

The Sperm Whale – Ultra Deep Sea Diver



Free diving is where you hold your breath – and dive as deep as you can for as long as you can. Sperm Whales are the undisputed champions of free diving. They are the deepest diving, air breathing creature on earth.

Take a trip below the waves with the champion diver. First take a deep breath and start to dive down at 1 or 2 metres per second. The pressure of the water starts to take effect. The whale goes far beyond human limits as it leaves you behind. Its rib cage is designed to collapse and fold up so it can take the extra pressure being exerted on its body.

After 5 minutes of straight-down diving it will have reached 500 metres below the surface and have 50 tons of pressure on every square foot of its body. It is still living on that last deep breath. After 10 minutes it will have reached 1000 metres – with pressure at 100 atmospheres (100 tonnes per square foot) and the temperature is barely 2°C. It has reached the twilight zone where there is darkness with just a luminescent glow from other deep sea creatures.



The whale spends 20-40 minutes hunting its favourite food – giant squid. It eats dozens each time it dives – up to 1 tonne of food during each 'meal'. After 50 minutes it starts to ascend, a 10 minute journey straight to the surface – fast and effortless - taking no notice of pressure changes,

which in a human diver would cause decompression sickness and a build-up of poisonous gases in the blood. The whale rises to the surface and breathes for the first time in over an hour.

Submarine sonars have recorded Sperm Whales at over 2.5 km down which would mean nearly 30 minutes of diving straight down. To do these exceptional dives the Sperm Whale has to hold its breath from 90 minutes to over 2 hours. Sperm Whales dive many times a day eating hundreds of giant squid from the deep ocean.

FABULOUS FACTS:

Type: mammal

Diet: giant squid

Life span: up to 77 years

Size: up to 70 ft (20m)

Weight: up to 40 tons (35,000 kg)

Status: endangered

Did you know?

The Sperm Whale's head measures one third of its body and contains the largest brain of any living creature.

Their huge fluke tails enable Sperm Whales to reach speeds of up to 23 miles per hour, as fast as an Olympic sprinter.

Photo courtesy of Museum of Natural History, New York City, USA