

THE LAUNCESTON NATURALIST

Volume LVI No.3 February-March 2023

The aim of the Launceston Field Naturalists Club is to encourage the study of all aspects of natural history and to support the conservation of our natural heritage

Patron : Prof. Nigel Forteach
President : Jeff Campbell, 0432 470 311
Hon. Secretary : Noel Manning, 0458 030 767
Hon. Treasurer : Karen Manning

Meetings 1st Tuesday of month, February-December at Scotch-Oakburn College, Senior Campus, Penquite Rd Newstead. Day meetings are proposed to be held in July & August at a venue to be advised.

Program:

May

Tuesday 2

John Skemp Memorial Meeting - Guest Speaker - Tabatha Badger - *Florence Perrin (1884-1952): Wilderness to seaweeds*

Thursday 4

Monthly walk - Windsor Precinct - meet at 10am - West Tamar Council work sheds

Day TBC

Bell Buoy Beach - combing the beach wash-up after a sea storm (contact Helen Tait if interested)

Saturday 27

Skemps Day - Fungi Hunt at the property

June

Tuesday 6

Meeting - Guest Speaker - Judy Rainbird - Skulls

Thursday 8

Monthly Walk - Heritage Forest - meet at 10am - Conway Street carpark

Saturday 24

Skemps Day - Rock identification with Peter Warren

July

Tuesday 4

Daytime meeting - Explore the QV Museum - meet at 10am - come prepared for the day

Thursday 6

Monthly Walk - North Esk "Ribbon of Blue" - meet at 10am - Hoblers Bridge carpark

Day TBC

Fern Foray

Saturday 29

Skemps Day - National Tree Day - Junior FN to plant native trees

For further program details visit <https://www.lfnc.org.au/meetings.htm>

Skemps Report – February to March 23

With the hotter days behind us work at Skemps is easier at this time of the year and even the grass is thankfully growing a little slower. The last few visits have been cold enough for a fire to be lit with many positive comments about the new heater. We have also gone over four months without further issues with the water supply pipes.

There has been much cutting and splitting of wood, mainly by Jeff and Rob so that our supplies are well stocked in preparation for the colder months. Using his own tools, Rob cleared each side of the driveway from the boom gate back to the Centre. While the ride on mower does a reasonable job on the immediate edges and the middle of the drive Rob has tidied up where it requires time and patience to properly finish the task.

Karen picks a new place for a cleanup every week or so with her and Caitlin doing an excellent job before finding some where new. On top of the regular cleaning of the Centre and removing the numerous dead wasps they did a clean-up in the barbecue area as swallows had moved in and were making a mess. The tree



ferns behind the Centre have been trimmed to improve the daylight through the windows, a twice a year task at least.

We have assessed the Loop Track for further improvements and expect to complete these works over the coming year. After a particularly wet period it was easy to see where further works were needed.

For the third time since Jeff rejoined our group we have had to 'find' the missing Mini Forest Trail as it becomes easily overgrown with batswing fern. After making new aluminum signs and painting them blue, Karen and Caitlin hammered these into trees so that we can more easily find this trail to both clear and walk in future. Jeff, Karen and I had, with some difficulty, re found and cleared the track the week before using the slasher, chainsaw and hand tools.

A blown globe in the main room needed a ladder to get up there to replace it and I also used the ladder to check the CO and smoke detectors. Having left the top off the fuel stove after lighting it I can guarantee that the smoke detectors work.

NRM North had their quarterly meeting for the year at Skemps and all were impressed with the building, facilities and grounds. Andrew, Jeff and I went along to set up in the morning, including lighting the fire, giving a talk on the property and after lunch Jeff took them for a short walk to get the blood circulating after hours in chairs. As a thank you for our efforts we were given a copy of David Maynard and Troy Gaston's book '*Beneath the Tamar*' and Vishnu Prahalad's book '*A Guide to the Plants of Tasmanian Saltmarsh Wetlands*', neither of which were in our library. Speaking of library matters, I was reprimanded for not signing a book back in after returning it, sorry Caitlin, and this is a timely reminder to do the right thing if you borrow library resources.

Between our mornings set up and lunch, Jeff, Andrew and I, cut and split wood from the fallen tree on Skemps Road. As well as the usual spear thistle and foxglove I found a small patch of what I think was slender thistle in the north west of the property. As this was the third incursion in this area I went to



the trouble of digging every individual plant out with Karen finding a few more after I thought I had finished. Karen found a small Holly plant near the creek crossing and took Caitlin and me there to cut and poison it. After over an hour we had removed a dozen holly plants, mostly suckers from the stumps of plants removed many years ago. We will need to keep an eye on these places as both the holly and the thistle may return for years to come.

The March Skemps Day finally saw the last tree guard removed from plants along the creek and the following Tuesday we collected the remaining guards, plastic and sticks to either bin or store. If you are able to help on a Tuesday there are many tasks that volunteers can help with, especially walking this lovely property looking for issues on the trails further away from the Centre. If you can help contact me or a committee member, and I will add you to my text message list.

Noel Manning

General Meeting – February 7 Guest speaker Geologist Ian Blayden – The Whys and Wherefores of the Tamar River

Andrew introduced Ian Blayden and his talk on the geology of the Tamar Valley. He started by handing out a sheet of paper with the geological time line of the area and then acknowledged Keith Corbett and his book *Chanel to the Strait: The Geological History of the Tamar Valley* as the principal reference for the presentation.

The talk started with the first European encounters with the area. Bass and Flinders first saw the Tamar in 1798 calling it Dalrymple Bay and in 1804 William Collins surveyed all the way to the Esk Rivers. In 1805 Lt Col William Paterson explored quite a distance up the North Esk River noting that vast areas of the valley were already cleared and could be ploughed without felling a tree. First Nations people had been here for at least 40,000 years using fire to clear the land for hunting and when this was reported to the government in New South Wales the area was soon flooded with settlers.

Next Ian explained the horst and graben, a geologic feature that would be referred to during his talk and this is what the Tamar Valley is all about. As a result of tensions during continental drift there is a down thrown (graben) or an uplifted (horst) block of strata forming a valley such as the Tamar. There can also be half grabens where only one side is down thrown and the resultant valleys become a sediment infill structure from the rivers entering the valley with images showing these features.

Another image had a bathymetric map, ocean depth lines, of southern Australia showing that Tasmania was very much part of continental Australia with Ian describing this as showing the end point of his talk, what we see today. The starting point was the pre-Cretaceous Gondwana, the super continent of 140 million years ago, comprising South America, Africa, Greater India, Antarctica and Australia with New Zealand, Tasmania, New Guinea and other islands also in the mix. This picture also showed the band of dolerite extending from southern Australia, across parts of Antarctica and covering southern Africa, as well as the area of West Africa and eastern South America where flowering plants evolved in the Cretaceous.

Next we saw Gondwana as it was 40m years ago with the continents on the march, though Australia is still connected to Antarctica. As Australia twisted away from Antarctica it fractured and though there are a number of these fractures including in the Bass Strait Basin, Port Sorell and Oyster Bay and minor ones on the east and west coasts of Tasmania the talk was looking at the one forming the Tamar.

Images showed the early Eocene era with the enclosed Bass Basin. Alluvial deposits formed around the edges of the Bass lake to the east of where King Island is today until the middle of the Oligocene when the basin opened and there was a flood of marine sediments.

The Tamar graben had formed and at this stage is a lake edged with Jurassic dolerite. In the late Eocene it is infilling with terrestrial deposits of sandstone, shales and gravels and these sediments did not solidify as rock remaining relatively soft with this being significant to the later development. These alluvial sediments are spread over a broad area extending south of the present Tamar and to the west where another basin occurred around the Deloraine area.

During the last 2 million years the dominant feature of the Tamar basin were the three principal ice ages changing the sea level and impacting the sedimentary history of the basin. During that time there were several land bridges between Tasmania and the rest of Australia. The sea level was very low during the last ice age and 12,000 years ago the sea rose to cut off Tasmania on a permanent basis, separating first nation people from continental Australia. When the sea retreated during the ice ages the Tamar River was formed just by erosion and as the level rose again the river became the Tamar Estuary and has been tidal for those years.

A map showed the North Esk River which starts to the north of Ben Lomond. The catchment includes the area between it and the St Patrick River while the South Esk River starts to the east of Ben Lomond running south of the mountain, going west then north to Launceston. Of concern to hydrologists of the area is that at The Rose Gorge the North Esk is about 15 metres below the South Esk separated by a ridge that was nearly breached in the 1929 floods. If it had overflowed this soft sediments ridge would have eroded away and the two Esks would have been combined and the Cataract Gorge would no longer have been drainage for floods.

After a member question Ian noted that he considered the dredging of the Tamar to be futile. After dredging with high tidal activity combined with so much silt entering the estuary it just fills in again, what he called 'a classic case of engineers overtaking sensible decision making'.

The 12 minutes of questions and answers generated further interesting information. Australia is moving north at around 7cm per year resulting in the mountains of New Guinea, Antarctica is moving south by 5cm per year and India is moving north by 10cm per year contributing to the Himalayas. There is about 400 metres of sediment in the northern reaches of the Tamar and 270 in the southern while the Bass Basin has 10 kilometres of terrestrial sediment keeping pace with the sinking of the basin.

The maturation of coal deposits in Bass Strait has resulted in oil exploration there and other exploration is looking for rare earth minerals in northern Tasmania suggested by the presence of laterite. The presence of the laterite also means this area was extremely dry for long periods, more like Central Australia.

Helen thanked Ian for providing a base line for the further study of Tasmanian geology before leading the acclamation.

Noel Manning

Field Trip – February 11 Beaconsfield Mine & Heritage Centre and West Head area

On a fine, pleasant day, with a prediction that it would become rather hot, 10 members met up at the Beaconsfield Mine & Heritage Centre. What followed was an absolute treat as Ian Blayden showed us around and described what we were seeing.

Members payed their entry fee and looked around the souvenir shop before following Ian to what turned out to be the media observation area during the mine rescue of Todd Russell and Brant Webb after the 2006 mine disaster. This provided a raised platform giving an excellent view of the outdoor parts of the now closed mine, including a close up of what remained of partially collapsed original buildings showing just how much went into the construction.

Ian gave a brief explanation of the above ground parts of the mine and how these removed the gold rich ore and the ever present water from the mine as well as how workers entered and

left the mine. At this stage we learnt the history of the mine from the early days when a local farmer found gold on his property through the various iterations of the mine as a major undertaking. Also the basic makeup of the underground geology of the various working parts of the mine.

From here we entered the buildings looking at various displays of equipment, mine infrastructure and the inevitable working models before arriving at the display commemorating the mine collapse and amazing rescue that ensued. What we had heard of the privations of the two trapped miners and their rescue meant little compared to this display and the reality of being trapped in such a small space for 15 days till the rescue with Ian's words fleshing out the frightening details.

From here we drove to Greens Beach and at the end of a short gravel road stopped at the parking area at Narawntapu National Park for lunch and a chat. Afterwards we walked a short way to a lookout so that Ian could show us the dolerite columns of the head land and describe the various geological forms to be seen on the headland and the nearby beach. Back at the car park we took the steep walk to the beach and were confronted with what appeared to be a difficult 100 metre walk over rocks to the sandy beach. As it turned out there was a fairly easy path to the beach if you walked just below the vegetation.

Most of us made it to the beach and Ian described the layers in the dunes behind the beach and examined what looked like conglomerate at the edge of the water which was at low tide. It proved to be rocks embedded in a mass of congealed sand that soon gave way with a little hammering.

We straggled back to the car park up the steep track and after a short chat headed off stopping less than a kilometre away to look at a rocky beach where Ian described the layered dolerite of this low headland.

Jeff thanked Ian on behalf of those in attendance before we headed home with a greater appreciation of coastal geology of the entrance to the kanamaluka/Tamar Estuary. Noel Manning

Skemps Day – February 25 Insect hunt with Professor Nigel Forteath

Early arrivals readied the morning tea items and set up the microscope in preparation for our insect day at Skemps. Members, visitors and junior field naturalists would be joining Professor Nigel Forteath to sweep above the ponds with the nets for insects, mainly dragon and damsel flies. It was a pleasant summer day with near perfect conditions for catching flying insects.

After a long morning tea and chat we headed to the creek to try our luck with a junior field naturalist being the first to catch something. Nearly all had a turn trying to catch one of these fast flying insects as they darted about. They appeared to play with us as they came in close then quickly flew away and it was obvious these small critters could achieve the amazing speeds Nigel had told us about during his talk. Louise told us her catch was too busy mating on a reed to see that they were in danger of being caught.

Over the next hour or so many insects were caught and put in containers for later examination with Nigel identifying the catch as it was brought in. One catch seemed to pique his interest and we hoped it was indeed something special.

I headed back to the Centre early to boil the jug and get the barbecue ready for the returning mob and they soon arrived with their catch and an appetite. Before lunch Nigel examined some of the catch, pointing out their interesting and identifying features.

Just before lunch three visitors arrived from Adelaide and were given the tour of the property and watched on as we examined the catch which had been cooled to keep them docile for the cameras. Many took photographs before the animals warmed up and took off, hopefully back to their mates in the middle pond.

We cleaned up and after saying our farewells, thanked Nigel for his time and the equipment he supplied that made the day so successful then headed home after another wonderful day at Skemps.

Noel and Karen Manning

List of damselflies and dragonflies sampled at Skemps on 25/02/2023



Damselfly species:

Family Lestidae:

Austrolestes analis – Slender Ringtail; *Austrolestes annulosus* – Blue Ringtail;

Austrolestes cingulatus – Metallic Ringtail; (image left Nigel Forteath)

Austrolestes psyche – Wandering Ringtail

Family Coenagrionidae:

Ischnura aurora - Aurora Bluetail

Dragonfly species:

Family Aeschnidae:

Adversaeschna brevistyla – Blue-spotted Hawker;

Austroaeschna parvistigma – Swamp Darner

Family Synthemistidae:

Synthemis tasmanica – Swamp Tigertail;

Family Corduliidae:

Hemicordulia tau - Tau Emerald



Other insects:

? Darkling beetle, *Lepispilus sulcicollis*; Blue metallic flea beetle, *Altica pagana*; Shouldered Brown butterfly, *Heteronympha Penelope* Waterhouse (Image above KManning); *Melobasis purpurascens*, Jewel beetle; Small silvery black moth; Grasshopper; Katydid

A lycid mimic – article and image by Professor Nigel Forteath



Net-wing beetles, Family Lycidae are not uncommon in Tasmania and they are often present on the blossom of native plants in summer. Their slow, laboured flight, must surely make them easy victims for predators. However, they have developed an evil smell and taste which protects them. It is this defense mechanism which has resulted in other beetle species mimicking them. Such mimicry is called Batesian Mimicry.

At the recent field-day at Skemps the brown beetle shown on the right was caught. One would be forgiven in thinking that this is one of the Lycid species found in

Tasmania but on closer examination one might observe a different antennal pattern and a long 'nose' is not present, while the wing covers (elytra) are not net-like.

In fact, it is a Batesian Mimic called *Pseudolyctus rufipennis* (Superfamily Tenebrionoidea; Family Oedemeridae).

General Meeting March 7 Guest speaker Paleo-Botanist Ian Thomas - *Twenty thousand years of northern Tasmanian history. How geology, climate and people combined to make the landscapes through which you walk*

Andrew introduced Ian Thomas and his talk on how geology, climate and people combined to make the landscape through which we walk.

Ian started by telling us that the time frame he was looking at was quite 'muddled' due to the data and information. In the distant past it involves massive averages while as we get closer in time there is more data points and it becomes harder to understand what is happening in a particular place though this adds to the joy of each field trip.

His first slide was a graph showing depth of weathering in different climate types moving from the poles to the tropics with precipitation, temperature, evaporation and fall of vegetation being the main influence on this. Tropical forest zones had the highest temperatures and precipitation and by far the greatest weathering while the extremes of temperature, low precipitation and little vegetation of the dry semi-desert, desert and polar desert produced the least. The temperate zones produced a reasonable amount of weathering though far less than the tropical areas. Tundra, steppes and savannas were at the intersection of these zones and the start of the higher levels of weathering as we left the various dry areas.

He called the earth upon which we walk regolith, unconsolidated, weathered or partially weathered bedrock though it is not necessarily soil, which contains organic material. While in parts of the northern hemisphere affected by glacial scouring the landscape features regolith of around 10,000 years old, parts of Australia has soils up to 60 million years old.

Ian then spoke of the Kola Bore Hole in Siberia and the discoveries made during this dig with an image showing the rusty cap bolted over the hole. At 12 kilometres this is the deepest anyone has been and the most interesting discovery is that at the 10 kilometre level bacteria was discovered between the crystals of solid rock and with the knowledge gained from other bore holes suggests there is more biomass down there than on the surface.

Next came an image of the International Stratigraphic Chart and of interest to the talk is the Quaternary, the last 2 million years when our ancestors evolved. To our amusement Ian then produced an important prop to his talk on the geological time scale, a 500 sheet roll of cheap toilet paper, representing the 3.5 to 4 billion years of life on earth with each sheet representing about 8 million years. The first 250 sheets of this time scale of life on earth has only primitive bacteria, the next 125 sheets there is still bacteria, though it is now cyanobacteria, algae, with photosynthesis and the introduction of oxygen to the atmosphere causing the first great extinction on earth. In Australia this oxidized the iron in the crust to produce the iron ore deposits of the Pilbara.

At the three quarter mark we start to get multi cellular life and with seven sheets left the dinosaurs become extinct and we are in the Tertiary. In this last 60 million years the mammals, other animals and plants of today evolve. The last half a sheet of this paper the ice ages start and halved twice more we are in the last million years when the genus homo appears, humans of one sort or another. Halved again we are down to half a million years and Neanderthals and Homo sapiens and when only the perforations of the last sheet are left we have the last 10,000 years and the origins of agriculture and industry.

A graph showed temperatures over the last 5 million years with the amplitude increasing so that the lower temperature is getting colder with each glacial age and the sea level graph was similar with the level going further down reaching the lowest around 15,000 years ago and then rising sharply to today's level. Mainland temperatures were on average 8 to 10 degrees colder than today while Tasmanian temperatures, modified by the maritime influence, were only 5 to 7 degrees colder. At this time Tasmania did have permanent ice caps in the central western region while the mainland had small glaciers.

Ian pointed out that we should be moving into the next glacial age though this has been stopped by global warming. Up to 10,000 years ago Tasmania did not have a north coast just a plain connecting us to the mainland with King Island and the Furneaux Group granite hills and mountains in this vast plain. When Australia broke away from Gondwana Tasmania remained connected due to the underlying backbone of this granite.

Ian next showed a graph from his studies of pollen in Lake Selina, in the West Coast Range north of Queenstown, showing that 18,000 years ago, during the last glacial maxima, the land was dominated by herbs and forbs with the rain forest yet to develop. There were pockets of rain forest trees which needed the warmer, wetter conditions starting about 15,000 years ago to flourish and turn into the forests we see today. 18,000 years ago the Daintree was sclerophyll woodland and the Tarkine an alpine meadow with the often stunted trees yet to express as rain forest.

A map showed the known glaciers which poured off the Central Plateau, mainly to the west, although some went north and almost reached the present day central north-west coast. Ian described Tasmania as having a specific rain gradient, being much wetter in the west with the precipitation likely to fall as snow on the western Central Plateau which is around 1,000 metres high. A few kilometres west of Lake Ada the flat, undulating land gives way to hummocky land showing the boundary of the glacier and there would have been a wall of ice there. Closer to home Ben Lomond shows glacial activity on a small area of the plateau from the last glacial while during previous ones the entire Ben Lomond plateau would have been glaciated. Cosmic degradation of minerals in rocks occurs at a known rate allowing exposed rocks to be dated showing that some have not moved for 3,500 years while others have not moved for 300,000 years. In places we see periglacial activity where the rocks adjacent to glaciers freeze and thaw, and crack and break up. In some places rocks move if they are in a wet muddy slush that frequently freezes and thaws making a lubricant that causes movement.

Ian told us of the treeless plains surrounded by forested hills at the southern end of Camerons Lagoon. The trees thrive in the dolerite hills while the basalt plain has clays that can dry out, crack and then break the roots of trees that manage to establish there. As well the cold air pools in the plain and is too cold for the trees to survive. There is evidence of aboriginal activity at the tree line with none found in the moor with Ian explaining that tree cover can be 3 to 5 degrees warmer compared to the open.

A graph showed the pollens from a core sample going back 7,000 years with the prolific rain forests dying out in the last 3,000 years to be replaced with grasses which drop right out in the last 200 years of European settlement. In this last 200 years there are also carbon particles from burning and though the mountain cattlemen claim it promotes grasses it instead creates open spaces replaced by aggressive, fire prone woody plants such as the daisies and kerosene bush.

While the talk seemed to jump to many different places such as Camerons Lagoon, the Central Plateau, Paradise Plains and Forester Marsh to name some, Ian explained that each has its own individual history. As an example, Camerons Lagoon may have been treeless for up to 100,000 years while carbon dating of the fallen trees or charcoal from burnt trees shows that Paradise Plains was a Eucalypt forest 250 years ago. Ian described this area as a very beautiful, species rich grassland. It is a created aboriginal landscape. Ian is concerned the areas around Paradise and

Mathinna Plains and Mount Morris that are not national parks are under an exploration license for rare earths, tin and gold.

The heathland of Waterhouse Point would have been grassy 11,000 years ago and it was not coastal, then perhaps 8,000 years ago, as the eucalypts gained prominence, it became woodland. Around 6,500 years ago the eucalypts substantially died out from the sea spray of the stabilized sea level and present day coast and the fire and salt tolerant casuarinas were established. Exposed areas on the edge of 4WD tracks have aboriginal artifacts and 6,500 years old charcoal showing that man moved in to take advantage of the resources offered by the coast and also introduced fire.

Another leap took us to the northern Midlands around Epping Forest and Campbell Town and the tertiary deposits of lateritic soils. Subtropical or tropical weathering produces the iron and aluminium rich brown nodules so sort after by mining interests formed by a climate that no longer exists in this area, a climate we could not even imagine. As Ian said, some places around Tasmania indicate small changes while others show massive changes.

It was hard for us to imagine when he told us that many parts of the Midlands had large stands of casuarina along with the grassy, eucalypt woodland. He explained that in the days of early settlement Europeans needed certain things and one was reliable fires for baking and blacksmithing and sheoak wood provided this as well as shingles. All over southern Australia the casuarinas were cut out before the eucalypts.

The western Central Plateau was frequently burnt, in an unsuccessfully attempt to improve grazing, and the trees are mostly gone, while in other places the small cool burns over thousands of years by the aboriginal inhabitants allowed the fire sensitive conifers to survive. Aboriginal burning was far from perfect by our standards as there are places, such as the Denison Range, which are scared and treeless due to these fires. Ian pointed out that up to 20 years ago lightning strike fires were extinguished by the accompanying rain while these days lightning strikes during dry storms can cause wild fires.

At this stage Ian begged our indulgence to add another 15 minutes or so to his talk to which there was a murmur of consent and the talk moved on to large scale extinctions in the distant past. During the late Ordovician 85% of known life died out while during the late Devonian 82% of all fossils just stopped and at the end of the Permian there was a global ice age and 96% of everything died. Each time evolution just started again and then in the late Triassic, over a period of 10 million years, 36% of creatures died out. Then in the famous cretaceous tertiary extinction, over a period of up to 100,000 years, 76% of terrestrial things died out and life as we know it today evolved from whatever survived. This extinction was probably caused by an impact event.

All life we see today started from the original single celled organisms with Ian suggesting, to our amusement, that we are even distantly related to COVID. The last 2 million years also caused extinctions with the reasons open to debate. While glacial events, aridity and human activity including predation and habitat change are often cited individually by some, Ian suggested it is all these together with a different emphasis for each location.

On a global basis some mega fauna has survived, especially in Africa, though there is not so much left in Europe or North America. Again it was hard to believe the list of large animals that existed in Europe with England having rhinoceros, lions and elephants up to 500,000 years ago. In Europe 14 big genera weighing over 100 kilograms vanished and in North America 33 big genera vanished by 10,000 years ago and it is the more recently occupied land masses suffering the greatest rate of extinction today.

There is no direct evidence of major climate change in Australia when the mega fauna extinctions happened and there is no evidence of stone tools in Australia for butchering as there is in North America and Europe. Ian also told us that it is really difficult for people to cause something to go extinct using the North American bison as an example. Native Indians

stampeded bison resulting in hundreds of dead on single hunt while only the top dozen or so were used for food and hides, a clear case of over kill. With the introduction of the horse by the Spanish individual animals could be targeted though the net result is unknown. Then came the iron horse and the real decline of bison. An image showed a huge mound of bison skulls, a common sight seen along major railway built in North America, a small hill of skulls around seven or more metres high.

For Australia Ian gave a list of the mega fauna with frightening details of huge, fast moving carnivores, including a tree climbing possum the size of a Rottweiler and Megalania, a crocodile sized goanna. This led into Ian's idea that extinctions have always occurred. The Riversleigh rainforest of northern Queensland was more diverse in the past and the Mowbray swamp and Flowery Gully of Tasmania had a large wombat related animal that went extinct before human habitation.

He then said the remarkable thing about life on earth is not so much that it happened, as he thinks it happened all over the universe, but that it happened in such a thin little layer, around eight kilometres of atmosphere over an average crust of 20 to 30 kilometres. Of the 13,000 kilometre diameter of the earth all life and life sustaining parts of the known world occur in this thin zone which is so precious and in need of preservation.

Helen gave the thanks for this interesting and thought provoking talk then led the acclamation.

Noel Manning

Field Trip – March 11 Trevallyn Reserve Walks

Members attending today's field trip in the Trevallyn Reserve started in two locations, one group at the Hoo Hoo Hut and the second group from the Duck Reach Power Station carpark, with the plan to meet up in the grounds of the First Basin around 12 noon.

The Hoo Hoo Hut group started at 8.30am walking down to the river bed across from Blackstone Heights to look at the formations in the exposed water-worn rocks. They were fascinated with what they had seen and realised that this was a whole day trip for another time and left to re-join the group starting from Duck Reach.

While on the river bed, Andrew had photographed the rare plant, *Alternanthera denticulata* (image below right).



Those present were all impressed with the tenacity of the plants that persisted in the rock crevices despite the raging floods they are frequently subject to. Native bluebells (*Wahlenbergia* sp), Southern storksbill (*Pelargonium australe*), yellow star (*Hypoxis hygrometrica*)(pictured page 11, ASmith), tea tree

(*Leptospermum scoparium*), a plant looking like Vietnamese mint (*Persicaria hydropiper*), non-native willows (*Salix* sp.) and a few non-native bull rushes were seen. The native status of *P. hydropiper* is uncertain.

Brian also mentioned the *Migas plomleyi* (Plomley's trapdoor spider). The Gorge is the only confirmed habitat of this spider, and only 3 specimens including one pregnant female, have ever been found. Unsurprisingly, members didn't see one.

Arriving at the Duck Reach Power Station car park for a 10am start the other group were surprised to find that the early group had not arrived as previously arranged to walk down to the Basin with us. A quick phone call advised that



they would now meet us at the First Basin and then walk back up to the Duck Reach Power Station.

It was also advised that one member was already heading down to the Basin and we were expected to catch up. So off we went walking high above the South Esk River, listening to the bubbling of the water as it flowed through the rocks, the breeze through the trees and the twittering of the birds hiding amongst their leaves. Other than that it was a quite walk down, not much in the way of foot traffic, so we were able to stop and look at the plants, the only one seen in flower was a *Cassinia aculeata* (common daisybush), other plants observed are listed below.



At the gorge we stopped to observe and photograph the zeolite crystals (image left KManning) on a huge rock along the walkway.

With everyone back at the 1st Basin, there was a lot of discussion about a return visit to the river bed walk, with members then walking back to the Power Station.

Helen Tait & Karen Manning

Creeper: *Cassytha* sp., dodderlaurel

Ferns: *Adiantum aethiopicum*, common maidenhair; *Cheilanthes austrotenuifolia*, green rock fern; *Lindsaea linearis*, screw fern; *Pteridium esculentum*, bracken fern

Fungi: ?*Vascellum pratense*, meadow puffball
(image right KManning)

Grasses & Sedges: *Lomandra longifolia*, sagg

Herbs: *Chrysocephalum* sp., everlasting daisy; *Geranium* sp., cranesbill; *Hydrocotyle* sp., Pennywort

Lily-like: *Dianella tasmanica*, forest flaxlily

Shrubs: *Cassinia aculeata*, common daisybush; *Correa* sp.; *Styphelia humifusum*, native cranberry

Trees: *Acacia dealbata*, Silver wattle;

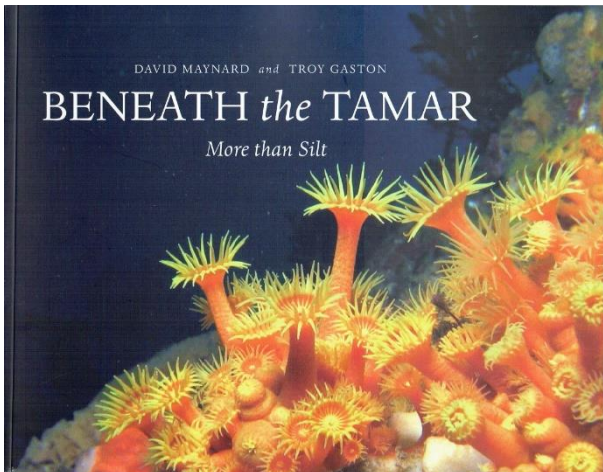
Allocasuarina verticillata, drooping sheoak;

Bedfordia salicina, Tasmanian blanketleaf; *Bursaria spinosa*, prickly box; *Olearia* sp., daisybush;

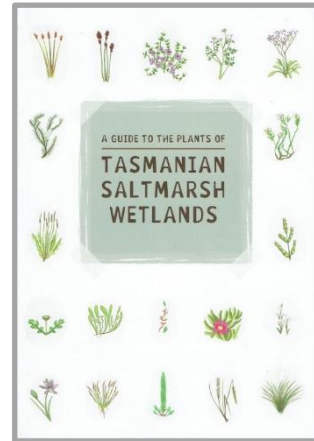
Pomaderris sp., dogwood



New additions in the Skemps Library



A big thank you to the staff at NRM North for the donation of the following books for the Skemps Library



Skemps Day – March 25 Plant maintenance along Skemps Creek

Members arrived at Skemps today to assist with the tree pruning and removal of the last of the cages around plants along the lower sections of the creek. Starting at the Middle Pond, Tom cleared a few dead trees and broken branches, before joining us to help with the removal of cages and we all moved easily from working alone to working in pairs and sometimes threes.

Prior to lunch the bottom side of the creek had been



completed and after moving a trailer load of wood, split from the large tree fall on Skemps Road, Jeff joined us to remove the first load of guards, plastic, sticks and weed mats to a central point.



While we had been working on the plants, Tom McG and Irmgard stayed close to the Centre, pointed members in the direction of the creek and kept the Centre warm for our return. It was a pleasant surprise to see Jill and Carol who joined us for lunch between other appointments.

Following a late lunch we picked up where we left off with 5 members staying until the last plant was tended continuing on the high side of the creek where at times we paired up when working on particularly difficult trees.



The cutting of plants from cages was a time consuming and delicate task, but all the plants tended today should survive and these had better after the work that went into some, especially the Callistemon.

We all commented on the many fresh wombat scats as we moved about, Noel saw an unidentified frog on the high side of the middle pond and nearly everyone ended up with a leech or two.



Thank you to Tina, John, Tom T, Helen, Jeff, Claire and Noel for effort with the plants.

Karen Manning

Additional Information

Club Outings:

- Are held during a weekend following the General Meeting. Until further notice, members should make their own travel arrangement to participate, please contact the Program Coordinator (Helen Tait) if you require further details or wish to share a lift.
- Provide your own food and drinks for the outing and wear/take clothing/footwear suitable for all weather types.
- The program is subject to alternation at short notice. Notification of changes to field trips will be advised at the General Meeting prior to the event. Please contact the Program Coordinator to confirm details if you are unable to attend the meeting. Email notification will also be sent.

Name Tags: Please wear your name tags to meetings and on outings.

Tea/Coffee: A levy of 50c is currently charged for supper provided at meetings.

Field Centre: All members have access to the John Skemp Field Centre. Please contact our Booking Officer, Andrew Smith smithsinoz@dodo.com.au or by phone on 0402 893 378 regarding availability and keys.

Field Centre Phone Number: (03) 6399 3361

Postal Address: 23 Skemps Road, Myrtle Bank

Internet site: <https://www.lfnc.org.au>

Facebook site: <https://www.facebook.com/groups/527797787360157/>

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