

Survey Method 5.2

Penguin track counts

Little Penguin toolkit

This section of the toolkit contains standardised survey and monitoring methods for community and land managers.

Survey Methods

- Presence or absence
- Penguin track counts
- Regular counts at designated areas
- Colony count
- Wildlife camera monitoring

Results

The results of these surveys will provide information on the Little Penguin population in Tasmania.

When is this survey method the best to use?

Counting tracks of penguin footprints is a relatively simple and non-intrusive method that provides an index of the activity of birds in an area over a time period. This method can be used to estimate the activity of penguins in a colony on sandy beaches.



Before you start

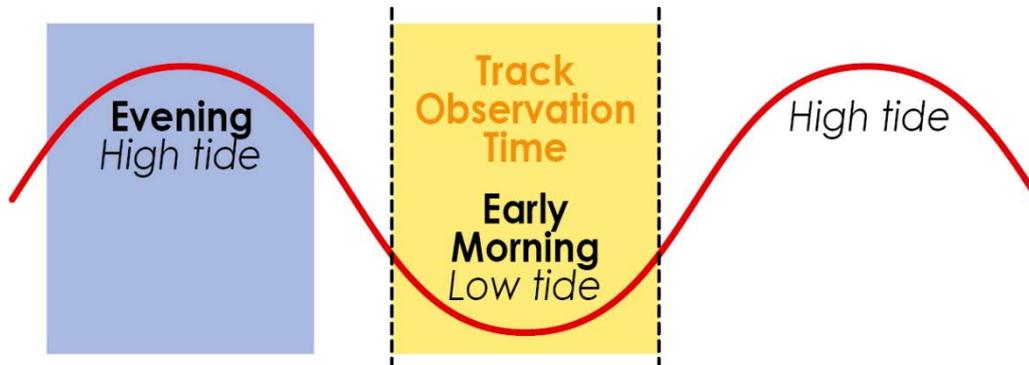
- Ensure you have permission from the land manager and all the necessary approvals.
- Ensure the counts are undertaken by members of a registered community group for insurance purposes.

How to prepare for your survey

- This survey should be done by two people, one person to count and the second to record the number of tracks.
- Identify the extent of the penguin colony by walking the length of the sandy beach.
- Divide the beach into 50 m sections (Note – the same sections should be used every time you repeat the survey).
- Mark and number each section using a GPS point, a landmark such as a pile of rocks or large tree, and/or take photos.
- The length of the beach will determine the number of people required. If it is a long beach and more than 500 metres, you may need extra pairs of volunteers to count the other sections.
- Familiarise yourself with tide times.
- Ensure you know your bird tracks, take a copy of Tracks, Scats and Other Traces (or a similar track identification guide) into the field.

When to survey

- Penguins are more active during the breeding season, normally from June to February. However, there can be intermittent signs of penguins on sandy beaches outside of this period.



- Early in the morning at low tide shortly after dawn is the best time. This is after the penguins have returned to sea and before other beach users make footprint observations more difficult.
- Plan the count after a high tide the evening before (check tide chart).
- If there are many penguins coming ashore or it is windy or raining, footprints may be difficult to differentiate.
- Counts could be scheduled on a fortnightly basis throughout the year.

Method

- Walk along the sandy beach and search for penguin footprints at a low or receding tide early in the morning.
- Count the number of penguin tracks **coming in (home)** and **going out (sea)** in each section.

Hints:

- sunny early mornings are best to locate and photograph penguin tracks. Photographing footprints/tracks allows for independent verification.
- The firmness of the sand will also affect the ability to see footprints.
- Avoid counting multiple tracks adjacent to nesting sites (see photo).
- Only count clearly defined tracks in a straight line.
- Add the tallies of penguin tracks and enter the total count onto the record sheet.



- Other observations may include human activity, number of dogs, cats, dead penguins and unusual observations.
- Photograph a sample of penguin tracks to allow independent verification.



Dog prints:



Cat prints:



Record details

- Record the number of penguin tracks on the Field Tally Sheet at the site.
- Enter the data into the appropriate spreadsheet (LPT_SECTION 5.2 SURVEY METHOD 2 PENGUIN TRACK COUNTS DATA SHEET_24-06-2020.xlsx) following the instructions.
- After the survey, complete the survey form and send to your land manager and relevant organisations.
- Email completed survey forms/spreadsheet to Penguins@dpipwe.tas.gov.au

The information from the Field Survey form is useful to inform the community group and land manager, DPIPWE and researchers on the number of penguins at the site.

A handy reference:

Triggs, Barbara 2004, *Tracks, Scats and Other Traces*. Oxford University Press, South Melbourne ISBN: 0195550994

Example field tally sheet

Section number and/or name	Tally of tracks coming in (home)	Count	Tally of tracks going out (sea)	Count
1 Example beach	###	5		
2				
3				
4				
Total Count				

Example field tally sheet

Record the following survey details				
Date				
Name of site				
Name of count coordinator				
Contact details	Phone		Email	
Community Group				
Names of participants				
Start time				
End time				
Length of beach surveyed				
Search area (GPS/Lat/Long)				
Tide (Time/Height)	Rising	High	Falling	Low
Total number of penguin tracks coming in (home)				
Photo taken				
Total number of penguin tracks going out (sea)				
Photos taken				
Other sightings				
Comments				