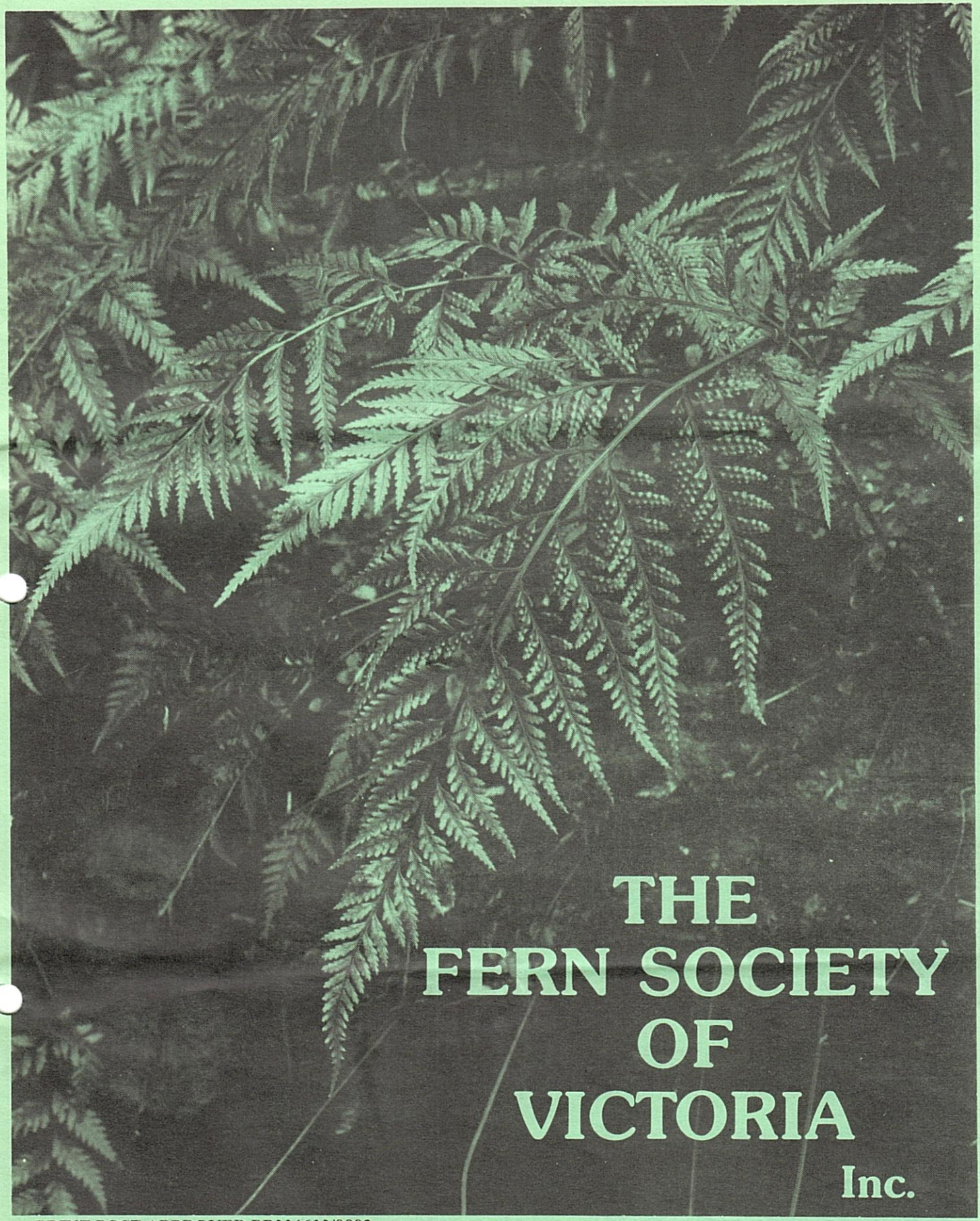

THE FERN SOCIETY OF VICTORIA Inc.

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NEWSLETTER

VOLUME 17, Number 1 February, 1995

FERN SOCIETY OF VICTORIA Inc.

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PRESIDENT'S MESSAGE:

Welcome to the new year. We finished off the '94 year on a good note and I hope we can continue on in '95 in the same manner. Our final effort last year was a well-attended excursion to Chris and Lorraine Goudey's nursery. Our thanks to Chris and Lorraine for hosting the meeting and for the donation of ferns for the raffle. Also thanks to Mavis Potter who despite problems with her leg still managed to provide a her usual superb Christmas cake for the raffle. It was good to see members from distant parts, including Ron Robbins who is also the president of the Fern Society of South Australia.

The February meeting will feature Neil Pike who was due to speak at our September meeting but was unable to do so as he was still in London at the time. Neil will be speaking on an activity in which he is heavily involved, namely the harvesting of tree ferns, their marketing overseas and their replanting in the harvested areas. It should prove very interesting. Unfortunately, I will not be able to be present at the meeting as I will be in the Philippines from the end of January until the middle of March. It will be part work but I hope there will be enough time for ferning to give a talk on it sometime or other.

The Fern Show this year is scheduled for the 1st and 2nd of April, and Don Fuller is again heading the Show Committee. Last year's Show was well supported by members helping out, and this was a major factor in making the show a successful social event and in sharing the work load. I trust we will have just as good support this year.

Two new and enthusiastic members, Kathy and Adrian Goodall of Wodonga, have extended an invitation to the Society and to individual members to call in and see their fernery. Members on the excursion to Arcadia and Avenel last year had an opportunity to see some photos of

(continued opposite)

NEXT MEETING

DATE: **Thursday, 16th February, 1995**

TIME: From 7.30 p.m.

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

TOPIC: **TREE FERNS - HARVESTING, EXPORT and REPLANTING**

SPEAKER: **Neil Pike, Fern World Nursery**

MEETING TIMETABLE

7.30 p.m.	Pre-Meeting Activities:- Sales of Ferns, Spore, Books and Special Effort Tickets; Library Loans.
8.00 p.m.	February General Meeting
8.20 p.m.	Topic of the Evening
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 category for this month any fern native to Victoria. The category for March will be a *Davallia*.

NOTE: Bulk Maxicrop will be available for sale at this meeting. Please bring your own 500ml, 1 litre or 2 litre container.

CHANGE OF SPEAKER: Jane Edmanson, who was previously scheduled to speak at this meeting, has had to cancel and will address us later in the year, probably in June.

PRESIDENT'S MESSAGE: (continued)

their fernery, and they have done a lot in a very short time. It may be some time before the Society is able to arrange a trip up there but if you are in the vicinity I am sure Kathy and Adrian would make you very welcome. Their address is 52 Charles St Wodonga, telephone (060) 24 2535.

The Society is in urgent need of an assistant editor for the Newsletter. We have a Newsletter which is of a high standard, and it is a vital part of the Society. Bob Lee has done a sterling job as Editor for four years but is now in need of some backup support to allow for absences and other activities. There is an urgent need for this. If you think you may be able to assist, please contact Bob for further details.

Barry White
Acting President

1995 FERN SHOW

Saturday, 1st April - Sunday, 2nd April

Don Fuller

As reported in the Nov./ Dec., 1994 Newsletter, the Fern Show will again be held at the National Herbarium, Royal Botanic Gardens (Gate F). It will be open to the public between 10.00 a.m. and 5.00 p.m. on both days and the admission charge will be $3 for adults and $2 concession.

The success of the Show is very important to our Society and I draw your attention again to the comments in the last Newsletter regarding ways that you can help bring this about.

A substantial amount of publicity has or will be arranged in gardening magazines, newspapers and radio. However, the important publicity is that which all members can provide by word of mouth and distribution of our advertising pamphlets. Two are included with this Newsletter and additional copies will be available at the February and March meetings. Please try to have them displayed prominently at suitable locations in your neighbourhood such as nurseries, shops, libraries, etc. This should start from early in March. If you belong to a garden cub or know anyone who does, please let them know about the Show.

The display will again consist of bench and floor displays of potted ferns, plus a pergola and other arrangements for hanging baskets. Our feature display this year will be Indigenous Australian Ferns (including Lord Howe Island and Norfolk Island).

In addition, all display ferns will be eligible for entry into a Fern Competition with first and second awards being made in the following sections :

1. Adiantum
2. Aspleniun
3. Australian Fern
4. Platycerium
5. Pteris
6. Hanging Fern In Hanging Container
7. Fern other than the above (emphasis on minor genera)
8. Best Fern of the Show.

Our judge has given the following pointers for improving your entry:

1. Container should be clean.
2. Potting Mix, if visible, should be clean.
3. Plant to be clean, free from blemishes and disease, healthy and showing new fronds.
4. Not over- or under-potted.
5. Plants should be circular wherever possible unless habit dictates otherwise.
6. Should be labelled neatly and correctly.
7. Hanging fern in hanging container should hang at least 225mm from top of container.

It takes a large number of ferns to fill the display area and produce a spectacular effect. All of you have favourite ferns which give you pleasure; here is the opportunity to display them. Size of the ferns is of a minor importance. Please ensure that they are clearly identified with their botanical name and some form of identification to ensure safe return to you. If you do not know the name of a fern you may be able to find it out at either the February or March meeting.

Members also have the opportunity to bring surplus ferns for sale at the Show. If you wish to do so please contact Bernadette Thomson at either the February or March meeting or by phone (399 1587). Ferns for sale must be free of pests or disease and have individual labels clearly stating botanical name and growing conditions. There is no limit on the number of ferns offered for sale, but we cannot accept small tubes. Members selling ferns are expected to contribute a reasonable number of plants to the display.

The Show Committee is most anxious to hear from members willing to help with the Show activities. We need people to assist in setting up on Friday and clearing up after the Show late Sunday afternoon. We also require people to assist with staffing the display and sales area. People with sign and label writing skills would be of assistance. Offers can be directed to Don Fuller on 306 5570 or the other Show Committee members.

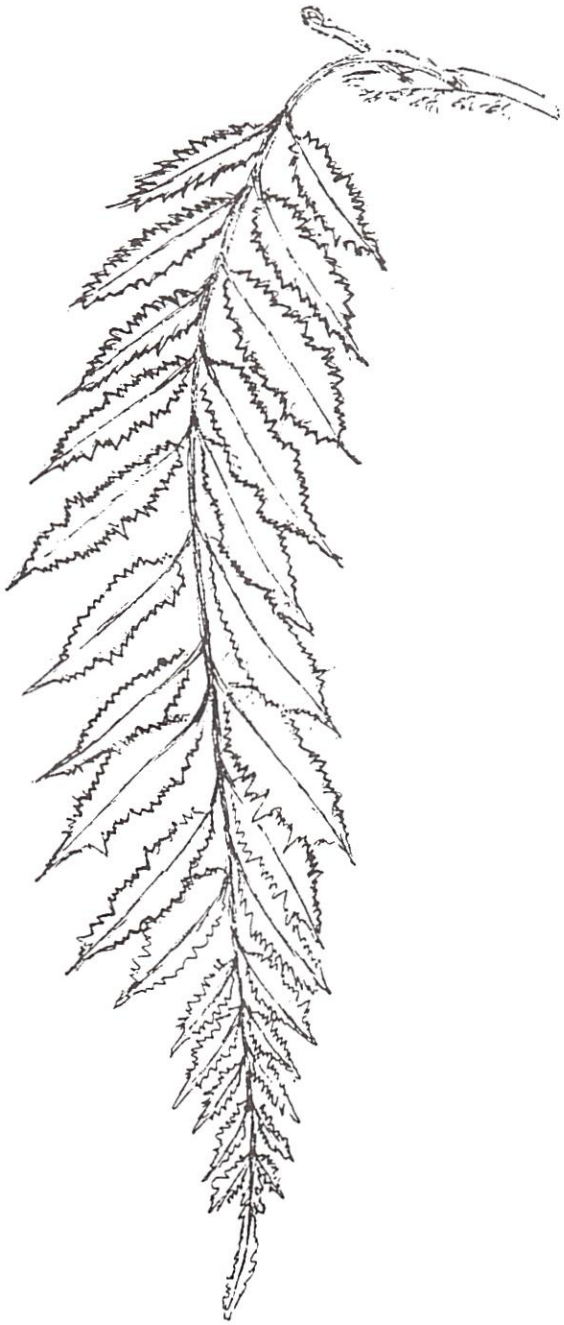
The membership of the Show Committee this year is as follows:

Don Fuller (Chairman)	Phone	306 5570
Betty Allgood	"	(059) 68 4858
Ian Broughton	"	(059) 64 6402
Chris Goudey	Phone	(052) 82 3084
John & Norma Hodges	"	878 9584
Bob Lee	"	836 1528
Bill Taylor	"	754 8275
Bernadette Thomson	"	399 1587
Barry White	"	337 9793

MY FAVOURITE FERNS

Keith Hutchinson

2. *GONIOPHLEBIUM SUBAURICULATUM* 'KNIGHTIAE'



The plant is sometimes named *Schellolepis subauriculatum* 'Knightiae'.

This beautiful fern with delicately dissected, cascading fronds is one all fern collectors should have. It is not difficult to grow and makes a lovely basket or potted specimen for a feature or a pedestal. The late Albert Jenkins, our first Vice-president, grew several excellent specimens of *Goniophlebium* in pocketed tree-fern slabs hanging on a wall. He also had another on a pedestal with fronds reaching down almost 2 metres to the floor. Whenever I called to see him he invariably took me in to admire it.

Although Goniophlebiums are native to North-east Queensland, Asia, and the Pacific Islands, I find they grow quite well in Victoria if given an open, well-drained potting mix and some protection from cold and frost during winter.

A little well-rotted cow manure in the mix and an occasional watering of Aquasol is adequate to keep them in good condition.

As *Goniophlebium subauriculatum* cv. Knightiae is sterile it can only be multiplied by division. As it has a fleshy creeping rhizome, this is not difficult and should be done just before the new croziers unfurl in spring. Be sure not to make your divisions too small as a good-size clump makes a better proposition to cope with the following winter.

This fern will give you a great deal of pleasure, so do try growing one.

RAINFOREST WALKS IN EAST GIPPSLAND

Barry White

Along the Princes highway in east Gippsland there are several convenient short walks through sections of rainforest. They are all close to the highway and, except for the fourth site, are very easily traversed.

Site 1: The Bemm River Rainforest Walk is located on the south side of the Highway about 40 kilometres east of Orbost. The walk is about one kilometre long. It is an easy walk with all of it on either boardwalk or asphalted path with only a few lots of steps. Major maintenance work had been recently completed by the Army on the trail at the time of my visit and there was significant damage to the ferns along the trail. The very dry conditions also detracted from the appearance of the trail. However, given time and a good fall of rain the trail should recover and put on a good display. The boardwalk makes for an easy walk , but it is restrictive and lacks the atmosphere of a more natural trail. There is a good range of ferns on the trail and the two bridges over the river give a different perspective of the ferns.

Site 2: The Euchre Valley Nature Drive was once part of the Princes Highway. The drive now involves a slight detour to Club Terrace, where the old road commences and wends its way for six kilometres through the warm temperate rainforest of the Lind National Park until it joins the Princes Highway. The winding fern-lined road contrasts sharply with the present Highway. *Sticherus lobatus* and *Gleichenia microphylla* are plentiful on the roadside, and there are some attractive forms of *Epacris impressa*. The range of ferns did not appear as great as at the other sites but closer inspection would probably reveal quite a few more species.

Site 3: The Drummer Rainforest Walk is on the north side of the highway about 10 kilometres east of Cann river and located beside the Thurra river. This is a flat pleasant walk of about one kilometre along a well-defined mossy path with a good selection of ferns and some appealing sections of creek. *Adiantum aethiopicum* is very common along the track.

Site 4: In the Alfred National Park a convenient car parking spot can be found about one kilometre east of Mt Drummer. There is not a defined track here but one can readily work one's way up and down the fern gully, with the uphill one slightly easier going. Here was the first encounter with *Lastreopsis microsora* and *Pteris umbrosa*. This area was the best of the four for quantity and variety of ferns.

A total of 32 different ferns were noted at the four sites. The ferns and their locations are listed below. If you visit these areas please see if you can add to the list.

FERN	SITES
Adiantum aethiopicum	3
Allantodia australis	3,4
Asplenium flabellifolium	1,4
Blechnum cartilagineum	1,2,4
Blechnum minus	3
Blechnum nudum	1,2,3,4
Blechnum patersonii	1,4
Blechnum wattsii	3
Calochlaena dubia	1,2,3
Ctenopteris heterophylla	1,3
Cyathea australis	1,2,3, 4
Dennstaedtia davallioides	1
Dicksonia antarctica	1,3,4
Doodia aspera	4
Gleichenia microphylla	2
Histiopteris incisa	4
Hymenophyllum cupressiforme	1,3
Hypolepis glandulifera	4
Hypolepis rugosula	1,2,4
Lastreopsis acuminata	1,3,4
Lastreopsis microsora	4
Microsorum pustulatum	3
Microsorum scandens	1,4
Pellaea falcata	4
Polyphlebium venosum	1,4
Polystichum proliferum	1,2,3
Pteridium esculentum	1,2,3,4
Pteris tremula	4
Pteris umbrosa	4
Pyrrosia rupestris	3
Sticherus lobatus	2
Tmesipteris parva	4

Note: *Calochlaena dubia* was *Culcita dubia*, *Allantodia australis* was *Diplazium australe* and *Microsorum pustulatum* was *Microsorum diversifolium*.

BEWARE: SPOROTRICHOSIS !

This disease is even worse than the name!

There have been several references in the popular press and journals lately to a fungal disease called "**sporotrichosis**", which causes rashes and red welts accompanied by considerable pain. The fungus enters the body through open cuts, mainly when handling sphagnum moss, although one report said that it is found in soil and plants, and home gardeners sometimes contract the infection when they prick themselves with rose thorns.

The infection is fairly rare, with 84 cases being reported in 1988 in the USA. In 1994, ten gardeners at Disney World in Florida contracted the disease when preparing topiary figures from sphagnum moss. The problem can be effectively treated with oral anti-fungal drugs, but early diagnosis is important or the disease can become disabling.

It should be noted that the infection comes from green sphagnum moss and not from peat moss. This is emphasised in the article opposite, which is taken from the Bulletin of the American Fern Society, 'Fiddlehead Forum', **21,** 6 (Nov./Dec. 1994).

DON'T CONFUSE SPHAGNUM MOSS WITH PEAT MOSS

There has been some confusion recently about the source of a fungal disease which is causing concern within gardening circles. A chronic infection, "sporotrichosis", identified by ulcerous skin lesions, is caused by coming in contact with the fungus, which has been traced to exposure to sphagnum moss. After extensive research, there are no documented cases of sporotrichosis being transmitted in sphagnum **peat** moss, the soil conditioner used by millions of gardeners.

The sporotrichosis fungus lives in the top living layer of sphagnum bogs. That layer is removed before the sphagnum peat moss harvesting begins. The fungus is not known to live in the lower levels of a sphagnum bog where peat forms.

"Living" sphagnum moss is used in the floral and greenhouse industry to make wreaths and to line hanging baskets. People working in these areas have been warned to protect themselves with gloves and heavy clothing to avoid puncture wounds or scrapes, and to wear long sleeves to prevent coming into contact with the dried moss.

-Gerry Hood, President, Canadian Sphagnum Peat Moss Association, Bloomington, MN.

(The same issue of 'Fiddlehead Forum" contained the following notes on the propagation of Lycopodiums.)

VEGETATIVE PROPAGATION OF *LYCOPODIUM*

To augment the flagging collection .of Lycopodiums at the Michigan State University greenhouse, I wrote to the Royal Botanic Gardens in Kew, England, for advice. According to Matthew V. Ford, John Woodhams and Peter Bradley, two methods are used at Kew to propagate this beautiful fern ally.

1. A cutting is taken from the tip of the current year's growth and placed in a small pot of fresh Sphagnum moss and kept in a closed case of high humidity until rooting has begun.

2. With the parent plant hanging in a basket, have another basket of fresh Sphagnum moss hanging next to it. Peg the tip of the current year's growth onto the adjacent basket. When the roots appear, cut the new plant away from the parent.

The Kew staff has found that to ensure continued success in growing Lycopodium indoors, the plants need to be grown in a hanging basket and kept in fairly high humidity. Lycopodium also needs to dry out to a state of being "just moist" between waterings.

(The following article is copied, with thanks, from "Fern World", XVII, 5 (May, 1993), the Newsletter of the San Diego Fern Society. It is based on a talk to the Society by David Curtright, who builds and manages water gardens.)

AQUATIC FERNS

David Curtright

While researching the subject of aquatic ferns, I was astounded by the large number of species of ferns that will tolerate temporary or permanent inundation. For every degree of inundation there is at least one species of fern that will grow. Of course, not all of these ferns can be considered truly aquatic, but those that are offer considerable variety and a fertile field of inquiry for those who are interested in them. For our purposes here, we will consider only those which are truly aquatic or which spend sufficient time with their rhizomes inundated to be considered semi-aquatic. All others, those which must spend the majority of their time out of the water, will not be considered at length here.

There are really only six families with water-tolerant representatives. They are the Isoetaceae, Marsileaceae, Osmundaceae, Salviniaceae, Ceratopteraceae and the Polypodiaceae. There are several fern allies which may be considered to be amphibious, including the Psilopsideae (Whisk Ferns), Equisetaceae (Horsetails), Lycopodaceae (Clubmosses), and Sellaginellaceae (Spike Mosses). However, this discussion will focus on only the true ferns.

Let us start with the simplest of the groups, the Salviniaceae. This group is composed of two genera, *Salvinia* and *Azolla* (which are further divided into 16 species). This group is, perhaps, the easiest to cultivate and has the greatest economic value both as beneficial agents and as nuisance plants.

These plants' basic structures are simple and both genera are capable of rapid vegetative reproduction. In general, the leaves are arranged in whorls around a floating, or horizontal rhizome. In *Salvinia*, the leaves occur in whorls of three with two of the leaves being round to elliptical in form and floating on the water surface, while the third leaf is finely pinnate and hangs down into the water as a ballasting mechanism and as a nutrient and water absorption organ. This leaf serves the function of roots, while not really being roots. In fact, these plants produce no true roots.

The thin horizontal rhizome of *Azolla*, however, bears both leaves and roots. The crowded leaves are small and bi-lobed. The upper lobe is photosynthetic while the lower lobe is colorless and probably functions in the absorption of water and in the maintenance of buoyancy. Roots generally arise at the junction of the leaves and the rhizome and protrude downward into the substrate, be it water or mud. At the base of the each leaf is a cavity which contains the nitrogen-fixing blue-green alga, *Anabaena azollae*. This is the property of *Azolla* that makes it important economically. It has been proved that, in rice paddies in the Orient where the *Azolla* has been turned under the soil, the yield is substantially greater than it is in paddies whose *Azolla* has been flooded off the ground and allowed to escape. I use an *Azolla* compost to grow begonias and ferns. *Azolla* also has great food value for fish, livestock and, I am sure, for people.

Cultivation of these plants is as easy as breathing. *Azolla* often looks good in the nooks and crannies of a waterfall or stream bed, where water is either wicked up to the roots or where it can be splashed onto the plants. As a terrarium plant, it can be grown on moist sand or soil and can be quite beautiful as it piles up onto itself to form dense, finely-leaved clumps. Actually, *Azolla* will thrive in any place with permanent water. Allowed to grow unimpeded, especially in a pond, both *Azolla* and *Salvinia* can quickly become obnoxious nuisances which are difficult to eliminate. Their sins include burying other plants in. the pond and blocking out all the light that would otherwise penetrate the water. The plants which are trying to grow under the Salvinoids are starved for light and die. This, coupled with the detritus generated by *Azolla* and *Salvinia*, can lead to serious problems with fungi and chemical pollution of the water. I am certain that even the rice farmers of the Orient have to take steps to control the proliferation of these plants.

The next group is the Marsileaceae, or Pepperworts. This family is composed of three genera which are further divided into about 70 species. *Marsilea* is

easily the largest of the aquatic genera. A few of the species have become available to the pond plant trade with more being introduced as they are deemed worthy. Perhaps the most common of these plants is *Marsilea quadrifolia*, a.k.a. Water Four-Leaf Clover.

All of the Marsileaceae are rhizomatous with roots growing from the lower side of the rhizome and the leaves arising upward from the top of the rhizome on petioles which vary in length according to the depth of the water. On the ground or in shallow water, the petiole is short, stout, and often rises well above shallow water. In deeper water, the petiole is soft and relatively flimsy, and the leaf itself is usually larger than those of plants growing in shallow water. In *Marsilea*, the leaf is quadrifid and, as a group, they resemble variations on the four-leaf clover theme; hence the common name. .

In *Regnellidium*, a monotypic genus, the leaf is bifid. Interestingly, *Regnellidium* is the only non-flowering plant that produces latex.

The third genus, *Pilularia*, has filiform leaves that consist of only a petiole with no lamina (the "expanded" part of any leaf) being produced. The genus is unimpressive, not commonly cultivated, and, in spite of the fact that they grow extensively in the eastern half of North America, not many people know very much about them.

All of the Marsileaceae produce their spores in sporocarps which form on the end of filaments arising from the petiole slightly above the rhizome. The economic importance of the Marsileaceae is limited to ornamental uses in aquaria, terraria, and in ponds. I am currently using two species of *Marsilea* (*M. quadrifolia* and *M. crenata*) as a hillholding ground cover around the margins of natural bottomed ponds surrounded by steep hillsides. Currently, after two years, the plants occur in dense mats as far as six feet away from the pond, in areas that stay particularly damp.

Cultivation of these plants is very easy and they can actually become weeds in ponds, especially smaller ones. The rhizomes extend several feet in all directions, branching freely , invading, and often overwhelming, other plants as they go. I have had some difficulty growing *Regnellidium* in the past few years, although I used to grow a lot of it. I think it might prefer cooler conditions than *Marsilea*, because the pond in which it grew so well was much co oler than anything I keep today. I have had no experience with *Pilularia*, but I believe that this group has the requirements as for *Regnellidium* and *Marsilea*, with the possible exception that *Pilularia* must be grown in very shallow water.

Ordinarily, *Regnellidium* and *Marsilea* are sold in one-gallon pots or in loose clumps pulled from the outer reaches of their range in the seller's pond. When I see these innocent offerings at the nurseries, I am often reminded of those cute little pottings of "Asparagus Fern" at the nursery which often become "The Things That Ate the Yard."

The third group of aquatic ferns, the Ceratopteridaceae, is comprised of only one genus, *Ceratopteris*, with four species. A total of six species has been described, but the current thinking is that there are only four, with the other two species actually being varieties. The species are *C. cornuta*, *C. deltoidea* (actually *C. richardii*), *C. pteroides, C. richardii, C. siliquosa* (actually *C. thalictroides*) and *C. thalictroiaes*. By far the most common is *C. thalictroides*. It occurs over a wide range naturally and has been introduced into several areas, including Florida, where it is doing quite well. It is popular as a fast-growing aquarium plant, as a terrarium plant, and, in some areas, as a pond plant. In the Orient, the young fronds are eaten regularly. Several million of these plants are sold annually in the aquarium plant trade and several million more are thrown away as they overpopulate and, eventually, overwhelm small aquaria. I used to think that I had large, robust specimens in my greenhouse and aquaria when my plants achieved 18" in height. Imagine my surprise to find one in a ditch in Florida growing emersed to a height of four feet, with stems half the thickness of my arm. In general, the plants in this group grow floating or anchored in the substrate of shallow water. The floating form exhibits leaves which are round to lobed with plantlets scattered around the leaf margins. The roots grow down into the water to form dense mats. Erect forms, either submergent or emergent, may be slightly to deeply incised to form filiform segments which bear ball-shaped sporangia which develop into young plants as the leaves mature, die, and fall into the water or loam.

Cultivation of *Ceratopteris* is relatively easy if one is prepared to provide plenty of light and clear water. I have grown them emersed at 100+ °F in enclosed containers in the greenhouse. In these tanks, the humidity is extremely high and fresh water bathes the

roots at all times. In the aquarium, they may be grown over any coarse substrate and, with clean water, plenty of light and non-airdriven water motion, they will thrive, often to the extent that they must be thinned periodically. For all their fecundity , however, they are beautiful plants which deserve a prominent location in any well-planted aquarium.

The next group, the Isoetaceae, are inconspicuous plants which grow either submerged or amphibiously in Europe and in North America. The genus *Isoetes* contains about 7 5 species. The narrow leaves form a short rhizome and form a dense rosette. The lower surface of the leaf is usually ovate and the upper surface is awl-shaped. They have virtually no known economic value and are delicate and difficult to grow. Some authors mention *Isoetes* species for use in the aquarium, but they all mention the difficulty one encounters when trying to grow even the few species that the authors recommend. Those species include *I. lacustris, I. echinospora*, and *I. malinverniana.*

The next group includes a few select species from the huge family Polypodiaceae. There are species in two genera of plants which grow in shallow water for the vast majority of their time. These are *Bolbitis* and *Microsorium.*

In the case of *Bolbitis*, finely-divided, dark-green translucent leaves grow to a height of 15 inches from branching, horizontal rhizomes which will attach themselves to wood, gravel, or porous stone. Provided with clear moving water and good light, these plants will thrive for many years gracing any aquarium they occupy. They will grow emersed, but do their best under water. The best known species is *B. heudelotii*, but there are three others. These are *B. fluviatllis, B. hydrophylla*, and *B. lonchospora*. Sadly, these are not readily available, but are undoubtedly deserving of further study.

As with *Bolbitis*, *Microsorium* may be grown on wood or Porous stone, but will not tolerate gravel. With *Microsorium*, the leaves are lanceolate to lobed, stiff, and dark green. The rhizome grows horizontally or in a manner which follows the substrate. In their natural habitat, the plants grow on fallen logs, porous stone, and in damp forest detritus in and around streams. The plants will grow to a height of about nine inches. As the leaves age, young plants are formed along the leaf margin and around the margins of holes in the leaves.

Both of these plants are popular in the aquarium plant trade, although *Bolbitis heudelotii* is much less common than *Microsorium pteropus*, known under the common name Java Fern. Both are beautiful and interesting.

There are other polypoids which will grow in wet conditions or which will tolerate standing water temporarily, but are not truly aquatic in the sense that they will not tolerate extended periods of inundation. They include *Dryopteris, Adiantum, Thelypteris, Athyrium, Lorinseria, Onoclea*, and *Woodwardia.* Many of these plants are already in cultivation by hobbyists and have been for some time.

The last group is the Osmundaceae. This group includes several species in three genera which are seminaquatic. While they may not be entirely aquatic, they are of such interest that I will mention some of the more interesting varieties. The three genera are *Osmunda, Leptopteris*, and *Todea*. Of particular interest are *Osrnunda regalis* (Royal Fem) and *O. cinnamornea* (Cinnamon Fern). The majority of the species in this large group are native to Eastern North America and Europe. Many of them grow in the hammocks and woods of Florida, Georgia, and northward through the Pine Barrens of New Jersey. These plants may be cultivated in acidic, loamy soil, with lots of water.

All of these plants are worthy of consideration and, no matter what your environment is like, be it aquarium, terrarium, lathouse or pond, there is probably a fern for you. We have always enjoyed the species that we have kept and are always eager to obtain new ones. For the most part, they are not at all difficult to grow are often rather prolific, a feature that I have always appreciated.

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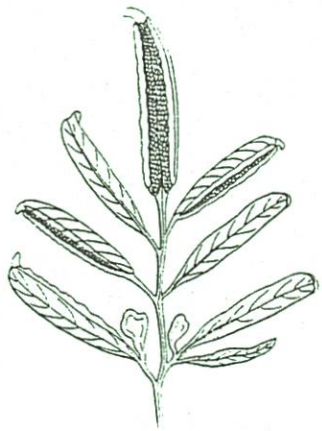

BUYERS' GUIDE TO NURSERIES

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.

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

Coach Road Ferns - 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.

Fern Acres Nursery - 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.

R. & M. Fletcher's Fern Nursery - 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.

Kawarren Fernery - 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.

Kanerley Fern Exhibition and Nursery - Wholesale and Retail.
204 Hinton Road, Osterley, 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:

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