A.N.P.S.A. Fern Study Group

Newsletter Number 149

ISSN 1837-008X DATE: September, 2021

LEADER: Steve Lamont: mobile: 0409 955 224; email: stevenl@diamondconway.com.au
TREASURER & MEMBERSHIP: Dan Johnston, 9 Ryhope St, BUDERIM, Qld 4556. Tel. 07 5445 6069, mobile: 0429 065 894; email: ANPSAferns@bigpond.com
NEWSLETTER EDITOR: Dan Johnston, contact as above.

From the editor

I would like to express my sympathy for members living in NSW and Victoria for the disruption of their lives as a result of COVID. In the other states, life has been relatively normal. Here in Queensland, we wear masks in public and check in at venues with an app, and have had a couple of short sharp lockdowns, but for most of us, life and fern group activities have been pretty much as normal. Wendy and I have even been able to continue volunteer activities in the Northern Territory, South Australia and regional Queensland with only a little disruption.

In recognition of their suspension of activities, I have suggested to Steve that we give members in NSW, Vic and ACT another free year, and having received no dissent from that have gone ahead with that.

As it is the first newsletter of the financial year, you will receive a notice as to whether you owe membership fees in the body of the email distributing this newsletter, or on a flier with the newsletter if you receive newsletters by post.

Port Macquarie Gathering Deferred One Year

For obvious reasons the Port Macquarie trip is infeasible this November, and Jeff Lynne has suggested a "Save-The-Date for November 2022", so we are hopefully rescheduling:

Fern Study Group Port Macquarie Fern Gathering

When: 4 days – Early November 2022

Program for South-east Queensland Region

Helen Jeremy

Sunday 3 October – Cougal Cascades, Upper Currumbin Creek, Mount Cougal section, Springbrook National Park. Meet at 9.30 am at the carpark and picnic area at the very end of Currumbin Creek Road. We visited here in 2018 but it's worth revisiting because it's an easy walk with 25+ species of ferns to find and the option of further exploring along the creek or into the rainforest. The Cascades track is 1.6 km return and is a bitumen path with a gradual rise. Mobile reception is limited.

November – to be confirmed. It is expected that an activity for Sunday 7th November will be organised at the October meeting. South-east Queensland members will be advised.

Sunday 5 December – Christmas gathering. Meet at Bev and Bill's home in Chandler, from 9.30 am, for our end of year gathering and traditional "round-robin" raffle fern swap. BYO morning tea and lunch, as well as a fern(s) to swap if you can.

Due to COVID-19 requirements, please RSVP for all SEQ excursions to Helen Jeremy at heljeremy@gmail.com

Sydney Group Meeting Reports

Steve Lamont

Cascade Falls – 17 April 2021 – addendum

(ed. In preparing newsletter 148, I accidentally left out the list of ferns for Cascades Creek. My apologies to members and Kevin in particular for this omission.)

List of fern species for Cascades Creek, Macquarie Pass NP

Kevin Mills

Note the list is also for the creek above the end of the walking track.

R – Recorded lower creek valley (track), 17 Apr. 2021. F – fertile fronds present.

Adiantum aethiopicum, *A. diaphanum* R F, *A. formosum*, R F, *A. hispidulum* R, *Alsophila australis* (*Cyathea cooperi*) R F, *Arthropteris tenella* R F, *Asplenium australasicum* R F, *Asplenium flabellifolium*, *Blechnum cartilagineum* (*Oceaniopteris cartilaginea*), *Blechnum minus* (*Parablechnum minus*), *Blechnum neohollandicum* (*Doodia aspera*) R F, *Blechnum nudum* (*Lomaria nuda*), *Blechnum parrisiae* (*Doodia australis*), *Blechnum patersonii* (*Austroblechnum patersonii*) R F, *Christella dentata*, *Calochlaena dubia* R, *Davallia pyxidata*, *Dendroconche scandens* (*Microsorum scandens*) R F, *Dennstaedtia davallioides* R, *Deparia petersenii* subsp. *congrua* R F, *Diplazium australe* R, *Gleichenia dicarpa*, *Histiopteris incisa*, *Hymenophyllum cupressiforme*, *Hypolepis glandulifera* R, *Lastreopsis decomposita**, *Parapolystichum acuminatum* (*Lastreopsis acuminata*) R F, *P. microsorum* (*L. microsora*) R, *Pellaea falcata* R, *P. nana*, *Platycerium bifurcatum* R, *Polystichum australiense*, *Pteris tremula* R, *P. umbrosa* R, *Pyrrosia rupestris* R, *Sceptridium australe* (*Botrychium australe*), *Sphaeropteris australis* (*Cyathea leichhardtiana*), *S. cooperi* (*Cyathea cooperi*), *Sticherus flabellatus* R, *S. lobatus*, *Todea barbara*. [* NOT *Parapolystichum*! And apologies to Kevin – names have been converted or restored to Qld/NSW standard taxonomy, with alternative/older names in brackets].

Sydney FSG May 2021 Meeting – Home of Margaret and Peter Olde at Illawong

Margaret and Peter's place is beautiful. They are those sensible people we all wish we were who seemed to have had the hindsight that it took the rest of us thirty years to find about buying the right property – they had 2020 vision in 1990.

Apart from the fabulous views, some highlights of the garden include…

Dendroconche (*Microsorum*) *scandens* climbing a tree-fern trunk after years of encouragement

Cute little bear's foot paw of *Aglaomorpha meyeniana*

Zealandia pustulata (*Microsorum pustulatum*) happily scrambling over a rock platform

Dendroconche sayeri (Colysis sayeri) in the fernery – very slow-growing but now more than a metre square

The ‘world’s biggest’ *Drynaria rigidula* slowly spreading across a rock...

Davallia embolostegia (?)

The red hair at the base of *Cibotium barometz* (the Scythian lamb)

Drynaria rigidula ‘Whitei’

Study – Australian *Doodia* classification

Peter Hind

We discussed the two current alternative treatments of Blechnum and other *Blechnaceae*, particularly those species traditionally included in *Doodia*.

Perrie *et al.* in 2014 proposed to include *Doodia* and several other smaller genera such as *Pteridoblechnum* in an enlarged *Blechnum*. This is currently accepted, but not fully implemented at NSW (Sydney Herbarium). The combinations for the Australian species formerly in *Doodia* are:

Blechnum dissectum	was	*Doodia dissecta*	
Blechnum doodianum	was	*Doodia heterophylla*	
Blechnum hindii	was	*Doodia hindii*	not sampled
Blechnum lineare	was	*Doodia linearis*	
Blechnum maximum	was	*Doodia maxima*	not sampled
Blechnum medium	was	*Doodia media*	(Qld and New Guinea)

Perrie *et al.* also examined New Caledonian material similar to *D. media*, that came out in a different subclade close to *B. parrisiae* and *B. neohollandicum*. *D. media* in the strict sense is not recorded for New Caledonia. This same undescribed taxon is recorded for Norfolk Island and Rarotonga (Green refers to it in vol. 49 of Flora of Australia on page 614 – see also the herbarium specimen image at end of this study report).

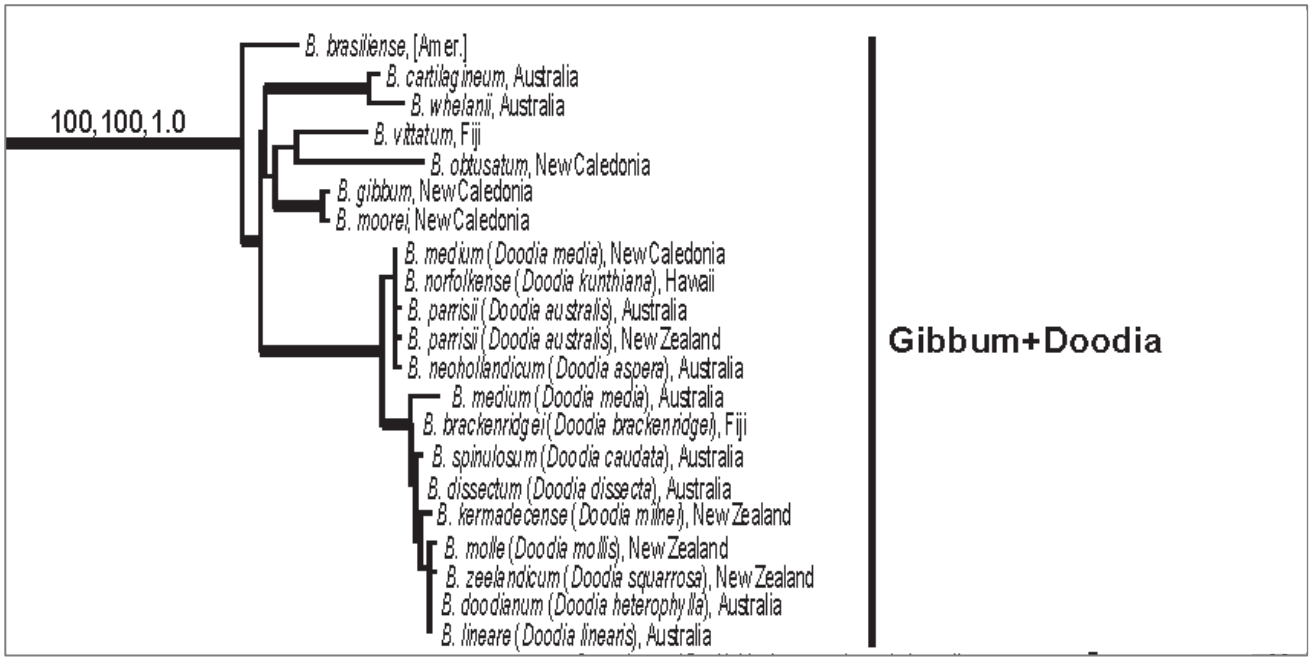
Blechnum neohollandicum	was	*Doodia aspera*	
Blechnum parrisiae	was	*Doodia australis*	
Blechnum rupestre	was	*Doodia caudata*	

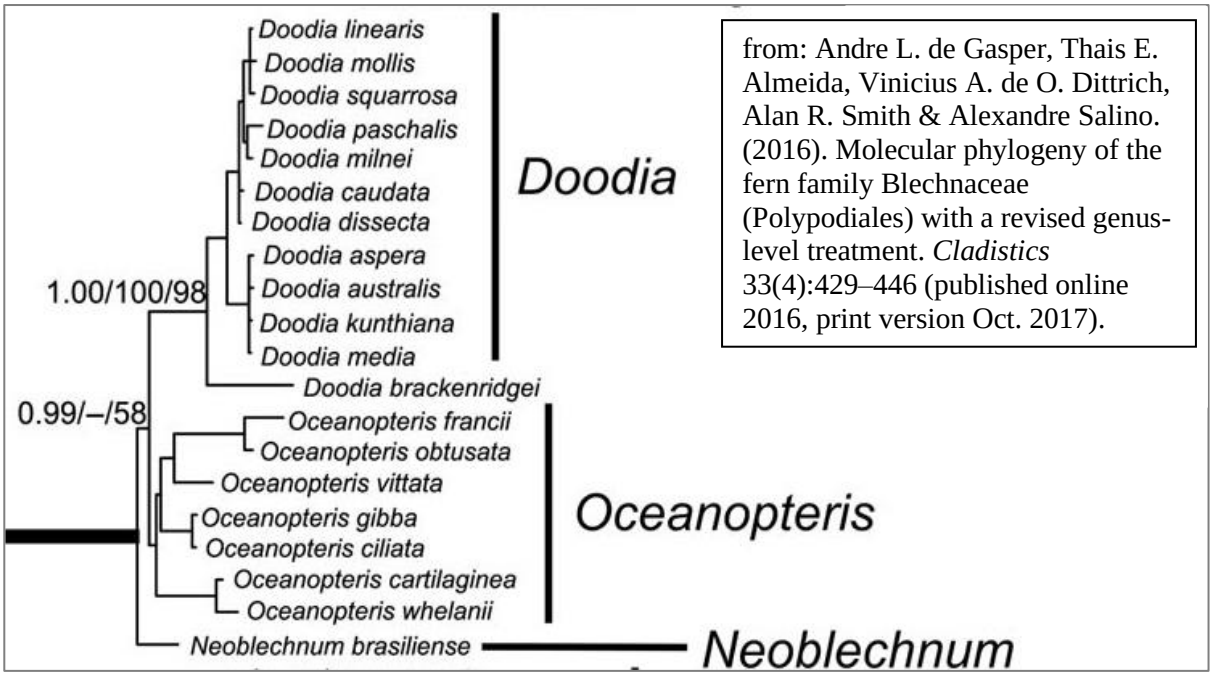
For *D. caudata*, Perrie *et al.* incorrectly used *Blechnum spinulosum* which is a synonym of *Blechnum moorei*. Note also in the diagram below, *parrisiae* is incorrectly spelt – '*parrisii'* would be applied to a man, but this is named for Barbara S. Parris, hence '*parrisiae'* must be used.

Gasper *et al*. in 2016 venture the other way – retaining *Doodia* as is, but splitting *Blechnum* into many different genera. Their newly defined *Blechnum* consists of a group of New World species centered around *Blechnum appendiculatum*.

Below are copies of the part of the cladograms from both papers that deal with *Doodia*.

1. **Perrie et al. 2014 cladogram:** from Leon R. Perrie, Ruby K. Wilson, Lara D. Shepherd, Daniel J. Ohlsen, Erin L. Batty, Patrick J. Brownsey & Michael J. Bayly (2014). Molecular phylogenetics and generic taxonomy of *Blechnaceae*. Taxon 63(4): 745–758 (Aug. 2014).





from: Andre L. de Gasper, Thais E. Almeida, Vinicius A. de O. Dittrich, Alan R. Smith & Alexandre Salino. (2016). Molecular phylogeny of the fern family Blechnaceae (Polypodiales) with a revised genus-level treatment. *Cladistics* 33(4):429–446 (published online 2016, print version Oct. 2017).

2. The same Group from Gaspar *et al.* 2016 reaches a similar relationship tree (above).

In the updated taxonomy, the specimen in this image should be identified as *Blechnum* sp. aff. *parrisiae*, while it remains an undescribed species.

South-East Queensland Meeting Reports

Maiala – 6 June 2021

Helen Jeremy

The Rainforest Circuit at Maiala day-use area in D'Aguilar National Park near Mt Glorious is a 2 km walk through subtropical rainforest. While it was rather busy on this sunny but very chilly winter Sunday, it was fabulous to see lots of young children discovering the rainforest. For the fern lover, there is a good range of 20+ ferns to be found, with the highlight being patches of *Crepidomanes vitiense*, and that was our main quarry.

We headed anti-clockwise on the circuit and saw several of the usual suspects in the more open, drier areas, like *Adiantum hispidulum* var. *hispidulum*, *Blechnum cartilagineum* and *Blechnum neohollandicum* (*Doodia aspera*), before we descended to the creek. *Sphaeropteris australis* (*Cyathea leichhardtiana*) became a dominant fern at the sides of the track.

Once in moister territory, we found many *Arthropteris beckleri* plants, and *Adiantum diaphanum*, with its black bristles on the pinnules, as well as *Diplazium assimile* beside the creek. We were pleased to be able to inspect *Parapolystichum smithianum* (*Lastreopsis smithiana*) with its tufted fronds and erect or 'ascending' rhizome. The fronds of this fern invariably begin in a whorl around the rhizome, with the first few centimetres of the stipe more or less at right angles to the rhizome, before the stipes turn to place the lamina of the frond towards the light. We observed that it is a softer fern than *Lastreopsis marginans* (more herbaceous than coriaceous to use technical terms), looking somewhat like *Parapolystichum microsorum* (*L. microsora*) but glossy. It can also have very brittle foliage – the fronds segments of mature plants may break rather than bend when handled.

After crossing Palm Creek, we began the ascent out of the gully. Members recalled previously seeing two trees with *Crepidomanes vitiense* patches along this uphill stretch and we were delighted when George found a new (for us, anyway) third patch on an *Archontophoenix cunninghamii* (Piccabeen Palm) on the left at the start of the incline. We readily found the two known patches, on an *Argyrodendron trifoliolatum* (Brown Tulip Oak) and a *Sloanea woollsii* (Yellow Carabeen) further up the slope. The specimens were looking a bit dry and it was interesting to watch them reinvigorate after being given a splash of water.

Warming up in the sunshine after leaving the cold forest, we spotted a colony of *Hypolepis glandulifera* at the edge of the picnic area that we had missed on our entry.

Species seen: *Adiantum diaphanum, Adiantum formosum, Adiantum hispidulum* var. *hispidulum, Arthropteris beckleri, Arthropteris tenella, Asplenium australasicum, Blechnum cartilagineum, Blechnum neohollandicum* (*Doodia aspera*)*, Blechnum rupestre* (*Doodia caudata*)*, Crepidomanes vitiense, Diplazium assimile, Hypolepis glandulifera, Lastreopsis marginans, Parapolystichum microsorum* (*Lastreopsis microsora*)*, Parapolystichum smithianum* (*Lastreopsis smithiana*)*, Microsorum scandens, Platycerium bifurcatum, Platycerium superbum, Pyrrosia rupestris, Sphaeropteris cooperi* (*Cyathea cooperi*)*, Sphaeropteris australis* (*Cyathea leichhardtiana*).

Note from Peter Bostock: the rhizome of *P. smithianum* can be horizontal, at least when young, particularly when germinating on a rocky surface. An 'ascending' rhizome may occur when such a plant grows on a (semi-) vertical rock face or earthen bank, and the rhizome therefore grows more or less erect but keeps contact with the substrate. I have seen truly horizontal rhizomes, too – for example in the Bunya Mtns not far from Dandabah – where a mature and very large plant was growing in a muddy creek! We discovered this plant in 2003, during a Fern Study excursion, and it was a new record for the Bunya Mtns (see FSG Newsletter 103 for further information).

The Knoll – 4 July 2021

Helen Jeremy/Graham McDonald

Ten members toured the Sandy Creek Circuit at The Knoll in Tamborine National Park on a Sunday, sporting mandatory masks. Those of us from Brisbane were feeling lucky to have been let out of a lockdown on the Friday evening.

On the path down to the circuit, we spent some time showing newer members the difference between *Adiantum hispidulum* var. *hispidulum* and *Adiantum silvaticum*. We noted that *A hispidulum* has a helicoid structure, is darker green with pink new growth, has white hairs on the pinnules and numerous sori, while *A. silvaticum* is a paler green, with glabrous pinnules and 1-5 sori.

The circuit travels approximately 500 m down either side of Sandy Creek. Even though we were armed with Peter Bostock's list from the 2004 visit, with the ferns in sequence travelling

anticlockwise, we illogically set off in a clockwise direction, perhaps to make the task more challenging!

By the creek, there were large numbers of *Parapolystichum munitum* (*Lastreopsis munita*), as well as *Abrodictyum caudatum* growing on tree ferns. A few of the *P. munitum* were quite large and we wondered whether they might be another fern - it is often confused with the closely related *Arachnoides aristata.* However, they were indeed *P. munitum*, which can form very large fronds reaching 90 cm even though they tend to be generally much smaller. The easiest way to tell the two species apart is to look closely at the pinnule tips. *A. aristata* has one large central "tooth" and a couple of minute ones either side; *P. munitum* has 4-5 teeth of more or less equal size. Also, the rachis ridges are not continuous with the leaf margins in *A. aristata*.

We also found *Asplenium flabellifolium*, which is fairly uncommon here. It occurs at Jellurgal (Burleigh Heads National Park). It is usually met on shaded clay banks, crevices among boulders, and on tree fern trunks. It has the habit of developing prostrate fronds which then root at the tips, thus forming a small ground-covering colony.

We had no trouble finding *Crepidomanes vitiense* on a *Sloanea woollsii* (Yellow carabeen) using a photo of the host tree from 2004.

Species seen : *Abrodictyum caudatum, Adiantum atroviride, Adiantum diaphanum, Adiantum formosum, Adiantum hispidulum* var. *hispidulum, Adiantum silvaticum, Alsophila australis* (*Cyathea australis*), *Arthropteris beckleri, Arthropteris tenella, Asplenium australasicum, Asplenium flabellifolium, Blechnum cartilagineum, Blechnum neohollandicum* (*Doodia aspera*), *Blechnum rupestre* (*Doodia caudata*), *Calochlaena dubia, Crepidomanes vitiense, Christella dentata, Davallia pyxidata, Dendroconche scandens* (*Microsorum scandens*), *Diplazium assimile, Drynaria rigidula, Hypolepis glandulifera, Lastreopsis marginans, Nephrolepis cordifolia, Parapolystichum microsorum* (*Lastreopsis microsora*), *Parapolystichum munitum* (*Lastreopsis munita*), *Pellaea nana, Platycerium bifurcatum, Platycerium superbum, Pteridium esculentum, Pteris tremula, Pteris umbrosa, Pyrrosia rupestris, Sphaeropteris cooperi* (*Cyathea cooperi*), *Sphaeropteris australis* (*Cyathea leichhardtiana*).

Ian Inglis pointing at the colony of *Crepidomanes vitiense*.
Photo: Peter Bostock 2004

Crepidomanes vitiense – Photo: Graham McDonald

Other Articles

Relocation of Platycerium superbum

George Hardy

About 35 years ago I purchased a small plantlet (12 cm) of *Platycerium superbum* at Coles Variety store in Burwood NSW. I attached it to a 1.5 m tall tree stump where it grew and grew without receiving much care apart from us keeping an eye on it. Some years later we moved to our current address and we sawed off the tree stump and took it together with the now substantial superbum to our new address. Here I attached it to another tree stump via a large screw into the new stump. And the plant kept growing to an impressive size.

From March to June 2021 we had 624 mm rainfall in our area which was too much for the screw. It dislodged and dumped the fern without damaging it. I estimate that at that time it weighed 40 to 50 kg and was 1.5 m wide and 90 cm high. After turning it to prevent damage I consulted the handbook again. Here it said that it would be possible to extend the life of a *superbum* for a long time by cutting back the root mass taking care not to injure the bud.

I carefully sawed the plant away from the original host. It was still very heavy. I cut another two slices up to a distance of 25 cm away from the front. The slices consisted of root mass which resembled peatmoss and were heavy with absorbed moisture. I then attached it to a board and hung the assembly with the help of my son on the brick wall of our garage where the eves also give some protection. The shield fronds are still sticking out into the open and are able to collect water and debris.

It is now August and after eight weeks in its new location the plant seems healthy. I look forward to new growth which will confirm that the prune has been successful.

After the fall

Cut to size

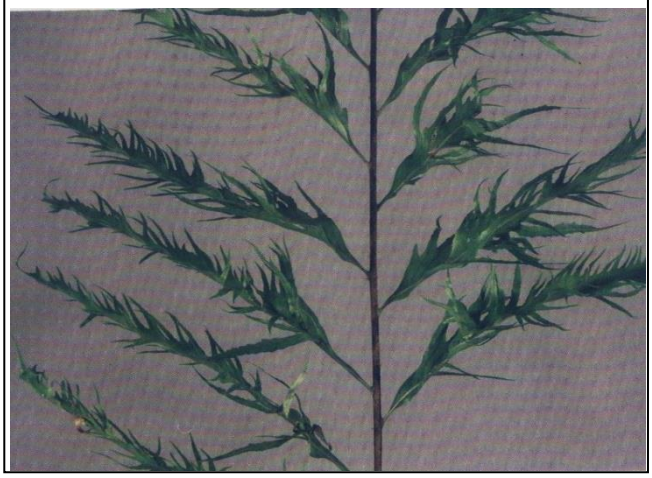
Detached roots

Rod Pattison's *Drynaria rigidula* cultivars **(continued from 148)**

Tony Clarke

Below: *D. rigidula* 'Laciniata' Hort. This is the only serrated pinnae type that produces fertile spore.

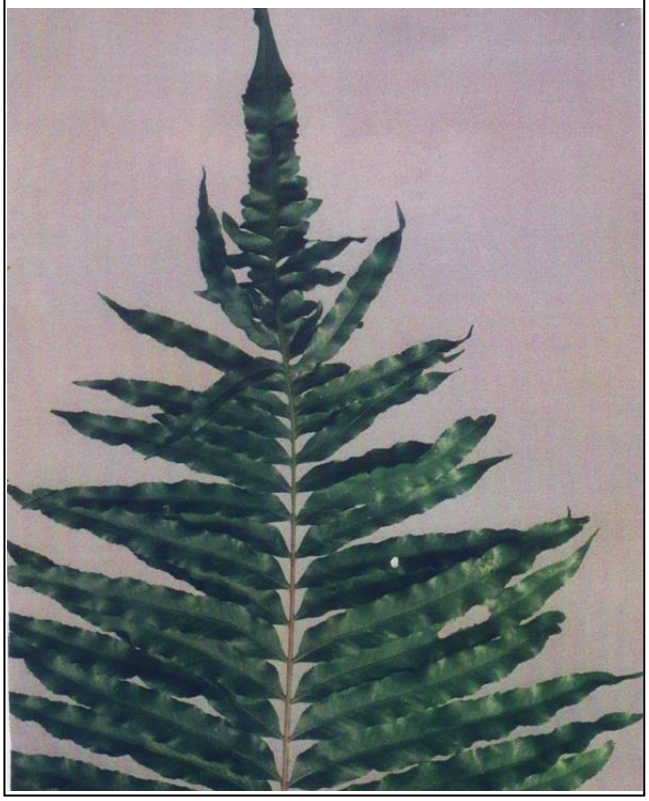
D. *rigidula* 'Malcolmii' Hort. This photo shows juvenile growth; mature fronds are similar to D. *rigidula* 'Whitei' Hort.



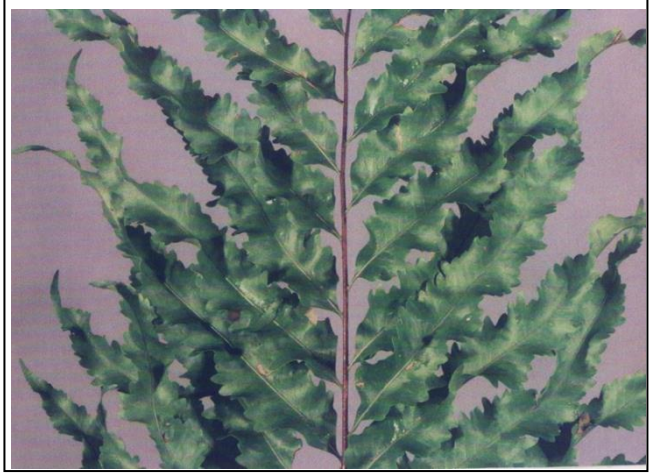
D. rigidula 'Mt. Tibrogargan' Hort.

D. rigidula 'Lindeeae' Hort. with serrated pinnae with lower pinnae being larger and more heavily serrated than those toward the end.

D. *rigidula* 'Mt. Walsh' Hort.



D. rigidula ‘Pattisonii’ Hort.
Blunter serrations of pinnae, pinnae undulate.



D. rigidula ‘Phamiae’ Hort.
Upper pinnae much divided, lower less so.

Images below: *D. rigidula* ‘Roderickii’ Hort.
Serrations of pinnae are finer than
D. rigidula ‘Whitei’ & pinnae are narrower.

Images below: *D. rigidula* ‘Schottiae’

D. rigidula ‘Willersdorfii’ Hort.

D. rigidula ‘Stappiae’ Hort.

D. rigidula ‘Wrightii’ Hort.

Financial Statement 2020-2021 Financial Year

Dan Johnston

Initial balance 1st July, 2020	12,167.97
Plus Membership fees	210.00
Term deposit interest	48.05
Donations	65.00
Subtotal	12,491.02
Less Newsletter costs	298.22
Final Balance 30th June, 2021	**12,192.80**

$12,000 is held as a term deposit; and $192.80 is in the Society Cheque Account. Both bank accounts are with the Commonwealth Bank.

Fees paid in advance represent a financial liability.

Subscription Year	Number Received	Liability
2021-2022	35	$175
2022-2023	18	$90
2023-2024	8	$40
2024-2025	1	$5
Total		**$310**

ANPSA Fern Study Group Fees for 2021–2022

Dan Johnston, treasurer

The annual subscription to the Fern Study Group is $5 for per household receiving a single copy of the Fern Group Newsletter and is due on 1st July. Please note also that membership of an ANPSA affiliated body, such as Native Plants Queensland, is a necessary prerequisite for study group membership.

Newsletters are sent by email (colour images, Adobe Acrobat pdf file) or by post (B&W images).

If you get your newsletter by email, the current paid-to date will be in the body of the email.

If you get your newsletter by post, the envelope address and an enclosed note will show your current **paid-to** date:

June 2018 Payment of $15 is overdue and a total of $20 is due to take you to June, 2022.
June 2019 Payment of $10 is overdue and a total of $15 is due to take you to June, 2022.
June 2020 Payment of $5 is overdue and a total of $10 is due to take you to June, 2022.
June 2021 Payment of $5 is due to take you to June, 2022.
June 2022 or later. You have already paid for the coming year.

We accept payments for up to 4 years in advance. i.e. $20 if you are up to date to June 2021.

Methods of payment:

- In person at a Queensland group meeting.
- By cheque or money order posted to me:
  Dan Johnston,
  9 Ryhope St,
  Buderim, Qld. 4556.

  For new members, please provide contact details e.g. name, address, and optionally an email address and phone number(s) (see form below). Please indicate if you prefer to receive newsletters by email or post. Make cheques payable to 'Fern Study Group'.
- By electronic bank transfer or direct deposit. You can transfer or deposit into our account.

  Account name: **Fern Study Group**
  Account number (Commonwealth Bank):
  BSB: 064178
  Account: 10230709

  Please give your name as the "To account description" (other banks may have different terminology). If you use the electronic bank transfer or direct deposit method, I suggest that you also send me an email at: **ANPSAferns@bigpond.com** so that if I have any queries about the payment, I can contact you by return email. Please also include any relevant information—such as a change of address—that would normally appear on the subscription form.

Fern Study Group

Title: _____ Given Names:_____ Surname: _____

Address: _____

Member No., ANPSA State society: _____ Phone number(s): _____

Email Address: _____

Preference for receipt of newsletter: B&W by mail: ☐ Colour by email: ☐