

Survey Method 5.1

Presence or absence

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?

When it is unknown if Little Penguins are present in a specific location, this survey method will help identify whether penguins are in the area.



Before you start

- Draw on local knowledge – ask long term residents if they are aware of penguins in the area.
- Ensure you have permission from the land manager and all the necessary approvals.
- Ensure the survey is undertaken by members of a registered community group for insurance purposes.
- Read the *Survey Method 1 Presence or absence data sheet* to ensure familiarity with all the data collection requirements.
- Engage with a penguin expert for guidance.

How to prepare for your survey

- Surveys should be undertaken by two people.
- Walk along the coast to observe any evidence of penguins by looking for the tell-tale signs (as detailed in the section below).
- Refer to the table below for the best times to conduct specific observations.
- Checks should be carried out more than once at different times of the year in case there is no evidence of birds on first inspection.
- Ensure you know your bird tracks, take a copy of Tracks, Scats and Other Traces (or a similar track identification guide) into the field.

Note: it is important that searches are not undertaken within the colony.

How to survey

- Walk along the edge of the foreshore and coastal vegetation to look for signs of penguins.
- *Do not walk through any vegetation (scrub or grasses) as penguins may be present.*
- The tell-tale signs of Little Penguins are:
 - **Penguin tracks**
 - **Penguin runways**
 - **Penguin scats (poo)**
 - **Penguin feathers**
 - **Smell a fishy odour (from penguin scats)**
 - **Hear the call of Little Penguins**
- If surveys are at night, wear warm, dark clothing.

Note: If there are splashes or tracks spread throughout the survey section enter the number sighted and, in the comments, indicate how widespread throughout survey area. However, if there are clear clusters of penguin evidence, record the coordinates for each cluster - clusters may indicate an important sub-colony or colony.

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 beaches outside of this period.
- Surveys can be carried out throughout the year.

Presence or absence survey methods

- The following table shows when these survey methods can be used. It is advisable to observe a number of these signs to indicate penguins are in the area and the presence of a penguin colony. Not hearing calls on any given night may not necessarily mean an absence of penguins.

Survey methods	Morning	Evening	During the day	Breeding season	Moulting season	All year
Penguin tracks	X					X
Penguin runways			X			X
Penguin scats			X			X
Feathers			X	X	X	X
Smell			X	X		X
Vocals		X				X
Dead penguins or carcasses			X			X

- **Penguin tracks** – this is a non-intrusive method to provide an indication of penguins in an area.

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.



- **Penguin runway** – an established animal track with trampled plants or grasses leading from the beach into vegetation.



- **Penguin scats (poo)** - white or grey streaks of penguin poo on the sand, rocks, vegetation or concrete.



- **Penguin feathers** - are a sign that a penguin has been moulting and is more likely to be observed between February to April. Please note penguins may undertake their moult in a location different to their breeding site and evidence of feathers or a moulting penguin does not necessarily indicate a breeding site.



- **Smell of a distinct fishy odour** in the area (in addition to other signs and other than seaweed).

- **Hear the vocal call of Little Penguins**

- Refer to the Little Penguin online educational module or the PWS Penguin Fact sheet and listen to the distinct call of Little Penguins.
- Check the area you plan to survey during daylight hours to ensure you do not sit on a penguin runway or obstruct penguins coming ashore.
- Choose a position with vegetation behind you to camouflage your profile.
- Go to the beach before dusk and sit quietly at the edge of the vegetation to record the vocalisations of Little Penguins on your mobile phone.
- Alternatively, an audio recording device can be installed in the area and set to record at key times daily (post dusk/pre-dawn).
- *Audio devices must not be installed within colonies without approvals.*

- **Dead penguins or carcasses on the beach** – Report to DPIPWE or your nearest PWS Field Centre immediately. Take note of the date and time and take photos but do not interfere or move the carcass. Be careful not to disturb the area around it.

Record details

- After the survey, complete the survey form and send a copy to the land manager and relevant organisations.
- Email completed survey forms/spreadsheet (LPT_SECTION 5.1_SURVEY METHOD 1 PRESENCE OR ABSENCE DATA SHEET.xlsx) to Penguins@dpiipwe.tas.gov.au

The information from the 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 Survey form

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
Signs of penguin scats?	Yes		No	
Location (GPS)				
Photo taken	Yes		No	
Signs of penguin runways in vegetation?	Yes		No	
Signs of penguin feathers?	Yes		No	
Location (GPS)				
Photo taken	Yes		No	
Smell a fishy odour?	Yes		No	
Signs of penguin tracks on the sand? If yes, take a photo				
Location (GPS)				
Photo taken	Yes		No	
Hear the call of penguins?	Yes		No	
Audio recorded	Yes		No	
Dead penguins?				
Photo taken	Yes		No	
Any other observations?				