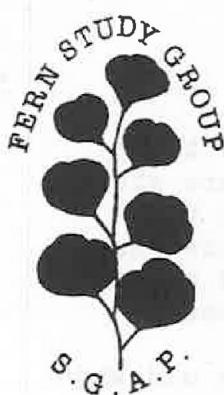


29 MAR 1985



# S.G.A.P. Fern Study Group

## Newsletter Number 28

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### Dear Members:

Members gathered at 254 Edgar Street, Condell Park and I was pleased to see some new faces who were anxious to join the Group.

The business was to select dates and outings for the next few months which includes a trip to Burrendong.

Peter Althofer phoned to inform me the situation is rather grim at the Burrendong Arboretum due to the fact there has been no rain since October 1984, so the group may have to do a rain dance when we visit Burrendong.

There will be some weeding and tidying up in the Tropical Shade Area but the general theme will be to have a very pleasurable weekend.

We have great expectations for our display at the Wildflower Exhibition which we think will be held on 29th and 30th September 1985. The exact date will be confirmed later.

Our plan is to create a walk through rainforest. We will be joined in our venture by John Ross from the Anana Rainforest Nursery.

The area will be approximately 50 feet by 45 feet so we will be very pleased to hear from anyone who can lend some tall rainforest trees, ferns, large and small, I hope to be able to arrange to have some tall tree ferns with full fronds. I will keep you informed in future newsletters.

Is there any member who would like to give me a little help? I am not good at drawing, and wish to continue with the drawings of three ferns in each newsletter. I cannot always find a good frond of the fern that I want to photocopy.

I would very much like to have some material from other states of ferns which do not grow in N.S.W. Remember this is your newsletter, too, and I want it to be representative of all States. I'll look forward to hearing from you.

In 1984 we welcomed 60 new members and I hope we can do better in 1985.

Viv and I have been invited to accompany two of our friends to Cairns in late April so we look forward to meeting some of our Queensland Members while we are up there.

Phyll Brown.

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### THAT TROUBLESOME TRIP TO TRIBULATION

By Ross Scott.

Robert Burns has some wise words to say on the best laid plans of mice and men, pointing out how they can go astray. This can be so true when we try to repeat a particularly memorable experience. The trip to Mt. Windsor Tableland in North Queensland written up in the newsletter of March, 1983 was such an occasion.

When we planned and worked towards a repetition of those wonderful days, we little knew what was to come. Maps were studied equipment assembled, the schedule drawn up and the panel van checked methodically. It was not last years model, nor the year before that, but it had always been utterly reliable and a meticulous examination could not detect even one knock that needed investigating.

However, the journey was only one and a half hours old when on a long downhill straight, the engine made some very expensive noises.

This required a 10 mile tow to the nearest town where the only garage was too busy to take on any more work. It was a do-it-yourself job that took two days to remove the motor, find a shattered piston and put in a reconditioned motor.

As we drove off we little knew that the sustained driving of the next 1000 miles was to find more weak points in the car. The next 10 days would bring trouble in the automatic gear box, petrol pump failure, a collapsed cell in the two year old battery and a leak in the anti-pollution system that upset the fuel-air mixture. All these were overcome with a bit of bush ingenuity and, two and a half days later we arrived at Port Douglas, just on dusk. For the sum of \$4-00 we had the pleasure of setting up the tent in a caravan park just behind the beach.

The sandy heath and bottle-brush country around the caravan park had acres of *Schizaea dichotoma* and *Drynaria rigidula* growing. It was a surprise to see the latter growing quite luxuriously in grey sand.

After an hours drive we were waiting on the bank of the Daintree River watching the ferry coming back from the other side, while behind it lay the dark green rainforest on Alexandria Range, and, somewhere up in the clouds was the upper part of Thorntons Peak 4500 feet high.

On the north bank of the river, the sides of the road are lined with rigid ranks of *Acrostichum aureum*, a botanical guard of honour no less. The road climbs Alexandria Range, gravel surface, winding, permanently wet - a speed of 25 k.p.h. seemed wise. This gave a wonderful opportunity to study the ferns colonising the steep bank on the passengers side of the car. The list was staggering - *Cyathea rebecca*, *Blechnums cartilagineum* and *orientale*, *Sticherus flabellatus*, *Dicranopteris lineatis*, *Lycopodium cernuum*, *Adiantum diaphanum*, *Gleichenia dicarpa*, *Doodia aspera*, *Christella dentata*, *Selenodesmium elongatum*, *Pellaea falcata* and an unidentified species which was later found to be *Lindsaea media*. We were in the middle of a line of cars that had come off the ferry, and on the narrow road had to keep moving - no stops could be made to satisfy the curiosity !

From the top of the range we could see the geographical features that make this section the most spectacularly beautiful piece of coastal scenery in Australia. The 30 kms. from here to Cape Tribulation are divided into four shallow bays that are separated by the high ranges that come right down to the beach. Parallel to the beach, but about 5 kms. inland is the Thornton Range, a series of peaks from 3000 to 4500 feet high, and it is up to these that the dividing ranges sweep. This creates a series of amphitheatres that are covered with rainforest coloured a deep rich green that has to be seen to be believed. In the saddles which come sweeping down between peaks in flawless curves, grow palm trees of an unknown species, their heads reaching far above the canopy of the rainforest. For more than ten minutes we just leaned against the side of the panel van, our eyes roaming over peaks, cliffs, waterfalls and valleys, completely spellbound and filled with wonder.

At that time the road ended just beyond Cape Tribulation and we were able to camp at Pilgrims Rest, the last civilized spot on the edge of the jungle. Cape Tribulation is a hill a few hundred feet high, connected to the mainland by a flat rainforest covered isthmus about 100 yards wide.

The north slope of the hill is rainforest but the southern slope is open she oak, instead of grass between the trees, there are acres of tightly packed ferns which we identified as *Lindsaea media*. In a certain well known book on ferns the distribution says "Northern and Southern ? Qld." When the identification is checked out that entry may be made a little more definite.

The rainforest in this part of the world is different. So far over 1000 different species of trees have been identified and there are a lot more to come. A large tree can have up to 50 different species of epiphytes growing on the trunk and branches. A number of these could be orchids, pothos and other vines but the majority would be ferns, huge clumps of *Platycerium hillii*, *Asplenium nidus*, *Drynaria rigidula*, *Davallia*, *Schellolepis subauriculatum*, *Dictymia brownii*, *Vittaria elongata*, *Crypsinus simplicissimus*, *Colysis ampla*, *Microsorum superficiale*, *Asplenium polyodon* *Arthropteris palisotii*, *Lycopodium phlegmarioides*, *Humata repens*, *Teratophyllum brightiae*, *Pyrrosia longifolia* and several filmy ferns, these last species usually colonizing the lower part of the trunk. The clumps of *P. hillii* and *Drynaria* are huge, up to 8 feet through and weighing over half a tonne.

It must not be assumed that one merely has to plunge into rainforest to find countless species all within a few acres. Ferns are where you find them, or perhaps more accurately expressed, they grow where conditions suit them - creekbanks are always a good place to start. We walked up this crystal clear stream which flowed out of a tunnel of huge trees. The first thing to catch the eyes was a patch of dried out "crows nest" ferns on a vertical rock face. Closer examination showed them to be ox tongue ferns (*Antrophyum*). Without the sori as a guide it was most unwise to try to name the species. A Massy tree hanging across the gorge at 45 degrees was loaded with *Humata repens* and *Ctenopteris gordonii*. The trunk was covered with an emerald green filmy fern *Hymemophyllum flabellatum* and the polypodium like *Crypsinus simplicissimus*. It is not easy to estimate light strength under an unbroken canopy of trees, but in the darkest places where light must have been under 50% the two ferns that could survive were *Fronephrium triphyllum* and *Dryopteris* (now *Coveniella*) *poecilophlebia*. Scattered between the rocks and over the forest floor was *Selenodesmium elongatum*, the striking iridescent filmy fern. In areas where rainforest canopy opened up and the light was better, *Lindsaea obtusa* was as common as the Adiantums are in the southern rainforest.

At the foot of an old landslide, a large area of "*Adiantum hispidulum*" demanded investigation. It was much more attractive than the harsh *Hispidulum* we all know, with fronds 12" high, and the usual 5 pinnae, but they were a light blue green colour, very fine in texture, a smooth jet black stipe, and the roots had lots of the symbiotic fungus attached. The fern had nearly all the characteristics of *A. diaphanum* but had the appearance of *A. hispidulum*.

The five days around Cape Tribulation were enchanting and as we slowly drove off in the direction of civilization we were still drinking deeply of the scenery. At one creek crossing an area of "*Christella*" caught the eye - it just did not look right. The fronds were 18" long with five pinnae on each side, these being 5 inches long while the one on the tip of the frond was longer than those on the side. The frond was dull green, shallowly lobed with about 6 sori at the tip of the lobes. We could not identify it and thought it might be something new but it was later classified as *Amphineuron terminans*. It is both similar and yet different to that species and will remain a valuable lesson in just how far variation within the species can go.

It was with contented minds that we headed south and I observed to Trevor that the theme song of the Greater Daintree Wilderness Area is one that was a favourite of Scottish Baritone Sir Harry Lauder -

"Will ye no come back again."

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SPORE BANK

Spore of the following ferns is available. Some in small quantities, marked with s. Please send stamped addressed envelope

<i>Adiantum</i> sp.	<i>Macrothelypteris</i> sp.
<i>Allantodia australis</i>	<i>Ophioglossum pendulum</i>
<i>Ampelopteris prolifera</i> (S)	<i>Pellaea viridis</i> (S)
<i>Asplenium nidus</i> (S)	<i>Platycerium superbum</i>
" <i>polyodon</i>	<i>Polypodium loriceum</i> (S)
<i>Arthropteris tenella</i>	<i>Polystichum australiense</i>
<i>Blechnum fluviatile</i>	" <i>proliferum</i> (6 diff forms)
" <i>gregsonii</i>	" <i>formosum</i>
" <i>indicum</i>	" <i>munitum</i>
" <i>minus</i>	" <i>tsus-simense</i>
" <i>ambiguum</i>	<i>Rumohra adiantiformis</i>
" <i>nudum</i>	" " (Cape form)
" <i>wattsii</i>	<i>Pronephrium asperum</i>
" <i>chambersii</i>	<i>Psilotum nudum</i>
<i>Cheilanthes sieberi</i> (S)	<i>Stenochlена palustris</i>
<i>Christella dentata</i>	<i>Sphaerostephanos unitis</i>
" <i>subpubescens</i>	<i>Todea barbara</i>
<i>Cyclosorus interruptus</i> (Stockton)	<i>Thelypteris patens</i> c.v <i>lepidia</i>
<i>Cyathea australis</i>	<i>Rectaria gemmifera</i> (S)
" <i>brownii</i>	<i>Pteris tremula</i>
" <i>cunninghamii</i>	" <i>comans</i>
" <i>Cooperii</i> (Robust form)	" <i>tripartita</i>
" <i>leichhardtiana</i>	" <i>umbrosa</i>
" <i>rebeccae</i>	" <i>vittata</i>
" <i>robertsiana</i>	<i>Lastreopsis hispida</i>
<i>Davallia pyxidata</i>	" <i>microsora</i>
<i>Diplazium cordifolia</i>	" <i>munita</i>
" <i>assimile</i>	<i>Microsorum scandens</i>
<i>Dicksonia antartica</i> (Bot. Gdns.)	" <i>angustifolia</i>
" <i>youngiae</i>	<i>Lastreopsis acuminata</i>
<i>Doodia aspera</i>	" <i>decomposita</i>
<i>Drynaria rigidula</i>	-----

PROGRAMME.

Unfortunately the date of the trip to Surrendong Arboretum has to be altered, from 23rd and 24th March to 30th and 31st March, 1985.

Sunday 28th April, 1985.

Meet at 11.00 am at the home of Monica and Arthur Sharp, 20 Kirby Street, Rydalmer. Please bring your lunch and a "plate" for afternoon tea.

Sunday 26th May, 1985.

Bola Creek, Royal National Park. Turn off the Princes Highway, just past Loftus, into the Royal National Park (Farnell Avenue), follow this road over the causeway at Audley and veer right into Lady Carrington Drive (one way road). Follow this dirt road for some distance until Bola Creek, sign posted, is reached. The picnic area is on the right hand side. Meet at 10.00 am.

Sunday, 23rd June, 1985.

Meet at 10.30am at the home of Sylvia and David Garlick, 3 Valleyview Crescent, off Caldera Avenue, Engadine. Please bring your lunch and a "plate" for afternoon tea.

Sunday 21st July, 1985.

Royal Botanical Gardens.

Meet near the glass houses at 10.00 am. Bring a picnic lunch. There is food available at a Kiosk in the gardens.

Sunday 18th August, 1985.

Meet at 11.00am at the home of Dorothy and Kyrel Taylor 16 Elizabeth Crescent, Yagoona. Please bring your lunch and a "plate" for afternoon tea.

For any further information regarding these outings please ring Phyll Brown, 7056413 .

FAMILY - Polypodiaceae.GENUS - Drynaria (Bory.) J. Sm.  
(dri' nā ri å)

There are about twenty species, three are found in Australia. These are large epiphytic, terrestrial and lithophytic ferns found growing naturally in tropical and subtropical rainforests and on the edge of these forests.

The rhizomes are thick fleshy and creeping and are thickly covered with scales. The fronds are dimorphic, the sterile fronds (nest leaves) are upright, papery, brown, heart shaped, broad at the base, resembling oak leaves. These fronds protect the rhizome and collect humus. The fertile fronds are longer and wider, are pinnate or pinnatifid with prominent anastomosing (network) of veins. The sori is round and there is no indusium.

In parts of Asia the rhizomes have been used as a medicine for the treatment of typhoid fever and colds.

These ferns are good basket specimens, but can be grown on trees, in hollow logs, on rocks and in the ground. A well drained open mixture, containing compost, peat, sharp sand and some animal manure appears to be suitable. The mixture should be moist but a little on the dry side.

The rhizomes are best planted on top of the mixture and only partly covered.

Drynaria quercifolia (L) J. Sm.  
(kwér si fô'li å)

The rhizome is thick and fleshy and covered with scales. The (nest leaves) are about 40cm long and up to 30cm wide and are lobed and rounded. The fertile fronds grow to about 100cm long and up to 40cm wide and are pinnatifid and lobed. The sori is in two regular rows between the secondary veins.

This species was seen growing naturally on rocks and trees between Cairns and Mossman, North Queensland.

Plants are growing well under shade house conditions in the Sydney area, but needs warmth during winter.

Drynaria sparsisora (Desv.) Moore.  
(spär si só'rå)

The rhizome is thick, fleshy and covered with scales. This fern is generally smaller than D. quercifolia with fronds more stiffly upright. The sori is smaller and in irregular rows between the main secondary veins. This species is found growing in North East Queensland.

Drynaria rigidula (Sw.) Bedd.  
(ri jid'u lå)

The rhizome grows to about 2cm in diameter, is fleshy and creeping and covered with brownish coloured scales. The sterile (nest leaves) grow to about 20cm long and up to 10cm, wide at the base and taper to a point. The fertile fronds are pinnate, grow to about 150cm long and to about 20cm wide. The sori is round and placed in a single row on each side of the mid vein.

This is a common fern found growing on trees in the rainforest and sometimes among rocks in wet conditions. It has been recorded as far south as the N.S.W.- Queensland border.

There are outstanding specimens in cultivation, outside the Court House, Cairns and in the Cairns Botanical Gardens.

This species is growing successfully as a basket fern in protected positions in the Sydney area.

Drynaria rigidula cv. Whitei

The cultivar differs from the species as it is completely sterile and the fronds are pinnatifid and deeply cut.

The publication Australian Ferns and Fern Allies, D.L. Jones and S.C. Clemesha lists four cultivars of D. rigidula- Vidgeni, Whitei, Diverspinnae and Cristatum.

This cultivar apparently originated in North Queensland.

The fern is considered a collectors item. It has been grown successfully as a basket specimen in the Sydney area. Warmth is necessary in the winter months.

The pronunciation of the fern names were taken from "The Fern Dictionary".

(A)---

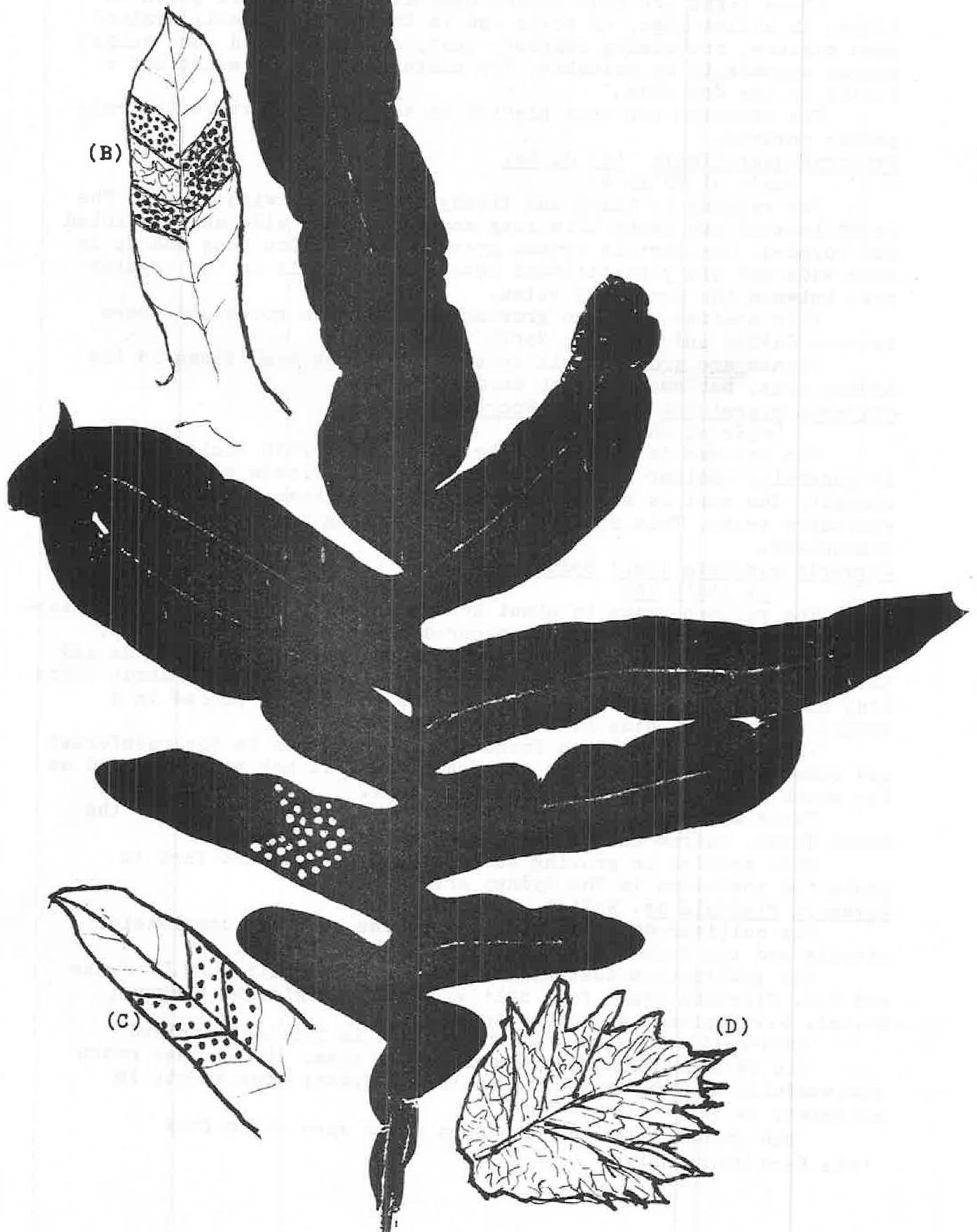
(A) Frond actual size *Drynaria quersifolia*

(B) Sketch of sori distribution  
*Drynaria sparsisora*

(C) Sketch of sori-distribution  
*Drynaria quersifolia*

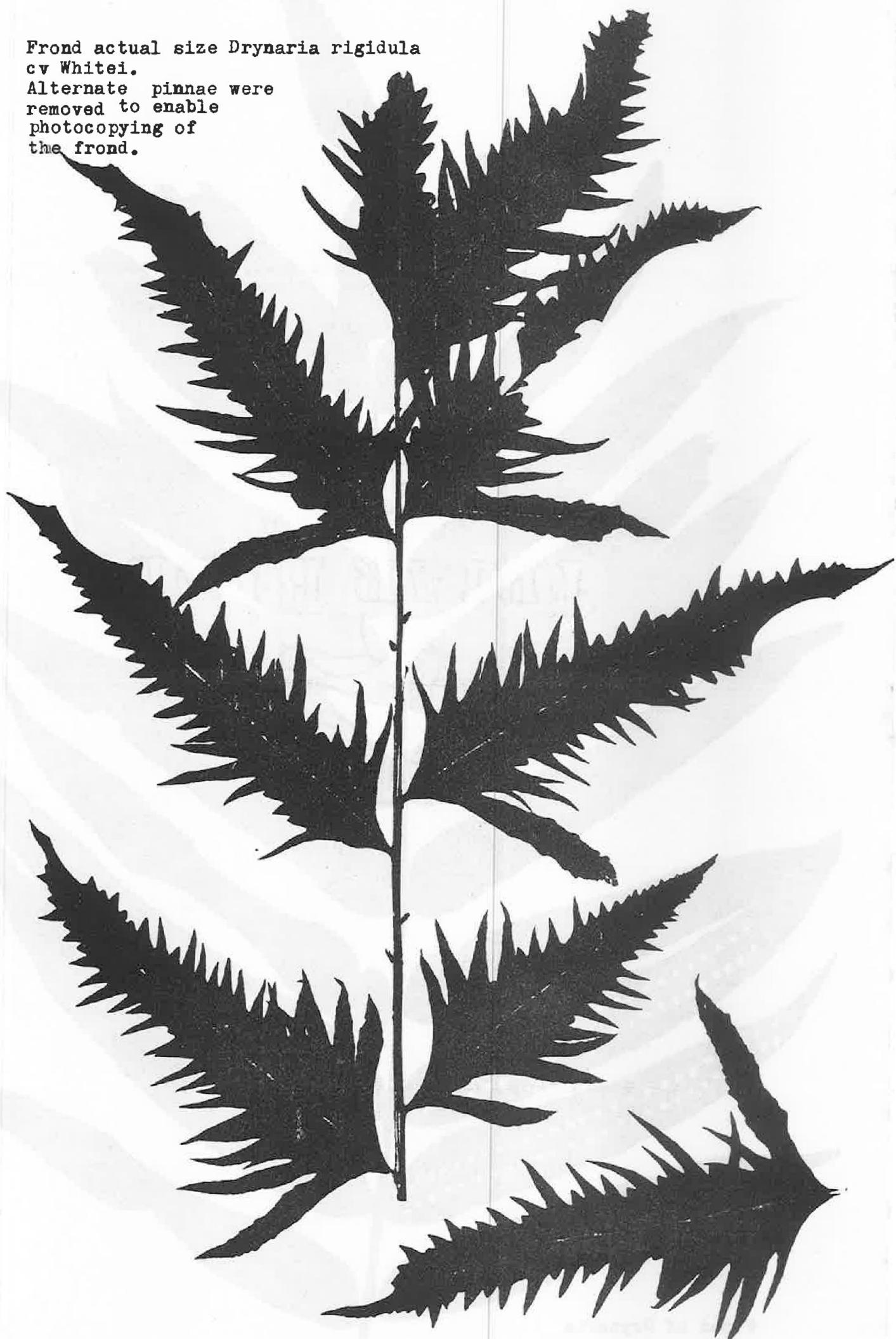
(D) Sketch of sterile frond  
(Nest leaf) of *Drynaria quersifolia*

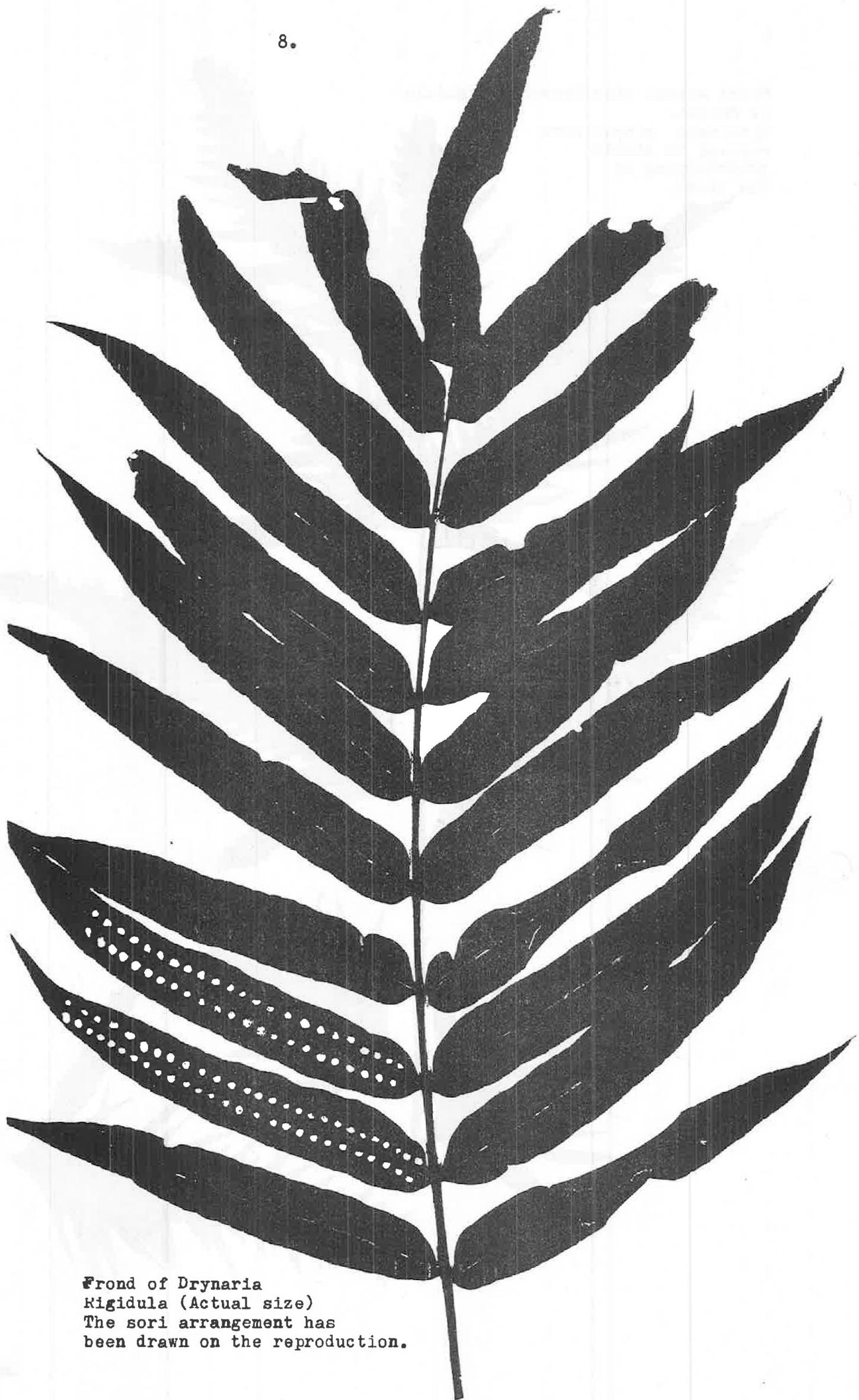
(B)



Frond actual size *Drynaria rigidula*  
cv Whitei.

Alternate pinnae were  
removed to enable  
photocopying of  
the frond.





Frond of *Drynaria*  
*Rigidula* (Actual size)  
The sori arrangement has  
been drawn on the reproduction.

RED CARPET.

We wish to extend a warm welcome to the following new members:-

FERN NURSERIES.New South Wales.

Marley's Ferns,  
5 Seaview St.,  
Mt. Kuring-Gai. 2080.  
4579168.

East Coast Ferns,  
Pacific Highway,  
Tyndale. 2463.

Closed Tuesday only.  
50 km North of Grafton.  
(066) 476415.

Strichlands Nursery,  
32 Kelton Street,  
Cardiff. 2285.

Fern Nursery,  
6 Nelson Street,  
Thornleigh. 2120.  
842684.

Margaret Morgan,  
107 King Street,  
Shortland. 2307.

Closed Saturday.  
Please telephone first  
(049) 511445.

Victoria.

Norma's Fernery,  
Carboor. 3678  
50 km. from  
Wangaratta.  
Closed Friday.  
No Mail Orders.  
(057) 295516.

Fern Frond 7,  
391-393 Maroondah  
H'way.  
Doncaster. 5108.

Mt. Evelyn Fern Nursery,  
63 York Road,  
Mt Evelyn. 3796.

The Fern Farm,  
Kangaroo Flat. 3555.  
(054) 478807.

Queensland  
Morans Highway  
Nursery,  
Neil Road,  
Woombye. 4559.  
1 km. north of  
big pineapple.  
(071) 421613.

Barrier Reef  
Nursery,  
Bruce Highway,  
Deeral.

Mt. Evelyn Fern Nursery, P.O. Box 14,  
Babinda. 4861.  
(070) 675226.

Victoria Point  
Nursery,  
5 Point Halloran Rd  
Victoria Point. 4163

Tallawalla Fernery,  
R.M.B. 2775,  
Nelson Bay Road,  
Salt Ash. 2301  
(049) 826564.

This is a short list of fern nurseries. Members are requested to submit the names of fern nurseries which they have found to be satisfactory. Perhaps there are members who have nurseries, who wish to be included in the lists.

There are still some of our booklets "A Selection of Items from Newsletters" available. This booklet contains extracts from newsletters numbers 2 to 20. Previously all new members were sent copies of these newsletters, this practice has been discontinued because the stock of back copies has been exhausted. The cost of the booklet is \$2.00, which includes postage, available from John Lee or myself.

The ferns selected for the June newsletter are from the Family Gleicheniaceae - Genus Gleichenia.

Line drawings or other information about these ferns, suitable for publication in your newsletter, would be appreciated

The field trips arranged in the past cover the same walks in the same areas, although recently the group visited Bola Creek in the Royal National Park. If any member knows of an easily accessible area, with easy walking conditions, suitable for a group outing, we would like to hear about it.

If you have any hints, been on a trip recently, found any new ferns, have any matters for discussion, or any information about native ferns please share with other members of the group.

More good news from Irene Cullen of Rochedale, advising that some of our South Queensland members are enjoying some interesting excursions. The following is their programme for the next few months:-

Sunday 21st April, 1985.

Joyce and Alan Wards, Mt. Glorious. Subject "Tree Ferns"

Sunday 19th May, 1985.

An excursion to be led by Peter Bostock.

For any further particulars contact Joyce (07) 2890147 or Irene (07) 3414272.

Stephen Groves, Groves of Ferns Nursery has informed me that he is no longer in the business of selling ferns.

Please note the end of May is the deadline for any items for inclusion in the June Newsletter.

*Phyll Brown*

(Mrs) Phyll Brown,  
Leader,  
Fern Study Group. S.G.A.P.