

The North-Eastern Naturalist

Issue 181 February 2010

President: President: Jill van den Bosch, 311 East Minstone Road, Scottsdale 7260.
ph 6352 3004. and 0429 644 329

Vice President: Mike Douglas ph. 6356 1243

Secretary / Editor : Louise Brooker, 20 Edward Street, Bridport. ph : 6356 0381 and
0417 149 244 e.mail: brooker@vision.net.au

Treasurer: Revel Munro, 'Kanara Neika', Telita. Ph. 6354 2254

Committee: Denny Walter, Lesley Nicklason, Pam Bretz.

Web address: <http://www.netasfieldnats.org.au>

IT IS THE MISSION OF THIS CLUB to encourage the study, appreciation and preservation of our natural and cultural environment, the animals, plants, geology and landforms, including those of the coastal and marine areas in the North East region of Tasmania.

The Club conducts outings on the second Saturday of the month.

February 12 Five Mile Bluff - Rock Platform.

We have waited for sometime for a low tide in the middle of the day suitable for doing this walk. The rock platform, similar in kind to the Tessellated Pavement on Tasman Peninsular, is little known and little visited. An easy beach walk of approximately 6km. with some rock hopping. Meet at 10am at the junction of Low Head Road and Soldiers Settlement Road, about 1km north of George Town.

Leader: Lou Brooker 6356 0381

March 12 Beach Walk : Lades Beach - Tidal Sand Flats of the Little Forester River - Adams Beach.

A 6km beach walk which includes some barefoot wading across the wet river flats, bird watching, coastal geomorphology and shore plants. Bring binoculars and bird books. Meet in Bridport at 10 am. at the car-park opposite Southern Shipping & the Rahra Cafe. Car shuffle will be arranged at the start of the outing. Leader : Mike Douglas 6356 1243.

April 9 Duco Adit - Crystal Creek Walk - Blue Tier.

Beginning at the Crystal Creek bridge, this newly marked track is graded Medium in the Club's grading system. It is an easy 3km walk with a couple of moderately steep sections. The walk will offer opportunities to see glow worms and cave spiders, so bring a strong torch for this. Meet 10 am at the Crystal Creek Bridge, about 5km in from Little Plain on the Lottah Road.

Leader: Lesley Nicklason 0400557418 or 6373 6195.

May 14 Great Railway Trek : Kamona Siding to Tullendena Siding.

Following the success of the first walk on the old North Eastern Line, we will walk another 4 km section. The grade is Easy but the distance is only an estimate. [4-6km] A this is a one-way walk, a car shuffle will be arranged. Sturdy shoes are the secret to enjoying this type of walking. Meet 10 am at the top of Rocky Gully, Tullendena. Leader: Lou Brooker 6356 0381.

From the Editor.

I want to tell you how delighted I was when Helen Preston offered to write something for the newsletter after she'd been to the Federation Get-together on King Island. Yes.... she offered.

I'm really grateful to her and I just hope other members might follow suit. Wouldn't it be nice if the newsletter was filled with members' contributions.

Yes please, bring it on !

L.B.

TLC's New Leaf Project

Five months ago Gunns announced the sale of their 28, 000 hectare native forest estate.

This is the largest property offering ever made in Tasmania and the Tas. Land Conservancy is very excited about the possibility of clinching the biggest private conservation deal in Australia's history.

A group of environmental philanthropists led by Jan Cameron's Elsie Cameron Foundation and Rob and Sandy Purves Environmental Trust are providing initial gifts of over 5million dollars and are also making loans to the TLC to enable the purchase to succeed.

The land covered in the New Leaf Project ranges from the Blue Tier to the forests around Ben Lomond and some stunning lowland forests close to Launceston.

An appeal has been launched to raise 3million dollars. Each hectare of forest costs \$735 . For every hectare funded from donations, two will be funded by Jan, Rob and Sandy.

There is more information on the website at www.tasland.org.au or a brochure is available from the office in Hobart. Phone 6225 1399

Cat eradication on Tasman Island.

Further to the report from Lizzie Zniderzic in Issue 180, our last newsletter, about her trips to Tasman Island, it was reported in the January newsletter of the Parks and Wildlife Service, that observations and evidence recorded on motion sensing cameras showed a dramatic decline in seabird mortality during last spring. [2010]

The monthly visits to the Island by the teams will continue until May 2011 with a range of activities being carried out. Fifteen motion sensing cameras which are set up in strategic locations, need to be checked. Also : searches for signs of cat kills in caves known to be used by fairy prions, searching for cat scats. Trained cat detector dogs will comb the island for any cat scent.

Breeding this summer is now expected to occur for the first time without the pressure of an introduced predator. It was estimated that cats were killing as many as 50, 000 fairy prions and shearwaters each year !

Source: Buttongrass, Parks and Wildlife Service Newsletter January 2011.

The Australian Sustainable Schools Initiative

(AuSSI) provides practical support to schools and their communities to live and work more sustainably. It fosters a whole school approach with measurable environmental, educational, social and financial benefits.

AuSSI engages students, staff and members of the community to improve the management of a school's resources and facilities—including energy, waste, water, biodiversity, landscapes, products and materials.

The scheme also integrates these activities with teaching and learning across the curriculum, including key elements of social sustainability, such as cultural understanding and social justice. By participating in a learning-by-doing process, students achieve a better understanding of the world in which they live, and have opportunities to help create a more sustainable future.

AuSSI schools are achieving immediate and measurable improvements in their use of resources, grounds and facilities. Some participating schools have reported reductions in waste collection of up to 80%, reductions in water consumption of up to 60%, and savings on energy consumption of 20% with associated reductions in greenhouse gas emissions.

Almost 3000 schools (or 30% of schools nationally) across Australia are now participating in AuSSI, including some of our local schools.

West Coast Clean-up.

There's a group of people called the Wild-care Coastal Custodians who volunteer to pick up rubbish on the wild west coast of Tasmania.

Every year, a group of Crayfishermen donate their boats for the task and pick up fifteen volunteers for the trip to clean up the so-called 'pristine' beaches of the World Heritage Area.

A typical rubbish haul for the day is around 15 fertilizer bags full. In Spain Bay, just inside Port Davey, there are consistently yields of 3000 items of rubbish. Another beach had a count of 5000 items two years ago when the project began; mostly plastic and rope.

It looked to me as though some of the team were quite young. It may have been the promise of a little surfing in their rare free moments . I read that volunteers only get on the list a second time if they don't get seasick and prove themselves to be non-snorers.

Their blogspot might be fun :
<http://wha-marinedebris.blogspot.com/>

Source Wildtimes December 2010.

Mt William 10 / 7 / 10

This was an exploratory outing beginning with a gathering of information at the Park Entrance, where we found out that this national park was formerly a farm, purchased in the early 1970's specifically to form a sanctuary for the **Forester Kangaroo**.

Macropus giganteus tasmaniensis is recognised as the Tasmanian subspecies of the Eastern Grey Kangaroo, *Macropus giganteus*, which is widespread throughout the eastern Australian mainland. The subspecies status of the Forester Kangaroo is based on differences in its skull and coat from the mainland population as a result of its isolation in Tasmania for at least the last 10 000 to 15 000 years. Studies indicate that there is less than 1% difference in the mitochondrial DNA between the mainland Eastern Grey Kangaroo and the Forester Kangaroo.

The Forester Kangaroo is the largest of Tasmania's marsupials. Its coat colour varies from light brownish grey to grey. A male Forester Kangaroo can reach **over two metres in height** when fully upright and can weigh over **60kg**. They are social animals often seen in **family groups** of three or more and may occur in groups of more than ten. Forester Kangaroos reach breeding age at approximately 2-3 years, and can live for over ten years. Forester Kangaroos feed on grasses, herbs and forbs and their preferred habitat is dry sclerophyll forest with open grassland clearings.

Prior to European invasion, fire had been an important factor in keeping numbers up. Aboriginals fired regularly and promoted lush growth at ground level. This provided food for the forester. In the park now, there are vast areas of 'marsupial lawn' and the foresters can be seen here either resting or grazing.

As soon as settlement of Tasmania began in 1803, so also began the demise of the Forester. They were hunted by packs of dogs, shot for sport and killed to prevent competition for grazing of the grasslands by sheep. They also fell foul of poison baits laid for rabbits in the 1870's.

Thus, by the early 1900's, as a result of all these factors and to a lesser extent, land clearing, the species was in serious decline. [Wapstra 1976] By 1950, Forester Kangaroos were to be found in only two areas: the Midlands and the North East. Its range had been reduced to 5.4% of what it had been at the time of European settlement.

During the 1970s, Forester Kangaroos were trapped and relocated at a number of other locations including : Maria Island; Three Hummock Island; Kempton; and Narawntapu National Park.

The management of numbers has been important. It was claimed that degradation of pasture in Mount William National Park has led to the Forester Kangaroo moving to adjoining private lands and this led to the subsequent need to cull this Kangaroo under permit on these lands. Also, an additional 18, 439 hectares was added to the Park in 2000 under the Regional Forest Agreement.

Surveys undertaken in 2002 estimated this population to contain approximately **1400 mature individuals** (both within the national park and adjoining private land). Some experts consider numbers to be relatively stable in the Mount William National Park but there are concerns about a declining population on adjoining private lands.

Mt. William National Park has an amazing diversity of animals, 100 species of birds inhabiting the coastal heathlands, the dry sclerophyll woodlands and some rare plants. The forest includes *Eucalyptus amygdalina* and *E. ovata*, banksias, she-oaks and bull-oaks. Some rare plants such as *Zieria veronicaea*, [a small coastal shrub] and *Villarsia exaltata* [erect marsh flower] are found in the park.

On our walk up the 216 metres of Mt. William, we saw helmet orchids *Corybas sp.*, amongst fingers of yellow coral fungus. Also mosquito orchids, *Acianthus sp.* Although it is said to be common on shaded hillsides throughout the state, none of us had seen many examples of *Goodia lotifolia* before. It's a small to medium sized understory shrub with distinctive trifoliate leaves and a yellow pea flower. It was growing at about 150 metres and upwards.

Stimulating Brews from Hop Bushes. Part 2. [part 1 in issue 180]

by Phil Watson.

Seeds are protected by Ants.

Once the hop bushes release their seeds onto the ground, ants have co-evolved a mutually beneficial process to assist their survival from both fire and seed predation. This symbiotic relationship relies on the attraction to the ant of the nutritious fleshy attachments [elaiosomes] which they busily collect and subsequently secrete a couple of centimetres below the woodland floor. Here, they serve as an underground larder. Once abandoned, these piles are poised to respond to moisture and heat from bush fires which crack their hard coats, enabling a germination flush. Critical to the survival of the seedlings is the requirement that their roots establish a symbiotic relationship with mycorrhizal fungi. These fungi act as 'soil postmen' supplying [posting] water and nutrients to the plant's roots which in turn provide, via their ability to photosynthesise, a supply of carbohydrates to the fungi.

Hop bushes are culturally significant.

Both aborigines and colonists valued hop bushes for their cultural and medicinal properties. So impressed were the early colonists with the similarity in looks and taste, which its winged seed capsules had to hops, they were inspired to brew a tangy, bitter, but drinkable beer. The name hop bush remains its popular common name.

The aboriginal tribes knew the plant as 'Oyster Bush' since once the winged seed capsules had deepened in colour to reddish orange, they knew the bounty of succulent oysters from the nearby rocky estuarine foreshores were in peak condition ready for harvesting.

Hop bushes are medicinally important in all the widely separated countries where it grows. It is uncanny that similar cultural and medicinal uses have evolved from the local indigenous populations in each of these disparate countries.

This is revealed by findings from recent pharmacological analyses of hop bushes which reveal a common set of active ingredients represented by alkaloids, tannins, flavonoids, organic acids and 1-8 *cineole* rich oils. The variations in its medicinal usage relates to changes in relative concentrations of these ingredients which is determined by soil types and environmental conditions typical of the countries and habitats in which they occur. Within each country another variation in relative potency of active ingredients is also related to seasonal differences at the time of harvest. Although the hop bushes are found in many distant countries, it is uncanny how unrelated local indigenous populations had attributed similar cultural and medicinal uses to this species.

Hop Bushes are valued for medicinal applications.

Common amongst the older aborigines was the persistent problem of toothache derived from decades of grinding highly fibrous diets. By chewing the leaves of the Oyster Bush, mild analgesic and euphoric effects provided much sought after relief from nagging toothache. Aborigines used the term 'Pitori' for plants such as hop bushes that acted as painkillers.

Inflammations from rashes and bruises as well as jellyfish and stone fish stings were eased by binding wads of leaf pulp for a few days on the affected areas. The bitter juice exuded from the leaves during the preparation of these wads was not swallowed but collected as an antiseptic. In general, the leaves were known to reduce inflammation and swelling as well as to impart an antimicrobial protection to open wounds and infected sites.

The Central Australian Aborigines were reported to rely on the leafy branches as a customary means of relief from flu-like fever and body aches. The leafy branches were smoked on warm ash beds releasing 1-8 *cineole* rich oils [a well known active ingredient in the essential oils extracted from Gum, *Eucalyptus sp.*, Tea Tree *Leptospermum sp.*, Paperbarks *Melaleuca sp.*, and native mint bush *Prostanthera sp.*] The smoke would act as a febrifuge, a fever reducing agent, by reducing the swelling of mucous membranes and loosening phlegm thus freeing airways.

Also common amongst colonists and aboriginals were digestion and elimination problems. This was a result of hot weather, poor hygiene and substandard nutrition. Aborigines used the tannin and flavinoid properties of the Hop Bush by applying poultices of fresh leaves, to relieve diarrhoea, stomach and uterine cramps. This acted by sedating smooth muscle contractions.

Uses in other countries.

It has been recorded that the South American Peruvian Indians developed a culturally accepted practise of chewing the Hop Bush leaves in the knowledge that it acted as a valued substitute for Coca [*Erythroxylum coca*]. Like betel nut, the younger, viscous leaves were often chewed with ash, lime or magnesia to neutralise the organic acids binding the active ingredients, thus enhancing its stimulant and euphoric effects. Of course, akin to betel nut chewers, the lime would have caused rapid tooth decay.

Conclusion.

Hop Bushes are often disregarded as common uninteresting mid-storey species. However, this new brew of information in relation to its rich tapestry of cultural use and interrelationship, hopefully will entice a more in-depth appreciation and further use as a valued revegetation or landscape species.

Recommended Readings. 1] Whiting, J., et al., 2004 *Tasmania's Natural Flora*. 2] Van Wyk, Ben-Erik, 2003 Gericke, N., *People's Plants; A Guide to Useful Plants of South Africa*. Briza Publications. 3] The Collection Newsletter, Volume 6, Issue 1 2004. 4] Closs, J. *Dodonaea* Study Group 1993 *Dodonaea* Australian Plants Journal 17/137. 5] Latz Peter, *Bushfire and Bush Tucker, Aboriginal Plant use in Central Australia*. •

Cuckoo Falls 9/10/10

The walk to the falls was attended by seventeen locals who, curiously enough, had not done the walk before.

Others had memories of bush-walks with children and I'm sure were sometimes thinking they might see the little forest people who once lived there solely for the entertainment of the reluctant walkers.

As usual, we behave like a recreational walkers' group, i.e. talking nineteen to the dozen, until someone asks the question "Is this rainforest?" We look around. We look up. And this question serves to focus our attention on our surroundings. Yes, it is rainforest, and as usual, it is Mike who can give us a clear definition. We see a few tall eucalypts, and a mix of dogwood, blackwood wattle and myrtle. In the understorey, there is rice flower - *Pimelea drupacea*, goldy wood - *Monotoca glauca*, the native currant - *Coprosma quadrifida* and tree ferns - *Dicksonia antarctica*.

There seem to be trunks of many sizes belonging to vines and on closer inspection we realise they are not all *Clematis aris-tarta*, as we initially think, although it is here too. Mike was able to identify the twining silk pod—*Parsonia brownii*. This is a rampant climbing plant, as I later read, becoming invasive in some moist dark places. It was named by Robert Brown to honour the botanical contributions of James Parsons (1705-1770), a London doctor and natural historian, who wrote on human anatomy, pharmacology, plant propagation and seeds. Brown is also honoured with the species name, *brownii*.

The other climber here is the forest lignum - *muehlenbeckia gunii*, which, again is quite vigorous, but more likely to smother plants in the understorey rather than go higher.

Once we get closer to the falls, we encounter a huge tree trunk which has slid down the side of the hill, leaving us to pick a slightly precarious path across the face of the hillside.

Lunch at the falls is eaten with one eye on boots and legs as we counter the leeches and we watch as a small group climb to the top of the falls for the birds-eye-view.

This picture is of a species of *cordyceps* found at the base of the falls. It's curious common name, dark vegetable caterpillar tells us a little about its story. When under the ground, the larval stages of moths and beetles sometimes become infected and are slowly killed as the fungus uses up the insect's tissue. The fruiting body, seen here, appears when all the available food has been exhausted.



Two Revegetation Projects. 13 / 11 / 10

The Royal Tasmanian Botanical Garden and Temco have been engaged in a ten year collaboration working with rare and threatened Tasmanian plants. This began with the company's funding the propagation of the endangered Davies' Wax Flower for a community planting in St. Helen's.

Our outing on the 13 November began at the site of that community planting in St. Helens where we saw how successful it had been.

Natalie Tapson, Horticultural Botanist at the RTBG, told us about the work of establishing propagation methods for some of Tasmania's threatened plant species. The research has established the optimum species for each region, the ideal propagation method and techniques for establishing revegetation.

A collaboration between Temco, the Tasmanian Minerals Council, Mineral Resources Tasmania and the RTBG involved field trials for the Round Leaved Mintbush, *Prostanthera rotundifolia*. Cuttings were taken from wild plants found on a very steep site above the banks of the Scamander River, propagated at the RTBG and used in a revegetation trial at the old Argonaut tin mine site near St. Helens. This trial has been running since mid-2004.



* Picture from the RTBG website shows trial plot of *Prostanthera rotundifolia* established at Argonaut mine rehabilitation site.

Natalie had brought colleague Alan Macfadyen for the outing, and they, along with Todd Dudley, we were able to give us a very comprehensive explanation of how the trials were going. Todd had worked on the direct seeding project at the old mine site nearby and we were able to inspect that as well.

The trial involved plantings within a fence area and without. It involved planting with protection from bags and without. It did seem to me that the best surviving specimens were **within** the fenced area and **with** the protection of bags. All other plants had been heavily browsed by animals.

After lunch, Todd guided us to an area behind Scamander, where he and the North East Bioregional Network are working on a restoration project. Here, at Skyline Tier, native bush is being restored on the site of a former pine plantation. This involves removing pines that have regenerated from seed and become established in the native bush nearby as well as removing other weeds.

Remnant patches of two threatened forest types, blue gum and black gum forest have benefited and the resultant regrowth is phenomenal.

We are very grateful to Natalie and Todd for their time and interest.

KING ISLAND – FEDERATION WEEKEND October 16 & 17th 2010

The King Island Field Naturalists hosted a wonderful weekend with an interesting, varied program beginning with a 'meet & greet' BBQ at the 'Boathouse' in Currie on Friday evening. The weather can only be described as atrocious but we were warmed by our welcome and a great group of KIFN's and visiting Field Nats from all over the state including Ann from our own group. Lovely to have her company and enthusiasm. I'm ashamed to say I forgot my camera but Ann took photos and notes!

In case people don't read any further! my sincere thanks go to Carmen Holloway, President KIFN, who carried the organization of the weekend, wonderfully supported by her partner James and their 2 children, and the knowledgeable King Islanders.

The group has done some marvellous work alongside the NRM group. I bought two publications:

“King Island Flora: field guide” 2002 King Island NRM Group Inc &
and

“From gentle giants to green pastures” ed. Eva Finzel King Island NRM Group Inc 2004

Saturday 16th – field trip to the west coast – wild and wonderful walk and then lunch at Cape Wickham; south to Seal Rocks area including the Calcified Forest (a unique limestone feature of calcified roots of ancient trees) and the Copperhead Walk (a challenging walk across the cliff tops). In the evening a wonderful dinner was held at Bold Head Brasserie in Grassy and a slide presentation of excerpts from KIFN's field trips

Sunday 17th – field trip to the east coast to the Sea Elephant area and Pegarah State Forest.

I loved stories told by the King Islanders - particularly those people telling of their early days and the stories of earlier visitors to the island. The 'gentle giants' booklet tells of the migrating Aboriginal people during the last ice age and the very much later European settlement of KI began in the early 1800's. During the next decades several fauna and flora species became extinct, seals and sea elephants being the most obvious.

King Islanders had witnessed the devastating loss of most of the original vegetation by the early 1960's and out of appreciation and deep concern for the natural environment KIFN's was born.

A brief outline but hopefully, one which will encourage others to go to KI or return!
Helen

The drive to Ben Lomond is spectacular. This beautiful *E. Delegatensis* forest grows typically at altitudes of between 400 and 900 metres but the highest altitude record - up to 1240 metres - is right here at Ben Lomond.

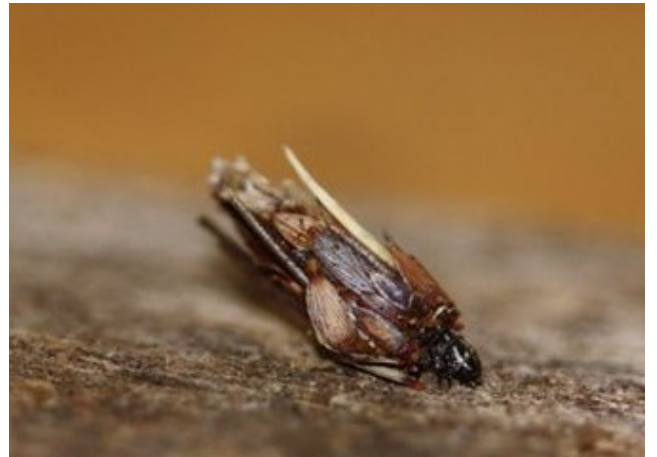


Federation of Field Nats.
Weekend.
Ben Lomond
January 22, 23

Five members of our club attended the weekend at Ben Lomond. The evening talk on Friday night was given by Elizabeth Daley, the author of 'Wings'. Saturday consisted of many forays onto the plateau around the ski village. Each time we returned with a collection of insects, there was a show and tell and a photographic and written recording of what was found. This was the first list of its nature.



The autumnal colours of the mountain, although it is only January. A scene comprising the many shades of *Richea scoparia* - scoparia, with some *Bellendena Montana* - mountain rocket in the foreground



Dee found this **case moth** near the summit of Ben Lomond. It's quite minuscule in size, and wouldn't normally be noticed, but this weekend we were more alert.

This curious case is constructed of silk and has the leaves of an epacris plant attached to it for protection and camouflage.

The caterpillar lives most of its life, sometimes 1-2 years in this phase. It comes out at the top end to feed and ejects waste at the bottom end. The rest of the time, it carries its case or bag around.

Thanks to Sarah Lloyd for photograph.

Below left: *Drosera arcturi*, Sundew. Growing in abundance in cushion plants. The wet soils here are lacking in nutrients but the sundew compensates by capturing insects. Middle: *Senecio* sp. Right: *Euphrasia* sp. —eyebright. All common in the alpine meadow.

