

FACT SHEET



Australian Government
Department of Resources,
Energy and Tourism



LADY ELLIOT ISLAND Humpback Whales

Each year between May and November, Lady Elliot Island (LEI) comes alive with the spectacular acrobatic displays of humpback whales. These charismatic animals migrate north over 5,000km to the tropical waters of the Great Barrier Reef (GBR) after a summer of feeding on krill in Antarctic waters. Their journey attracts thousands of visitors who watch in awe as the whales breach, roll their gigantic bodies, and slap their fins and tails on the waters surface.



WHALE CHARACTERISTICS

Whales are part of the group collectively known as Cetaceans which also includes dolphins and porpoises. Like humans, cetaceans are mammals, they are warm-blooded, breathe air, give birth to live young, and nurse their young with milk.

Cetaceans are believed to have evolved from land mammals similar to cows and sheep over 45 million years ago. These animals have undergone a number of changes to survive a new life underwater:

- Nostrils have moved to the top of their heads and are called 'blowholes'.
- Body hair has been replaced by blubber – a thick layer of fat (approximately 50cm thick) – to keep them warm.
- Their bodies are streamlined. Their forelimbs are compact flippers used for balance and steering and they have no hind limbs. The bone structure in the front flippers is very similar to that of a human hand.

The Humpback Whale (*Megaptera novaeangliae*) is named after its small, hump-like dorsal fin. It is easily distinguished from other whales by its long, knobby pectoral fins (the longest of any whale), which grow up to a third of their body length.

Other distinguishing characteristics of the Humpback:

- They are generally black/dark grey on top and white underneath. There is a very popular exception to this – an all-white humpback called Migaloo who is part of the East Coast population.
- They have unique markings on the underside of their tail flukes which identify individual whales, just like a human fingerprint.
- Often the first sighting of whales in an area is the 'blow' - with their breath rushing out at speeds of 400kph and reaching up to 4m high.
- Dive duration is typically 5–10 minutes, but they can be submerged for up to 40 minutes.
- They can dive to depths of over 150m.
- Clusters of barnacles grow on their bodies, flukes and under their chin.
- They grow up to 18m long and weigh up to 45 tonnes.
- Females are usually larger than the males.
- Life expectancy is believed to be up to 50 years.
- Most vocal of all whales and 'sing songs' that can last for hours and can be heard by the human ear from up to 16km away. A hydrophone can detect the whale song from over 100 miles. The male humpbacks sing long complex songs during the mating season



Tail Fluke



Breach



Dorsal Fin



Spy Hop

FEEDING

Humpback whales are baleen whales (meaning without teeth). In place of teeth they have baleen, which consist of vertical plates fringed with stiff bristles made of keratin, the same material as human fingernails. Throat pleats let the whale's throat expand as it feeds, taking in enormous gulps of water. They then strain zooplankton (shrimp-like krill and other tiny animals) out of the water through its baleen. A humpback can eat nearly one tonne of food a day!



BREEDING

Humpbacks undergo some of the longest migrations of any mammal as a result of their breeding habits. After spending the summer in Antarctica where food is plentiful, the whales move to warmer tropical waters for females to give birth. This is because the cold Antarctic waters would be too harsh for newborn calves which have no protective blubber. During this migration they live mostly off their fat reserves, however, opportunistic feeding on fish and plankton has been observed.

Mating takes place during their winter migration to warmer waters. Each adult female typically bears a calf every 2–3 years and the gestation period is 12 months. Humpback whale calves are between 3–4.5m long at birth, and weigh up to 1,000kg.

The calf nurses frequently on their mother's rich milk, which has a 45% to 60% fat content. Within 30 minutes of birth the calf can swim unaided.

Males do not stay with the female or calf after mating but the females often stay together as a group, helping with each other's calves. Whales reach maturity when they are about 11.4m long (from 4–10 years of age). Scientists still do not know for certain how long humpbacks live in the wild, however, the average life span is estimated to be between 30–40 years.

THE HUMPBACK WHALES OF LADY ELLIOT

The humpback whales seen off LEI are part of the East Coast population, which are genetically different to other humpback populations. In 2009 the population was estimated at around 10,500 individuals, increasing at approximately 10-11% per annum.



THREATS TO WHALES

Beginning in Australia shortly after European colonisation, whaling and the export of whale products was Australia's first primary industry. The continued hunting and demand for whale products (such as oil for lighting, lubrication, margarine, soap and cosmetics, and baleen for clothes, whips and umbrellas) until 1963, reduced humpback whale populations to near extinction (95% decline in their original numbers). It was at this time that the humpback whale was declared a Protected Species and whaling became illegal.

Despite this, humpback whales are listed as Threatened under the *Environment Protection and Biodiversity Conservation Act 1999*. They are still under threat from:

- Scientific whaling from certain countries around the world despite scientists being able to collect all the research data needed without harming them in any way.
- Accumulation of pesticides, heavy metals and other contaminants in their bodies from the food chain.
- Pollution such as oil spills, possible entanglement in discarded fishing lines.
- Hazards and noise from increased boat traffic and construction activity along the coastline.
- Climate change and unsustainable tourism practices.



WHAT YOU CAN DO TO HELP WHALES

- Support the growing whale watching industry. This responsible practice has the positive effect of giving people the opportunity to learn about these majestic animals in their natural habitat.
- Support organisations that are trying to stop global commercial and scientific whaling. Whales have only survived today because of people who recognised the importance of protecting them.
- Dispose of litter responsibly - rubbish that ends up in our oceans can be deadly to marine animals.
- Report any injured, entangled or stranded whales to your local environmental agency.

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