THE FERN SOCIETY OF VICTORIA Inc.

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NEWSLETTER

VOLUME 16, Number 5, June 1994

FERN SOCIETY OF VICTORIA Inc.

POSTAL ADDRESS: P.O. Box 45, Heidelberg West, Victoria, 3081.

OFFICE BEARERS:

President:	Barry White	Ph	one	337	9793
Imm. Past President:	Robert Lee			836	1528
Vice-President:	Terry Turney		н	807	4886
Secretary:	John Hooper		11	434	1239
Treasurer:	Don Fuller		11	306	5570
Membership Secretary:	John Oliver		"	879	1976
Spore Bank Manager:	Barry White		11	337	9793
Editor:	Robert Lee			836	1528
Book Sales:	Stephen Ziguras			388	1771
	(25 Ewing Street,	Brunswick,	Vic.	, 30)56)
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SUBSCRIPTIONS:	Single	-	\$15.00	(Pensioner/Student - \$11.00)
	Family	-	\$18.00	(Pensioners - \$13.00)
	Overseas	-	A\$30.00	(by Airmail)
	Subscript	ion	s fall du	e on 1st July each year.

PRESIDENT'S MESSAGE:

Annual General Meeting: The AGM in August is fast approaching and I take this opportunity to call on members to give consideration to coming onto the Committee. It is essential for the continuing good health of the Society that we continue to get new blood on the Committee. The new blood provides a fresh point of view and new ideas, and will help prevent creeping stagnation. Please give it some thought; we need your involvement.

The meeting last month was very successful. The speaker was from a commercial company and sometimes such speakers can be overly concerned in selling their own products. However, I thought that Roger Loveless from Bayer Australia Ltd gave a talk which was very interesting and informative.

I apologise for the fact that last month's Newsletter was not received until after the meeting. There was a delay in printing due to a combination of circumstances, but the Newsletters were still conveyed to the Post Office on the Monday and should have been delivered prior to the meeting.

<u>Wangaratta Gardens</u>: Earlier this year I passed on an appeal from Mary Frost for a source of tree-fern trunks at a reasonable price. The trunks were needed to replace those killed by the severe flooding in the Wangaratta Gardens. Mary has told me that she has been able to obtain over a hundred trunks courtesy of Neil Pike of Fernworld. Neil is a new member of our Society, having joined just after the last Fern Show.

<u>June Meeting</u>: The meeting this month should be a good one. The talks will be given by Terry Turney and Chris Goudey and will cover two groups of ferns - the Pyrrosias and the Platyceriums. Terry will cover the botanical features of both groups and Chris will cover (continued opposite)

NEXT MEETING

DATE: Thursday, 16th June, 1994

TIME: From 7.30 p.m.

<u>VENUE</u>: The National Herbarium, Royal Botanic Gardens, Birdwood Avenue, South Yarra. (Melway Directory Ref. 2L A1)

TOPIC: PLATYCERIUMS and PYRROSIAS

SPEAKERS: Chris Goudey and Terry Turney

MEETING TIMETABLE

7.30 p.m.	Pre-Meeting	Activities:- Sa	les of Fe	rns, Spore, Books	
	and Special	Effort Tickets	; Library	Loans.	

8.00 p.m.	June General Meeting
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8.20 p.m. Topic of the Evening 9.30 p.m. Fern Competition Judging

- 9.30 p.m. Fern Competition Judging Fern Identification and Pathology
- Special Effort Draw
- 9.45 p.m. Supper
- 10.00 p.m. Close.

FERN COMPETITION: The categories for this month are *Platycerium* and *Pyrrosia*. The category for July will be an *Asplenium*.

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MEMBERSHIP SUBSCRIPTION RENEWAL

Membership subscriptions for 1994/95 fall due on 1st July. Rates will be the same as for the current year.

An application form for renewal of membership is included with this Newsletter. Prompt payment is requested, as late renewals cause extra administrative work.

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PRESIDENT'S MESSAGE: (continued)

aspects of cultivation. The fern competition will have two categories this month - Pyrrosias and Platyceriums. Chris and Terry have put in a special request for members to bring along ferns, particularly if you have something a little unusual.

Regards, Barry White

NOTICE OF ANNUAL GENERAL MEETING

The fifteenth Annual General Meeting of the Fern Society of Victoria Inc. will be held at 8.00 p.m. on Thursday, 18th August, 1994 at The National Herbarium, Birdwood Avenue, South Yarra.

Business to be transacted will be:

- 1. Receive and deal with the President's Report on behalf of the Committee of Management.
- 2. Receive and deal with the Treasurer's report.
- 3. Election of Office Bearers and Committee Members of the Committee of Management for 1994-95.
- 4. General Business.

Nominations for Committee of Management.

Nominations are now called for the positions of Office Bearers and Committee Members for the year July, 1994 to June, 1995. Nominations should be in writing, signed by the proposer and seconder, and include the written consent of the nominee. They must be received by the Secretary not less than seven days prior to the Annual General Meeting. Nominations may be called at the Annual General Meeting only if insufficient have been received previously to fill all vacancies.

General Business.

Items to be discussed and voted on under General Business at the Annual General Meeting must be notified to the Secretary in writing not less than 21 days prior to the Meeting, so that details may be included in the August Newsletter, which will be posted to all Members seven days before the Meeting in accordance with the rules of the Society.

John Hooper Hon. Secretary.

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CULTIVATION OF DRYNARIAS

In the May Newsletter, Keith Hutchinson gave some interesting information on the cultivation of Drynarias, including the observation that nest fronds may only be produced when the fern is lacking nutriment. Ron Robbins, President of the South Australian Fern Society and a member of our Society, presents a contrasting view. He reports that his Drynaria rigidula in a 20" basket has about sixty nest fronds. Ron keeps his fern under 80% shadecloth with liberal water in summer, and keeping as dry as possible in winter. He feeds his Drynaria with what he describes as a liberal helping of Dynamic Lifter (about two handfuls) administered in Springtime. Further comments would be welcome.

Barry White

(The following is one of a series of articles on 'The Great Fernists' being published in "The Fern World", the newsletter of the San Diego Fern Society. The articles, which are written by Bob Halley, are about 'those Pteridologists that the other Fern Experts turn to for help'. The author kindly supplied this article for our use.)

CHRISTOPHER JOHN GOUDEY

by Bob Halley

Chris Goudey is probably the leading fern horticulturist of Australia. We know him best for his beautiful and authoritative book 'Maidenhair Ferns in Cultivation'. He is a mainstay of the Victoria Fern Society, providing talks and plant material for many of their meetings.

Chris's interest in ferns developed in rural Victoria, on a farm in South Gippsland and even more so in the beautiful Dandenong Ranges, where he lived with his parents. His mother, Gladys Goudey, had a fernery in her garden at Tecoma and Chris would often bring home ferns or other shade-loving plants to add to his mother's collection of plants.

In 1968, Chris and his fiancee Lorraine were married and shortly after built a house at Werribee, a western suburb of Melbourne. Chris worked at that time as a Commonwealth Meat Inspector and was occasionally transferred to country and interstate locations for short periods.

His interest in ferns was rekindled particularly after visiting the beautiful forests of Tasmania, the Otway Ranges in western Victoria and the Blue Mountains, west of Sydney, New South Wales.

When the transfers were over, Chris built a small fernery in their garden at Werribee, followed by a glasshouse. It wasn't long before the yard became too small and the adjoining block of land at the rear was purchased and more glasshouses and ferneries were erected. It was during this time that he mastered growing ferns from spore.

Chris joined the British Pteridological Society, the Los Angeles International Fern Society and the Nelson Fern Society, in addition to the Field Naturalist Club of Victoria and the Society for Growing Australian Plants. His knowledge of ferns grew rapidly and he soon found himself speaking at garden clubs, radio and television and was quite often featured in the garden pages of local and Melbourne newspapers.

After nine years residing in Werribee, Chris, Lorraine and their two daughters, Carolyn and Yvonne, decided to move to a larger property with a view to opening up a wholesale fern nursery, and shortly after moved to a five-acre property at Lara. Because of the close proximity to the sea, they were troubled little by frosts and temperature extremes and as a result his collection grew to well over 1,000 species and cultivars. He was able to grow most of the species from tropical Australia without artificial heat.

The nursery expanded also, and Chris specialized in growing rare and exotic species and cultivars, supplying fern nurseries from Queensland and New South Wales to Western Australia.

In early 1979, as result of encouragement from Jimmy Dyce (British Pteridological Society) and the Royal Horticultural Society of

Victoria, Chris called together a group of interested people with the view to establishing a Fern Society in Victoria. It was not long before the Fern Society of Victoria was formed, with an inaugural membership of approximately 500 members. Chris was elected president and served for the following three years and still has an active interest in the Society. He has led field excursions in various parts of Victoria and Tasmania, as well as Lord Howe Island and New Zealand and has also travelled widely himself, particularly in the Pacific region.

In 1981, Chris co-authored the book 'Exotic Ferns in Australia' with David Jones, which has now been revised and expanded due to popular demand. His next project was 'Maidenhair Ferns in Cultivation', a major work which covered approximately 167 species and cultivars of *Adiantum* in Australia, with 400 coloured illustrations. A large number of choice cultivars have been developed in Australia such as the *Adiantum tenerum* cvs 'Marshas Pride', 'Pacific May' and many others. In his book, Chris attempted to record their origin before it was too late.

His most recent book is 'A Handbook of Ferns for Australia and New Zealand'. This book covers all the ferns commonly cultivated in Australia and New Zealand, with in excess of 600 different species and cultivars.

He is a keen photographer and takes most of his own photographs for his books and lectures. Throughout the years, he has made a number of notable botanical finds on field trips.

Chris is particularly interested in filmy-ferns and has travelled extensively throughout Papua New Guinea and the South Pacific to collect all the known species of *Leptopteris*. In recent years, he has constructed a large filmy-fern house, where they grow to perfection, and has developed a number of interesting hybrids of *Leptopteris*, particularly involving *L. superba*. See "Pteridologist" 2 (2) 63, 1991.

He has also been experimenting with Asplenium hybrids and a few years ago released a new fern Asplenium bulbiferum x oblongifolium, which he named 'Maori Princess'. He has sold over 35,000 plants of this hybrid. A more recent and attractive hybrid Chris developed is Asplenium bulbiferum x surrogatum, which he named 'Island Beauty'. This cultivar is very attractive and at this early stage could prove to be more popular than 'Maori Princess'. Both 'Maori Princess' and 'Island Beauty' are sterile, but can be reproduced by the bulbils.

Chris has his own quarantine facilities and has introduced a large number of new ferns into Australia from all over the world, specializing in species which come from cool climates, such as New Zealand, United Kingdom, South Africa, Japan, United States of America, Canada and Lord Howe Island, that will grow well in cooltemperate Victoria.

In 1983 the Fern Society of Victoria awarded Chris with an honorary life membership in recognition for his outstanding contributions to the Society.

The following notes are added by Barry White, President of the Fern Society of Victoria and long-time acquaintance of Chris:

"Excursions organized by Chris are designed for early risers, keen

walkers and persons impervious to the weather, and have been some of the most memorable of the Society excursions. Chris continues his strong involvement in the Fern Society of Victoria, giving regular talks, acting as fern judge at monthly meetings and as an ongoing reference source for the Society with fern identification and all aspects of fern cultivation. One notable feature of Chris is his willingness to share his knowledge with others. Although his hobby has become his business, Chris has still not lost any of the hobbyist's enthusiasm for growing ferns and for sharing any knowledge gained with other fern growers."

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(The following article is taken, with thanks, from the March, 1994 issue of the Newsletter of the S.G.A.P. Fern Study Group.)

USE OF SCALES IN CLASSIFICATION OF CYATHEACEAE

by Raymond Best

Thanks to the co-operation of John and Judy Marley I was invited to meet Barbara Joe Hoshizaki and her husband at their home and nursery at 5 Seaview Street, Mt Kuring-gai, N.S.W.

Although our time was limited I managed to ask a few questions regarding classification. She explained that there were two types of botanists in existence, one group known as Lumpers, the other as Splitters. Whichever group you chose to use was your own affair. I understand that the classification of Jermy Crabbe and Michel as used in the Fern Dictionary and with most other authorities around the world, is classed as lumpers in their desire to use larger groups; while others like Edwin Bingham Copeland, U.S.A. and Pichi-Semolli from Italy would be classed as splitters. The latter group are the name changers, searching all the time for subtle name changes that would make classification very confused for the lay person, providing indefinite work for botanists.

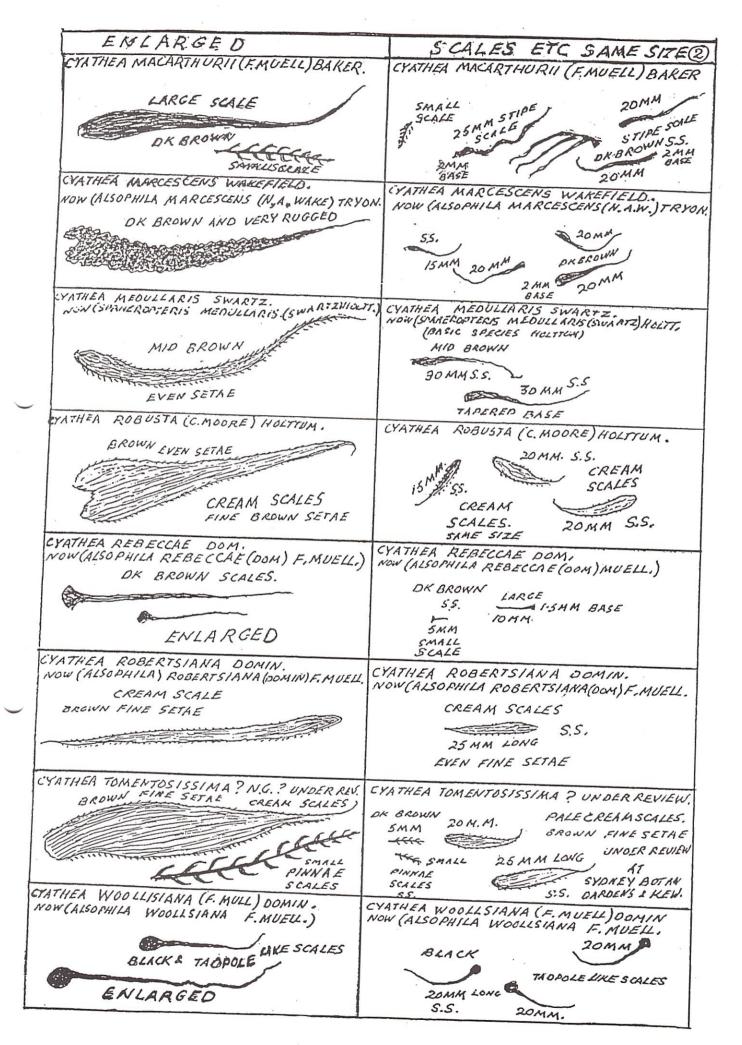
According to Peter Hind (*Leader of the Fern Study Group*) in a recent article, our local authorities have decided to use both the Splitters and Lumpers where the situation applies. Particularly as many Australian works on ferns seem to prefer the Splitters to the Lumpers.

Reading also in a recent article in the "Newsletter" that scales were being used to identify some ferns, I decided to include the drawings of scales in a number of Australian Cyatheaceae species. All of these scales taken from live ferns in my collection are filed in a folder for my own personal use. Any additional scales along with information concerning types, etc. would be most welcomed.

(see diagrams next two pages)

The same edition of the above Newsletter contained a detailed fern survey of Lord Howe Island made during a visit by members of the S.G.A.P. Fern Study Group. It would be of use to anybody planning a visit to the island and will be available through our Library.

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LONGEVITY OF SPORES

by Barry White

The longevity of spores is an important factor in operating a spore bank, but information on spore longevity and factors affecting it is scanty.

It is well known that the green spores produced by ferns such as Osmunda regalis, Todea barbara, and Blechnum nudum have a short storage life of only a few weeks. I also have had very little success with spores from Blechnum species generally which were much more than 6 months old; and also from Polystichum species of a similar age. Although one sometimes hears of spores which have grown after many years of storage, these appear to be the exception and may be due to special storage conditions. I have been trying to list in the Spore Bank spore which is reasonably fresh because of my generally poor results with spore over two years of age. As a guidance to members I include the date of collection where it is available, and I ask that all donations to the spore bank be identified as to the date of collection.

A very interesting paper has been published in the proceedings of the Centenary Symposium of the British Pteridological Society held in London in July, 1991. The paper by S. Lindsay, N. Williams and A. Dyer of the University of Edinburgh is entitled "Wet Storage of Fern Spores: Unconventional But Far More Effective".

They looked at the fern spores of five species - Todea barbara, Athyrium filix-femina, Blechnum spicant, Polystichum setiferum and Asplenium scolopendrium. Two storage systems were compared: air-dried spores held in complete darkness at about 20°C, and spores stored in a wet form by sowing them onto a sterile agar mixture which was then sealed and also stored in complete darkness alongside the dry spores. Note both moisture and sunlight are necessary for spores to germinate. At regular intervals the spores were tested for viability by sowing the dry spores onto agar gel and exposing both storage samples to light. Germination percentage was regularly assessed with a final determination at 21 days, after which time there was no significant further germination.

The results are most interesting. The figures quoted below are approximate ones from readings off their graphs. With *Todea barbara* initial germination was almost 100%. After one month, wet storage spore had 85% viability against 52% for the dry spore. At three months the figures were 75% and 8% respectively and at 5 months they were 82% and 0%. That is, after 5 months storage the dry-stored spores were all dead whereas the large majority of the wet-stored spores were still viable.

With *Blechnum spicant* the wet-stored spores showed no deterioration in viability over a two-year storage period. In contrast the dry-stored spores dropped from an initial viability of about 88% to about 25% after four months and to less than 10% after 10 months.

Similarly, with wet-stored spore Athyrium filix-femina, Asplenium scolopendrium and Polystichum setiferum showed no deterioration in viability over a two-year storage period from their initial viability levels of 85%, 48% and 60% respectively. Again, in contrast, the drystored spore of Athyrium filix-femina deteriorated gradually over the

two-year period from the initial 85% to about 18%; the Asplenium scolopendrium dry spore deteriorated from the initial 48% to about 12% after six months and to less than 5% after 12 months; the Polystichum setiferum dry spore dropped from the initial 60% to 12% after six months and virtually zero after 12 months.

Another interesting observation to come out of the work was the effect on germination time. With the wet-stored spores there was no change in the speed of germination even after two years storage. However with the dry-stored spores there was a definite slowing in the germination speed with increasing storage time. The authors did state that all germinations under their conditions were virtually completed by 21 days.

Wet storage is also beneficial with the seeds of some flowering plants but the technique is rarely used in seed banks because of technical difficulties. The better storage is due to the ability of hydrated seeds to repair some of the damage which occurs in the normal ageing process.

This work has some significant implications for the operation of a spore bank. Setting up a system for storing spores in a wet or damp form may not be too technically difficult. My major concern would be that a sterile storage system may be difficult or impossible in a nonlaboratory situation, and therefore fungi and other contaminants may be a serious and unpredictable hazard. Nevertheless, some trials with wet storage could be most useful. I would be interested in receiving any suggestions which members might have in regard to possible storage systems.

Ray Harrison

Mavis Potter

Fran Harrison

Nancy Perry

Diana Mayne



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

BUYERS' GUIDE TO NURSERIES

VICTORIA:

Andrew's Fern Nursery / Castle Creek Orchids - Retail. Goulburn Valley Highway, Arcadia, 3613. (20 km south of Shepparton). Large range of ferns and orchids for beginners and collectors. Open daily 10 am - 5 pm except Christmas Day. Ph: (058) 26 7285.

<u>Austral Ferns</u> - Wholesale Propagators. Ph: (052) 82 3084. Specialising in supplying retail nurseries with a wide range of hardy ferns; no tubes.

<u>Coach Road Ferns</u> - Wholesale. Monbulk. Ph: 756 6676. Retail each Saturday and Sunday at the Upper Ferntree Gully Market (railway station car park), Melway Ref. 74 F5. Wide selection of native and other ferns. Fern potting mix also for sale.

<u>Fern Acres Nursery</u> - Retail. Kinglake West, 3757. (On main road, opposite Kinglake West Primary School). Ph: (057) 86 5481. Specialising in Stags, Elks and Bird's-nest Ferns.

Fern Glen - Wholesale and Retail. Visitors welcome. D. & I. Forte, Garfield North, 3814. Ph: (056) 29 2375.

<u>R. & M. Fletcher's Fern Nursery</u> - Retail. 62 Walker Road, Seville, 3139. Ph: (059) 64 4680. (Look for sign on Warburton Highway, 300m east of Seville shopping centre). Closed Tuesday, except on public holidays.

<u>Kawarren Fernery</u> - Wholesale and Retail. Situated on the Colac - Gellibrand Road, Kawarren (20 km south of Colac). Ph: (052) 35 8444.

The Bush-House Nursery - Wholesale and Retail. Cobden Road, Naringal (35 km east of Warrnambool). Ph: (055) 66 2331 Ferns - trays to advanced. Visitors welcome.

NEW SOUTH WALES:

Jim & Beryl Geekie Fern Nursery - Retail. By appointment. 6 Nelson Street, Thornleigh, 2120. Ph: (02) 484 2684.

<u>Kanerley Fern Exhibition and Nursery</u> - Wholesale and Retail.
204 Hinton Road, Nelsons Plains, via Raymond Terrace, 2324.
Ph: (049) 87 2781. Closed Thursdays and Saturdays.
Groups of more than 10 must book in advance, please.

Marley's Ferns - Wholesale. 5 Seaview Street, Mt. Kuring-Gai, 2080. Ph: (02) 457 9168. All Fern Society members welcome. By appointment.

QUEENSLAND:

<u>Moran's Highway Nursery</u> - Wholesale and Retail. Bruce Highway, Woombye (1 km north of Big Pineapple; turn right into Keil Mountain Road). P.O. Box 47, Woombye, 4559. Ph: (074) 42 1613.