

ARTICLES FROM THE LAUNCESTON NATURALIST

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August General Meeting: Glaciology of Cradle Mountain.

This lecture given by Michael Thrush was an excellent talk from a man very passionate about the 'evidence of glacial activity in the Cradle Mountain area'. Michael retired from the Bank and enrolled at university as a mature age student. His studies culminating in his thesis on glacial activity in Cradle Mountain.

He explained in layman terms the stages, phases, character and evidence of the three different glacial events which have occurred.

Evidence is shown by

Deposition—boulders both large and small are moved from their original position by the glacier and deposited 'downstream' on demise of the glacier, sometime in spectacular circumstances (photo shown of a very large conglomerate boulder deposited on a dolerite outcrop some 20 kilometres away).

Moraine—ridge like structures formed at right angles to the glacial movement which scrapes up the surface material, which can be earth or rocks, or a combination of both.

Till—a sediment of earth and rocks spread in a layer.

Cirques—deep lakes usually at the foot of very steep slopes, carved out by glacial movement.

Striations—grooves and scratches formed on rocks by trapped hard rocks at the base of the glacier.

Dating methods show the most recent glacial period as being 19,000 years ago and the one before that 120,000 years ago. Dating methods are either carbon dating 'numeric' or weathering rings formed by cosmic rays 'cosmogenic exposure'. Cosmic rays change the structure of the rock, forming new elements; these can be formed up to 1 metre underground.

The lowest semi permanent snow line was at 1010m elevation 40,000 years ago, when 300m thickness of ice was located in the Pencil Pine phase and 30,000 years ago, the semi permanent snow line was at 1506m in the Dove Lake phase. The snow line at present is 2558m.

I think we will all look at mountain areas with more understanding in future.

Neil Drury

September General Meeting : Butterflies

At this meeting Ian Knight gave a fascinating and wide-ranging talk about butterflies. His wife, Cindy, shares this special interest. Their study of butterflies began in South Africa and continued after their move to Queensland and then to Tasmania (in 1996).

Near Coffs Harbour, NSW, the Knights recognised and collected some unfamiliar skipper butterflies. In 1994 two authors described this new species and named it in their honour: - Ocybatisdes knightorum.

Australia has 420 species of butterflies plus about 300 named subspecies. 75% of the Australian species are represented in Queensland and Torres Strait Islands compared with 12% in Tasmania. Here, if subspecies are counted, we have 57 kinds of butterflies recorded. Ian is now studying a new subspecies from Flinders Island.

Three butterfly species are endemic to Tasmania:- Argynnina hobartia: Hobart brown, Neoxenica leprea: leprea brown and Oreixenica ptunarra: ptunarra brown.

In 2004 Ian Knight prepared a complete reference set of Tasmanian butterflies for the Queen Victoria Museum, Launceston. Parts of his extensive collections have been donated to other scientific institutions elsewhere.

Australian Government authorities have placed on a protected list species which are thought to be rare. There may be a long wait to obtain a permit to collect in a National Park or on a specific island.

Conservation of native fauna is important but Ian made the point that over protection can inhibit much needed research. In Queensland a decision to allow Queensland Entomologists Society members to collect insects in its State's National Parks is sensible.

For recent collecting Ian himself has visited Norfolk Island and Torres Strait Islands. In future he hopes to increase his knowledge of Western Australian butterflies.

The meeting was given much helpful information on how to collect, prepare and store butterfly specimens. When searching, a knowledge of food plants is useful, eg in Tasmania the larvae of Macleay's swallowtail, Graphium macleayanum, feed only on Sassafras. Adults fly only when the sun shines.

When butterflies are netted, if they can be sedated, checked and imperfect specimens set free, rather than all killed before inspection, this is helpful. However, if different species look superficially alike then it is necessary to examine the genitalia of dead examples to obtain more accurate identifications.

Butterflies which have been set, dried and stored properly will remain in good

order for many years. They must be protected from light (which fades colours), humidity and attacks by larvae of dermestid beetles which eat dry animal matter. Above all, to be of use for reference the specimens must have labels to show where and when they were collected and, preferably, by whom.

In addition to the scientific value of well-prepared and documented collections of butterflies there are secondary benefits. They give pleasure to people which view these beautiful insects and the initial walking provides the collector with a good way to keep fit.

Our thanks to Ian Knight for a memorable evening.

Alison Green

Excursion 9 September : Kate Reed, Cheltenham and Blackstone Road Reserves

Fifteen members gathered at the meeting place. Firstly we visited Kate Reed Reserve and wandered along the tracks noting many different plants with a few in flower.

The most prolific was the common heath (*Epacris impressa*) with mostly white flowers, although there were pink and red. Erect guineaflower (*Hibbertia riparia*) with a few flowers. Drosera species, sundew, with spheres of shining sticky hairs waiting to trap unwary insects; groups of nodding greenhoods (*Pterostylis nutans*) in occasional flower were scattered through the undergrowth; blue lovercreeper (*Conosperma volubile*) was in full bud; possibly backstripe greenhood (*Pterostylis melagramma*) (previously known as a form of *P. longifolia* that does not occur in Tasmania), with a number of flowers and leaves up the stem; silver wattle (*Acacia dealbata*) was a mass of golden blossom; the first of the red flowers of running postman (*Kennedia prostrata*); a few bright yellow stars of a tiny lily in the Hypoxis group; in pink bud was peachberry heath (*Lissanthe strigosa*) and finally a large patch of bright green leafed common maidenhair (*Adiantum arthiopicum*). Alison found a brown millipede, several members spotted wallabies, a large stick nest was noted in a tall eucalypt (maybe a raven's) and the endemic yellow wattlebird was also seen.

Next stop was Pitcher Parade Reserve near Blackstone Heights, a Landcare reserve with seats and picnic tables for lunch. There is a really good walking track taking in 3 ponds where water birds were seen. We spotted several chestnut teal, dusky moorhens, eurasion coots, a group of little grebes, a swan sitting on a nest in the reeds, chestnut-breasted shell ducks, pacific ducks and a number of hybrid domestic ducks. A group of white cockatoos were feeding nearby and Noel saw an echidna that he photographed to prove it!

We drove back to Casino Drive stopping beside the reserve near Cheltenham housing estate – the trees come right up to the road there. Here we found early evidence of many small plants still to flower, daisies, lilies and orchids in particular. Much the same flowers as in Kate Reed were in flower here. Nodding

greenhoods were everywhere, as well as a lot of the tall blackstripe greenhoods, mayfly orchids (*Acianthus caudatus*) and small gnat-orchid (*Cyrtostylis reniformis*), buds on bird orchids (*Chiloglottis* species) and a few flowers of maroonhood (*Pterostylis pedunculata*). In another month or so these areas will be a mass of colour and well worth another visit. It was altogether a lovely day out!

Marion Simmons

DEVIL FACIAL TUMOUR DISEASE - Lecture 3: 12 September

Insurance Strategies and Wild Management

Steve Smith introduced the talk and restated information from previous talks adding that it took some time to recognize that this was a significant disease that threatened the very existence of the Tasmanian Devil.

The team looking at the disease and the steering committee combine the resources of the Australian and Tasmanian governments, RSPCA, Tourism Tasmania, Parks and Wildlife, CSIRO, Universities of NSW and Queensland, and Rupert Woods an independent veterinarian from Taronga Park Zoo.

So far healthy devils have been sent to 4 mainland zoos as part of the insurance population and a devil recovery plan is soon to be released.

The Mark Webber Wilderness Challenge raises money for worthy causes and it is expected that he will soon announce that some monies will go to the DFTD research project.

Steve then introduced Menna Jones and listed her qualifications and the many places where she has studied. Menna's doctoral research was on the devils at the Freycinet Peninsular before the disease was known.

Menna stated that the aim of the DFTD project is to maintain the Tasmanian Devil as an ecologically sustainable species in the wild, as there is a real risk that the devil will be gone from the Tasmanian wilderness in the next 20 to 25 years.

The off-site option for saving the devil is a disease free population away from Tasmania and the on-site option involves disease suppression through isolation and removing diseased animals in areas of Tasmania. It has been estimated that there will need to be 1,500 animals in captivity or 5,000 in the wild or a combination of each of these for the project to work, especially if we are to keep the genetic diversity of the devils. The animals in the wild would be kept in meta populations throughout Tasmania, that is small diverse groups with movement of animals between these areas. She noted that existing sites in the wild which were easy to manage could support between 3 and 4 hundred animals yet we need around 2000 in the wild for the project to work.

Populations would be kept or managed on Tasmanian islands, fenced reserves in

Tasmania and the Australian mainland, and in zoos and parks in Tasmania, interstate and even overseas.

It cost 10 times as much per animal to keep the devils in zoos as it does to look after them in the wild. There are many other benefits to wild populations including maintaining natural hunting and mating patterns and wild populations also benefit from their exposure to natural devil parasites.

Menna had many statistics comparing the disease on the Forestier Peninsular with the rest of the state showing a vast improvement although it is too early to say that the work there has been successful, at this the most promising site for conservation of devils.

The second best site for managing a disease free population of devils is the Freycinet Peninsular as it would be relatively easy to isolate. One option being considered for this site is to remove all adult animals in the hope that the remaining young would be disease free.

This was a great series of lectures detailing an important issue about conservation in Tasmania. For more detailed information go to www.tassiedevil.com.au including five news letters on the progress of the project.

Noel Manning

Skemp Day 15 September

On the 15 September Mrs Joan Field together with her husband and sister visited Skemps and gave a talk to Club members present about her Memories of Myrtle Bank where she and her sister spent their early child hood. She left Myrtle Bank 54 years ago and stated this visit was certainly a trip down memory lane. She remembered John Skemp as "Uncle Jack" and knew of his involvement with the Launceston Field Naturalists Club. When looking through their brothers' belongings Mrs Field and her sister found some articles that they felt the Club would be interested in.

She presented the Club with the Cricket Trophy won by John Skemp in 1937 inscribed, *J Skemp winner Batting Average 1937 Myrtle Bank Cricket Club*, a Prayer Book belonging to Ada Kearney (John Skemp's aunt) who lived with Mr and Mrs Skemp at Myrtle Bank, and photographs taken at the last Christmas the family had with John Skemp.

The Club is most appreciative of the time given by Mrs Field to speak to Club members about her family's contact with John Skemp and for the mementos given to the Club. They will be treasured and placed appropriately in the Club House at Skemps.

Elizabeth Montgomery