North-Eastern Tasmanian Field Naturalists Club Inc.

The North Eastern Naturalist

Newsletter of the NE Tasmanian Field Naturalists Club

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MISSION STATEMENT: 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.

From the Editor: Our AGM for 2022 was conducted last month, with all extant Office Bearers and Committee Members being re-elected unopposed.

It was decided that there would be no increase in the costs of annual membership for next year—these remain at $20 for an individual, $30 for a couple or family.

Following the AGM, Craig and Debbie Searle gave a fascinating presentation about their time on Deal Island, which is in Bass Strait, approximately halfway between Flinders Island and the Australian mainland.

Unfortunately, approval for publication of an article about this wasn't obtained from Parks and Wildlife in time for this issue of the North Eastern Naturalist. The aim will be to include that article in the December issue.

Also note that we have a special trip planned for the October activity; see the Calendar on page 2 for details.

Members' photos of NE Tasmania

Fan-tailed Cuckoo (*Cacomantis flabelliformis*) – Susan McClenaghan

Small Bird Orchid (*Chiloglottis grammata*) – Ross Coad

Common Bluetail damselflies (*Ischnura elegans*) mating – Ruth Timperon

Draft Program for Remainder of 2022

OCTOBER 8th: Palaeontology at Liffey and Poatina; leader Phil Tattersall.

Meet at lower Liffey Falls car park at 11.30.

An easy two-hour walk in a bushland area where there are fossils dating back a couple of hundred million years.

Phil wrote: **"Arrival at the lower car park at Liffey by 11.30 should allow us time to briefly observe the formations on a nearby track cutting. The aim is to follow the early Permian marine through to a freshwater formation (Liffey sandstone, with evidence of plant remains) and then onto marine formations further up the track. The marine formations contain shell imprints. Overall, the site offers a good opportunity for understanding of context.**

"We then go to Poatina. Our travel time to the Poatina site should be about 35 minutes. There we will take some time to look at the Liffey sandstone. This formation can be found throughout Tasmania and represents a good 'marker'. I'm expecting we will spend about two hours at this site. Fossil plant remains are abundant, but there is little if anything in the way of faunal fossils.

"On the day perhaps a packed lunch would be advisable. At Poatina there is a café, art gallery and gift shop. They are usually open on the weekend."

In addition, it would be advisable to have wet weather clothing, and snake-proof boots (or boots and gaiters).

NOVEMBER 12th: Walking at Cape Portland; leader Dig Probert. Annual Camp (details to come later by email).

DECEMBER 10th: Bare Rock, Fingal Valley. Leader Roy Skabo (details to come later by email).

Cancellation Process: If there is unpredictable and severe weather, or for any other reason, including if the leader considers the conditions to be unsafe, it may occasionally be necessary to cancel with short notice. Here is the process for cancellation: a global email will be sent by 1900 (i.e. 7.00 pm) on the previous day, or by 0700 (7.00 am) at the latest on the day of the outing. A notice will also be posted on the website: netasfieldnats.com.au

SUGGESTIONS FOR FURTHER READING

(i) New research shows planting trees and shrubs brings woodland birds back to farms, from superb fairy wrens to spotted pardalotes
https://theconversation.com/new-research-shows-planting-trees-and-shrubs-brings-woodland-birds-back-to-farms-from-superb-fairy-wrens-to-spotted-pardalotes-180494

(ii) Magpies can form friendships with people – here's how
https://theconversation.com/magpies-can-form-friendships-with-people-heres-how-83950

(iii) Friday essay: the koala – when it's smart to be slow
https://theconversation.com/friday-essay-the-koala-when-its-smart-to-be-slow-187003

(iv) Why planting tons of trees isn't enough to solve climate change
Why planting tons of trees isn't enough to solve climate change | Science News

(v) A blue-green glow adds to platypuses' long list of bizarre features
https://www.sciencenews.org/article/platypus-glow-blue-green-ultraviolet-light-fluorescent-fur

JULY: TASMANIAN BATS

Article by Ross Coad; photos by Lisa Cawthen

Editorial Note: The text of this article was first published (with slightly different wording) in the issue of 27 July, 2022 of the North-Eastern Advertiser.

As our July activity, more than 20 members gathered in Bridport to learn about Tasmanian bats from Dr Lisa Cawthen, who is a chiropterologist (a person who studies bats), and who is also an environmental scientist and educator. Research conducted by Dr Cawthen and her colleagues is building knowledge about these small mammals that inhabit a range of forest types across our state.

Tasmania is home to eight species of bat, only one of which—the long-eared bat (*Nyctophilus sherrini*)—is endemic to Tasmania. All are protected species. Since about 2010, a mainland species of bat has also been observed in Tasmania; this is thought to be an island-hopping blow-in (literally) during a period of strong winds, and may be a climate refugee.

Chiropterologist Lisa Cawthen holding a Tasmanian bat

Bats can be divided into two groups based on size—megabats and microbats. Tasmanian bats are all microbats, ranging in size from 40–75 mm in body length and 4–21 g in weight, depending on species. They are insectivores (i.e. eat insects) and help to control mosquitoes and crop pests.

Dr Cawthen commenced the activity outside with a walk-around to look at sites potentially suitable for bat feeding, roosting and breeding.

Tasmanian bats are tree-dwelling and do best in old-growth forests, where tree hollows of various types provide protection from the weather and predators.

Some man-made structures may also make good roosts.

Sleeping bats are very vulnerable, so suitable roosts are important for their survival. Despite the commonly depicted image of thousands of bats flying into and out of caves, bats in Tasmania are rarely observed using caves, and there are no records of bats using caves regularly to roost or breed.

Following the walk-around, the group moved inside to learn more about bats, their behaviour, and their special hunting abilities.

Large Forest Bat (*Vespadelus darlingtoni*)

Tasmanian long-eared bat (*Nyctophilus sherrini*), the only endemic Tasmanian bat

The various species of Tasmanian bats differ somewhat in their preferred feeding places, with some hunting low over water or close to the ground, some among plant foliage, and others high up in the tree canopy.

Bats are nocturnal and use echolocation to locate insects and other objects in the dark. Echolocation involves emitting ultrasonic sounds and listening to the echo as the sound waves strike objects and are reflected back to the bat. The size and distance of objects can be accurately determined, allowing the bat to easily catch a flying insect, and many more in rapid succession, consuming about half its body weight in a night.

Among the interesting objects in Dr Cawthen's tool box are her bat detectors. These are devices that record and convert ultrasonic sounds into audio-visual outputs that can be used to understand bat activity. The detectors can be used to determine whether bats are searching, feeding or socialising. They can also be used to help identify bat species, although time-consuming signal processing and interpretation is needed, and currently not all species can be identified by their calls.

HEALTHY NEW GROWTH OF SALTMARSH AT TRENT WATER

Text and photos by Louise Brooker

***Editorial Note:** As noted in* From the Editor *on page 1 there will be a delay in the availability of the article about the August activity until the December newsletter. Our Secretary, Louise Brooker, has kindly contributed the following article to fill the gap. The text of this article was first published in a shortened form in the BridReport of July 2021.*

For as long as can be remembered, only a small area of saltmarsh in Trent Water has been visible from the Bridport township. However, in the last two years there has been positive growth opposite the old resort and out to the little sand island, with the area almost tripling in size.

This re-growth is related to the cessation of detrimental human activity. Until 2018 there was a serious lack of awareness about the importance of saltmarsh, and little respect for it as a significant ecosystem. In fact, it was commonly regarded as a weed.

Prior to 2019, saltmarsh plants were hoed out because they were thought to be weeds

Generally speaking, Tasmania's saltmarshes are under threat from a range of human activities—unchecked pollution, inappropriate development, off-road vehicle usage, and rubbish dumping, to name a few. Many of these activities have been observed in the Trent Water at Bridport.

Saltmarsh is a unique habitat, but it was only in 2013 that it became protected under the Commonwealth Government's *Environmental Protection and Biodiversity Conservation* (EPBC) Act. At that time there was a distinct lack of baseline data, including basic mapping of existing saltmarsh across the state.

Enter Vishnu Prahalad, who undertook the enormous task of mapping Tasmania's saltmarsh wetlands. This task was completed in 2014, but Vishnu's work has been ongoing, with the setting up and running of workshops, and the training of hundreds of citizen scientists to make observations and obtain data.

Beaded glasswort, aka samphire (*Sarcocornia quinqueflora*)

The total area of saltmarsh in the Dorset municipality is only 55 ha. Of this, the Trent Water cluster accounts for 12 ha, and most of that is upstream from the township. Other clusters in the municipality are at the Great Forester River (3 ha), Little Forester River (15 ha), and Jerusalem Plains in St Albans Bay (25 ha).

There is only one colonising plant in the new patch in Trent Water at the moment—the beaded glasswort, also known as samphire (*Sarcocornia quinqueflora*).

However, there is more diversity closer to the shore. As time goes by, and provided there are no threats to its development, we could see many species of plants there. In total, there are a possible 132 plant species unique to the saltmarsh ecosystem.

The plants that make up the saltmarsh habitat are salt-tolerant—they withstand excess salt and regular water-logging. Besides slowing down the run-off of fresh water from the land, saltmarsh protects low-lying land and houses from flooding events and rising sea level.

Photo from 2021 of the new saltmarsh stretching out to the sand island

Saltmarsh provides vital habitat for invertebrates such as crabs and snails, and shelter for small fish, which in turn provide food for birds. Already we have observed an increase in the number of species of birds seen roosting on the little patch of remaining sand exposed at high tide. It is now quite common to see masked lapwings (*Vanellus miles*), pied oystercatchers (*Haematopus longirostris*), sooty oystercatchers (*Haematopus fuliginosus*), pacific gulls (*Larus pacificus*), silver gulls (*Chroicocephalus novaehollandiae*), and red-capped plovers (*Charadrius ruficapillus*) there. In addition, many white-faced herons (*Egretta nouvaehollandiae*) can regularly be seen wading and feeding in the shallow waters.

We should not take it for granted that this protected wetland is safe from future abuse, though. In a recent feasibility study into the possibility of a new river entrance for the port, many ideas were put forward that might have ruined the habitat. Thankfully, they were not feasible, so didn't proceed.

The Matthew Flinders IV often spends time sitting on the sand flats in Trent Water, and after the last episode, a heavy 4WD was seen driving through the middle of the new saltmarsh. Although that was six months ago, the tyre marks are still visible.

There are often incursions of sea spurge (*Euphorbia paralias*) in coastal areas, and it has finally made its way into the Trent Water. Because neither Parks and Wildlife nor Dorset Council can agree whose responsibility it is to control the sea spurge, a small group of locals have been trying to control this introduced weed by pulling out young seedlings as they appear, and before they flower and set seed. If we continue this work, the area should remain in its natural state, and with a modicum of luck, may even flourish.

SEPTEMBER: SUPPLY RIVER FLOUR MILL

Text by Len Gillett; photos by Louise Brooker (LB) and William Witherden (WW)

Our September activity was a visit to the Supply River flour mill, which is located close to Paper Beach (near Swan Point) on the East Tamar. Built in 1825, this was the first water-driven flour mill in Tasmania.

After a soggy start, the weather settled to mild and mostly dry day – LB

After a wet start, the weather settled to a mild, mostly dry day.

Led by Len Gillett, 15 members took part in the 7-km return walk from Paper Beach car park to the mill.

The terrain was mostly flat, leading to easy walking. A few hardy souls continued beyond the ruins of the flour mill, engaging in more challenging rock-hopping.

Now nearly 200 years old, the mill was made with local stone and timber—lots of timber, actually. There were also some bricks made by hand at Brickmaker's Point, which is just to the north of Deviot Jetty.

The water-wheel was 5.5 m in diameter and 137 cm wide. It took water from the river along a water-race that had a flume at the end.

After 150 years of neglect, only ruins remain of the 200-year-old flour mill – LB

The channelled water drove two pairs of 137-cm millstones that were apparently imported, and are believed to have been quarried somewhere near Paris.

For four months of the year there was insufficient water to operate the mill. But when operating, it could grind 40 tonnes of flour per week. There were usually five or six people living and working there.

The mill was subject to some misfortunes, such as the sinking of a vessel laden with milled flour, and in the 1850s, some of the owners absconded for possibly easier money to be made in the Victorian gold rush.

Poa labillardierei (tussock grass) on the banks of the Supply River – LB

The mill was closed in 1872, less than 50 years after its construction.

The equipment was sent to the Carrick mill, and the iron and roofing was stripped off to aid the war effort during WWI. With closure, and subsequent neglect, only ruins of the mill remain.

During the walk, we saw an ever-changing landscape and flora (plants). Initially we walked though light riverine scrub of paperbark (*Melaleuca ericifolia*), wattles (*Acacia* species.), and banksia. Then we found ourselves walking on estuarine grasses, including tussock grass (*Poa labillardierei)*, with kangaroo apples (*Solanum aviculare*) and snowflake bells (*Leucojum vernum*) also in abundance.

Elsewhere we saw native cranberry (*Astroloma humifusum*), storksbill (*Pelargonium australe*), various orchids, and fungi, including the attractive orange fan (*Anthracophyllum archeri*).

One small plant that generated interest is the pinkwood (*Beyeria viscosa*)—a species of flowering plant in the spurge family, Euphorbiaceae. Many weed species are in the Euphorbia family, including castor oil plant (*Ricinus communis*), and sea spurge (*Euphorbia paralias*). Coincidentally another dainty bush—the river trident (*Micrantheum hexandrum*)—growing alongside the pinkwood is in the same family. Next to the Supply River, there were eucalypts, sheoaks (*Allocasuarina verticillata*), and dolorite boulders and columns, while at intermittent intervals there were several attractive waterfalls.

Orange fan (*Anthracophyllum archeri*). This is a fairly common fungus that grows on dead wood and flowers any time of year – LB

While returning along the Tamar riverfront, we saw a wonderful variety of pebbles, shells, and oyster remnants.

One of our aims during every walk we do in the Tasmanian bush is to identify as many birds as possible. Usually, this is by sight, or by sight and sound, but occasionally only by sound. Our chief twitchers are Anne Witherden and her brother Ian Cameron. With assistance from other members, Anne and Ian identified eleven species of birds (see the table below).

Birds observed (common name and *species name*)	
Black Swan	*Cygnus atratus*
Black Cormorant	*Phalacrocorax varius*
Chestnut Teal	*Anas castanea*
Grey Fantail	*Rhipidura albiscapa*
Bronzewing Pigeon	*Phaps chalcoptera*
Striated Pardalote	*Pardalotus striatus*
Brown Thornbill	*Acanthiza pusilla*
Superb Fairy Wren	*Malurus cyaneus*
Blackbird	*Turdus merula*
Pacific Gull	*Larus pacificus*
White-Faced Heron	*Egretta novaehollandiae*

Pinkwood (*Beyeria viscosa*) is in the Euphorbiaceae family, along with castor oil plant and sea spurge – LB

Native cranberry (*Astroloma humifusum*); fleshy edible fruit, though large seed means not much fruit – LB

White-faced heron (*Egretta novaehollandiae*) – WW)

Unfortunately, several weeds have crept in to this otherwise beautiful environment, including onion weed (*Asphodelus fistulosus*), oxalis (*Oxalis corniculata*), African daisies (*Senecio pterophorus*) of many colours, dodder (*Cuscuta* species), ivy (*Hedera helix*), and blue periwinkle (*Vinca major*).

Despite this, the day was a success, and the flora turned to be more diverse and interesting than expected.