

**THE
FERN SOCIETY
OF
VICTORIA
Inc.**

PRINT POST APPROVED PP334633/0002

NEWSLETTER

VOL. 21, Number 3

May / June, 1999.

Reg. No. A 0002585 E

FERN SOCIETY OF VICTORIA Inc.

POSTAL ADDRESS:

P.O. Box 45, Heidelberg West, Victoria, 3081

OFFICE BEARERS:

President:	Ian Broughton	Phone	(03) 5964 6402
Imm. Past President	Chris Goudey	"	5282 3084
Vice-President	George Start	"	5962 5059
Secretary	Barry White	"	9337 9793
Treasurer	Don Fuller	"	9306 5570
Membership Secretary	John Oliver	"	9879 1976
Spore Bank Manager	Barry White	"	9337 9793
Editor	Lyn Gresham	"	5796 2466
(Kilpara Stud, Goulburn Valley Highway, Mangalore West, 3663)			
Book Sales	Ivan Traverso	"	9836 4658
(19 Alta Street, Canterbury, Vic., 3126)			

COMMITTEE MEMBERS: Jean Boucher 9707 1592, Lyn Gresham 5796 2466,
Jack Barrett 9375 3670, Peter Theophilos 9885 6431, Gaye Stagoll 9844 1558,
Norma Hodges 9878 9584.

SUBSCRIPTIONS: Single - \$13.00 Pensioner/student \$10.00
Family - \$15.00 Pensioner Family \$12.00
Overseas - A\$20.00 (Magazine by airmail)
Subscriptions fall due on 1st July each year.

Meetings are held on the third Thursday of each month except December and January
at Victoria Bowling Club, 217 Grattan Street, Carlton. Melways 2B D8.

OUR SOCIETY'S OBJECTIVES.

The objectives of the Society are;

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

FROM OUR PRESIDENT...

Greetings again from the Presidential computer.

What a period of contrasts we have had with our weather. First the heat and humidity of Summer then, in March, we had 193mm of rain including 61mm falling in half an hour one Sunday afternoon. Meryl, Talitha and I spent an hour bailing water from the front of the house to stop it from running inside under the windows. We had sheets of water pouring over the edges of some of the garden beds as run-off water came from up the hill, straight over the road and through our block. We pay our \$60 a year drainage charge to Yarra Valley Water and don't seem to get anything in return except problems in heavy rain. The warm sunny days have been pushing on the Spring growth on some of the deciduous Northern Hemisphere ferns we grow. It will be interesting to see what happens to them over Winter and Spring. Once or twice we have had Athyrium filix-femina cultivars carry foliage over Winter following unusual weather patterns in Autumn.

The first major item of note is that we have had our last meeting at the Victoria Bowls Club. **Our meetings for May, June and July will be held at the Kevin Heinze Garden Centre in Wetherby Road, Doncaster** - details appear elsewhere in the newsletter. It is shown in the Melway street directories and is near the Eastern Freeway. We apologise if this is less convenient for you but, at the moment, it is only intended as a temporary measure. We will be looking for a venue in a more central location but appreciate having the Garden Centre available at such short notice. Thanks to John and Norma Hodges for making the arrangements for us.

(Continued on page 36)

1999 MEETINGS & EVENTS

General Meeting on May 20th

FERN NAMES

Terry Turney

Five Minute Fern Talk; Ian Broughton

Competition;

***New Venue;**

Any fern with an unpronounceable name!

Kevin Heinze Garden Centre,

39 Weatherby Road, Doncaster.

(Melways 47-H1) Just South of Doncaster Rd.

~~~~~

## General Meeting on June 17th

### BLECHNUMS

**Barry White**

**Five Minute Fern Talk; John Hodges**

**Competition;**

**\*Venue;**

**Kevin Heinze Garden Centre**

**July Competition will be**

~~~~~

 **Please note the change of venue.**

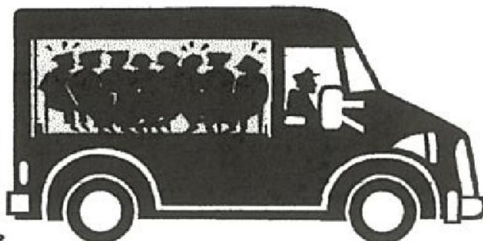
Due to the Victoria Bowling Club closing, (Melbourne University have reclaimed the land, which was apparently always theirs) we will hold our meetings at the Kevin Heinze Garden Centre for the next three months, until a permanent venue is decided upon.

The committee is considering a few possibilities, and will welcome any suggestions you have. The challenge is to find somewhere fairly central, with parking, at a reasonable cost.

Pass your ideas on to our secretary, Barry White 9337 9793 or president, Ian Broughton 5964 6402 or any committee member, please.

The Kevin Heinze Garden Centre is on the west side of Weatherby Road and there is ample parking on site. The gate is back a bit from the street but you will see our "ferns" sandwich board at the entrance. We look forward to seeing you there.

~~~~~



#### GENERAL MEETING TIMETABLE:

|       |                                                                                                                   |
|-------|-------------------------------------------------------------------------------------------------------------------|
| 7.30  | Pre-meeting activities - Sale of ferns, spore, books, merchandise and Special Effort tickets. Also library loans. |
| 8.00  | General Meeting.                                                                                                  |
| 8.15  | Workshops and demonstrations.                                                                                     |
| 9.15  | Fern identification and pathology, Special Effort draw.                                                           |
| 9.45  | Supper.                                                                                                           |
| 10.00 | Close.                                                                                                            |

**VENUE:** Kevin Heinze Garden Centre, 39 Weatherby Road, Doncaster. (Melway 47:H1)

## ... FROM OUR PRESIDENT

(Continued from page 34)

Our annual show has been and gone for another year. Some aspects were a little disappointing. The number of members involved isn't increasing. We really needed more people to bring in plants for the displays, to enter their competitions and to attend, bringing friends and relatives. However, it was enjoyed by all who were involved. It has run at a small loss this year due largely to the expenditure on materials for the new central stand to replace the old (and very cumbersome) pergola. The new stand was designed and built by Jack Barrett and Don Fuller and it was a great success, being able to be set up with a fraction of the work - it looked great too - a big **THANK YOU** to Jack and Don. Thanks also need to go to Don for his terrific work as chair of the Show Sub-committee - he puts a lot of effort in and it is really appreciated. All who were involved in the Committee and in helping on the weekend were appreciated for their sterling service.

Barry White has been organising a web site for us, further details will be available in the next newsletter.

The committee is giving consideration to a garden "expo" proposed for Ballarat from Thursday 25<sup>th</sup> to Sunday 28<sup>th</sup> November, 1999. The idea is for specialist plant societies to display and sell plants and promote themselves to the public. The event will be heavily promoted to garden clubs with the expectation that many of them will organise bus trips to it. If it is to be a success, we will need a number of people to help set up and man the stand over the four days. If you would like to be involved, or if you have any comments to make, please speak to one of the Committee.

The last two meetings have been most enjoyable. I found Mary Kenealy's talk on fern memorabilia in March refreshingly different and it was great to catch up with Bill Taylor again at our April meeting as he chaired our discussion on caring for our new fern acquisitions.

Our May speaker will be Terry Turney on fern names, pronunciations and meanings. The competition category for the night will be ferns with unpronounceable names (ie names you can't pronounce). I will be giving the 5 minute fern talk.

In June, Barry White will give us a presentation on Blechnums, the competition will (of course) be Blechnums and the 5 minute fern talk will be given by our favourite "Water Fern" - John Hodges.



*"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."*

### MONTHLY COMPETITION WINNERS FOR MARCH & APRIL

#### MARCH A DECIDUOUS FERN

1. Dot Forte ~  
*Osmunda regalis* var. *Purpurea*  
Purple Stemmed Royal Fern.
2. Ian Broughton ~  
*Onochlea sensibilis*  
Sensitive Fern.
3. Dot Forte ~  
*Athyrium filix-femina*  
Lady Fern.



#### APRIL AN ADIANTUM

1. Ian Broughton ~  
*Adiantum silvaticum*
2. Don Fuller ~  
*Adiantum* Blue Moon  
(*A. raddianum* 'Blue Moon?')
3. Ian Broughton ~  
*Adiantum nova-caledoniae*

Exhibitor's Draw: Barry White.  
Special Effort: Margaret Radley, Jack Barrett, Barry White, Fran Harrison and Dorothy Forte.

## 10 COMMANDMENTS FOR GROWING SPORE

- 1 Thou shalt only sow ripe spore.
  - 2 Thou shalt sterilize the house of spores.
  - 3 Thou shalt plant spores in sterile soil.
  - 4 Thou shalt moisten spores only with sterile water.
  - 5 Thou shalt grow spores in a house of high humidity.
  - 6 Thou shalt keep the house of spores neither too hot nor too cold.
  - 7 Thou shalt give spores the light but not the heat of the sun.
  - 8 Thou shalt patiently wait the greening of the sporelings.
  - 9 Thou shalt treat fernlets with tender loving care.
- Thou shalt smite their foes so that the fernlets may beget more spores.



*From the June/July 1998 Fern Society of South Australia Newsletter. Used with thanks.*

Speaker Report from our March meeting:

### FERN MEMORABILIA

*- an inveterate collector's perspective.*

Mary Kenealy

*Mary and her husband Reg are bowerbirds of the first order! For many years they had an antiques and memorabilia shop and chose carefully the items they would keep from the stock passing through it. Mary also keeps her eye open EVERYWHERE she goes. On at least two occasions that I know of they mounted a very fine display of their precious fern memorabilia at our annual fern shows. These offered a different and interesting aspect of our favourite plants and illustrated their place of importance in our forebears' lives.*

Mary began by sharing her philosophy of collecting;

***"You should get pleasure from it yourself and give pleasure to others when they see your collection".***

So how - or whether - you display a collection is important. The things you collect should not be locked away safely out of sight in a cupboard. You should collect things that you are prepared to have all around you as part of your life, to be lived with and enjoyed. Many people who see Mary's collection can't grasp this attitude.

The other thing people find hard to fathom is that if something gets broken, comes to the end of its time ..... so be it. You've had it for a certain time, you've enjoyed it, other people have enjoyed it but if it comes to its end don't get your knickers in a knot over it because life will go on! It's not something to get terribly devastated over.

### ***So, What Will I Collect?***

Mary detailed, and showed examples of, some of the things we might like to collect.

**1. ALBUMS.** One night Gillian Dunk addressed our meeting and she brought along a most beautiful fern album, filled with pressed specimens. Now this is something that **any** of us can do - just take a leaf specimen of every fern in your collection, press it, pop it in an album with the name on it - and enjoy it. It's a great way of keeping track of your collection.

**2. BOOKS.** I can't pass a secondhand book shop without going in. Once I very nearly got locked in one when the proprietor closed up. If not for Reg who was outside with

*(Continued on page 39)*



## FERN SHOW 1999 COMPETITION RESULTS

*Once again this year the competition was keenly contested and the entries beautifully grown and presented - a joy to behold. All the owners (slaves?) are to be commended and the winners congratulated. They are:*

### Section 1. ADIANTUM

- |     |              |                                  |
|-----|--------------|----------------------------------|
| 1st | Dick Kissane | <i>Adiantum</i> 'Silver Dollar'. |
| 2nd | Don Fuller   | <i>Adiantum formosum</i>         |

### Section 2. ASPLENIUM

- |     |             |                                          |
|-----|-------------|------------------------------------------|
| 1st | Don Fuller  | <i>Asplenium polyodon</i>                |
| 2nd | Barry White | <i>Asplenium aethiopicum</i> (S. Africa) |

### Section 3. BLECHNUM

- |     |           |                                 |
|-----|-----------|---------------------------------|
| 1st | Dot Forte | <i>Blechnum nudum</i> 'Crested' |
| 2nd | Dot Forte | <i>Blechnum cartilagineum</i>   |

### Section 4. FERN IN HANGING CONTAINER

- |     |            |                         |
|-----|------------|-------------------------|
| 1st | Don Fuller | <i>Davallia plumosa</i> |
| 2nd | Dot Forte  | <i>Polypodium</i> sp.   |

### Section 5. FERN WITH CRESTED FROND OR RHIZOME

- |     |            |                                          |
|-----|------------|------------------------------------------|
| 1st | Dot Forte  | <i>Microlepia strigosa</i> 'Crested'     |
| 2nd | Don Fuller | <i>Asplenium australasicum</i> 'Crested' |

### Section 6. FERN WITH COLOUR OTHER THAN GREEN

- |     |                  |                                               |
|-----|------------------|-----------------------------------------------|
| 1st | Keith Hutchinson | <i>Platycerium veitchii</i>                   |
| 2nd | Don Fuller       | <i>Neephrolepis exaltata</i> 'Chantilly Gold' |

### Section 7. FERN ALLY

- |     |             |                              |
|-----|-------------|------------------------------|
| 1st | Dot Forte   | <i>Lycopodium pumillio</i>   |
| 2nd | Barry White | <i>Selaginella martensii</i> |

### Section 8. FERN ARRANGEMENT (Fern and two other plants)

- |     |              |                                          |
|-----|--------------|------------------------------------------|
| 1st | Jack Barrett | <i>Asplenium</i> sp. and two others      |
| 2nd | Jack Barrett | <i>Polypodium vulgare</i> and two others |

### BEST FERN OF THE SHOW

**Dick Kissane's *Adiantum* 'Silver Dollar'**

**Special congratulations to Dick on earning this award.**

**Well done!!**



(Continued from page 37)

the dog and thus rescued me, I would have had the most marvellous time!! Being locked in a **bookshop** wouldn't have worried me in the least!!

Reading old books is a most wonderful way of increasing your knowledge and learning about how the whole story of ferns has progressed. My oldest book on ferns is dated 1834. It is a florist's book from that time, entitled "The Cultivation of British Ferns" which tells us that in 1834 they were discussing and presenting the information of the day on ferns. It is my treasure.

Perhaps the next oldest one is "The Enquiry Book" which dates from the late 1800's and was like the Martha Gardiner of those times. This book covers **every subject under the sun** (quite a know-it-all, this woman!) and includes a very lovely section on the fernery and pot plants.

Books such as the 1916 **Brunnings Australian Gardener** (from a garage sale for about 20¢) and the **Australian Garden of Today, Illustrated** (which includes an article by Edna Walling) include a special section on ferns, ferns for the bush-house or garden etc.

The **Plant Hunters** is a boring-looking book which tells a fascinating story of the men who travelled the world looking for specimens of plants for the Kew Gardens in Britain, beginning with Joseph Banks.

**3. CHINA.** All sorts of household china can bear fern motifs; jugs, plates, cheese dish lids, casserole dishes etc. (Incidentally, china which has no markings on the base is very old, if it says 'England' it is probably pre-1900 and if it says 'made in England' it is probably post-1900.)

**4. Another 'C' is CUTLERY.** I haven't found many pieces with a fern pattern, but it's worth keeping your eye open.

**5. Yet another 'C' is CRYSTAL,** very special, of course. All crystal with fern markings is hand cut, very fine and very beautiful.

**6. WARDIAN CASES.** These came about in the late 1800's, during the Fern Frenzy. A scientist named Ward had set up an experiment with insects in a bell jar, when he noticed a green tinge to the surface of the soil. He kept an eye on it and eventually discovered that he had grown *Trichomanes*, one of the most difficult ferns to cultivate, from spore. Ward kept it growing for years and realised that as long as he kept the lid on the jar, the fern flourished. (One can imagine how he found that out...)

We can obtain the same effect from a clock dome, either glass or plastic, or any glass jar that fits the pot. These are also very effective for propagating cuttings of anything.

The plant collectors discovered that these new-fangled cases were superb for transporting their specimens. Until then, most of the plants collected (I once read 98% ) perished during the voyage back to England. The first experiment was on a journey from England to Australia. The results were excellent and even more so on the return voyage, when a *Gleichenia microphylla*, among others, survived.

**7. POSTCARDS.** Scenes of activities in the bush involving ferns, ferny bush views and souvenirs of famous ferneries are some subjects you can find on postcards old and modern.

**8. CATALOGUES.** Old ones included plants and every

imaginable accessory to growing your ferns, even conservatories, for which you could send. There were also advertisements by people who built concrete, fake rock grottoes and garden features.

**9. PHOTOGRAPHS.** A very special part of fern memorabilia is photographs. Around 1913 -1914 there were two photographers in particular who travelled around Australia and photographing a lot of ferns. One was Lindt, who had a studio in Collins Street and the other was Caire. They are still revered by photographers as masters of their art - the detail in their photography is absolutely brilliant. Many of the sepia pictures of Australian scenes that you saw (if you're old enough!) in the old, brown, Victorian trains were Lindt and Caire prints. They also collaborated to produce a photographer's companion guide to the Healesville, Black's Spur, Narbethong and Marysville districts. These two did a tremendous amount to bring the knowledge of the beauty of our native forests, and ferns in particular, to the people.



**10. ILLUMINATED ADDRESSES AND CERTIFICATES.** An illuminated address was a special award or thank-you given to someone who had done good service. The example Mary had was dated 1922, and contained heavy illumination of ferns and wattle.

**11. WROUGHT IRON.** Beautiful garden seats were done with fern designs, also the iron railings of Victorian mansions. (Perhaps better to admire than collect these!!)

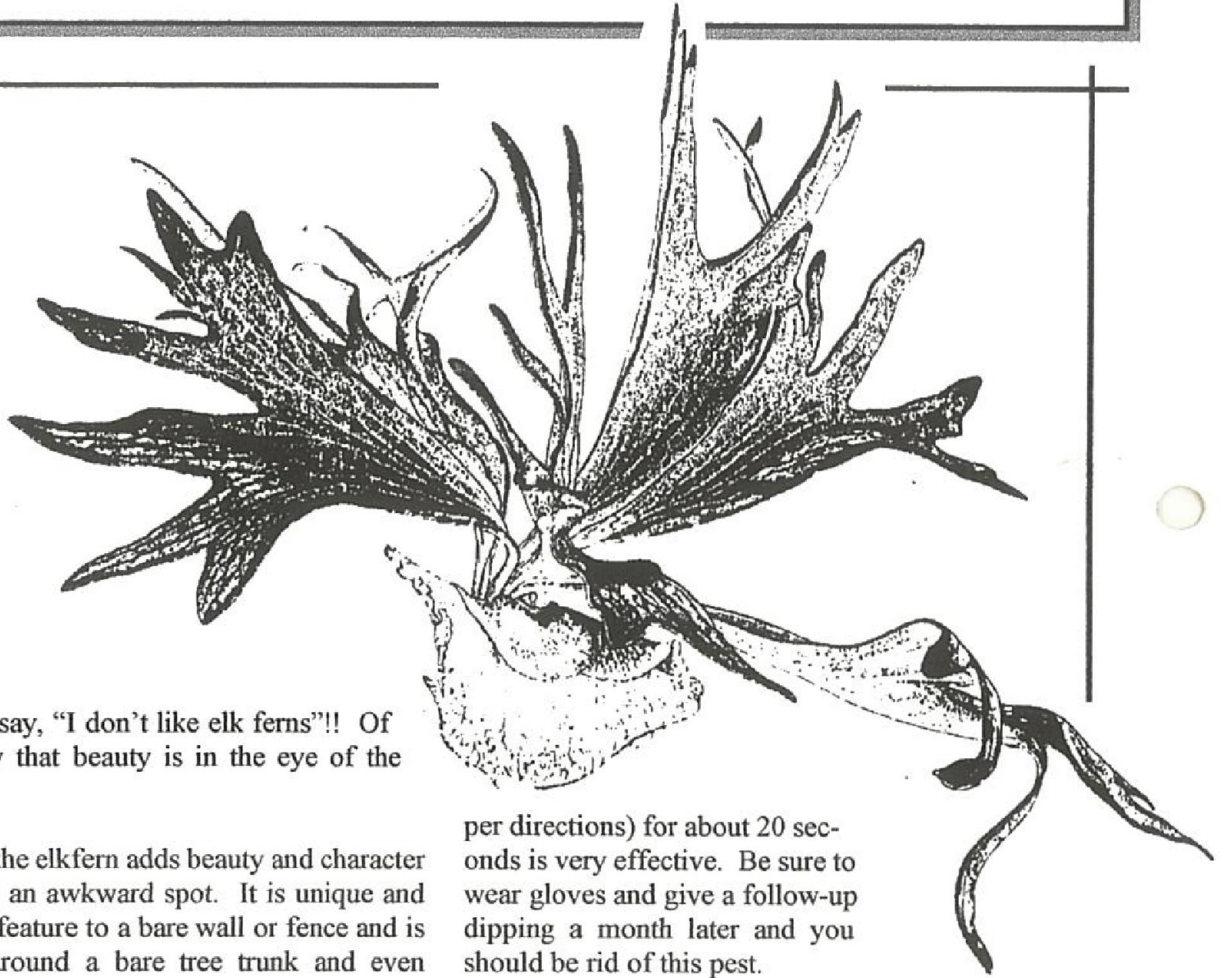
**12. PENCIL SKETCHES** can be found with ferns as their subjects.

**13. VISITORS' DIARIES** from hotels and guest houses. Mary had three from Keppels Hotel, Marysville, one of which was dated 1869. In them fern enthusiasts had written full and detailed accounts of their forays into the surrounding forests, listing the ferns found and extolling the great wonder and beauty of the ferns.

*Fern memorabilia of all kinds is out there waiting to be discovered. It's in unexpected places, so keep watching out for it, keep collecting and just remember that it's got nothing to do with money, but lots to do with pleasure.*

# MY THOUGHTS ON THE GENUS *PLATYCERIUM*.

Keith Hutchinson.



I have heard people say, "I don't like elk ferns"!! Of course, we all know that beauty is in the eye of the beholder.

I firmly believe that the elkfern adds beauty and character to a garden, often in an awkward spot. It is unique and can add a delightful feature to a bare wall or fence and is at home wrapped around a bare tree trunk and even hanging from a tree branch in a basket. In a courtyard where walls are abundant and space at a premium, elks and stags show to their greatest advantage.

The most common elkfern, *Platycerium bifurcatum* is very hardy. It needs very little attention, the most common problem being overwatering. An occasional handful of fibrous (not muddy) compost and a little Osmocote wrapped in some sphagnum moss added to the rear of the nest fronds will keep them in perfect condition. A watering of fish emulsion or Maxicrop in October and March is appreciated.

## PESTS AND PROBLEMS

**Slaters.** If an elk is overwatered causing root rot, slaters can be a problem. Slaters only eat rotting matter - so don't overwater and you won't have trouble with this pest.

**Spore worm.** The only problem can be the Spore worm. A fine worm resembling 5mm of white cotton, it burrows into the ripe spore at the tip of the fertile frond, causing it to brown off. I have found that dipping the end of each fertile frond into a jam tin of Carbaryl (mixed as

per directions) for about 20 seconds is very effective. Be sure to wear gloves and give a follow-up dipping a month later and you should be rid of this pest.

Of all *Platyceriums* my favourite is *P. veitchii*, The Silver Elk. It has furlike, silver bloom on the fronds, allowing it to tolerate quite a fair amount of sunlight. The unusual colour is immediately noticed by visitors to my garden and it is always a point of interest as I have it in a prime spot. So far I have not found it bothered by the Spore worm and it needs even less water than other elks.

*Platycerium superbum*, the Stag fern is often classed as the Queen of them all but although it is very beautiful if well grown, I find it needs shelter and humidity. We rarely see specimens in Victoria as magnificent as those in Queensland. *P. grande* is even more tender.

*Platycerium hillii* is another elk found in Queensland. It is similar to *P. bifurcatum* but I find it struggles in frosty areas in Victoria. Rather nice if you can give it protection.

Several other species of elk can be grown but must have artificial heat to be successful.

Five Minute Fern Talk - March 1999 Meeting

# *Pneumatopteris pennigera*

Commonly called the Lime Fern.

Presented by Barry White.

This fern would qualify for a place in the "List of Ferns with Long Names" which is probably why we usually refer to it by its common name of Lime Fern.

There are three species of *Pneumatopteris* in Australia, two up in tropical North Queensland and *P. pennigera*, which occurs on Mount Lamington in Queensland, in New South Wales and in Victoria. Betty Duncan in her book lists it as occurring in Glenelg National Park (Vic.) It also occurs at Timboon, near the Kurdeez Lime Works and in Tasmania.

It is also quite common in New Zealand. The N.Z. one is different to ours and Barry had a N.Z. potted plant to show us. The Australian one only occurs in areas of high pH and is fairly difficult to grow.

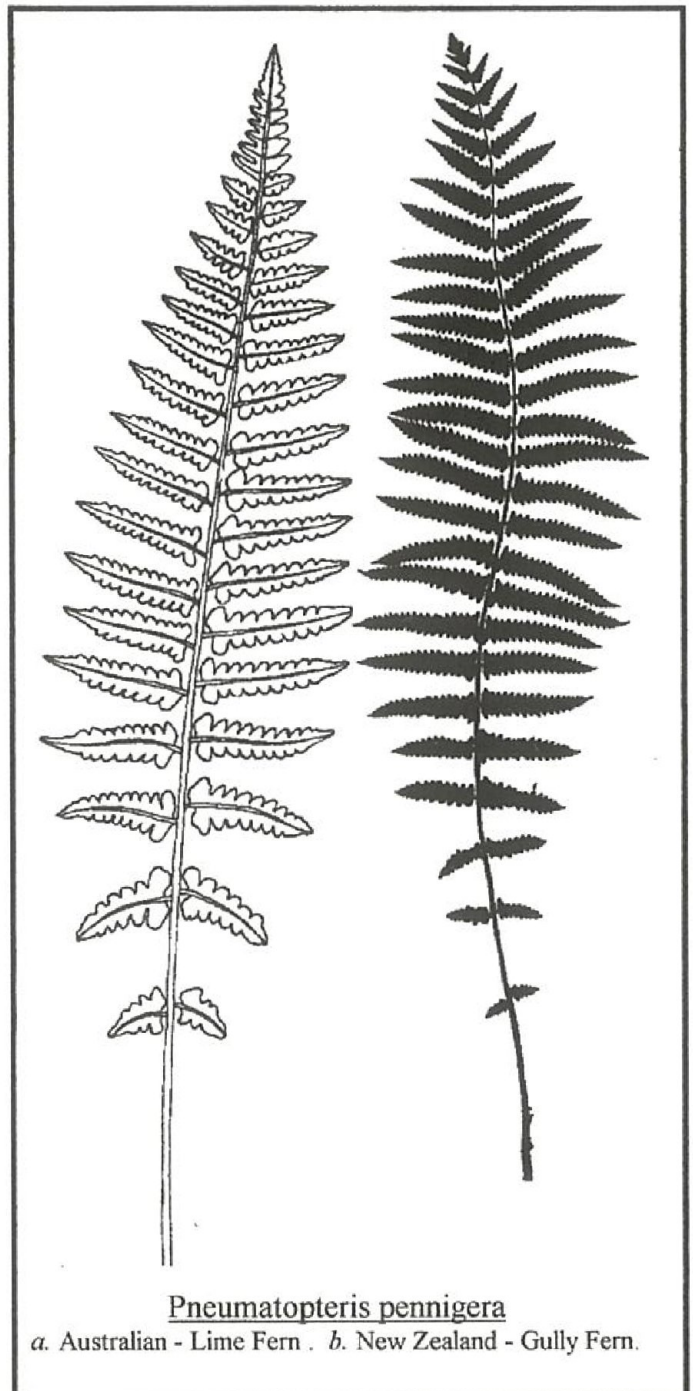
If in N.Z. you talk about the Lime Fern they will look at you blankly because it is called the Gully Fern over there. There is no association with lime in New Zealand, it grows in wet, forest gullies and is relatively easy to cultivate. It develops a trunk about a metre long and fronds about a metre and a half long.

Holtum, who put it into the genus *Pneumatopteris* said that the Australian one fits most neatly into *Pneumatopteris*, though it is quite likely that it and *P. costata* from Qld will end up being taken out of the genus because they are quite a bit different to the other members of that genus.

The fronds are similar, although there is variation in what the authors say about the colour of the fronds. Some say they are dark green, some say light- to mid-green. The (N.Z.) one at the meeting had light fronds with dark stems, which was a nice contrast within that plant. By contrast, the ones seen at Timboon were of a dark green.

## Comparisons between the Lime Fern (Aust.) and the Gully fern (N.Z.).

- \* The Aust. one needs lime, the N.Z. one doesn't.
- \* The N.Z. one is more robust and grows larger than the Aust. one.



*Pneumatopteris pennigera*

a. Australian - Lime Fern . b. New Zealand - Gully Fern.

Speaker Report - February 1999 General Meeting

# STEWART ISLAND

## NEW ZEALAND'S WILDERNESS ISLAND.

Chris Goudey

Stewart Island is just off the bottom end of New Zealand and level with a spot about 1,000 miles south of Melbourne. From Melbourne, it is reached by 'plane going via Christchurch and Invercargill to Oban on Stewart Is.

Home to the early Maori, castaway sailors and roughneck whalers, Stewart Island today is a magical place of soft forest, sheltered bays and a pace of life in tune with the tide and weather.

The first European to discover it was Captain James Cook in 1770, during a mission to find out if New Zealand was part of the fabled 'Southern Continent'. Joseph Banks recorded his first impressions, ".....bare rocks which were amazingly full of large veins, and patches of some mineral that shone as if it had been polished, or rather looked as if the rocks had really been paved with glass."

Reports the expedition took back of large seal numbers unfortunately resulted in the arrival of sealers and whalers. The native Maori Murihiku tribe sensibly killed and ate some of these (*Editor's political comment, not speaker's!*) but not to be deterred, Britain proclaimed it hers in 1840, then later New Zealand bought it from Britain.

Fortunately it was realised early on that the island's greatest asset was its flora and fauna, and in 1903 the first of many reserves was set up. Today most of the island's human residents live at Oban on Halfmoon Bay and draw their living from the sea.

Visitors can hire a launch to explore the many sheltered coves and isolated bays or cross to Ulva Island or keen walkers can explore Stewart Island's hinterland along a track that leads around the NW coastline. This trip takes about eight days but there are many rewarding short walking trips out from Oban.

One interesting feature is its birdlife. On Stewart Island the kiwis are not strictly nocturnal as are the mainland ones, so they can sometimes be seen during daylight. It is also home to the island's oldest resident, the kakapo, which is a large, moss-green parrot which, because there were no predators (until Europeans brought their pet cats etc), decided flying just wasn't worth the effort and became flightless. Probably because of the introduced predators there are only a very few female kakapos left so the kakapo is now in grave danger of disappearing from this, its last natural refuge.

Chris' interest in ferns first developed about 29 years ago with Maidenhair Ferns and he and Lorraine set about collecting different ones. They thought they had hundreds of varieties - until they started corre-

sponding with Barbara Joe Hoshizaki and learned a lot more about what is out there.

In those 29 years Chris has maintained a passion for ferns while his interest has gone from family to family and genus to genus, through Polypodiums, Davallias, Platyceriums etc. until he finally came to Aspleniums. He has developed a passionate affection for cool climate, hardy Aspleniums.

Anyone as keen on Aspleniums as he is couldn't help but write to Patrick Brownsey, who is the curator/botanist at the National Museum in Wellington, N.Z. and who is a world authority on Aspleniums. Chris has collected Asplenium plant material from many places around the world and shared it with Mr. Brownsey who in turn has identified everything of Chris' for him, so a good association has built up between them.

Patrick put out two very interesting papers dealing with "Aspleniums in New Zealand" and "Asplenium hybrids in New Zealand" which are fascinating. There are literally dozens of natural hybrids occurring in N.Z., and that doesn't include the yet undiscovered ones.

Just about every member of the genus *Asplenium* will hybridise with other Aspleniums.

As Chris read more and more of Brownsey's papers, he realised that he just **had** to get to Stewart Island sooner or later, because probably two thirds of the species he wrote about occurred 'on the track to the lighthouse' on that island. Patrick gave him all sorts of locations of these hybrids in addition to what is in his papers.

Finally Chris, Lorraine and their girls visited New Zealand in 1986, and on their travels Chris chased up Hugh Wilson, who at that time had just released a book on all the plants of Stewart Is. He was very interesting and helpful.

Abandoning Lorraine and the girls on the mainland Chris took the 20-minute flight to Stewart Island for a stay of two days. To quote him, "I hardly left a stone unturned in those two days." He met Ronald Tindal who is the National Parks ranger for the island, and his wife Elspeth. They kindly offered Chris the use of their other house if he ever returned to the island.

Chris went back in May the next year with Garnet Frost. On this, his second trip, Chris was keen to visit Ulva Island, about which he had heard much, and to explore it as thoroughly as their short stay allowed. He and Garnet made the hour-long launch crossing to Ulva Is. and spent one whole day there. Judging by the slides we saw and the things he described, it was an extremely rewarding day! We also saw many wonderful

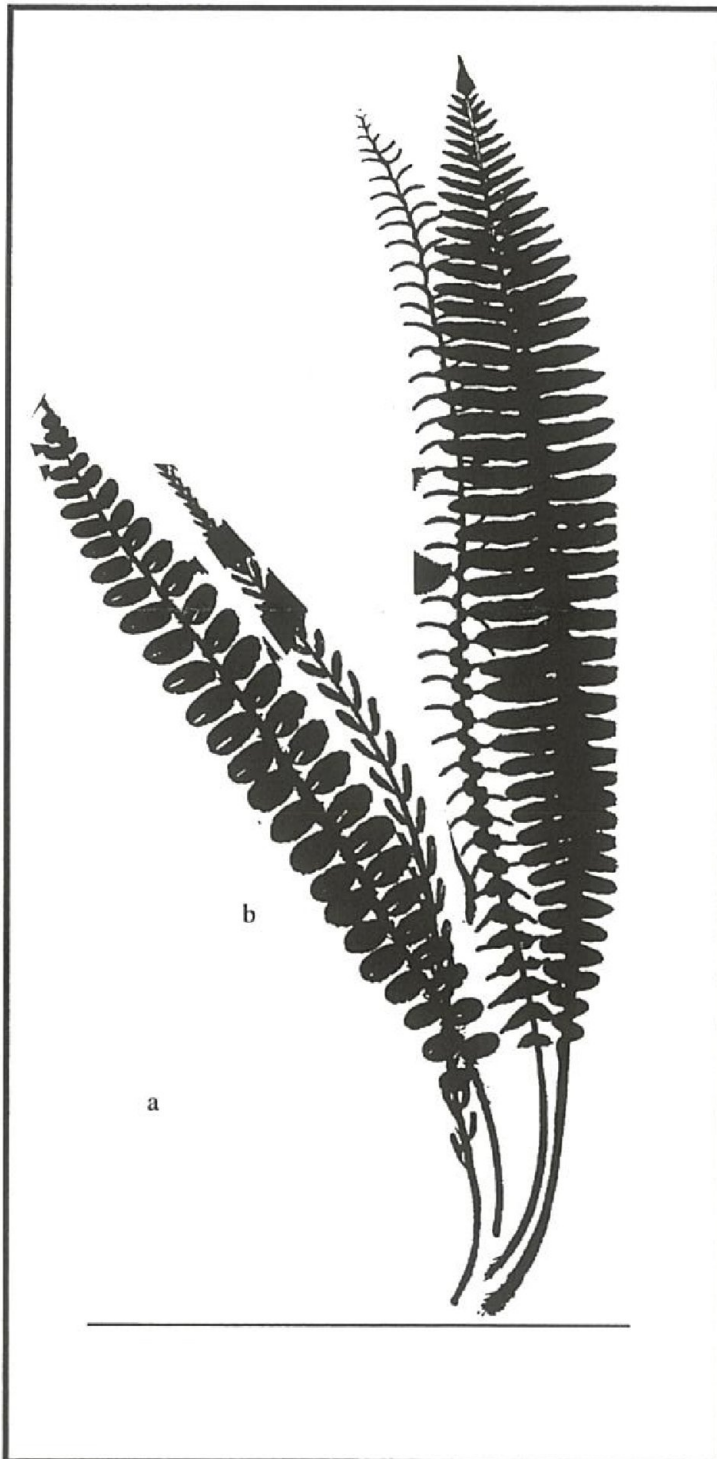
(Continued on page 44)



**New Zealand Aspleniums:**

16 *Asplenium lucidum* 17 *A. bulbiferum* 18 *A. flabellifolium* 19 *A. flaccidum* 20 *A. falcatum*

Illustrations from "Ferns and Fern Allies of New Zealand" Heath & Chinnoek.



(Continued from page 42)

scenes and ferns photographed on Stewart Is.

Their original plan was to walk right around the top half of the island on the walking track mentioned earlier (said to be a five day trek) in about three days but the track was atrocious in some spots, a quagmire and a deep one at that which slowed them down, and they had to be back to go to Ulva Is. with Ronald Tindall. Incidentally, the track had been deliberately neglected, so that only the keenest trekker would venture down it.

Because Chris and Garnet visited in May, the maximum temperature was 10°C, ideal walking weather as you never got too hot, no matter how fast you walked. The downside was that the days were short - the sun rising at about 8.00-8.30am and setting at 4.30-5.00pm.

With the longer days come higher prices because of being in the tourist season, but you would certainly be able to go further and see more each day.

If you are in N.Z. and just can't get to Stewart Is., another interesting place to go is to The Bluff which is the most southerly tip of New Zealand. The walking track around The Bluff is a really good location for maritime ferns and *Asplenium* hybrids. A kilometre or so along this track is another which leads right up onto a hill, along which you see things like *Blechnum durum*, *B. banksii* and some of the *Asplenium* hybrids. Very interesting - very different to other rainforest areas in New Zealand. It's so close to Stewart Island that you can stand on The Bluff and see the island on the horizon.

There are three maritime species which grow in the southern part of New Zealand and which Chris was very keen to see:

- \* *Blechnum durum*, which grows just in from the coast, not right to the waterline. It is a magnificent fern, with fronds at least 18" long, quite leathery and glossy. It is also very slow growing.
- \* *Blechnum banksii* is a smaller fern which is found growing right to the waterline (as does *Asplenium obtusatum*).
- \* *Asplenium scleroprium* occurs right around the southern part of N.Z. and on the offshore islands.

*A. scleroprium* is very difficult to identify because the hybrid *A. flaccidum* × *A. obtusatum* is absolutely identical to look at, the only difference being that the spores on the hybrid are abortive and shrivelled, while those on the species are normal.

*Asplenium oblongifolium* is found all through the North Island and about the top two thirds of the South Island and *A. obtusatum* occurs further south. Even though the latter is normally a noticeably smaller fern, in southern N.Z. it is so robust that it is very difficult to distinguish between the two. They both vary in form, too.

*Asplenium lyallii* × *A. obtusatum*. This remarkable hybrid is quite fertile. Chris has grown batches of it but stopped growing it because it didn't sell well.

*Asplenium bulbiferum* × *A. flaccidum* is the most common hybrid on the island - Garnet and Chris counted about 30 plants that they saw.

*Blechnum penna-marina*. This tiny fern is an alpine plant at our latitude in Victoria but it is interesting to note that the further south you go in New Zealand, the closer to sea level it grows. On Stewart Island it grows right at sea level.

(Continued on page 44)

(Continued from page 44)

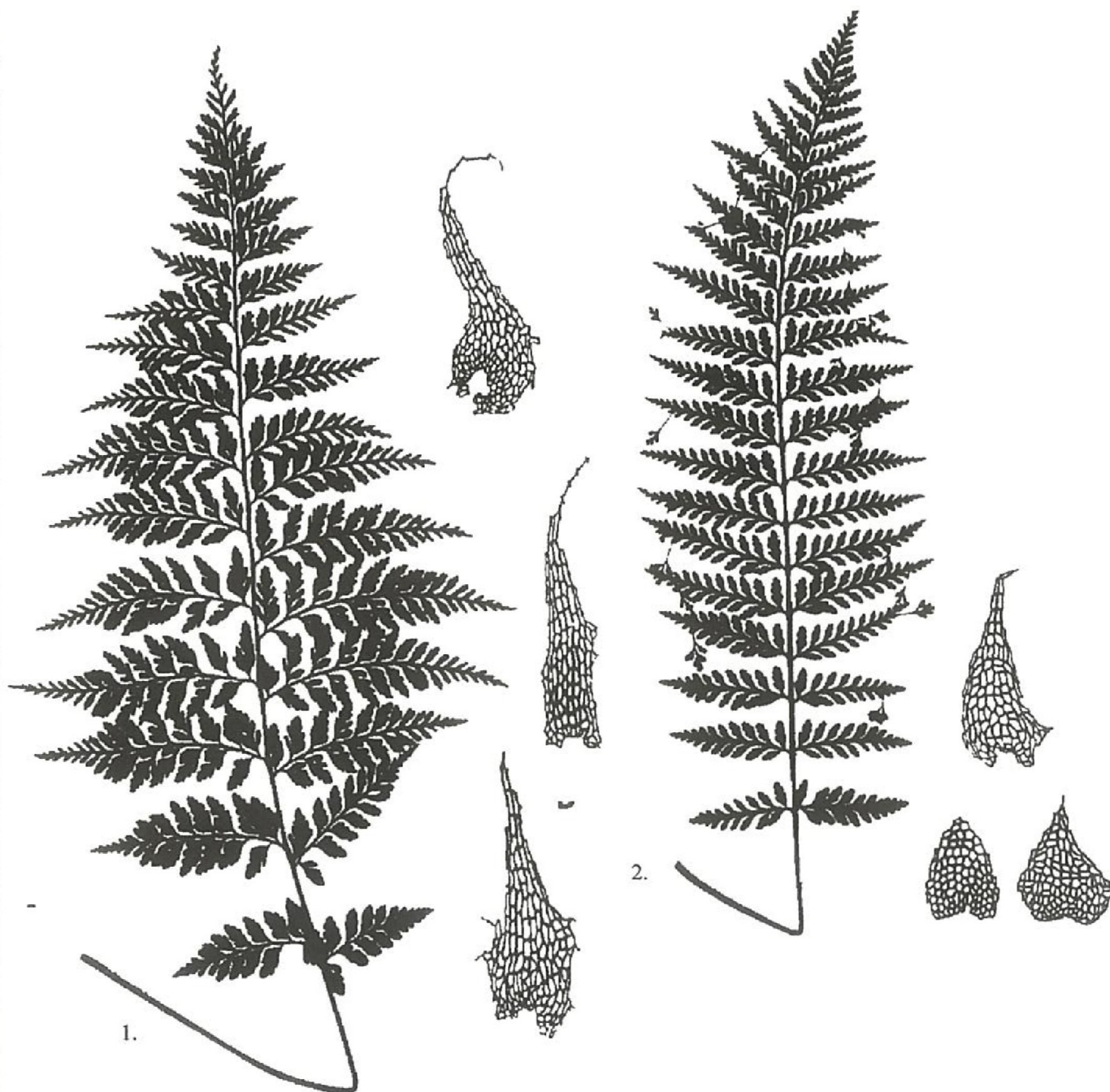
*Blechnum fluviatile* is quite different to the *B. fluviatile* we have here; the stem is quite dark and it is very rigid and erect. If you put them together you can see which is the N.Z. one very easily. It is quite abundant.

*Blechnum discolor*. A small stand of these was growing in a very wet gully and the trunks would have been 3 to 4 feet tall (90 - 120cm). They looked just like little tree ferns.

*Asplenium hookerianum* was seen growing, as usual, among the roots at the base of big trees.

*Adiantum cunninghamii* is amazing in that it grows as far south in New Zealand as Stewart Island but in Australia its southern extremity is Central N.S.W.

☞☞



***Asplenium bulbiferum*.** Two distinct forms are recognised; Above:

1. *A. bulbiferum* subsp. *gracillimum*, frond and stipe scales;
2. *A. bulbiferum* subsp. *bulbiferum*, frond and stipe scales..

# Looking Back.....

Snippets from previous issues of our Newsletter

May 1983

## THE EARTHWORM.



The earthworm springs from the family name Annelida, derived from the Latin word *annulus* meaning a ring, and if you have ever studied an earthworm you will realise that ....is aptly named as the body is formed by a series of from two to four hundred muscular rings closely woven together to form a tube of great strength. The

earthworm is a digestive tube alone and does not have any external encumbrances to hinder its operation. They can crawl backwards as well as forwards and by the aid of their affixed tails can retreat with extraordinary rapidity into their burrows. The mouth is situated at the anterior end of the body and is provided with a little projection which is used for holding on.

Internally, behind the mouth is a strong pharynx which is pushed forward when the animal eats. This pharynx leads into the oesophagus where three pairs of large glands secrete a surprising amount of carbonate of lime which exerts a neutralizing action upon the acids of the materials passing through the alimentary canal. These calciferous glands are truly remarkable, for nothing like them exists in any other animal. ....Worms have no teeth or jaws of any kind and rely on the muscular action and

secretions to digest food.

Worms breathe by their skin and do not possess any respiratory organs. The two sexes are in the same individual but two must pair together for reproduction. Also they have a fairly well developed nervous system.

After the worm digests its food the material is ejected as castings - the ultimate in humus. It is understood that the lifespan of an earthworm is but a year or two, but the decaying bodies of the worms also furnish an excellent form of fertilizer.

The earthworm is nature's plough. It burrows into the soil and keeps it well aerated, a condition which encourages the right microbes to multiply, thus keeping the soil in good condition. Moisture retention is greatly increased and the tunnelled earth permits the water to penetrate more rapidly. They actually produce topsoil. Charles Darwin estimated that on a fertile soil an average of one fifth of an inch (half a centimetre or 5mm) in thickness of topsoil per year is added to the surface by worm castings. K.H.



August 1982

## PHLEBODIUM AUREUM - GOLDEN POLYPODY

Until recently classified as one of the Polypodium family.

*Phlebodium aureum* is grown as a house plant (cooler temperatures) or outdoors in warmer regions. It will tolerate minimum night temperatures of 10 - 13°C (50 - 55°F). It likes medium light - bright, diffused sunlight to partial shade. Benefits from winter sun and try to grow in humid atmosphere. Watering should be to keep the plant uniformly moist but not wet. Will tolerate drier soil in winter provided the rhizome is misted daily with tepid water. Well drained soil is essential.

Two cultivars well known to us are *Phlebodium aureum* 'Glaucum' (from Florida, the West Indies and Mexico south to Argentina) and *P. aureum* 'Mandaianum' (also from Central America).

Rhizomes are large, fleshy, long and surface creeping. In a large, mature specimen the large fronds are 1 - 2 metres long. The rhizomes should not be covered but should be given free space to grow along the surface.

The Bears Foot is often quoted to be the most beautiful of the *Phlebodium aureum* cultivars.





# BUYERS' GUIDE TO NURSERIES.

## NEW SOUTH WALES:

### **KANERLEY FERN EXHIBITION AND NURSERY**

Wholesale and Retail. Phone (049) 872 781.  
204 Hinton Road, Osterley, via Raymond Terrace,  
2324. By appointment.

## QUEENSLAND:

### **MORAN'S HIGHWAY NURSERY**

Wholesale and Retail. Phone 075 442 1613.  
Bruce Hury, Woombye (1 km north of Big  
Pineapple; turn right into Kiel Mountain Road).  
P.O. Box 47, Woombye, 4559.

## VICTORIA:

### **AUSTRAL FERNS**

Wholesale Propagators. Phone (03)5282 3084.  
Specialising in supplying retail nurseries with a wide range  
of hardy ferns; no tubes.

### **COACH ROAD FERNS**

Wholesale. Phone (03) 9756 6676. Monbulk 3793.  
Retail each Saturday and Sunday at Upper Ferntree  
Gully Market (railway station car park) Melway Ref,  
74 F5.

Wide selection of native and other ferns. Fern pot-  
ting mix also for sale.

### **FERN ACRES NURSERY**

Retail. Phone (03)5786 5031. 1052 Whittlesea -  
Kingleke Road, Kingleke West.  
On main road, opposite Kingleke Primary School.  
Specialising in Stags, Elks and Bird's-nest Ferns.

## VICTORIA..CONTINUED

### **FERN GLEN**

Wholesale and Retail Phone (03)5629 2375,  
D & I, Forte, Garfield North 3814.  
Visitors welcome.

### **THE BUSH-HOUSE NURSERY**

Wholesale and Retail. Phone (03)5566 2331.  
Cobden Road, Naringal  
(35 km east of Warrnambool).  
Ferns - trays to advanced. Visitors welcome.

## Multicrop Maxicrop

### Australia's original liquid SEAWEED plant food concentrate

- Stimulates vigorous root development
- Builds resistance to insect and fungal attack
- Enhances fruit and flower formation
- Non burning, easy to use on all plants
- Minimise transplanting shock
- Harden plants during periods of stress
- Establishes plants quickly after planting  
or transplanting

Multicrop & Maxicrop products  
are available at all leading  
garden supply outlets.

