

HOW DEEP CAN THEY DIVE? FACTSHEET

DIVING BIRDS AND MAMMALS

Birds and mammals breathe air, but many are very much at home in the water and can hold their breath to dive for a very long time. From deep-diving whales and seals to agile swimming penguins and seabirds, each group has evolved unique skills to hunt and thrive underwater.

MARINE MAMMALS

Marine mammals such as whales, dolphins, and seals are exceptionally well adapted to life in the ocean. These adaptations include streamlined bodies, blubber for insulation and the ability to hold their breath for long periods.

To find food, they often dive to incredible depths. For example, the sperm whale holds the record for deep diving among marine mammals, reaching depths of over 1000 metres to hunt giant squid.



PENGUINS

Penguins are unique among birds as they have lost the ability to fly but have become extraordinary swimmers. Their stubby wings have evolved into flippers, enabling them to move swiftly and gracefully through the water.

Penguins can dive to great depths if necessary, in search of food such as fish, squid and krill.

These diving capabilities allow them to exploit a niche that flying birds cannot, making them superbly adapted to their aquatic environment.



SEABIRDS

Most seabirds are excellent fliers, equipped with strong wings and lightweight bodies adapted for long-distance flight.

However, many seabirds can also dive into the water to catch food, although they are not as adept at diving as penguins. This is because there is a trade-off between the ability to fly and the ability to swim underwater.

The balance they strike between flying and diving allows them to exploit a variety of food sources both at the surface and below.



WHAT MAKES A GOOD DIVER?

1. Ability to hold your breath for a long time

Sperm whales can hold their breath for 35 minutes. This is because their blood is very good at storing oxygen. Emperor penguins can stay underwater for 20 minutes.

2. Being a good swimmer

Sperm whales can descend 160 m or more per minute. Adelle penguins can swim as fast as 45 miles per hour to hunt for food or escape predators.

3. Size

If you dive in from the air, it helps to be large and heavy. In general larger animals can swim faster and dive deeper than smaller ones - but not always. Sea birds are much lighter than penguins. This helps them fly, but makes them poorer under-water swimmers.

4. A streamlined shape

Whales, dolphins, seals and penguins are very streamlined - almost fish-shaped. Sea birds that dive fold their wings back to make themselves more streamlined.

5. Feeding on animals that live deep in the ocean

Why dive deep if you don't have to? The sperm whale has a diet of giant squid, which live well below 1000m. Many birds that feed on krill do not need to dive very deep - the krill is often near the surface where it feeds on ice algae and other plant plankton.