



**THE
FERN SOCIETY**

**OF
VICTORIA**
Inc.

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NEWSLETTER

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PRESIDENTS REPORT.

Our excursion to Sylvia Marshs' Nursery on Sunday September the 13th proved to be very enjoyable indeed. The weather remaining fine enabled us to enjoy our barbeque lunch in the National Park at Mt. Cole and a walk along the fern gully before setting out for Horsham. Sylvia arranged a very nice afternoon tea, the pumpkin scones were terrific and we enjoyed a very pleasant hour searching through her nursery for that special fern we were wanting. We were also delighted to meet up with Nita and Lloyd Frost who travelled all the way from Mt. Gambier for the occasion and Rosalea Caulkins who lives at Horsham. Thanks again to Chris Goudey for arranging another successful outing.

Our speaker for the October Meeting is Geoff Connellen and his talk will be on the results of his work with solar heating. This will also be our last meeting at the Herbarium as building works will be carried out during the next twelve months.

The venue for our November Meeting will be at Camberwell and a diagram of location will be in our November Newsletter. Albert Jenkins will be our speaker so be sure to keep this night free.

New application for Membership forms are now available and it would assist our society to gain new members if some were distributed to Nurseries etc. so please take a few at our next meeting. Subscription rates are as follows:- Single \$12.00 Family \$15.00 Single Pensioner \$8.00 Married Pensioners \$10.00 Overseas \$20.00 Aust. For the remainder of 1987 we will be discounting membership to Single \$9.00, Family \$12.00, Single Pensioner \$6.00, Married Pensioner \$7.50.

We welcome new members Keith and Merylyn Salisbury to our Society.

Special Effort Winners.

- | | |
|--------------------|----------------------|
| 1. John Hodges | 5. Sue Gardner-Berry |
| 2. Margaret Radley | 6. Shirley Hawke |
| 3. Bob Lee | 7. Maurie Hawke |
| 4. Jean Boucher | 8. Beulah Powell |

Congratulations All!

Our new society glasses, No. 2 in the series will be available at our next meeting.

Kindest Regards,

Keith Hutchinson.

THURSDAY

◦ OCTOBER 15 ◦

the herbarium

BIRDWOOD AVENUE, SOUTH YARRA. 8.00 P.M.

SPEAKER: GEOFF CONNELLEN

SUBJECT: SOLAR HEATING.

HANDI HINTS CORNER:-

- (1) If plants in plastic hanging baskets look bedraggled and unattractive, try removing the drip tray. Many keen gardeners never put them on. In the Wet season especially, they tend to be constantly filled with water which quickly causes the plant to become waterlogged and the soil to turn sour.
- (2) To gain active aeration and even all-round growth for plants in hanging baskets, place a brass swivel (there is probably one among your fishing gear) above the basket on the connection to the hook. The wind rotates the basket and the plant will not turn its leaves in a set direction for light.
- (3) Water ferns more frequently on windy days and fertilise with a fish emulsion fertiliser, To rejuvenate your large fern baskets cut out the middle, replace with new soil mix and replant with segments removed.

There are three groups of people-
 Those who make things happen,
 Those who watch things happen,
 Those who wonder what happened.

SPEAKER REPORT: General Meeting, 17th September, 1987.

SPEAKER: Chris Goudey

TITLE: "A Study of three Aspleniums".

Chris explained that the group of ferns known as Aspleniums are but a small part of a large family of plants called Aspleniaceae.

World wide there are 650 species of Asplenium which grow in a wide variety of habitats. The range of habitats vary from moist forest floors to boulders and on trees and treefern trunks. Yet another group exists which is marine in habitat, preferring to grow so close to the sea that it is effected by salt water spray.

Many species of Asplenium produce proliferous buds or bulbils which can be propagated fairly easily. In addition to bulbils, Aspleniums also produce spores in an elongated or linear shaped sori. The sori is attached to the leaf vein and opens up on one side. The spore cases are protected by a flap called the indusium.

The three species chosen for discussion were Asplenium flaccidum (Weeping spleenwort), Asplenium terrestri (terrestrial spleenwort), and Asplenium bulbiferum (Hen & chicken fern).

1. Asplenium flaccidum.

Occurs in three eastern australian states and Tasmania, a few islands in the Pacific Ocean and in New Zealand where it is abundant.

The Latin word flacid means weeping, which perfectly describes the lovely drooping habit of this beautiful fern. It does not produce bulbils.

Chris had brought a magnificent collection of Aspleniums to the meeting and throughout his talk displayed the various specimens to assist his descriptions of special characteristics.

A. flaccidum usually groes as an epiphyte on Myrtle Beech trees in wet forest. In cultivation this fern is not easy to grow although some members have been very successful with it. It does best if grown in a hanging wire basket in a cool, low-light, humid situation. The potting mixture should be a light epiphytic composition and the plant kept in an underpotted condition.

Collection of spores can be difficult because this species does not eject spores as vigorously as most other ferns. Chris said that he has found the most effective way to collect spore is to scrape them off the frond with a razorblade or penknife.

Chris displayed a number of natural hybrids which have been found having A. flaccidum as one of the parent plants.

A. flaccidum Hybrids.

1. 1 X A. Bulbiferum (Otways - Victoria)
This natural hybrid has been found growing on the trunks of soft treefern (Dicksonia Antarctica), on the ground and on tree trunks. Prefers a low light, moist and humid situation. It produces bulbils sparcelly and is quite hardy.
1. 2 X A. Obtusatum.
A magnificent plant was displayed which Chris said came from Stewart Island off the South Island of New Zealand.
1. 3 X A. Hookerianum (New Zealand)
1. 4 X A. Scleroprium (New Zealand)
1. 5 X A. Terrestri (New Zealand)

A. Flaccidum sub-species.

A. Haurakiensis. A specimen imported from New Zealand was shown. It occurs on the east side of the North Auckland Peninsula, has an upright growth habit and grows in soil near to the Sea. It is described as a Maritime (of the sea) fern.

2. Asplenium Terrestri.

A. Terrestri is very difficult to distinguish from A. flaccidum. However whilst flaccidum prefers to grow as an epiphyte, A. terrestri is always found growing in the soil. It is wide spread in the South Island of New Zealand and is common in Tasmania. Its environmental preferences are cool wet forests or caves, among rocks or on decaying logs. In cultivation it does best in cool, low-light and humid conditions. It is slow growing and does not produce bulbils.

A. Terrestri Hybrids.

- 2. 1 X A. Flaccidum. Because Terrestri and Flaccidum are so much alike it is very difficult indeed to distinguish the hybrid.
- 2. 2 X A. Ricardii
- 2. 3 X A. Hookerianum
- 2. 4 X A. Lyallii

Each of the foregoing hybrids is sterile; they can only be propagated by root division.

A. Terrestri Sub-Species.

A. Maritanium, a fern of the sea and coastal rocks. It's natural habitat is at the north end of the South Island of New Zealand and on the south end of the North Island. Although this fern is slow growing it is hardy and very attractive.

3. Asplenium Bulbiferum.

A most variable species which is easily propagated from bulbils and in all its forms is a very attractive fern. It is very popular with nursery people and with the fern buying public. Specimens were displayed which came from New Zealand, Stewart Island and the Otway Ranges in Victoria.

The word bulbiferum means in English, bulb bearing. It's range extends from the eastern coastal areas of Australia to Tasmania, New Zealand and Asia. It is rare in South Australia.

Research has shown that bulbiferum hybridizes readily with every other New Zealand Asplenium except polyodon, flabellifolium and trichomanes. Hybrids produced with bulbiferum as one of the parent plants all develop bulbils making the task of propagating and preserving these lovely ferns a very practical proposition.

A. bulbiferum is a rain forest fern which abounds in damp well shaded places. It is often found growing in caves and is well adapted to growing as both an epiphyte and a terrestrial plant.

A. Bulbiferum Sub-Species.

A. Gracillimum occurs in New Zealand and in Tasmania. It differs from bulbiferum in scale shape and does not produce bulbils. It is found in dry hilly coastal forests and can be cultivated in similar manner to A. Bulbiferum.

Continued over

Practical Information which arose from the talk was:

1. A suitable mixture in which to propagate Asplenium bulbils is: Equal parts by measure of chopped up sphagnum moss, sand and peat moss. This mixture need not be sterilized.
2. Plant at least three bulbils together for support and push the plants far enough into the mixture to make a solid contact.
3. If planting in trays, condensation can be drained off the plastic or glass covering by tilting the trays.
4. Although sphagnum moss is thought to be a non-nutrient material, it is ideal for resurrecting very sick ferns or for encouraging root growth in newly mounted Platyceriums (Elks and Stags).
5. Sedge peat is not suitable for propagating fern bulbils - it contains salt and is much too heavy.
6. On the subject of protecting your ferns from hungry snails and slugs, Chris advised that Members should battle on with whatever means they can call successful. He summed up this battle by saying, "If the present generation of these pests doesn't get you, the next one will."

Vote of Thanks.

Doug Thomas moved a vote of thanks on behalf of Members. The thoroughness of Chris's preparation and his willingness to share his knowledge and fern treasures with the rest of us were emphasised. Members showed their appreciation by their sustained applause.

* * * * *

VENTILATION.

The circulation of fresh air - is important in preventing the development of disease organisms. Plants continuously lose water through their leaves in a process known as transpiration. Poor ventilation allows this water vapor to condense on the leaf surface, offering ideal germination conditions for spores of disease - producing organisms. Ventilation allows for the entrance of Carbon Dioxide necessary for photosynthesis and also provides a good supply of oxygen for respiration. You will probably have noticed how much more ferns are affected by mealy bug and scale when grown in hothouses as compared with those growing in the garden. Some ferns will deteriorate when grown indoors if there is poor air circulation but on being transferred to the airy shadehouse will take on new life.

There are some airborne substances that harm plants. The slightest waft of manufactured gas around plants will cause foliage to yellow or brown at the edges. Natural gas and bottled gas don't seem to have this effect. An old method of testing for gas leaks was to plant a tomato bush in the suspected area. If gas was present the tomato bush would droop and the leaves curl down and discolor.

Shadecloth inside a glasshouse will not reduce the temperature but will only make the house darker. to obtain both reduction in temperature and light, the cloth should be at least four inches above the glass or fibreglass. Otherwise paint the glass with Parisolene available from most nurseries.

We thank the W.A. Fern Society for these handy hints.

VICTORIAN FERN SOCIETY BOOK SALES

AUTHOR	TITLE	PRICE NON- MEMBERS	PRICE MEMBERS	P. & P. CODE
BEST, RAY	GROWING FERNS 1st Edit.	3.95	3.20	C
BROOKLYN B.G.	HANDBOOK ON FERNS (U.S.A.)	5.95	4.80	B
BROWNSEY & GALLOWAY	A KEY TO THE GENERA OF N.Z. FERNS & ALLIED PLANTS	6.00	5.50	B **
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GICK	FERNS FROM MOTHER NATURE	5.95	4.80	B
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GOUGH	PALMS AND FERNS	6.95	5.60	C
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MOLYNEAUX W	AUSTRALFLORA HANDBOOK	6.95	5.50	B
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S.G.A.P.	FERN STUDY GROUP BOOKLET	2.50	2.00	A
SIMMONS M	ACACIAS OF AUSTRALIA	29.95	25.00	D
THOMAS, DOUG	WHAT TO DO ABOUT FERNS	1.50	1.50	A
V.F.S.	AUSTRALIAN FERN JOURNAL Vol 1 No 1	2.00	1.50	A
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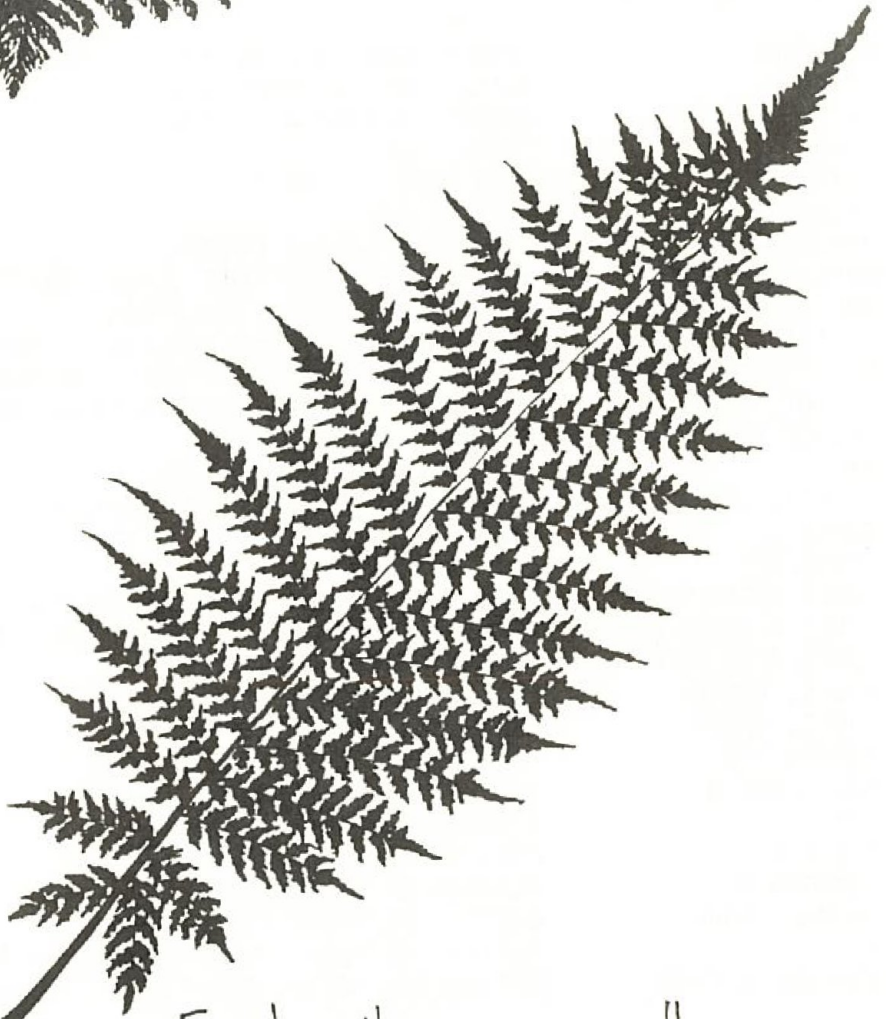
** NEW PUBLICATION " A KEY TO THE GENERA OF NEW ZEALAND FERNS AND ALLIED PLANTS"
 PUBLISHED BY THE NATIONAL MUSEUM OF NEW ZEALAND
 This publication provides an illustrated key for identifying any of the
 66 genera of ferns and fern allies occurring in the New Zealand botanical
 region. Some 92 different species out of a total of 211 species are
 illustrated. Every genus is represented by at least one line drawing.
 Technical terms have been kept to a minimum, and all are defined in the
 illustrated glossary

Cyathea australis

-2-



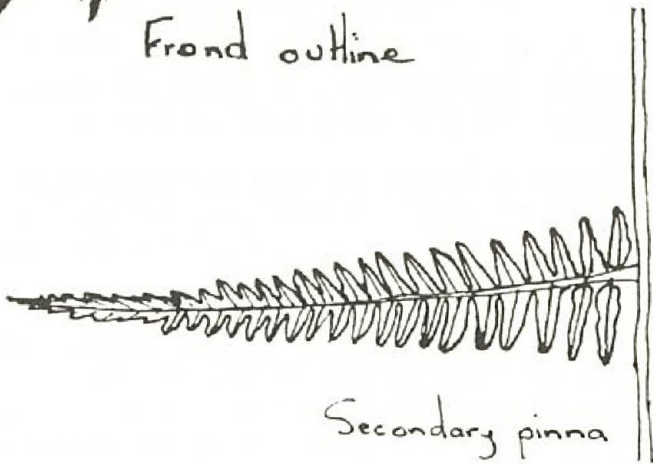
Habit



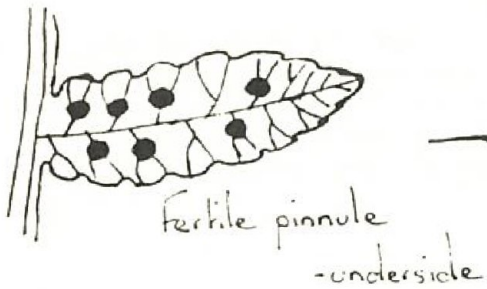
Frond outline



Stipe base



Secondary pinna



Fertile pinnule
-underside



Scale

CYATHEA AUSTRALIS

Recently some botanists have split the genus *Cyathea* into several different genera, based mainly on scale differences which can be seen under magnification. Some botanists do not agree with this reclassification so I think it is still in order to use the old classification.

Description;

A common Australian tree-fern with a trunk usually 25 cm. or more thick and up to 20 m. high. Some specimens can have massive trunks and carry very dense crowns. The upper part of the trunk is covered with persistent stipe base and the base with wiry adventitious root. The tripinnate fronds, which can be up to 4 m. long, have dark brown, very rough rasp-like stipes, caused by short pointed tubercles. The stipe bases and crown are covered with bright brown, glossy, entire edged and narrow scales. The lanceolate lamina is light dull green above and paler beneath. The secondary pinnae are divided into the midrib into slightly toothed pinnules. The sori are orbicular and exindusiate, and occur in the forks of the veinlets on either side of the midrib of the pinnules.

Distinguishing Features:

Cyathea australis can be separated from *Dicksonia antarctica*, its most common companion in the wild, by the presence of scales, the rough stipe bases and the superficial exindusiate sori (*Dicksonia antarctica* has hairs, smooth stipes and marginal sori covered with an indusium). Also *Cyathea australis* has paler green and less harsh lamina and usually carries fewer and less arching fronds in the crown. *Cyathea australis* can be distinguished from similar *Cyatheas* by the combination of the stout trunk, the exindusiate sorus, the absence of spines on the stipe base, the dull green frond and glossy brown narrow scales.

Habitat:

Cyathea australis is the most widely distributed tree fern of eastern Australia occurring from coastal regions up to altitudes of 1,200 m. in the tablelands. It occurs in dense rainforests with *Dicksonia antarctica* and also open Eucalypt forests especially along creek banks.

Cultivation.

Cyathea australis is a very hardy fern once it has been established. Usually, it is available in nurseries as a sawn off trunk. When buying, look for a specimen which has adventitious root at the base, because it does not produce root as easily as *Dicksonia antarctica* and needs a little more care to establish. Plant deeply in well drained acidneutral soil which is very rich in humus and keep constantly moist. *Cyathea australis* can tolerate more light than *Dicksonia antarctica*, but still needs some protection from sun and wind. Feed each year with compost, mulch or leaf litter. Tree ferns may be fed with half strength Aquasol during Spring and Summer once the fern is established, if it is felt it is needed.

Landscape:

Sporelings and trunk specimens can be grown as potted plants, but as with *Dicksonia antarctica*, should eventually be planted in the ground. To me, they look most effective when one or two specimens are grown with a group of *Dicksonia antarctica*s under tall Eucalypts or in a small cluster near a shaded natural pool, because this is the way they grow naturally. They can also be used effectively in large artificial shaded areas and courtyards etc. in the same way as *Dicksonia antarctica*s.

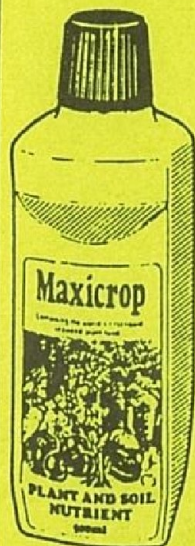
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Jenny Yates

We thank the South Australian Fern Society for the excellent article and illustration on *Cyathea Australis* and Jenny Yates who prepared it.



CYATHEA CUNNINGHAMI photographed in Wilson's Promontary National Park and measured scietifically to be 45 feet high.



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MORE ABOUT EARTHWORMS

The family of earthworms is quite large, and their distribution around the world is very extensive, ranging from the tropics to extreme northern and southern latitudes. Arctic and sub-Arctic regions do not share with the rest of the world these creatures, as the ground may be frozen to great depths over long periods of time thus causing their death.

In size, we find they range from small worms of microscopic dimensions to giant annelids measuring from three feet to eleven feet long. In South America, Africa, Ceylon and Australia we find the larger members of the family and here in Australia we have the largest of the giant worms, *Megascolides australis* by name, authentic measurements being up to eleven feet in length. Seems incredible to us.

Where warmth and moisture are more constant, we have more species living and procreating, but whatever the size, name or habitat, earthworms have one important characteristic in common, and that is they swallow the earth with all it contains, and in the process of digestion and elimination excrete practically neutral humus, topsoil rich in water-soluble nutrients for plant life.

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DIARY DATES.

VENUE - HERBARIUM - BIRDWOOD AVENUE, STH. YARRA.

OCTOBER 15TH - GEOFF CONNELLEN - SOLAR HEATING.

NOVEMBER 19TH - AT CAMBERWELL - ALBERT JENKINS.

NOTE: In the event of a power strike on the evening of any meeting, we regret that the meeting must be cancelled.

BUYERS' GUIDE TO FERN NURSERIES.

VICTORIA.

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