

S.G.A.P. - Fern Study Group - Newsletter

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LEADER: Molly Murray, 25 Nowill Street, Rydalmere 2116

SECRETARY: John Lee, 76 The Bulwark, Castlecrag 2068

HON. TREASURER: .. Faye Low, 151 Raglan Street, Mosman 2088

SPORE BANK: Phyll Brown, 254 Edgar Street, Condell Park 2200

DEAR MEMBERS:

I mentioned in our March Newsletter that the Sydney Artist, Betty Maloney, had accepted our commission to produce a water colour painting of a native fern. This is to be raffled and the proceeds used in the second stage of the Burrendong Arboretum Shade Area.

I am pleased to tell you that we have now taken delivery of the painting and that the chosen subject was *Doodia aspera*, commonly known as "Prickly Rasp Fern".

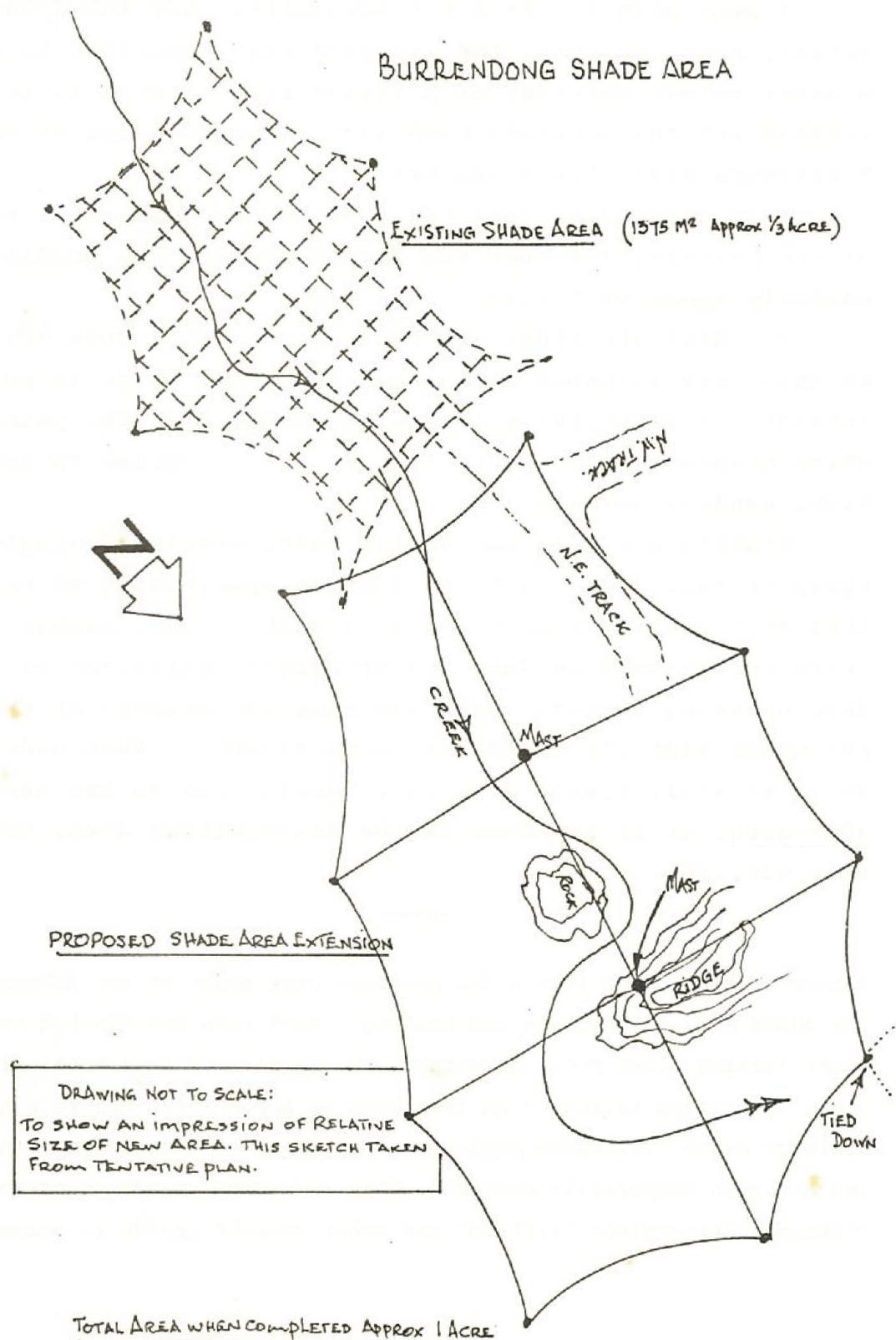
The delicate pinks and reds of the new fronds are featured by this very talented artist and the work, which is botanically correct, is beautifully framed and mounted. The painting, which measures 60cm X 40cm (20" X 16") is valued to-day at Eight Hundred Dollars.

Tickets are only One Dollar each, available singly or in books of ten. If you would like an opportunity to help the Arboretum and the chance to own a work of art, please do write for tickets to John Lee or myself (addresses as above). When ordering tickets, send the name and address of the purchaser plus one dollar for each ticket. When ordering books to sell, please send your requisition to the above addresses, or if resident in the Metropolitan area, you may ring 638.1084.

-oOo-

I have just returned from a few pleasant days spent at the Arboretum. The shade area looks green and healthy; good rain has flushed out the creek leaving clear pools of water. Ferns planted last November have grown on; these include fine specimens of *Arachniodes aristata* and *Psilotum nudum*. *Blechnum patersonii* plants have matured along the creek and although temporarily obscured, they will come to notice as the *Dicksonia antarctica*s "lift up" and other rampant growth is trimmed.

The lush growth belongs in part to *Diplazium dilatatum* or is it REALLY *D. esculentum*? This diplazium will again have to be identified and confirmed as native, or the exotic species removed - any volunteers? Another cause for concern is the common Green House Thrip which has persisted despite removing and burning the infested fronds and several applications of diluted metasystox. It appeared at first on *Blechnum nudum*, now after twelve months the thrip has spread to *Cyathea* and *Todea barbara*. Each affected fern has now been given a measured dose of the granular systemic poison, Disyston. The reduced sketch below is taken from a proposed plan (of anchor points) and is intended only to illustrate the dimension of the new area (and the reason for fund raising!). Points of interest are, the two masts designed to give height for tall palms, etc. and the "Ridge" - a natural shale wall harbouring the endemic species of *Cheilanthes*, *Pellaea paradoxa* and *Adiantum aethiopicum*.



EXCURSIONS:

The welcome rains have played havoc with some of our group outings this year. Fourteen keen members braved hazardous driving conditions on the Bell Line Road in March, but were unable to begin the programmed walk because of heavy and persistent rain. However at our rendezvous, The Bilpin Fruit Bowl, we held a meeting and conducted our usual raffle. The prize this time was an extremely dainty form of *Adiantum hispidulum* collected inland from Nambucca. Faye Low was the lucky winner.

Our April meeting at the home of Addie and John triggered another deluge. Again incessant downpours kept us indoors and caused our anticipated walk in the Lee's garden to be abandoned. Beginning at street level, steps and paths descend through this garden of rain-forest trees, shade tolerant and broadleaved plants and - naturally - ferns, to the gully floor where a creek runs, almost hidden by a colony of *Cyathea cooperi*. On such a day, we twenty-four visitors couldn't have been in better hands; Addie and John welcomed us with refreshments, collected wet coats and umbrellas and made us comfortable. The glass wall panels and doors of the living room allowed us to enjoy the garden greenery and we settled down to a meeting. Les Taylor conducted his fern study session. Using 'Australian Ferns & Fern Allies' as a reference, we discussed the following ferns:-

ACROSTICHUM AUREUM: Phyll and Viv Brown brought a large pot of this unfernlike fern for us to study;

AMPELOPTERIS PROLIFERA: Monotypic meaning one species only in the genus; Prolifera referring to the proliferous buds growing at random in the axils of the pinnae. Les brought along a fine basket specimen of *A. prolifera* and we were able to closely inspect the plantlets which had sprung from the buds. The unusual fronds, seemingly capable of indeterminate growth, make an attractive basket plant;

AMPHINEURON: We had fronds of a plant that we thought may have belonged in this genus, but the Browns had these identified later as *Cyclosorus interruptus*. (At the Herbarium).

ANGIOPTERIS EVECTA: A small plant was passed around. Some members have grown this plant from a stipule.

ANOGRAMMA and ANTROPHYUM: We studied the latter, also from the Brown's collection.

It was noted that ARACHNIODES ARISTATA makes a handsome garden specimen and isn't invasive in ferneries.

ARTHROPTERIS TENELLA: The last fern on our list; One of four Australian species from a genus of twenty small epiphytic or lithophytic climbers. This is one of my favourite ferns and the specimen that we had to study was beautifully presented in a wide but shallow basket 12cm X 40cm, lined with a mulch mat. Gerry Parker collected this specimen from private property on the Barrington Tops; it was a very small sample and, still attached to the piece of wood on which it was growing, was placed onto the liner with some leaf mould; now - five years later, the small rhizome has gradually covered the entire basket.

During the study period Les causes us to pause and consider the meaning of various words in the text; e.g.,

PROLIFEROUS: Producing buds or new plants vegetatively.

INDETERMINATE GROWTH : Growth (of an axis) when not limited by the arrest of the terminal (apical) growth point.

AXIS: Central column of inflorescence or other whorl of growth.

AXIL: The angle formed by a part in relation to its parent structure; e.g. as that formed by a leaf in relation to a stem.

STIPULE: The bract at the base of the petiole.

EPIPHYTIC: A plant nutritionally independent, but completely dependent on another plant for mechanical support.

LITHOPHYTIC: A plant that grows on stone (rock). The Browns donated two ferns to be raffled, a *Blechnum fluviatile* won by Sam Jack, and an *Asplenium bulbiferum*, collected in Tasmania and won by our hostess, Addie Lee

HEAVY RAIN BEGAN ON SATURDAY 21ST MAY AND THE WALK IN THE MEGALONG VALLEY ARRANGED FOR SUNDAY 22ND WAS CANCELLED.

-oOo-

Response to the Questionnaire was good. Lindee Anderson is evaluating the replies and a summary will be in September's Newsletter. "Slowcoaches" may send along the forms for the next few weeks, especially from districts of southern Australia so that comparisons can be made. Some members supplied pages of extra information and quite a few topics for the Newsletter were suggested. An Adelaide member would like more articles about ferns that grow in areas of low humidity and dry atmosphere. The collectors amongst us want only to know where to "get something different", and one lady who has never forgiven us for missing a visit to Sonters Nursery, wants timely notice of outings!

-oOo-

MICHAEL GARRETT is one of our four valued Tasmanian members and he is President of the Tasmanian Fern Society. In the following article, he tells us about an exciting journey and ferns encountered along the way.

Rafting Trip down the Franklin River: by Michael Garrett

At 8.30 a.m. on 4th December, 1982, with three companions, John, Peter and Urs, I arrived at the Collingwood River, a tributary of the Franklin River. It was a cold drizzly morning and the river was high and running fast. We spent the first of many tedious half hours blowing up our rubber rafts and before they were even in the water, Peter ripped his raft on the car door. After this was repaired and a few other delays, we finally set off down the river.

After only twenty minutes travelling of the two week journey I succeeded in flipping my raft completely over on a log, saturating most of my gear and giving me an unwelcome swim. Not long after John was also stuck on

a large log for some time, with the raft trying to squeeze with the torrent of water under the log and John much preferring to go over it.

Later on that day we arrived and made camp at the junction of the Collingwood and Franklin Rivers. The one thing that took my notice during the first day (and every other day of the trip) was the abundance of Blechnum vulcanicum. It was just about the most common fern on the river. That evening I checked out the ferns in the vicinity of the camp site, the most common species being Blechnum vulcanicum, Blechnum wattsi, Blechnum nudum, Blechnum fluviatile, Polystichum proliferum, Sticherus lobatus, and Grammitis billardieri. There was also an abundance of Grammitis magellanica ssp. nothofagetti with extremely thin fronds growing on 'horizontal' and 'leatherwood' trees. A huge plant of Lycopodium myrtifolium hanging from high up in a myrtle tree also caught my eye.

The next day the drizzle continued and we started our first day on the Franklin River. The river was still high and running fast and we had to 'line' our rafts through a few of the nastier rapids. During lunch Peter did the unforgivable and did not secure his raft properly to the shore - not a nice feeling to no longer see your raft where you had left it. We finally caught up with it a couple of kilometres downstream during which time it had negotiated several rapids without its owner. The end of the day saw a thrilling $\frac{1}{2}$ km long rapid in which Urs holed his raft and John got caught in a 'stopper'. A stopper happens after a waterfall where the surface water flows back on itself, the result being that no matter how hard you paddle you are forced back into the waterfall which floods the raft. Even worse is if you are thrown out of the raft in a stopper. Apparently most people become exhausted trying to swim out, sink to the bottom and get washed out with the deeper current flowing through! Urs put a large rip in the floor of his raft at the beginning of the rapid and spent the rest of the rapid hanging on for dear life floating on top of his raft.

We spent that night and the next three nights camped under old Huon Pines at the end of Irenabyss Gorge. Here I counted 22 different fern species including the very common Blechnum vulcanicum, Blechnum chambersii, Dicksonia antarctica, Rumohra adiantiformis, Microsorium diversifolium, Hymenophyllum flabellatum and Asplenium bulbiferum.

While at Irenabyss we attempted to climb Frenchmans Cap but had to turn back due to bad weather. This same weather also meant a few extra days stay at Irenabyss while we waited for the water level to go down after heavy rain. During this time we engaged in the popular Franklin River past time of drying clothes, taking photos and sunbaking when the weather allowed. We also had feeds of fresh trout which Peter caught fly fishing. He had ingeniously carried a fly rod within his hollow aluminium paddle.

On the sixth day we set sail again, this time under blue skies which stayed with us for the next five days. Urs (if you're wondering about the name, he is from Switzerland and is no relation to Ursula Andress) carried with him a camera within a waterproof case so as he could take all the action shots. He always had much pleasure in walking ahead past bad rapids to take photos of us and hoping we'd capsize to make a good shot. On this day we had the last laugh as after we'd successfully negotiated a small waterfall he walked back to his raft, came over the fall and flipped his raft completely over.

That night we slept under the stars upstream of 'The Churn'. This campsite was truly idealic as manferns, trees and ground ferns were growing in clean white sand, the whole resembling a tropical island (if you imagine the manferns as palms). The usual ferns abounded including Grammitis megellanica ssp. nothofagetti, Hymenophyllum peltatum, Gleichenia microphylla, Histiopteris incisa and Hypolepsis rugosula.

Next morning was the first of four days in 'The Great Ravine'. That night we slept at the base of a cliff at 'The Coruscades' where glow worms and Lastreopsis hispida abounded. I saw this fern on a few other occasions on the Franklin River and it was one fern I had not expected to see there. Other ferns at this spot included Lycopodium myrtifolium, Asplenium terrestre, Hymenophyllum australe and Pteridium esculentum.

While in 'The Great Ravine' several time consuming portages were undertaken to bypass dangerous rapids. The next day saw the longest of these - about four hours to bypass 'Thunderush' only to end less than 100 metres downstream from where we started. The many sheltered crevices and water courses on this portage track were truly a haven for ferns but unfortunately I did not get time to explore them more. New ferns sighted here were Todea barbara, (thereafter very common) and Sticherus tener. That night was spent on the side of a cliff at 'The Cauldron' 30 metres above the river.

The following day was much easier rafting with thankfully no portages. About midday we made camp at Rafters Basin, the weather being so hot, that I spent the remainder of the day fern hunting wearing nothing but sandals, a camera and half a dozen leeches. Here I saw Hymenophyllum marginatum with fronds to 5 cm long growing in an exposed position on a log, partially hidden by grass. No doubt this fern is very abundant on the Franklin but I had overlooked it. Also found one only large plant of Allantodia australia (syn. Diplazium australe) and as much as I looked, I could not find any more.

As with everywhere else on the Franklin, filmy ferns covered every rock, log and manfern. Other filmies sighted and not already mentioned were Hymenophyllum cupressiforme and Hymenophyllum rarum. The one filmy that I surprisingly did not see was Polyphlebium venosum. Gleichenia dicarpa also abounded at Rafters Basin. While I was fern hunting, Peter had landed four more trout on a dry fly.

The next day saw a small portage around a very beautiful spot with the less attractive name of 'The Pig Trough'. Here was a haven for the fern photographer with all ferns growing in just about full sun and loving it. Pig Trough Falls also made a very picturesque backdrop. The only additional fern noticed was Blechnum minus but just about every other fern previously mentioned grew here. We learnt at the end of the trip that a canoeist had been killed here a couple of days before we arrived.

The next two nights were spent just downstream at Newlands Cascades. We spent a rest day sunbaking and li-loing down the rapids. Lastreopsis hispida was very common as was Tmesipteris billardieri. Higher up the cliffs on the drier rocks I saw Asplenium flabellifolium for the first time. Also saw Ctenopteris heterophylla for the first time and was surprised not to have seen it before. One of the highlights of this area were the extremely long (60cm) and narrow fronds of Hymenophyllum flabellatum which grew from rock crevices, rather than on its usual host manfern.

The last two days saw the river widening with the rapids becoming non-existent and finally flowing into the mighty Gordon River. The last night was spent at the 'Greenie' camp near Butler Island and while racing from there to board a fishing boat bound for Strahan, I spotted several large plants of Asplenium flaccidum.

I was disappointed in not seeing Lindsaea trichomanoides and Cysopteris filix-fragilis which certainly grow in that area, and surprised in not seeing Asplenium trichomanes and Polyphlebium venosum. It is quite probable that these ferns grew on the limestone formations on the lower Franklin which I did not get time to check out. Hopefully I will still be able to see them next time. In compensation it was good to see Lastreopsis hispida and the abundance of Todea barbara which is not all that common in Tasmania.

-oOo-

DURING MARCH, PHYLL and VIV BROWN, ACCOMPANIED BY MONICA AND ARTHUR SHARP, SPENT FOUR WEEKS TOURING TASMANIA.

Viv wrote this short account.

We set off, having planned to visit Tasmania's historic sites, to

fish for trout and to see the ferns growing naturally in the countryside. Two members of the Tasmanian Fern Society, Michael Garrett of Berridale near Hobart and Mrs. D. Bowen of Scottsdale in the north-east of the island made us very welcome and showed us through their ferneries.

Michael offered us many ferns from his collection, which we couldn't accept because of carrying space. But we did make an exception for two large pots of a most unusual Blechnum nudum. This fern has bipinnatifid and dimorphic fronds, with the "fertile" fronds rising, as they do in typical nudums, from the centre of the plant but bearing no spore, the fern is sterile.

On the far north-western coastline, we saw Asplenium obtusatum growing in exposed rock crevices and in a creek bed near Mt. Wellington, we saw an immense Blechnum fluviatile; other ferns not often sighted on the mainland were, Asplenium flaccidum, Tmesipteris billardierii, Blechnum vulcanicum and Blechnum chambersii.

A surprising feature of the National Parks were the walking paths, which were constructed of felled Dicksonia antarctica laid side by side, some of them sprouting fronds; the locals call these tree ferns "Manferns" and in the Myrtle and Beech Rainforests of Northern Tasmania, they become massive, their trunks covered with huge specimens of Asplenium bulbiferum and the climbing Rumohra adiantiformis. We did see some of historical Tasmania and Arthur did catch a trout!

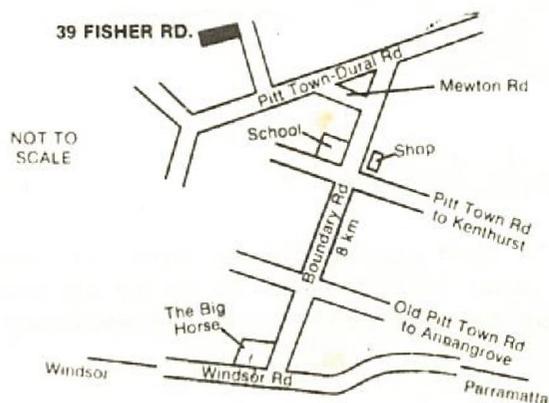
PROGRAMME:

JULY - SUNDAY 17TH - 10AM : Meet at the Bilpin Fruit Bowl. This time we hope to enjoy a walk at Pierces Pass. Peter Hind will lead and we should see 23 fern species.

AUGUST - SUNDAY 21ST - 10AM: Meet at the "Big Horse" corner of Windsor & Boundary Roads, Maraylya. A visit to the Green Frond (wholesale) Fernery. 39 Fisher Road, Maraylya.

SEPTEMBER - SATURDAY 10TH & SUNDAY 11TH: Help needed with the fern display at the N.S.W. Regional Wildflower Show held at the Peakhurst High School. Set up day Friday 9th; bring along your attractive or interesting native fern to add to our exhibit. Phyll and Viv are buying and organising the sale of ferns so a good variety is assured. Our raffle for Burrendong will be drawn at 3p.m. on the 11th. We hope to also raffle a lovely Platycerium superbum to bolster our finances.

OCTOBER - SUNDAY 23RD - 10AM: Meet at the Pyramid Glass House, Royal Botanic Gardens. We will be taken on a tour of the reserve glasshouses. If the weather is pleasant bring your lunch and enjoy the gardens.



Molly Murray
.....
(Mrs.) Molly Murray - Leader
Fern Study Group - S.G.A.P.

"THE BIPINNATIFID NUDUM"

Michael wrote to Phyll, describing the situation in which he found the unusual *Blechnum*.

"I came across them almost by chance; a friend had mentioned this strange fern growing on his father's property at Copping, about half way between Hobart and Port Arthur. On investigation I found quite a large colony of this form of *Blechnum nudum*, about 100 plants; none of the ferns were taller than about 45cm and they were growing in full sun. The area had been heavily cleared for agricultural purposes, but previously would have been dry sclerophyll forest. They were growing beside a dry creek bed (in summer at least) and their crowns were buried deep in soils from floods. You would have noticed that spore was absent from the "fertile" fronds; all the plants that I have are offsets from the two plants that I collected.

One stock plant is in a tub under shade cloth and the other, which is the healthier of the two, is in the ground in almost full sun. You probably realise that this is different from the form which becomes bipinnatifid under luxurious conditions and is quite common. You may have noticed that I have used past tense as the area has since been bulldozed for an agricultural dam."

TASMANIAN FERN,

UPPER SECTION OF FRONDS.
(ACTUAL SIZE)



Dr. Mary Tindale remarked that she hadn't seen anything like this fern before and described it as a "freak nudum". Peter Hind considers it to be an attractive mutant and because it proliferates freely, has the potential to be an exciting Australian fern cultivar worthy of registration.