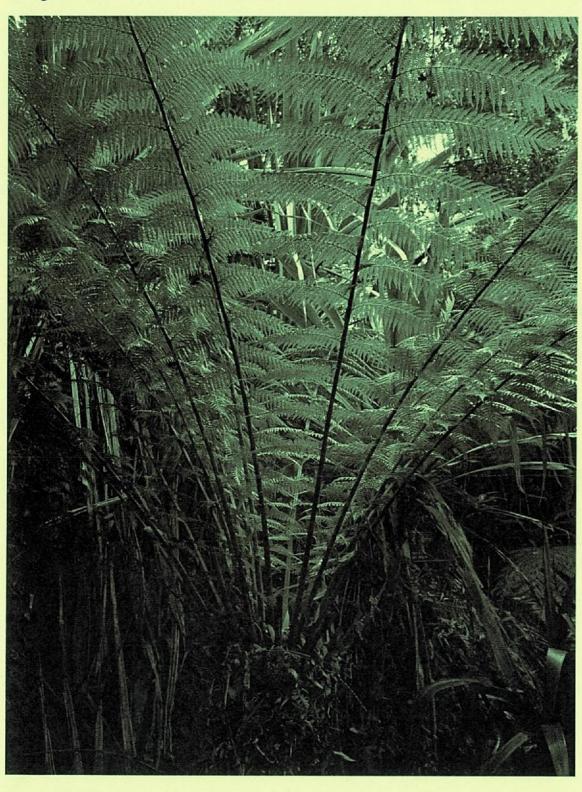
FERN SOCIETY OF VICTORIA

NEWSLETTER

Volume 32, Number 4 July/August 2010



Fern Society of Victoria Inc.

ABN 85 086 216 704

mail: PO Box 45, Heidelberg West, Victoria 3081, Australia email: barry white1@msn.com.au

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

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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Treasurer	Don Fuller	9306 5570	
Spore Bank Manager	Barry White	9740 2724	barry_white1@msn.com.au
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Committee members	Mirini Lang 9886 6109, Gay Stagoll 9844 1558, Brenda		
	Girdlestone 9390 7073, Warren Simpson 0419 594 524,		

Subscriptions

Single	\$17.00	Opinions expressed in this	
Pensioner/student	\$14.00	Newsletter are the personal views of the authors and are not	
Family	\$19.00	necessarily endorsed by the	
Pensioner family	\$16.00	Society, nor does mention of a	
Overseas	\$25.00 (overseas subscription	product constitute endorsement.	

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

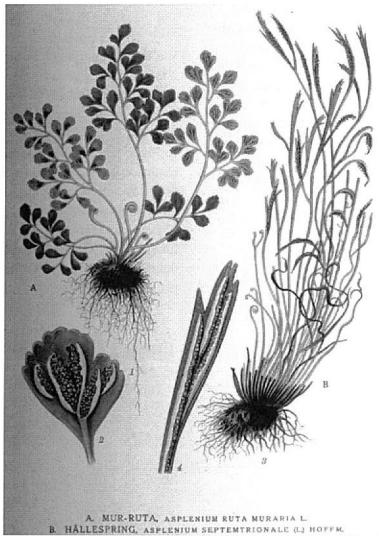
10:00 Close

Next Meeting

Thursday 15 July 2010 7:30 pm Kevin Heinze Garden Centre Terry Turney The battle between animals and plants (the eaters and the edible!)

Fern competition: Asplenium

See page 14 for a map of Cranbourne RBG and for a calendar of meetings for 2010



Above: Asplenium ruta muraria and Asplenium septentrionale from 'Bilder ur Nordens Flora' (1917-1926) by C.A.M. Lindman.

Cover image: Cyathea sp., Canberra Botanic Gardens (photo: Robin Wilson)

President's Note

At our May meeting we were treated to a very interesting talk by Barry White on the ferns of Mt. Lewis and its vicinity in Queensland, illustrated with many photos Barry obtained during his travels there. Thanks, Barry.

The FSV party for the June 13 visit to the Royal Botanic Garden, Cranbourne, comprised 11 adults and 4 children. The visit included a guided tour of the landscaped Australian Garden and explanation of the background for the design - and also that of the second stage now under construction - and discussion of the plant collection. Most of us also took the opportunity to make a more leisurely inspection of parts of the Australian Garden which contained plants of particular interest to us, and also enjoyed a picnic lunch and hike in the protected bushland of the expansive outer garden. As we already knew, there are a limited number of fern species represented in both the existing Australian Garden and the bushland, but we can report that the intention is to incorporate more in the Australian Garden Stage 2 - which will have more of a focus towards wetland and littoral plants. It's likely that Stage 2 won't be fully planted until 2012, but it should make a visit to RBG Cranbourne even more worthwhile in the future.

Our August meeting will offer members the opportunity to attend a practical workshop, to learn the art of preparing their own herbarium specimen sheets of ferns, using the materials specified for use by official herbaria, and tutored by an expert - Michelle Adler, formally a staff member at the University of Melbourne's Melbourne School of Land and Environment, Burnley Campus (formerly Burnley College of Horticulture). All necessary materials will be supplied by the Society (members should bring fern fronds which they would like to mount, but some fern material will be available for shared use by participants). It will be most helpful if members intending to take advantage of the opportunity to participate in this practical workshop would please try to let any of the FSV Committee members know of their intention by, say, a week ahead of the meeting, so we can anticipate the required quantities for materials.

We've set the date of Sunday 19th September 2010 for our 'Discovering Victorian Ferns' excursion to Badger Weir Park, Healesville. Please try to join this excursion if you're free then, and also can I remind members that this is a good way for us to take the opportunity to assist nonmembers to learn about and to appreciate native ferns. We already have a list of non-members who have expressed interest in joining the excursion. Please consider inviting others – you could point them in the direction of the Society's website for details about this activity, or share the information provided in this Newsletter.

Hope to see you at upcoming FSV activities.

Barry Stagoll

Editor's Note

The present issue has been assembled from the contributions of Keith Hutchinson, Barry White and Barry Stagoll. I am sure all readers join me

in gratitude for their ongoing writing efforts. Please try and emulate them!

Robin Wilson



The June FSV excursion to RBG Cranbourne took place in fine weather, and we were well supplied with in-depth information about the Australian Garden and the plant groups by our volunteer guide Trevor (he's the one with the hat and clipboard). Photo: Barry Stagoll.

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Australian Tree Ferns

The information and pictures below have been compiled by Barry White, largely from Rod Hill's web pages which unfortunately are no longer available. Rod was one of the foundation members of the Fern Society of Victoria. The distribution maps are modified from the Flora of Australia Vol. 48.

In Australia there are two families of tree ferns, the Cyatheaceae and the Dicksoniaceae, which can be distinguished as follows:

Cyatheaceae: The stipe bases are scaley and lack hairs, the sori are between midrib and margin and have a hood shaped indusium, or they may lack an indusium.

Dicksoniaceae: The stipe bases are hairy and lack scales. The sori are marginal with a two lipped indusium. The genera include *Dicksonia* and arguably *Calochlaena*.

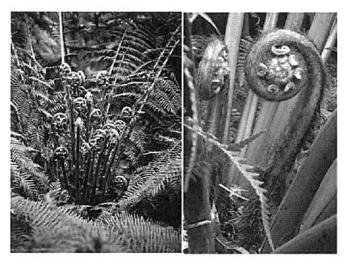
Australia has three species of Dicksonia

Dicksonia antarctica: (Soft Tree Fern). To 15 metres tall, a typical understory in moist mountain gullies (especially in Victoria & Tasmania) often beneath Mountain Ash



(Eucalyptus regnans), but becoming less abundant higher up the slopes, also grows in New South Wales and SE Queensland but is less common.

Croziers and crown are covered with soft reddishbrown cylindrical hairs. Croziers are often



produced in a flush in spring; the sori are twovalved, marginal (typical of the genus *Dicksonia*).

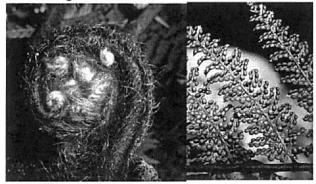
The trunk is often massive under good conditions, greatly thickened with soft fibrous roots, and is a favourite host of many epiphytic ferns.

In northern New South Wales and SE Queensland, where this fern is far less common than in the far south, it appears that buds are produced on the trunk. When slabs of these trunks are cut for use in the nursery trade (for mounting epiphytes for example) the dormant buds will often sprout to form sizeable new plants, quite distinct from tiny *Dicksonia* sporelings that often arise on treefern slabs.

Dicksonia youngiae: (Bristly Tree Fern) To 4 metres tall, it has especially large sori, fronds are shiny, bright green, with stipes covered in reddish, soft and entangled hairs; basal pinnae spreading;



slender untidy trunk, suckers are produced from base of trunk and from the trunk itself. It is a fairly rare species, grows in deep dark wet rainforest gullies in NE





(continued next page)

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Australian Tree Ferns (continued)

New South Wales and SE Queensland. It is very similar to *D. herbertii* of NE Queensland which was originally included under *D. youngiae* (*D. herbertii* lacks the suckers from the trunk)

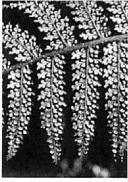
Dicksonia herbertii: (Bristly Tree Fern). To 4 metres high; fronds dull pale green; stipe hairs reddish, stiffly spreading and irritant. The fronds are pale green, dull, and the basal pinnae project



inwards towards the centre of the crown.

Similar in many respects to *D. youngiae* - quite large sori, thin trunk. Apparently differs from *D. youngiae* in not producing new offshoots from the trunk, but retains a single trunk.

Restricted to deep rainforest gullies of north Queensland.





Cyathea australis:
Rough Tree Fern). Up
o 12 metres tall, fairly

traight, uniform, thick often around 20 cm) runk, covered (at least n the upper sections) with old stipe bases, ong reddish-brown



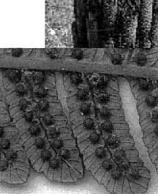
cales between stipe bases near crown, some root growth may be apparent lower down, sometimes forming a substantial thickened base ... stipe bases armed with many short sharp prickles. A very common treefern in

Cyatheaceae includes twelve species in Australia;

the better known of these are described below.

Tasmania & Victoria, being abundant in moist mountain forest gullies along with Dicksonia antarctica, but tends to also grow on the dryer slopes above the gullies ... also growing in New South Wales and Queensland. Crown and croziers covered with flat reddish-brown scales to about 2 cm long; sori spherical, away from the pinnule margin, indusium missing





Austral Ferns

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Australian Tree Ferns (continued)



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Cyathea cunninghamii: (Slender Tree Fern). Up to 20 metres tall, a very slender treefern, fairly small fronds, often growing tall above Dicksonia antarctica in Victoria & Tasmania.

wettest, most sheltered gullies, also occurs in New Mettest, most sheltered gullies, also occurs in New Zealand. The sori are round, one per lobule covered with a hood shaped indusium. The stipes are dark, with a reduced pair of pinnae clustered at base of each stipe and persistent stipe bases. Pale scales are present on crown and croziers.

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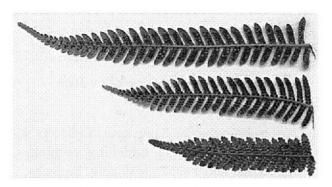
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Australian Tree Ferns (continued)

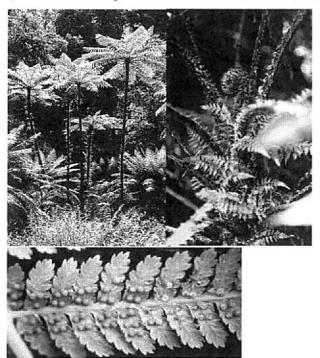


Pinnae of *C.australis* (top), *C.* x marcescens (middle), *C. cunninghamii* (bottom)

Cyathea x marcesens: (Skirted Tree Fern). Up to 9 metres tall, a fairly rare and variable treefern (occasionally encountered with forked fronds or pinnae, or rarely with branched trunks), natural hybrid



between *C. australis* & *C. cunninghamii*. It is only found in deep moist mountain gullies in Victoria (with one record just over the border in New South



Wales) where *C. cunninghamii* is found. It has a larger crown of fronds than *C. cunninghamii*, black trunk, between *C. australis* & *C. cunninghamii* in size; black stipe bases similar to *C. cunninghamii*,

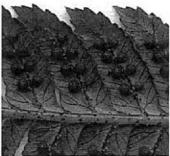
old dead fronds usually retained throughout entire trunk as a 'skirt' (although occasionally *C. cunninghamii* will also have a skirt in very sheltered locations). Indusium saucershaped, not quite as well developed as in *C.*



cunninghamii. Note pinnae fragments at stipe base.

Cyathea leichhardtiana: (Prickly Tree Fern). Up to 7 metres tall, thick felt of short dark scales on crozier, some longer pale scales, especially on stipebase and crown, the pinnae midribs all unfurl together, displaying the curled up pinnules like rows of little round beads, much the same as C. celebica). Slender, rather untidy trunk, common in mountain rainforests from eastern Victoria to SE Queensland. Stipe-bases armed with numerous sharp spines, sori small and without indusia, not crowded.





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New Library Book

The Society has received a donation of a book from the Neutrog fertiliser company.

The book is "From the Ground Up; A complete Garden Guide for Victorian Gardeners" by Jane Edmanson and autographed by the author.

It is a handsome book of 255 pages, well illustrated with colour photographs. As its name indicates it covers all the basics of gardening including chapters on garden design, watering, mulching, pruning, propagation, lawns, diseases, plants for the sun, plants for the shade, and a separate chapter on roses.

It is a very useful publication profusely illustrated, with much information.

But Jane how can you have a complete garden guide that has but a solitary paragraph on ferns? However she does at least include a reference to our Society and our web pages.

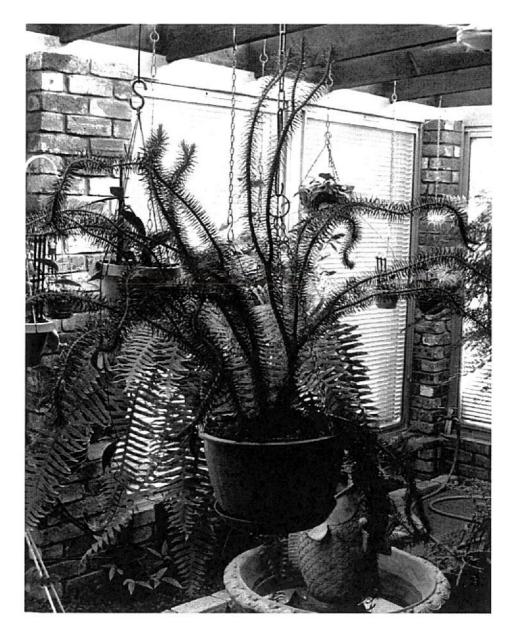
The book is now in our library and may be borrowed at our monthly meetings at the Kevin Heinze Centre.

Barry White



Two more images from the excursion to RBG Cranbourne. Two grasstrees from the splendid collection of Australian plants: above *Kingia australis* (the sole species in the genus), on the right a *Xanthorrhea* (there are ~28 species of *Xanthorrhea* so we will not speculate on which one is illustrated here!). Photos Barry Stagoll.





May FSV meeting prizewinners - Queensland ferns 1. Gay Stagoll: Lycopodium squarrosum (tassel fern - see photo above)

2. Don Fuller: Drynaria rigidula (basket fern)

3. Don Fuller: Oleandra neriiformis

Potting Mixes and Fertilisers

Keith Hutchinson

This article is based on a talk given by Keith to the FSV on 18 Feb 2010. It was originally published in FSV Newsletter vol 32 no 2 earlier this year but some text was accidentally omitted. The entire article is reprinted here.

The Editor

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 of potash in it, and phostrogen 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.

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).

Aquasol. It used to be my favourite soluable fertiliser but its constituents have changed over time. Now I prefer to use the following two:

Thrive for flowers and fruit; has nitrate

When using these, make sure the potting mix is moist first. Use plain water for the next few waterings so that any salts are flushed out. All inorganic fertilisers have a residue of salts.

Maxicrop and Maxicrop Extra. Maxicrop has a great mineral content (over 60). Maxicrop Extra, with added nitrogen, phosphorus and potassium, is a great feed with every watering.

Charlie Carp, Seasol, Fish emulsion.

Excellent organic feeding.

Osmoscote. Slow release fertiliser. An extremely popular feed as it continues to work for 3, 6 or 9 months. Only works during warmer weather when watered.

Plant tablets. Placing 2 or 3 near the bottom of the pot when replanting works very well.

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Potting Mixes and Fertilisers (continued)

Wettasoil. In warm dry weather this is excellent for ensuring the whole pot of soil is wet and the water has not escaped through it.

Nitrate of Potash or Sulphate of Potash. This is an important part of fertilising. It aids disease resistance and gives plants a good deep colour. Use it sparingly as it is easy to cause potash poisoning.

Manure

When adding manures to a mix, they must be well aged, dried and pulverised.

Cow manure. This is my favourite, obtained from milking sheds so it is free from weed seeds. Use 10% in general. Adiantums thrive with about 25% in the mix (also add 1 teaspoon lime)

Fowl Manure. Good but generally this is available from caged birds. Preferable to get it from penned birds where it is mixed with straw because as the fowls scratch around in the straw they turn it into a rich compost.

Horse manure. Best added to a compost bin to help activate it. Has a lot of straw in it.

Sheep manure. Can be used in a mix but as sheep eat right up to the roots of plants, weed seeds can be a problem. Oxalis and clover are hard seeds often found in this manure.

Worm castings. Excellent if you can get them. Add 25% to a mix.

Compost. Great for any mix but be careful of its make up. It can be quite acidic at times or have a high pH if lime has been added. A pH testing kit would be helpful.

Most manures have an analysis of about ½ of 1 % of the main elements and also some trace elements.



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Calendar of activities July-September 2010

Thursday 15 July 7:30 pm

Kevin Heinze Garden Centre

Speaker: Terry Turney

Subject: The battle between animals and plants (the eaters and the edible!)

Thursday 19 August 7:30 pm

Kevin Heinze Garden Centre

Practical workshop conducted by Michelle Adler, former staff member at the University of Melbourne's Melbourne School of Land and Environment, Burnley Campus. Opportunity for members to learn how to prepare herbarium specimen sheets of ferns. All necessary materials supplied by the Society (members should bring fern fronds which they would like to mount, but some fern material will be available for shared use by participants). Advance notice (say 1 week prior) of intention to attend would be appreciated, to assist in anticipating materials requirements.

Sunday 19 September

Excursion

Discovering Victorian Ferns Badger Weir Park - Healesville

Hosted by - Fern Society of Victoria Inc. – Non-members welcome (no charge). Will be widely advertised – numbers of potential non-member participants have already indicated interest in attending. Please assist the publicity effort by offering invitations to others who may be interested. We also need lots of members to attend to assist in hosting our visitors during the excursion. A brochure will be available. Please contact a Committee member to arrange for a brochure to be sent to potential visitors – either by mail or email.

Arrival time: from 11am. Meet for lunch in the picnic area (FSV meeting place will be indicated with our banner). Bring a chair – onsite seating is limited.

Guided Walk to commence: 1pm - Duration around 2 hours - 28 distinct indigenous fern species are recorded for the park. The walking tracks are not difficult.

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

Asptentum 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 subpubescens 12/08
Cibotium schiedei 1/07

Cyathea cooperi 1/09

Cyathea cooperi (blue stipe) 1/07

Cyathea cooperi 'Brentwood' 3/08

Cyathea australis 4/08

Cyathea baileyana 12/08 Cyathea brownii /07 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

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

Thelypteris navarrensis 1/07

Rumohra adiantiformis(Cape form) 2/08 Sphaerostephanos heterocarpus 7/08 Stenochlaerna palustris 2/07

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
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