CONSERVATION UPDATE

November 2018
Jessica McKelson, Conservation Manager and team

HIGHLIGHTS – Barb Martin Bushbank reopens to the public

Overview

The Barb Martin Bushbank (BMBB) reopened to the public on 3rd October after having been closed for a short period for extensive upgrades to the nursery’s facilities. The reopening was a great success and many volunteers gathered for a sensational homemade breakfast to start the day and to see the fully stocked nursery with plenty of indigenous plants.

Many changes have taken place over the past 3 months with major facilities upgrades almost at completion – Including resurfacing the production area and instillation of the large grow house. The final upgrades to facilities including instillation of the irrigation and revitalisation of the nursery retail area scheduled for January. We excitedly look forward to all the positive changes whilst delighting in being able to grow more plants for the increasing numbers of orders. A big thank you to our 15 regular volunteers who each week dedicate their Wednesdays and Thursdays to this success.

“We want a ‘Green Island’ for all the animals and people to enjoy and are so happy the Nature Parks are putting in so much effort to that effect.” ~Volunteer BMBB
HABITAT MANAGEMENT

Vertebrate pest control

- Our fox dogs continue to monitor Phillip Island and ensure each threat is followed up to secure the Island from potential threats. A joint fox baiting program with Parks Victoria in the mainland buffer zone has resulted in an estimated 32 foxes being removed over the 6 week program. This was supplemented by a fox trapping program which will continue until 21st December which has to date removed 8 foxes from around San Remo where baiting is not possible and another 4 foxes from the outskirts of San Remo following the baiting pulse.

Photo 1: Fox Detection Dog “Lady” indicating on an active fox den on the San Remo foreshore.

- Over the past 3 months, a total of 33 cats have been removed from areas including the Ramsar coastline around Western Port and the south coast areas of Surf Beach, Pyramid Rock and Berrys Beach bringing the total to 66 removed since July.

Photo: Trail camera image of fox on the mainland buffer zone prior to control program.
The Conservation Department were fortunate to have Anna Eggleton working as the Wildlife Monitoring Intern for the past three months. Anna contributed approximately 400 hours of work covering many aspects of wildlife monitoring, including the deployment and data collection from cameras during the Cape Woolamai, Newhaven Swamp, Ventnor Koala Reserve and Oswin Roberts Reserve predator monitoring programs. Anna processed and sorted approximately one million photos searching for predator pests.

Anna has been a great asset with other projects including Feral Cat Trapping where she had her own trapping programs which removed ten cats from Nature Parks’ land, bandicoot monitoring, spotlighting, and more.

Chart 1: Feral cat statistics August - November 2018

The second round of the domestic cat tracking study was completed during the shearwaters absence from the Island. Of the nine cats, five were tracked over both periods (presence and absence of shearwaters). Some cats crossed the main roads (2), ventured more than 300m from home (6) and spent more than 6 hours per day away from home (4).
A media article from the Nature Parks domestic cat tracking project generated a lot of regional interest, including a radio interview and Channel 9 WIN TV story. Peter Dann and Jess McKelson did a radio interview and pre-records with ABC Gippsland that subsequently posted the story on Facebook (FB). This FB post is up to 647 reactions and over 700 comments. The Channel 9 WIN TV news story was also well received and is raising awareness of the issues around roaming domestic cats.

Weed Management

- Field Service Officers, Brandon and Kaz and other Rangers have been very busy controlling weeds across the Island with special emphasis on Thistles. They have covered Woodland, Wetland and Coastal areas. **Over 10 different** weed species have been controlled.

- Rangers have been busy cleaning up beach access points and presenting the park in the best possible light in preparation for summer visitation.

- The Dune Restoration Project at Cape Woolamai has taken another step forward with GIS mapping efforts underway through both on ground and UAV assisted methods. This work will aid in establishing a base percentage cover of Marram grass throughout the dune system enabling a division of the site into management zones. Several of these zones are currently undergoing weed control by spray contractors ahead of follow up work through hand weeding by future community and volunteer groups. The learnt outcomes from this project can be used across the Island, regionally and internationally.

![Photo: Marram grass at Cape Woolamai](image)

- Melbourne Water Grant continues to fund contractor works in our wetland areas. Extensive Bridal Creeper control has been undertaken through Rhyll Wetland, Fishers Wetland and Ventnor Koala Reserve.

- Phillip Island is under constant threat from new and emerging invasive plant species. The first one is Disum bracteatum a highly invasive orchid from South Africa which has the ability to produce and spread phenomenal amounts of seed. This specimen was found at the airstrip in Cape Woolamai.
Another invasive weed making a re-appearance is Sicilian Sea–Lavender Limonium hyblaeum which was rediscovered in the Nobbies Carpark.

The Nature Parks and Bass Coast Landcare partnership includes co-ordinating Island-wide control of Chilean Needle Grass (CNG). This has started with the CNG being mapped and now targeted for control.

Serrated Tussock continues to be monitored and controlled on the Summerland Peninsula (5 plants in the quarantined area). These have the potential to severely compromise our significant native grassland areas.

Seven Conservation Rangers and one our construction crew completed rope access training this month. This has allowed our team to access the final frontier of our weed program – the cliffs of the south coast and Cape Woolamai. It also means our
construction crew can build or maintain some of our coastal infrastructure safely. Training was conducted by Safety Access & Rescue – an internationally recognised rope access company. This training will bring our weed program up to par with other world leading programs like those found on Lord Howe Island.

Woodlands & Fire Management

- Consultant Kate Bennets has undergone an assessment of the vegetation coops in Oswin Roberts and Ventnor Koala Reserve. In summary, there appeared to be fewer annual species than previous years in the fenced and control plots, presumably due to drier conditions. There also appeared to be more grass biomass in the two fenced plots compared to the control, and in the wallaby exclusion plots more shrubs and vines, although only at some sites.

- Conservation & Grounds services are currently completing the slashing and trimming of firebreaks as advised in the Fire operation plans in preparations for the fire season.

![Photo: Conservation staff working at Conservation Hill on chainsaws and chipping breaks.](image)

- A number of general firefighting staff have completed emergency medicals and all have completed tasked based assessments with Wonthaggi Parks Victoria.

![Photo: Conservation staff completing the assessment](image)

• Phillip Island Nature Parks, Phillip Island and San Remo CFA brigades and Bass Coast Shire Council, have conducted a joint pre-summer fire planning exercise on Summerland Peninsula named Exercise Summerland. Exercise Summerland was deployed on 13th November. This was a simulation designed to evaluate our response to bushfire and how we work side by side with the CFA. Media coverage here: https://news.cfa.vic.gov.au/-/keeping-visitors-and-penguins-safe

• Interagency compliance briefing: Representatives from VICPOL, Parks Victoria, DELWP, Victorian Fisheries Authority, and BCSC met with Nature Parks rangers at the Nobbies to discuss operational capabilities and priorities over the busy summer months. This was a great opportunity to network and strengthen relationships with our peers in the world of compliance and regulation.
MARINE MANAGEMENT

Penguins

- The average number of penguins crossing at the Penguin Parade in November 2017 and November 2018 was 1298 and 969 respectively. The numbers in 2018 are lower than the same month in 2017. This lower number is probably because parents are making longer trips, coming ashore less often. Longer trip means more days at sea foraging. However, the good news is penguins are in good body condition; their weights have been well above average in November. At the Penguin Parade, most penguins are feeding small to large chicks.

_Penguin numbers_

![Graph: Penguin numbers from two breeding seasons, showing that current weights are above the long term average](image)

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• Scientists have tracked 26 penguins with GPS and “fitbit” loggers in November. They have been travelling due south, reaching 80 km away from Phillip Island. This is almost three times the average foraging range (30 km) for Phillip Island penguins. This information shows that the penguin foraging zone varies dramatically between seasons, crucial information to determine critical feeding hotspots.

Australian fur seals:

**Paper published by Lachlan McLean, a previous Nature Parks students**

“Impact of rising sea levels on Australian fur seals”

Effects of storm surge on Australian fur seal colonies will be exacerbated by sea level rise causing increased inundation levels. An increased severity of storm surges will result in either an increase in pup mortality, or the dispersal of individuals to higher ground and/or new colonies. At Seal Rocks 100% of the current breeding habitat and 81% of the potential breeding habitat was predicted to be inundated in 2100 by a 1-in-10 year storm (sea level rise projections calculated using the Canute 2.0 model and data from Haigh et al. 2014 and IPCC 2014).
Image: Calculating the impacts of predicted inundation levels at a hypothetical seal colony.
(A) The island’s topography is established.
(B) Breeding habitat (dark grey polygon) is identified and overlain.
(C) The predicted inundation level (blue contour) is derived from the colony's topography.
(D) Breeding habitat below the predicted inundation level is removed leaving only suitable habitat above the predicted inundation level.

SealSpotter and Citizen Science back on the radar

Ross and Bec from the research team went to Melbourne for an in-studio interview with Radio Marinara to provide an update on the success of SealSpotter (podcast). It was a great lead into their presentation at the Australasian Wildlife Management Society Conference in Hobart, Tasmania. The talk focused on using Remote Piloted Aircraft and Citizen Science for monitoring wildlife was well received and prompted some excellent communications and discussions on what makes a successful project.

The drone workshop attended by Bec was very useful for sharing ideas and lessons learnt in this emerging field. The conference was opened by Dr. Sally Boz, Threatened Species Commissioner. The Nature Parks new Matrice drone has successfully flown two surveys over Seal Rocks to monitor the 2018 breeding season and prepare for the next round of Citizen Science with refreshed images of better resolution.

Photo: Abstract book for the 31st Australasian Wildlife Conference in Hobart (left) and Ross Holmberg at The Nobbies in preparation to fly (right).
Short tailed Shearwaters:

A new study recently published shearwater chicks from Phillip Island. Results found that all chicks contained at least one plastic item in their stomachs. Over 200 seabird species are affected by plastic ingestion today. Short-tailed shearwaters from Phillip Island are not immune from plastic. In this study, we found that all chicks contained at least one plastic item in their stomachs. These plastic loads are transferred from parents during parental feeding.

Beach-washed fledglings are the most affected, showing higher plastic loads, poorer body condition and reduced diet diversity. Our study provided warning signs of high plastic ingestion due to poor foraging/condition of adults.

Light pollution mitigation on wildlife

- VicRoads master plan for Phillip Island road – use our light specs to design new road lights
- Bass Coast Shire Council and DELWP planning permits – set conditions on sites bordering shearwater colonies to prevent light pollution
- National Guidelines on light pollution and seabirds, sea turtles and shorebirds
  - Phillip Island will be featured as one of three case studies in Australia

THREATENED SPECIES UPDATE

- Threatened Species Officer Tom Nixon has commenced for a 1 year DELWP grant funded position. Tom will be responsible for rolling out the approved Threatened Species Plan, which is in its final stages of editing.

- 5 species of Flora have been identified as focal species for Threatened Species across the Nature Parks. They will, more broadly, encompass management of threats to both Woodland and Coastal communities. They are as follows;
  - Caladenia vulgaris (Slender pink fingers) - Woodlands
  - Wurmbia uniflora (One-flower early nancy) - Woodlands
  - Monotoca glauca (Currant wood) - Woodlands
  - Leptechophylla juniperina ssp oxycedrus (Crimson berry) - Coastal
  - Xanthorrhoea minor ssp. Lutea (Little grass tree) - Coastal

- Also within the coastal environment, although not threatened as a species itself, the Moonah (Melaleuca lanceolata spp. Lanceolata) is locally and culturally significant and represents the Flora and Fauna Guarantee Act listed community Coastal
Moonah Woodland. Some of the key threats to flora are; predation pressure by herbivores (e.g. rabbits, wallabies), competition by plants (weeds and natives), inappropriate fire regimes, disease (e.g. phytophthora), and climate change. Control measures to mitigate these threats will be essential for the conservation of these species.

**Growling Grass Frogs**

- One species flagged for potential reintroduction to Phillip Island through the key stakeholder and community consultation sessions is the Growling Grass Frog, *Litoria raniformis*. However, there is a possibility that this species isn’t absent from Phillip Island and still persists in some areas. Some wetlands around Phillip Island are being surveyed for the presence of Growling Grass Frogs.

![Growling Grass Frog](https://www.youtube.com/watch?v=caWPpR3ZzWI)

- Surveys for the species are primarily being undertaken using remote sound-recording equipment known as SongMeters. These audio recorders are programmed to record sound throughout the night and specific software is used to analyse these audio files for the iconic sound of the Growling Grass Frog.

- If you think you might have heard this call on your property, contact Tom Nixon tnixon@penguins.org.au

**Hooded Plovers**

- Nature Park’s staff and volunteers took part in the Biennial Beach Nesting Bird Survey with BirdLife Australia and counted 46 Hooded Plovers across Phillip Island beaches. This continues the trend of an increasing population on Phillip Island.
• Unfortunately, from the first nest on the 11th August to the start of December, only one nest has produced chicks out of the 22 laid. Predation, human disturbance and washout by rough weather and high tides have all contributed to the failure of nests around the island.

• Volunteers also attended a Hoodie Workshop on the 15th November, and participated in the BirdLife webinar MyBeachBird portal training on 28th November 2018. We had a great turn out and currently have a group of dedicated volunteers that help spread the word in the hood guard our vulnerable chicks.

• If anyone is interested in joining these volunteers contact Rachael Ferguson (volunteers@penguins.org.au) or have any questions or comments the main points of contact are Jon Fallaw, Shani Blyth and Alona Charuvi (hoodie@penguins.org.au).

• A goodie of a hoodie news story...
Joris Driessen (BirdLife Australia) was doing the biennial count on the east side of Wilsons Promontory, and interestingly saw Phillip Island bird Yellow 42 (Y42). Y42 is a male from Cape Woolamai SLSC west, and was banded in March 2017. Nature Parks Ranger Andy Dallinger found the chick, soon after hatching, in a footprint near the SLSC and quickly returned it to the nearby refuge with its parents. The young bird left Phillip Island soon after fledging so it was great to know it is still alive and well following its perilous start to life.

![Photo: Hooded Plover Y42 as a chick in a shoe-print at Woolamai Beach (28/02/2017) and the same bird as an adult at Wilsons Promontory (17/11/2018)](image)

**Eastern Barred Bandicoots**

• In September the Eastern Barred Bandicoot population on Churchill Island was revisited to check on their progress. The population continues to do well and the numbers appear to remain stable at roughly 120 individuals.
Over three nights, 82 individuals of EBB were captured at Summerland Peninsula including 19 new individuals who had never been trapped before. The conservation team came across several older individuals, including one of the original founders still going after 3 years on the island.

**WILDLIFE REHABILITATION & MANAGEMENT**

**Koalas**

- The annual koala health checks were undertaken. 20 of the 24 koalas were caught and the general health was good. Of the koalas tested for Chlamydia, only two returned a negative result.

- A dedicated rail for the koalas has been constructed in the Koala boardwalk. This will provide access to more feed stations, enhance visitor viewing and increase access to shaded areas in the summer heat.

*Photo: An Eastern barred bandicoot female with pouch young*

*Photo: New koala walkway*
WILDLIFE CLINIC

- Clinic Rangers have responded to 139 calls the last 3 months and its starting to get very busy.

- During November clinic rangers have cared for ringtail and brushtail possums, swamphens, magpies, short-tailed shearwaters, pacific gull, wood duck, pacific black ducklings, penguins, cape barren geese, a peregrine falcon, echidna, cygnets, rainbow lorikeets, eastern rosellas, a galah, and a brown falcon.

- Rehab staff spent many hours searching for foster families for ducklings swamp hen chicks and cygnets and successfully paired them up with ducks/swamphens/swans with similar sized young

- Eastern rosella with concussion was treated and given a few days rest and TLC before making a full recovery and released where found

- Peregrine falcon came into care mid-November with an unknown injury, unable to fly. He/she was transferred to Healesville Sanctuary for care until ready for release when the bird will be transferred back.

- Rehab staff are working with Melbourne Zoo and ground services to build pens in the rehab centre that will cater for Eastern Barred Bandicoots.

- Vet students doing their extramural placements over their summer break have begun, with 2 students here over a 3 week period during November
**VOLUNTEERS / STUDENTS**

- Sunderland Bay Surf Beach Coast Action Group working at the Dixon Street Beach Access.

  ![Photo: SBCAG planting and weeding](image1.jpg)

- About 30 Landcare volunteers did an extensive beach clean along Cape Woolamai Beach, from Magiclands to Aussie Track, awesome effort!!

  ![Photo: Beach clean](image2.jpg)

- Volunteers removing sweet pittosporum weed in Oswin Roberts and later in the day removing the weed polygala from the firebreak at Silverleaves.

  ![Photo: Weeding](image3.jpg)
• RACV helped us finish up our planting season by having our annual members day based in the new penguin parade car park. With 40 RACV members and 5 staff members we managed to complete half the carpark with another 4350 plants. They were thrilled to contribute to the new Penguin Parade project.

FUNDING/GRANTS/CONFERENCES

• Funding for a soft-release aviary has been secured through Penguin Foundation. Thanks to the Penguin Foundation for supporting our threatened species programs.

• Wildlife Clinic received a DELWP Wildlife Institution grant for January 2019-June 2019 to support the cost of veterinary bills, food resources, 3 x bandicoot pens, PPE equipment for wildfire trained personnel under the DELWP accreditation, specialized macropod bags and servicing our penguin pools. Thanks to DELWP for providing this funding to help support the clinic, our emergency management equipment and our threatened species rehabilitation programs

• Roz Jessop attended the Australasian Shorebird Conference in Hobart in late October. The conference drew delegates from around the flyway including Australia, New Zealand and China. Long term monitoring studies around Australia have shown decreases of more than 90% in some species since the 1970’s or 1980’s. Two species the Curlew Sandpiper and Easter Curlew (Red Data Book species) are no longer seen in Tasmania due to these declines. Talks were also given on restoration of critical habitats in Australia and inter-national conservation efforts.