorbent moisture-retaining materials such as rockwool insulation can serve to provide a longterm base for securing plant roots and holding nutrients in solution to maintain the plants. Gravity will pull the moisture downwards, so a means of collecting it at the foot of the garden and recycling it to the top would be advisable.

It seems axiomatic that vertical gardens will be challenging to establish and maintain in dry situations, and particularly those also subject to higher temperatures and strong winds, unless the plant species used are selected carefully to cope with these conditions.

In some climates, including ours, this leads to the thought that attempts to incorporate examples of the great majority of fern species in a vertical garden would be problematic unless the garden is located in a position sheltered from direct sun and radiated heat, and also from strong air movement. Most ferns would also need more careful attention given to their watering and airhumidity requirements than other plant groups. A vertical garden situated in an enclosed environment such as a building fover or a conservatory would be entirely feasible, and a space partially open to the outdoors but facing south and well-(continued next page) sheltered from

## Ferns in Vertical Gardens (continued)

strong winds could be suitable.

The selection of particular ferns would then come down to whether the available light levels will satisfy their requirements, and whether their growing requirements are compatible with the characteristics of the growing media and the irrigation regime. Pretty much all ferns are capable of growing in vertical situations. Naturally, species which typically grow as epiphytes will tend to be easier to establish and maintain.

So what particular ferns might be amongst the easiest subjects for a vertical garden?

If we start with Australian species which we know to be relatively drought-tolerant, then we could speculate that some or all of the following might amongst those suitable (in the tropics and subtropics the list could be much longer than for us in the south):

**Ground ferns** (those marked \* often grow as ephiphytes; those marked # would be likely to overwhelm less vigorous plants):

> Adiantum aethiopicum \* Adiantum hispidulum Asplenium bulbiferum\* Calochlaena dubia # Cheilanthes Dichtymia brownii \* Doodia (especially D.media) Histiopteris hispida # Lastreopsis acuminata, & some other Lastreopsis species Nephrolepis cordifolia \* # Pellea falcata & P. paradoxa Pteridium esculentum # Pteris tremula Polystichum proliferum Rumohra adiantiformis \*

**Epiphytes** (all vigorous plants, most growing to considerable size – unless it was not intended to accommodate smaller species long-term these would need to be used sparingly, or the plantings rearranged regularly):

Asplenium australasicum Davallia pyxidata Drynaria (all species) Microsorum pustulatum ssp pustulatum Pyrrosia (all species) Platycerium (all species)

Many species having similar growing requirements from other parts of the world would also be suitable. Many *Asplenium*, *Davallia*, *Nephrolepis*, and *Pyrrosia* species, for instance, come to mind.

Ferns would happily share residence with other plants, including mosses and flowering plants (although many of the latter may require higher light levels to bloom satisfactorily). Epiphytic flowering plants including Vireya rhododendrons, bromeliads, orchids, Hoyas and carnivorous species would be on the list of candidates.

Many fern growers already have collections of *Platyceriums, Pyrrosias, Davallias, Drynarias*, and similar plants mounted on walls, which take on an appearance tantamount to a "vertical garden", and we've often created at our shows displays which are virtually temporary "vertical gardens". But permanent vertical gardens featuring ferns – I, for one, would like to see that!



Adiantum aethiopicum, Otway Ranges. (photo: Robin Wilson)

# Calendar of meetings for 2010

Thursday 18 March Barry Stagoll Ferns of Western Australia and Brisbane public gardens

Fern Competition: Adiantums

Saturday and Sunday 20-21 March Mirini Lang's Open Garden (see President's Note, this Newsletter)

Sunday 18 April (NB not May as was incorrectly stated in the last Newsletter) Visit to members' gardens: Don Fuller and Brenda Girdlestone

Thursday 20 May Barry White Ferns of Mt Lewis

Look for further details of these coming events, and for details beyond May, in the next Newsletter

#### 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 20 cents per sample, non-members 50 cents, 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 can be purchased at most Post Offices. Overseas non-members may purchase spore at three packets for each International Reply Coupon, plus two coupons per order to cover postage and handling. Alternatively spore

Acrostichum speciosum 4/09 Adiantum formosum 3/08 Adiantum pedatum 2/07 Amphineuron opulentum 4/09 Anemia tomentosa 8/08 Arachniodes simplicior 1/09 Asplenium aethiopicum 12/07 Asplenium australasicum 1/08 Asplenium nidus 5/08 Asplenium nidus cv.5/08 Athyrium filix-femina (red stipe) 12/08 Athyrium niponicum 'Pictum' 2/08 Blechnum ambiguum 1/08 Blechnum braziliense 3/08 Blechnum chambersii 9/07 Blechnum fluviatile 9/07 Blechnum gregsonii 4/09 Blechnum spicant 7/08 Blechnum wataii 12/08 Chingia australis 12/08 Christella parasitica 4/09 Christella subpuhescens12/08 Cibotium schiedei 1/07 Cyathea australis 4/08 Cyathea baileyana 12/08 Cyathea brownii /07 Cyathea cooperi 1/09 Cyathea cooperi (blue stipe) 1/07 Cyathea cooperi 'Brentwood' 3/08

Cyathea cunninghamii /07 Cyathea felina 10/08 Cyathea gleichenioides 2/07 Cyathea incisoserrata /07 Cyathea intermedia 2/07 Cyathea lunulata /07 Cyathea medullaris 11/08 Cyrtomium falcatum 'Butterfieldii' 3/08 Dicksonia antarctica 8/08 Dicksonia fibrosa 10/07 Diplazium australe 4/08 Doodia australe 12/08 Dryopteris affinis 'Cristata' /08 Dryopteris wallichiana 1/09 Hypolepis glandulifera 12/08 Hypolepis rugosula 2/07 Lastreopsis acuminata 12/08 Lastreopsis decomposita 6/09 Lastreopsis glabella 4/07 Lastreopsis marginans 1/07 Microsorum punctatum 1/09 Nepholepis falcata 3/08 Ophioglossum pendulum 7/08 Pellaea cordata Pellaea sagittata 3/07 Pellaea viridis 1/08 Platycerium bifurcatum 'Hula Hands' 10/07 Platycerium bifurcatum 'Venosum' (Mt.Lewis) 10/07

Platycerium superbum 4/08 Platycerium veitchii 10/07 Pleisioneuron tuberculatus 12/08 Pneumatopteris sogerensis 12/08 Pneumatopteris costata 12/08 Polypodium formosum 10/07 Polystichum formosum 6/09 Polystichum proliferum 11/08 Polystichum retroso-paleacum /08 Polystichum setiferum 'Congestum' 12/07 Polystichum vestitum 2/07 Polystichum xiphophyllum 3/08 Pronephrium asperum 2/07 Pteris dentata 1/09 Pteris sp. (Nepal) 3/07 Pteris umbrosa /08 Revwattsii fragile 12/08 Rumohra adiantiformis(Cape form) 2/08 Sphaerostephanos heterocarpus 7/08 Stenochlaerna palustris 2/07 Thelypteris navarrensis 1/07

Thank you to the following spore donors: Marco Calvimonte, Brenda Girdlestone, Don Fuller, Warren Simpson Nada Sankowsky, Sheila Tiffin, Werner Neumeuller, Frank Hardung, Kylie Stocks, Neville Crawford, Wendy Johnston, Claire Shackel, Dot Camp, and Crosby Chase.

The above list was current as of June 2009. Updates can be found at http://home.vicnet.net.au/~fernsvic/Sporlist.html.

#### NEWSLETTER If undeliverable return to: Fern Society of Victoria Inc. PO Box 45, Heidelberg West, Victoria 3081, Australia

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