ABN 85 086 216 704

# NEWSLETTEN

VOL. 27, NUMBER 3 MAY/ JUNE 2005

## FERN SOCIETY OF VICTORIA Inc.

**POSTAL ADDRESS:** 

E-mail:

P.O. Box 45, Heidelberg West, Victoria, 3081 http://gardenbed.com/clubs/clubs\_vicferns.cfm

#### Our Society's Objectives.

The objectives of the Society are:

- bring together persons interested in ferns and allied plants \*to
- promote the gathering and dissemination of information about ferns \*to
- \*to stimulate public interest in ferns and
- promote the conservation of ferns and their habitats. \*to

#### **OFFICE BEARERS:**

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Mirini Lang 9886 6109.

#### SUBSCRI1PTIONS:

\*Single

\$15.00

\*Pensioner/student

\$12.00

\*Family \$17.00

\*Pensioner Family \*Overseas

\$14.00

\*Organisation

\$17.00

\$22.00 (Payment by international bank cheque in \$A please. Sent by Airmail.)

\*Subscriptions fall due on 1st July each year.

The Kevin Heinze Garden Centre at 39 Wetherby Road, Doncaster (Melway 47; H1). **MEETING VENUES:** Other meetings at members' gardens or as advextised on die following page.

> 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 its endorsement.

#### Timetable for evening general meetings:

Pre-meeting activities - sale of ferns. Spore, books, merchandise and special effort tickets. 7.30 Also library loans and lots of conversation.

General meeting 8.00

Workshops and demonstrations. 8.15

Fern identification and pathology, special effort draw. 9.15

9.45 Supper and another good yarn.

Close. 10.00

# **CALENDAR OF EVENTS FOR 2005**

# **MAY MEETING:**

# Thursday the 19th may, at the Kevin Heinze Centre, at 8.00pm

# <u>Topic</u>: Unusual Fern Structures - The key to success

This will be a talk given by Dr Terry Turney for those members who have not had the privilege of hearing Terry speaking before, he is one of our most informative and inspiring speakers.

Competition category Davallia

# JUNE MEETING

Sunday 19<sup>th</sup> June at 11.00 am. Rippon Lea (Historic Mansion)

We have arranged a visit to the Rippon Lea Mansion, located Hotham Street, Rippon lea, melways 67 F2. Justin Buckley, the head gardener at Rippon Lea, will give a run down on the garden and the fernery at 11.30 am.

We will be making an inventory of the ferns in the fernery many of which were supplied by our members.

BYO everything for a picnic lunch on the lawns.

Justin has arranged for free entry into the garden for members of the Society. Bring along a copy of the Newsletter to identify yourself.

### JULY MEETING

Thursday the 21st July

At the Kevin Heinze Centre 8.00pm Chris Goudey will be giving a talk on "Ferns of Papua New Guinea and Bouganville"

Fern competition category for the night will be "Pteris"?

# PRESIDENTIAL PERORATION

Members will have been disappointed at the late arrival of the last copy of the Newsletter, but I can assure them that it was no fault of the Editor, Brenda Girdlestone, who had a very frustrating time following up its progress after it was with the printer. Turned out eventually that the printing had been done, but the completed job had been "lost" on the premises.

The 2005 Show display was excellent. Lorraine and Chris Goudey of Austral Ferns and Eddie and Robyn Sabljak of Fern Acres Nursery both provided their usual high quality individual displays. The feature "Ferns of Queensland" display (49 species) and the general display were well stocked by our other members, despite the number of members able to contribute ferns to the Show having fallen away quite a bit over recent years. Thanks to all those who made contributions, including those who contributed their time to participate in the staffing of the Show.

In discussion with Eddy at the Show, he made the interesting observation that customers now seem much more keen to buy spore-grown tree ferns (so they get nice compact plants well furnished with fronds for their gardens) than to buy Dicksonias cut from the forests as has been the traditional source. Seems like a happy development for the wild plants - hopefully most of the spore-grown plants will be retained long-term, rather than culled when they get "too big", or lost because they're planted in the wrong places (under house eaves seems to be a perennial favourite with unobservant gardeners). Also of interest, Fern Acres has recently supplied a large number of Victorian fern species to the Museum of Victoria for the restocking of their forest exhibit.

As another means of taking our interest in ferns to non-members, a tutorial on growing indigenous ferns from spore is being provided to the staff and volunteer helpers at the Warrandyte State Park in late May. They're keen to produce plants to increase the numbers of all the endemic plants of the district, and with our help hopefully fern numbers might increase in coming years. We should take whatever other opportunities we can find to give ferns a boost.

Barry Stagoll

# FRONT COVER:

Front cover photo was taken at this years show and shows Cyathea cooperii crested. It is grown by Chris Goudey and is always an admired fern whenever it is at the show.

# FERN SHOW COMPETITION RESULTS 2005

**SECTION: EXHIBITOR:** NAME OF FERN **ADIANTUM** 1. 1st John Hodges A. formosum 2nd John Hodges A.bronze glory 2. **ASPLENIUMS** 1st John Hodges A.polyodon 2nd John Hodges A.milnei DAVALLEACEA 3. 1st Don Fuller Scyphularia pentahpylla 2nd Don Fuller Davallia pyxidata 4. **QUEENSLAND FERN** 1st K & A Goodall Psilotum nudum 2nd Keith Hutchison Platycerum vietichii POLYPOCIACAE 5. 1st K & A Goodall Polypoium australi (cambericum) 2nd John Hodges Goniophebium subauriculatum cv. Knightiae FERN IN CONTAINER 150MM OR LESS 6. 1st John Hodges Huperzia N.G. fine rock tassell 2nd John Hodges Polypodium cultivar 7. ANY OTHER FERN 1st John Hodges Paesia scaberula 2nd Don Fuller Nephrolepis exaltata

# BEST FERN IN THE SHOW JOHN HODGES

cv. Chantilly gold

Paesia scaberula

Congratulations to John and all the other winners.

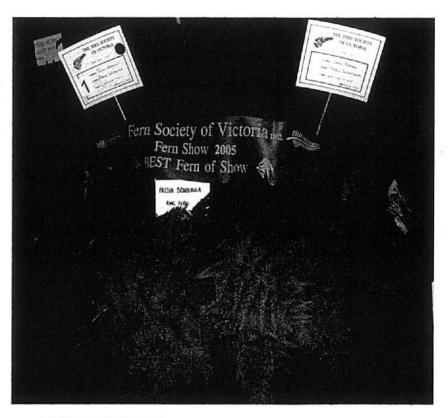
# 2005 Fern of the show winner John Hodges

The fern of the show was won this year by John Hodges with Paesia scaberula

This is the first time that John has won this prestige's award, but I'm sure this will not be the last for him.

John tells me that he repotted this fern into it's current pot after the show last year, then turned it on a regular basis. No other special treatment was afforded it and the results speak for themselves.

John congratulations on your win, also congratulations to all the other winners this year, and thanks to all those members who participated in entering ferns into the competition and display with out this participation from you the show would not be possible.



#### APPOLOGIES

My apologies to all our members for the late delivery of the last newsletter this was due to the printer receiving my copy for printing which had a few errors. Some of the pictures used did not come through in their copy, so off to the printer with the hard copy. The newsletter was then printed with the pictures included but unfortunately the heading on page 23 was missed , the heading for the article should have read 'FERN ALLIES' by Barry White. After the copies were printed they were left under neath another printing job and it was late before this problem was discovered. There was also an incorrect melways reference for those members attending Badger Creek which I do apologise for.

We have now implemented a procedure to ensure the late delivery of the newsletter is avoided in the future this will be monitored and revaluated from time to time.

Again please accept my apologies for the last issue of the newsletter and be assured we are endeavouring that these errors are not repeated.



# the bush house nursery

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#### Visitors welcome

Lorraine Deppeler Phone (03) 5565 1665 18 Hermitage Drive, Allansford 3277



### **GROUND FERNS IN AUSTRALIA**

### By Keith Hutchison

This genus belongs to the Denstaedliacea family. Species included in this genus are Denstaedlai, hypolepis, culcita - calochlaenci, Histropteris, Pteridium, Microlepia.

#### Denstaedtia:

2 species are found worldwide with 1 in Australia.

#### Dennstaedtia davalloides Lacy ground fern

This fern is found in Eastern Victoria and the Otway Ranges. It grows extensively in rich cultivated soils along streams in these areas. A handsome fern growing to 1m tall, but in a fernery will spread rapidly and become a pest can be attacked by a minute caterpillars but pyrethrum spray will protect it.

#### Hypolepis:

50 species found world wide with 6 in Australia of which 2 endemic and 1 endemic in New Zealand

These wide spread ferns are extremely versatile growing in the tropics to the southern areas to New Zealand. The earliest discovery of the fern in about 1820 was called *Polypodium rugosulum*. I have found many revisions of the species with no clear cut decisions.

#### The 2 main species are

Rugosula is extremely common in Victoria and Tasmania and Australis is often mistaken for rugosula but is much shorter and regarded as the best of the species

Hypolepis tenvilolis grows on Norfolk Island, Lord Howe Island and New Zealand, but sightings in Queensland are still in question.

Hypolepis dicksonoites is common on Norfolk Island but is not found in Australia.

Hypolepis rugusula and H. Muelleri are the 2 endemic species

#### Hypolepis australis - austral ground fern

This fern grows 30 to 75cm an attractive fern easily grown in shade but spreads quite rapidly. It is not a common fern found in Tasmania, Eastern Victoria and South East NSW.

#### Hypolepis muesseri - harsh ground fern

This fern grows 50 to 130cm is a fast spreading fern ,growing in swampy moist soils even in full sun. Found along East Coastal areas of Australia, South Australia and Western Australia in moist areas.

#### Hypolepis punctata - downy ground fern

This fern grows 300cm a giant of a fern growing throughout the Pacific region spreading rapidly. Thick yellowish stipes densely clothed with sticky hairs. Tends to die back in cold winters but new fronds emerge rapidly at this point a good tidy up is necessary.

#### Hypolepis rugosula - ruddy ground fern

This fern grows 40 to 150cm similar to punctata with a long creeping rhizome much branches stipes deep red clothed with red hairs this fern favours mountain regions and colonises in gullies can become a real nuisance in bush houses or fernery's. Found on Eastern Coastlines of South Australia, Tasmania and New Zealand.

#### Hypolepis distans - scrambly ground fern

This fern grows to 60cm. The smallest of the species was thought to be endemic to New Zealand but has been found in North East King Island.

continue next page

Continued fro previous page

The stipe is dark shining red brown with pinnae well separated and almost perpendicular. It grows on tree stumps and rotting logs, and will also scramble through elks and stags. As this is the only one of the species with virtually no perispore projections (smooth spore) it is possible that it may have arrived on King Island from New Zealand.

#### Culcita

9 species found world wide with 2 in Australia

Culcita dudia - rainbow fern or common ground fern

This fern grows 50 to 200cm now renamed oalochlaeno dubia this fern grows in eucalyptus forests and open woodland throughout Eastern Australia. It will tolerate full sun where in the dry season the fronds arch over for the tip to touch the ground hence the common name rainbow fern. It is easily reproduced from spore or by division and grows well in a pot for a season or two. As it is often mistaken for the bracken as it spreads by means of a tough woody rhizome. This fern needs plenty of room to grow.

Histriopteris

10species found worldwide with 1 in Australia

Hypolepis incisa - bats wing or oak leaf fern.

This fern is widespread in the tropics of Eastern Australia and Northern Territory. It prefers cool moist gullies where it forms extensive clumps over two meters tall Sporelings develop very quickly and enjoy growing in a tub. I saw an extensive planting growing two meters tall in full sun in Devon England in 1994. An interesting fern but it must have moisture to survive. It is deciduous in cold climates.

Pteridium

several species are found world wide with 3 in Australia

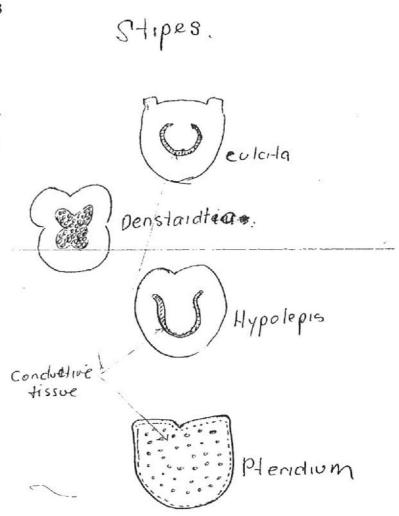
Hypolepis esculentum - common bracken fern.

The most common fern throughout Australia, New Zealand and South Pacific Islands. It is poisonous to animals in large quantities. The stiff erect fronds can grow to over 2 meters tall. Difficult to cultivate. Two other species of bracken grow in North Queensland

Microlepia

45 species found world wide with 1 in Australia

Hypolepis spellucae Very similar to Dennstaedtia but slightly taller and found on rain forests edges It is pan tropic and only found in the Northern parts of Australia. Quite frost tender in the South. I have not included the leptetpia or paesia as neither occurs in Australia.

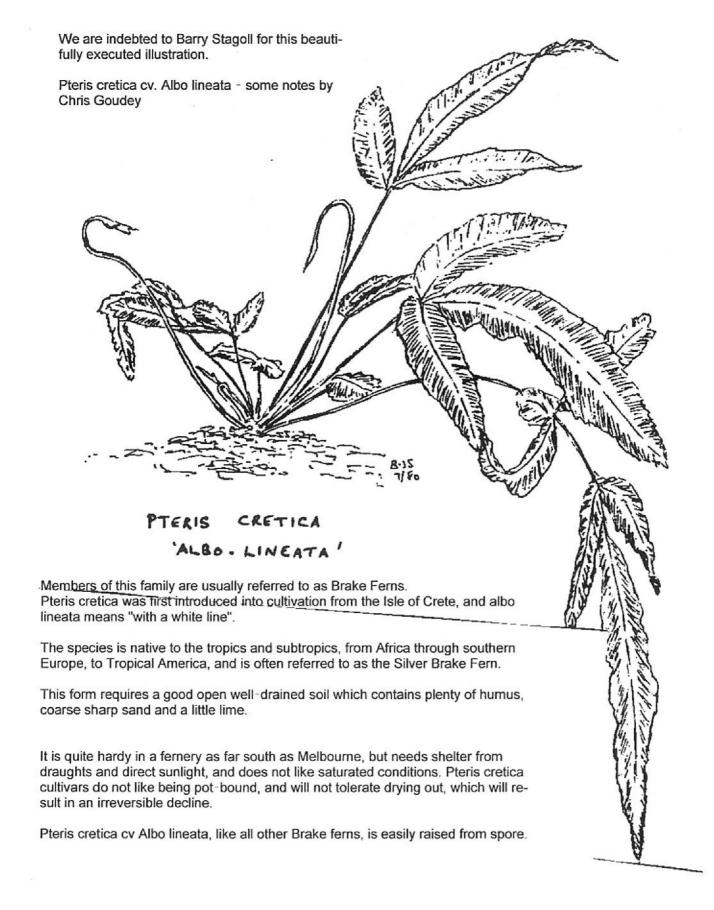


#### Pteris cretica cv. Albo lineata

#### Reprinted from newsletter September 1980

Drawing by Barry Stagoll.

**Comments by Chris Goudey** 



# SEPTEMBER LECTURE BY CHRIS GOUDEY SPORE PROPAGATION, DESIGNED FOR HOME GARDENERS.

There are many ways of growing ferns from spores, trial and error is the best way of learning, so keep at it and keep on trying new mediums and new methods.

It took me many years to learn. Growing ferns can be divided up into 5 steps:~

- (1) Selecting and collecting spores.
- (2)Preparation of the medium.
- (3) Sowing the spores.
- (4) Pricking out into clumps 1 or 2 times.
- (5) Final pricking out and potting up.

#### Spores: (1)

Spores are found either on a separate frond or on the back of normal fronds. They are covered by a shield or flap which starts to open when the spores are ripe. Most spores are dark in colour when ripe, from yellow through to black, except for the Osmunda family which includes Todea barbara (King Fern) which are green when ripe.

Maidenhair fern spores are concealed by small flaps on the margin of the leaves. If really keen a 10 magnification eyeglass makes it easier to see the spores.

The Asplenium family spores are boat shaped- - simple frond shows ripe spores when collecting fronds, place frond in bag or envelope and leave in a warm airy place. After a few days as the frond dries the spores are ejected into the bag.

Tap out the spores onto a clean sheet of white paper. Separate the spore cases (or shells) from the spores by either using a 7 micron sieve, or by holding the paper on a slight angle and tapping it lightly until all the shells have fallen off the side of the paper leaving the spores behind.

#### (2)Preparation of the Medium.

An open, peaty, sterile mix is desirable. The mixture you use is entirely up to you, the following are some of the ingredients that are

used by growers. The mixture must in my opinion be at least 2/3 organic, for this you could use. Peat moss, spagnum moss, leaf mould, old rotted cow manure, tree fern fibre, or a mixture of any of the above.

Half of the mix should be either coarse sand, vermicutibe, perlite or polystyrene. You can also add soil to the mix if you wish. Add lime for Maidenhair ferns P.H. test kits can be bought for approx. \$10.00 (Hortico, or Lnocola Laburatories). Spores can also be grown on inverted terracotta pots filled with wet Spagnum Moss and covered with a bell jar, or on crushed terra cotta pots. Sterlise with boiling water and feed regularly if using this method. When watering it is important to use distilled water or boiled water. It is best to experiment with different soil mixers and keep records of different mixes used.

Any container will do, either terracotta or plastic. If using terracotta pots put one inch of charcoal or crushed rock in the bottom of the pot for drainage. Everything should be sterilized use hot soapy water. Sterilize soil either in a pressure cooker or oven or with boiling water. In oven, place in tray, cover with foil to hold in moisture, set oven at 250' for 1.1/2 hours.

If sterilising with water, pour approximately 2 gallons of boiling water over about 1 gallon of the prepared medium and allow to stand for a least an hour. Strain water off soil continued next page

AUSTRAL FERNS
Wholesale Propagators.
Phone (03)5282 3084.

I Specialising in supplying retail nurseries with a wide range of hardy ferns; no tubes.

Continued previous page using an old pair of stockings or pantyhose.

#### (3) Sowing the spores.

Clean hands thoroughly and put soil etc., into containers to approximately half an inch from the top, pat firmly.

Put a small quantity of spore onto a sheet of paper, holding the paper on a slight angle above the container, tap it lightly until a small amount falls onto the prepared mix. Don't sow too thickly, about 1/4 of a salt spoon would do for an ice cream container. Cover the container immediately with either glass or glad wrap to avoid contamination. The glad wrap can be held on with an elastic band.

If using an ice cream container cut out a circle from the lid to within ¾" of the edge, cover the container with clear plastic and put on lid. Write out details - date, type etc. and label. Check for moisture, if water is needed use distilled or boiled.

Most ferns prefer temperatures from 680 to 86oF for germination, however, this is not required for hardy ferns.

The biggest problem is the growth of algae, it grows quicker than ferns and will eventually take over. In the early stages if the light is restricted, growth of algae is retarded.

Brake ferns (Pteris) Maiden Hair Ferns (Adiantum) Bats wing Fern (Histiopteris) and Ground Ferns (Hypolepis) are good ferns to start with, they are quick growing and present few problems, germination can take from 3 to

12 months.

#### (4) PRICKING OUT INTO CLUMPS.

Prick out (as soon as prothallia touch each other), into a new medium.

Use either a knife, ticket, spatula or tweezers and lift out small sections about the size of a grain of wheat or perhaps a bit larger. Transplant into a fresh medium (sterilized). If the prothallia spread out and completely cover the new medium, it will be necessary to transplant the prothallia once again.

Germination takes place within the prothallus, the prothallus then dies at the expense of the new fern.

# (5) FINAL PRICKING OUT AND POTTING UP.

If pricking out into tubes, put in the mixture and tap down lightly. Prick out small clump of ferns, dip the roots into a liquid fertilizer i.e. Maxicrop at half strength and then plant each clump into a separate tube. If possible, place the tubes in a container and cover with glass to provide maximum humidity while the damaged roots recover. Move the glass off over a period of a few weeks to harden off the new ferns. Keep in a humid atmosphere and do not over water - about once per week is adequate.

FROM NOTES KEPT BY IRENE BOLSTER.



# FERN ACRES NURSERY



Specialising in elks, stags, bird's nest ferns, native epiphytic orchids; species and hybrids. 1052 Whittlesea-Kinglake Rd, Kinglake West (opposite Primary School) Melway 510 NII. Phone (03) 5186 5031.

For full list and photos; www.fernacres.com.au also: www.ferns.com.au

Wide range \* low prices.

# ADD A SPLASH OF COLOR -By Peter Goschnick

With greenery flowing in all directions and each fern struggling for prominence, your fernery can start to suffer from monotony. It all but cries out for a little contrast.

Try adding a splash of colour to break the monotony. Bright coloured flowers sprinkled through your fernery will catch the eye and draw your attention towards the ferns nearby, complimenting their green fronds.

Here are some of the flowering plants suitable for the cool and shady conditions of your fernery, that con be used to add that splash of colour.

**AZALEA:** White, pink, purple, red, orange or yellow flowers in winter and mainly spring. Requires a rich lime free soil.

**CINERARIA:** Spring flowers in mixtures of crimson, pink, white and blue.

**DAPHNE:** White and red highly perfumed flowers in winter. Prefers acidic soil but con be difficult to cultivate.

**FUSHIA:** Flowers are usually crimson with white, pink, violet or purple corolla, blooming throughout summer.

**GARDENIA:** White highly perfumed flowers in summer. Prefers slightly acidic soils.

**IMPATIENTS:** White, pink, lavender, red or orange flowers throughout spring, summer and autumn. Some varieties have variegated foliage.

**POLYANTHUS:** Mid winter and spring flowers in white, blue, pink, rose, red, orange or yellow. Some with a contrasting blotch of colour in the centre.

There are more other flowering plants that will flourish in your fernery; your local nurseryman will be able to advise what is available to suit the climatic conditions of your area.

As well as using flowering plants, there are many bright coloured ferns that con be used to

brighten up your fernery. The following ore some of the more readily available coloured ferns which can be used.

#### ARACHNOIDES SIMPLICIOR - VARIE-GATED SHIELD FERN

Glossy dark green fronds with a central stripe of yellow. A hardy fern preferring a shady position.

# ATHYRIUM NIPONICUM Var PICTUM - JAPANESE PAINTED FERN

New fronds are usually metallic grey often with a purplish tinge, as the fronds mature they become dark green. This fern requires a shady position and is tolerant of the cold.

#### **BLECHNUM ARTICULATUM**

New growth emerges a dark blood red and slowly turns dark green as it matures. Possibly the brightest of the red coloured ferns. A hardy fern that requires a bright position for the best colour.

#### BLECHNUM OCCIDENTALE - HAM-MOCK FERN

The emerging fronds are a pale pink becoming green as they age. This fern spreads rapidly under-ideal conditions but is cold sensitive and requires a warm, well drained position to succeed in Victoria.

CYATHEA DEALBATA - SILVER TREE FERN The underside of the fronds has a silvery appearance as suggested by the common name, making it one of the most popular tree ferns. It is a hardy fern but requires protection from wind and direct sun.

#### DRYOPTERIS ERYTHROSORA - AU-TUMN FERN

As the common name suggests the new growth of this fern is in autumn tones of bronze-pink turning dark green as they reach maturity. It is a hardy fern and succeeds in most climates preferring a shaded position.

#### PTERIS CRETICA cv'ALBO--LINEATA - VARIEGATED TA-BLE FERN

The slender fronds are dark green with a white stripe down the centre. This fern is cold sensitive and prefers a sheltered position; it also makes an excellent house plant with its striking variegated fronds.

#### PTERIS QUADRIAURITA Var ARGYRAEA - SILVER BRAKE FERN

The fronds of this fern are dark green with a wide silver stripe down the centre of each segment. It is a hardy fern but requires a shaded position to avoid burning of the silver stripe.

#### PTERIS QUADRIAURITA Var TRICOLOR - PAINTED BRAKE FERN

The new growth emerges a deep purplish-red becoming dark green as they mature. This fern is sensitive to cold weather and requires a protected position.

Try some of these colourful plants in your fernery and see how much they brighten it up.





### A Growing Delight: RIPPON LEA'S GARDEN

Reprinted from newsletter June 1987. Originally printed from National Trust 'Trust News' no date available.

On 22 May 1984, operations commenced on the restoration of the great fernery at Rippon Lea, and this work has remained the main thrust of the efforts of the garden staff to this date. At the time of writing, completion of the work seems likely to be realized by mid-December of the current year.

Major tasks associated with the restoration of the fernery have been the replacement of the wooden laths over the roof of the structure, the replacement of all securing pins tying in the metal component, the waterproofing and stabilising of the supporting iron columns, the painting of the entire wooden work of the fernery, the total restitution of all the rock features within the interior, the establishment of an in ground continued next page

#### Continued from previous page

irrigation network as well as providing an overhead water system, the rejuvenation of exterior garden beds and paths to the east and west of the fernery and, of course, the replanting of the ferns themselves.

It is worth noting here the outstanding contribution made by the Fern Society of Victoria, without whose help the acquisition of the fern plants would have been exceedingly difficult and expensive.

A fully comprehensive report on the completed fernery project will appear at a later date.

One of the very important facets of the restoration of the fernery and one of the real success stories has been the re-establishment of the rock feature within the fernery itself. As the visitor will perceive, the rock feature is the medium against which the display of ferns is set. It is used also to provide a method by which the use of water may be manifest, e.g. the waterfalls, providing habitat for special ferns and mosses, and it also provides the internal continuity required throughout the rather long length of the structure. It binds the whole together.

A large part of the success of this part of the work may be traced to the skills of one John Stevenson, who has been a gardener at Rippon Lea since 1974 and so has had the opportunity of contributing to the improvement of these gardens from approximately the time the National Trust took up responsibility for them. Immediately prior to starting at Rippon Lea, John

worked briefly at Como.

John studied part time at Oakleigh Technical School from 1970 to 1975 first gaining his Trade Gardening Certificate and then continuing on with higher level studies in propagation, land-scape construction and landscape design. His practical experience includes working as a grounds man as well as a gardener and he has been employed by local councils and by schools in both capacities.

Originally from Wales, John's younger days were spent mainly in agriculture, except for 2 1/2 years in the British Army, most of which was served on the Rock of Gibraltar. While employed oil farms in Wales and South England, John enjoyed the beautiful countryside, and particularly recalls the peaceful life style of the Wye Valley at a time when horses were still used for ploughing and milking was still done by hand.

During the past 11 years, John has been involved with all the projects undertaken by the National Trust at the Rippon Lea gardens, the two most significant being the reconstruction of the lookout tower and the fernery.

John now lives within close walking distance of Rippon Lea with his wife and 15 year old son, Justin, who is a student at nearby Caulfield Grammar.

John's interests and hobbies include all aspects of gardens and gardening, an appreciation of music, and enjoying the spectacle of the Poms beating the Aussies at Test Cricket..

Feb 04 reprinted with thanks to Sth Africa Fern Society

MEALY BUGS (From: ENCYCLOPAMA OF FERNS, by David L Jones, 1987)

Mealy bugs are one of the most persistent pests of ferns. They are easily recognized by the white mealy covering over their body and the long tail-like processes which project from the margins and the rear. They feed by sucking the plant's sap. The adults grow 2-4 mm long and cluster in dry sheltered sites such as in the crown, at the base of petioles, at rachis junctions and on the underside of fronds. They are gregarious and are usually to be found in colonies. Wherever they feed, their waxy secretion litter the surface and sooty mould commonly grows on the honeydew. Mealy bug are a common pest of ferns in greenhouses, and severe infestations can weaken a plant. Colonies are frequently attended by ants, which may also discourage natural enemies

Mealy bugs are capable of a rapid build-up in numbers. The long-tailed mealy bug! (Pseudococcus long-ispinus) is the commonest species and it has been shown to produce about 200 young in 2-3 weeks. The young mealy bugs! resemble the adults and usually feed with them. Each young mealy bug progresses through three nymphal moults before it becomes an adult. Mealy bugs attack a wide variety of ferns and are widely distributed in tropical, subtropical and temperate regions.

Control: By spraying with a mixture of maldison (malathion) and a suitable strength of white oil (white oil can burn ferns, if too strong). Systemic sprays such as dimethoate can also be used with success. A simple means of dealing with scattered individual mealy bugs is to dab them with a cotton bud dipped in methylated spirits.

#### FERN SOCIETY OF VICTORIA SPORE LIST

ORDERING The following spore is free to members who donate spore; otherwise 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 coupons would be appreciated. Coupons can be purchased at the Post Office. Overseas non-members may purchase spore at three packets for one international reply coupon, plus two coupons for postage and handling. There is a limit of 20 packets per order.

Acrostichum sp. 6/04 Adiantum concinnum 1/05 Adiantum cunninghamii 1/05 Adiantum formosum 6/04 Adiantum pubescens'Rosy Ruffles'1/03 Adiantum raddianum'Legrand Morgan' 3/03 Amphineuron opulentum 2/05 Arachniodes aristata 12/03 Arachniodes simplicior 7/03 Asplenium aethiopicum 11/04 Athyrium filix-femina 12/04 Athyrium niponicum 'Pictum' 4/05 Athyrium otophorum 12/04 Blechnum chambersii Blechnum discolor 6/04 Blechnum fluviatile 5/03 Blechnum gibbum 1/05 Blechnum minus 7/04 Blechnum novae-zelandiae 1/05 Blechnum patersonii 6/04 Blechnum species (N.Z.) 7/03 Blechnum spicant 12/04 Blechnum spicant 'lobatum' 12/04 Blechnum wattsii 4/05 Cheilanthes argenta 4/04 Cheilanthes tomentosa 1/05 Christella dentata 1/05 Coniogramme intermedia 3/03 Cyathea autralis 4/05 Cyathea brownii 2/04 Cyathea cooperi 1/04 Cyathea cooperi 'Cinnamon' Cyathea dealbata 1/05 Cyathea leichhardtiana 6/04 Cyathea medullaris 4/04 Cyathea robusta 2/05 Cyrtomium caryotideum Cyrtomium macrophyllum 12/04 Dennstaedtia davallioides Deparia petersenii 12/04 Dicksonia antarctica 2/04 Dicksonia sellowiana /03 Diplazium assimile 12/04

Diplazium melanochlamys 12/04 Doodia australis 12/04 Dryopteris affinis 'Cristata' 12/04 Dryopteris athamantica 4/05 Dryopteris cycadina 4/04 Dryopteris dilata'Crispa Whiteside' 12/04 Dryopteris erythrosora 2/04 Dryopteris guanchica 12/04 Dryopteris tokyoensis 12/04 Dryopteris wallichiana 6/04 Gymnocarpium oyamense 12/04 Hypolepis glandulifera Lastreopsis acuminata 11/04 Lastreopsis hispida 1/05 Paesia scaberula 1/05 Pellaea sagittata 3/03 Pellaea viridis 1/03 Platycerium bifurcatum 3/03 Platycerium superbum 8/04 Pneumatopteris pennigera (NZ) 1/05 Polystichum australiense 12/04 Polystichum onocolobatum 4/05 Polystichum proliferum 12/04 Polystichum proliferum 4/05 Polystichum tsus-simense 11/04 Polystichum xiphophyllum 3/04 Pteris cretica 'albo-lineata' Pteris cretica 'Alexandrae' 3 Pteris quadriaurita 4/05 Pteris ryukyuensis 3/03 Pteris sp. (Nepal) 1/05 Pteris tremula 1/05 Pteris umbrosa 3/04 Pteris vittata 3/03 Rumohra adiantiformis (Cape form) 3/05 Rumohra adiantiformis (Native) 4/05 Woodwardia fimbriata 3/03

Thankyou to the following spore donors: Crosby Chase, Keith Ross, Ron Wilkins, Don Fuller and Dorothy Forte.

NEWSLETTER
If undeliverable return to:
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P 0 Box 45, Heidelberg West, 3081
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