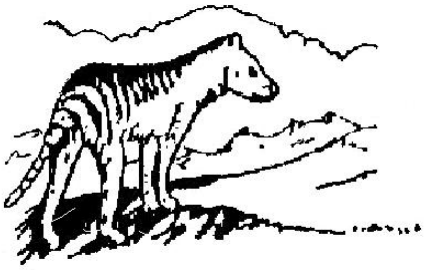

THE LAUNCESTON NATURALIST

Volume L No. 4 April / May 2017

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 Forteath

President : Mrs J Handlinger, 52 Entally Rd Hadspen, 6393 6603

Hon. Secretary : Mrs P Wright

Hon. Treasurer : Mrs K Manning, 46 Robin St Newstead, 6344 2277

Meetings 1st Tuesday of month, Feb-Dec at Scotch-Oakburn College, Penquite Rd Newstead

Program:

June ~

Tuesday 4 - General Meeting guest speaker John Harris, *Wombats*

Saturday 17 - Field Trip - With John Harris to look at wombats in the West Tamar area

Sunday 25 - Skemp Day - Tree maintenance

July ~

Tuesday 4 - General Meeting, Members night

Tuesday 11 - Outing - QVMAG Inveresk to look at natural history collections, 10 am to 12 noon

Saturday 22 - Skemp Day - Tree planting and maintenance

August ~

Tuesday 1 - General Meeting guest speaker James Day, *Wedge-tailed eagle monitoring*

Sat 19 / Sun 20 - Field Trip - Mt Pleasant Radio Telescope Observatory and Chauncy Vale Wildlife Sanctuary

Sunday 27 - Skemps Day

For further program details visit http://www.lfnc.org.au/meetings.htm

Skemp Report

In early April a Probus group visited Skemps and one of the members used timber found in the fire wood box to turn three mushrooms which he donated to the club and these are on display in the cabinet at the Centre.

A few small tasks were undertaken including cleaning the gutter where the drinking water comes off the roof, removing a few spars blocking the Fern Gully, improving the lighting in both bathrooms and restoring the gutter guard to stop the starlings getting into the roof space over the bedrooms.

While John was out and about poisoning foxglove he noticed that two man ferns had been stolen and we are considering restoring the fence on the western boundary of the property.
The barbecue chimney was damaged during a recent storm and has been repaired, including making it much shorter as we hope the fire will draw better after modifications.

The container shed received a major clean out and a reorder of contents resulting in a much tidier, safer and more open work and storage space. John suggested that it be marked 'Men Only' so that we are not under pressure to keep it that way.

John has been working on a fly screen for the back breezeway to keep possums and insects out. This will allow the back door to be left open when it is hot and for the enclosed area to be secure for wet clothing and shoes. The work has been difficult as the old fly screen door being used is not square and this, and other materials being used are mostly second hand. Noel Manning

Puggle
April ~ John Elliott asked for the 3 genera of gum trees. Louise won the chocolate frog by giving the answer of *Corymbia*, *Angophera* and *Eucalyptus*. John then asked the meaning of "corymb" and showed a couple of pictures of corymbs versus umbels.
May ~ Louise Skabo showed members the image of a flower and asked them to identify the plant from which it came. John correctly identified it as *Phyllocladus aspleniifolius* (celery top pine) and Louise followed up with a detailed description of the plant.

Sightings
April ~ Ann found a hairy brown caterpillar covered in what looked like eggs. John E saw a White Goshawk on the corner of Talbot Rd & Lawrence Vale Rd. Irene saw 3 white faced herons at Nunamara. Prue - Scarlet Robin visitor for the winter a week ago. Jill saw wedge-tailed eagle at Waratah. Tom T stopped and checked a large male wombat (road kill) near Drivers Run entrance on Saturday 1 April which had no mange. Noel reported an unidentified raptor at Skemps today.
May ~ Tom T reported a wedge-tailed eagle in a tree on Targa Hill Road.

Library Report ~ Tina reported on newsletters that had been received and advised that Prue had donated copies of the magazine *Birdlife Australia.*

The Year That Was ~ Peter Ralph reminded members that images from club activities for inclusion in this presentation should be submitted to him via email or USB storage device, as soon as possible after the event.

Donation to the Club ~ Noel showed members three fungi models donated by Bryan. The models had been turned from wood that Bryan had found in the firewood heap at Skemps when he recently visited with his Probus group. Members were impressed with his woodturning skills and the delightful colours in the wood; one model certainly captured the shape and colour of *Macrolepiota clelandii*. They will be on display in the locked glass cabinet in the Skemps Centre.

A Guide to Flowers & Plants of Tasmania ~ Club Treasurer, Karen has copies of the Club's guide available at $22 each. If you would like to purchase a copy contact Karen on 6344 2277.

GENERAL MEETING APRIL ~ GUEST SPEAKER SIMON FEARN

~ WILL THE REAL CHRISTMAS BEETLE PLEASE STAND UP? THE ECOLOGY OF THE GREEN AND GOLD STAG BEETLE, LAMPRIMA AURATA

Judith introduced Simon and his talk on the Tasmanian Christmas beetle, the rhino or stag beetle, *Lamprima aurata*. While Christmas beetle means different things to people in other states, in Tasmania the Christmas beetle is the green and gold stag beetle from the order *Coleoptera* and Simon spoke briefly about the genealogy of the animal. The talk was accompanied by an excellent slide show of collected specimens as well as beetles in the wild, mostly mating. An early slide showed the various mainland Christmas beetles followed by one showing the variety in size and colour of the Tasmanian green and gold beetle.

We learnt that rhino or stag beetles are amongst the largest insect on earth with some in Asia and South American reaching 100 mm in length and 40 grams in weight, in Simon's words '…which is the size of a rat'. While these insects favour the tropics, there are five species in Victoria and of the two in Tasmania one is a small nocturnal animal, the other our Christmas beetle.

We learnt that the female lays her eggs in rotting wood, typically a stump, and the grub grows there for two years and if straightened out, when fully grown, would be about 60 mm long. After this growing period they pupate in an oval chamber in the wood and remain there for another year as a fully grown beetle to avoid Tasmania's colder weather. With their powerful fore legs they find their way out of the wood and fly away to find a tree or shrub where they will feed on the sap. Only the males have the large jaws to snip the shoots for the sap and they prefer the smooth bark eucalypts. Simon showed us the base of a tree at his home littered with leaves that had been snipped off, a sure indication of the presence of the beetles.

The females cannot gather the sap for themselves and rely on the male to feed them and it is the smell of the sap which attracts them. Simon had seen a huge aggregation of the beetles at Beechford in the north east feeding on everlasting daisy, *Ozothamnus ferrugineus* and the cut flower had attracted the female so the male could mate with her. On another occasion he found them on boobialla only to realise the beetles were feeding on the clematis vine flowers covering the tree. We learnt that typically males outnumber females three to one and that there is a lot of competition and fighting with the bigger males usually winning.

A slide showed us a male with wings and wing cover extended, and Simon explained that they are good flyers capable of covering a large distance or great height to reach food.

Looking like a section of wrapping paper, a slide showed many beetles lined up and Simon told us that the colours varied and some colours were restricted to specific places. The dark purple ones are only found near the coast within a couple of kilometres of the sea and it is thought that the lack of frosts may be responsible while the size variation depends on the quality of the food. The right moisture content leads to more fungi which is their food.

Simon told us that the mandibles of males become bigger the further north you go with the biggest seen in New Guinea. He described the habitat of the beetle as being the wetter parts of eastern Australia as far as Adelaide as well as Perth in Western Australia and the highlands of New Guinea. Although seen all over Tasmania we see them more in the milder eastern parts as the rest of the state is too wet and cold.

Simon has investigated the variation in mandible size starting with the QVMAG collection of Tasmanian beetles and his own collection from New Guinea. To this he added about a thousand specimens from the places in between borrowed from the Australian National Insect Collection in Canberra and a volunteer came in and measured the body and mandible length.

The statistics confirmed what he had surmised, that mandible length increased as you went north while the body size varied so much in all places that the smallest in New Guinea overlapped with the largest seen in Tasmania.

Simon suggested that the higher nutrient turn over as you went north, where warmth and humidity could promote bacteria and fungi to break down a fallen tree in 18 months, produced bigger mandibles.

Another question was how smaller animals continued to show up if bigger ones won the females when natural selection favoured the larger animal. As wing size was important in other beetles Simon looked at that in the Christmas beetle and found that smaller beetles had a proportionally larger wing compared to the larger animals and this allowed them to fly further. They could fly on if a tree was inhabited by large males and find animals of similar size to themselves to fight with for the females.

Assuming that this pattern of size would be in other beetles, with the habit of fighting for females, Simon looked at the rhino beetle of northern NSW and Queensland and discovered the same pattern of horn length. The ones from the cooler dryer areas were shorter and had smaller horns, while those from wet sub-tropical forests were larger and had bigger horns.

During question time we learnt that in 1983 when the Hydro replaced untreated power poles with treated ones the Christmas beetle numbers declined in suburbia. Prior to that in each street, every 30 metres or so, was an impressive breeding ground for these beetles in the form of an untreated Hydro pole. At the end of the lengthy question and answer time Noel thanked Simon and asked members to show their appreciation with the usual acclamation. Noel Manning

FEDERATION WEEKEND ~ BEN LOMOND HOSTED BY TFNC ~ 14 - 16 April 2017

Five LFNC members along with 2 friends, travelled to Ben Lomond to attend the Federation get-together hosted by the Tasmanian Field Naturalists Club. It was well attended by members from their group and members from northern groups.

With participants arriving at different times on the Friday, there were no activities arranged so we were free to explore the area. Following our trip in February we were keen to walk the new track that was being installed at that time. We were pleasantly surprised with the workers efforts, the track was close to finished and the boulder field was easy to walk through. We continued up to the buildings at the old village site under Legges Tor and then walked across and up to the top of Giblins Peak the furthest of the ski tows, returning along the valley through the scoparia, pineapple grass and small ponds.

Back at the Rover's hut we met members from other clubs who were to be our companions and fellow partners in learning and exploring over the weekend.

Following evening meals, Genevieve Gates gave a talk on her Phd. research on the Cortinaceae mushroom species. She will be presenting a paper on this research when she visits Spain later this year. Her research started with three plots of 50m x 50m, each having been burned at a different time over a long period, with an accurate record of the type of trees on the site and their location. Genevieve then visited each plot weekly over a period of 14 months and recorded how many *cortinarius* species she found under the trees, noting that the more ectomycorrhizal trees in the plots the larger the number of *Cortinarius* found.

Early on Saturday morning a large group left to walk along Meadow Vale, led by Kevin Bonham, up into Surprise Valley to Little Hell and return, around 5 kilometres of rough terrain. Other smaller groups walked to Legges Tor and our group went to Hamiltons Crag. Two caves were located on the Crag and both were accessible, one with more difficulty than the other. There were many small ponds on the crag and along the ski-run surrounded by pineapple grass or cushion plants, and we did see a few tadpoles. We lunched on the rocks in the sun, before returning to Rovers with other people returning at a similar time. During the afternoon the fog rolled in and many people took the

opportunity to look at a collection of slime moulds belonging to Sarah Lloyd or identified camera images of plants and insects they had taken.

Prior to Kevin Bonham introducing the evenings talk by Sarah Lloyd, he advised us that he had found snails for the first time on Ben Lomond. Sarah's talk *Neither slimy nor mouldy, just fascinating!* was on slime moulds. The talk centred on the group Myxomycetes of which some 900 species are known worldwide. Sarah told us about the life cycle of the moulds and showed many images of these fruiting bodies. The moulds can be seasonable, and like shaded, bush litter covered and constantly damp areas. They are often found on *Clematis aristata* and *Bedfordia salicinia* limbs and in the crown of the *Dicksonia antarctica* or on the fronds. There is not much association with plant species but they do like old growth forests.

The next morning was quite cold, with some participants heading off early for the long trip home, while a group donned their warm jackets and were driven down to Carr Villa for the climb back up the side of the plateau and the walk back to the village. Short walks were taken to Hamiltons Crag and Legges Tor by those planning to leave later in the day.

An enjoyable weekend in great company in one of Tassie's magnificent alpine areas. A big thank you to the TFNC for arranging this Federation weekend. Karen Manning

Cushionplants (KM)

Coprosma nitida, alpine native currant (KM)

SKEMPS DAY ~ MACROINVERTEBRATE MONITORING ~ SUNDAY 30 APRIL

Arriving at the property this morning we were pleased to find that Peter W and his grandchildren had arrived before us and the Centre was opened up and a warming fire was going on this very overcast day. Emptying the car, Noel and John set off to collect the water sample from the creek, in drizzling rain.

While we waited for their return, Roy, Louise, visitor Irene and I went to look at the area where the tree monitoring is being conducted. We discussed the amount of trees in the plot and what criteria was being used when assessing each tree. As there were few understorey plants, it was felt that fencing an area under the trees may help the many seedlings that we could see prosper and grow, as at present they were tasty treats for the wallabies.

It was great to catch up with long time members Geraldine and Kath.

With Irene not familiar with the property Roy and Louise offered to take her for a walk along some of the nature trails where they hoped to see fungi and ferns.

During their last visit, the Tuesday Group had removed a red callistemon, a non-native species, and had bought it back to the Centre for disposal. Vivien, Tina and I cut it up, separating out the seed pods and burning them, and cut up the limbs to be used as fire starters.

With the poor weather it was decided to set up the sampling trays inside and once the water had settled we tried our luck looking for the little critters and used the keys to identify our finds. Judith set up the microscope to take photos of the bugs and we took the opportunity to use the scope to look at them in more detail as they are quite amazing. John found something unusual on a rock and brought it back for further examination. Under the microscope we saw rows of eggs covered by a layer of gelatinous material. John took the rock home and Noel wondered if he expected to hatch them for a definitive identification.

As usual the BBQ was fired up for lunch and we sat around in the warm chatting for some time afterwards. Irene told us she had a creek running through her property and was particularly interested in the macroinvertebrate monitoring. John talked to her at length and then showed her how he records the day's findings and works out the scores on his laptop.

A few people went for a walk following lunch, the drizzling rain wasn't going to deter them from stretching their legs, checking out the Top Pond and continuing further afield. While they were gone other members cleaned up the Centre in preparation for an early departure, being cold and miserable it was not expected that we would leave late. Karen Manning

John's report

Sample date	**Taxa**	**Signal 2**	**Interpretration**	**Water Quality**
10/04/2011	9	5.3	Fair quality. Some degradation due to agriculture	Good
23/10/2011	8	5.8	Good quality. Little or no environmental degradation	Excellent
21/04/2012	6	5.7	Questionable quality, possibly disturbance or poor sampling	Fair
28/10/2012	8	5.1	Fair quality. Some degradation due to agriculture	Good
27/04/2013	7	5.4	Fair quality. Some degradation due to agriculture	Good
27/10/2013	7	5.4	Fair quality. Some degradation due to agriculture	Good
26/04/2014	9	5.7	Good quality. Little or no environmental degradation	Excellent
20/09/2014	8	6.3	Good quality. Little or no environmental degradation	Excellent
26/04/2015	10	4.7	Fair quality. Some degradation due to agriculture	Good
24/10/2015	8	5.8	Good quality. Little or no environmental degradation	Excellent
30/04/2016	11	5.6	Good quality. Little or no environmental degradation	Excellent
29/10/2016	6	6.5	Questionable quality, possibly disturbance or poor sampling	Fair
30/04/2017	9	5.4	Fair quality. Some degradation due to agriculture	Good

The Signal 2 score is typical of this site. Most results from this site indicate either excellent water quality or good water quality.

The following taxa were seen:

Acarina	Mites
Amphipoda	Sideswimmers
Coleoptera	Beetles
Diptera	Chironomidae, blackfly, U-bent larvae
Ephemeroptera	Mayflies
Hemiptera	Backswimmers, Velleids
Odonata	Dragonfly
Plecoptera	Stoneflies
Trichoptera	Cased and free-living caddis

JOHN SKEMP MEMORIAL LECTURE ~ TUESDAY 2 MAY

~ GUEST SPEAKER ~ DR ERIC WOEHLER ~ *RESIDENT SHOREBIRDS: STATUS AND CONSERVATION OF BEACH-NESTING BIRDS*

Judith gave a brief history of the John Skemp Memorial Lecture (JSML) and then introduced Dr Eric Woehler and his talk on resident shore birds of Tasmania for the 50th anniversary JSML and during the introduction it was noted that he worked with Bird Life Tasmania (BLT).

Eric started by telling us that he would change the way we think about beaches with his talk. The problem is that in Australia we are a coastal society and we think about what we can do at the beach instead of what we can do to protect the beach. We do not see that a beach in itself is a habitat in the way that woodlands, jungle and rainforests are habitat and people claim birds cannot nest there as there are no trees.

The shore birds, formerly called waders, include the Pied and Sooty Oystercatchers, Hooded and Red Capped Plovers, sandpipers, stilts, avocets, snipes, curlews, jacanas and godwits and the two Tasmanian species of lapwing. While we see the lapwings in playing fields and other grassy areas they are shore birds which have expanded their habitat into human modified areas.

Shore birds feed while wading in the shallows of all waterways and with the recent record rains they are in flooded parts of central Australian deserts feeding and breeding. Eric explained that some birds, such as the Hooded Plover, are habitat specific or specialists and can only live, feed and breed on the coast while the Red-capped Plover is a generalist as it can live on beaches or the salt pans at Tunbridge which mimic the coastal saline environment, close enough so they can survive 100 kilometres from the coast.

Eric told us that our two oyster catchers, although closely related, inhabit different spaces with the sooty inhabiting rocky foreshores while the pied only nests on sandy beaches. Where pied oyster catchers do not have a beach for breeding they are moving away but not breeding successfully. They lay eggs, the chicks hatch then die because there is not enough food in grasslands.

Eric included the fairy and little tern in his talk which, although not strictly a shore bird, faced the same ecological threats and said he would include penguins as these were a current focus in Tasmania.

Tasmania has a 35 year data set for shore birds on 50 beaches and it shows a consistent decline in the number of birds. With all our knowledge of the threats and problems the situation is still getting worse and there is even a decline in national parks, living within a park does not guarantee successful breeding for these birds.

Eric told us that while his 2009 talk on migratory shore birds was depressing because of the losses, at least we knew the problems for the resident birds and there was hope to resolve the issues and save them.

We learnt that BLT is working with Natural Resource Management (NRM) in all regions to continue the bird surveying. Eric showed a map of Tasmania and the islands, which had coloured dots for the coast areas surveyed. King and Flinders Islands were completely covered while the Tasmanian mainland had few places not surveyed. A weed eradication group, led by Jon Marsden-Smedley, had assisted with the survey of the coast from Cape Sorrell near Strahan, east to Cockle Creek, and Parks and Wildlife had helped Eric to reach remote places in the 16 or so years he has been involved. A lot of them he has done personally saying that 'Some idiots walked pretty much all the yellow, that's all me' and the yellow dots formed a near solid line for the rest of the coast of Tasmania as well as covering the coast of Flinders and King Islands.

The mostly volunteer conducted surveys are confined to the breeding season and cover more than 5,400 nests, territories and colonies on more than 360 sandy beaches using a five year cycle. Eric had a frighteningly interesting story of finally getting onto the Australian Artillery Range after three years of trying. He did an orientation day and learnt that he was not to stand still for too long as some shells could be set off by temperature changes and he found it quite unnerving to walk beaches knowing that there could be live ammunition about. He talked about other challenges on

the northern parts of the west coast and the hope that he can get to some of the 100 islands of the Furneaux Group before he retires, including working with local aboriginals to survey Clarke and Cape Barren Islands.

Our relatively small island, including its many island territories, has a coast line of around 5,000 kilometres, longer than the combined coastline of Victoria and New South Wales and this survey work is important as Tasmania is a significant habitat for many species. Tasmania has half the world population of the hooded plover and the pied and the sooty oyster catchers making these internationally significant species. With only 18 breeding pair of hooded plover known to be in New South Wales we can find more than that on one beach here in Tasmania yet they are under threat as people are encouraged to visit national parks and beaches during the summer, which is their breeding season. Eric told us of the way the plovers will screech and move along the beach when we approach before flying off and circling back to the nesting site or territory and while this is occurring, the eggs and chicks are left exposed to the elements. This species is in decline with some Tasmanian beaches losing all of them and he told us that one hooded plover on the Mornington Peninsular laid 16 eggs and did not get one chick due to disturbance.

We saw images of cute hooded plover chicks or the eggs, and Eric explained that the birds choose a site with a visual landmark to remind them of where the nest is. These included clumps of grasses, bark and in one case a patch of shell pieces. Eric described these birds as the bullies of the beach as they initiated fights with the Red-capped plover which then lost and was excluded from the beach. The Red-capped plover can be seen on farm dams and this generalist behaviour makes it difficult to understand how the population is going.

Eric talked about a beach cleaning group who claimed that they do not disturb the birds and he asked them where the nests were. He then showed us a picture of a rocky shore and asked us where the bird was that was screeching at him because, at five metres, he was too close to the nest. A further image showed where the bird was with a close up of the bird which was nearly invisible in the background of rock and debris. Eric posed the question, if an experienced bird watcher, could not see this bird, what hope had the inexperienced members of the beach cleaning group of seeing the even more obscure nest?

We next heard of the pied oystercatcher, endemic to Australia and southern New Guinea, with an estimate of only around 11,000 birds in total is one of the rarest shore birds in the world. With around 40% in Tasmania the numbers are disproportionate here relative to the coastline length and the numbers are stable on some beaches.

While the sooty oystercatcher breeds on rocky foreshores they will join the pied ones on sandy beaches over winter in what is known as a mixed species flock.

Eric had seen a pied oystercatcher in the south which had been banded in 1984 and it was still breeding. This suggested that stable populations are not producing many young and when the older birds die off they may not be replaced with younger birds. It is known that they usually breed after four or five years although some are not finding a breeding territory till they are 12. Birds banded in Victoria have been seen on the east and west coast of Tasmania and on Maatsuyker Island indicating that these are breeding well in Victoria then moving on to find their own breeding territory. These birds have been seen in New South Wales and South Australia as well and Eric asked us to report any banded bird we see with the information about the colours of the bands.

We learnt that sooty oystercatchers are also rare with around 11,500 of these Australian endemic birds known to exist with some 50% in Tasmania, although the numbers may be greater as their favoured rocky shore habitat is harder to visit. We learnt that they have a visual inhibition to breeding in that if a nesting pair can see another nesting pair then neither will breed. They will breed successfully within a metre of each other as long as they cannot see the other pair. A rock or fallen tree is enough to fix this.

Moving to the fairy and little tern we learnt that they are the size of the hooded plover and in Eric's words 'Much smaller bird, you could quite happily cup it….in the cup of your hands. You know, a little bit of tail, a little bit of bill sticking out but not much more.' The fairy tern is down to 2,500 pairs from the 25,000 recorded 50 years ago and at up to 240 pairs we may have about 10% of the

total population. While ¼ of the breeding sites in Tasmania have been lost to human disturbance the losses over the years are masked by the discovery of 10 new breeding sites not historically recorded, perhaps where the birds are moving to.

Eric described the small differences in the fairy and little tern, including the white between the eye and the beak seen in the fairy tern, and told us that these were two closely related sibling species, still able to breed with each other although producing infertile offspring. We learnt that the little tern has less than 10 breeding pair in Tasmania and that both terns are in places popular for recreational beach activity.

When the talk moved to the little penguin Eric admitted that we did not really know how many there were in the world or what percentage lived in Tasmania and he suggested that we needed to start a survey to assess numbers and possible changes in the numbers.

A slide listed the many human recreational activities which will disturb nesting and roosting coastal birds and Eric told us that a study looked at the flight initiated distances, that is, how far away you need to be from the nesting bird before it leaves the nest. For some birds this can be up to 200 metres and as few beaches are wider than this you cannot pass them without the bird leaving the nest and putting the eggs or chicks at risk.

Eric did however mention dogs as a threat to shore birds and highlighted this with images of dogs digging on the beach and chasing birds and another showed a penguin killed by a dog and then we saw a feral cat stalking a penguin.

Eric showed images of four wheel drive activity on beaches and challenged us to watch an hour of commercial television and note that we are bound to see an advertisement for four wheel drive vehicles and most will feature a beach. You are encouraged to drive these vehicles on the beach and Eric told us that they also spread the seeds of invasive species such as the sea spurge.

Eric pointed out that groups walking on the beach disturbed the birds and that human debris washed up on beaches also posed a threat to the birds as we had heard in a previous talk.

A map of Tasmania showed the 50 plus areas in or around Tasmania, including island territories, with significant bird habitats.

. At the end of more than ten minutes of questions and answers Noel thanked Eric. He then needed to be prompted to present him with the John Skemp Memorial Lecture medallion. Following this he asked members to show their appreciation with the usual acclamation. Noel Manning

FIELD TRIP ~ CLUAN TIER ~ SUNDAY 7 MAY

17 members and five visitors met at Andy's car park, Westbury, to start a trip to the Eden Rivulet in the Cluan Tier. This was a follow up, to a short field trip from the previous June to again look for fungi, note the plants of the area and to complete the walk to the site of the timber mill at the far end of the walk.

A short steep walk put us on an old tram line running by the rivulet and formerly used by a logging operation from the late 1800s. Though it was around 100 years since the line was used some of the sleepers were still in place and we marvelled at the levee, a section of the track built by in filling with stone to over two metres high. On the previous trip some had not reached this far as they photographed the many fungi seen along the way.

The end of the line brought us to a road with, to our left, the bridge that once crossed the rivulet washed out and a 200 metre plus walk to the right brought us to the foundations of the steam engine which powered the mill. The stone foundation was still in place with bricks from the rest of the structure lying about. Some bore the inscription F H HAINE with the 'N' back to front and we wondered about this. Was it an advertising gimmick, a mistake or was it done on purpose for fake HAINE bricks?

At the end of this interesting walk we stragglers arrived back at the cars for a late lunch and a chat before it was decide to return to Andy's for a hot drink with those who had not already left for home.

Thanks to Rob this was a successful field trip with him suggesting it in the first place, showing us the way, giving us the history of the area and making the walk easier by clearing fallen spars in the weeks leading up to the trip. Noel Manning

Mycena species (NM)

Dicots ~
Acacia dealbata, silver wattle; *Acacia verticillata,* prickly moses; *Acacia melanoxylon*, blackwood; *Atherosperma moschatum*, sassafras; *Banksia marginata,* silver banksia; *Bedfordia salicina,* Tasmanian blanketleaf; *Bursaria spinosa*, prickly box; *Clematis aristata*, mountain clematis; *Clematis gentianoides*, ground clematis; *Coprosma quadrifida*, native currant; *Epacris impressa*, common heath; *Eucalyptus amygdalina*, black peppermint; *Eucalyptus delegatensis* subsp *tasmaniensis*, gumtopped stringybark; *Eucalyptus ovata*, black gum; *Eucalyptus viminalis* subsp *viminalis*, white gum; *Exocarpos cupressiformis,* native cherry; *Geranium* sp., cranesbill; *Hydrocotyle* sp., pennywort; *Leptospermum* sp., teatree; *Lomatia tinctoria*, guitarplant; *Muehlenbeckia adpressa*, climbing lignum; *Nematolepis squamea* subsp *squame*a, satinwood; *Notelaea ligustrina*, native olive; *Nothofagus cunninghamii*, myrtle beech; *Olearia argophylla*, musk daisybush; *Pimelea drupacea*, cherry riceflower; *Pittosporum bicolor*, cheesewood; *Pomaderris apetala*, common dogwood; *Tasmannia lanceolata*, mountain pepper; *Zieria arborescens* subsp *arborescens*, stinkwood

Monocots ~
Dianella tasmanica, forest flaxlily; *Drymophila cyanocarpa*, native solomon's seal; *Gahnia grandis*, cutting grass; *Lomandra longifolia*, sagg

Ferns ~
Blechnum nudum, fish bone fern; *Blechnum wattsii*, hard water fern; *Dicksonia antarctica*, soft treefern; *Hymenophyllum flabellatum*, shiny filmy fern; *Microsorum pustulatum* subsp *pustulatum*, kangaroo fern; *Notogrammitis billardierei*, finger fern; *Polystichum proliferum*, mother shieldfern; *Pteridium esculentum*, bracken fern

Lichens & Mosses ~
Cladina confusa, kangaroo lichen; *Hypoptergium ? rotulatum; ? Leptogium sp; ? Pseudocyphellaria billardierei; Usnea sp., old man's beard*

Fungi ~
Calocera sp., branched jelly fungi; *Cantharellus concinnus*; *Chlorociboria* sp, blue stainer; *Clavulinopsis amoena*, yellow coral; *Crepidotus nephrodes*; *Geastrum triplex*, earthstar; *Hygrocybe chromolimonea*; *Hypocrea* aff *megalosulphurea*; *Hypoloma fasciculare* var *armeniacum*; *Lactarius clarkeae; Lepista nuda; Macrolepiota clelandii*; *Marasmiellus affixus*; *Mycena albidocapillaris*; *Mycena interrupta*, pixies parasol; *Mycena mulawaestris*; *Mycena subgalericulata*; *Mycena vinacea*; ? *Nothocastoreum cretaceum*; *Panellus stipticus; Ramaria capitata* var *ochraceosalmonicolor,* beige coral; *Stereum ostrea*, golden curtain crust; *Tremella fuciformis*; *Trametes versicolor*, turkey tail

NRM NORTH COMMUNITY WILDLIFE MONITORING WORKSHOP
~ SATURDAY 13 MAY ~ LIFFEY RESERVE

Who: Five members (Judith and Michael, Karen and Noel, and Prue) attended the wildlife camera field day at Liffey, presented by Alison Hugo of NRM North and Matt Taylor from the Tasmanian Land Conservancy (TLC). NRM North will be targeting certain properties regarding specific animal species. TLC has 5 to 6 years of ecological monitoring, and is now branching out to wildlife monitoring on conservation properties, including the adjacent TLC and Bush Heritage reserves which have been added to the Liffey world Heritage area.

Why: There is a need to identify critical habitat for certain species, and much more information is needed on the critical factors. For example Tom Gibson reserve at Epping Forest used to support many bettongs but they disappeared there approximately 10 years ago, and no one knew when, or why. They are our now coming back to some extent. Devils are another example where population decline had occurred for some time before it was detected and investigated. These studies will also get a handle on exotic animal incursions such as deer, rabbits and cats. (Tasmania's Deer have been recently expanding from an estimated 100,000 to 1.5 million.)

Cameras: TLC had a bank of wildlife cameras which are now up to 10 years old, and some have stopped working. Cameras have become cheaper in that time with many new models. Unfortunately this is largely due to hunters, especially in America, rather than wildlife monitors, but hunter organisation websites give very useful reviews of new models. The typical camera is battery powered and waterproof. The TLC cameras have 10 AA batteries, which last about three months between recharges, which is adequate as the best time-span for monitoring has been found to be about three weeks. After that time no further species are likely to be identified. Cameras in most locations need to be camouflaged to prevent theft. Price range approximately $100-$1000, but the cheaper ones are less reliable. Firing time was previously also a factor that varied with price, but these days most cameras are quick, usually around .5 of a second to respond. (Most of the TLC cameras are approximately $200, but some stopped working 3 to 4 years later.) You get what you pay for, but cameras are generally improving.

Where: Cameras are generally best sighted near tracks (human and animal, bridges, near water courses, but not where they're likely to be stolen.) An important factor is that they should not be near moving vegetation, as the cameras are very sensitive. The sensitivity to movement is triggered by changes in heat, which is detectable through moving shadows, so moving vegetation should be

cleared for 2 to 3 meters around the viewing area, to prevent large numbers of irrelevant photos of moving ferns et cetera. TLC also uses fish oil as an attractant for animals (about a measuring cup on the ground of fishing shop burley oil). This is not appropriate for a random sampling of numbers, as it does introduce bias, but in most cases the aim is to know what is present, rather than an estimate of numbers.

The cameras will pick up small rodents, antechinus, birds, but to do that the camera should be pointed downwards to monitor a small area. Also locate the camera lower for small rodents. Note that generally you can only tell the small rodents part by using traps, and there are very few people in Tasmania with the knowledge to do this.

Sound: A sound recorder can also be attached to the same monitoring post, but as these records sound for only approximately 20 minutes there are unlikely to be successful if located near a river or other noise. There is a university project to listen to the tapes and identify the birds on that tape. This is time-consuming so editing to the relevant calls should be done first. Currently there is a university program (~ $10,000) that can aggregate the bird calls from a long tape. In the future it's likely that we can all get a phone app to do this (probably approximately $150).

Another important part of the overall monitoring is to photograph the wider area around the camera as this gives information on the type of site used. This can also provide a record allowing detection of changes at the site over time, so that both the habitat and the animals are being monitored.

Timeframes: It is suggested that each site be monitored for three weeks, with repeat monitoring every 2 to 5 years at the same site.

One example of the findings from such monitoring is the difference seen between North and South Bruny Island. There are very few cats in the northern part of the island and a lot more quolls. There are also many potoroos, (no devils on Bruny), no bettongs or bandicoots.

Cats are a major factor in determining the prevalence of many animals, and are themselves one of the most prevalent animals, often only behind pademelons, possums and Bennett's wallabies. Training exercise: Participants were divided into groups to practice setting up and triggering the cameras, which was surprisingly easy except for siting into the desired area and avoiding moving vegetation. Judith Handlinger

SKEMPS DAY ~ SATURDAY 20 MAY

Leaving Launceston for Skemps this morning there was a light drizzle, with the weather bureau promising lots of rain in the north east later in the day. We hoped for a walk in the morning to look for fungi and snails, and if it rained later in the day we wouldn't mind.

By the time we arrived at Skemps it was raining and quite cold, and we were to find during the morning that the predicted weather hadn't deterred the twelve members and two visitors travelling out to the property.

The fire was lit and we were joined by first time visitor Kate who lived in the area and was interested in finding out about and joining in the Club's future activities. We were also joined by Irene who had visited last month. As a walk in the increasingly heavy rain was impractical, we used the map in the Centre to indicate where the nature trails were located and discussed the different vegetation types to be seen in various parts of the property. With both our visitors being locals, we had an interesting talk about Mount Barrow and the surrounding area.

Roy, John and Karen had a short meeting to discuss the revision of the Club's book. It was decided that contact would be made with the publisher to obtain advice regarding a time frame for submission of updated information and the specifications for any new images (resolution, aspect ratio etc.), before proceeding further.

A few people left as the rain was not letting up and there was no prospect for a walk. Those remaining had a late lunch and then tidied up the Centre and also headed home. Back in Launceston the rain was just a drizzle. Karen 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 $3.00. Sunday parking free.
- Provide your own food and drinks for the outing and wear/take clothing/footwear suitable for all weather types, camera and field guides.
- 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, John Elliott on 6344 9303 or skempbookings@yahoo.com.au regarding availability and keys.

Field Centre Phone Number - 6399 3361

Postal Address: PO Box 1072 Launceston 7250

Internet site : http://www.lfnc.org.au

Email : secretary@lfnc.org.au

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