ARTICLES FROM THE LAUNCESTON NATURALIST

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February 5 - Nick Mooney - Devil Disease update

Nick Mooney, an experienced wildlife officer of the Department of Primary Industry and Water, spoke to members on the huge and unresolved problem of the facial tumour disease decimating the Tasmanian Devil population.

He asked us to think about the issues and outlined some of the problems that have faced the devils since white settlement and he did not paint a pretty picture. He told us that huge numbers of devils were killed each year in the early days in the Midlands. It is due to their adaptability that they are still with us today, in spite of a bounty and other efforts to eradicate them.

Nick explained that he felt that the public in general did not appreciate the role the larger carnivores played in the balance of life in the bush. He told us that, if present, they stabilise the ecology through control of the numbers of their prey and of disease. We have already lost our major carnivore, the Thylacine, which was important in suppressing the numbers of wallabies and wombats in Tasmania.

Top predators now in Tasmania include the eagles, large raptors that feed on much the same food as the Thylacine once did. However, through human intervention and developments such as forestry plantations, windfarms and clearing for agriculture, resulting in loss of habitat and direct killing, the numbers of the eagle have been severely curtailed.

Our next best predator is the Tasmanian Devil and he is in trouble, such a crash in population as this present one is unprecedented, suggesting that something unusual is happening.

The flow-on effect of the drop in devil numbers is that it creates instability in the native animal world; it changes predators and causes disease and starvation. Wombats, echidnas and wallabies are increasing in numbers as the devil numbers fall. With the loss of so many devils, there is less food for the increasing numbers of their prey animals.

Illustrating the point regarding the resultant imbalance that occurs when one predator is removed, Nick mentioned that on the mainland dingoes hunting in packs suppress the numbers of foxes and cats. When dingoes are removed

these two species quickly increase in number and small marsupials are then preyed on, resulting in an increasing number of extinctions on the mainland. The dingo on the other hand does not seem to prey on small marsupials very much.

Nick told us that the tumour facial disease was first brought to the Department's attention in 1996 by a photographer working in Mt William National Park. He thinks that the disease had spread to about a quarter of the state before being found.

The tumour starts with a little pimple appearing on the face, the cells of the tumour are not being recognized by the devils' immune system, possibly due to lack of genetic diversity in the devils. Once the cancer becomes visible, it spreads very quickly with animals dying within a few months. It seems to attack animals between 2 and 3 years of age, although on occasions young devils have been infected as well. Because of this major disturbance, females appear to have only one breeding event instead of the usual three, thus upsetting the whole age structure of the devil population. The disease is easily transferred from devil to devil, it is believed either by means of fighting over food or at mating time. To date no immune devils have been found.

During the early days a trailer for survey work was provided with their own money to further surveillance and over the years trapping has continued. Nick developed a new type of PVC trap because the devils were ruining their teeth on the metal ones previously used.

Government ultimately provided equipment for the project and cameras were set up in remote areas, e.g. the south-west coast. Sixty different locations covering about 50% of the Tasmanian mainland and involving about 75% of the devil population were monitored. In the north-east 80-90% of the devils have died, so far in the north-west no deaths have been recorded.

The presence of foxes in the state is a constant concern as they will increase in numbers to fill the gap that the devils leave as they die. Nick considers the fox the biggest risk for Tasmania and that the need is great and urgent to get rid of the foxes now and to keep the feral cat numbers down as well. He considers that cats should be subject to registration as they are in New South Wales. To date no cause has been found for this awful disease and research continues.

Marion Simmons

A Case Moth Sighting

I found the strange object whose photo is shown near Lobster Falls south of Mole Creek. It was obviously the home of some animal at some stage of its life cycle but I had never seen anything quite like it so took it to the QVMAG for identification.

Craig Reid at the museum kindly made some enquiries and eventually came up with the information that it is the case of the case moth *Hyalarcta nigriscens* (sometimes known as a ribbed bagworm).

Armed with the name I was able to do some research on the internet and elsewhere.

It seems that case moth larvae of different species build an array of very different, but characteristic, cases. Some are made of twigs, others of leaves and the one I found is apparently made of "silk" produced by the larva itself.

The larva carries the case around with it as it feeds on the leaves of various plants including eucalypts and, when it is fully developed, it attaches the case to a branch and pupates inside it.

The adult moth eventually emerges and mates. Females then return to their own cases and lay their eggs in them. When larvae emerge they leave the case and build their own, and so the cycle continues.

This particular case is quite large, about 80mm long (including appendages) and 30mm wide.

Excellent information on case moths and other insects which can be pests of trees can be found in an online book at www.mkhala.com.au and follow the links through "portfolio" and "print projects".

Other useful references are the new book "WINGS" by Elizabeth Daley recently added to the Field Nats library and Insect Pests of Trees and Timber in Tasmania by H J Elliott and D W deLittle published by the Forestry Commission of TAS.

Roy Skabo

Saturday 9 February - Visit to Launceston Lakes

As a follow up to our excellent February meeting talk by Nick Mooney on the Tasmanian Devil Facial Tumour, 14 members and one guest went to Launceston

Lakes, principally to see the many Tasmanian Devils there. This wildlife park has a diverse selection of native and introduced birds and animals as well as 35 devils in 12 enclosures from 350 to 500 square metres in size.

The owner of Launceston Lakes Dick Warren gave a talk during the devil feeding and we were told that the devils and eagles were fed with kangaroo from culling by shooters on the east coast of Tasmania, which was kept frozen at the Park until required.

Following a late morning tea after viewing the devils and wombats, we walked to the far end of the wildlife park to see more animals and birds and the two injured, and presumably flightless, wedgetail eagles who occupy a small island on the lake.

During our walk we saw emus, kangaroos, birds (both Australian and overseas varieties), marmosettes, deer, donkeys, a shetland pony, koala and snake, alpacas, goats, blue-tongue lizards and wombats.

The week following our visit the Examiner newspaper reported that a marmosette had given birth to twins. Noel Manning

Saturday 16 February - Skemp Open Day

The Club Open Day proved to be a very successful one with at least 150 people attending; visitors were arriving till late in the day. We were pleased to welcome members who we have not seen for a long time, as well as many visitors who had seen or heard the publicity in print and on radio and were encouraged to come.

A family with early links to the district and with the Skemp family were very interested visitors relating many stories of the early history. Another visitor loaned us a rare photograph to copy of the Skemp family, Roland & Flo with Sam and Florence's sister Ada. Whilst we have pencil sketches of Sam & Ada this is the first photograph in our collection.

Walks were in progress for most of the day, at times three or was it four parties out on the trails at any one time with club members as leaders. Everyone seemed to be very happy and enjoyed the outing.

An additional attraction was the completed interpretation shelter at the site of the old homestead complete with photographs and signage.

To top off the day two platypuses were spotted feeding in Bob's Bog, with photographic evidence being provided by our President, Noel. As well there were

several reported sightings of tiger snakes. Have you seen the shedded snake skin on the wall at the Centre? That is one quite large snake!

Marion Simmons

Platypus

We are all familiar with this strange little creature and were particularly thrilled to learn that two animals had been spotted in Bob's Bog at Skemps.

The Platypus (*Ornithorhynchus anatinus*) has dense velvety fur, its jaws are encased in soft leathery skin, harder on lower jaw, with sensitive nerve endings. Its limbs are webbed, the front ones used for swimming and burrowing. Part of the web folds back so stout claws can be used for burrowing or walking. Ears and eyes are closed when swimming and it relies on its sensitive bill to locate food in the ponds. Its diet consists mainly of aquatic insect larvae, crustaceans, worms and tadpoles – general pond or creek life. They often surface for breathing and for chewing prey that they store in cheek pouches when under water.

Nesting burrows vary from 5-20 metres in length, the entrance usually 1 or 2 metres above water with maybe more than one entrance. Breeding occurs in spring. Nests are built by the female in a chamber at end of tunnel and are made from plant material. Clutch consists of 1-3 eggs and are incubated by the female, holding the eggs between folded up tail and abdomen. They hatch in about 10 days and the young emerge from the burrow at about 4 months.

Marion Simmons

Tuesday 4 March - Steve Lockwood - Conservation work at Kate Reed Reserve

Our speaker was Steve Lockwood, Science teacher from Prospect High School, who spoke on the conservation work being undertaken at Kate Reed Reserve and the part it played in the school science curriculum.

He was accompanied by another teacher, David Lade, who ran through some excellent slides to give us an insight into the diverse and interesting flora of the area. These included, among others, some lovely plants of the lily family, e.g chocolate lilies (*Arthropodium strictum* – previously *Dichopogon*), milkmaids (*Burchardia umbellata),* blue stars (*Chamaescilla corymbosa var. corymbosa*),

forest candles (*Stackhousia monogyna*), several different guineaflowers (*Hibbertia* species), and a fine collection of orchids. Steve told us that there were 11 threatened species in the reserve.

Steve gave us a brief outline of the rather chequered history of the reserve telling us that it was named for the second wife of the original property owner, Henry Reed. She was a keen horse rider in the area. The reserve was acquired in 1968 and saw much neglect over the years. It became very degraded being used as a rubbish dump, a source of firewood, a playground for trail bikes and was heavily infested with weeds.

In 1999 the school was approached to see if they would be interested in involving students in its care and to use it as part of their science programme. The area with which the school is involved covers just 13 hectares adjacent to the school.

Over the years this programme has been developed, a greenhouse was built and utilized by students for propagating plants. These have been sourced from seed collected from the property and from root cuttings. A new larger greenhouse is being built to enable more projects to be undertaken and developed as part of the school science programme. It is proving a great boon to many students, encouraging a real interest in our local plants and botany in general. However, there are plans to bulldoze a large section of the reserve to make way for a slip road. Marion Simmons

Our Tallest Tree At Skemps

Last September I rashly stated that I would measure the height of the tall tree on the other side of the valley quite sure that I would have no trouble borrowing a theodolite by which I would measure the angle of elevation of the tree and hence calculate the tree height. I was quite sure that although the fifties optical theodolites were no longer in use , surely one of the local surveying companies would have one, even if it was stored away as a collector's item. It took several months to find that not one of them bothered to keep one. However I was advised that the museum had them in store. The next rebuff was that museum policy was not to loan anything. Our Patron and member Chris Tassell suggested that I try Tasmanian Forestry.

I contacted Mr Peter Bird, Forestry Manager at Scottsdale but they also did not have one. However Peter said why don't you let us do the measurement for

you. We will ask a surveyor to carry out the job. Accordingly I received a call from Mr Kerry Wakefield and we agreed to meet at Skemps at 9.00am on February 19. By that time John Simmons and John Elliot had also arrived and we escorted Kerry to an ideal spot up behind the tree where an uninterrupted view could be used. It took Kerry about 15 minutes to set up, measure the angle of elevation and the horizontal distance to the base of the tree. Then using the tangent of the angle and the distance the height was automatically calculated in the theodolite's computer. I would have had to use trigonometrical tables to make the calculation.

At the next general meeting the members were invited to guess the height together with a donation of the cost of the guess, one dollar. The height calculated was 57.46 metres and the nearest guess was made by one of the newest members Tina McGlynn with 58 metres, the next nearest was her husband Tom with 60 metres. The girth of the tree was guessed by Marion Simmons. right on the button, 10 metres. Tina received a copy of the latest LFNC book Flowers & Plants of Tasmania as her prize. Al Pegler

Sunday 9 March - Shorebirds of the Tamar

Due to the late cancellation of the scheduled outing, 6 members attended the public talk 'Shorebirds of the Tamar' hosted by Birds Australia in George Town. Speakers were Bianca Priest from Birds Australia and Eric Woehler, co-ordinator of the Tasmanian branch of Birds Australia.

Bianca was currently undertaking a review on the shorebirds in the Tamar, which looked at the distribution, threats to the birds, and the existing conservation and management needs of the area. There are 7 species of resident shorebirds in Tasmania and 20 species of migratory shorebirds that regularly visit Tasmania via the East Asian-Australasian Flyway which extends from eastern Siberia to eastern Asia and Australia. In the Tamar area there are both residential and migratory shorebirds. They require roosting sites where they are safe at high tide, feeding areas where they can search for molluscs, worms, small crustaceans and gastropods which are usually found on intertidal flats and beaches, and breeding areas where the birds can nest directly on the sand. Shorebird threats are

- Habitat loss – includes reclamation, urban development and severe erosion

- Habitat modification – includes physical or biological changes to the habitat
- Disturbance is mainly due to human recreational activity – off-road vehicles, camping, boating and bait collection
- Predation - animals such as foxes, domestic and feral dogs and cats, that prey on the eggs and chicks

Bianca's project also includes educating communities about the problems faced by shorebirds in their area. There is also a need to gain support from locals to volunteer their time and regularly gather information on the shorebird populations so as to identify any changes in the numbers and varieties of birds in particular locations. This information is also forwarded to the 'Atlas of Australian Birds' study, a long term monitoring project by Birds Australia and other agencies.

We were advised to look at the following when trying to identify a bird:-

- the size and colour of the bird
- the length and shape of the bill - short or long, thick or thin, curved or straight
- the length and colour of the legs

Following the presentation Bianca and Eric answered questions from the audience (53 participants) many of whom were concerned local residents. A light lunch followed and we then drove to the George Town Wildlife Sanctuary a short distance from the town centre to view the birds. The following birds were identified by Club members using their own personal binoculars or the high powered telescopes that were set up by the organisers: pelicans, black swans, black cormorants, little pied cormorants, black-faced cormorants, sooty oystercatchers, pied oystercatchers, masked lapwings, white faced herons, red-capped plovers, silver and pacific gulls. At this stage it was high tide and unfortunately many of the birds reported as being in the area earlier that morning were now not present.

We were provided with a selection of brochures and a set of laminated Australian Shorebird Identification sheets to further enhance our knowledge of the shorebirds and their plight. These will be available for members to view in the Skemp Library.

On the banks of the wildlife sanctuary we saw *Allocasuarina sp*. in flower, coastal wattle (*Acacia longifolia*), silver banksia (*Banksia marginata*), prickly box

(*Bursaria spinosa*), native mignonette (*Reseda luteola*) coast paperbark (*Melaleuca ericafolia*) and african boxthorn (*Lycium ferocissimum*)

Friday 14 - Sunday 16 March - Federation Weekend at Liawenee hosted by Tasmanian Field Naturalists Club

Seven members from the LFNC left a very hot Launceston on Friday afternoon and drove to the more pleasant temperature of the Great Lake area arriving at Liawenee about 5pm where we were joined by Sue Woinarski for the weekend in Hut 2, a well set up 4 bedroom house.

That evening we joined naturalists from the other Clubs at the Tiger Hut to hear James Woods talk about his work of seed collecting for the Millennium Seed Bank Project. His slides and interesting talk concentrated on parasitic plants and in particular the *Cuscuta tasmanica*.

We met the following morning at the Rangers Station car park, where the garden included a waratah (*Telopea truncata*) in flower and headed off to our first field trip to Lake Ada and Ada Lagoon spending nearly 3 hours on the tracks there joined by 6 or so fishermen. The area consists of low scrubland which included two native cherry (*Exocarpos humifusus* and *Exocarpos nanus)*.

We lunched in a grassy car park behind the sand dunes of Lake Augusta before walking over to the lake. The desert like alpine sand-dunes were in stark contrast to the vegetation encountered elsewhere in the area. An unusual cricket and a wolf spider big enough to cover a 50 cent piece were among the critters found.

On the return journey we stopped to investigate alpine plants in the lee side of some rocky ridges marvelling at the proliferation of plant life below the cliff. Tree violets *(Hymenanthera dentata)* along with mosses and ferns even grew in the crevices of the cliff forming a spectacular hanging garden in one part of the cliff face.

After the Federation meeting at the Tiger Hut, we enjoyed a BYO BBQ and drinks with salads and bread supplied by our hosts and the great company of fellow field naturalists. Afterwards Michael Driessen presented his talk with slides on orthoptera insects, the grasshoppers and crickets, entitled "Things that Hop and Sing”.

Our final outing was on Sunday to Pine Lake (north of Great Lake) with its many pencil pines and boulder fields at the base of the mountains surrounding

it. Among the many unusual finds were dwarf mountain peppers (*Tasmannia lanceolata)* with seeds and a small celerytop pine (*Phyllocladus aspleniifolius*) also in seed. We lunched in the car park before saying our farewells and heading home. The temperature again climbed as we descended toward Launceston.

Noel Manning