

# IAATO Operational Procedures for Visiting Emperor Penguin Colonies

The SCAR Antarctic Wildlife Health Working Group has advised that there is a high risk that Highly Pathogenic Avian Influenza (HPAI) will arrive in Antarctic and sub-Antarctic regions during the 2023/24 – 2024/25 austral summers. Globally, the virus has caused mass mortality events in wild birds and seals. People working with or close to wildlife should assume HPAI will arrive and maintain the highest biosecurity possible. Report any unusual or high mortality events to IAATO following appropriate procedures via your expedition team.

## Introduction

The emperor penguin is considered to be under threat due to loss of habitat caused by climate change. These operational procedures aim to minimize disturbance to emperor penguins by recreational visitation and avoid harmful impacts on penguin populations by ensuring that their normal patterns of daily and seasonal activity are maintained in the short and long term.

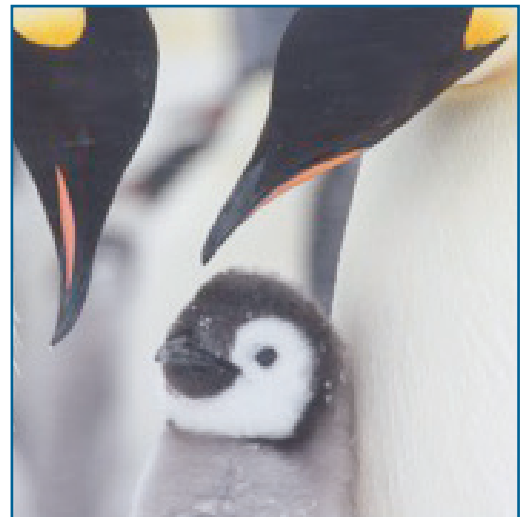
Always follow appropriate biosecurity procedures for clothing, footwear and equipment. Enhanced biosecurity procedures are currently in place to reduce the risk of introducing Highly Pathogenic Avian Influenza.

## Potential Impacts

There are no currently no known impacts from well controlled visits to emperor penguin colonies. However, potential impacts to be avoided may arise from:

- The accidental introduction of non-native species and pathogens/ disease
- Aircraft landing or flight activities
- Overland vehicles, such as snowmobiles
- Vessel activities including use of small boats
- Disturbance of birds or other wildlife directly by visitors and visitor related activities including through noise, vibration, changes to habitat, local air quality and collision risk.

Emperor penguins are particularly sensitive to disturbance during chick molt and fledge (late November to late December) and adult molt (mid-January to mid-February). The spread of an emperor penguin colony at any one time will depend on prevailing conditions. Typically, chicks are in crèches from November and may not be in tight groups; they may be spread across a wide area in smaller groups except during stormy or snowy weather when crèches will huddle for warmth.



Particular care must be given to areas where penguins are transiting between the sea and colonies using 'penguin highways'.

## General code of conduct for viewing emperor penguins

- Helicopter or small boat landing sites, overland vehicles, snowmobiles, caches, emergency stores and camps should be located as far away as possible and no less than 0.75 nautical mile (~ 1km) from colonies.
- Landing sites should be reviewed each season, as colonies are likely to be in a different location.
- Do not take food to colonies or on pathways to the colony.
- Never litter or leave waste.
- Remove all human liquid and solid waste. For vessel-based operations, visitors and guides should be returned to the ship to use toilet facilities. Deep field operators may use portable toilets in camps. Portable toilet provision by vessel operators is acceptable for emergency use only.
- Never urinate or defecate at colonies or on pathways to the colony.
- There may be no more than 100 visitors at a colony at any time, exclusive of expedition guides and leaders
- Groups of less than 20 visitors should have at least 2 guides. Larger groups should have as an absolute minimum of 1 guide to 15 visitors.
- Always walk slowly and carefully and maintain a precautionary distance of 5 metres from penguins. Increase distance from wildlife if any changes in behaviour are observed. Always give wildlife the right-of-way.
- Keep 15m away from penguin highways, the areas where penguins commute to and from the ocean.
- These areas may be on the ice edge or open water side of colonies but may equally be on the land side if birds are using a tide crack to enter.
- Separate visitor pathways and penguin highways whenever possible.
- If it is necessary to cross distinct areas where penguins are commuting, it is best that visitors stay in a tight group rather than being spread out.
- Visitors should stop moving when a commuting penguin is approximately 15m away to allow it to decide the direction it wants to follow.
- Emperor penguins, particularly chicks, are naturally inquisitive and may approach people.
  - Try to maintain the minimum required distance (at least 5m) when safe to do so, and be prepared to back away slowly. Look behind yourself before you move.
  - Never encourage interactions.
  - Never place yourself in the path of mobile adults or chicks
  - Never touch wildlife.
- Be aware of leopard seals that may be seen at breathing holes and may chase visitors.
- Be aware of basking seals. Keep at least 5m distance. Do not surround them, go between mothers and pups or between a seal and its breathing hole.



## Guiding visitors at Emperor Penguin Colonies

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### i. Approaching Emperor penguin colonies on foot

The approach path to the colony should be flagged. Flags should allow space for routine slow shifting of groups of penguins.

As colonies consist of several groups of penguins, take care to flag a suitable approach route to the colony.

Limit flags around the colony to minimize disturbance by flags on the penguins. Ensure visitors are well briefed. This route should be guided, or have guides stationed along it.

Where small groups of visitors are camped for a few days while visiting a colony, it may only be necessary to guide them initially, so long as there is always a guide at the colony.

Guides must be on site at all times with visitors, at a minimum of 1 guide to 15 visitors.

### ii. Stay aware of potential disturbance

On approach to an emperor penguin colony watch for behavioral cues that indicate disturbance.

Take the following precautions:

- Establish a passenger stopping point within 25 to 30 meters of a colony of emperor penguins with chicks. All visitors and guides must stop at the established point for a minimum of 5 minutes to assess penguin behaviour.
- If there are no nervous reactions from the chicks such as repeated or continual flipper flapping slowly move the group 10 to 15 meters closer to the colony.
- Repeat the assessment and approach every 5-10 minutes.
- Continually assess the behaviour of the penguins and retreat if there are any signs of disturbance. Never approach closer than 5 meters (15 feet).
- Never circle an emperor penguin colony. Keep visitor and guide activity to one side in a tight group to give the penguins plenty of room to move freely.

### iii. When Emperor Penguins are on Ice Floes or the Ice Edge

Keep visitors, small boats or vessels all to one side of adults or chicks, and keep at least 15 meters from where the penguins are preparing to enter the water.

### iv. Closed areas

Guides may specify restricted areas to avoid hazards such as tide cracks, seal breathing holes, or weak sea ice, and penguin highways to access holes or tide cracks.

## Safety and disturbance mitigation measures for aircraft operations

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Aircraft (including helicopters) should follow the guidelines laid out in Antarctic Treaty Resolution 2 (2004) 'Guidelines for the Operation of Aircraft near Concentrations of Birds in Antarctica', in the IAATO Field Operations Manual and Wildlife Awareness Manual.

In addition to these guidelines, the following mitigation and safety measures should be followed when using aircraft to visit emperor penguin colonies:

- Cross coastlines at right angles and maintain a vertical separation distance of at least 2000ft (~ 610m) above ground level and a horizontal separation of 0.25 nautical mile (~ 460m) from coastlines where possible.
- Do not over fly emperor penguin colony (including major traffic pathways of penguins), or seals.
- Observe tide cracks and nearest ice edge on approach to colony to estimate security of landing areas. Land as far as feasible from penguin colony and no less than 0.75 nautical mile (~ 1km) from colonies or seals.
- If possible, select a landing site behind a prominent physical barrier (e.g. iceberg) and downwind to minimise colony and seal disturbance.
- Follow aircraft flight heights, preferred flight paths and approach paths contained in the Antarctic Flight Information Manual (AFIM), in station aircraft operation manuals and on relevant charts, maps and any wildlife and Low Flying Avoidance Maps
- Make minimum number of passes to inspect and/or drag skiway consistent with safe landing operations.
- If there are helicopter operations, ensure the landing site is clear of wildlife and that it is consistent with safe landing operations.
- Check skiway is clear of wildlife before start-up and take-off
- IAATO does not allow the use of Remotely Operated Aircraft Systems (RPAS) at emperor penguins colonies.

## Disturbance mitigation measures for vessel operations

Vessels are recommended to avoid transiting through fast ice in near coastal and ice shelf environments unless for safety and or permitted/authorized scientific reasons. Berthing at the edge of fast ice, i.e. holding a stable safe position at the edge of the ice approximately +/- one ships length from the edge of the fast ice is not considered a transit. Operators at all times shall have due regard to the environmental conditions and wildlife breeding grounds.

## Other Safety Considerations

- Shore stranding equipment which allows the set-up of an emergency base camp if weather changes, particularly when doing helicopter operations, is mandatory.
- The base camp area should be checked immediately following landing to check the sea ice is secure.
- Fast-changing weather may cause significant problems if visitor groups are spread over a wide area.
- Guides must monitor weather and sea ice conditions and be prepared to retreat to camp if conditions require.
- Sea ice may crack or change rapidly and caution should always be exercised. Particular care must be taken near tide cracks.



Aerial view of emperor penguin colony



Emperor penguin colony in good weather



Emperor penguin colony in poor weather



Camp site near iceberg at emperor penguin colony



South polar skua overflying colony



Leopard seal at breathing hole