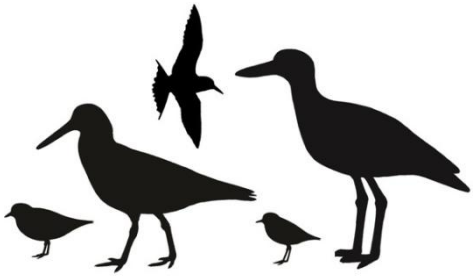
# 6th National Beach-nesting Birds Conference

## Willunga, South Australia

## May 26th - 27th 2017

Report by Lucinda Plowman and Dr. Grainne Maguire



## Overview

The 6th National Beach-nesting Birds Conference was held in Willunga on the Fleurieu Peninsula over two days May 26th - 27th, 2017. This was the first time the conference has been held in South Australia and we were thrilled at the response, with 74% of participants being South Australian. Overall there were 143 attendees from across Australia, with people travelling from New South Wales (Central and Southern Coast), South Australia (from Eyre Peninsula to South East SA), and Victoria (from as far east as Marlo and west as Portland). This conference had the highest attendance record in the history of beach-nesting birds conferences, so thank you to all those who attended.

We had a diverse representation at the conference, with attendees from 23 different regions and land managers participating from agencies such as the Office of the Threatened Species Commissioner, Adelaide and Mount Lofty Ranges Natural Resources Management (AMLR NRM), Natural Resources Eyre Peninsula, Natural Resources Northern and Yorke Peninsula, Natural Resources Kangaroo Island, South East NRM, the Department of Environment, Water and Natural Resources (DEWNR) SA, South Australia Museum, Normanville Natural Resource Centre, Parks Victoria, NSW National Parks and Wildlife Service (OEH), Barwon Coast Committee of Management, Phillip Island Nature Parks (PINP), Adelaide Plains Council, Alexandrina Council, District Council of Yankalilla, City of Holdfast Bay, Bass Coast Shire Council and City of Greater Geelong (COGG). Other attendees included researchers from Deakin University, Beach-nesting Bird volunteers, 'Friends of' groups, BirdLife Australia members, Birds SA members, Fleurieu Birdwatchers, and new interested members of the public.


Conference attendees on Saturday 27th May (photo Grainne Maguire)

Adelaide and Mount Lofty Ranges NRM Board generously funded all registered volunteers from the region to attend and for the travel costs of the Beach-nesting Birds team. Barwon Coast Committee of Management and Natural Resources Eyre Peninsula also generously sponsored participants from their region to attend. This event was made possible due to funding from the Victorian Government's Icon Species Fund and the National Landcare Program, covering the organisation costs, venues and training facilitators. The National Landcare Program values the opportunity for training of project participants, as well as the collaborative opportunities that this event offers, bringing together people from across Australia with common goals toward preservation of coastal habitats and long-term protection and resilience of threatened resident beach-nesting birds.

## Day 1 Conference, Presentations and discussion groups

The main objectives of the day were to provide an overview of coastal management and in particular resident shorebird management from around Australia, an update on the efforts that are currently undertaken as part of BirdLife Australia's Beach-nesting Birds project, and snapshots of recent research projects into the behavioural ecology and survival of beach-nesting bird species. Additionally, there were contributions on broader coastal ecology including coastal raptors, threatened beach-nesting seabirds and harvesting of beach-cast marine algae. The day aimed to create opportunities for networking and to expose current volunteers and land managers to new research findings, a big picture overview of conservation direction for beach-nesters, and new ideas for on-ground and education actions. The meeting also acts as a National Hooded Plover Recovery update and facilitates adaptive management for future recovery actions. For new volunteers and members of the public, it is an opportunity to learn more about beach-nesting birds, the issues affecting them and efforts to protect them.

Conference opening on Friday 26th May (Photo Glenn Ehmke)

## *Conference Presentations:*

Below is a summary of the key points covered:

- ***Georgina Williams,*** gave the Welcome to Country as the conference was held on the traditional land of the Kaurna people. Georgina gave the audience an insight into the stolen generation and the need to appreciate and respect her culture and the knowledge that Indigenous people have to offer. She emphasized the need to be considerate, respectful and protective of native wildlife such as the Hooded Plover.

- ***Dr Grainne Maguire, Coast and Marine Program Manager, BirdLife Australia,*** presented on the evolution of the Beach-nesting Birds Project over the past eleven years. She spoke about the long-term goals of the program:

    - To improve breeding success of beach-nesting bird species – meaning they breed at levels which sustain their future population numbers, that recruitment is across a broad genetic spectrum to maintain genetic diversity, and to ensure there are healthy age structures in the population with a mix of ages and a pool of non-breeders to replace aging/dying birds.

    - To protect and maintain healthy habitat – meaning we do not lose any further habitat to development, that we tackle coastal weeds which limit nesting habitat and alter the morphology of the dunes, and that we work to mitigate the impacts of pest and superabundant predators.

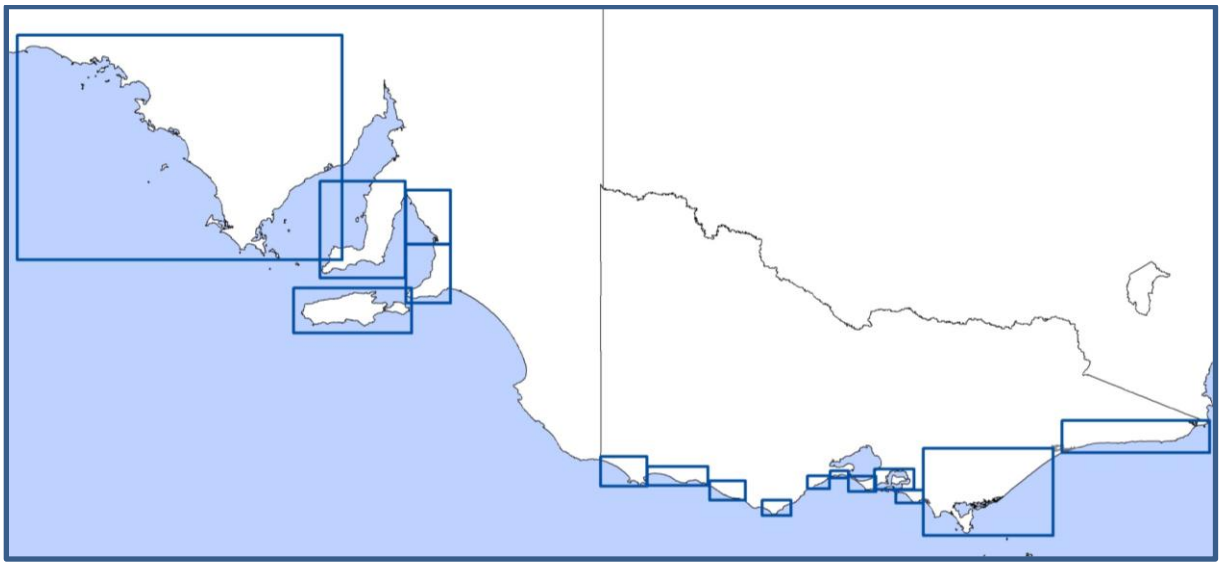
    - To bring about social change – meaning beach users alter their behaviours to benefit beach-nesting birds, enabling coexistence. This is critical to ensuring our on-ground actions are effective and means that efforts to warden and patrol sites could reduce in future.

  Grainne emphasised that to achieve our goals, we will need to adapt our learning and shift the goal posts over time. New threats will arise and there will be new challenges. Monitoring is an essential tool for our journey so that we can recognise changes and respond. She highlighted that this journey toward change is multi-faceted and requires lots of stakeholders. Once again Dr Maguire drew a parallel with the Yellow Brick Road and the characters of the Wizard of Oz: volunteers represent the 'heart'; researchers and citizen scientists provide the 'brains' and the baseline knowledge from which we progress and adapt our recovery actions; policy makers need to show 'courage' in their decision making and to put the environment ahead of short-term economic gain or misguided social pressure; community represent 'the home' and our need to build ownership of coastal conservation within the community; land managers are the 'ruby slippers' who facilitate recovery actions; the non-compliant are the 'wicked witch of the west' and education is our 'bucket of water' that rids us of the witch! Our strength is in being a diverse team that works towards the same goals.

  Dr Maguire then gave an overview of the stage of the journey that each regional group across Victoria and South Australia is at. She focused on those groups who register directly to be part of the Beach-nesting Birds' project and regularly have meetings, training workshops and where BirdLife directly recruit volunteers for those areas. This does not include independently coordinated groups who still connect to the program via the Biennial count and some of whom use the portal for monitoring and reporting.

*Project regions:*

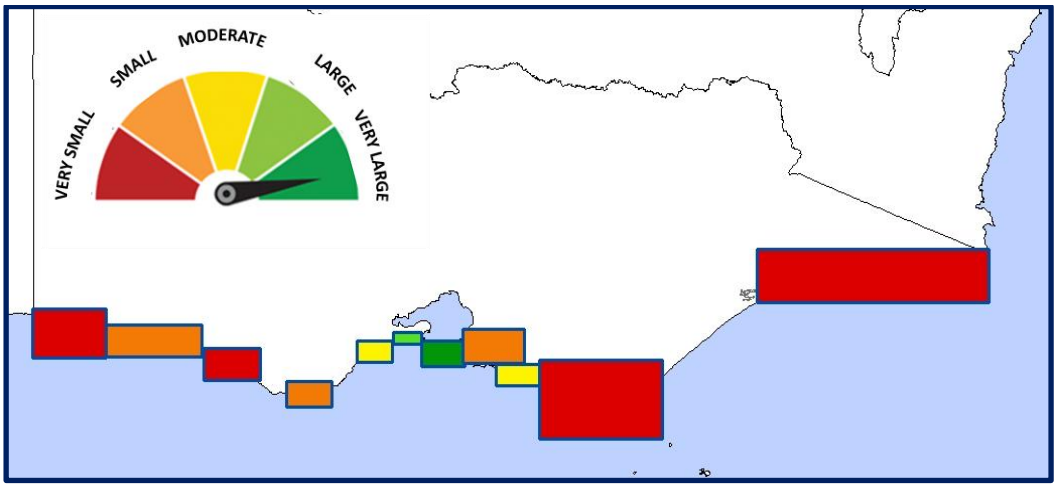
The blue rectangles represent the groups that BirdLife has established or in the case of the Mornington Peninsula Friends group, has heavily recruited new volunteers and jointly supported the group with Parks Victoria.

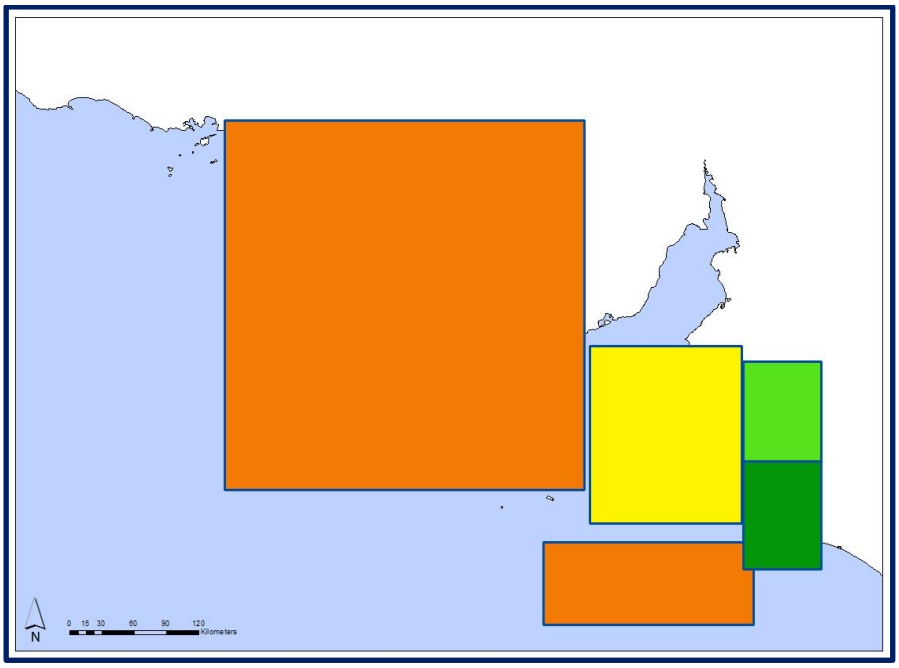


*Size of Volunteer group:*

While small groups can achieve amazing things for beach-nesting birds, generally, if a group has more active members, the more the load can be shared and the more the group can branch out in to a range of activities beyond the key critical actions (monitoring and nest site protection) to suit the different skill sets or interests in the group, e.g. community events, school visits, Arts projects, grant writing, advocacy.

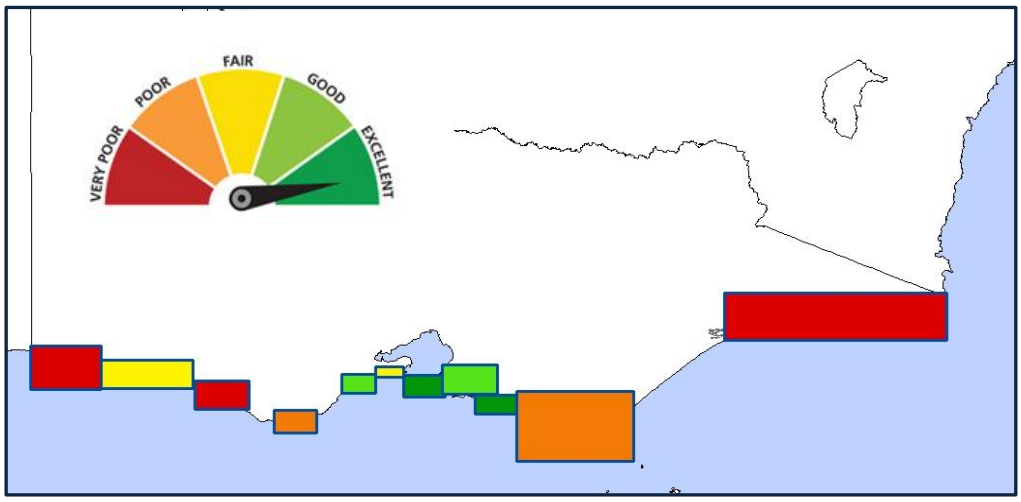
The size of groups sometimes relates to remoteness of the area and challenges in recruiting/mentoring new participants (e.g. Eyre Peninsula) and to the years we have been active in an area and the amount of funding we have had for a given region.

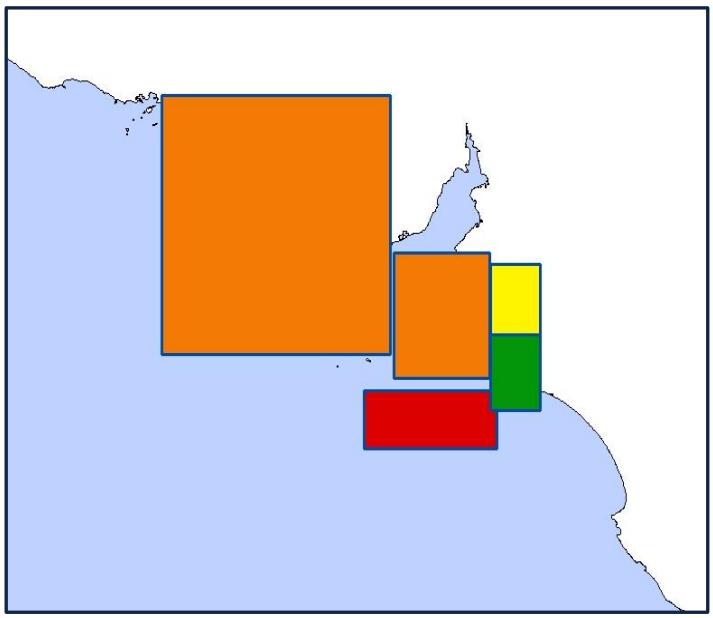





*Amount of data (ten years of breeding season monitoring):*

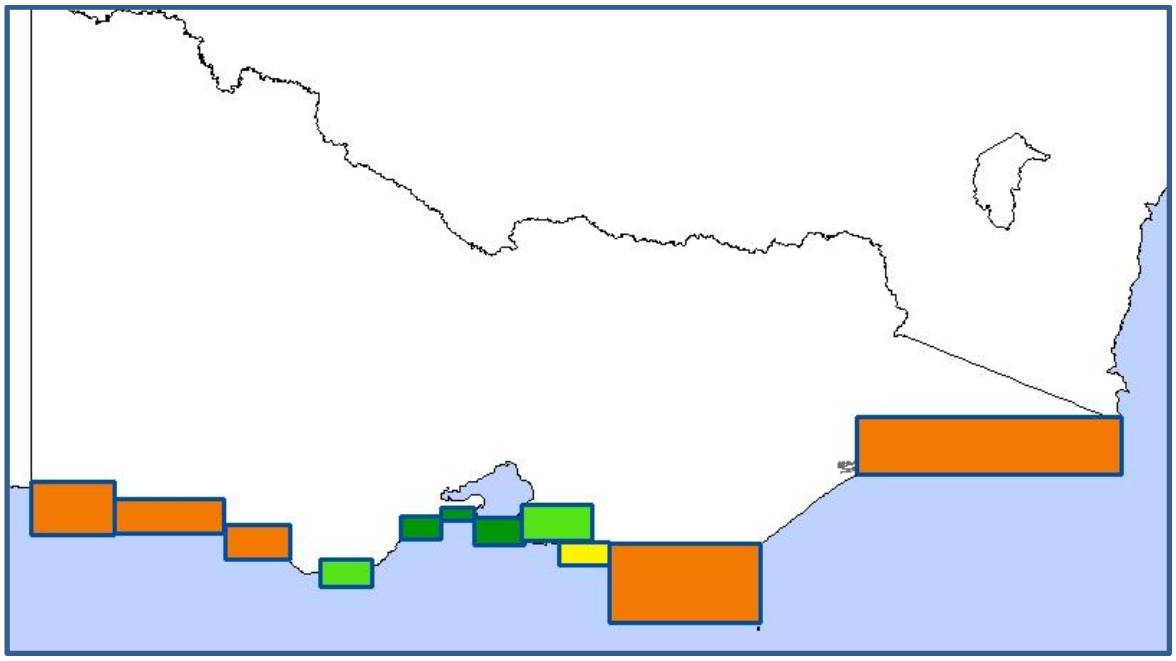
The amount of data we have is often related to the size of the group, however, there are exceptions. There can be one or two individuals who collect large amounts of data in some regions.

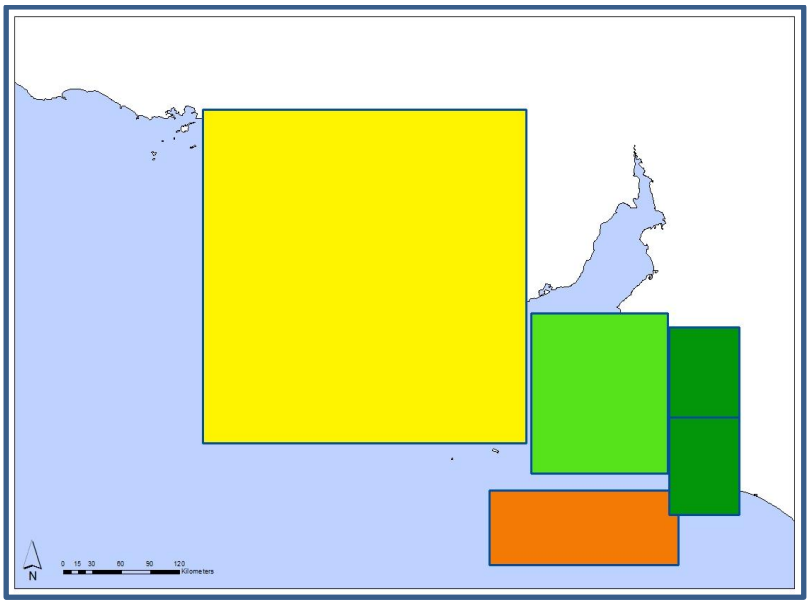




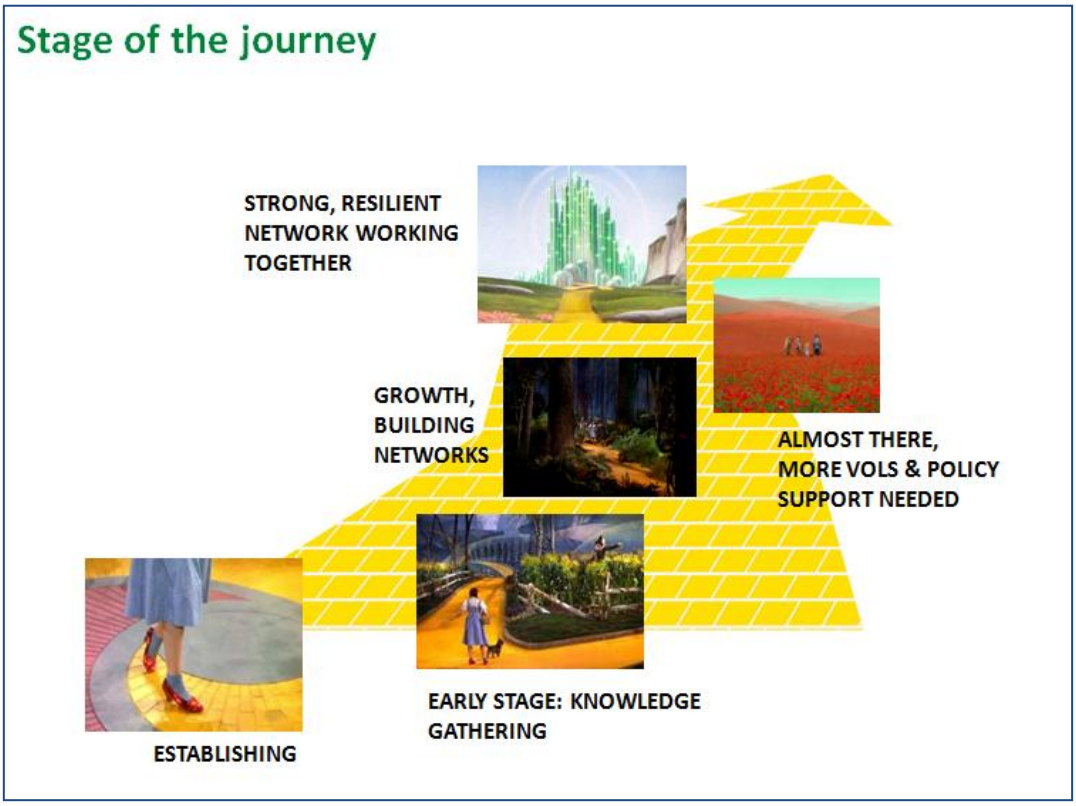
*Land manager investment over the past ten years (this is a combination of on-ground operations, policy and upper management support, and funding invested)*:

Please note that in some regions with low investment, there are individual land managers who go above and beyond in their contributions. However, they may not have the support of upper management, or policy in that region may do little to support the birds.

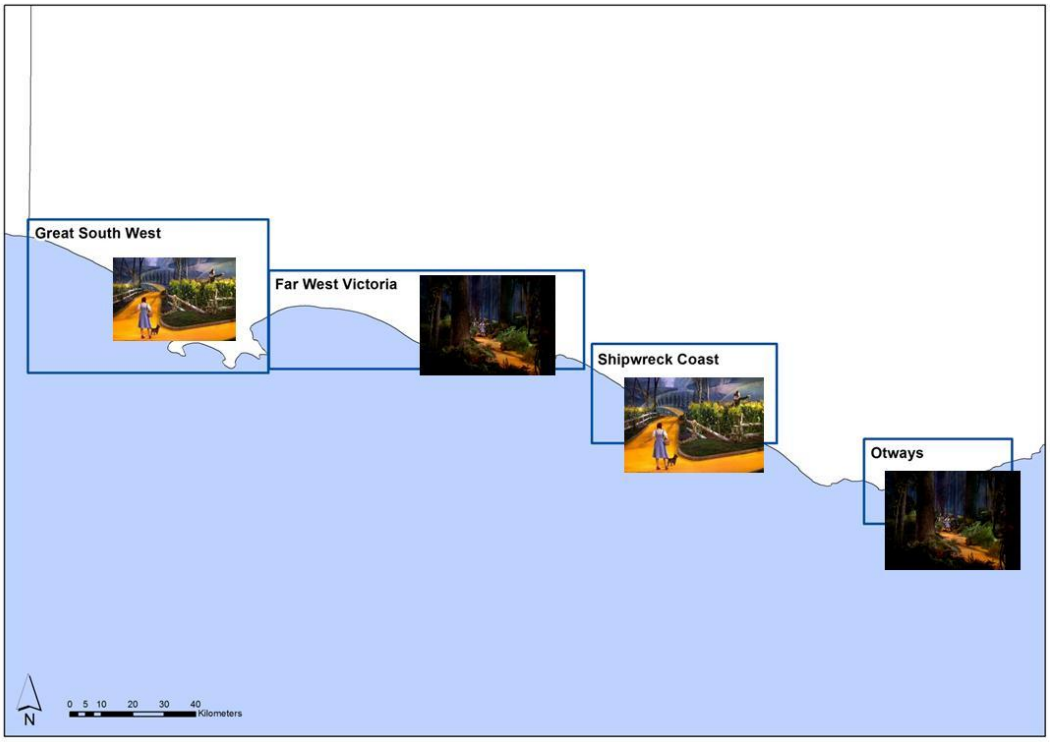


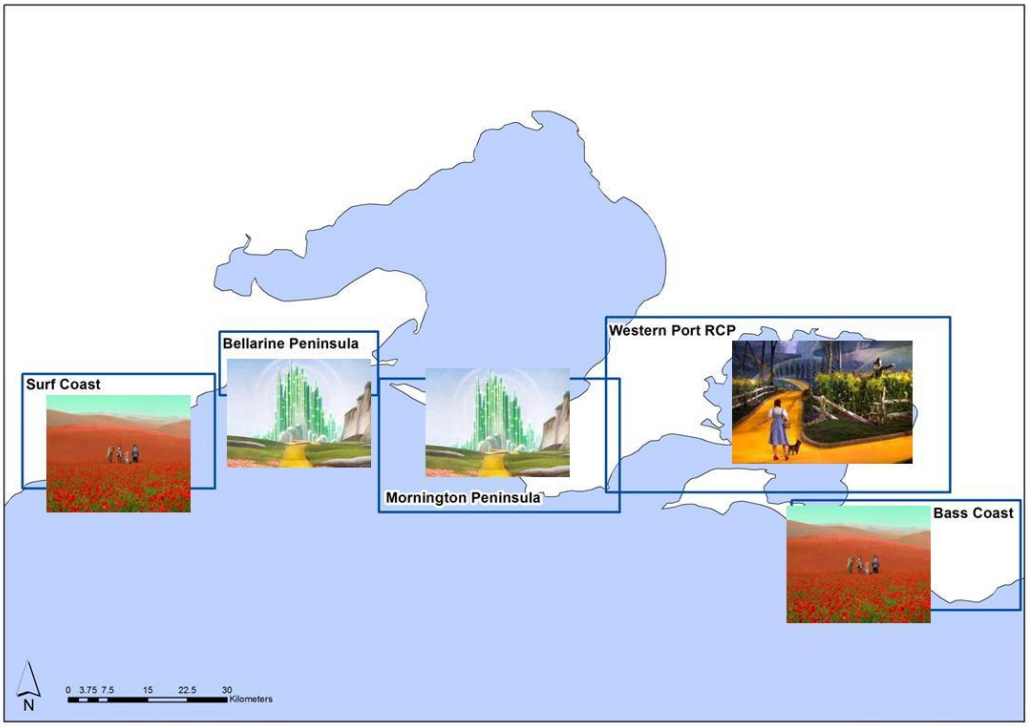


Using all these assessments, each region was categorised according to the stage of their journey towards recovering Beach-nesting Birds.




Eyre Peninsula
Yorke Peninsula
Samphire Coast
Fleurieu Peninsula
Kangaroo
N
0 15 30 60 90 120
Kilometers


Great South West
Far West Victoria
Shipwreck Coast
Otways
N
0 5 10 20 30 40
Kilometers


Surf Coast
Bellarine Peninsula
Mornington Peninsula
Western Port RCP
Bass Coast
N
0 3.75 7.5 15 22.5 30
Kilometers


East Gippsland
South Gippsland
N
0 5 10 20 30 40
Kilometers


- ***Tony Flaherty, National Resources AMLR's Coast and Marine Manager,*** spoke about how he came to be involved in shorebird and coastal conservation, beginning in his youth working on marine issues in the Barren Islands of Alaska. Tony has worked at the coalface of marine conservation including rehabilitation and rescue following a major oil spill. Giving an insight into the issues of conservation that affected coastal and marine habitats, such as fox farming on the Barren Islands. Furthermore, the changes we have made over time, both detrimental impacts and conservation actions from the past affect our present and future management for beach-nesting birds. He then discussed his years working with the Marine and Coastal Community Network, and efforts to integrate marine and coastal issues into Natural Resource Management (NRM) to ensure top down support is in place. Benefits of integrating these issues in NRM are to:
    - Gather baseline information to identify gaps and inform decision making
    - Improve coastal and marine integration into NRM planning
    - Involve the community in NRM planning
    - Set meaningful region NRM objectives

  Tony discussed funding and the number of strategic frameworks that have been implemented to improve the condition of coastal and marine ecosystems and conservation plan for migratory shorebirds. Tony mentioned there being a draft South Australian Recovery Plan for the Hooded Plover which was written in 2006 and is still awaiting approval! He briefly discussed the Shorebirds 2020 program which aims to provide reliable data on shorebird declines and the factors that cause it and how he linked work in the NRM to both the Beach-nesting Birds and S2020 programs. He discussed the recently established Adelaide International Bird Sanctuary, and the Southern Fleurieu Coastal Conservation Analysis.

  Tony elaborated on the Metropolitan Adelaide and Northern Coastal Action Plan (MANCAP) which is a coastal conservation assessment study focusing on four focal species considered threatened or significant to identify valuable remnant vegetation associations. The four species are :

- Hooded Plover : High energy beaches, dunes and estuaries
- Samphire Thornbill : Samphire Shrubland
- Painted Dragon : Coastal Shrublands
- Yellowish Sedge Skipper : Thatching Grass Sedgeland

Tony also discussed another key project led by the NRM: the Samphire Coast Icon Project, which aims to restore coastal saltmarsh and coastal wetlands, maintain and rehabilitate threatened coastal samphire and shorebird habitats, and increase community stewardship and awareness initiatives of saltmarsh and migratory shorebird habitat. He highlighted the number of volunteers who work hard to train other citizen scientists, and efforts to promote shorebird awareness at numerous events such as Moon Lantern Festival (see image of a Red Knot Moon Bird lantern at OzAsia Festival below). Furthermore, education programs such as The Flock and media releases.

Red Knot Moon Bird Lantern at OzAsia Festival, Tony Flaherty


The Flock, Tony Flaherty

Tony presented the Bird Island Biodiversity Action Plan, highlighting rats as a significant pest animal on the island. And lastly, Tony discussed the threat of invasive plant species choking Little Penguin burrows preventing breeding success and the threat of cat predation, working with South Australian Museum with mortality research and pathology. Tony has a grand vision for 'reterning' Wright Island, off Encounter Bay on the southern Fleurieu and using tern decoys to lure the birds to nest here.

- ***Wendy White and Ash Read, Friends of the Hooded Plover Fleurieu.***

Wendy provided an overview of the Natural Resource Management (NRM) region's commitment to conservation of the Hooded Plover, the Beach-nesting Birds Project and how the NRM and BirdLife Australia work together. She detailed the roles of the program coordinator, local councils and NRM officers, as well as the volunteer regional coordinators and the areas they cover in the Fleurieu peninsula. Wendy gave a snapshot of range of activities and efforts to recruit volunteers. Some of her slides are included below.

## BEACH-NESTING BIRDS PROJECT:-

- The Natural Resources Management (NRM) levy is paid by all ratepayers in the Adelaide and Mount Lofty Ranges (AMLR) region.
- From this levy the Fleurieu Peninsula BirdLife Australia's Beach Nesting Birds Project is supported by the Adelaide & Mt. Lofty Natural Resource Management Board.
- In the Southern Fleurieu Coastal Action Plan the Hooded Plover was adopted as a focal species.
- This agreement has been running since 2009 and the current agreement ends on 30th June 2018.

## SO HOW DOES THIS ALL WORK

BIRDLIFE AUSTRALIA

ADELAIDE & MT. LOFTY RANGES NRM BOARD

HP PROGRAM COORDINATOR (1)

LOCAL COUNCILS (4)

VOLUNTEER COORDINATORS (3)

VOLUNTEER MONITORS (67)

## BIRDLIFE AUSTRALIA PROVIDE:-

- Training workshops, online induction & access to portal
- Banding birds, banding training & genetic sampling
- Advice & education/awareness raising resources
- Coordinate Biennial Hooded Plover Count
- Mapping of Hooded Plover pairs, nests and chicks
- Maintain database of flagged Hooded Plovers
- Visit Fleurieu to coordinate start of breeding season
- Visit for debrief at end of season
- Produce report on Hooded Plover breeding status and threats
- Access to new research and a biennial national conference
- Monthly and final reports to AMLR NRM

## PROGRAM COORDINATOR'S ROLE


- Recruit and train new volunteers
- Assist volunteer coordinators
- Coordinate BirdLife Australia hooded plover site visits
- Organise end of season hooded plover volunteer thankyou & debrief
- Provide community presentations/events
- Provide resources to volunteer coordinators and volunteer monitors
- Audit of fencing/signage materials
- Assist with media
- Provide monthly reports to AMLR NRM Board

## VOLUNTEER REGIONAL COORINDATOR'S

**Onkaparinga Beaches** - Sue & Ash Read


**South Coast** Elizabeth Steele-Collins Assisted by David & Sue Thorn & Debbie Prestwood



**Myponga to Lands End** - Wendy White

## VOLUNTEER REGIONAL COORINDATOR'S

- Recruit new volunteers
- Assist BirdLife team & program coordinator where required with induction and training new volunteers
- Mentor new volunteers
- Check portal for accuracy of data
- Organise nest protection
- Identify new stakeholders
- Identify small local projects
- Engage with local schools
- Community events
- Volunteer wardening

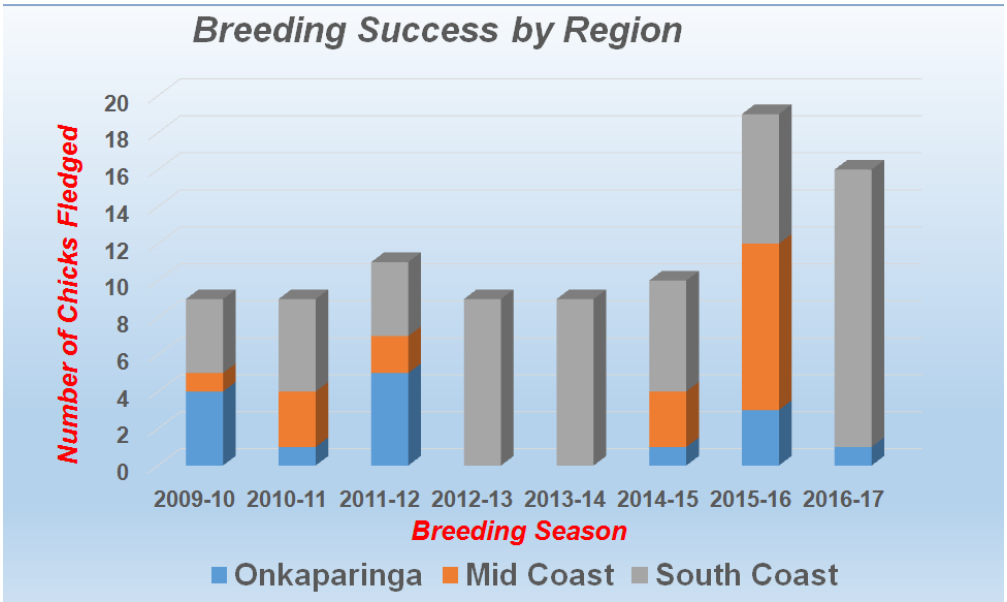
Ash Read then introduced the range of habitats and beach topographies across the Fleurieu Peninsula, from highly urbanised around Aldinga and Victor Harbor, to remote and dune backed beaches at Tunkalilla and Parsons beach, to eroding cliff backed beaches at Port Willunga.

Port Willunga, Ash Read

Tunkalilla Beach, Elizabeth Steele-Collins


Aldinga beach, Ash Read

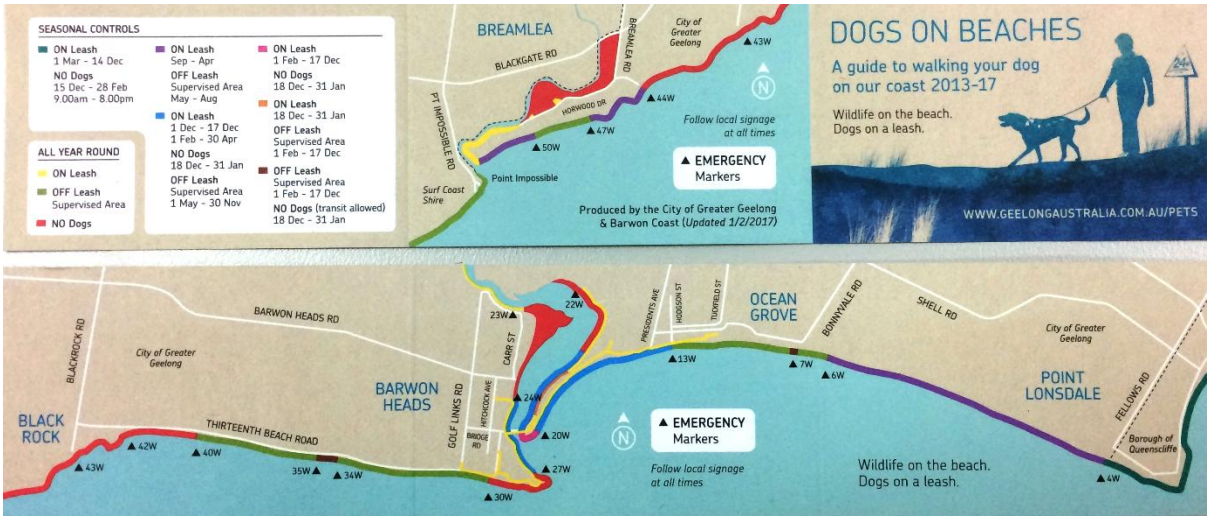
Yilki beach, Victor Harbor, Elizabeth Steele-Collins



- ***Steve Smithyman, City of Greater Geelong (CoGG),*** spoke about the City of Greater Geelong's Hooded Plover conservation efforts. The number of breeding pairs in the area has doubled over the past 8 years and there are currently 12 breeding pairs known within the municipality (approx. 25km of surf beaches). CoGG has just finalised their first draft Conservation Action Plan for the Hooded Plover. Steve presented the current breeding locations for Hooded Plover and highlighted that they cross numerous boroughs and councils. From 2006-2012, BirdLife Australia would host meetings between the different stakeholders, but from 2012, CoGG were excited to take on this role and expand the Working Group to include additional representatives including council bylaws officers and their pest control contractor. The Working Group partnered up with Birdlife Australia's BNB Program to share conservation updates and management strategies.

  The Working Group consists of CoGG (multiple departments), Birdlife Australia, Barwon Coast, Barwon Water, Borough of Queenscliff, Friends of the Hooded Plover Bellarine and Breamlea, and True Aim Pest Control. Steve specified their role is "to cooperatively plan and coordinate threat mitigation actions to improve the breeding success of local Hooded Plovers". He recognised the benefits of the Working Group, which has improved communications, relationships, support between all stakeholders, planning, and coordination of threat mitigation strategies, distribution of resources for education, media and training programs. Steve discussed the current management of dogs, pest plants (Sea Wheat-grass, Marram grass, Sea spurge and Sea Rocket) and animals (foxes) and breeding sites. Furthermore, he provided an overview of training programs supported by CoGG including holding annual hoodie training for local Law Officers and Surf school operators as well as beach driving and standard operating procedural training for staff. CoGG has dedicated time and money to media and communication by advertising Hoodie awareness advertisements, media releases, banners, displays and good news stories.

  Steve distributed the CoGG new Dogs on Beaches card sized pamphlet- to fit in your wallet- conveying the all year-round beaches rules for dogs (on or off lead, or no dogs) and the details of the seasonal controls of dogs throughout the year. It received an overwhelming positive feedback as a fantastically simple to read and comprehend as well as colourful and covering a large area critical to Hooded Plovers breeding locations, see below.




Dogs on Beaches fold up card pamphlet (Steve Smithyman presentation)

- ***Associate Professor Mike Weston, Wildlife and Conservation Biology, Deakin University,*** unfortunately was not able to attend the conference due to fieldwork in Korea, however provided a pre-recorded presentation. Mike gave a presentation on the bumpy beach road ahead, the ecological challenges for beach-nesting bird conservation. He identified the key gaps as:

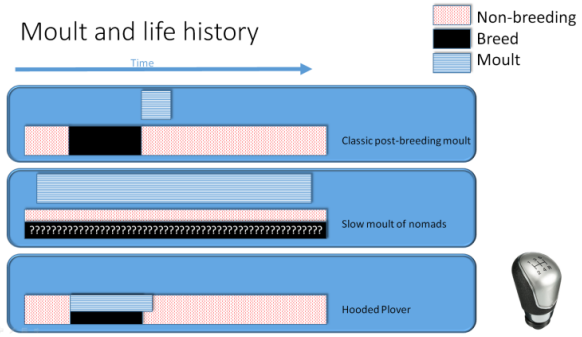
    - *Identifying demographic bottlenecks and their causes*. Elaborating on reproductive success as a major gap, especially chick mortality and fate. Mike discussed the importance of a population viability analysis (PVA) which would provide data for the future predicting the trajectory of Hooded Plover populations against several elements i.e. stochastic events. Furthermore Mike discussed extinction debt, where a species appears to be flourishing however juveniles and chicks are absent, so that once adults age and die off, there is a steep and rapid decline as there have been years without recruitment into the population.

    - *Understanding habitat in dynamic systems*. Mike identified the habitat requirements of the Hooded Plover from research using laser imagery technology (LiDaR Light Detection and Ranging) that reveals Hooded Plovers are very specific about their choice of beach and require dune backed beaches, foredune habitat, and rock platforms (both inter-tidal and sub-tidal) (Ehmke et al. 2016). Additionally Mike spoke about the effects of Marram grass, erosion and sea level rise in terms of degrading these habitat values.

    - *Understanding threats - resilience, thresholds and monitoring*. Mike discussed evolutionary traps where an original cue causes a response, however the outcome is different and can then form a new cue. For example turtles eating plastic, beetles mating with bottles. Moreover there are ecological traps, where habitat choices are based on cues that are perceived to correlate with good quality habitat, however they can actually be false cues that don't correlate with good outcomes for the species. It is difficult to determine what ecological traps are or could be for beach-nesters.


*"Beetles on the bottle: male buprestids mistake stubbies for females" J. Aust. Entomol. Soc. 22, 79–80*

    - *General ecology.* Mike discussed the research conducted into the moult cycle of Hooded Plovers. Usually moult does not occur during breeding and migration seasons as it is costly and could potentially jeopardise lifetime fitness. Furthermore, moult typically begins and continues at a fixed rate. However the Hooded Plover is a rule breaker! Research has found that Hooded Plovers moult during the breeding season, Mike discussed the possible reason for this is because of limitations on winter resources.

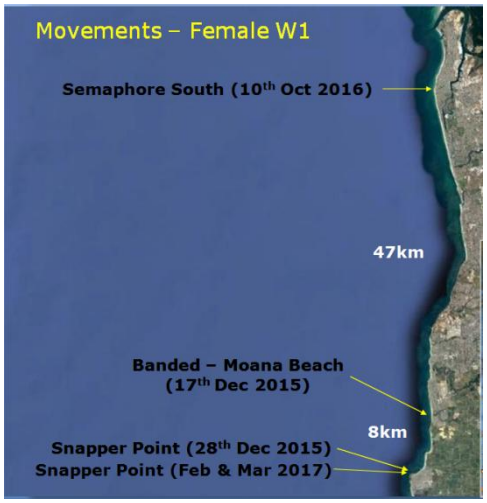


- *The interface between science and on-ground management*. Hooded Plover recovery is a flagship. Science supports action, and action supports science.

- ***Dr. Fiona Paton, The University of Adelaide,*** gave an insightful presentation on Fairy Terns inhabiting the Coorong, Lower lakes and Murray Mouth in South Australia. She briefly elaborated on the ecology of the species, particularly the importance of foraging close to their nesting colonies on islands in the South Lagoon when breeding in summer. Her recent study focused on the impact of the Millennium drought, coupled with over-extraction in the Murray-Darling Basin. During this drought, salinity in the South Lagoon breached the upper salinity threshold for the Small-mouthed Hardyhead, the Fairy Tern's main prey item in the Coorong. With no food close to their islands, the birds were forced to breed near the Murray Mouth, about 50 kilometres away; however, these colonies were susceptible to human disturbance and fox predation. Consequently, there was limited breeding success from 2007 to 2011. In January 2017, a colony with 75 nests on an island in the South Lagoon was also destroyed by foxes before any chicks were fledged, because of a 0.6m drop in water levels in the South Lagoon that connected the island to the main land. This severe water level drop was due to the rapid closure of barrage gates in early January. In January 2017, there were also heavy algal loads in the South Lagoon blanketing the surface of the water where Small-mouthed Hardyhead occur, likely hampering the Fairy Tern's ability to forage for them. The threats to Fairy Terns in the Coorong are a real concern, particularly considering there were about 1500 Fairy Terns in the Coorong in 1985 but only about 400 now.

(Photos Dr. Fiona Paton presentation)

- ***Jean Turner and Kasun Ekanayake, Birdlife Australia,*** discussed sustaining Red-capped Plovers populations on the Samphire Coast in South Australia. They both work on the Samphire Coast Icon Project which takes in the southern portion of the Samphire Coast due to its high environmental significance. The area is an extensive, largely intact of remnant habitat and thus important for not only migratory shorebirds, but also the resident and flagship species, the red-capped plover (RCP). Jean outlined the current threats for RCP's highlighting a range of threats including people, vehicles, predators including foxes, cats, ravens, and possibly gulls, beach grooming, storm surges and most recently, new emerging threats including Sky divers, Surf Life Saving training and drones even affect breeding birds. This year marked the fourth season of BirdLife's RCP monitoring program, with close to 1,000 observations reported over the duration of the project. Part of the project has involved banding 28 individuals to investigate breeding success of some pairs, partner fidelity and movements. Jean presented the movements of Female W1 who had travelled over 50km over a year from Moana beach to Snapper Point, then to Semaphore South to return back to Snapper Point.


(Photos Jean Turner and Kasun Ekanayake presentation)

Kasun discussed the monitoring program which has gone over four consecutive seasons, with an increase in volunteers (from 14 to 43!) and number of sites monitored (from 11 to 42) along Samphire Coast, Adelaide Metropolitan and Fleurieu and increased portal entries. These are all critical in accumulating our knowledge of RCP and how to protect them. Kasun highlighted Semaphore South as a popular beach for recreational use by humans and a popular beach for up to ~ 24 adult RCPs at times, identifying the habitat suitable for foraging, and breeding with multiple nests occurring at one time and multiple breeding attempts by individuals. With 10 nests found, and two additional broods sighted where nests were missed. Kasun expanded discussing how banding indicates only some adult females actively breed: T1 female had 3 nests and 2 fledglings; L8 had 4 nests, 2 chicks and no fledglings and multiple male partners.

Kasun credited two local volunteers who almost daily monitored and observed the birds and really kept track of what was happening, evident how vital volunteers are to conservation efforts. However there are challenges with certain areas in the north with limited access, difficulties in searching for nests, limited people to help, thus less certain about breeding and outcomes, although there are 14 flagged adults in the northern area and scopes are used to follow movements and future breeding. Kasun discussed how to engage beach users, with some novel approaches including casual conversations, 'pop up' site sessions, and giveaways. He discussed plans for the future which include continuing to educate the public, increasing volunteer support and retention, monitoring, data collection, banding and on-ground protection for the birds.

- ***Daniel Lees, PhD candidate at Deakin University,*** gave us an overview of one element of his PhD research which was based at Cheetham Wetlands (Victoria). Here he explored if male and female parental care in Red-Capped Plovers varies and if variation in care is influenced by the age of the brood and/or the sex of the chick/s. By using radio transmitters on chicks, he was able to track broods, whereby 47 of the 78 RCP survived to fledging (~35 days old). He compared chicks with and without transmitters to ensure that transmitter attachment was not having a negative impact on survival and there was no difference between the two groups. When the chicks were captured blood samples were taken to determine the sex of the chicks (as RCP chicks are monomorphic). His results revealed that female and male parental care were both significantly correlated with age, with female care rapidly declining as the chick ages and male care steadily increasing over the chick rearing period. Moreover, male care overtakes female care when chicks are ~ 25 days old, and interestingly no chick mortality was observed once chicks became 25 days old. Daniel provided some possible explanations as to why this occurs;
    - *Do females provide more care early because they are better camouflaged?*
    - *Do females abandon/decrease care to prepare for another breeding attempt?*
    - *As the value of chicks increases (more likely to survive), do males become involved?*

  Daniel found that the sex ratio of a brood was significantly correlated with parental investment according to the sex of the parent. Daniel concluded that male care increases more if the chicks are female, and female care decreases less if the chicks are male. And provided some possible explanations as to why this occurs;
    - Is there a fundamental attraction to the opposite sex?
    - Are young of the opposite sex more prudent to invest in (due to competition between individuals of the same sex)?

  He discussed that other studies have reported similar results, however, this study was the first to show investment in the opposite sex from both male and female parents.

(Photos Dan Lees presentation)

- ***Tom Schmidt, Honours student at Deakin University,*** researched chick survival rates and their fate, a vital gap in our knowledge, using radio-transmitters. He indicated that this continues to be a knowledge gap that is inhibiting advances in recovery efforts for the species as we do not know the relative impacts of threats during this life phase. Only in recent years has technology become small enough to suit Hooded Plover chicks and there have been recent studies using these with even smaller species such as Red-capped Plover chicks. The radio-transmitters were 0.4g (<5% of the weight of the chicks at hatching) placed on the back of the chick where it would not impact growth or movement of the chick. His research concentrated on three study regions: Bellarine/Surf Coast, Mornington Peninsula and Bass Coast. To establish the effectiveness of the radio-transmitters Tom used historical data to compare his results. Tom found from the historical data of:
    - 735 chicks monitored in total from 2006/07-2014/15 seasons, 552 chicks failed and of those failed chicks, fates known for only 13, a staggering 2.4% of all chicks monitored.

  From the radio-tracking data:

    - In his study Tom followed 27 broods, a total of 49 chicks.
    - A total of 27 chicks had transmitters and 22 non-transmitters with a 22.4% fledging success overall. There was no significant difference between the probability of fledging between transmitter and non-transmitter chicks (5 and 6 chicks respectively).
    - 22 chicks failed, 3 of which were recovered and received necropsies, plus 4 transmitters were found and helped narrow source of mortality, and unfortunately 15 disappeared without a trace.
    - 5 out of 22 fates identified: 23% of fates known. This is almost ten times more data on chick fates than for the 9 years of monitoring combined. Of the fates identified through Tom's study, these included avian predators (2), dog attack (1), drowning or exposure (1), and avian predation linked to disturbance (1).

  Tom shared a sad tale of a chick's fate which luckily is known due to the transmitter. A signal was being received, however no chick was in sight. Tom and a local land manager finally discovered the signal was coming from within the rubbish bin. They emptied the contents and rummaged through the rubbish until they found the chick wrapped in a plastic bag of dog faeces. The necropsy determined the cause of death was due to a dog attack.

  Tom outlined the pros and cons of radio transmitters and concluded that his research was the first successful use of radio tacking on Hooded Plovers and radio tracking did increase our knowledge of chick fate, however, the recovery rate and fates known is still low. Tom provided ideas to aid collection of future fate data via improvement of technology (auto-receivers and time-lapse) and method (increase check frequency).



(Photos Tom Schmidt presentation)

- ***Sharie Detmar, Coast Protection Officer, from South Australia's Department of Environment, Water and Natural Resources.*** Sharie gave a very different presentation at the conference as this was about raptors rather than nesting shorebirds or seabirds! It became evident however that there are many similarities between the threats facing these suites of birds in coastal environments, particularly as the species she spoke about are so highly sensitive to disturbance.

  She discussed two species, the White-Bellied Sea Eagle and the Osprey and their distribution along the South Australian Coast. She presented results from collaborative work by Terry Dennis and herself. There have been two major surveys concentrating on these species in SA. The first survey in 2008-2010 revealed 70-80 pairs of sea-eagles and 55-65 pairs of osprey, with evidence of decline for both species. In 2015-2017, there was a repeat of this state-wide survey and this has mostly been completed with the exception of a few more sites to visit. However, with the sites already surveyed there has been a 3% decline for the White Bellied Sea Eagle and a 17% decline for Ospreys across their SA range. Sharie provided breeding territory maps for both species, of sites occupied, abandoned and significant areas. Both species are sensitive to disturbance, particularly those in remote locations, and have abandoned a breeding attempt or territory due to disturbance. A long-term study monitoring nest productivity among sea-eagle territories on Kangaroo Island by Terry Dennis, found that territories with high disturbance:

  - Fledged fewer young
  - Fledged young less often and
  - Had higher nest failure rates compared with nests far from disturbance. Studies undertaken in the Eastern states on both sea eagles and Osprey found similar results.

  Sharie showed that South Australia's coastline has few coastal forests, rivers or estuarine habitats and most nests are on remote coastal cliffs in open terrain with a wide field of visibility. Most disturbance occurs from above the level of the nest, which is more threatening and draws a stronger reaction than disturbance from below (by comparison in the Brisbane area the sea-eagle nests average height being 20m).

  The main disturbances and threats are human-induced and can be divided into four main categories:

  - *Development and land use*. Dwellings, divisions, tourist accommodations, roads, mining etc. Usually resulting in clearance of vegetation, loss of habitat and increase in visual disturbance. Sharie said recent development on a new dwelling was constructed approximately 200m from an Osprey nest. Unfortunately the Osprey abandoned the site for 1-2 years, the impact on their productivity in subsequent years is unknown.

(Photo Sharie Detmar presentation)

- *Recreation or management activities.* Bush walking, photography, fishing, rock climbing, and even weed control and wildlife research activities, 'checking' the nest, can be a risk to these species. One nest site was abandoned over a decade ago due to people peering over and photographing the bird, causing the birds to loft, exposing the eggs and/ or allowing predators access to the eggs. Additionally aircrafts and drones have been known to cause raptors to abandon, or in case of drones attack and potentially injure themselves.

- *Direct persecution.* Thankfully this is uncommon however shooting, deliberate harassment and egg collecting have been known to occur. It is especially difficult to publicise nests to ask people to avoid disturbance since it tells people where a nest/adults can be found, but without publicity there is an increased risk of accidental disturbance can occur. This is a tricky situation to manage.

- *Climate change.* Increase in wave energy and storm surges can erode rock cliff habitat that potentially could be used by sea eagles and/ or Ospreys, it is likely to have a significant impact on breeding territories and productivity.

(Photo Sharie Detmar presentation)

Sharie provided more information on the measures conservationists take to properly protect these birds. A seasonally applied refuge buffer of 2000m for the White bellied sea eagle and 100m for the Osprey radial dimension from the primary nest is recommended. Chicks of these species are confined to the nest for several months making disturbances be considered a threat for a longer period of time, difficult for outside groups (public, land owners etc) to comply with regulations. The breeding season for White-bellied Sea Eagles is May through to the end of December, and Osprey is July through to February. Sharie asked participants if they do accidently come across a nest please leave the area immediately, do not take photos, the bird could either decide to swoop the threat or is waiting until it is safe to return to the nest, do not delay this as it is essential for the adult to return to eggs and/or chicks. Sharie conveyed that conservation measures being taken around South Australia to help, such as:

- Trails and roads re-routed or closed
- Fly neighbourly agreements
- Standard Operating Procedure
- Artificial nest platforms
- Population survey
- Incorporated into local planning zones
- Information to developers and landowners

- Coast Protection Board Policy updated to recognise important coastal raptor habitats
- Community education

She also outlined the ways that each one of us can help:

- Finding out about the issues, threats and behaviors of these beautiful birds is really important.
- Avoiding disturbance during the breeding season is critical: White-bellied Sea Eagles breed from May through to end of December, and Ospreys, July through to Feb.
- Identify and understand the signs of disturbance and act
- If you accidentally stumble across a nest during the breeding season, particularly if you see either 1 or 2 adults or any chicks near the nest or on the wing, then leave the area immediately, preferably at least 1 km away, further if you are still in site of the nest, or either of the adults are following you (they may be 'herding' you out of their territory).
- If you see any of these behaviors when you are near the coast during breeding season, then don't stop to take photos, keep walking, if it occurs in front of you, then turn around and go back, or detour inland if necessary.
- Remember each bird is different, so may act differently to what I have described – e.g. you might come across a Sea Eagle that actively defends its territory and will swoop people, or an Osprey that is very sensitive and will loft early, fly away and stay away until well after the "threat" (you) are gone. So it does rely on us to use some observational and interpretation, common sense and generally added caution, if we want to ensure a population of coastal raptors and healthy coastal ecosystem into the future.
- Educating other people.
- If you are a land manager or land owner, then consider the impact of operations on the nesting success of White-bellied Sea-Eagles or Osprey and aim to minimise any disturbance.

- ***Maureen Christie, Friends of Shorebirds South East,*** Maureen presented the case that the Friends of Shorebirds South East Inc. took to the Minister of the Environment regarding beachwrack harvesting.

  Comment was first called for in March 2014 on an Assessment that lumped Beach-cast Seagrass and Marine Algae together, permitted a take rate of 75% of the beachwrack along most of the licence area using heavy machinery and gave no credible protection to migratory or resident nesting shorebirds. There were several rounds of comment, a rewritten assessment and the Minister's Declaration of an Approved Wildlife Trade Operation.

  An appeal was made through the Administrative Appeals Tribunal against this declaration as it offered no protection for shorebirds in the critical five weeks prior to northward migration. This Appeal was based on long term data gathered from VWSG banding, flagging and geolocator studies and AWSG count data collected by committed and dedicated volunteers.

The harvesting presented threats to the shorebirds habitat hence restrictions and managed zones were created to minimise effects. Internationally significant sites to the birds were Wrights Bay, Stinky Bay, Nora Creina and a section of Rivoli Bay. A zone was managed from the 1st of September to the 15th of may which an allowance to harvest only 8 days per month with an agent consisting of a team of 3 people and a 4 wheel drive with a trailer of GVM 3.5 tonne, harvesting to be by hand and use of mechanical winch if required. Maureen said the determining factors of this achievement were through networking and persistence. She highlighted the amazing commitment of the volunteers and the courage they showed in fighting to protect critical shorebird habitat.

## *Small Discussion Groups*

In the afternoon, attendees split into groups to discuss the prominent and current issues the Beach-nesting Birds face, head by leaders in their field to guide and record the discussions, listed below are the topics and leaders of the discussions;

- Dogs on beaches: Amy Harris and Jodie Dunn, Land managers from NSW NPWS
- Predator Control: Mark Pinney, Land manager from Parks Victoria and Corey Jackson, Coast, Marine and Estuary Officer, Natural Resources AMLR, DC Yankalilla
- Volunteer and land manager networks: Jonothan Stevenson, Regional Coordinator for FoHP South Gippsland
- Volunteer participation: Renee Mead, Beach-nesting Birds Project Officer
- Awareness Raising: Kasun Ekanayake, Samphire Coast Icon Project Manger

All groups collaborated to discuss key issues, challenges and threats in relation to their topic, as well as provide strategies and steps towards solutions. The group leaders provided fantastic feedback to all conference attendees at the end of the day. Below is a summary of each discussion topic:

Predator Control group with Mark Pinney (photo Glenn Ehmke)

Volunteer Participation group with Renee Mead (photo Grainne Maguire)

## Dogs on Beaches

(Photo Jean Turner and Kasun Ekanayake presentation)

Issues

- Low compliance
- Different rules and regulations for each beach, council and state etc. Furthermore, volunteers and land managers have different levels of authorisation (i.e. fines versus education)
- Lack of understanding about impacts of dogs

Threats

- Disturbance to incubating adults and to chicks
- Direct predation of eggs and chicks
- Increase in mortality rate of eggs and chicks
- Increased probability of shorebirds abandoning chicks, nests and the area for breeding purposes

Challenges

- Residents/visitors to comply to leash regulations, whether by site or seasonal regulations.
- Having more on ground support, to distribute pamphlets and talk to the public/residents/ visitors to put dog/s on lead
- Shorebirds, dogs and people co-existing in the same habitat with minimal disturbance and maximum recreational use of beach

Strategies/Solutions

- Continue education about threats and strategies for dog owners to reduce impact
- Dogs on beaches cards, positive feedback for Steve Smithyman (City of Great Geelong) cards, fit into wallets, comprehensive and simple.
- Fines given on first offense
- Ensure alternative dog walking areas are available
- Important to have clear regulations, non-ambiguous, maps of zones with different regulations
- On the beach signage is important to distinguish when you've entered a new regulation zone

## Predator Control


(Photos Jean Turner and Kasun Ekanayake presentation)

Issues

- Numerous predator species: foxes, cats, avian predators (e.g. magpies, ravens, kestrels), rats, and goannas (NSW and KI).
- Predators difficult to trap/ bait in urban areas, ethic approvals for research/control, interspecific dynamics (do foxes suppress cat numbers, which species is more lethal, what are the relative impacts of the different predators?).
- Clarity on shooting outcomes, is it effective, is there a positive impact to shorebird populations?
- Are current control methods effective?
- Is there a critical threshold that we should be trying to achieve through our control, e.g. can the birds cope with some levels of predator presence?

Threats

- Predation of eggs, chicks and incubating adults (via ambush)
- Birds altering micro habitat preferences such as dune avoidance due to predator presence

Challenges

- Distributing funds appropriately across all predator species for control and research - what is the best use of limited funds?
- Budget cycle is too short – mostly annual budgets but these need to be longer term

Strategies/ Solutions

- Predator ID: sand traps, cameras, spotlighting to measure success
- Threat ID book with more guidance for volunteers on monitoring threats (note this is not far from being finished by the BNB team!)
- Public education for those who border public lands to engage them more to help: info packs to housing developments.
- Embrace 'Good neighbour' program: private and public land dollar matching.

## Volunteer and Land Manager Networks


(Photos Jean Turner and Kasun Ekanayake presentation)

Issues

- Range of land managers across coastal zones (council, state government agencies etc, who is responsible. Who do volunteers talk to?)
- In South Australia, predominantly councils manage coastline, but in Victoria, 76% of Hooded Plover habitat for example is managed by Parks Victoria
- Management priorities: not on the same page - managing for sustainable development not for conservation/biodiversity
- Differing expectations and lack of understanding about different roles
- Management relationship: different agencies have different approaches

Challenges

- Remote areas: volunteers need to be self sufficient
- Resourcing and funding for land managers
- Lack of volunteer/management frameworks
- Lack of top down/upper management agency interest/support/involvement
- Grassroots approach is important and effective but can collapse if you lose a few key individuals and is limited in the long-term unless there is top down support

Strategies/ Solutions

- Sharing information between areas, evidence based change
- Developing volunteer/land manager agreements
- Field staff educating/engaging upper management
- Creating consistent volunteer/management lines of communication/response plans so volunteers can operate across different management areas
- Media- positive and highlighting good relationship between volunteers and management agencies generates support for programs
- Build relationships between agencies and volunteers, field staff and managers
- Recognise each other's limitations and strengths and to develop a relationship that works for your particular area
- BirdLife Australia to engage at executive level with agencies (I'll get my CEO to talk to your CEO)

## Volunteer Participation

(Photo Jean Turner and Kasun Ekanayake presentation)

Issues

- Aging volunteers
- Lack of availability of volunteers
- Participation in remote areas
- Volunteer burn out/sharing the workload
- Lack of support or action from partner organisations

Challenges

- Portal entries (or a volunteer to enter data)
- Funding/gaps in programs = gaps in volunteering and needs to be long term for resilience
- Isolation needs addressing- volunteer coordinators meeting and addressing issues
- Capturing people's attention/hearts, especially the younger generation

Strategies/ Solutions

- Communication! Improving ways of communicating and ensuring there is regular communication and feedback
- Recognition of volunteers
- Social media- also promotes/educates/connects with other groups. Can provide information for events and activities. Need to post more to engage more people and volunteers
- Friendly approach - not penalising people, taking a negative approach
- Grants- to have workshops and celebrate volunteers, more social opportunities
- Incentives such as scopes at planting/weeding days for bird watching
- Data portal- share event page/information. Easier for travellers to find, maps from count
- Conferences like this which connect people from across many different regions to improve sense of belonging and collaboration

## Awareness Raising


(Photos Steve Smithyman presentation)

Issues

- Lack of awareness that beach is a habitat for birds
- Lack of understanding of personal impact
- How to get users of the beach to ”care” about birds/beaches
- Species identification- confusion between Hooded Plovers and Masked Lapwings
- Inconvenience that changing behaviours will cause

Target groups

- Day visitors to the beach in summer
- Locals with entrenched behaviours (3rd and 4th generations)
- Dog walkers
- Future generations

Challenges

- Conveying complex information
- Targeting messaging for different user groups
- Competing with multiple social messages/capturing public attention

Strategies/ Solutions

- Use flagships to improve coastal habitat education – develop more interesting signs/information that provides information about the birds and then their overall place in coastal ecosystems
- Opportunity for rental places/ real estate agents to provide information to summer renters
- Local events: farmers markets, festivals.
- Face to face education on the beach – set up scopes or a stall, be inviting
- Displays with eggs and model birds. Tactile displays that are true to size.
- Targeting key coastal schools to engage into the long term and involve in one aspect of conservation, whether it is building shelters, helping raise awareness in the community, Arts projects, making signs, etc

- Dogs on beaches info cards/maps e.g. City of Greater Geelong pocket sized card
- Novel approaches: book launches, art shows, treasure hunts, egg making/ camouflage activities
- Tap into television and roll out a national campaign with a catchy slogan

## Day 2 Conference, Practical Workshops and Field Trip.

To begin the second day, participants had a presentation on changing behaviours with Kevin Collister. BirdLife Australia has had Kevin speak on numerous occasions about behaviour and the cause and effect it has, and how to communicate with others in a respective and productive manner. Kevin spoke specifically about our challenges on the beach, giving advice on interacting with beach users to achieve the best outcomes for the birds in the long-term.

Participants listening to Kevin Collister (Photo Renee Mead)

### *Practical Workshops:*

A selection of workshops were offered to participants which aimed to increase the skill sets of volunteers and land managers and provide an interactive environment for participants and knowledgeable staff and volunteers. The workshop offered and their leaders were:

- Bird Photography- Glenn Ehmke, Rose Fletcher and Craig Greer
- Shorebird Identification- Dan Weller
- Communication with beach users (extension of Kevin's presentation)- Kevin Collister
- Tips for volunteer recruitment, support and retention- Kaye Mahomet
- My Beach Bird portal- Glenn Ehmke
- Beach-nesting Bird behaviour and monitoring- Grainne Maguire

Volunteer recruitment, support and retention workshop, leader Kaye Mahomet (Photo Kasun Ekanayake)

Shorebird Identification workshop, leader Dan Weller (Photo Renee Mead)

## *Communications workshop*

Below we have provided an insight into Kevin's workshop from one of the participants:

### Glenda Woodward, Friends of the Hooded Plover Yorke Peninsula, SA.

I have been a beach-nesting bird volunteer for some years but when I speak to people down the beach with dogs, I know I can improve how ask them to put their dogs on a lead.

I must declare that I like dogs, I even have a dog.

I just wish people with dogs would put those dogs on a leash when they see the hooded plover signs on the beach. I realize I am often stressed – worried about the birds – would like people to get those dogs on a lead ASAP.

So, I was really looking forward to the recent Beach-nesting Birds Conference, hoped to pick up some tips on how to better talk to people with dogs. On the second day of the conference, Kevin Collister, an expert communications faci litator spoke to the group. His Background was different for a bird conference, having worked in STAR (Special Tasks and Rescue) force for years – over 20 years of experience dealing with Australia's most dangerous criminals – drug searches, high security escorts, escapes and riots!! Now I thought, that should help when dealing with strangers on the beach!!

If Kevin Collister, can talk down people with guns, I can talk to people with dogs.

Kevin was very entertaining and had some really good tips. This is by no means a full summary of his talk but some of the tips I picked up on the day, and would strongly recommend if anyone has the opportunity to hear him speak to do so.

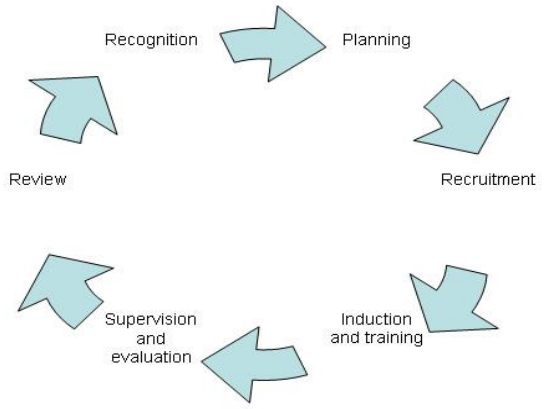
So, firstly:

- You need to control your thoughts, control your stress (I can just see those dogs running toward those chicks now….), breathe with your diaphragm (helps you relax).
- Assess yourself, the person you want to talk to and the environment around you
- Treat people with respect
- Try and see where they are coming from e.g. may not have seen the signs, may be having a bad day etc.
- Stand, strong, confident and relaxed, well balanced on both legs.
- Talk at a distance (making sure you are not right in their face)
- Start with saying "good morning" or similar, make a connection with them if possible e.g. nice dog/what sort of dog is that?
- Then can I ask you to please put your dog on a leash? (we can only ask, not tell) "Do you realize that there are some endangered hooded plover chicks on the beach ahead"? Maybe have something to show them such as a hooded plover information leaflet.
- Could go on with "Do you realize that Australia has the highest number of native animals that have become extinct". "If we don't make some changes to how we manage the environment around these gentle little birds maybe they too will become extinct".
- Always leave on a good note if at all possible, e.g." Thank you for your time, have a good day" etc.

## *Volunteering workshop*

Kaye Mahomet from Southern Volunteering SA ran some really useful workshops and below are some snippets of information from her presentation:

*The Volunteer Support Process:*




*Volunteer recruitment ideas:*

- Your Newsletter
- Senior Citizens Clubs
- Brochures in Universities
- Public recognition – Expos
- Posters on community bulletin boards
- Stalls at community events/festivals
- Local newspaper
- Word of mouth

*Induction and training:*

- Introduction to the organisation's Mission and vision
- Handbook
- Supervisor's name and contact information
- Role Description
- Policies and Procedures including Grievance and Performance Management
- Introduction to staff
- Training for the role
- Work health & safety

*Principles of supervision:*

- People must always understand clearly what is expected of them
- People must have guidance in their work
- Good work should always be recognised
- Poor work deserves constructive criticism
- People should have opportunities to show they can accept greater responsibility
- People should be encouraged to improve themselves
- People should work in a safe and healthy environment

*Supervision of volunteers:*

- Responsible for day to day management and guidance or work
- Develop suitable assignments
- Train for the role
- Develop volunteer/staff relationships
- Provide consultation and assistance
- Provide feedback
- Attend meetings
- Recognise volunteer effort

*Characteristics of a Successful Supervisor:*

- Brings a positive attitude to the people you work with
- Listens always and is willing to discuss issues
- Fairness. Not perceived as playing favourites
- Great communication skills
- Promotes a team spirit
- Delegates well

*Volunteer Roles:*

- Volunteer roles are defined, documented and communicated
- Reviewed with input from volunteers and employees
- Designed to contribute to the organisations purpose, goals and objectives

*What are some challenging behaviours?*

- Lack of punctuality
- Complains about others
- Explode over insignificant instances
- Projects an attitude of nothing is right
- Works outside of role description
- Lack of enthusiasm
- Gossip

*Dealing with challenging behaviours:*

- Use problem solving language
- Communicate clearly
- Maintain emotional control
- Defuse angry people
- Allow people to 'save face'
- Ignore or manage criticism and negativity
- Be aware of your body language

*Volunteer Recognition:*

- The Board, Management Committee and paid staff understand the benefit of having volunteers
- Volunteers are reminded of the contribution they make to the organisation
- Volunteer acknowledgement is respectful of cultural values and perspectives
- Other recognition years?

*Volunteer Retention:*

- Value the gift of time, talent and energy
- Remind volunteers of the contribution they make to the organisation
- Communicate, communicate, communicate
- Treat everyone with respect

*The three most powerful 'de-motivators' for people are:*

- Not hearing that they are doing a good job
- Not knowing how their supervisor feels about their performance
- Feeling that their supervisor does not care about their performance

*In conclusion:*

- Volunteers play an enormous part in what you do to make a difference for Australia's birds.
- With their generosity and through their efforts you are able to achieve so much more.

*Kaye's contact details are: kayemahomet@svsa.org.au, Phone 08 8326 0020*

## *Data portal workshop*

Glenn Ehmke volunteers a lot of his time to the data portal as it is his personal passion and it has helped our team keep the costs of development down. He offered to run a portal session and some key things discussed were:

*Ability to specify another person as observer when entering data*: many people would like the capacity to add in the names of other observers who are present, or to specify they are entering data for another observer. We will work to add this as a new field to the portal.

*Registration and online induction process*: there are clear steps to joining the program and becoming registered and inducted. The BNB team now have a dedicated office volunteer, Lou Citroen, who coordinates and assists people through this process.

The induction quiz can only be taken three times, and then the participant will need to contact us because then we are able to provide extra help and one-on-one training. We then send them a paper version to complete and spend time helping them.

*Species specific forms*: There was a desire to be able to enter data for multiple species where they co-occur at a single site/stretch of beach. GE explained that many variables (e.g. habitats, behaviours) are species-specific and as such it was difficult to make a single form for multiple species. Many folks didn't realise that you can view multiple species and regions on the Site Summary page.

*Banded Birds*: Make sure banded birds are available in the dropdown list so they can be reported. Desire for this to send an alert to the bander and then feedback can be given to observer. BNB team investigating feasibility of developer adding a new alert to the portal just for banders.

*Historical data for regions/sites:* Given the portal is 'cleared' each season there was a desire to have previous seasons data available, especially for regions in which monitoring is less frequent. Being able to look up past records would greatly help observers in terms of what to expect when going out to survey sites/stretches of beach. GE suggested that an extra tab for historic data could be added, assuming historical data were vetted and available. The BNB team have clarified that it takes months to vet the data thoroughly and this would need to be resourced.

*Regions*: Possibly prefix regions with States now that the # regions is getting large.

*Portal changes*: Manual updates and training were unanimously desired. The BNB team have said that training occurs at least once a year in our active regions. They are currently working on tutorial videos and a new user manual, thanks to the great assistance of Leonie Dawes.

## *Field trips:*

The afternoon field trips aimed at viewing the local birdlife, marine and coastal habitats. Below are the location visited and leaders for each field trip.

- Onkaparinga river and estuary, Peter Owen from Fleurieu Birdwatchers and Theresa Jack.
- Aldinga scrub reserve and washpool, Neville Hudson.
- Normanville and Carrackalinga Hooded Plover beaches, Rick and Anthea Williams, Jean Turner.
- Victor Harbor Hooded Plover beaches and estuaries, David and Sue Thorn.
- Manning Flora and Fauna Reserve, McLaren Vale, Sue and Ashley Read.
- Aldinga, Port Willunga, Snapper Point and/or Maslin beaches, Dudley Corbett and Graham Thomas.

## Day 3 Optional Sunday 28th May Field Trip.

Participants were given an optional choice to venture out on another field trip. This optional trip aimed to provide a more extensive look at South Australia's beach nesting birds regions and the current populations, threats and management the birds and volunteers/ staff face. The field trips on offer were:

- Goolwa/ Murray Mouth excursion. Led by Keith Jones, Bob Daly and Wendy Phillips from Fleurieu Bird Watchers.

- Samphire Coast, Red Capped Plover excursion. Attendee visited Semaphore South Beach, Magazine Road Wetlands and St Kilda. Led by Kasun Ekanayake and Jean Turner.

Samphire Coast RCP field trip, Magazine Road Wetlands (Photo Carole & Ian Forsythe)

Samphire Coast RCP field trip, St Kilda. (Photo Kasun Ekanayake)

## *THANK YOU*

Thank you to all those who assisted with organising, setting up, providing equipment, cleaning up, and all the jobs that helped make this conference happen! Wendy White, Ash and Sue Read, David and Sue Thorn, Jean Turner, and Kasun Ekanayake assisted greatly in the lead up to the event, not to mention all the work they did during and after the event. An enormous thank you to them! We also had so many helpers from the Fleurieu during the event who even came late at night to help set up, were always doing dishes, clearing up and helping everything run smoothly: Jan and Graham Thomas, Dudley Corbett, Debbie Prestwood, Janette Diment, David Potter, Ligita Bligzna, Joy Whellum, Rhonda Smith, Caroline Weatherstone, Angela Parker, John Cobb, Neville Hudson and all the others who pitched in on the day.

A huge thank you to presenters, workshop leaders and field trip leaders – you provided so much interesting content and had everyone enthralled!

Thank you to our funders who made it possible for people to attend and for the beach-nesting birds team to attend!! Adelaide and Mount Lofty Ranges NRM Board, Barwon Coast, Natural Resources Eyre Peninsula, Victorian Government's Icon Species Fund and the National Landcare Program.

We sincerely appreciate all the volunteers who dedicate time and resources in monitoring and protecting all shorebird species. Thank you so much to those who could make it to the conference and who represented their respective regions. It was fantastic to get such a great cross section of the coast represented.

Conservation is a complex task however this program has been running for 11 years with significant improvement to the beach-nesting bird populations on the southern and eastern coasts of Australia thanks to everyone's hard work and dedication.

From all of us in the Beach-nesting Birds team we hope you enjoyed the conference and hope to see you at our next events, workshops and conference!! ☺

Government of South Australia
Adelaide and Mount Lofty Ranges Natural Resources Management Board

Australian Government | National Landcare Programme

VICTORIA State Government

Barwon Coast

Natural Resources Eyre Peninsula