

Emperor Penguin

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Photo by Ian Duffy via Wikipedia



Classification/Phylogeny

Emperor penguins are the largest penguins in the world, standing at 3.6 to 4.3 feet from feet to head.

Emperor penguins are part of the family Sphenisciformes, which consist of all the other penguins in the world. This means penguins are in a class of their own!

Emperor penguins, alongside king penguins are part of the genus, *Aptenodytes*, which is Greek for “without wings diver”. Emperors and kings are also referred to as the “great penguins”.


Researchers have stated that penguins may have evolved from a common ancestor shared with other seabirds, like albatrosses and petrels.



Photo by Wolfgang Kaehler/Getty Images



A wandering albatross; photo by Chris Wood via eBird

A large colony of emperor penguins is gathered on a snowy, icy landscape. In the foreground, several penguins are standing upright, facing the camera. They have black heads and backs with white chests and bellies. Their eyes are red, and they have a small orange beak. The background is filled with a dense crowd of penguins, some standing and some huddled together. The ground is covered in snow and ice, with some small patches of green moss or algae visible. The sky is not visible, but the lighting suggests a bright, sunny day.

Staying warm while keeping cool!

Like all birds, emperor penguins have feathers, but in addition to that, they have a thick layer of fat to keep them warm in their habitat; Antarctica, the coldest place on planet Earth! Even the summers are cold in Antarctica; it only gets to be -28 degrees Celsius!

And when it gets really cold, and the Antarctic winds blow, huge groups of emperor penguins; called colonies, often huddle together, in order to share their warmth, particularly during breeding season!



A gentoo penguin, the world's fastest swimming bird; Photo taken by Andres Vasquez Noboa via eBird

Champion Swimmers

Due to their small wings, emperor penguins can't fly; but their wings double as flippers, which make them stellar swimmers.

Emperor penguins are also excellent divers; they can dive to depths greater than 457 meters deep and can stay underwater for 30 minutes before swimming to the surface!

Animals that dive deep, like the emperor penguin, tend to have enhanced oxygen storage in their bodies due to increased blood volumes and higher proteins in their muscles.

Emperor penguins unfortunately aren't very fast; they only reach speeds up to 8.9 miles per hour. The fastest penguin in the world is the Gentoo penguin, which can reach speeds of a whopping 22 mph!



Photo by Paul Nicken/Nat Geo

Daddy's Duty

Emperor penguins usually breed in March and April, and when the female lays an egg, she leaves for two months in order to find food.

Till then, its up to the male penguin to look after the egg, and for about 65 days, he incubates the egg in his pouch in between his feet.

An emperor penguin's egg is quite large, it's the shape of an avocado, but bigger; 13.5 x 9.5 cm.



An emperor penguin's egg; photo by Didier Descouens via Wikipedia



Emperor penguin father keeping egg warm; photo by Tony Bojkovski

Cute and cuddly

65 days later, "POP"! An adorable little penguin chick emerges from its incubated egg and sees the world for the very first time! Emperor penguin chicks are altricial, meaning they can't feed themselves at birth, and need to rely on their parents for food.

When the female returns from her two-month feed, she feeds her chicks the partially digested food she found, which include fish, squid, and krill.

When the chicks get older, they are able to walk; but are still vulnerable to predators, like leopard seals and orcas.



Photo taken via earth.com



Photo by Gary Miller via ABC

Dangers to emperor penguins

Emperor penguins are listed as 'near threatened' by the IUCN Red List. This is mostly due to climate change and global warming caused by greenhouse gasses; as well as the melting ice caps in both Poles.

Overfishing is another leading threat to emperor penguins; as fish are an emperor penguin's main source of food.

Studies say that "Up to 80% of emperor penguin colonies are projected to be quasi-extinct by 2100 [population declines of more than 90%] with business-as-usual increases in greenhouse gas emissions"(Lu).

In order to protect the emperor penguin, endangered species protections will now require U.S government agencies to evaluate how their greenhouse gas activity will affect the penguins' habitat.

A colony of emperor penguins clustered on melting ice; photo by Zhang Zongtang/Xinhua



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