



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

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NEWSLETTER EDITOR: Dan Johnston, contact as above.

From the Leader

Peter Bostock has retired as leader after 15 years. During that time, he has provided a cornucopia of information and experience and has devoted a large portion of his time. We are all enormously grateful for all these contributions and we've learned a lot. Peter has offered to continue to assist and we hope that continues for a long time. We also hope that Peter enjoys his newly expanded spare time.



Peter Hind also has a vast knowledge and experience. He's been leader before but was a bit reticent about making a further commitment. So the deal is that Steve Lamont will be the leader but will rely heavily on the learning and experience of Peter Hind and on continuing assistance from Peter Bostock.

Steve doesn't have any botanical qualifications but he has lots of interest. He also has house on a large suburban block full of ferns.

From the Treasurer

Dan Johnston

As it is the start of a new financial year for us, please check your Paid-To date. For postal newsletter recipients, this will be on the envelope after your name, and on an insert inside. For email recipients, it will be in the body of the email which has the newsletter attached.

While most members are up to date – we have all just received a free year – and some are well ahead with their payments, there are a number of members who are in arrears. For more detail, and how to pay, see the back page of this newsletter.

Program for South-east Queensland Region

Helen Jeremy

Monday, 3rd August, 2020. 7:00pm – Zoom meeting for fern discussions and planning. Email Helen Jeremy for meeting link: heljeremy@gmail.com.

Sunday 6th September, 2020. Ninnox Reserve, Buderim and Maroochy Regional Bushland Botanic Gardens, Tanawha, from 9:30 am. Ninnox Reserve is a new reserve at the base of Buderim on the southern side. A short, fairly flat walk will take us to a point where there is a variety of rainforest ferns along a creek. Meet at the gate to Ninnox Reserve on the right about 650m along Taylors Road, Buderim. Taylors Road goes to the left off the main southern approach road to Buderim (Crosby Hill Road), just before the start of the climb. Depending on numbers, parking may be a problem, and it may be necessary for some to park near the start of Taylors Road and shuttle from there. There are no facilities at Ninnox Reserve. Probably the most convenient amenities to visit before arriving would be the Chancellor Park shopping centre (with Woolworths) at Sippy Downs. After a fairly brief stop at Ninnox Reserve, we will move on to the Gardens where Wendy and Dan Johnston will guide us through the Fern Glade and the collection of a large number of south-east Queensland ferns.

Program for the Sydney Region

Steve Lamont

Saturday 18 July 2020

Meet from about 10.30 am at the home of Gayle and George Hardy at 19 Aranda Drive, Davidson (an apparently invisible house?). As usual bring a plate for morning or afternoon tea. Study of Ferns & Fire slide show by George & discussion of same. If lost phone 02 9453 9940.

Saturday 15 August 2020

Meet at Steve Lamont's place at 158 Deepwater Road, Castle Cove at about 10.30. Matt Renner, the moss and fern research scientist from the Sydney Botanic Gardens, will be speaking about interrelationships between ferns and moss – how they make life easier for each other. He'll also be helping with identification and answering questions. If lost, phone 040 99 55 22 4.

Saturday 26 September 2020

[Note: this is a week later than previously notified.] Meet from about 11 am at the home of Natalie & John at 4 Laurel Street, Willoughby. Study of epiphytic & lithophytic ferns. Enquiries to Natalie & John 0438 102 666.

Saturday 17 October 2020

Meet from about 12 noon at the home of Kylie & Dwayne Stocks at Verdigris Nursery. Western Distributor Road, Currowan Creek (25km inland from Batemans Bay).

Travelling from Sydney, go into **Goulburn** & take the turn-off to **Braidwood**. Continue through Braidwood & travel for about 23 km. onto the **Kings Highway**, head down Clyde Mountain until just after you cross **Cabbage Tree Creek**. You will enter a 70km speed zone & watch out for the 23km marker to Batemans Bay. **Western Distributor Road** is just over the rise on the left. Turn down Western Distributor Road & travel for about 2.6 km. At the corner of Western Distributor & Pig Road you will see Kylie & Dwayne's house with a green roof on the right. Phone Kylie & Dwayne on 02 4478 1311 closer to the event.

Saturday 21 November 2020

Meet about 10.30 am at the home of Ian Cox, 5 Ivy Place, Kenthurst. Enjoy the opportunity to explore this excellent fern garden and extensive plantings of other attractive natives that do so well on this sandstone bush block. End of year party – **no study**. Please bring a plate or dish to share. Please let Ian know what you intend bringing to try & avoid too much of the same (there's no such thing as too much cake). Contact Ian on 02 9654 2533.

December 2020 and January 2021 – No Meetings – MERRY CHRISTMAS & HAPPY NEW YEAR.

Saturday 20 February 2021

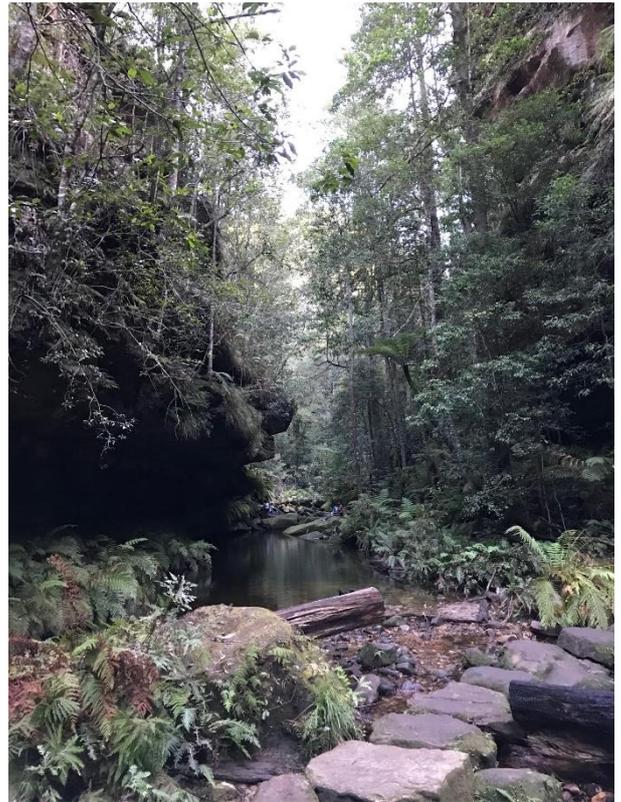
Meet from about 10.30 am for 11 am start at the home of Peter and Margaret Hind, 41 Miller Street, Mt Drutt. Study to be decided plus some more forward planning? Phone 02 9625 8705. Please bring a plate to share for morning or afternoon tea.

Excursion and General Reports

Evans Lookout to Neates Glen–Sydney FSG Walk–20 June 2020

Peter Hind

Sometime after 11 am, all 9 of us walked to Evans Lookout before descending the well-made track to the Grand Canyon and return via Neates Glen. Quite early on, the group split into two, Steve, George, Dwayne & Cameron went ahead; perhaps as well because half of Sydney appeared to have the same idea of doing this walk on a track that was often less than a metre wide. Frequent stops to let others pass and to look at plants regenerating after the severe fires of the previous summer, slowed myself and the remaining four participants down. Thickets of *Callicoma serratifolia* and *Tristaniopsis collina* had new shoots to about 30 cm. *Arrhenechtites mixtus*, the native purple fireweed, was noticeable and, on rocks and rocky sites, *Epacris reclinata* was flowering profusely – this one grows on rocky, more-or-less fireproof sites. *Banksia cunninghamiana* had most of its population killed by fire – it has no lignotuber and is reliant on the many seedlings we saw for the next generation. Sadly, fire had also taken its toll on the edge of the rainforest burning several large coachwoods, thereby shrinking the rainforested area.



The first ferns seen were near the Lookout. *Pteridium esculentum* “bracken” and *Lycopodiella deuterodensum*, its tops rather burnt, had reshoots from its deep subterranean rhizome. The large rocks near the rainforest edge bore the only filmy fern species seen this day, *Hymenophyllum cupressiforme*. *Blechnum cartilagineum* and *Sticherus lobatus* are common here as is *Lindsaea microphylla* on the earthy banks of the trackside. *Calochlaena dubia* is present on sheltered slopes. *Todea barbara*, some quite badly burnt, are re-sprouting. *Cyathea australis* grows at the side of the mountain of steps down the slope & into the rainforest. *Blechnum ambiguum* is here abundant on rocky ledges and *Blechnum watsii* is on the flatter sites. *Leptopteris fraseri* adorns the wet cliff faces and other wet sites. *Grammitis stenophylla* and *Pellaea nana* preferred rocks along the creek. *Dicksonia antarctica* is also scattered along the creek. *Lastreopsis acuminata* grows at the base of trees and on the rocky steps at side of the creek.



Blechnum watsii

Only three climbing ferns were seen – *Rumohra adiantiformis*, *Microsorium scandens* and, in drier rocky places on the ascent to Neates Glen, *Pyrrosia rupestris*. The first two are quite rare here. No epiphytes were seen; it’s perhaps too air-dry even though it’s quite wet underfoot. A rather uncommon cool climate rainforest tree, *Elaeocarpus holopetalus*, is fairly common here.

The 5 of us had lunch a little downstream in the rocky bed of Greaves Creek. The creek flows on to Beauchamp Falls but we did not go there. *Blechnum nudum* and *Sticherus lobatus* are common at this site as it is reasonably sunny. *Tristania neriifolia* grows in this sunnier area, close to its western limit. After lunch, we walked upstream along Greaves Creek for a while; *Leptopteris fraseri* being extremely abundant on the wet cliff face. Above and near its base, *Blechnum patersonii* abounds. Near the entrance (outfall) of the Grand Canyon, the track begins to ascend on the left hand side and eventually rises above the canyon towards Neates Glen.

About a third of the way up, after negotiating several overhangs and narrow sections, I struck my head lightly on the left on a rather low overhang and instinctively moved to the right to avoid it. The track, at this point, is not very wide and there was no foothold to the right, causing me to tip over and fall onto the downward sloping side of the track above the canyon. Luckily, the slope was wide enough for me not to fall into the canyon. I would have escaped with just a few grazes if it wasn't for a small embedded pyramid-shaped rock at the point where my head hit the ground. The result was a sharp blow just below my right eye which caused quite a bit of bleeding even though there was no cut.

I discovered later at Katoomba Hospital that the lower orbit of the eye socket was fractured. Andrew, Ian, Leslie & Jennifer helped put me in a safe position & applied direct pressure then plenty of bandaging to prevent further blood loss (Andrew did most of this). After a few minutes resting & checking for other injuries, I was helped up (no back injuries present) and led slowly up the track due to me only having vision out of the left (uncovered) eye. Passing walkers offered to, and did, call 000 when reception was possible further up. The latter part of the track was by torchlight till we were met first by George Hardy from our advance party and shortly after by paramedics & police rescue who took over leading me by torchlight to a waiting ambulance at Neates Glen carpark. Luckily, I was conscious though visually compromised throughout the ordeal.

Postscript by Steve Lamont

I've added a few extra comments and pictures...

Evans lookout has impressive views of the sandstone cliffs of the Grose River Valley.

The descent from the lookout to the rainforest gully is about 425 metres – that's about 3,000 steps; and it's the same at the end of the walk except that's all uphill.

I've never been on this walk before and I loved it. Apart from the things Pete has mentioned, I was particularly taken with the rock pools (figure 1), the engineering (see below), the filmy ferns and the mosses (I hope that's not too blasphemous).

The engineering that has been involved in restoring the track over the last ten years has been extraordinary. The whole length of the track was photographed, the photographs were re-worked and assembled and detailed plans and materials calculations were made.

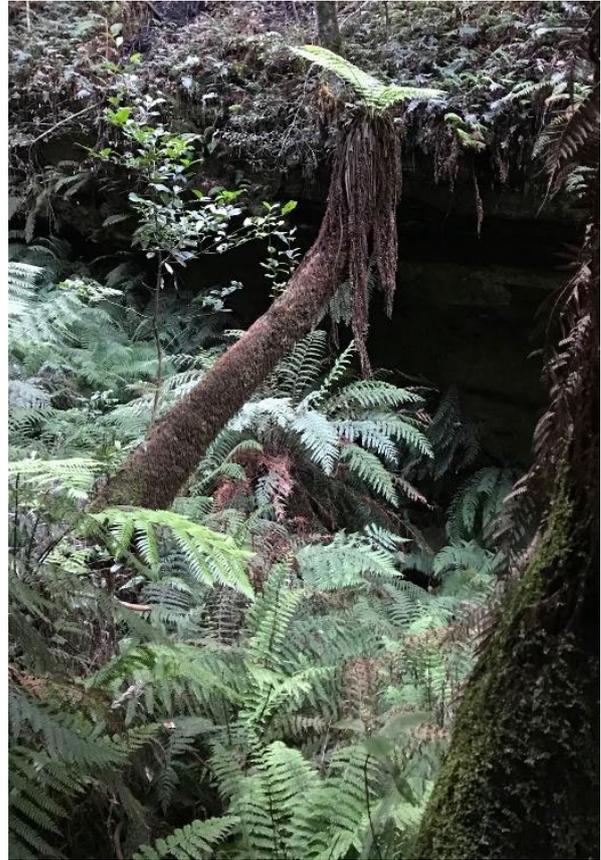


Figure 1

All the materials were delivered by helicopter. This included thousands of large stone stepping blocks (figure 2).

The first group finished the walk at about 2.00. At about 4.45 pm, when it was starting to get dark, the first group started to worry. A little later, after asking some other trekkers and hearing about a guy called Peter who had hit his head, fallen over, hit his head again and then bled a lot, we worried more.

A very nice passer-by (Oliver Skinner – thanks Oli) had called emergency services. Seven vehicles and nearly twenty personnel arrived before 5.00. This included a huge rescue truck and the biggest ambulance I've seen (fig 4). Reports continued from trekkers and indicated that Peter wasn't badly hurt and had only a small (but bloody) cut near his eye and was walking and talking normally. But it was getting dark.

After all the emergency personnel had caught up with each other and compared their gear (about an hour), five of them with lots of gear and headlamps set off to retrieve Peter. Peter emerged in a blaze of light about half an hour later. I followed the huge ambulance to Katoomba Hospital in Pete's new car (I couldn't keep up).

The emergency people were terrific. The hospital staff were terrific. Everyone seemed to enjoy the whole thing – even Peter, who was centre of attention and in no pain. After lots of tests and checks, we were told that Peter had a fracture of his maxilla (the orbit below the eye – fig 3). Next day he travelled by ambulance to Nepean Hospital where they advised that there was no need for surgery or blood-draining and he was discharged. The next day, he was at the club and again the centre of attention with his black eye.

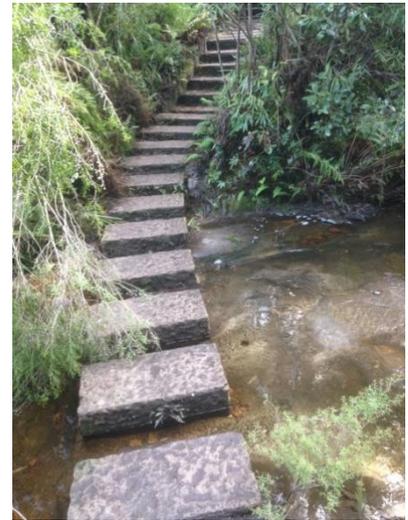


Figure 2



Figure 4 (This isn't all of them)



Fern List (and some mosses – more-or-less in order of sighting)

- | | | |
|-----------------------------------|------------------------------------|--------------------------------|
| <i>Pteridium esculentum</i> | <i>Blechnum cartilagineum</i> | <i>Sticherus lobatus</i> |
| <i>Cyathea australis</i> | <i>Lindsaea microphylla</i> | <i>Calochlaena dubia</i> |
| <i>Lycopodiella deuterodensum</i> | <i>Hymenophyllum cupressiforme</i> | <i>Blechnum ambiguum</i> |
| <i>Todea barbara</i> | <i>Blechnum wattsii</i> | <i>Leptopteris fraseri</i> |
| <i>Grammitis stenophylla</i> | <i>Pellaea nana</i> | <i>Blechnum nudum</i> |
| <i>Dicksonia antarctica</i> | <i>Lastreopsis acuminata</i> | <i>Rumohra adiantiformis</i> |
| <i>Microsorium scandens</i> | <i>Blechnum patersonii</i> | <i>Adiantum aethiopicum</i> |
| <i>Pyrrosia rupestris</i> | <i>Gleichenia dicarpa</i> | <i>Polytrichum juniperinum</i> |
| <i>Dawsonia sp.</i> | | |

Blue Mountains Fires

George Hardy

Introduction

Steve Lamont

The December 2019 fires at Mt Wilson in the Blue Mountains near Sydney apparently began with a back-burn that went terribly wrong. The fires destroyed numerous houses and buildings in the Mt Wilson area, and then jumped the Bells Line of Road into the Grose Valley. George Hardy has been visiting Mt Wilson regularly since December and has documented the recovery. A selection of his photographs that summarise the progress is below (George is the one with the skinny legs).



The fire near the ‘Zig Zag’ on the approach to Mt Wilson started when a backburn on 16/12/19 turned into the opposite direction, not burning the adjacent Eucalypt section but the to-be-protected rainforest instead. This, together with low humidity and a westerly wind, turned a controlled fire into a horizontal flamethrower.

Even though the fuel load on the ground was very low because coachwood and sassafras drop leaves continuously and decompose them rapidly because of a usually high moisture environment, on this day what was combustible was supercharged.

As a result most damage to the trees and tree ferns was intense for half a meter upwards from the ground and scorching up to a height of 6 metres. This meant that all epiphytic moss and orchids facing the fire were scorched leaving only the skeleton of orchid leaves and roots still visible.

Vines, small shrubs, and ground ferns all disintegrated. The first 10cm of trunks of many *Dicksonia antarctica* were burnt through resulting in the toppling of the whole trunk. Some *Cyathea australis* were also toppled.

I went to the site within 2 weeks of the event and could see through the forest from one end to the other. Prior to the fire, vision was obscured by ferns, vines and small shrubs. The ground was black or covered in ash.

There were patches of tree ferns and trees that were undamaged because they were in a ‘fire shadow’. Other trees had one side scorched and the other side displaying normal epiphytic moss and



orchids. The tree canopy 6 metres and higher did not show any damage and there was no leaf drop as in Eucalyptus forest.

I made several more visits until recently. In February many of the ground ferns had re-sprouted and formed a green cover, tree ferns with scorched fronds had sprouted fresh ones and burnt sassafras trees were sprouting new shoots at the base of the trees.

The most fascinating observation was the growth of new fronds from trunks of *Dicksonia antarctica* that had fallen over and had fallen away from the base where they had their root base. Peter explained they will grow roots where the trunk makes contact with the ground as long as the ground is moist.

I shall monitor the recovery and provide updates in the future.



ANPSA Fern Study Group Financial Statement 2019-2020

Dan Johnston, treasurer

Initial balance	11,930.50
Plus Membership fees	230.00
Term deposit interest	171.43
Donations	45.00
Subtotal	12,376.93
Less Newsletter costs	208.96
Final Balance	12,167.97

\$12,000 is held as a term deposit; and \$167.97 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
2020-2021	63	\$315
2021-2022	23	\$115
2022-2023	12	\$60
2023-2024	5	\$25
Total		\$515

The accounts have been sent to one of our members for auditing.

ANPSA Fern Study Group Fees for 2020–2021

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. Early this year, it was decided that because of the suspension of activities because of Covid-19, all members would be given a free year, so all members paid-to date was advanced by 1 year.

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 \$10 is overdue and a total of \$15 was due on 1st July.

June 2019 Payment of \$5 is overdue and a total of \$10 was due on 1st July.

June 2020 Payment of \$5 for the 2020–2021 year was due on 1st July.

June 2021 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 currently up to date to June 2019.

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.

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