



THE LAUNCESTON NATURALIST

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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 : Mrs Prue Wright, 0438 410 192
Hon. Secretary : Ms Bernadette Willey, 0487 755 085
Hon. Treasurer : Mrs Karen Manning, 0363 442 277

Meetings 1st Tuesday of month, February-December (except Jul & Aug) at Scotch-Oakburn College, Senior Campus, Penquite Rd Newstead

Program:

April

Tuesday 6
Club night - Speaker: Jeff Campbell – *Bibbulmun Track*
Sunday 18
Field Trip – Ben Lomond – meet at Carr Villa carpark 10am
Sunday 25
Skemps Day – Macroinvertebrate monitoring
Friday 30
Field Trip – Tasmanian Arboretum (contact Prue Wright)

May

Saturday 1
Field Trip – Cradle Mountain National Park to see the Fagus (contact Prue Wright)
Tuesday 4
Meeting – Guest Speaker: Lauren Bird (NRM North) – *Getting to Know Astacopsis gouldi: the Giant Freshwater Crayfish*
Saturday 29
Skemps Day – Fungi Foray and Moths with Genevieve Gates and David Ratkowsky

June

Tuesday 1
Meeting – Guest Speaker: Angela Hansen - *Birds*
TBA
Field Trip – TBA
Sunday 27
Skemps Day – Birdwatching with Angela Hansen

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

Skemps Report:

Jeff is back and working hard on many tasks, mainly reducing the growing patch of sagg out in front of the Centre to halt the spread and the task has involved using the push mower. Jeff has also been fixing plant names to posts ready for placement around the property, signs previously made by Karen on the Gravograph.

Most of the heavy work upgrading the Loop Nature Trail has been completed thanks to Bob the builder (an accurate nick name given to one fellow by another team member from Corrective Services) helping out in the last four days. His building skills saw the various tasks done well and quickly. Members and Corrective Service people have put in nearly 150 hours of work so far and there is more to do. Mainly we need to go there after rain to find the areas still boggy.

I have finally realised that the temperature light not working is causing one hot water cylinder to overheat and damage the other. Until we can find a way to reduce the risk of overheating or replace the entire hot water system the old cylinder will not be repaired or replaced. The installed hot water cylinder will be at an acceptable temperature after four hours running the fuel stove on low, about the same time it takes to heat the removed electric powered cylinder.

Thanks to our many volunteers the usual tasks of cleaning, clearing nature trails, washing sheets, stocking consumables in the Centre, cutting, splitting and moving fire wood and general maintenance have been done.

The weekly digging up, removal and bagging of foxglove and thistle on the property and the roadsides borders continues with areas being sprayed as well.

One Tuesday recently, I found the water storage tanks to be very low after a dry spell and it took nearly a month to bring them back to full with the trickle into the settling tank. If the level drops low enough in the settling tank for the flow to stop, it needs help to restart and finally we have had a decent drop of rain to keep the water flowing.

Noel Manning

New Members

We would like to welcome Joseph Willey, Wanda Buza, Peter and Lini Vandenberg, Brian O'Byrne and Angela Hansen to the Club, and look forward to them attending our meetings, field trips and Skemps days.

BirdLife Tasmania Wader Forum held in North - January 15th & 16th

Seven LFNC members interested in our birds joined around 40 others at Windsor Park. It was very well attended, across a wide age range. Interesting speakers from Birds Tas told us about wader banding, bird identification, migration, and our place in the East Asian-Australasian Flyway.

Ramit Singal, Ralph Cooper, Geoff Shannon and Karen Dick all gave very informative talks. Ralph, who has spoken to the Club in the past, talked about his data collected from over 40 years, particularly from George Town and Cape Portland.

Next day we met out at Lades Beach, west of Bridport. The road in was rather interesting, with yours truly bravely leading the way. The far side of the "puddles" we parked our cars and walked out to the beach, where a pair of Hooded Plovers were spied. Some of you will remember we have been to this beach before, with Mike Douglas.

With binoculars we settled in behind the dunes looking over the inlet. The tide started running in shortly, and we watched nearly 100 Red-necked Stints rushing about, frantically feeding. Two

little Red-capped Plovers were well and truly out-numbered! 2 White Fronted Chats were in the dunes, along with Fairy wrens. A couple of Pied Oyster-catchers were there as well. Geoff and friends walked further along the inlet, and amongst other sightings listed a Golden Plover.

It was an interesting and very informative "Talk & Walk" and BirdLife Tasmania are hoping for increased interest by more helpers with their Summer and Winter Wader Counts.

Prue Wright

Meeting - Tuesday 2 February – Guest speaker Dr Ian Thomas – *The Central Plateau: Landscape scale transitions in time and place*

Prue introduced Ian and his talk on the Central Plateau with him first telling us that he got a thrill going there as though he was entering unknown territory with interesting weather. However it is a known place and he suggested we all knew where the coldest place in Tasmania is.

His interest in the area started in 1982 when he did a survey of aboriginal sites around Great Lake for the Hydro in preparation for raising the height of the lake. He also surveyed the Western Lakes area and north from the Derwent in the Travelers Range and finally he did his Honours thesis at the Australian National University (ANU) on the Liawenee Moor, the treeless expanse to the west of Great Lake and he wondered at the lack of trees. Ian thought that if you faced away from Great Lake you could almost imagine the area as a mainland arid, soil eroded area with *Olearia* and *Orites* bushes standing in for salt bush.

Firstly, Ian prefaced his talk showing that there was pollen evidence for the longevity of the present treeless alpine system. Trees have not grown on the Moor for the last 7000 years and possibly for 100,000 years! He then went on to talk about a remarkable glacial age land feature boundary and finally about the specialized use of the plateau by the lairmairrener pairrener (pronounced 'lair-mare-rem-ner-pair-ren-er'), known as the big river tribe to Europeans.

This aboriginal group may have comprised eight different clans with the strongest based just north of the Derwent River with evidence they moved into the Central Highlands, a large area from north of the Derwent to Mole Creek and just east of Arthur Lake to Cradle Mountain.

Ian informed us the January mean temperature is 12 to 15 degrees, with July mean minimums around zero to -3 degrees and with a -14 degree recorded last winter: in Ian's words 'pretty cold'. These comments were backed up with temperature and precipitation charts from the Bureau of Meteorology (BOM). Ian told us that vegetation communities and their soils were affected by climate, geology, aspect and altitude. He mentioned that the Plateau was subject to a really strong precipitation gradient from the western edge with 2,000 mm of rain to Liawenee where the precipitation has dropped by 1,000 mm in just 15 kilometres.

Returning to temperature Ian told us the usual description of an alpine area is plant communities in elevated areas where trees do not grow. He mentioned that this definition is a little simplistic because it did not take account of cold air drainage description, or the Krumholtz effect, where woody species can survive at high elevations in a diminutive or dwarfed state.

While talking about alpine areas in general, Ian noted that alpine tree lines in Australia tend to diffuse or peter out rather than be razor sharp. Tree lines vary with latitude and aspect (the compass direction faced) with the mainland tree line being between 1,370 and 1,525 metres and Tasmania's between 913 in the Southwest and 1100 metres in the Northeast. Another factor which complicates tree line geometry in Tasmania is that alpine areas are often ringed by cliffs forming yet another barrier to tree dispersal and growth.

Ian mentioned that inverted tree lines on the Central Plateau occur where downslope valleys are usually tree less yet upslope hills often support dense forests or woodlands. This results from

dense cold air pooling in the valleys, which allows alpine species to grow at lower altitudes than is usual. He emphasized that frosts and burning by Aborigines over thousands of years contribute greatly to the mosaic of open areas seen. We learnt that *Eucalyptus pauciflora* (snow gum) is the primary alpine tree on the mainland while here in Tasmania it only grows at lower altitudes. Our alpine dominant tree is *E. coccifera*. *E. pauciflora* even survives in the frosty valleys of the midlands and is most likely a remnant of the last glacial when it probably grew across most of Bass Strait when it was Bass Plain.

Ian made mention of the Anthropocene epoch where man has a significant impact on the landscape. Before that the Holocene epoch, from around 10,000 years ago, was the short warming period after the last glacial which stretched back from 14,000 years ago to 120,000 years ago. This was preceded by multiple similar cycles perhaps back to 700,000 to 1,000,000 years. This means that for most of the last million years, climates have been colder than at present. Therefore, the most widespread plant communities in temperate Australia over that time period were cold adapted with treeless expanses or sparse woodland the dominant structural forms.

Liawenee Moor is one of the largest treeless expanses in Tasmania and Ian amused us with his story of being spooked the first night he went there. In his words '...trudged out here, took a couple of hours to walk out to the Ouse River, pitched my tent, lay down and promptly got spooked. I quickly packed up my tent up and ran back to the safety of my car. I've since grown up. I take a friend'!

Ian described his analysis of a sediment core sample from Camerons Lagoon, a small pond on the southwest margin of Great Lake. Cameron's was chosen because Great Lake was too deep and Ian did not have the necessary specialized deep-water equipment. In fact he had hitch hiked from Canberra with all of his heavy hand drilling equipment and considered this a major achievement! The identification of thousands of pollen and spore species allowed him to assess the climate history of the area based on the preserved pollen taxa. He pointed out that the sediment time frame is not uniform with the top 20 to 30 cm of soft sediment represented just 200 years (European settlement) while the same thickness at the bottom is much compacted and represented 2,000 years. His one metre deep sediment core represented a total of 8,000 years.

Some plants prospered after the last glacial as the climate became warmer and wetter and glaciers receded from about 14,000 years ago. However, over the last 6,000 years climates have become warmer and drier. *Nothofagus* and *Dicksonia* pollen and spores which had blown into the lagoon from the West gradually declined in importance. Additionally, a marked decline in the pollen of alpine conifers characterised the warming and drying of Tasmania over the past 6000 years. Wet forest plants grew on and around the fringes of the plateau from 10,000 years to about 6,000 years ago but were gradually replaced with what Ian called the Australian taxa, hard leafed, sclerophyllous plants typical of species in the Proteaceae, Myrtaceae and Fabaceae. Ever since the Plateau's glacial ice retreated there was an abundance of grass pollen but not enough tree pollen to indicate that the Moor was ever forested or even woodland. During the European era, pollen has been dominated by epacrids and daisies that have plausibly become dominant because of overgrazing by sheep.

Ian also presented graphs for micro and macro charcoal in the sample that indicated the constant low-level presence of fire on the Plateau but with major increases at the time of European settlement. The proliferation of the shrubs in the Asteraceae and Proteaceae during recent times is a major problem as these communities are highly flammable.

Ian showed a graph of temperatures over the last 3,000,000 years and pointed out that the amplitude, the difference between the maximum and minimum temperature, of the ice ages is getting more severe. In Tasmania, little evidence of previous glacial events is to be found as it was wiped out by the last glacier. He showed a map of the Central Plateau with an inferred ice cap centered on the west of the Central Plateau that may have been up to 150 metres thick.

As you walk from Lake Ada to Lake Fanny you find yourself in an area of numerous, hummocky outcrops representing the limit of the ice cap. The eastern limit of the tarns and hummocks represents the western extent of the Plateau's Ice Cap. To the west of this demarcation the landforms are between 10,000 and 100,000 years old while to the west are soils and larger lakes from earlier glaciations. Ian noted that you can stand with one foot on 10,000 year old land surface and the other on a surface, which may be hundreds of thousands of years old. In the greater region, there is evidence that earlier glacial events extended as far as Don, near the coast at Devonport. Today, Cradle Mountain is the best place to see evidence of the glacial ice, which once covered most of the area. The ice-gouged lakes are obvious but more subtle evidence can be seen as you drive to Dove Lake. All around you will see mounds of coarse gravel, called moraine debris, which was left by the final retreating glaciers. Grooves in smoothed lakeside rocks, caused by rocks carried by the glacier, provide information about the direction of glacial flow.

Prof. Eric Colhoun identified a particular dolerite 'Erratic' boulder southwest of the Lyell Highway near Lake St Clair. The last glacier that pushed inland from the west deposited this boulder. Yet to the west there are quartzite rocks so this boulder must have hitchhiked to the west in an earlier glacial cycle then returned in the last one.

Some years after Tribal people were removed from their Central Plateau lands, surveyors such as James Calder reported seeing the remains of large huts capable of holding 12 to 15 people. These structures were waterproof, well-constructed, lined internally with animal skins and decorated with bird feathers and charcoal drawings. It is important for the public to understand that these complex and welcoming structures were not the stereotypic, dilapidated humpies of the white imagination - they were genuine homes and the mountains country of central and western Tasmania was not a wilderness; it was a back yard, a front yard, a place where everything was known and mapped in people's minds.

When Ian did his survey of Great Lake he found 240 aboriginal sites away from the present lake which is not the original lake level. These sites must have been situated well back from the water's edge.

Ian said that he found no aboriginal sites on the Liawenee Moor itself, though he found plenty of artifacts around the Moor's edge. The stone artifacts, showing different levels of weathering, suggesting the individual sites had been used again and again for many years.

He also surveyed the entire Overland Track and all side tracks and found little evidence for Aboriginal sites on exposed or steep slopes. Rather, the lower areas, comprising the headwaters of the Forth, Mersey and Derwent rivers, showed much evidence of occupation. People appeared to have major settlements in protected forested valleys from which short trips were made to the high country. Presumably to collect food or to clear the country with fire before retreating back home when the weather turned.

Ian's talk was accompanied by an impressive slide show with maps, graphs and scenes of the places that he talked about. Especially interesting were photographs of aboriginal sites found in the area, including famous stone quarries from which selected rocks were collected and traded around the state. The last slide acknowledged the many contributors to Ian's research.

With the subject so well covered there was only a few minutes of questions followed by a thank you from Helen who led the acclamation.

Noel Manning

Field Trip - Wednesday 3 February – Central Plateau with Dr Ian Thomas

Eight members and our leader, Ian Thomas, departed from the Deloraine Train Park at 9.30 on Wednesday 3 February. The day was fine with a cool breeze which continued throughout most of day although it did warm up a bit later in the afternoon. Our first stop was at the lookout with a viewing platform with a view down the Liffey Valley and Quamby Bluff as a backdrop. Ian told us about the vegetation changes which occur as you gain altitude.

We then moved on to Pine Lake with a different vegetation mix from the first stop. We stopped at Lake Augusta for lunch amongst the bushes sheltered from the cool wind, following which we continued on to Lake Ada to fossick amongst the sand dunes (**pictured right, image Prue Wright**). Roy assumed the lead from here to stop at a spot he noticed on the way in with a few stops along the road to pull Ragwort and a stop at a damp patch to botanise. Back on the Lake Highway we continued south to Camerons Lagoon where Ian showed us the change from basalt to dolerite. Our final stop was to show Ian the site of our first stop on the Arthurs Lakes trip. After a brief pause here we headed for home after a very good day thoroughly enjoyed by all and a great extension to Ian's talk at the meeting the previous evening.



Jeff Campbell



Pine Lake (above) and Lake Augusta (right), images Tom McGlynn

Plant List (mainly flowering or fruiting) compiled by Roy and Jeff

First stop - *Coprosma quadrifida*, native currant; *Eucalyptus archeri*, alpine cider gum; *Orites revolutus*, revolute orites

Pine Lake - *Acaena novae-zelandiae*, common buzzy; *Athrotaxis cupressoides*, pencil pine (**pictured right, image Prue Wright**); *Baekkea gunniana*, alpine Baeckea; *Bellenden montana*, mountain rockets; *Blechnum pennamarina* ssp. *alpina*, alpine waterfern; *Boronia citriodora*, lemon boronia; *Craspedia glabrata*, little alpine billybuttons; *Cyathodes straminea*, spreading cheeseberry; *Empodisma minus*, spreading roperush; *Epilobium* sp., willowherb; *Euphrasia* sp., eyebright; *Geranium* sp., cranesbill; *Gleichenia alpina*, alpine coral fern; *Hierochloe redolens*, sweet holygrass; *Leptecophylla parvifolia*, mountain pinkberry; *Leptospermum lanigerum*, woolly teatree; *L. rupestre*, mountain teatree; *Olearia phlogopappa* ssp. *gunniana*, forest daisybush; *Orites acicularis*, yellow orites; *Ozothamnus rodwayi*, alpine everlastingbush; *Polystichum proliferum*, mother shield fern; *Richea scoparia*, scoparia; *R. acerosa*, slender candleheath; *Senecio gunnii*, mountain fireweed; *Trochocarpa thymifolia*, thymeleaf purpleberry; *Wahlenbergia* sp., bluebell



Lake Augusta - *Celmisia asteliifolia*, silver snowdaisy; *Leptorhynchos squamatus*, scaly buttons; *Leptospermum rupestre*, mountain teatree; *Lycopodium* sp. clubmoss; *Pentachondra pumila*, carpet frillyheath; *Senecio gunnii*, mountain fireweed

Lake Ada - *Astelia alpina* var. *alpina*, pineapple grass; *Bellenden montana*, mountain rockets; *Brachyscome radicans*, marsh daisy; *Carex cataractae*, lax yellowfruit sedge; *C. gaudichaudiana*, fen sedge; *Coronidium scorpioides*, curling everlasting; *Cotula australis*, southern buttons; *Drosera arcturi*, alpine sundew; *D. pygmaea*, dwarf sundew; *Gentianella diemensis* ssp. *diemensis*, tasmanian snowgentian; *G. gunniana*, gunns forestgentian; *Hierochloe redolens*, sweet holygrass; *Leptorhynchos squamatus*, scaly buttons; *Lobelia surrepens*, mud lobelia; *Ozothamnus hookeri*, crimsontip daisybush; *Ranunculus* sp. buttercup; *Senecio pinnatifolius*, highland groundsel; *Utricularia* sp. bladderwort; *Veronica gracilis*, slender speedwell

Lake Augusta Road - *Cardamine* sp. bittercress; *Celmisia asteliifolia*, silver snowdaisy; *Coronidium scorpioides*, curling everlasting; *Cotula alpina*, alpine buttons; *Gonocarpus serpyllifolius*, alpine raspwort; *Microseris lanceolata*, highland yam daisy; *Montia australasica*, white purslane; *Nertera granadensis*, orange cushionbeads; *Olearia myrsinoides*, silky daisybush; *Plantago gunnii*, bolster plantain; *Viola betonicifolia* ssp. *betonicifolia*, showy violet; *Wahlenbergia* sp. bluebell

Camerons Lagoon - *Coronidium scorpioides*, curling everlasting; *Exocarpos nanus*, alpine native-cherry; *Hakea microcarpa*, small-fruit needlebush; *Isoetes drummondii* ssp. *drummondii*, plain quillwort; *Lagenophora montana*, mountain bottledaisy; *Leptorhynchos squamatus*, scaly buttons; *Microseris lanceolata*, highland yam daisy; *Ornduffia reniformis*, running marshflower; *Pultenaea fasciculata*, alpine bushpea

Scotch Bobs Creek - *Gaultheria tasmanica*, tasmanian waxberry

Prue noted the following over the course of the day:

Reptile at Pine Lake - *Niveoscincus greeni*, northern snow skink (pictured right, image Prue Wright)

Birds - *Petroica phoenicea*, flame robin;
Acanthiza pusilla, brown thornbill

Insect at Lake Ada - *Chauliognathus lugubris*, soldier beetle

Insects at Camerons Lagoon - *Monistria concinna*, southern pyrgomorph grasshopper; *Austrolestes cingulatus*, metallic ringtail damselfly; *Ischnura aurora*, Aurora ringtail damselfly; *Procordulia jacksoniensis*, eastern swamp emerald dragonfly

Frogs at Lake Ada - metamorphlings; *Crinea signifera*, Common or Brown Froglet; *Litoria ewingii*, Brown Tree Frog



Skemps Day – Sunday 28 February – Insect hunt at Skemps

The evening prior to our February Skemps Day a few of us went out to prepare for the day. After dark we set up a blue/black fluorescent light on the front verandah. Within seconds the moths started to arrive. As we had no way of holding them without damage till the following day, we attempted to euthanize them humanely by placing them in a bottle with ethanol, aka nail polish remover. This worked with mixed success – some species seemed far harder than others. I also set up a couple of pit-traps at the edge of the bush, but without success.

Next day when members arrived we had a good selection of moths for members to examine. But the main aim of the day was to try out our new butterfly net, particularly with dragonflies! We headed off to the bottom pond, swishing at butterflies, wingless grasshoppers, etc., and



Members look on as Jeff sweeps,
image Prue Wright



Nigel cooling a recent catch,
image Prue Wright

watching out for our expected guest and Patron, Prof Nigel Forteath. He soon turned up, with his own net also, and the dragon hunting began in earnest.

Nigel showed us how to “sweep” with expertise, but the elusive dragonflies showed how they can side-step with ease, and it was quite a while and with much laughter before a shriek from Ann further up, signalled a catch.

Then Nigel also showed us how to lay the net down on the ground, so trapping the insect in. He put the specimens caught into modified catching boxes, and placed them in an esky to cool them down. When we had a few specimens (and were getting hunger pangs) we headed back to the centre. The dragon and damselflies, in their cooled state, posed meekly for us to take photographs, then, warmed by the sun, flew off – no doubt feeling rather grumpy at having their hunting time so rudely interrupted.

Many had to head off then, thank you for coming out and taking part so enthusiastically – thankyou also to the few who stayed to walk the refurbished Loop Track, and make worthwhile suggestions for more improvements. Thankyou particularly to Noel, Roy and Jeff who have been supervising the works on the track – we look forward to walking it without muddy shoes this winter!
Prue Wright



Ischnura aurora,
aurora bluetail
image Prue Wright



Synthemis tasmanica,
swamp tigertail
image Karen Manning



Melobasis purpurascens,
jewel beetle
image Prue Wright

Insects at Skemps

Butterflies and Moths - *Geitoneura klugii*, klugs xenica; *Heteronympha penelope*, shouldered butterfly; *Oenochroma vinaria*, moth; *Pieris rapae*, cabbage white (near middle pond)

Dragonflies and Damselflies - *Adversaeschna brevistyla*, blue spotted hawker; *Austroaeschna tasmanica*, swamp darner (male) x1; ? *Austrogomphus* sp., blue clubtail (male) x1; *Hemicordulia tau*, tau emerald, *Ischnura aurora*, aurora bluetail (male) x2; *Synthemis tasmanica*, swamp tigertail (male) x4

Wasps and Bees - *Bombix* beefly, Cranefly; *Netelia* spp. Wasp (orange caterpillar parasite)

Beetles - ? *Altica pagana*, blue beetle; *Elateridae* sp, click beetle curl grub; *Melobasis purpurascens*, jewel beetle; *Paropsisterna* ? *decolorata*, leaf beetle

Other - *Phaulacridium vittatum*, wingless grasshopper; ? *Tetragnatha* sp, large jawed spider



Wingless grasshopper (left) and unidentified moth (right), images Karen Manning

Meeting Tuesday 2 March – Guest Speaker Prof Nigel Forteach – *Dragonfly Biology*

Prue introduced Prof Nigel Forteach and his talk on dragonfly biology. Nigel started by telling us that dragonflies have been around for 280 million years and that one, the Tasmanian ancient greenling, a damselfly, has fossil records going back nearly 300 million years and it appears to have changed little in that time. Australia has about 30 families and 324 known species of dragonfly and damselflies while Tasmania has nine families with 28, possibly 29 species. Some have come from the mainland quite recently. It is common to see blue skimmers in northern Tasmania now. Nigel saw his first about 20 years ago and about 10 or so years ago he saw his first emperor which is now quite common. The proliferation of shallow, warm farm dams allows the mainland species to thrive and reproduce here.

The emperor is the largest dragonfly in Tasmania with a wingspan of 10 centimetres and it can bite. The largest in Australia is the giant petal tail of Queensland and, despite claims from America, is the largest in the world with the emperor a close second. Some species take eight years to become an adult and the Tasmanian Redspot is a typical example and you will find their larvae in the cold splash zone of waterfalls of south west Tasmania.

Nigel explained that although the dragon and damsel flies are very different they both have huge eyes with most dragonflies in Tasmanian having their eyes close together, except our *Austrogomphus* which has eyes wide apart. Another distinguishing feature is that dragonflies have wings perpendicular to the body while the damselflies can fold their wings over their abdomens and all have eyes wide apart. Both are of the order Odonata with damselflies being of the suborder Zygoptera and dragonflies the infraorder Anisoptera (order Ectoprocta).

Nigel said that he wanted to show us the extraordinary features of these animals and he started with the Australian emerald showing the eyes with their thousands of facets suggesting

that if we were brave and counted them and arrived at 30,000 we would about right and their eyesight is superb. And it has to be for the dragonflies hunt on the wing and some can reach speeds of 45 kph. He also pointed out a feature on the back of the head which allowed it lock the head into the first segment, the prothoracic, as it feeds holding the prey in its front legs.

We learnt that some dragonflies, particularly the Tasmanian emeralds, are very agile in the air able to fly backwards and sideways and even do loop the loops, making them superb hunters. From the images seen Nigel noted that the dragonflies are quite hairy and pointed out what he called ocelli, pseudo eyes, which are important light detecting organs which may help stabilize flight. While the dragonflies are considered primitive insects, with the wings out the side which cannot fold, they have evolved very successfully.

A close up image of the blue cup ringtail damselfly, *Austrolestes psyche*, allowed Nigel to point out what he called the skewed thorax, the front section of the animal. The small prothorax with the first set of legs, the middle thorax with the second set of legs and first set of wings, then the third section, the metathorax, with the legs and the second pair of wings. The abdomen is very long, relative to the animal, possibly helping to maneuver when flying, though it is really important when it comes to mating. The dragonfly has a less skewed thorax and much smaller legs.

On another slide Nigel pointed out the hard to see secondary genitalia on segments two and three of the dragonfly with the sperm being produced at the end of the animal on segment nine before being transferred to the secondary genitalia with the damselfly using the same technique. Large dragonflies called darners use a serrated edge on the ovipositor to saw holes in reeds below the water line to deposit the eggs in so that even if the water level drops the eggs are still kept moist.

A slide showed an emerald tau couple mating which Nigel described. The male used its superior appendages to grip the neck of the female while using the inferior appendage to lock onto the female behind the eyes, a common method for all the dragonflies. The female then bends her genitalia to the secondary genitalia of the male who first checks for sperm from another male, which he will remove, before depositing his, in Nigel's words 'quite extraordinary'. This process takes some time with the animals flying around together, landing then flying off again. When she has the sperm she will fly around looking for food though well away from males. The damselflies have a simpler mating procedure, no checking whether she has already mated, and the business is done much quicker. One species of *Austolestes* forms a cute love heart while mating and the animals stay together and enter the water to lay the eggs. Nigel has timed them for up to 25 minutes under the water.

The talk moved onto larvae with Nigel telling us they came all shapes and sizes and were well armed against predators and will stick their spines into you when you pick them up. Some climb up water weeds to hunt, others live in rotting plant material and some live deep in mud preying on midge larvae. We learnt of their impressive dentition on the lower lip for capturing prey which Nigel described as quite terrifying when looked at under a microscope and taxonomy can be done on this dentation. Damselfly larvae have beautiful gills on the ends of their tails and mostly dwell in reed beds with the large numbers present in winter becoming a food supply for other animals in the water. Dragonfly larvae have gills in the rectum with faeces encased in a little sac to keep the gills from contamination.

When ready to metamorphose into the adult form the larvae drop the gills, come ashore and find something to clamber up. They then emerge from the exuvia, the case of the larval form, taking some time for the wings to form. This is done in the earlier part of the day and the newly emerged animal is called a teneral insect, the wings have not fully hardened and are opaque and the adult colours are not present. The animals are vulnerable at this stage and provide a feast for birds such as currawong.

After identifying the animals in the last of his impressive slide show, Nigel told us about the tiny red water mites which were seen on a damselfly and he wondered what was going on. Did they attach to the larger animal to spread their offspring about? Nigel hopes to produce a book about our Odonata with assistance from Queen Victoria Museum and has photos from this area of 20 species found in Tasmania. He intends to have an image of the male, female, larvae and exuvia of each animal.

After 15 minutes of questions and answers Roy thanked Nigel on behalf of the members and led the acclamation.

Noel Manning

Field Trip – Saturday 13 March – Queechy Lake visit

Queechy Lake was created by damming the Kings Meadows Rivulet where it flowed through a marshy area between Queechy Road and Penquite Road and entered the North Esk River. The Rivulet is fed by a large storm water catchment from roads in Kings Meadows. Flooded but surviving willows became a small island. Phragmites obscure the view from the viewing platform in summer. The LCC plans to extend the ramp and create a bird hide after the current breeding season.

Queechy Lake is a hotspot for birds. 89 species have been recorded. The ebird.org website for Queechy Lake dates back to 2008 when two Royal Spoonbills were spotted on the island's trees and 13 Great Cormorants were seen constructing nests along with 4 Little Pied Cormorants. The Lake is still the only location in Tasmania where spoonbills are known to nest.

The weather was not at all enticing for an afternoon walk in wind and rain, but 6 of us turned up. We knew there were 3 nests on the north side of the willow island with 1, 3 and 2 young in them. (A 4th nest on the south side of the island had recently failed as the very young spoonbill in it had disappeared). It was soon obvious that most of the adult spoonbills had come off the island and were assembled, out of the wind, near the Rivulet's exit into the lake, together with 4 of their juveniles. It was the first time the juveniles had been seen off the island. The youngsters were easy to identify because – unlike all the other spoonbills – they are still snowy white.



Spoonbills on the lake, image Karen Manning

As we walked along the dam embankment 5 Nankeen Night Herons immediately took fright and flight and perched on trees nearer the North Esk. They included 3 juveniles.

The long-suffering island's willows now have maybe more than 200 cormorants on them – Great, Little Pied and Little Black species. It's impossible to count the nests – maybe 70 or more –

each of which currently has about 2 or 3 young clamouring to be fed. We saw a raven fly across 5 times and, unopposed, steal an egg. There were 2 young spoonbills, still too young to attempt flying, remaining on the island with 3 adults. After another count we decided that there were 17, maybe 18, spoonbills at Queechy Lake, including 6 juveniles. Thanks to the weather, many of the usual duck species were sheltering out of sight under the willows or in the reeds but we saw 4 little ducklings speeding around on the water with their Chestnut teal mother.



Deciding that a side-trip to Punchbowl wouldn't be too much fun for afternoon tea, we drove to our place to shelter and dry out. We all regarded it as a very worthwhile walk in spite of the weather!

Tina McGlynn

**Keen members birding in the rain,
image Tom McGlynn**

Birds seen: *Anas castanea*, Chestnut teal, x6 (2 adults, 4 ducklings); *Anas superciliosa*, Pacific Black duck, x1; *Ardea alba modesta*, Eastern Great Egret, x1; *Chroicocephalus novaehollandiae*, Silver Gull, x2; *Cygnus atratus*, Black swan, x12; *Fulica atra*, Eurasian Coot, +++; *Nycticorax caledonicus*, Nankeen Night-heron, x5 (including 2 or 3 juveniles); *Phalacrocorax carbo*, Great Cormorants (on water/lower vegetation), 50+; *Phalacrocorax melanoleucos*, Little Pied Cormorant, x20; *Phalacrocorax sulcirostris*, Little Black Cormorant, +++; *Platalea regia*, Royal Spoonbill, x17 (including 6 juveniles); *Tadorna tadornoides*, Australian Shelduck, x2; *Vanellus miles*, Masked Lapwings, 35+ +++ = **Too many to count**

Skemps Day – Saturday 27 March – Clean up at the Skemps Centre

Heading out to the property at 9am the rain was falling from overcast skies after a predawn thunder and lightning storm with very heavy rain. At the property it was drier than expected though rather cold so Jeff got a fire going which took the chill of the Centre and kept everyone warm and happy.

The storm and predicted rain did not deter members as a sizeable crew arrived with the later ones finding a mess. The first task was the usual cull of games, check them for missing pieces, including the slow task of checking decks of cards, and these were spread around the tables.

The books and videos in the main room were culled so that everything fitted into the corner cupboard and the computer and old sound system were removed as well. This allowed the shelves, small cupboards and desks to be removed to give more wall space and room in the dining/living area of the Centre and made it look more open and less cluttered. Thanks to Tom (T) there are darker curtains in the bunkrooms.

With the weather looking good, Jeff took seven members to the walking track currently being upgraded to obtain their thoughts and any suggestions for improvement. This enabled remaining members to remove the items for disposal from the Centre to the verandah. Vacuuming followed with furniture repositioned and a general tidy up ready for our departure. Some items were taken by members, with our car and trailer loaded with the remainder which was delivered to the Recycle Centre in Launceston. Thank you to everyone who assisted today in one way or another.

Karen & Noel Manning

Additional Information

Club Outings:

- All outings depart from Inveresk carpark (near Museum entrance) at 9 am unless otherwise specified. Internet site updated regularly to reflect short notice changes. Saturday all-day parking cost is \$4.00. Sunday parking free.
- Provide your own food and drinks for the outing and wear/take clothing/footwear suitable for all weather types.
- When travelling by car in convoy, each driver is responsible to ensure that the vehicle behind is in sight immediately after passing a cross road or fork in the road.
- When carpooling, petrol costs should be shared between all the passengers, including family of the driver, and based on other clubs the Committee suggested \$11 per 100 km. This is a guideline only.

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, but should contact our booking manager, Phil Brumby on 0407 664 554 or bookings@lfnc.org.au regarding availability and keys. Bookings enquiries can also be made online, visit <https://lfnc.org.au/bookings.htm> and click on the “Online Booking Request” link.

Field Centre Phone Number: (03) 6399 3361

Postal Address: 23 Skemps Road, Myrtle Bank 7259

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