PERIOR SOUMER AIGHTUR TO

MEANSILBANTER

DATE May '81

VOLUME:

IMBER 4

OFFICE-BEARERS

PRESIDENT: Chris Goudey, Lot 8, Cozens Road, Lara, 3212. Tel. (052) 82 2154
VICE-PRESIDENT: Albert Jenkins, 11 Morwell Avenue, Watsonia, 3087. Tel. 435 3863
VICE-PRESIDENT: Keith Hutchinson, 17 Grandview Grove, Rosanna, 3084. Tel. 459 9716
TREASURER: Ray Casmere, Merrill Crescent, Warranwood, 3134. Tel. 876 2535
SECRETARY: Irene Bolster, P.O. Box 154, Ferny Creek, 3786. Tel. 755 1222
BOOK SALES: Lorraine Goudey, Lot 8 Cozens Road, Lara, 3212. Tel. (052) 82 2154
EDITOR: Keith Hutchinson, 17 Grandview Grove, Rosanna, 3084. Tel. 459 9716
SPORE BANK MANAGER: Rod Hill, 41 Kareela Road, Frankston, 3199.
LIBRARIAN: Bill Taylor, C/- Capital Laboratory Pty. Ltd., Rm. 307,
220 Collins Street, Melbourne, (Manchester Unity Building)
MEMBERSHIP SECRETARY: Ann Bryant, 273 Douglas Parade, Newport, 3015
Telephone (after 6 p.m.) 391 7620.

PRESIDENT'S MESSAGE

Our excursion to Tarra Valley and Bulga Park National Parks with the South Australian Fern Society on the 11th of April was a fantastic success.

Our bus arrived at Bulga Park just after 8.30 a.m., to greet the South Australians having breakfast. The weather was perfect, with the sun shining all day. Several lyre birds were observed in both parks, together with an abundance of ferns, mosses and fungi.

Our thanks go to Albert Jenkins for driving the bus, and to all our members who put a lot of effort into ensuring that the South Australians had an enjoyable day.

On the way home, Lorraine and I visited Ian and Dorothy Fort at "Fern Glen", Garfield North, to have a look at their ferns. We were pleasantly surprised to see a magnificent collection of ferns, all grown to perfection. It was a very enjoyable ending to a perfect day.

Quite a variety of ferns were entered in our March competition, most of which deserved to be winners. Unfortunately, we cannot give you the results, as they are locked up in our locker at the Burnley Hall. The fern for next month's competition is a Birdsnest Fern, and for the June competition a Polystichum.

As the New Zealand trip is in June, I will not be at the June meeting. Albert Jenkins will be presiding in my absence. 4074

Cath and Cec Farrell of 36 Granville Street, Pimlico, Hermit Park, Townsville, have invited anyone travelling north to drop in and visit them. Lorraine and I visited Cath and Cec a few years ago - their collection of maidenhair ferns is a credit to them.

If you have any suggestions to improve our next Annual Fern Show, please jot them down, and put them in our suggestion box at the next meeting, or drop a line to Irene Bolster.

If you are looking for fern books, we will have the following books at the next meeting:

AUSTRALIAN FERNS AND FERN ALLIES
by Jones & Clemesha
(A new revised edition with 43 new species and cultivars) \$15.40

FERNS OF VICTORIA AND TASMANIA by N. A. Wakefield \$ 3.00

FERNS FOR MODERN LIVING
by Elaine Davenport \$ 2.56

GROWING FERNS
by Ray Best \$ 3.20

CHRIS GOUDEY President

SECRETARY'S REPORT

Members who have enjoyed previous field trips may be interested to hear of our next outing, which will be to Badgers Creek, Healesville, on Saturday, 30th May, 1981.

We will not be running a bus this time. Bring your own car, but if you would like a lift, we'll see what can be arranged. Rod Hill has provided the following information on the excursion:

Those wishing to join the May excursion should meet at the Badger Creek picnic ground by 10 a.m. at the latest. To reach the picnic ground, turn right (east) into Don Road, just over the bridge on the north edge of the Healesville business centre. Several kilometres along Don Road, turn left along the signposted road to the picnic ground. The facilities are excellent, and include under-cover picnic tables. The gravel walking tracks are well-kept.

Approximately thirty different species of fern can be seen along a moderately short track. Track notes will be provided to assist in finding all species.

A special thank-you is due to the Beasleys, of Warrandyte Fern Centre, for their donation for our Special Effort. A visit to the Centre to see their very good range of ferns is recommended to Fern Society Members.

Our membership lists, which sell for 50 cents, have proved popular. They provide a means for our members to get to know one another when travelling, whether in Victoria or interstate. If you would like one, please contact me.

> IRENE BOLSTER Secretary

NORTH BALWYN FERNERY

91 DONCASTER ROAD, NORTH BALWYN 9.00 a.m. - 5.30 p.m. Monday - Saturday Ring Greg 859 9330

- * Large range of native and exotic species
- * Advice on growing and landscaping ferneries

SOME UNUSUAL STOCK AT THE MOMENT

Dryandria rigidula, Qld. Gleichenia microphylla, Vic. Sticherus lobatus, Vic.

Dryopteris carthusiana, U.K. Doodia media, Vic. Dryopteris filix-mas, U.K. Gonophlebium subauriculatum var. knightii, Qld.

MICROSCOPIC PHOTOGRAPHY HIGHLIGHTS PROPAGATION AT APRIL MEETING

Our April Meeting speaker, Rod Hill, produced further examples of excellent microscopic photographic slides to illustrate his talk on propagation of ferns.

Rod is also the Society's "Spore Bank Manager".

During the extensive talk, he covered the whole process of identifying ferns, recognising and collecting spore through to the art of successfully growing second generation ferns.

Identifying ferns from other plants is easy, Rod told us. "Consistent features which classify ferns from other plants is the way that new fronds develop - they uncurl, a habit which most ferns have," he said. "Whilst most people use this as a rule of thumb, botanically they are identified by their method of propagation. Ferns reproduce by means of spores. Since there are no flowering stalks, these spores are carried on the undersides of the fronds."

Rod demonstrated quite a simple way to identify spore through a series of slides which showed various arrangements of spore, from large patterns on the back of fronds to orderly line patterns.

"If you are collecting spore, one of the difficult things is to determine when the spore is ready," Rod said. "On most ferns, the spores' development is usually from light green darkening through to a dark brown or black. When it is at its darkest, that is an indication that the spore is usually ready," he added.

An indication of when the spore has dropped is when the frond has a furry and tatty appearance. Sporangia, about the size of a grain of talcum powder, can be seen by the naked eye. Each sporangium contains about 64 spore and a small magnifying glass will assist in telling when the sporangium is ready to be picked.

Rod has found that the best way of collecting spore is to take a ripe frond, lay it on a sheet of clean blotting paper and induce the spore to drop off. Care should be taken not to press the frond into the paper but let the air circulate and get under the frond to avoid moisture retention and subsequent possibility of fungus growth. This is particularly essential when collecting Adiantum spore.

A lot of fronds drop not only spore but the husks as well. This is easily separated by gently tapping the blotting paper and the husks will float off. The spore will remain behind, trapped in the grooves of the blotting paper because it is much finer than the husks.

Sowing and raising ferns from spore is a delicate process if successful results are to be obtained.

Some helpful methods Rod told us that he has used are -

(Continued from previous page)

Preparation: Rod uses square pots about 1½" - 2". Use very old layers of Dicksonia fibre - this allows the water to drain off quickly and completely. Other materials which he has used successfully are coconut husks and old crushed terra-cotta. All these media have one common factor - they are porous and retain moisture but are also coarse, allowing excellent drainage. Peat moss is also suitable, providing it is left coarse, lumpy, unsieved and not compressed in the pot. It should also be cooked in foil in an oven for sterilisation.

In sterilising the medium for growing the spore, make sure that a thin film of water is not left on the surface as this will create ideal conditions for algae, mosses and fungi.

A mixture of very old tree fern fibre, Gardenitis and crushed charcoal works well for Rod.

<u>Sowing</u>: Having collected the spore, the time to sow the spore varies from fern to fern. However, it is recommended to store the spore in a crisper of a refrigerator or use silica gel to keep the spore in a dry atmosphere.

Spore supplied from the Society's Spore Bank is contained in small capsules and usually there is sufficient to sow a 5" pot. Tip as much of the spore as possible into the top of the capsule, flick the opened capsule top and the spore will settle evenly on the growing medium. Avoid sowing in draughts - and don't inhale/exhale as the spore is settling from the capsule.

Another successful method used by Rod is to transfer the spore on a spatula by dipping it into the capsule and gently flicking the spatula over the medium.

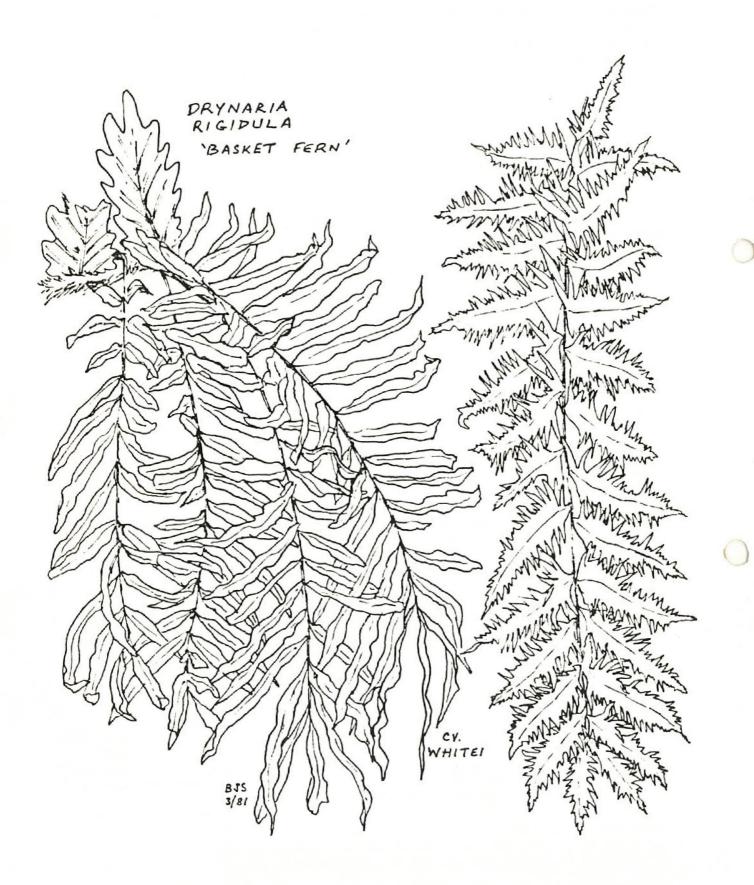
<u>Growing</u>: Once the spore has been distributed, place the pots in a large dish or container, preferably under a glass top. Watering should not be necessary as the medium will retain sufficient moisture from the drenching prior to sowing, even up to 12 months.

Plenty of light is needed, but avoid direct sunlight on developing ferns.

After about five weeks, a fungus-like substance will appear. This is the first generation fern and is the size of about a pin-head. Sometimes fertilisation has to be induced by 'swamping' the prothallus. When about 2 months old, the prothallus will grow, the more recognisable fronds heralding the second generation of the fern.

Transplanting: At this stage, the prothalli should be lifted off (they have shallow roots) and as they are still in a parasitic form, this is easily achieved. An ideal receptacle in which to transplant them is an ice cream container, well drained and still under glass. At this stage, Rod usually thins out the medium by adding a little peat moss and coarse sand. Later, when bigger, the ferns can be transplanted by using a teaspoon and planting them into small tubes. Again they should be kept under glass for about 3 - 4 weeks to acclimatise. The glass can then be gradually raised over 5 - 6 weeks to harden the plants for the "outside world".

As our President said when thanking Rod at the end of his talk - "He just about said it all". The talk was most warmly received by a large and very attentive audience.



DRYNARIA RIGIDULA (SW.) BEDD.

This common Queensland fern is often referred to as the Basket Fern.

It ranges from Northern New South Wales, in coastal situations, to north eastern Queensland, where it occurs further inland, i.e. Tablelands, as well as lowland coastal situations. Two other species of Drynaria occur in Northern Australia - D. quereifolia (L.) J. Sm., and D. sparsisora (Desv.) T. Moore. Drynaria rigidula has been recorded from the Blue Mountains, but no mention is made of it in Flora of The Sydney Region by Beadle, Evans & Carolin. Outside Australia it ranges from Malaya and Sumatra to Polynesia, where it is an abundant epiphyte on trees and rocks in high rainfall forests.

This fern is an epiphyte with a thick fleshy rhizome and dimorphic fronds. The nest leaves are short and broad and serve to collect humus, dust, moisture, etc., whereas the fertile fronds are long, sometimes up to 150 cm., and pinnatifid.

The cultivar Vidgenii is a most attractive variant of D. rigidula and is usually erroneously called cv. Whitei.

This beautiful fern was first discovered in scrubland at Oxley on the Brisbane River in 1875 by J. G. Vidgen, Esq., Hon. Sec. Queensland Acclimatisation Socidty, and was named in his honour.

The cv. Vidgenii differs from the species in having broad deeply incised pinnae that are more membranous than those of the species, and is quite sterile. It is a very expensive fern to purchase, as the only means of propagation is by division.

Drynaria rigidula and the cv. Vidgenii are both hardy basket subjects as far south as Melbourne, provided they are given a coarse open mixture, and shelter from extreme cold. They are best suited to a glasshouse where the watering can be controlled during the winter months.

References:

Australian Ferns and Fern Allies, 1981, by Jones & Clemesha Flora of the Sydney Region, 1972, by Beadle Evans and Carolin Students Flora of North Eastern New South Wales, 1971, by N. C. W. Beadle

The Fern World of Australia, 1881, by F. M. Bailey Lithograms of the Ferns of Queensland, 1892, by F. M. Bailey Flora of Malaya, 1966, by R. E. Holttum The Pteridophyte Flora of Fiji, 1977, by G. Brownlie Fern Growers Manual, 1975, by Barbara Joe Hoshizaki

Pay a visit to

ECHBERGS' Nursery/Florist

1 Railway Parade, Highett

THE HOME OF -FERNS, NATIVE AND UNUSUAL PLANTS

"Flowers sent Worldwide"
by TELEFLOWER (AUSTRALIA) LTD

Geoff & May ECHBERG



Phone: 555 5115 A.H: 555 1179 SPORE BANK NEWS

Firstly, there will be no Spore Bank operating in May, either by mail or at the meeting, as Rod Hill, our Spore Bank Manager, will be in Queensland on holidays. We all wish him a safe and happy time.

Secondly - an S.O.S.!

Because of the increasing number of requests from our interstate members, Rod has run out of suitable spore containers.

Any member who can supply Rod with used 35mm slide containers or other small rigid boxes could bring them along to the next meeting.

NOTES FROM THE EDITOR:

As we have had a great problem with our membership register over the last twelve months, resulting in members' names not being recorded, or members not receiving our newsletter, Ann Bryant has very kindly offered to act as our Membership Secretary. She will be just the person to iron out any queries or problems relating to membership, and things should run very smoothly from now on. Ann's address and telephone number appear on page 2, under Office-Bearers.

At our last meeting, the super liner and baskets (at a very good price!) went like the proverbial hot cakes. PARAQUAD INDUSTRIES also donated 100 extra 8" liners, which sold out completely. We would like to thank Paraquad, and will repeat a special price on these items in the near future. In the meantime, if you need a good basket and liner - remember Paraquad Industries. I find that ferns grow exceptionally well in their product, particularly if you don't pack the soil too firmly, and make sure you leave a lip around the edge to catch the water.

Do you fancy yourself as a problem solver? Well, see how you go with the puzzle on the next page! Solution will appear in our June newsletter.

KEITH HUTCHINSON Editor ??????????????????????????????????

PARTS OF THE FERN PLANT

U H N Y S P E B I J P A
E Y M A C R I G Y R K O
G M U U O H B N O T Z Z
S N O P I U D T N X O S
I L S Z L S H S R U P H
H F D B I A U E U O L R
C R I N L H I D R R A E
A L H L O Z R A N N O S
H K U D O R N F N I T S
R S P R C G F I L I J M
P I C P I G P M P K O S
C L Q A K Q R E R E C D

FIND THESE HIDDEN WORDS IN THE PUZZLE

BULBIL INDUSIUM PROTHALLUS SORUS STIPE CROZIER PINNA RHACHIS SPORANGIA FROND PINNULE RHIZOME SPORE

GILLS GRENDON NURSERY

- ESTABLISHED 1920 ... WHERE TRADITION CONTINUES -

Come along and see our excellent range of Indoor & Outdoor Ferns For example ...

BIRDSNEST ... \$3.95 MARSHA'S PRIDE HYBRID MAIDENHAIR ... \$5.20

ASSORTED VICTORIAN FERNS

BIRDSNEST & TREEFERNS - ALL SIZES, INCL. LARGE

Also extensive range of orchids. Rarer ferns a speciality.

Landscapers catered for ask for Robin MacPherson in Enquiries
GILLS GRENDON NURSERY, 1 CENTRE ROAD, EAST BRIGHTON
Telephone: 592 8833, 592 8711

SCALE INSECTS

I am frequently asked "How do scale insects get inside my home, to infect seemingly pest-free ferns?"

Last Monday, I lifted a mature female scale insect from a frond of an Asplenium bulbiferum, and showed an employee the frond through a jeweller's eyeglass. She was amazed to see about 100 small, greenish, creeping insects with six legs, in a circle of about 2 mm.

These young scale insects were "hatching" under the female and when ready, would spread over the foliage of the plant. The scale insects exude a sugary substance called Honeydew, which is very attractive to ants. As the ants feed on the Honeydew, the small scale insects (still too small to be seen with the naked eye) climb aboard the ant and are carried quite long distances, and occasionally into sunrooms and verandahs.

At this stage, they are very easy to control with very dilute white oil, but as they mature, they become much more difficult and may need several sprays.

Many people think they rid their fern by flicking the female scale insect off with a pointed knife, but this only seems to send the youngsters off a little sooner, to suck the life out of the fern. Incidentally, the adult male scale insect is a very small, short-lived, two-winged insect which can fly.

Maxicrop

The world's first 100% organic liquid seaweed plant food.

Maxicrop is marketed in Australia by:

R.A. BELL-BOOTH & CO. (Aust.) P/L

VICTORIA: 4/375 Bayswater Road. Bayswater, Vic. 3153. Phone: Melb. (03) 720 2200. P.O. Box 302. Bayswater Vic. 3153.

NEW SOUTH WALES: 4th Floor, 309 Pitt Street, Sydney, NSW 2000. Phone: (02) 235 8100.













- DIARY DATES -

MAY 14TH: Kevin Heinze, speaking

on ferns in the garden

JUNE 11TH: David Beardsley, speaking

on growing media

JULY 9TH: Dr. J. H. Willis

AUGUST 13TH: Annual General Meeting

SEPTEMBER 10TH: Open Night - talks by

members of the Society

OCTOBER 8TH: Noel Fitts, speaking on

sprinkler installations, general nursery equipment, including greenhouses and

watering

NOVEMBER 12TH: Harry Jackson

DECEMBER 10TH: Christmas Break-up

*** *** *** *** *** *** ***

NOTE: In the event of a power strike on the evening of

any meeting, we regret that the meeting must be

cancelled.

VENUE OF MEETINGS: Burnley Horticultural School Hall,

Burnley

TIME OF MEETINGS: 8 p.m.

PREPARED AND PRINTED

FOR

THE FERN SOCIETY OF VICTORIA

BY

IVANHOE TYPING AND DUPLICATING SERVICE (03) 49 2937