TEMETORS Algoroty

PUBR

NEWSLEAMER

DATE FEB '80

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PRESIDENT'S MESSAGE:

The holiday is over, and it's back to work again.

Alan Morrison, assisted by Don Inchley from the Camberwell Camera Club, gave an illustrated lecture at our December Meeting on photographing ferns. Alan and Don displayed some excellent slides of many very rare ferns, some of which are seldom observed. Ferns such as the Brittle Bladder Fern, the Austral Moonwort, the Adderstongue, etc.

Keith Hutchinson (our Newsletter Editor) also gave an interesting short talk on the different Shade Cloth products available, and compared them with timber laths for price and life span.

Hopefully, you will find enclosed a Fern Society Name-tag, with this issue of the Newsletter. Please print your name on it, and wear it at each meeting so we can all get to know each other a little better. Fern Society Badges will also be available at our February meeting; the cost per badge will be discussed at our next Committee Meeting prior to the General Meeting on the 14th February, 1980.

Rod Hill was elected at our December Meeting to be in charge of the Spore Bank. Rod has had extensive experience in collecting and raising ferns from spore, over a period of many years, and has submitted a very impressive list for publication in this issue.

We are still holding between 30 and 40 books which were ordered from America and have not been picked up. The books are as follows - "The Fern Dictionary", "Ferns & Fertilizer",

"Platycerium Fern Facts", "The Genus Adiantum in Cultivation". Please make the effort to pick up your books at the next meeting or if you cannot attend, please contact Mrs. Lorraine Goudey, at the address listed at the top of this page, to arrange postage. Books not picked up by March will be used to fill later Orders and Cash Sales. We are still waiting on the following: "Exotica", "Tropica", "The Fern Growers' Manual" and the 1980 calendars.

To encourage more interest in our Monthly Competitions, we will now have two sections: (A) Novice, and (B) More Experienced Growers.

Novice classification would include growers with less than two years' experience, and who are not professional. More Experienced Growers would include all others as well as professional people.

The fern chosen for our February Competition is a fern with a rhizome, in a 5" or smaller plant pot.

Please note that there will be a charge of 30¢ per person for those wishing to have tea or coffee at each meeting from now on. The proceeds from donations in the past have not been enough to cover all the costs.

Entries for a suitable photograph for our 1980 Newsletter Cover will close at our next meeting.

The photograph must be of a fern or a fern environment, and must be in black and white.

> CHRIS GOUDEY President

SECRETARY'S REPORT:

First, I would like to say 'thank you' to the many friends who sent their good wishes whilst I was in hospital, and also for the beautiful flowers from members of the Society. I realise just how many friends I have made during the past year.

We hope that you received your lapel label with this Newsletter: now, please DO wear them when you come to meetings - you will find them a help when talking to each other. I try to learn at least one new name each month, but with over 350 members (and we are still growing!) I am not making much headway.

We have just had news on the progress of our metal "Fern Society" badges. With luck, we may have them for sale at the next meeting (luck is the word - the fallibility of delivery dates is well-known!)

Two items re finance - one good, one bad:

- (a) Unfortunately, rising costs of milk, tea, coffee, etc. have forced us to make a small charge for supper, so in future tea or coffee plus biscuits will be 30¢. We know you will understand.
- (b) And now the good news -For the remainder of the financial year to 30/6/80, we have halved the membership fees, so if you know of any prospective new members, please tell them that the rates for the next few months are as follows:-

Single membership - \$4.00 Two married pensioners - \$3.50 Family membership - \$5.00 Full time student - \$2.50 Pensioner - \$2.50

As mentioned in Chris Goudey's message, the Monthly Competition will now be judged in two sections. Come along now, all you members who felt that they couldn't compete with some of the lovely ferns we have seen - I'm sure there are many of you with ferns in this month's category.

Several members have rung me wanting to know where they can buy a particular ferm, or whom they can critical regarding specialist information. I'm always pleased to pass on names and addresses of fellow members, so if you need any information, give me a ring and I will see what I can find out.

IRENE BOLSTER
Secretary

TREASURER'S REFORT:

Owing to my inability to be present at our December meeting, I have not as yet received any monies from Special Effort plant sales or subscriptions. Our only expense over the month has been for magazine printing and postage \$115.02, leaving a balance in hand of \$995.89.

ALBERT JENKINS Treasurer

Asplenium australasicum (Prev. Asplenium nidus)
Relative to a recent name change of Asplenium nidus to Asplenium
australasicum, the writer was surprised to find an early reference which
appears to concern this fern. Such statement was made in "Select Ferns
and Syncopods", B. S. Williams, 1873 - 106 years ago - under the title
Thamopteris Thamnopteris (Presl.)

Quote: "This genus consists of a few species producing entire fronds, remarkable from the peculiar manner of their growth. The fronds rise up from the crown leaving quite a hollow centre, from which habit they have been called Bird's Nest Ferns. They are very long lived and make splendid objects for vases, to stand on each side of the doorway inside the fernery and indeed Thamnopteris <u>australasica</u> will answer well for this purpose out of doors in Summer time, if not exposed to full sun. These plants will require but little soil as they make a mass of fibrous aerial roots on the surface from which, if the atmosphere is in proper condition, they derive much nourishment. Rough fibrous peat sphagnum moss and sandstone suit them best."

"Thamnopteris australasica (Presl). This fine evergreen species has been very aptly named the Bird's nest fern. The fronds of which are simple and elliptic - lanceolate in shape and of a bright shining green colour, grow all around the rhizome, so as to leave the crown elevated and exposed and thus form a hollow centre: their length is about four feet, and their breadth from 3 to 6 inches: the midrib below is sharply carinate (keeled) a character to be found in this species from its youngest stage. As it succeeds well in a cool house it becomes an invaluable plant where contrast and noble outline is studied. A native of New South Wales."

He goes on to describe

Thamnopteris nidus: - "This is popularly known as the Eagle's mest fern and is often confounded with the previous species; it is indeed similar in habit, and grows to about the same size the chief differences being that in the present plant the fronds are almost of equal breadth at the base with the midrib obtuse and that they grow out horizontally at first before taking their upright course, thus leaving a much broader centre; it also requires the heat of a stove (in England). A Native of the East Indian Islands."

End of Quote.

A recent reference to "The Fern Dictionary" by Wilbur W. Olson, Research Director of the Los Angeles International Fern Society, 1977, we find -

Thamnopteris: - A genus now called Asplenium. In the case of our new Asplenium australasicum, the author is persuaded to suspect that its past has at last caught up with it.

THE GENUS ADIANTUM (ADIANTACEAE) IN AUSTRALIA

By Chris Goudey

A large genus of more than two hundred species, mostly distributed throughout the Tropics and Sub-tropics, with a large proportion in South America.

Eight species are known to occur in Australia, most of which are found along the east coast, with one species extending as far south as Tasmania. One species only, is endemic, with two others occurring in New Zealand; the remaining five species occur over a wide area, one of which has a world-wide distribution.

(Continued on next page)

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The name Adiantum is derived from
the Greek word "adiantos", meaning
dry or unwetted, for water runs off
the pinnules without wetting them,
even after the whole plant is
immersed.

All the Australian species are hardy in cultivation, as far south as Victoria, with the exception of A. philippense, which is a deciduous fern, that requires a heated glasshouse outside its tropical environment.

If container grown, Maidenhair Ferns prefer a good open soi" mix, with plenty of humus, and a small amount of lime added. They like a well-lighted position, but not direct sunlight, with an occasional application of fertilizer, preferably at half strength. If planting in a Fernery, it is essential to provide good drainage; this can be achieved by raising the soil beds, if there is no natural slope.

Adiantum aethiopicum Linn (Common Maidenhair Fern)

A most attractive species, with a wide range. The Common Maidenhair Fern is native to all States of Australia, as well as New Zealand and Tropical Africa. Named after the African State of Ethiopa, this fern varies considerably throughout its range. North Queensland forms have tall erect fronds, whereas the Southern form has short fronds, with a weeping habit. Two cultivars of this plant are reported to be in cultivation, a created form and a variegated form. I have seen plants of the former in cultivation. A. aethiopicum is a hardy species that will tolerate extremes of temperature and full sun, if provided with sufficient moisture.

Adiantum capillus venerus Linn
(European Maidenhair Fern)
Cosmopolitan in distribution, this species occurs throughout the Tropics and Sub-tropics of both hemispheres, as far north as Britain and Canada, and south to Australia, where it has

been found growing in the Carnarvon Gorge in Central Queensland and the Hammersly Ranges in Western Australia.

The European Maidenhair Fern usually grows in limestone crevices, where there is sufficient moisture.

Many horticultural cultivars have originated from this fern, some of which are most attractive.

A. capillus-venerus is a semideciduous fern, and it requires protection from extreme cold in Southern Australia.

Adiantum cunninghamii Hook (Northern Maidenhair Fern)

This fern is restricted to the mountains of north-eastern Queensland, and is the only endemic species.

It usually grows in the deep shade of rain-forests, which is quite unusual, as most Adiantums prefer a more open forest.

Young specimens of this fern can be confused with some forms of A. hispidulum, but there can be no mistaking the two once the new fronds of mature plants are observed. They are a beautiful deep pink in colour. This fern is hardy as far south as Victoria, but will not tolerate being pot-bound.

Adiantum diaphannum Blume
(Filmy Maidenhair Fern)
A small delicate fern, native to the three Eastern States of Australia, as well as New Guinea, Tropical Asia, New Zealand and Polynesia.

Commonly known as the Filmy Maidenhair Fern, A. diaphannum usually grows on wet rock or clay banks beneath waterfalls, where it can colonise large areas.

A smaller, less branched form of this fern occurs in New Zealand and is known as A. Diaphannum var. Polymorphum (Col.) Cheesem.

A. diaphannum is a hardy species to plant in a fernery, as far south as Melbourne. Once established, it spreads rapidly by underground rhizomes to form a large clump. (Continued on next page) (Continued from previous page)
Adiantum formosum R. Br.
(Black Stem or Giant Maidenhair
Fern)

Commonly known as the Black Stem or Giant Maidenhair Fern, A. formosum is native to the three Eastern States of Australia, as well as New Zealand. A most attractive species that can attain a height of up to five feet, if grown in ideal conditions. Formosum means beautiful or handsome.

This fern can be difficult to transplant as it has a long branching underground rhizome, but once established in a Fernery, it takes over. It is better suited to a large tub or separate bed.

The fronds of A. formosum are sold commercially after drying and colouring for dried floral arrangements.

Adiantum hispidulum Swartz
(Rough Maidenhair Fern)
The Rough Maidenhair Fern is almost cosmopolitan in its distribution; it ranges from South Africa through India, Malaya and Indonesia to Australia, New Zealand and the Pacific Islands. It has also become naturalised in the south-eastern United States of America. In Aus-

tralia it occurs in the three Eastern

States, as well as Central Australia.

Adiantum hispidulum is a very hardy and extremely variable fern throughout its range. Some forms are tall and straggly in appearance whereas others often have compact fronds with large overlapping pinnules. It also varies considerably in the colour of new frond growth, ranging from an attractive red to a pale green.

Often sold in the trade as A. pubescens, this fern is easy to cultivate and makes an attractive specimen in a Fernery.

Adiantum philippense Linn
A pantropical species that occurs
across the top of Australia, usually
in open forest, where it seems to
favour rocky places or steep earth
banks.

Formerly known as A. lunulatum Burm., possibly because of its moon-shaped pinnules.

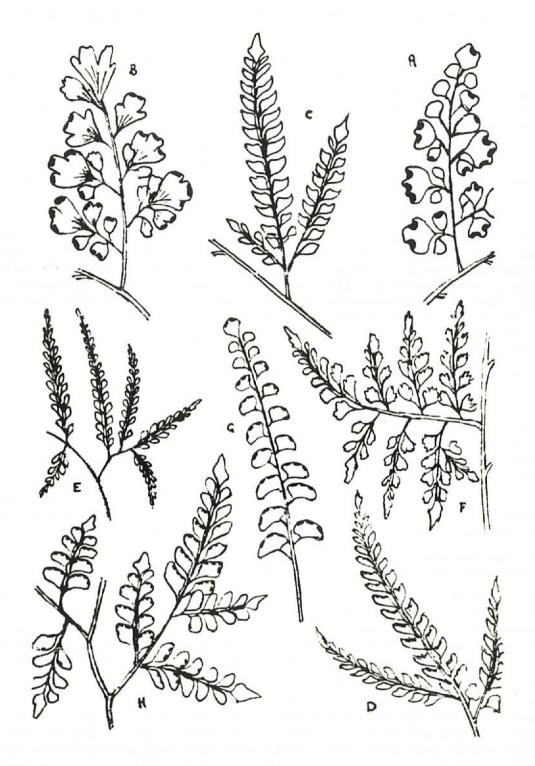
A.philippense is usually decidous; however, there are plants in cultivation that are not. Plants of this fern in the wild occasionally proliferate, i.e. they have the ability to produce plantlets on the tips of each rachis. The cultivated form always proliferates, possibly because it is grown under more ideal conditions.

This fern is not difficult to grow in a glasshouse, with a temperature above $50^{\circ}F$ ($10^{\circ}C$).

Adiantum sylvaticum Tindale
Sylvaticum means forest loving. This
fern is restricted to Northern N.S.W.
and Southern Queensland in Australia,
and is an abundant fern in New Zealand
and the Kermadec Islands. Formally
known as A. affine Willd., A.
sylvaticum can quite easily be
confused with A. formosum, which is
normally a much larger species. Like
most other Adiantums, this fern can
vary quite a lot, plants can mature,
dwarfed to an inch or two, growing in
rock crevices.

This fern is seldom cultivated, possibly because it is uncommon. An attractive hardy fern, suitable for cultivation in a Fernery, as far south as Victoria.

Some delightful illustrations, done by Chris Goudey, can be seen on the following page.



FERNS ILLUSTRATED:

- A. Adiantum aethiopicum, part frond.
- B. Adiantum capillus venerus, part frond.
- C. Adiantum cunninghamii, part frond.
- D. Adiantum diaphannum, full frond without stipe.
- E. Adiantum hispidulum, part frond.
- F. Adiantum formosum, part frond.
- G. Adiantum philippense, full frond.
- H. Adiantum sylvaticum, part frond.

TEXT OF LECTURE "PHOTOGRAPHING FERNS", GIVEN BY MR. ALAN MORRISON 13/12/79

First, I will look at the equipment used in photographing ferns; there is no need to have expensive cameras to take good shots - an ordinary fixed focus camera is quite suitable, although a single lens reflex is probably much better, and metering through the lens is very convenient when composing pictures. Interchangeable lenses too are a very big advantage for use in awkward situations.

Now, I cannot hold a camera still, and you must have sharpness in your pictures. So make use of a tripod. To set it up is time-consuming, but you will get much better results. If no tripod is available, use a stick or other support to hold the camera still, and then perhaps use a cable release to minimise any movement.

There are some very good lenses available, and usually, the more you pay the better the lens, but there is no need to have very fast or very wide aperture lenses. I use a lens that has a very small aperture (only 2.5 mm) and I use the slowest film you can buy, and yet I get reasonably good results. Mr. Reeves, a photographer of native plants, once said that his lens only cost 30/-, and yet he produced some excellent pictures of ferns. If you look at back issues of "Wild Life" of 1945, you will see pictures of ferns not bettered even today - black and white certainly, but sharp.

Now, with lighting: ordinary natural lighting is excellent, but often ferns are in shady gullies or in areas where there is not much light, so then you must resort to artificial light or flash.

It is handy, too, to have a reflector; a piece of newspaper is suitable, and with this you can deflect any light which does come in onto your subject. White cardboard or aluminium foil is also suitable, but if using foil, crumple it up so that it does not give a pinpoint of light.

Some gorges have no light; I can remember a particular gorge in the Carnarvon ranges - beautiful sunlight outside the gorge, but black inside - all you could do was to use your flash and see if you could get results.

If the subject is reasonably lit in front and shady at the back, you can sometimes use lighting from the back onto the subject.

With exposure and apperture, use a light meter if you do not have through-thelens metering. With through-the-lens metering, exposure takes care of itself. Have your meter checked at intervals; it is no good going on a holiday and finding that the meter was out and it's easy to have a check made these days. Use a lens hood; even away from sunlight it can cut out reflected light.

If you wish to take pictures larger than life size, use an additional close-up lens to fit over standard lens, but if you do, watch out for parallax - make sure that the picture is correct. N.B. With through-the-lens metering, this problem does not arise. Again, if you wish to have a bigger picture, you must extend your lens; this can be done with most cameras these days.

Regarding film: I use a Kodachrome 2 - A.S.A.25, a slow film, but I feel it gets reasonable results. You can use faster films with excellent results, but whatever film you use, my advice is to stick to that one, as settings for various films vary when taking close-ups, and you may use the wrong one. To make a close-up where you are photographing only 2 ft. away, it is sometimes difficult to illuminate the subject; ordinary lighting is inadequate and you will have to use flash. I can only indicate where to place the flash; it is a matter of trial and error as flash units vary. One advantage of photographing ferns is that they do not reflect light as do flowers.

SECRETARY'S NOTE: Mr. Morrison's talk was greatly appreciated, and we regret we cannot share the excellence of his slides with our readers.

The most important aspect of gathering fern spore is to decide just when the spore is ripe. The spore develop inside roughly spherical sporangia, clusters of which form the familiar sori on the backs of fern fronds. The spore is initially light green and generally slowly ripens to dark brown or black, at which time the sporangia appear swollen and shiny. As the sporangia then burst and release the ripe spore, the sorus takes on a tatty, or furry, appearance. Often you will be able to find all stages on a single plant, if not on a single frond, and you should collect portions of fronds in the region where the spore is ripest, just before and including the tatty region where the spore is being released.

N.B. If the sorus is covered by a protective indusium, this may lift (or open) as the spore ripens (e.g. Polystichum, Lastreopsis, Rumohra, Dicksonia), but if not (e.g. Adiantum, Asplenium) you may need to examine beneath it - a hand lens, x 10 magnification, is most useful.

Some spore (e.g. Sticheris, Gleichenia, Polypodium, Microsorium, Dicksonia) ripen to yellow. Todea and Leptopteris (and some others of the Osmunda family) ripen to dark green, the empty sporangia being yellowish.

The sections of fronds collected should be allowed to dry, face-up, on (or between) sheets of paper (blotting paper is good) in a warm, dry spot (not direct sun or breezy). If the spore is ripe, some should collect on the paper within a couple of hours. (If unsure whether portion of a frond is ready for gathering spore, test a very small section as above.)

After about 24 hours, tap the fronds gently to dislodge any trapped spore and sweep the spore with a fine brush (or tap it into and down a fold in the paper) into an envelope or small paper bag, ensuring corners are sealed with tape, or fold the spore into a sheet of paper and seal with tape.

Label spore with species, date and name of collector.

SPORE LIST - FEBRUARY, 1980

Spore samples may be purchased at 20¢ each at monthly meetings, or by sending a list of your requirements, with stamped self-addressed envelope, plus a 20¢ stamp for each species requested, to Mr. R. Fill, 4l Fareela Road, Frankston, Vic. 3199.

Species marked with an asterisk are suitable for beginners.

Arachniades aristata varigata (Dec. '79) Blechnum (Plagiagyra) articulatum (Nov.'79)

- B. brasiliense (Dec. '79)
- B. discolor (N.Z.) (Dec. '79)
- B. sp. (King Is.) (Dec. '79)

Cheilanthes tenuifolia (Nov. '79)

- C. distans (Dec. '79)
 - Cibotium schiedei (Mexican treefern) (Dec. '78)

Cyathea brownii (Aug. '78)

- C. celebica (Dec. '79)
- * C. cooperi (Dec. '79)
- * C. cooperi (Nth.Qld.forms) (Aug.'79)
- * C. cooperi (black scales) (Dec. '79)

(List continued overleaf)

C. dealbata (Nov. '79)

C. rebeccae (Aug. '79)

C. woollsiana (Aug. '79)

Cyclosorus truncatus (Dec. '79)

* Dicksonia antarctica (Nov. '79)

D. squarrosa (Oct. '78)

Lastreopsis marginans (Dec. '79)

L. shepherdii (Dec. '79)

Osmunda regalis (contorted) (Dec. '79)

Pellaea falcata nana (Dec. '79)

Polystichum australiense (Nov. '79)

P. formosum (Dec. '79)

P. lentum (Mar. '79)

Pteris comans (Jan. '80)

* Pteris tremula (Dec. '79)

P. tripartita (Dec. '79)

Rumohra adiantiformis (May '79)

Treeferns (mixed Cyatheas - subgen. Sphaeropteris)

DIARY DATES

FEBRUARY 14TH, 1980 - Lecture by

Chris Goudey

"MAIDEN HAIR FERNS AND THEIR CULTIVATION"

8 p.m.

Burnley Horticultural School Hall, Burnley

MARCH:

Albert Jenks -

"COMPOSTING IN RELATION TO FERNS"

ADDIT.

Ian Buckmaster -

"FERNS IN CONTRAST"

MAY:

DEMONSTRATION NIGHT

(Various speakers)

JUNE:

Neil Laird -

"A SELECTION OF UNCOMMON FERNS"