

CONSERVATION UPDATE

December 2019 to February 2020

Prepared by Jessica McKelson, Conservation Manager and Conservation team.

HIGHLIGHT – THREATENED SPECIES

Hooded Plovers

The first Hooded Plover nest was found on 26/09/19 at Anchorage Rd, there was hope that the breeding season would go well as one egg hatched 28/10/19 however the chick survived only a week and was gone on 5/11/19. The breeding season has been slow on Phillip Island and early reports are that fledging numbers will be down for the whole of the Victorian coast. To the end of February on Phillip Island there have been 41 nests, 90 eggs and 16 chicks. Of the hatched chicks, 3 have fledged and there are two new chicks at Anzac west. A greater cause of nest failure has been the very unsettled weather over summer with washouts, high tide surges with large waves, extremely strong winds and fluctuating temperature extremes. Along with this the usual raven, magpie and gull predation. Interestingly more Ibis have been recorded feeding along the tide wrack and in the dunes. Non-compliance by dog walkers to regulations, although in most areas less than previous years, has continued.

A result of high disturbance was that no chicks fledged before the New Year and from 29 nests laid before Christmas only 2 nests resulted in 3 fledged chicks. Graydens Rd fledged 1 chick, banded 'Yellow 68' and Red Rocks fledged 2 chicks 'Yellow 69' and 'Yellow 70'. These chicks only made it through due to the combined dedication of the Hooded Plover Watch volunteers and conservation staff who have been keeping beach users updated and monitoring the chick's progress. A recent volunteer, Shane Craswell, took a great photo of the Hooded Plover adults defending their chick at Graydens Road.



*Two adult Hooded Plover threat display at a Silver Gull to protect their chick at Graydens Rd.
Photo by volunteer Shane Craswell*



Photo 1: Banding the Grayden's Rd chick 'Yellow 68' / Photo 2: Mitch Burrows, Nesting Shorebird Officer with one of the two Red Rocks Hooded Plover chicks

We are hopeful that some nests laid in late January and early February will be successful as only 3% of eggs have resulted in fledged young compared with a long-term average of 10%.

39 Hooded Plovers were recorded on Phillip Island beaches during the Hooded Plover and Gull Count on 7 February 2020. This is about 10 birds fewer than the previous 7 years where the total at this time of year is around 50 birds. Please report Hooded Plover sightings to the Hooded Plover team: hoodie@penguins.org.au



Hooded Plover at Berrys Beach during the Hooded Plover and Gull count. Photo by volunteer Jenny Skewes.

Adrian Hyland has started an internship with the Hooded plover team. Adrian has been assisting with nest monitoring, setting up refuges, collecting data and supporting volunteers.



Photo1: Hooded Plover refuge building team Rory, Shani and Bradley at Surf Beach/ Photo 2: Hoodies and hounds breakfast session at Smiths Beach on 11/01/20

Fairy Terns

A colony of Fairy Terns (*Sternula nereis*) was found on Phillip Island in late 2019 – the first time the species has bred on the Island in decades!

Fairy Terns nest above the high-tide mark on sandy beaches, spits or ridges – laying their one or two speckled eggs in a shallow scrape in the sand. They breed in colonies and both sexes share the incubation of the eggs and care for the young. While incubating the eggs and before the young fledge, these birds are vulnerable to human disturbance and predation. To minimize the risk of these negative impacts, the Nature Parks staff set up a refuge and put out signage to increase people's awareness at the site.

This species is listed as Vulnerable in Victoria and the breeding colony on Phillip Island is an important population for Western Port, with up to 30 fledglings recorded in February 2020 and over 60 adult birds seen around the site.

The removal of foxes from Phillip Island, the ongoing feral cat control, weed removal and revegetation programs have undoubtedly contributed to the success of this colony this year.



Photo 1: Adult Fairy Tern, chick and egg 17/01/2020 / Photo 2: Beach signage at the refuge site 13/12/2019



Photo 3: Adults and chicks (camera trap image) 16/01/2020 / Photo 4: Fledged Fairy Tern Chick 14/02/2020

Eastern Barred Bandicoots



Eastern barred bandicoots continue to be doing well on the Summerland Peninsula with individuals observed by staff and members of the public (orange and yellow circles) up to 3 km from the original release sites (white circles).

The French Island population was monitored in December for the first time since a total of 74 bandicoots were released there in October. Zoos Victoria is leading the monitoring of this population. We helped capture between 9 and 16 bandicoots each night which is similar to the number captured at Summerland Peninsula when they were first released. Zoos Victoria vet teams screened most bandicoots for the disease Toxoplasmosis, just as we do on Summerland Peninsula. Several of the elusive long-nosed potoroos living in the area were also captured as part of an honors student project.

SHORT TAILED SHEARWATERS

To date, the number of birds and eggs occupying nest boxes was good, matching what we would expect from a typical year. This has been an unusual start to a breeding season, but looks like it is shaping up to be a normal breeding season. Five geolocator trackers have been recovered so far this season, which will be very informative to tell us what the shearwaters were doing at the start of this season. Another twenty geolocators were deployed since December.

AUSTRALIAN FUR SEALS

Another breeding season for the Australian fur seal was successful in December. Pup abundance was surveyed by a drone at two of the largest breeding colonies, Seal Rocks and The Skerries. Dr Rachael Gray and her team from the Seabird and Marine Mammal Health Collaborative (University of Sydney) visited Seal Rocks and sampled 100 pups to continue investigations into persistent organic pollutants, disease and gut flora.

The conservation team were involved in the 10-year review of the Victorian Wildlife (Marine Mammals) Regulations 2019 that came into effect on 23 November 2019 and can be viewed here: <http://www.gazette.vic.gov.au/gazette/Gazettes2019/GG2019S470.pdf>.

Approach distances to Seal Rocks have changed with permitted tour boats now licenced to 20m from the low tide mark. Recreational vessels may approach to the breeding colony boundary set at 60m from the low tide mark and prohibited vessels (e.g jet-skis) must remain 200m from the colony boundary. These changes align with global practices and it is hoped that entanglement in recreational fishing material will reduce, this is one of the top entanglement materials for pups and juveniles at Seal Rocks.



Photo 1: Victorian Fisheries Authority, Cowes, get ready to deliver the research team to Seal Rocks / Photo 2: Another fur seal entangled in recreational fishing line at Seal Rocks.

PEST CONTROL

Foxes

Fox control in the mainland buffer zone commenced in early February to target dispersing juvenile foxes which may have reinvaded from outlying areas since the first pulse undertaken in Spring 2019. Fox activity has been significantly reduced since the Spring program suggesting that sustained control can help reduce the risk of foxes reinvading Phillip Island.

Two fox sightings received from Saltwater Creek and Berry's Beach have been investigated using detection dogs, night surveillance and cameras however there has been no physical evidence found to date.

Feral Cats

Camera monitoring at Cape Woolamai was completed over summer to gain a better understanding of the seasonal changes in the feral cat population at this site. Images from cameras are sorted and individual cats are identified and together with the spatial data of individuals, is modelled to help estimate population and home range size of feral cats.

A new feral cat detection dog, Marbee, is being trained to help reduce the threat of feral cats on the Phillip Island.



Photo 1: Marbee our new cat detection pup

A total of **31 feral cats** have been removed from areas including Summerland Peninsula, Cape Woolamai and the Ramsar coastline since December bringing the total to **66 for the year**.

Rabbits

Chantelle Geissler has commenced the role of Rabbit Project Officer as a jointly-funded position with Bass Coast Landcare Network to engage community groups and land managers to undertake effective monitoring and control works.

A release of calicivirus (RHDV1K5 strain) is planned for late February 2020 across parts of Phillip Island including Summerland Peninsula, Surf Beach and Cape Woolamai.

Pest Plants

Good summer rain and generally mild conditions following a dry November 2019 resulted in good growth of both native plants and weeds. Thistles kept germinating throughout summer requiring four runs through the Summerland Peninsula by staff and contractors and constant vigilance and follow up in all other reserves. Scotch thistle is a prolific seeder and a single plant can produce more than 20,000 seeds. It's been a good season for Tall wheat grass at Fishers Wetland where work continued along the revegetated wetland margins. Other weed work along the Ramsar coast included Polygala, Pittosporum and Sea Spurge at Observation Point.

Ragwort seeds can remain viable in the soil for 8-16 years, so work continued through known areas of Oswin Roberts during late spring-summer when flower heads make for easier identification.

Work on a range of grassy, woody and herbaceous weeds continued throughout the Penguin Parade where weeds do well because of disturbance by burrowing birds and the high nutrient content of the soil. Adjacent to the Penguin Parade, the old Summerland housing estate was monitored for Serrated Tussock, Stinkwort was treated, and Polygala was removed by university volunteers. Penguins continue to move into this rehabilitated estate, a testament to the original vision and ongoing hard work. The volunteers also worked along the Summerland coast removing Sea Surge and boxthorn from Flynn's Reef to Cowrie Beach.

The Sunderland Bay/Surf Beach Coast Action Group had several working days doing coastal reserve maintenance mainly removing thistles and sea spurge.

The focus on weeds in the woodland reserves has been Ragwort. Rangers have been hand pulling flowering plants and then spraying the rosettes on newly emerging plants.



Photo 1: Environment Ranger Susan Spicer attaching haul rope before removing Boxthorn at Pyramid Rock - Dec 2019

Photo 2: Senior Rangers Stephan Poll and Danial Kallstrom about to descend to large boxthorn

Photo 3: Field Service Officer, Nick La Marca, set to tackle a large Gorse bush

COASTAL AND WOODLAND MANAGEMENT

Coastal / Wetland

A generous grant from Melbourne Water for 2019-20 has facilitated work to eradicate Bridal Creeper at Rhyll Wetland, Fishers and Ventnor Koala Reserve. The extensive work over an eighteen month period has allowed the contractors to expand into new areas.

Woodlands & Fire Management

We have had a relatively mild fire season so far with staff attending five fire related incidents from campfires left abandoned or in use, and three vehicles & five staff attending a grass fire on Harbison Rd in late December.

Staff have been involved with the Property Advice Visiting Service program with CFA members and Corin Spencer from the Shire Emergency Management team. This involved targeting 72 properties adjacent to some boundaries of reserves with discussions involving fire ready and what the Nature Parks is doing regarding fire ready for the season.

Several Rangers and contractors have recently completed the Asset Protection Zones (APZ) work on Beresford Road in Cape Woolamai. The APZ involves lessening the available fuel loads of vegetation in a buffer zone- 30 meters from adjacent landed owners in several areas of the park.

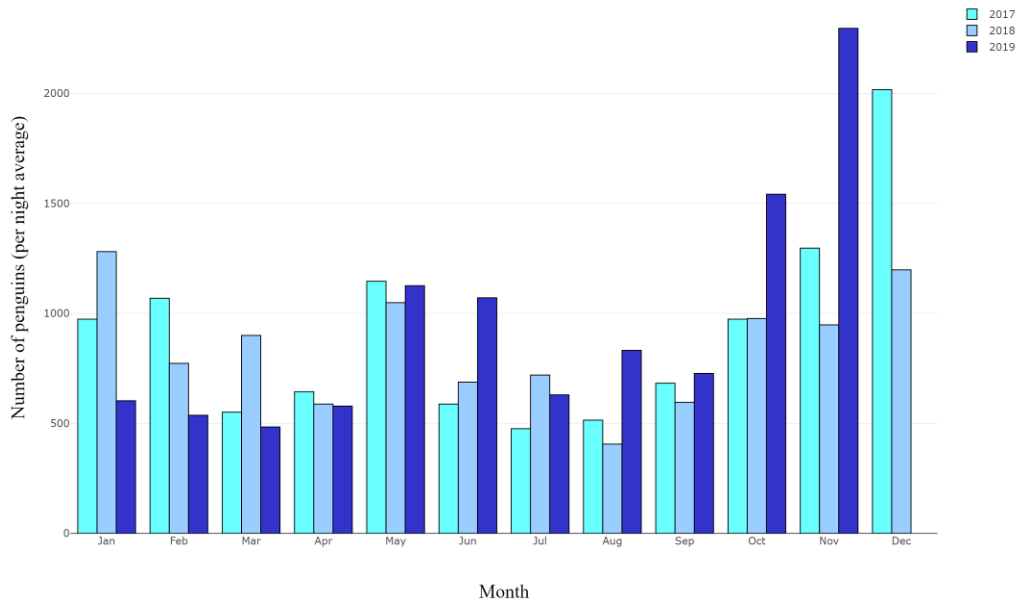
The Fire access tracks in Summerland Estate have now been coded and street names have been removed, following up actions from the fire exercise in Summerlands from late 2018.



Photo 1: Environment Rangers Jon, Rory and Lachie, installing the new recycled plastic bollards throughout the Summerland estate.

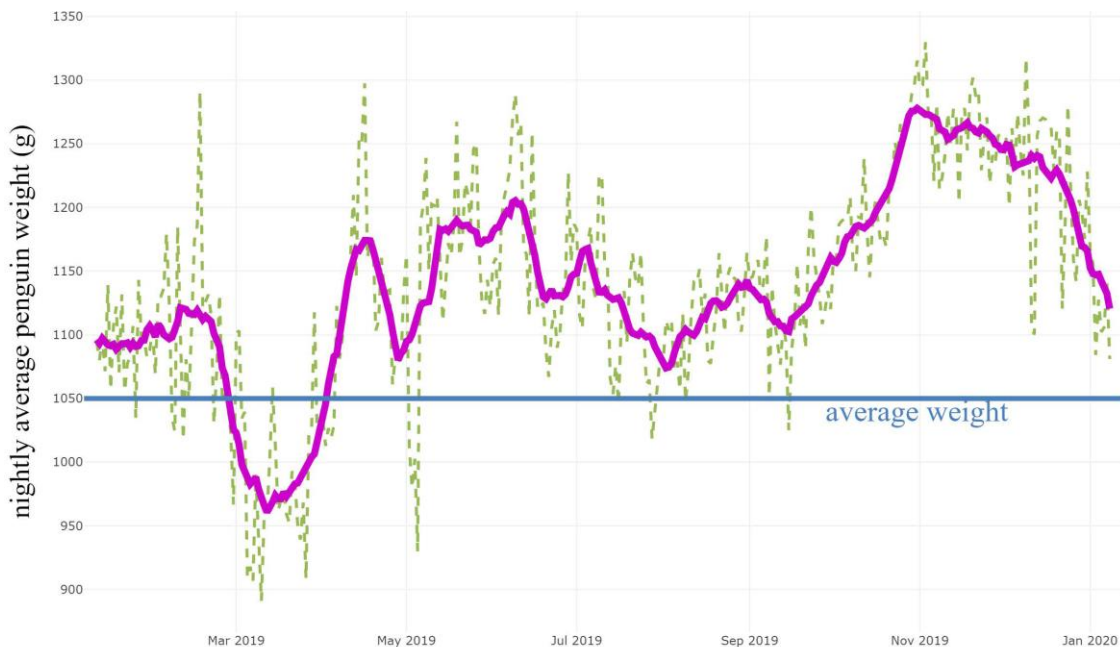
Ranger-in-charge Ben Thomas, has been working on a fire management proposal for the future vision of Summerland Peninsula in the context of climate change and fire protection. A meeting was conducted with several of the senior conservation staff, working on what we want this landscape to look like in the short and long term future.

PENGUINS



The 2018 penguin breeding season had a low success, but the numbers for 2019 are 77% higher. Adult penguins are making shorter trips than last year and their weights are healthy. Chicks are fledging with weights well above average. Penguins are having a welcome great breeding season!

penguin weights (Parade)



Adults penguin weights are increasing well above the long term average. The green line is the daily average while the purple line is the weekly average.

Grant for the marine ecosystem model

Predicting the impacts of threats to penguin unique food web is critical to little penguin conservation at sea. In collaboration with CSIRO Marine & Atmospheric Research and Ecopath International, Phillip Island Nature Parks had developed an ecosystem model for the northwest of Bass Strait. This will assist to identify scenarios that can predict future changes to penguin food security in their fast-changing environment of Bass Strait. An ecosystem model is a dynamic tool that needs to be upgraded as new information becomes available.

Our recent diet study finalised under the Australian Research Council funding has revealed new diet information to refine the ecosystem model. We have secured a small grant from the CSIRO Marine Labs (\$10,000) and Monash University (\$15,000) to update our current marine ecosystem model. Changing the abundance of different prey in this food web (below), we can predict the population trends of penguins and their prey.

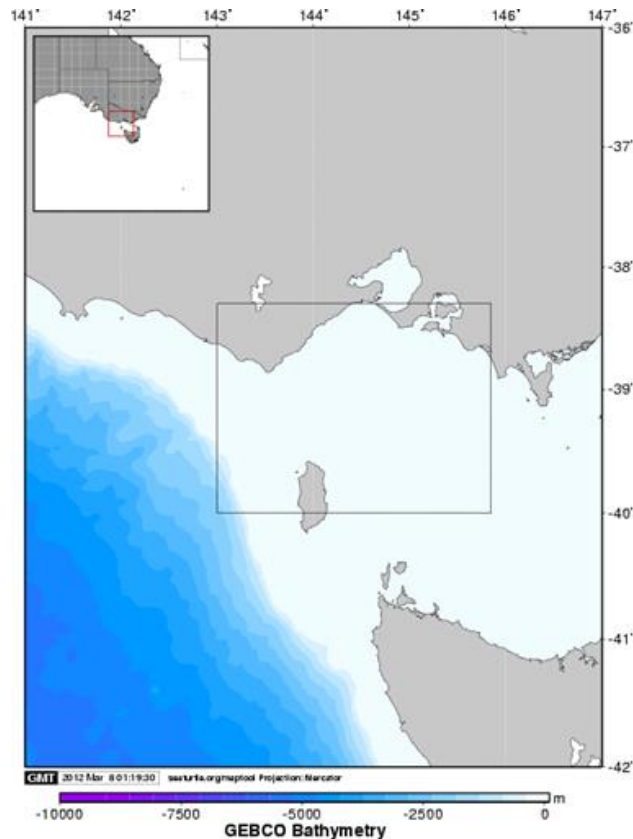


Photo 1: The model area of 38,233 km² used for calculation of species presence and abundance.

KOALAS – BUSHFIRE RESPONSE

Phillip Island Nature Parks is providing much needed sanctuary to aid in the recovery and rehabilitation of eight bushfire affected koalas at the Koala Conservation Reserve.

The koalas were brought to the Reserve after receiving intensive care at Healesville Sanctuary as part of wildlife recovery efforts being coordinated by DELWP (Department of Environment, Land, Water and Planning) and Zoos Victoria in fire-affected East Gippsland.

They are being given the space, care and attention they need at this time and are responding well to their new temporary home. The male koala, known as Leafy, was one of the first koalas rescued from the fires, and he is now climbing, building muscular strength and eating well. The three females; Blinky, Trip and Solo, are also responding well to their care and new surroundings. They no longer require bandages or medication and are free from infection, but still need special care to assist their recovery.

The koalas are being housed in purpose-built pens, well away from the public viewing areas and other koalas to ensure no disturbance or transfer of the disease Chlamydia. Rangers are providing them with a daily diet of high-quality leaves sourced from the on-site eucalypt plantation.

We are dedicated to providing the attention, space and first-class facilities these koalas need to fully recover whilst ensuring they remain as wild animals so we can achieve our ultimate goal of releasing them back into the wild under DELWP's direction.



Photo 1: Leafy one of the first koalas we received from Zoos Victoria, ex Mallacoota.

Photo 2: Conservation Manager Jess McKelson, Environment Ranger Daniel Kallstrom, Senior Vet Leanne Wicker Healesville Sanctuary release a koala into the pens for post intensive care recovery.

WILDLIFE REHABILITATION & MANAGEMENT

- Over the past few months the rangers have responded to over 380 calls on the wildlife phone.
- Six students have undertaken their extramural placements with the rehab staff this summer, gaining exposure to a range of wildlife cases, including assessments, rehab/husbandry and feeding techniques.
- Alterations to the threatened species pens have now been completed and ready for EBBs or other species requiring specialised housing.
- A range of species have been cared for at the rehab centre during this time - Woodland birds such as kookaburras, magpies, ravens, lorikeets and wattlebirds. Seabirds e.g. Fluttering and Short-tailed shearwaters, pacific and silver gulls, Little penguins and a Northern giant petrel. Several ducklings came through the centre, chestnut teals, shelducks and wood ducks. Brushtail and ringtail possums, wallabies, an Eastern barred bandicoot and an echidna also made appearances.

An echidna came in to care after a brush with a car, damage to a section of its spines and an open wound on the back healed quickly with medication, good food and rest and recuperation. The echidna was released back to the area where he/she had been rescued.



Photo 1: Rescued echidna



Photo 2: Northern Giant Petrel release

A Northern Giant Petrel spent a few weeks at the rehabilitation centre regaining condition after being found at Cape Paterson exhausted and malnourished. These birds feed on carrion as well as fish and can be very 'enthusiastic' around feed time, keeping the rangers on their toes. This bird was released at Cowries, flying off beautifully with a Pacific gull in tow.

TRAINING & PRESENTATIONS

Five of our fur seal research projects were represented at the International Marine Mammal Conference in Barcelona in December 2019. Nature Parks research provided valuable contributions to global discussions on human caused, or anthropogenic, changes in the marine environment.

We co-chaired a workshop on seal entanglements in fishing material with the International Pinniped Entanglement Group where 14 countries represented this global issue. Working with industry to reduce marine mammal entanglement was one of the topics discussed.

VOLUNTEERS / STUDENTS

A big thank you to all the Volunteers helping us protect nature for wildlife on Phillip Island.

So far, this breeding season (since 1 September 2019) volunteers have contributed 586 hours to monitoring hooded plovers on Phillip Island beaches and engaging members of the public on this threatened species.

Additionally, since November the following hours have been recorded:

- 843 hours in the Barb Martin Bushbank.
- 113 hours in general conservation (planting, weed removal).
- 5 hours in the Hooded Plover and Gull Count.
- 22 hours in Shearwater fieldwork, in partnership with VORG.
- 29 hours in the Surf Beach Sunderland Bay Coastcare Group. 1
- 20 hours in the new Water Monitoring program, where volunteers monitor water quality, assess habitat and species in the wetlands and other waterways on Phillip Island.
- 76 hours in the Youth Wildlife Ambassador Program, where Ambassadors have helped with hooded plover monitoring, nursery work at the Bushbank and more.



Photo 1: Barb Martin Bushbank volunteers

MEDIA/PR

- Three local newspaper articles on Bins on Boats: Phillip Island Partnership project with the South East Trawl Fishing Industry Association to reduce marine mammal entanglements.
- Penguin breeding season has been on channel 9 news and much media coverage
- Koala bushfire survivors have been in local and state media.
- Short tailed shearwaters have been in the media since November – December detailing the late start in the season and how they have now seemed to return.

GRANTS

- DELWP Bushfire relief for wildlife and shelters: \$800 for equipment and supplies to cover the initial koalas coming into the Koala Conservation Reserve
- WWF for funding 3 x new pens for the bushfire koala victims. \$20,000