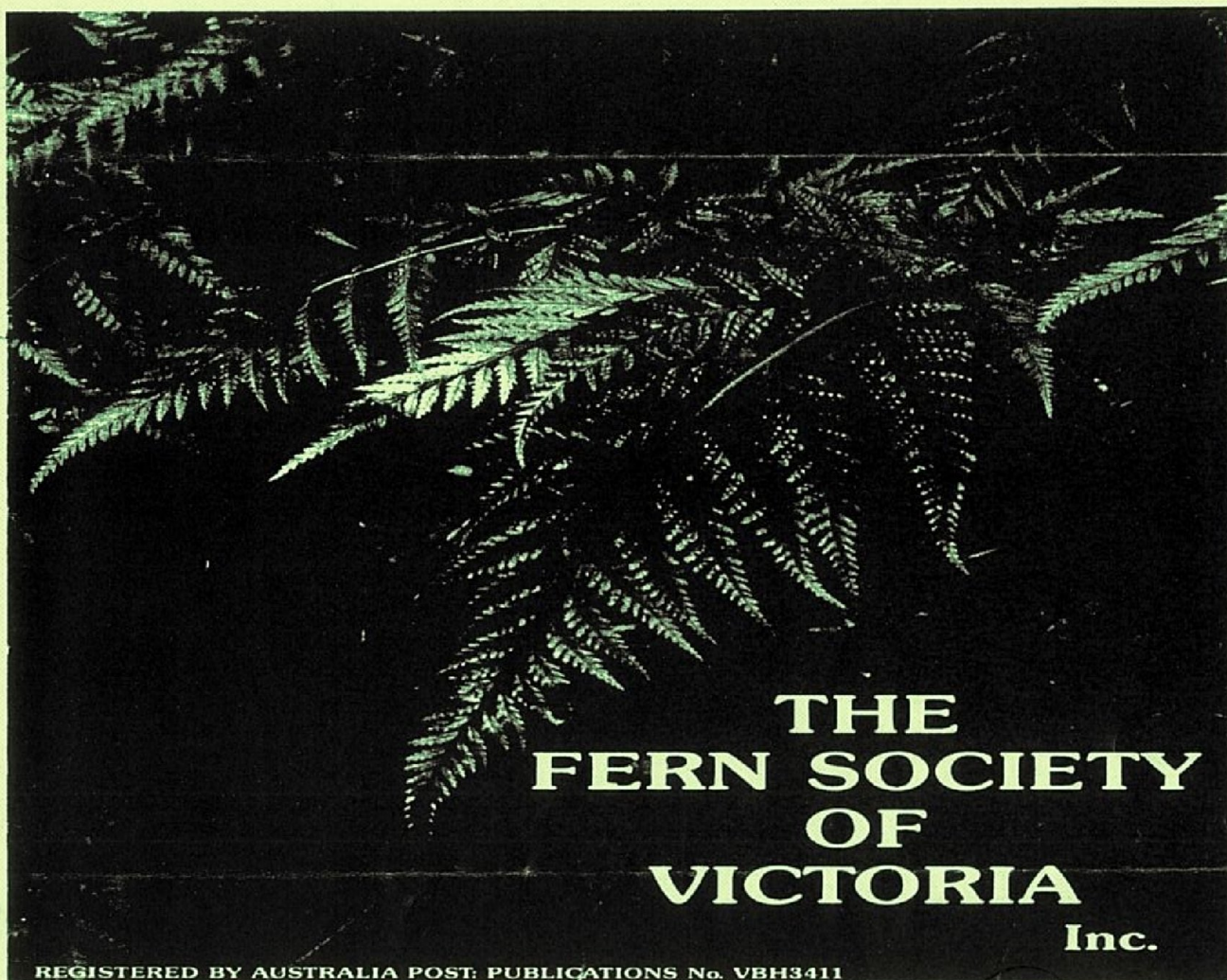


Fern Society of Victoria Inc.

NEWSLETTER



THE
FERN SOCIETY
OF
VICTORIA
Inc.

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FERN SOCIETY OF VICTORIA Inc.

POSTAL ADDRESS: P.O. Box 45, Heidelberg West, Victoria, 3081
E-mail: http://gardenbed.com/clubs/clubs_vicferns.cfm

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.*

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SUBSCRIPTIONS:

- ° Single.....\$15.00 ° Pensioner/student\$12.00 ° Family\$17.00
- ° Pensioner Family...\$14.00 ° Organisation.....\$17.00
- ° Overseas\$22.00 (Payment by international bank cheque in \$A please. Sent by Airmail.)

Subscriptions fall due on 1st July each year.

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



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

TIMETABLE for EVENING GENERAL MEETINGS:

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

2004 Calendar of Monthly Events

Thursday the 16th September, 2004

Annual General Meeting

At The Kevin Heinze Garden Centre, this will be our twenty-fifth Annual General Meeting, starting at 8.00pm.

After the meeting we will be treated to a talk by Keith Hutchison on 'lacy ground ferns'. What is a lacy ground fern? A fern that has a wandering rhizome. This group include:- Culcita, Dennstaedtia, Histiopteris, Hypolepis, Leptolepia, Microlepia, Paesia and Pteridium.

Competition fern for the night will be Ground Fern

Sunday the 24th of October, 2004

We are going to be treated to a special outing to the home of Astral Ferns, located at Lara. This is the home of our founding member and his lovely wife.

The program for the day is printed on page 72

There will be no fern competition on this day!

COMING EVENTS

November meeting

We will be having a special guest speaker Mr Bruce Fuhrer who will be talking on mosses and liverworts. It would be good if our members could attend this meeting as we don't want to be embarrassed by only having a handful of members for Bruce to talk to.

OUR CHRISTMAS BREAK UP WILL BE ON SUNDAY THE 5TH OF DECEMBER, 2004

this will be held at the Kevin Heinze Centre. As our action has proved to be popular this year we will be holding a blind action, I hear you ask what is a blind auction! The gifts need to be wrapped (xmas paper) and then will be actioned without anyone knowing what they are bidding for. This is bound to be lots of fun and many laughs are assured.

More information will be in the next issue

FRONT COVER:

The front cover of this issue was first used on February, 1992, and continued to be the front cover till the July/ August, 1999 issue.

You are needed:

The future of the Fern Society of Victoria depends on many this most importantly it's members.

We have had an increase in our membership of recent times which has been a positive turn around. What is disappointing is that this is not flowing into more members attending monthly meetings. It is very difficult for the committee to have special guest speakers with attendances down. Some speakers will only attend if we can guarantee higher number of members.

We recognise that it is difficult for everyone to attend meetings on a regular basis, so all we ask is if you can attend occasional meetings than this would help with our forward planning of meetings. It is always good to see some new faces each month. This would enable us to entice some knowledgeable guest speakers outside of our immediate circle of speakers.

If there is a topic or a speaker who you know and think others maybe interested don't hesitate to let one of the committee members know that way we are able to cater to everyone's needs and interests. Monthly meetings are for all members not just the committee.

Now we come to our second dilemma at present we have a number of non committee functions that are being conducted by committee members. This is a situation that is not giving the utmost service to our members so we would be interested in hearing from any members who would be available to assist in these positions.

This is an opportunity for members to be involved in the working and running of the society without the need to attend committee meetings, (which are usually held prior to our monthly meetings).

The positions are:-

Assistant Librarian:

At present this position is carried out by Mirini Lang who has just had a new baby and will not be able to attend meetings for sometime.

Duties:

Take charge of the Library books putting out and ensure the signing in and out of books borrowed by members.

Seller/Purchasing Person:

At present this is one of the many tasks that have been undertaken by our Treasurer Don Fuller. Don is happy to continue with the running around to source the supplies.

Duties: Attend meetings and be available for members to purchase items that the society deems necessary. To have space for the safe storing of items such as hanging baskets/ pens and tags.

Spore Bank Person:

Presently this position is successfully undertaken by our Secretary Barry White. Barry finds little time at meetings to complete these tasks so he takes orders at meetings and later sends out the spore.

Duties:

The safe keeping of spore which has been donated, dispatching as ordered keeping an up to date availability list of spore.

This is a position that requires interaction with members and non members.

Archivist:

This is a new position which at present we are amiss in having, it is important for the future generations to follow us to have accurate records.

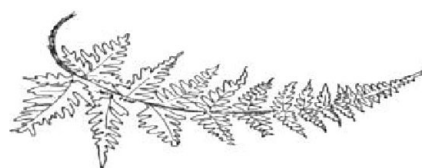
Duties:

To maintain an up to date set of newsletters, keep any correspondence which is deemed to be important and relating to the history of the society.

If any of the above positions sound interesting to you then don't hesitate to contact the person who is currently doing these tasks, or ultimately contact a committee member and all relevant information will be given.

Not sure if you can do any of these jobs!

Not a problem as there is always the person who is currently doing them to assist also other members are always only to happy to help out when needed.



OUR JUNE EXCERSION TO 'Fern Glen'

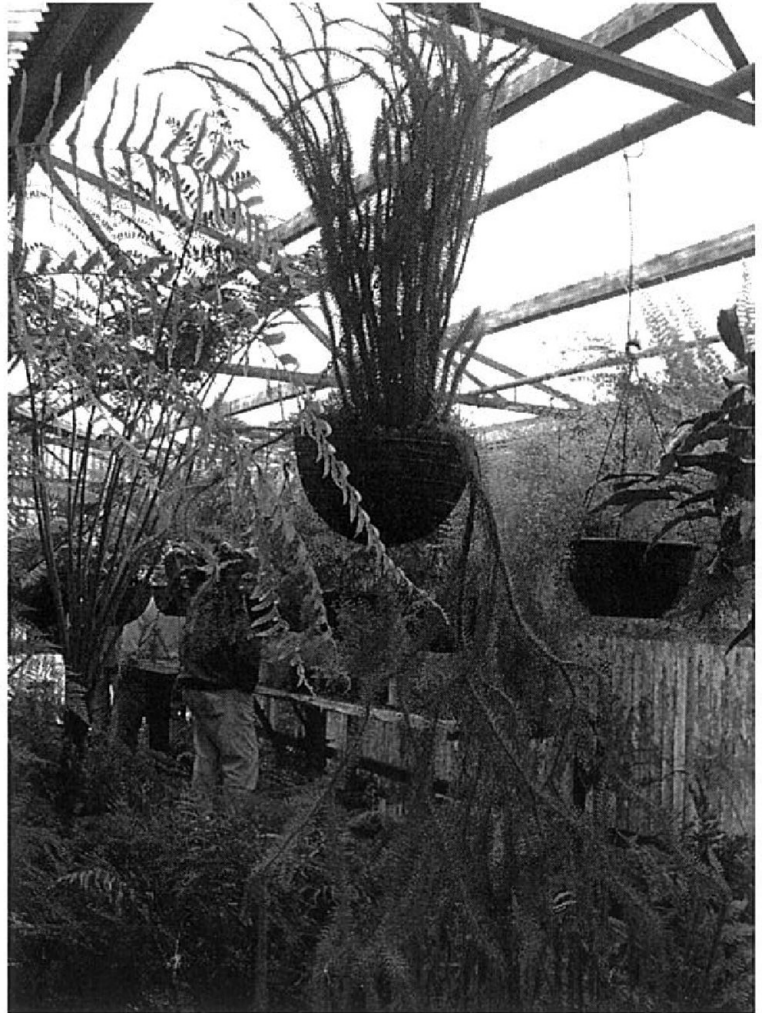
On Sunday the 6th of June the society was invited to attend Dorothy and Ian fortes residence at Garfield North. Although it does sound at the end of the earth it really didn't take long to arrive thanks to the Freeway. The day was bright and sunny fortunately no rain was forecasted and it appeared that some one was looking after us.

The numbers of members who attended was a little disappointing but those that took the time to attend had a good day. On arriving at Fern Glen we were welcomed by Dorothy and Ian to wonder through the igloo's which housed their private collection. Many rounds of these igloos were completed, Dot's Adiantum's were awe inspiring and showed what these majestic plants are capable of growing too. It was easy to see how many show winning plants have come out of here over the years. Many of these plants have been collected over many years and Dot is more than happy to tell the history of each plant, her knowledge was inspiring and welcomed.

Many of the newer members entered and took the opportunity to purchase some ferns, to add to their own collections.

It was soon lunch time and many took their chairs into the sunshine where a companionable lunch was the order of the day.

With lunch over it was time to head up the mountain and down into the fern gully, this did prove to be a bit much for a couple of the members (they have previously done this walk). Again with Dot and Ian directing the way we were soon enveloped in the fern gully and with the knowledge and expertise which we had come to know and rely on during the day, the walk took on a new dimension with ferns and their natural habitat pointed out to the inexperienced ferny. The gully proved a bit slippery in places, but Ian had been up during the week, cutting trees that had come down over the path, making the path easier to follow. There were signs of where the deer had been wallowing in the creek, clearing some of the vegetation, but no sighting of the deer were reported.



Fern Glen is a property of about 200 acres it has been in Ian's family since the early 1900's, they currently run about 200 head of cattle a good way of mowing the grass. From the house you look out over the hills where you can see the next door neighbours house nestled on top of the hill.

It was good to see some of the new members from Alexander (who had joined at the show) attending this outing, also members who travelled from Nagambie to participate in the days activities. Thank you to all those members who attended and assisted in making this a very enjoyable and informative day and especially to Ian and Dorothy for their hospitality.

=====
||| Pictured is a hanging basket as you walk into the igloo of a Tassel Fern. |||
=====
|||

VISIT TO CHRIS AND LORRAINE GOUDEY 'S NURSERY

SUNDAY 24TH OCTOBER, 2004

Our October meeting will be held on Sunday the 24th of October, 2004, at the Austral Ferns Nursery of Chris and Lorraine Goudey at Lara. It will take the form of a regular meeting during which Chris will give a talk on the genus "Asplenium". This talk will be video taped for inclusion in our library of information tapes

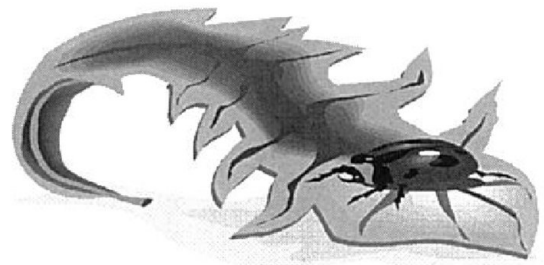
The meeting will commence promptly at 1.30pm and will be followed by the opportunity to look at Chris and Lorraine's fern collection and the opportunity to purchase sale ferns.

This will be followed by afternoon tea so please bring something that we can share. If you would like to arrive earlier and have a picnic lunch (tea and coffee will be available) you may do so **but please do not arrive before 12.30pm** as Chris and Lorraine will be busy.

How to get there: Austral Ferns are at 25 Coyens Rd. Lara. Melways ref. map 423 G10. Leave Princess Highway at Lara turn off .

What to bring:

- Cup or mug for tea or coffee, which will be provided
- Chair to sit on during the meeting
- Something for afternoon tea
- Money, there will be many tempting ferns.



To our newer members this is an opportunity not to be missed.

AN INVITATION

Many of our members travel in the pursuit of ferns and fern walks! So we are asking to hear from any of our members who have parks and walking tracks in their area, or you may have a fern nursery that caters for the enthusiasts or collectors, that may be of interest to some of our membership. Maybe you have been on holidays and stumbled on such a location that you could share with the rest of us.

Please drop me a line to let us know and I will include them into the newsletter. This is a way of letting the members know of places that they may normally pass, (without knowing what they have missed).

We are not confining this information to Victoria as many of our members holiday in places where it is known that ferns can be found. So let us know what ferns you have seen in the places, if it is a park or walking track then if you could give an indication of difficulty this would be appreciated by many who may attempt to do them, what were the ferns that you found.

This is a chance for all members to become involved, even when you are unable to attend meetings or outing with the society, you can contribute to the success of the society and share your experiences and information with the rest of us.

Cheilanthes or Cheilanthoids That Is the Question

Program Presented by Robin Halley

LaVerne Hanell, Meeting Reporter

Robin Halley is an experienced fern grower. He has won trophies and ribbons for his ferns both in the San Diego and the LAYS Shows. When asked to give this 1992 lecture on Cheilanthes, Robin consulted such experts as Reginald Kaye, Judith Jones, John Mickel, and Mike Windham. Are Cheilanthes one genus or more than one? He decided to define the differences. For purposes of this article, Cheilanthes will refer only to that genus of fern.

Many ferns grow in shady glens or remote rain-forests. But there are others that can be found in hostile environments with little rainfall and a minimum of soil in which to root. These are the Cheilanthes (ki lan'thes) or Cheilanthoids. In California they are hardy denizens of the desert. They endure season after season, curling back into crevices until the first rainfall stimulates the growth of fresh new fronds.

Most of the disagreement about these ferns has concentrated on the differences between the Cheilanthes and the Notholaena and sometimes the Pellaea ferns. Generally past classifications have not been clear enough to place the ferns correctly.

There has been an ongoing debate between "clumpers" and "splitters" about how to classify these ferns. Lellinger; Tryon and Knobloch separate the Cheilanthoid ferns into several genera, whereas Mickel places all Cheilanthoids ferns, except *Pellaea*, with the *Cheilanthes*. Windham has divided these genera even more than Lellinger. He bases the need for additional classification on his research of spore shapes, vascular morphology, chromosome counts, etc. He proposed two new genera for Notholaena and Pellaea and recommended splitting *Pentagramma* from *Pityrogramma*. He, Dave Benham and other botanists have also done further work on definitions. Six of the twelve Cheilanthoid genera are native to southern California and are described below.

The first Cheilanthoid genus is *Cheilanthes*. In Creek *cheilo* means lip and *anthos* means flower. It is also called the Lip fern from the way the frond forms a lip.

This is not an indusium, but a pinna with reflexed edges. Examples include *C. newberryi* and *C. californica* which grow, along with other California natives, in San Diego County's Mission Gorge.

Altogether there are about 125 species worldwide. In the western hemisphere, *Cheilanthes* are found in dry regions throughout the United States, Mexico, the Caribbean Islands and in all of South America except Amazonia.

Cheilanthes are small to medium sized ferns with monomorphic (fertile and sterile the same shape and size) fronds. The stipes are about equal in length to the fronds. Most species have curly hairs and/or scales on the backs of the fronds. A few have only hairs.

The characteristic false indusium has sporangia following the margin of the pinnule. Those species without a false indusium have three-pinnate fronds with very small contracted, beadlike segments. One such fern is *C. covillei* which grows in the Anza-Borrego Desert.

The second genus is Notholaena, or the False Cloak fern. Here the blade margin of the pinna is not reflexed. Many of the 75 species of *Notholaena* are found in the drier parts of the western United States and Central and South America. Examples are *N. standleyi* and *N. neglecta*. Some resemble *Cheilanthes*, others resemble *Pellaea*. Sori follow the veins. There is no indusium.

Fronds on Notholaenas native to the western U.S. are less divided. Like *Cheilanthes*, the fronds commonly fold upwards. This reveals the white, cream or yellow coloring on the back called "farinose exudate", or farina. Notholaenas *Cheilanthes argentea* like *N. schaffneri* also have hairs and scales on the backs of the fronds. Many ferns designated at one time as *Notholaena* have been transferred to *Cheilanthes* or to *Astroblepis*.

Continued page 74

The third genus is *Astrolepis*. In Creek *astro* means star and *lepis* means scale. These ferns are so named for their characteristic star-shaped scales. Found primarily in southern Texas and Arizona and Northern Mexico, they were formerly known as the "*Notholaena sinuata* complex". The fronds are once pinnate. Sporangia follow the veins rather than the frond edge. Although vascularities, scales and chromosome counts differ, the other characteristics of *Astrolepis* are the same as for *Notholaena*. Examples include *As. cochisensis* and *As. beitelii*.

The fourth genus is *Pellaea*. There are about 80 species growing mostly in dry places from tropical to subtropical regions around the world. They can look like miniature *Pteris*, or Brake ferns. This and the fact that many *Pellaeas* grow on cliffs accounts for their common name, cliff-brakes. Examples are *P. brachyptera* and *P. bridgesii*.

Pellaeas differ from *Nothlaenas* in the form of pinnae, pinnules, or segments. The lateral halves of *Pellaea* fold down to protect the plant from drying out. The segments are ovate to elliptic and are never bead-like, as in the *Cheilanthes* species. One example is *P. mucronata*, the bird's foot fern, which also grows in Mission Canyon. Most of the time it looks like a 'mend stick, but as the rains begin, it freshens and comes to life - a very pretty little fern.

Pellaeas are usually monomorphic, small to medium-sized with short, creeping or many headed rhizomes bearing tufts of fronds. There is no indusium. Spores and sporangia are protected by a heavily under-rolled margin of the segment where they are located.

The fifth genus is *Argyroschisma*. In Creek, *argyros* means silver and *chosmo* means ornamented. Most of these ferns have white farinose exudate. This new classification includes ferns once in *Notholaena* or *Pellaea*, like *Arg. jonesii* found on Waterman Peak in Arizona, and *Arg. formosa*. These ferns look like *Pellaeas*. They have small pinnules, no more than 4 cm in size, and a combination of concolorous scales and small segments.

The sixth genus is *Pentagramma*. This was divided from *Pityrogramma*. Superficially ferns of both genera look alike. They have 5-sided fronds. A major difference is the chromosome count, 29n for *Pityrogramma* and 30n for *Pentagramma*. *Pentagramma* spores resemble other *Cheilanthoid* spores. They are triangular shaped. There is no flange around the spores, as with those of *Pityrogramma*.

These ferns are small to medium sized. The backs of the fronds are usually covered with white or yellow exudate. There is false indusium. Instead the sporangia are spread over the back of the fronds and are not confined to or near the margin. There are no hairs or scales on the fronds. The local species *P. triangularis* has four subspecies: *maxonii*, *triangularis*, *viscosa* and *semipallida*.

The Cheilanthoids Survival Kit

Cheilanthoids have developed characteristics that help them survive inhospitable and dry places. One characteristic is the thickened epidermis (or skin) of the fronds. It becomes leathery with extra cells to protect the ferns from drying out. Other characters are hairs, scales and wax on the fronds, stipes and rhizomes.

Wax slows or prevents transpiration. Hairs and scales produce a zone of "still" air so that transpired water tends to stay near each plant instead of immediately evaporating. This may also protect the ferns from solar radiation. Another adaptation is the finely dissected or narrow pinnules. These cut down on the amount of surface for transpiration and limit the areas needing water. *C. viscida* with its very small, narrow pinnules and the shade loving *C. californica* with its very dissected leaflets are examples of these.

Since these ferns live on rocks, they grow very long roots which seek out moisture in tiny crevices. They can reach sexual maturity quickly, often two or three months after their sporophyte stage. *Cheilanthoids* can also propagate asexually.

Cheilanthoid spores are long lived. Even after an 18 month test in which spores were placed in an anhydrous sodium chloride salt, the shriveled spores grew after soaking in water. Spores from old herbarium, specimens have also grown. In dry periods the fronds curl up with the spores on the outside. That way the wind can easily carry the spores from the mother plant to a location with enough moisture so they can germinate.

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Ferns - trays to advanced.

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When Cheilanthoids cease to transpire, the fronds curl up. Bulliform (bubble shaped) cells within the fronds help ferns do this, as well as to pop open once rehydrated. These cells may contain a non-drying substance. One of the best examples of this phenomenon occurs when a dry *Selaginella lepidophylla*, or Resurrection Plant, is placed in a dish of water. After several hours it will open up and become a green plant.

The Cheilanthoids' Desert Habitat

Most dry, desert type ferns live on or near rocks. Their habitat is described as a pressed, meaning pressed close to rocks. Plants in such situations benefit from the fact that rocks heat up slowly and cool off slowly. Rocks also provide shade giving these plants relief from the hot desert sun during some part of the day. Rocks provide minerals to the ferns. Cracks and crevices channel moisture, either from rain or dew. More importantly, rocks protect the roots. Cheilanthoids take advantage of these crevices for natural drainage and seepage and take root where soil collects or filters down from cracks.

Cheilanthoides grow where there is more than one source of water. Even with no rainfall, a dewy night will provide enough condensed moisture for rocks to channel to plant roots. Species of *Pellaea*, on the other hand, tend to grow in natural drainage spots on talus slopes.

In their natural surroundings, these Cheilanthoid plants are more open in the morning. As the sun rises and the humidity drops, they close up. Along with the denizens of the desert, they follow the passage of the seasons. When it stops raining, they go dormant for 6 to 8 months to await the next spring rain when they will again set fresh new foliage.

How To Grow Cheilanthoids

Cheilanthoids require a lot of light and some direct sun. Some require more light than others, even full sun for a good portion of the day. In their natural habitat they often have full sun for three to four hours every day.

They need good drainage. They naturally live in decomposed granite where moisture quickly drains away. Robin has tried to duplicate this with Dyna-Gro ceramic pellets. These pellets are a hydroponic growing medium. They are neutral and retain water. Mike Windham reports good success when he gathers a generous amount of soil with the fern from the collecting site.

These ferns need very little fertilizer. They live in deprived conditions without much organic matter except for that provided in their natural habitat.

One must water carefully and sparingly. These ferns are very easy to **over water**. They can be grown in open, well drained terrariums or watered from the bottom. Some collectors keep desert ferns alive the year round. If they appear dead though, they should not be thrown away since they may only be dormant.

Robin's last recommendation was to pray to the "Cheilanthoid gods", although with these ferns, no amount of prayer will make success a certainty.

Cheilanthoids are best seen in the spring in Mission Canyon and the many boulder and dry canyons of southern California. They are also on display at Rancho Santa Ana Botanical Garden in Claremont, the Santa Barbara Botanic Garden and the Sonoran Desert Museum in Tucson, Arizona.



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MEMBER PROFILE

BARRY STAGOLL

By Mirini Lang and Brenda Girdlestone

Barry has tried his hand at many things - before, during and after a three-decade long career as a fund manager controlling funds invested in Australia and internationally. He chose to make an almost complete exit from professional involvement in this field a few years ago to allow much more time to spend with wife Gay and their family, and to enjoy a larger involvement in their shared interests of many years - in which plants and gardening have a central place.

Barry and Gay joined the Fern Society at its foundation. They had been interested in ferns for years, and grew quite a few different species - mostly Victorian tree ferns and ground ferns, and various maidenhairs and nephros. They had even experimented with growing from spore (not very successfully). Hearing from a lady who was one of Barry's work colleagues that a young man named Chris Goudey was visiting the "Indoor Plants and Bromeliads Group" of the RHS Victoria to talk about ferns, they accepted an invitation to attend as visitors. When they heard that Chris was heading up a plan to establish a Fern Society, they joined at the inaugural meeting held a few weeks later

Being interested in a very wide variety of plants and natural environments, both Barry and Gay admit to the typical problem generalists face - tending to "know almost nothing about practically everything!" They have shared a strong interest in studying and creating garden landscapes, preferring to work mostly in informal style, and pond building. Their interest in growing things has run to seed collection, propagation, and cultivation of a great number of plant species. Membership of bonsai and orchid societies, and visits to other specialist plant societies happened along the way. Neither would profess to being fern experts, despite having grown a large number of different ferns over the years. In the middle 1980s - assisted by access to more ferns through the Society and the much greater contact with other fern growers which the Society brought about - their records of the time listed a collection of around 200 individual species and hybrids,

around 60 being Adiantums. Sadly, most now exist only in memories and photographs. They particularly regret that they no longer have the large collection of "tropical" Adiantum species (and some cultivars derived from these), which they built up with the help of FSV member Harold Olney in particular, and only a few of the even larger number of other Adiantum they once had are still with them.

Also a matter for regret is the fact that due to other pressures, most of the opportunities to join the fern tours organised by the Society over the years, and a few of the day trips as well, had to be passed up. It was of limited consolation to hear about them, and view the slides, at subsequent meetings. Might have been easier to take if the participants would just stop talking about all the fun they had!

Having outgrown a smaller garden in a relatively benign location at Bayswater in the rain shadow of Mount Dandenong, with deep, creek basin soils, some 15 years ago Barry and Gay moved to a property of around two acres on a north-facing ridge of the Yarra Valley at Park Orchards, to take up extensive redevelopment on an established house and start a new garden. They knew this would be challenging as the environment is not particularly friendly for most ferns and many of their favourite cooler climate flowering plants, including rhododendrons.

Other problems to be overcome included very eroded and depleted native soils. Their project has been gradually coming together, if slowly because they do almost everything for themselves and take satisfaction from doing so. But the early years in particular were very busy ones, and housing the fern collection and tending to it could not get the attention it had before the move, so it dwindled. And the ones planted into the outdoors haven't always flourished, either.

Back in the early years of the Society, Barry gave the occasional talk to members, and participated in "fern forum" discussion panels.

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Continued from previous page

Talks included construction ideas for DIY fern houses and slideshows on New Zealand ferns and some of the major public gardens in NZ, and ferns in the UK and Switzerland.

He contributed line drawings of ferns to many of the very early editions of the Society Newsletter, and as time passed also contributed cartoons and articles. It was a buzz to participate in the donation of ferns to the restocking of the Fernery at Rippon Lea, especially ones from spore sown personally. He and Gay sold large numbers of ferns both through the FSV and elsewhere, making a specialty of potting them in their own mix full of leaf mulch. They collected the large quantities of leaves required from the streets of Canterbury, Surrey Hills, Mont Albert and many other places, and processed them in a converted washing machine, locked in spin cycle - named the "Mulch Monster". On more than one occasion they had to sidle away from residents who wanted to argue with their neighbours over whose leaves they should clear away!

They also participated in many fern displays at events such as the Wildflower Shows organised by the Society for Growing Australian Plants, and worked on the preparation and staging of every annual FSV Fern Show until the late 1980s as members of the Show Subcommittee, the first five at the Herbarium and later ones at the Nunawading Horticultural Centre (which they "discovered" as a new venue). Amongst their contributions, Barry created signage for the Shows, still used today.

These Shows were pretty big and frantic affairs by comparison with more recent ones. Not only was the Society's active membership much bigger, but amongst the general public ferns were much more "fashionable" than they have been lately. Patronage was large and sales were fast and furious. Show staff got little rest from dealing with crowds for most of the hours of opening (longer than today's), and at more than one of the mid-1980s Shows (fortunately at Nunawading by then, because we'd never have coped at the confined Herbarium) the sales area had to be constantly replenished with extra stock and the atmosphere was that of a very crowded and busy supermarket. In 1985 there were 2290 visitors, 50 new members signed up, and over 3400 plants were sold. By 1987 the value of Show plant sales peaked at almost \$14,500 (or around \$25,500 today when adjusted for inflation).

The numbers are well recalled by Barry, who processed all the sales data from 1984 through 1992. There was a large sum of takings to be deposited in the bank night-safe each night after counting - so the Society benefited from some strong inflows of sales commissions for all the hard work.

Barry & Gay had pangs of conscience at scaling back their involvement with annual Shows as they became immersed in the Park Orchards project, and workplace responsibilities grew more and more onerous and work travel more frequent

. It was nothing but coincidence (and was a mixed blessing for the Society, of course), but at least the passing of the peak of the public interest in ferns meant that the Shows could become a little less hectic, so they didn't feel they need be seriously missed if they were only able to put in minor appearances to help make them continue to happen.

In recent years, Barry has done some more speaking at FSV meetings, written the odd contribution to the Newsletter, and helped to dream up a few ideas for the Society on speakers, excursions, etc. in private conflabs with Committee Member Gay. His available time for Committee and executive service in the horticultural field has been pretty adequately taken up by a succession of various roles in the Australian Rhododendron Society, having served on its Victorian Branch Committee; organised three Short Courses on gardening with rhodos and azaleas; served seven years as its National Secretary; chaired the Committee for the Rhododendrons Down Under 2000 International Conference and published its proceedings; set up the ARS national and Victorian websites (which he still maintains); and he continues to serve as Chair of the Editorial Committee for the ARS annual Journal (as well as writing numerous articles and talking at ARS meetings).

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AUSTRAL FERNS

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Still keen to go on enjoying and learning about ferns, hoping they can in the future flourish in the wild (even, perhaps, get more attention in land rehabilitation and revegetation efforts than they seem to have done so far) Barry still doesn't harbour expectations of ever earning the rank of "fern expert." He's acutely aware that he's not really of a scientific bent, and that (hopefully) at least he possesses at least a bit of an artistic streak instead. So whilst he mightn't always understand a lot about their physiology, and finds it more than somewhat difficult to keep up to date with the exact geographic origins of ferns, their names and botanical classifications, and relationships between species and groups, for instance, he can at least appreciate ferns mightily for their variety and their beauty. And he'll go on trying to grow them, at least a little better than up to now.

We thank Barry and Gay for their time in allowing us to do this article as we know they are very busy with other commitments. Also for what they have contributed to the society over the years helping to make what we now call the fern society.

FOOTNOTE Pictures of the Stagolls' garden 'Mirrabooka', with some notes about it, are on the web at www.austarmetro.com.au/~mirra/mirra

Article reproduced with thanks to the Western Australian Fern Society, year unknown.

Fernalysis workshop - August with Barbara Kerr Pellaea rotundifolia (New Zealand Cliff Brake - Button Fern)

Listed in the Fern Encyclopaedia are 13 different Pellaea species. Three of these are:

P. falcata (Australia, New Zealand, India),

P. paradoxa (Australia), and

P. rotundifolia (New Zealand)

P. rotundifolia is the one that I am going to discuss today.

Pellaea rotundifolia is a popular fern both with enthusiasts and commercial growers, being prized for its rosette of neat, dark green fronds, with blunt to rounded segments.

The pinnae are round, dark green and shiny, and the stipe is wiry and dark brown. Plants form an increasing clump. In one New Zealand fern book, they state that fronds grow to 30-70cm. The Fern Encyclopaedia states 5-20cm (2-8 inches).

Where to plant:

In pots or in the garden with dappled shade.

Position:

Well-drained. It likes to be on the dry side of moist, and needs sufficient sun or light in the mornings, or it tends to defoliate. The fern can be grown indoors, in shade houses, or in the open garden. This fern is frost-hardy.

Fertilising:

The Button Fern likes a light dressing of fertiliser during the growing season - perhaps a quarter strength of liquid fertiliser every two weeks, or slow-release pellets.

Soil requirements:

A humus-rich loose acid soil.

Pests:

Scale can be a problem.

Watering:

Pellaeas are native to dry areas and have special features that permit revival if the plants are allowed to dry out. Keep moist but allow the soil to dry slightly between waterings.

continue next page



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This fern does not need a deep pot. The pots need to be wide, or repot at frequent intervals to accommodate the fast-growing and spreading rhizomes. However, they are slow growers and never likely to become a weed.

When I first joined the Fern Society I was interested in growing ferns in my garden. I researched, asked questions, and made out a list. On the bus to Mace's Nursery, Harold Shaw checked my list and changed "M Button Fern" to "2 or Y - one for a pot and the others for the garden.

They weren't large ferns, so two were planted in the garden, and they have spread into a large clump - but never beyond their welcome.

This clump is in a well drained situation on a higher level than the rest of the garden, with plenty of light and dappled shade under a tree fern and a Native Frangipani. The fern receives heavy watering from the reticulation system, but because of the position in the garden, there is no problem with moisture. Generally, I use a Betabug spray on all my plants.

Button Ferns respond well to being divided to form new plants. They are an easy fern to grow, and are very forgiving of neglect. The dark green fronds make a pleasing contrast to other ferns in the garden or shade house.

This article has been reproduced with many thanks to the Los Angeles International Fern Society June, 1998.

XEROPHYTIC FERNS

By Judith Jones

These are the species that truly make a believer out of any scoffer that sees ferns as stodgy in their appearance and limited in their range of garden environments. Here are the ultimate survivors in the seemingly inhospitable habitats adored by lizards and rattlesnakes. They have maintained their niche in this fragile environment through the development of protective layers of hairs, scales and powdery farinas. It is these water conserving mechanisms that help create their unique appearance. Not only are the frond textures often changed to caressable fleecy wools but the colors, emulate an eclectic range of desert hues from dove greys, fawnish browns and smokey blues to startling metallic silver and gold.

After many years of trial and error I have finally begun to achieve success with these ferns. In the past xerics offered in the trade were either collected in the wild or grown under such close conditions that their transport into your garden met with little success. My goal has been to grow from spores garden ready xerics that will happily go from my care to your garden with little hesitation.

The most important elements to remember in growing these ferns in the garden or in pots is that they like good drainage and good air circulation.

They seem to do best in the garden where they can delve into the cool soil near and under rocks while keeping their crowns in a position of good light and air circulation. Whether you grow them in full sun will depend on where you live in the country. In the coastal Pacific Northwest they can take full sun, but in central Arizona they prefer shade mid-day.

Careful attention to watering is necessary at the beginning to establish the tremendous root system these ferns develop. In fact, when maintained in pots they generally need a pot three to four times the size of the crown to flourish. Although many authors caution against wetting the foliage at any time, I spray them in the morning, using a spray nozzle with a gentle shower setting. I do this only during the growing season when I know the foliage will dry by evening. As the fall advances and winter arrives, I water each pot individually making sure not to wet the foliage when the temperatures are cool. I would also advise against wetting the foliage in areas of the country that have high humidity coupled with high temperatures.

Although these ferns are seen totally rolled up in the wild during times of heat and drought stress, I take care not to let this happen in pot culture during the active summer growing season. Plants will exhibit this resting stasis during the winter months, especially when it freezes. These fronds will not unroll again in the spring, but they will be replaced by the next season's growth. Without detriment to the plant, you may cave old fronds on to mingle with the new growth or remove them when the new croziers appear. Do not scalp a xeric before you see evidence of new croziers..

ou

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