



Wildlife of Antarctica

Antarctica's wildlife is diverse and unique. It is the only continent on Earth which has no terrestrial mammals, but is home to a range of marine wildlife and birds, including penguins! The most common birds in Antarctica are penguins. It is home to 18 different species, including the Emperor Penguin.

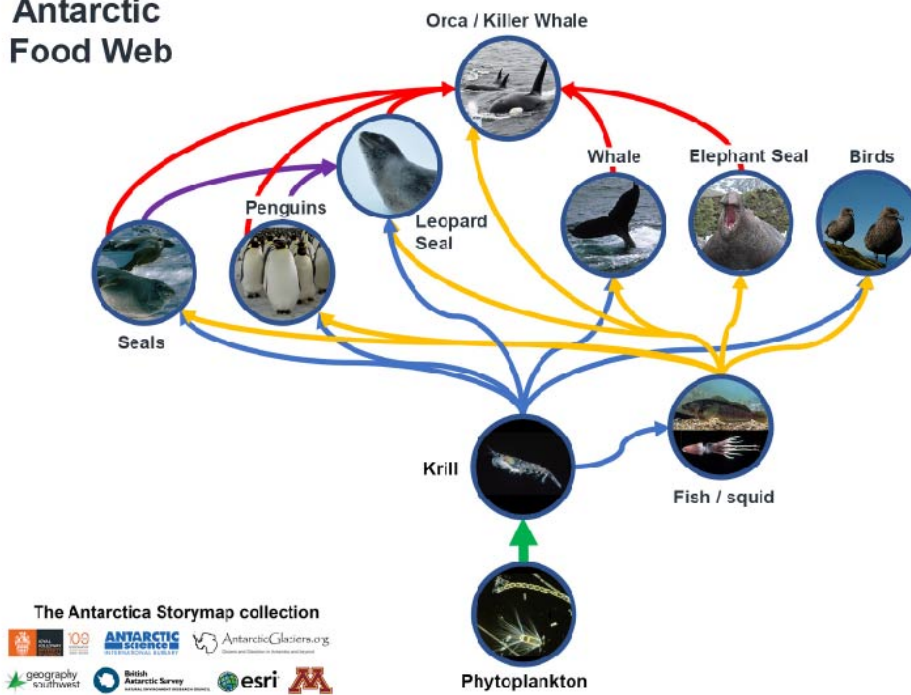


Penguins on an ice floe. Photo credit: Belinda Vause

Antarctica's Wildlife and its Food Web

The Antarctic food web is much shorter than most. Here in Antarctica there are only four main trophic levels shown in the figure below.

Antarctic Food Web



Simplified Illustration of Antarctica's Food Chain

The Emperor Penguin

The Emperor Penguin is the largest of all penguin species, they can be up to 130cm tall, and on average weighs 23kg as an adult.



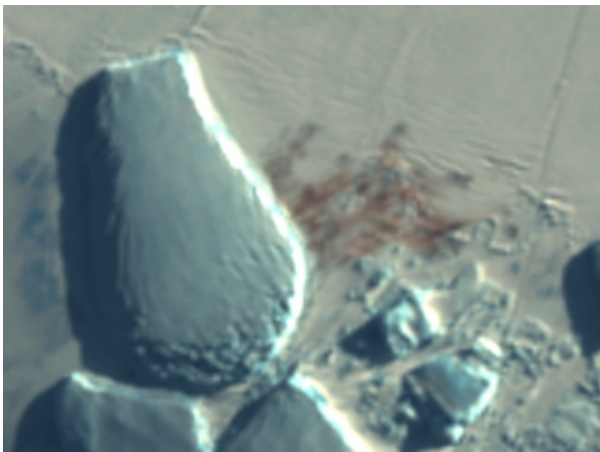
Emperor penguins. By Ian Duffy

Where do Emperor Penguins Live?

Emperor penguins, like all penguins in [Antarctica](#), live in colonies dotted around the coastline. Emperor penguins are unique in having colonies on [sea ice](#). Sea ice is frozen sea water which fringes the Antarctic continent. In the winter, the sea ice extent expands. In the summer, it shrinks as the sea ice melts. By the time the chicks are ready to fledge, the sea ice edge is close to the colony, so the young penguins don't have to travel far to get their food.

There are so many penguin colonies around Antarctica that scientists are not able to count them when they visit. Instead, they use satellite data, which takes images from space. They are able to see locations of penguin colonies because of a reddish-brown mark on the ice which can be seen from space. This is known as penguin guano (penguin poo) – yes, you have read that right, penguin poo! Their poo is this distinctive colour because of the food they eat. Penguins live on a diet of fish, squid and krill. And it is krill which causes a penguins poo to be the distinct reddish-brown colour.

Krill is not only eaten by just penguins, it is a very important food source for many other species in Antarctica's wildlife.



Screenshot of [Sentinelhub Playground](#) showing penguin poo on the ice



Emperor Penguin colony on the sea ice at the Brunt Ice Shelf. Gary Studd [BAS](#)

Krill

The producer in Antarctica are tiny organisms, known as phytoplankton. These organisms get their energy from the sunlight. Krill is then the main consumer of the phytoplankton, which is eaten by many other organisms such as penguins, birds, or even ginormous elephant seals! Because there are so many different organisms feeding from the krill, there needs to be lots and lots of krill available, especially as they are only 2 inches long!



Antarctic krill. By Øystein Paulsen - MAR-ECO, CC BY-SA 3.0,
<https://commons.wikimedia.org/w/index.php?curid=225249>

In the video below, watch Dr Bethan Davies (glaciologist) and Dr Huw Griffiths (marine biologist) discuss krill and their important role in Antarctic food webs.

Orca

At the top of the food chain, there are Orcas, often known as Killer Whales. These are the biggest carnivores on Earth, reaching almost 10m in length! They can be found swimming all around the Earth's oceans, but in particular in the Southern Ocean around Antarctica.

As you can see from the food chain above, their diet mainly consists of seals as they have a high amount of fat which can keep a hungry whale going in the year-round freezing temperatures. Not all of their meals are as big as a seal, a lot of the time Orcas consume different fish species.



Orcas swimming in a pod. Image courtesy of Mike Doherty. BAS

Seals

There are many different seals in Antarctica. They have thick beautiful fur coats and blubber, making them supremely adapted to the cold. There are six species in Antarctica: Antarctic Fur Seals, Leopard Seals, Ross Seals, Southern Elephant seals, Crabeater Seals and Weddell Seals.

Seals eat fish, krill, squid, and leopard seals will even eat penguins or other seals.



Leopard Seal

The leopard seal: a fearsome predator. Image courtesy of Mike Doherty. BAS

The Fur Seal has ears, and is actually a sealion! It can stand up taller and 'walk' on its flippers, unlike the other 'true' seals.



A fur seal, seen on Cape Lachman, James Ross Island, northern Antarctic Peninsula, February 2011, Photo credit: Bethan Davies

Seals spend much of their time on or under the sea ice, and catch most of their food under water. On land, they are slow and awkward, but they are wonderful and elegant swimmers.

The largest seals are Elephant Seals; male elephant seals can weigh up to 5000 kg!



Elephant seals clustering together on the Islands. Photo credit: Bethan Davies



Elephant
Seal

Elephant seal. Image courtesy of Mike Doherty. BAS

Antarctic wildlife storymap

To learn more about Antarctic wildlife, please visit the Antarctic Wildlife Storymap collection!



COLLECTION

Wildlife of Antarctica

This collection investigates key species of Antarctic wildlife, examines where Emperor Penguins live, how they can be discovered and monitored and the food web system they are a part of. Interactive activities run throughout the StoryMaps.



1 Emperor Penguins



2 Where do Emperor Penguins Live?



3 Penguins from Space



4 Antarctic Food Chains

In this free storymap, users can interact with satellite imagery, learn about penguin colonies in Antarctica, and learn how Antarctic food webs work.

Further reading

- [Seals and sealions](#)
- [WWF: Emperor penguins](#)
- [Whales of Antarctica](#)

Downloaded from: <https://www.antarcticglaciers.org/antarctica-2/introductory-antarctic-resources/wildlife-of-antarctica/>