North-Eastern Tasmanian Field Naturalists Club Inc.

The North Eastern Naturalist

Newsletter of the NE Tasmanian Field Naturalists Club

Number 207: December 2019

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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 Secretary: Ann and I would like to pay tribute to 'the team'—the group of members who put their hands up to help when we recently arranged a weekend ('Federation Weekend') for members of other Field Nats Clubs.

To begin with, some members offered to accommodate guests, others led walks, some provided food for Saturday night, and some lent equipment. Finally, there was a fabulous team who washed and dried dishes and helped with the arrangement of food. Some people helped to move furniture, others helped with the smooth running of the slide presentation.

It made me appreciate what teamwork is all about, and it seemed to me that it was about people imagining what needed to be done to make the 'machine' run smoothly, and then offering their skills to make it happen.

A huge thank-you to everyone who contributed! Our guests commented that we had raised the bar for future events.

Photos of Northern Tasmanian wildlife

Epiphyte – Penny Reeves

Hygophorous lewellinae – Ross Coad

Crescent honeyeater on waratah – Susan McClenaghan

Program for Dec 2019 and early 2020

DECEMBER 14th EXPLORING MUSSELROE BAY

We will explore the coastal area east of the settlement, and the tracks along the edge of the Musselroe River. This will take approximately an hour on a marked track but with some rock scrambling.
We will also visit the property of one of our newer members, where we can go through the bush and down to the Musselroe River.
There will be two gas barbeques for the end-of-year event. Bring all you need in the way of food and drink.
This will be a camping weekend for those interested; Stumpy's Campsites are nearby.
Meet at 10 am in the settlement at the river-mouth car park.
Contact Lou 0417 149 244.

NEXT YEAR'S PROGRAM

JANUARY 11TH

Ralph Falls: PWS Discovery Ranger Hannah Vasiliades will take us on an exploration of unique relict vegetation transitions and curiosities that emerge. Meet at 10 am at Ralph Falls car park.

Though the remainder of the program for 2020 is still in its planning stages, we can look forward to a walk up Mt Direction, and a study of the mosses at Paradise Plains, among others (details to come later by email).

Cancellation Process: ***If there is unpredictable and severe weather, or for any other reason, it may occasionally be necessary to cancel with short notice. Here is the process for cancellation: an outing will be cancelled if the leader considers that the conditions are not safe. If an activity is cancelled, a global email will be sent by 0700 (i.e. 7.00 am) on the day of the outing. If members are uncertain, it is their responsibility to contact Ann, Lou or the activity leader. Note that phone reception is not always available, so you may have to try alternative numbers.***

SUGGESTED FURTHER READING (recent articles about the environment from The Conversation):

Researchers allege native logging breaches that threaten the water we drink
https://theconversation.com/researchers-allege-native-logging-breaches-that-threaten-the-water-we-drink-127509

Our nature laws are being overhauled. Here are 7 things we must fix
https://theconversation.com/our-nature-laws-are-being-overhauled-here-are-7-things-we-must-fix-126021

Why my fears about climate change made me cross the line that separates academia from activism
https://theconversation.com/why-my-fears-about-climate-change-made-me-cross-the-line-that-separates-academia-from-activism-116103

What Australia can learn from Victoria's shocking biodiversity record
https://theconversation.com/what-australia-can-learn-from-victorias-shocking-biodiversity-record-113757

How to neutralise your greenhouse gas footprint
https://theconversation.com/how-to-neutralise-your-greenhouse-gas-footprint-103922

SEPTEMBER 2019: CAPE PORTLAND

By Chris Forbes-Ewan; photos by Susan McClenaghan (SM), Jay Wilson (JW) and Lou Brooker (LB)

Looking a little like the invading Martians in HG Wells' novel *War of the Worlds,* the wind turbines at Cape Portland dominate the landscape – SM

Editorial Note: The text of this article was first published in the North-Eastern Advertiser of 25 September, 2019

As the September activity of the NE Field Naturalists Club, David ('Dig') Probert and Claudia Bohme led a group of members and guests on a fascinating tour of Cape Portland in the far north-east of Tasmania. A total of 26 people took part in the tour.

The weather was mild and sunny, but extremely windy (by the standards of most members, while Dig described it as 'almost calm' by the usual standards of Cape Portland).

The almost incessant and strong winds explain why this area was chosen as the site for Tasmania's largest wind farm, the Musselroe wind farm, which was constructed and commissioned in 2013.

The massive wind turbines certainly dominate the landscape, but are well worthwhile as they produce about 5% of Tasmania's electrical energy needs with no pollution and no green house gas emissions.

We started the tour with a visit to Tebrakunna Visitor Centre, which is so-named because the Aborigines who lived here called this area tebrakunna.

The centre provides interesting information about the original inhabitants, including about Mannalargenna, one of the key Aboriginal leaders in the resistance to European occupation two centuries ago.

Our guides then led us on various tours (some in cars, some on foot) in the Cape Portland region.

Dig and Claudia do environmental work around the wind farm, including in relation to conservation of wedge-tailed eagles.

One of the many magnificent wedge-tailed eagles we saw – SM

We saw one eagle apparently flying close to the blades of a wind turbine—Claudia said that they appear to 'play' with the wind turbines by flying between the slowly-rotating blades (perhaps to get some sort of thrill).

Dig told us that as part of a strategy to reduce the risk the turbines pose to the eagles, food is placed on the ground some distance from the turbines, attracting the eagles away from danger.

There certainly appear to be plenty of eagles in this area—at one stage, Dig pointed to five majestic wedge-tails soaring and swooping in the distance.

We also saw many wombats, most of which were quite large—one member described them as *huge*! They were also very active, usually running away from the perceived threat from our passing cars. And although they look a little ungainly, we noticed that wombats can run surprisingly quickly.

Although a little ungainly, wombats are surprisingly fast – SM

Forester kangaroos at full speed ahead – SM

There were hundreds of Forester kangaroos, some in mobs, with large males (boomers) keeping guard until the females and joeys had moved away from any threat our cars might have appeared to pose. Others were lone males, apparently shunned by the mob.

In the middle distance some of us saw a Bennetts wallaby that was hopping away to safety at a great rate—one member estimated his (or possibly her) speed at more than 50 km/h!

Acacia ulicifolia (juniper wattle), an endangered species – JW

We also saw many interesting plants, including fungi, coastal boobialla, coastal wattle, sundews, various types of heath, and some beautiful and delicate orchids. However, Dig told us it may have been a little too early for some orchids.

Pheladenia deformis (blue fairy ochid) – LB

Kennedia prostrata (running postman) – JW

Styphelia adscendens (golden heath) – LB

Glossodia major (wax-lip orchid) – SM

This was a very informative and entertaining outing that was thoroughly enjoyed by all attendees. NE Field Nats is very grateful to Dig and Claudia for giving up their valuable time to guide us through the fascinating Cape Portland area, and for sharing their vast knowledge with us.

OCTOBER 2019: FEDERATION GET-TOGETHER

By Lou Brooker and Mike Douglas; Photos by Geoff and Annabel Carle, and Mike Douglas

BACKGROUND (by Lou Brooker)

Every two years, members of field naturalist clubs in Tasmania are hosted by one of the clubs for a weekend get-together. It's a chance for the host club to showcase something special in their region, and also an opportunity to have social contact with other people with like interests, i.e. those who are interested in the natural environment.

In October this year it was our club's turn. The weekend kicked off with an informal barbeque and meet-and-greet on the Friday evening at the home of NE Field Nats President Ann Scott. On the Saturday Mike Douglas led a walk in the Waterhouse Conservation Area. Mike's report on this walk is shown immediately below, illustrated with photos generously provided by Tasmanian Field Naturalists Club members Geoff and Annabel Carle, and with photos Mike had taken earlier.

WATERHOUSE EXCURSION (by Mike Douglas)

Thirty-two field naturalists, including 26 visitors, walked the Pleistocene Dune Circuit in the Waterhouse Conservation Area (WCA). This was a similar walk to one led by Mike for NE Field Nats in 2015. (Editorial Note: Mike's report on that walk is in the North Eastern Naturalist issue number 190, published in September 2015.)

The weather was kind, much better than expected from the forecast, making for a pleasant outing during which the participants 'botanised' to their hearts' content, searched for native snails and enjoyed the scenery.

The four-kilometre circuit begins at Blizzards Landing and heads inland through a dense forest of drooping sheoaks. Much of this forest grew after severe fires occurred about 15 years ago.

Waterhouse Conservation Area – photo by Mike Douglas

The route continues to an ancient longitudinal dune formed during the last glacial advance, which peaked about 20 000 BP (before the present), during the Pleistocene Epoch. The sea at that time was about 120 metres below its current level, and much of what is now Bass Strait was a cold, arid and wind-swept desert. These longitudinal east-west dunes—relics of the Pleistocene Bassian Plain—are now dotted with many varieties of heath, providing an ideal location for lunch.

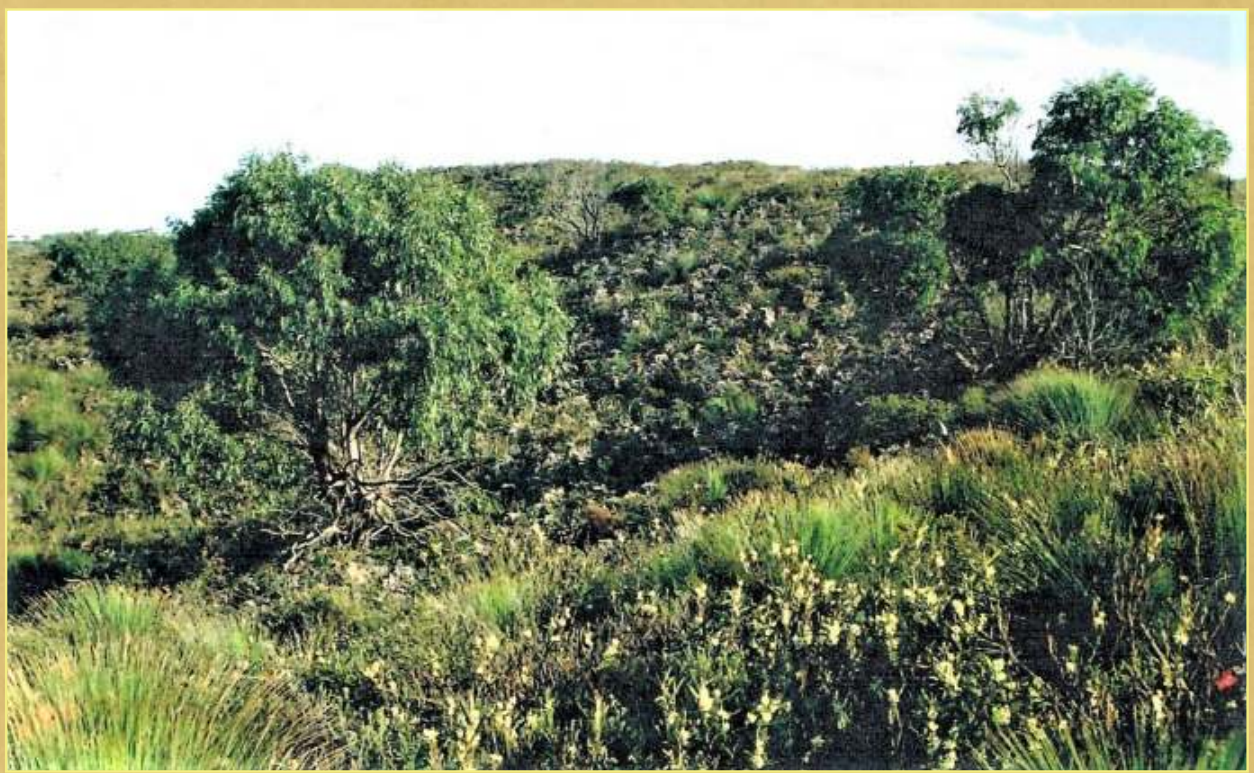
Lunch time during the walk in the Waterhouse Conservation Area – photo provided by Geoff and Annabel Carle

The transverse and parabolic dunes along the coast are younger and were formed from sand washed ashore after the sea level rose again about 11 700 BP, i.e. at the beginning of the Holocene Epoch.

Sand blows (cones of sand formed by the ejection of sand onto a surface from a central point), partly triggered from firestick farming practised by early European settlers, are a feature of the Holocene dunes.

The older dunes, often referred to as a 'fossilised landscape', constitute one of Tasmania's unique geomorphological features. The dune crest we walked on overlooks a large wetland known as Waterhouse Marsh. Pollen analysis and carbon-14 dating of a core extracted from this marsh revealed that at the beginning of the Holocene the area was a treeless heathland, with grasses that are now found only at higher altitudes.

As the climate became warmer and wetter, this heathland was replaced with forest dominated by eucalypts and with fewer sheoaks.



Remnant eucalypts in a fire shadow – photo by Mike Douglas

There is evidence of re-occupation of the site by Aborigines around 6500 BP. This is in the form of a large increase in fire frequency and a decline in eucalypt numbers, which are seen today only as remnants in fire shadows. It appears that a combination of frequent burning and salt-laden winds put paid to the eucalypts within much of the reserve, resulting in the heath and sheoak communities seen today.

Among the many heathland flowers seen on the walk were a beautiful yellow-flowered twisted sun orchid, *Thelymitra flexuosa*; a magnificent example of *Boronia parviflora*; and the vulnerable chaffy bush pea, *Pultenaea sericea*.

Remnant eucalypts present are *E. viminalis* (white gum), *E. amygdalina* (black peppermint), *E. pauciflora* (cabbage gum or white sallee) and *E. nitida* (Smithton peppermint).

Above left: Twisted sun orchid (*Thelymitra flexuosa*). Above right: *Boronia parviflora*.
Photos provided by Geoff and Annabel Carle

VISIT TO SCOTT BELL'S PROPERTY (by Lou Brooker)

On the Sunday delegates were hosted by club member Scott Bell, who led a walk through his property of 240 hectares at Little Pipers River. (Editorial Note: NE Field Nats visited Scott's property in 2018; a report on that visit is in the North Eastern Naturalist issue number 201, published in June 2018.)

Meat fed to the devils was attracting meat eaters from the air, so this feeding station was devised to ensure that only the devils can access the food – photo provided by Geoff and Annabel Carle

Scott's property is protected by a Tasmanian Land Conservancy Covenant and includes a Free Range Enclosure—a fenced area of 22 hectares that was established under a contract with the Department of Primary Industries, Parks, Water and the Environment (DPIPWE). This enclosure provides a safe place for healthy Tasmanian devils to breed, with no risk of exposure to the devil facial tumour that has decimated devil populations through much of Tasmania.

The devils in the enclosure therefore constitute an 'insurance population', i.e. if the Tasmanian devil becomes extinct in the wild, healthy devils from the enclosure could be used to re-establish the species in Tasmania.

We were also interested to learn that an unusual species of *Xanthorrhoea* is present on Scott's property. This is *Xanthorrhoea bracteata* (the shiny grass tree), which grows only in the North East, and is classified as *Endangered* under the Environment Protection and Biodiversity Conservation Act.

Xanthorrhoea bracteata (shiny grass tree) – photo provided by Geoff and Annabel Carle

A beautiful orchid, *Caladenia carnea*, commonly known as pink fingers, was also seen. This orchid is endemic to eastern and south-eastern Australia, including Tasmania.

The visitors were impressed with the north-eastern Tasmanian environment and hospitality, and some stayed longer to explore other natural gems in our area.

Caladenia carnea, common name pink fingers – photo provided by Geoff and Annabel Carle

NOVEMBER 2019: SCAMANDER

By Chris Forbes-Ewan with Todd Dudley, and Pam Bretz; photos by Chris Forbes-Ewan, Pam Bretz and Monique Case, NRM

Editorial Note: Our November activity involved a return to Scamander, our previous visit there having been in March last year. During the earlier visit, Todd Dudley, club member and President of the North East Bioregional Network (NEBN) briefly described work aimed at restoring natural bush in areas that have undergone clear-felling of plantation timber, as described in articles in issue No. 201 (June 2018) and in the Supplement to issue 203 (December 2018) of this newsletter. On this occasion, Todd led a tour of 13 members and guests to show us progress towards restoration of native bush. After the tour, club member Pam Bretz described work she and other volunteers are doing aimed at conserving the endangered hooded plover.

Project Skyline Tier, by Chris Forbes-Ewan with Todd Dudley

The weather was cold and cloudy, but thankfully the rain forecast for later in the day held off. We even experienced some intermittent mid-afternoon sunshine.

Todd's tour showcased progress in the Scamander Restore Skyline Tier project, which involves collaboration between the NEBN and New Forests/Timberlands. The project aims to restore native forest to an area of ~2000 ha of poor quality pine plantation on the hills overlooking Scamander.

In the 1960s and '70s about 2000 ha of native forest was replaced with a plantation of *Pinus radiata*, a native of the central coast of California and Mexico. Clear-felling began early this century, when the pines were mature, leaving ugly scars on the side of the hill.

Clear-felled pine plantation – ready for burning and then regeneration of native bush (Chris Forbes-Ewan)

Based on the observation that partial regeneration of native forest appeared to occur without human input when pines were harvested, in 2003 the NEBN approached the land manager of the site to discuss ways in which the remainder of the pine plantation might be restored to native forest.

A successful trial was conducted on a 40-ha area of plantation, leading to the development of the Skyline Tier project.

In a huge restoration effort, conducted over a period of more than 13 years, Todd and his team of locals have brought back biodiverse native forest, largely using seeds that had survived in the ground.

Native bush growing back—mostly *Eucalypus sieberi* (ironbark), *E. obliqua* (stringybark) and *Acacia verniciflua* (varnish wattle) – Chris Forbes-Ewan

This has the additional benefits of locking in carbon, reconnecting remnant bushland, and providing habitat for threatened species of animals and plants.

The restoration methodology involves harvesting of mature pines, followed by relatively hot ecological burns. The hot burns achieve the dual purpose of germinating still-viable native seed banks in the soil, and also killing pine wildlings (seedlings). There is also follow-up weeding of any further pine wildlings that germinate after the hot burn.

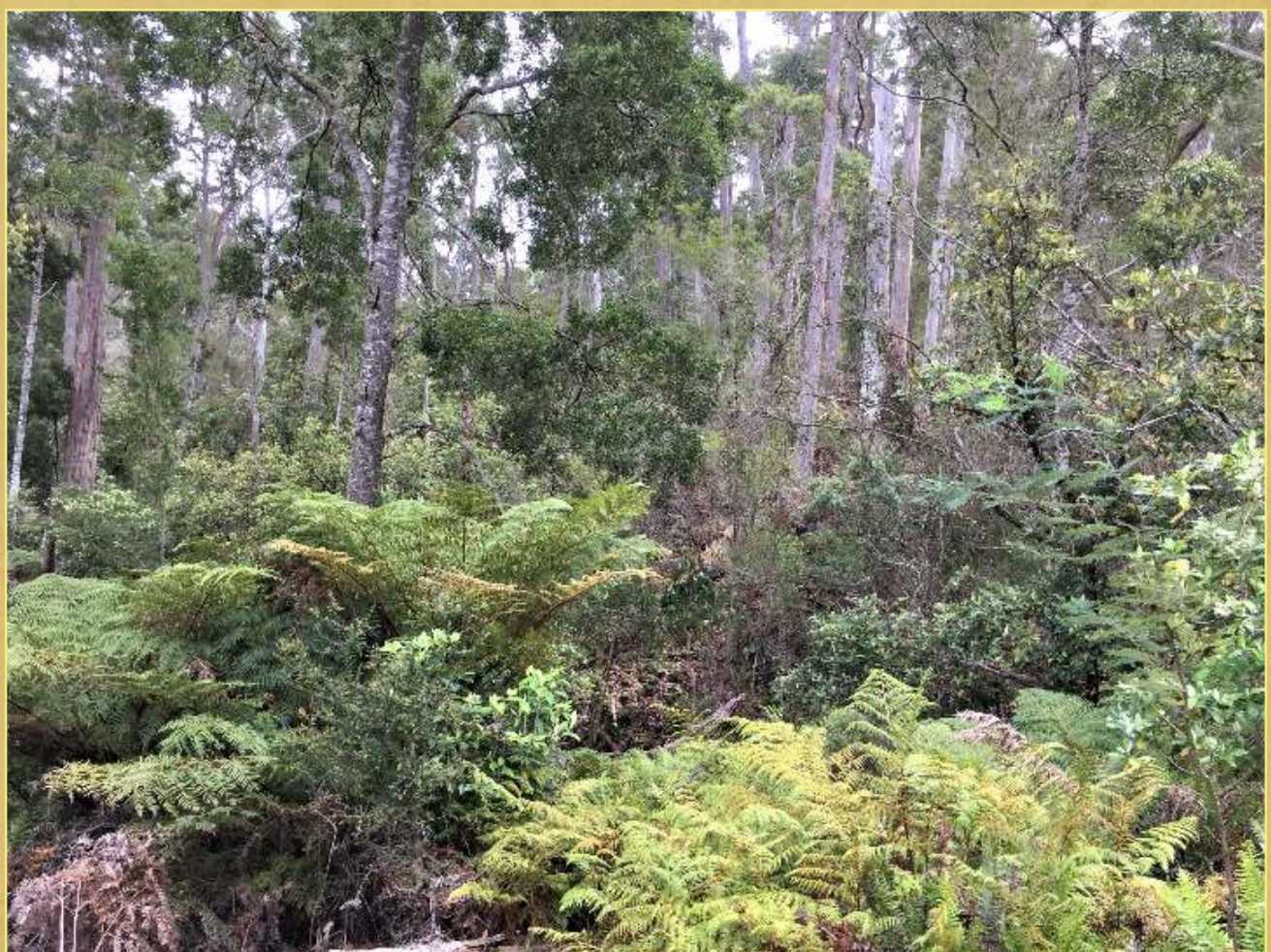
So far, more than 700 ha of healthy and biodiverse native forest has been regenerated, and more than 200 species of native plants have returned to the site.

Todd believes that this assisted natural regeneration in areas where there is good ecological resilience and landscape context is a much cheaper and more effective way of restoring native bush than planting trees.

He showed us a plantation site currently being logged as the first step back to native forest to see 'the before'. We also saw several regeneration sites (one of which involved an easy walk of about 45 minutes), demonstrating progress after burning and weeding.

On this walk we saw attractive young natives growing in an area that had been harvested about seven years ago, and a delicate hyacinth orchid (*Dipodium roseum*) about to flower. We also saw magnificent native forest which, Todd told us, is marked for possible harvesting in April 2020.

Todd also believes that plantations are generally undesirable and unsustainable for several reasons, including the use of herbicides and pesticides, shooting and/or poisoning of wildlife, depletion of soil nutrients and moisture, and weed issues (radiata pine is a serious environmental weed).



Virgin forest adjoining the regeneration area and zoned as Future Potential Production Forest, implying that the moratorium on logging here could be lifted in April 2020 (Chris Forbes-Ewan)

Other problems with plantations include the tendency of introduced *Eucalyptus nitens* (a eucalyptus tree that is native to the mainland, but not to Tasmania) to hybridise with critically endangered Tasmanian native *E. ovata*, minimal habitat value for native species, and the burning of native forests to protect plantations from fire.

Eucalyptus seiberi (ironbark) – Chris Forbes-Ewan

Ozothamnus thyrsoideus (arching everlasting bush) – Chris Forbes-Ewan

Todd suggested that the best outcome for nature conservation would be landscape-scale ecological restoration of plantations to native forest (for carbon credits, nature conservation and ecologically sustainable wood products). This would also provide employment and training opportunities in rural communities, conservation of current Future Potential Production Forests as Parks and Wildlife reserves, and a small-scale, primarily native timber industry based on local sawmills supplying local needs (as opposed to multi-national superannuation investment companies participating in the global economy).

Panoramic view of the coast from the Scamander Restore Skyline Tier Project (Chris Forbes-Ewan)

Conservation of the hooded plover, by Pam Bretz

For the second year I and three others on the Upper East Coast are taking part in a project to monitor the success rate of the breeding of the hooded plover, *Thinornis rubricollis*. This project follows guidelines laid down by Birdlife Australia, is funded by the Federal Government, and is administered by NRM North. 'My' pair of hooded plovers live on a beach near central Scamander.

Hooded plovers are not to be confused with the birds formerly known as 'plovers'—now known as masked lapwings—the birds that nest in suburbia and in open fields and dive bomb passersby! 'Hoodies' are small, beach-nesting shorebirds that have been listed as vulnerable by DPIPWE, and, as usual, we humans are the culprits.

The hooded plover is 19–21 cm long and has quite distinctive colouration and markings. It can live up to 15 years, spending its life on ocean beaches.

Hooded plover (*Thinornis rubricollis*) – photo by Monique Case, NRM

Hooded plovers can lay up to three eggs – photo by Pam Bretz

It breeds between August and April, making a shallow scrape in the sand above the high tide mark and laying from one to three eggs. Both parents are involved in looking after the eggs for the 28-day incubation period.

The chicks are *precocial*, that is they are mobile and able to feed themselves from the moment they hatch.

However they are extremely vulnerable to the many dangers that humans directly and indirectly pose, and are closely watched and loudly warned by the parents when danger presents.

If in danger, the chicks take cover near piles of seaweed, in vegetation or simply by flattening themselves on the dry sand. They are difficult to see and can be easily trodden on. The parents display many behaviours to protect their chicks, such as leading while vocalising, distraction by pretending to have a broken wing, and aggression towards predator birds. These behaviours can also indicate that a nest with eggs is nearby.

It takes 35 days for the chicks to fully fledge and become juveniles that can fly and so are (relatively) safe. Because we humans love the beach (and our dogs), more people are on our beaches each year. Feral plants such as the once deliberately planted marram grass and water-borne sea spurge are, in many places, taking

over beach areas, leading to less access to nesting sites. Hoodie numbers are declining because their nesting failure rate is 90–95%. Some have been known to make seven attempts in a season to raise chicks.

Here's how you can help these tiny beach dwellers. When on the beach, always walk on the wet sand below the high-tide mark.

Hooded plover egg, with chapstick to indicate size. Small and camouflaged, these eggs are easily trodden on by people walking on the beach, so always walk below the high-tide mark – photo by Pam Bretz

Also, always check local regulations before taking your dog to the beach. Even dogs on leads can frighten birds off a nest, thus exposing the eggs to predation from silver gulls, pacific gulls and kelp gulls, and from forest ravens.

Of course, NEVER take your car or horse onto the beach.

Enjoy your summer on the beach, but do what you can to improve the chances of this attractive little shorebird surviving into the next decade.

A pair of hooded plovers patrolling their territory – photo by Monique Case, NRM