

Impact of polar bear introduction on penguins in Antarctica

Flappy (flappy@penguin.ac.uk)



Abstract

- Loss of polar bear populations in Arctic due to declining sea ice
- Introduced in Antarctica near to Adelie penguin colonies (food source)
- Clear grazing impact on penguins
- Further data needed for longer term ecological effects

Introduction

Rapid **sea ice loss** in the Arctic due to climate change is leading to a **decline** of polar bear numbers. This is because they are dependant on sea ice for hunting. Sea ice in Antarctica has been observed to be **increasing** or remaining stable suggesting a potential future habitat.

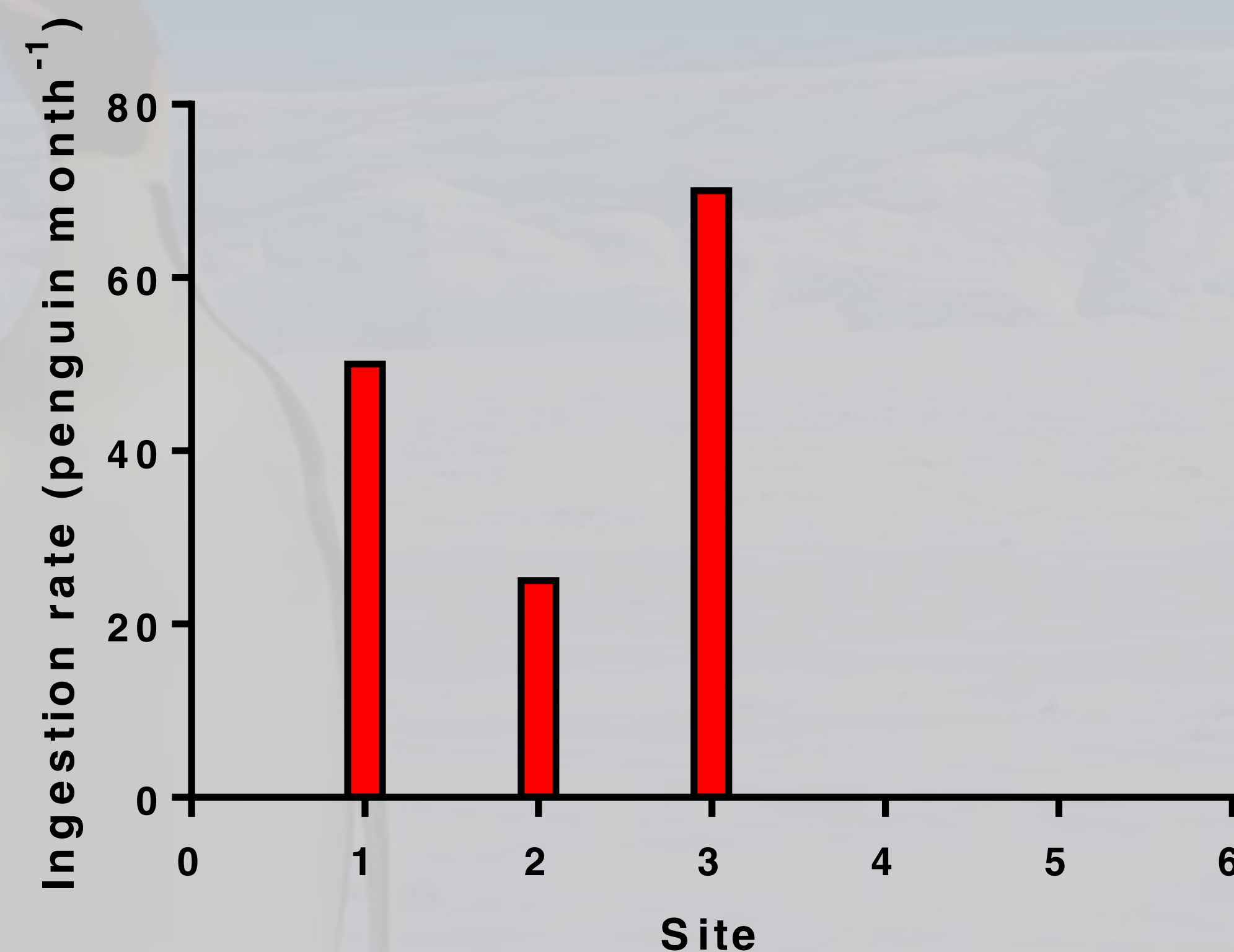
Results & discussion

Clear grazing rate on penguin populations due from polar bears (Figure 1) with ingestion rates much **higher (48 ± 23)** than control colonies (0 ± 0).

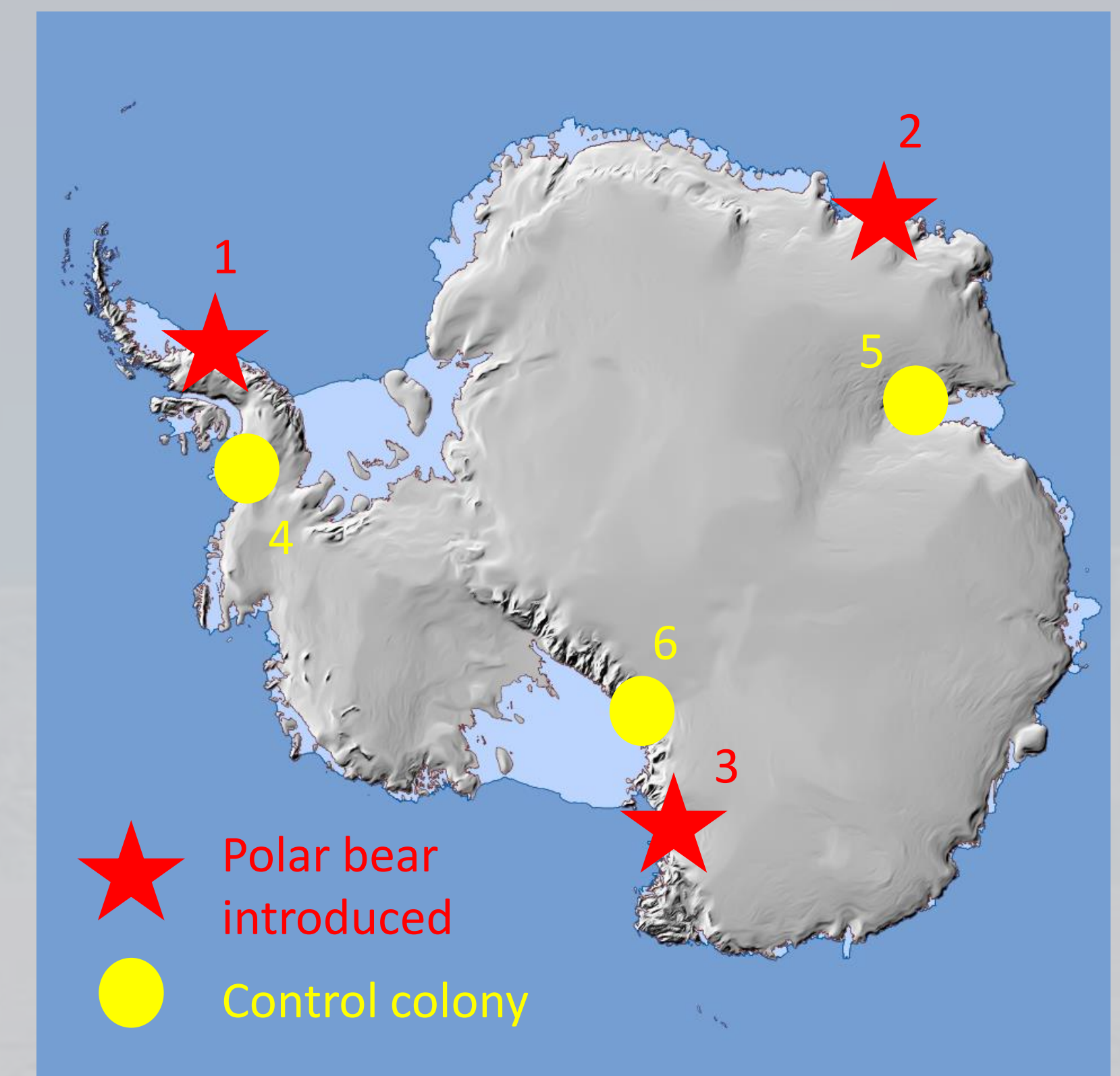
Suggests polar bears can use adelic penguins as a food source, however long term monitoring is required to observe future ecological impacts.

Impact

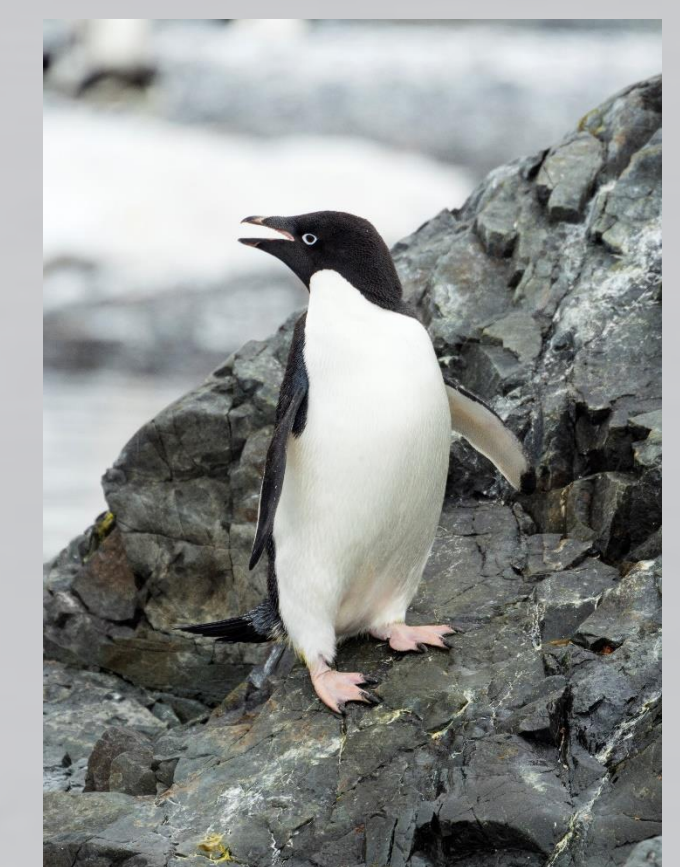
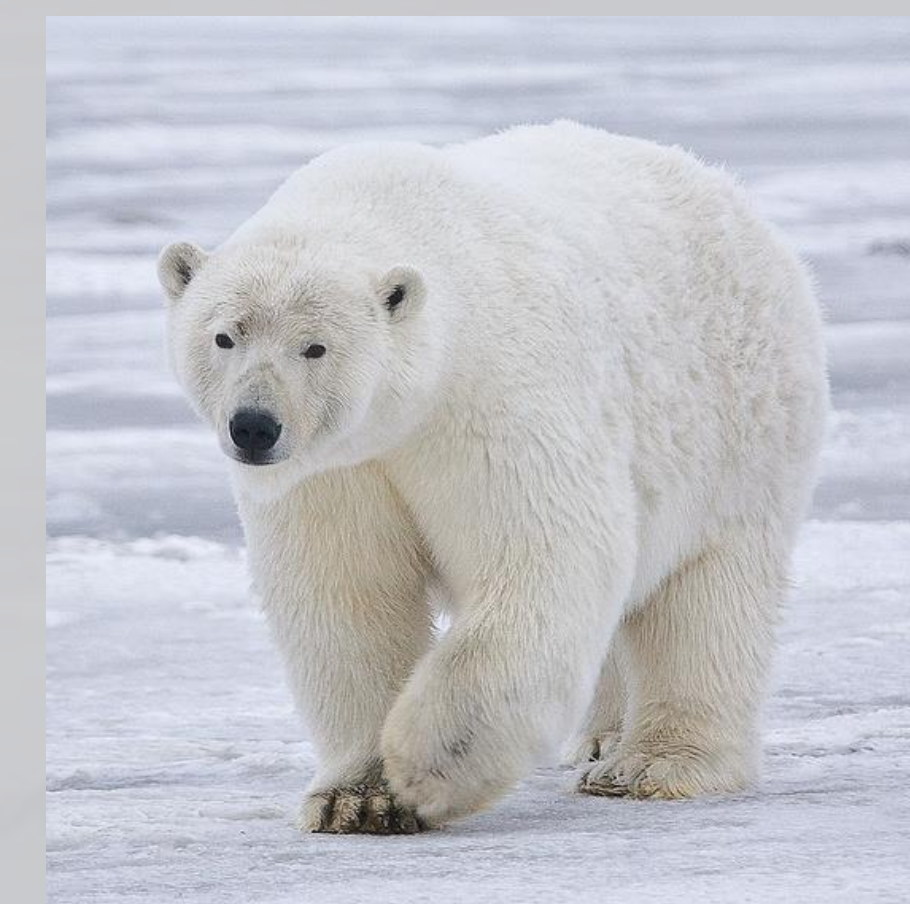
The introduction of polar bears to Antarctica could **save** this species from further decline and **extinction**.



Study sites



Study organisms



Ursus maritimus *Pygoscelis adeliae*

Acknowledgements

We would like to thank the Penguin research foundation (PRF) for assistance with logistics and funding. The Polar bear alliance (PBA) provided study organisms and shipping. We thank all scientists who participated in data collection. (Images taken from Wikipedia.org)

This poster has been produced for a poster workshop hosted at the Challenger Conference 2016 by the UK Polar Network.

