



Sperm whale adults and calf, Indian Ocean, Sri Lanka. © WWF-Canon / Hal Whitehead

Whales, dolphins, and porpoises are powerful symbols of our oceans. By the end of the 20th century, however, many populations had been decimated by systematic hunting, accidental capture in fishing nets (bycatch), habitat degradation, and other human activities. Despite decades of legal protection, seven of the 13 great whale species are still endangered or vulnerable, as are a further 17 small whale, dolphin, and porpoise species or populations. Direct hunting and bycatch remain the greatest threats to the survival of these graceful aquatic mammals.

There are 86 cetacean species

There are 86 species of whales, dolphins and porpoises, collectively known as cetaceans. Most live in oceans and seas worldwide, both in open and inshore waters. Some dolphin and porpoise species can live in saltwater, brackish water, and freshwater, and a few species and populations only live in freshwater rivers and lakes.

There are two categories of cetaceans:

• Baleen whales (mysticetes) are named for their feeding apparatus: a series of comb-like baleen plates that descend from the roof of the mouth. Made of stiff, flexible material similar to human fingernails, baleen acts like a sieve, allowing the whales to strain food such as small fish, krill, and plankton out of the water.

There are 13 species of baleen whales ranging in size from the 6m pygmy right whale to the 33m, 120 tonne blue whale, the largest animal on Earth. While some species "sing", baleen whales do not have echolocation abilities.

• Toothed whales, dolphins, and porpoises (odontocetes) are a diverse group of over 70 species which range in size from the 1.4m Hector's dolphin to the 18m sperm whale. They have well-developed echolocation which they use to locate each other and to hunt fish, squid, and marine mammals.

Twenty-three cetacean species or populations are classified as Critically Endangered, Endangered, or Vulnerable, while many other local and regional populations are seriously depleted. The population status and/or distribution of over a third of all cetacean species are unknown.

At a glance:

Species: Habitat: Location: Whales, dolphins, and porpoises Oceans, coastal waters, rivers, and lakes

Worldwide

Population:

Fewer than 100 to hundreds of thousands, depending on the species

Status:

Data Deficient to Critically Endangered (IUCN-The World Conservation Union)





Status	Whales	Marine Dolphins & Porpoises	River Dolphins & Porpoises
Critically Endangered	 Bowhead whale (Svalbard/Spitsbergen population) Gray whale (Western Pacific population) 	 Maui's dolphin Irrawaddy dolphin (Malampaya Sound population) Vaquita 	 Yangtze river dolphin Irrawaddy dolphin (Mekong River, Mahakam River, Ayeyarwady River, and Songkhla Lake populations)
Endangered	 Sei whale Blue whale Fin whale North Atlantic right whale North Pacific right whale 	Hector's dolphin	 Ganges river dolphin Indus river dolphin Finless porpoise (Yangtze river population)
Vulnerable	Humpback whale	Harbour porpoise Franciscana	Amazon river dolphin

What are the problems facing cetaceans?

Bycatch

Recent analysis has shown that around 300,000 small whales, dolphins, and porpoises die each year (about one every two minutes) as a result of becoming entangled in fishing gear. Known as bycatch, this accidental catch is one of the greatest threats to the survival of many cetacean populations.

WWF estimates that six cetacean species may disappear in the first two decades of the 21st century due in large part to bycatch. This includes the world's most endangered cetacean, the Yangtze river dolphin, which may become the first cetacean species whose extinction is caused by humans. Three other Critically Endangered species, five Endangered species, and four Vulnerable species are similarly subject to heavy bycatch deaths, including the North Atlantic right whale.

Equipment posing the greatest threat to cetaceans includes gillnets, set nets, trammel nets, purse seines, trawling nets, and longlines, as well as other fishing practices such as electric fishing.

Whaling and other hunting

Most large whale populations were systematically over-exploited over the last several centuries, with some brought to the edge of extinction. In the Antarctic for example, more than two million whales were killed by commercial whalers during the 20th century alone. Around 369,000 blue whales were killed in the Southern Hemisphere between 1904 and 1971; just 1,000–1,500 are now estimated to remain.

In 1986, the International Whaling Commission (IWC) banned commercial whaling. While this has helped some whale species begin to recover, a few populations and species were reduced to such an extent that their recovery may now be seriously compromised. For example, the North Atlantic right whale is one of the most endangered of all large whales, with no signs of recovery despite protection from whaling since the 1930s.

The IWC whaling ban has also not halted the systematic hunting of all whales. Due to loopholes, more than 25,000 whales of five different species have been killed since the moratorium came into effect.

Japan continues to catch hundreds of whales annually under an IWC loophole for whaling for 'scientific purposes', Norway conducts an openly commercial hunt, and Iceland recently began 'scientific' whaling. These three nations currently kill over 1,200 whales each year. The IWC has passed a number of resolutions against the Japanese hunts in particular as they undermine the spirit and intention of the moratorium — especially since numbers of some hunted species are unclear, Japan continues to take whales within an IWC-declared Southern Ocean whale sanctuary, and the whale meat ends up for sale on the Japanese market.



Gray whale, Baja California Norte, Mexico. © WWF-Canon / Michel Terrettaz



Hector's dolphin calf killed in gillnet, Banks Peninsula, New Zealand. © WWF-Canon / Stephen Dawson

At the same time, direct hunting for commercial and subsistence use remains a threat to some populations of small and medium-sized marine cetaceans whose management is not formally recognised by the IWC. Management of these hunts is solely at the discretion of the hunting country.

Some river dolphin populations are also hunted. In addition, the animals are sometimes killed by fishermen in retaliation for 'stealing' fish. Irrawaddy dolphins are also caught live for display in oceanaria. Twenty-two of the 50 individuals caught since 1974 originated from the Mahakam River, placing increased pressure on the remaining population of just 33–50 individuals.

Other marine threats

Marine cetaceans additionally face threats such as being struck by ships; chemical pollution from industry; and noise from navy operations and seismic surveys.

Other freshwater threats

River dolphins and porpoises are also severely threatened by dam building, which fragments populations and habitats and alters water flow; industrial, agricultural, and human pollution; noise and congestion from boat traffic; and habitat loss due to clearing of river banks, deforestation, sand mining, dredging, and land reclamation.

What is WWF doing to reduce threats to cetaceans in the wild?

WWF considers cetaceans as 'flagship species' — that is, charismatic representatives of the biodiversity of the complex ecosystems they inhabit. Conserving these animals and their habitats will also help many other species.

In 2005, WWF launched its Cetacean Species Action Plan, the first global conservation plan for all cetaceans. The ultimate aim is for viable populations of all cetacean species to occupy their full historical range and fulfill their role in maintaining the integrity of marine and freshwater ecosystems. As an initial goal, WWF aims to ensure that current threats to Critically Endangered, Endangered, and Vulnerable cetacean populations are significantly reduced by 2012.

With 40 years experience in cetacean conservation, the action plan has the following high-priority objectives:

- Decreasing cetacean bycatch
- Reducing ship collisions with right whales
- Conserving river dolphins and reversing degradation of their freshwater habitats
- Curtailing pollution from oil and gas development, toxics, chemical contaminants, and other pollutants that threaten cetaceans
- Conducting field research to provide scientific grounding for recovery strategies
- Eliminating the threat of unsustainable whaling, including direct takes of small cetaceans.

Examples of work to conserve cetaceans include:

1. Bycatch

- In New Zealand, WWF has been working with the government to protect the world's rarest marine dolphin, Maui's dolphin, from extinction due to entanglement in gillnets. A major success was the banning of gillnet fishing in part of the dolphin's coastal range in 2003.
- In Mexico, WWF is working with the government and other conservation groups to phase out gillnet fishing in the Gulf of California in order to stop further drownings of vaquitas, the world's smallest and most critically endangered porpoise.
- In the Mediterranean, a 2003 WWF report on the Moroccan driftnet fleet and its devastating effect on dolphin populations led to a total ban on the use of driftnets in the Mediterranean Sea.
- WWF is also working with various other fisheries and fisheries management bodies around the world to reduce cetacean bycatch, and worked successfully for the International Whaling Commission (IWC) to start tackling cetacean bycatch.
- With the goal of finding new solutions to make fishing gear safer, in 2004 WWF, together with an unprecedented partnership of fishers, industry leaders, and scientists, launched the International Smart Gear Competition. A runner-up prize was awarded to an invention designed to allow cetaceans to avoid gillnets and, if they do become trapped, to escape more easily.



Humpback whale, Málaga, Colombia. © WWF-Canon / Diego M. Garces

Whaling

- WWF has repeatedly called on the governments of Japan and Iceland to stop conducting commercial whaling under the guise of research.
- WWF continues to promote whale watching as a commercially viable business that offers an alternative to whaling for coastal economies.
- WWF continues to oppose commercial whaling until the governments of the world have brought whaling under international control, with a precautionary and conservation-based enforceable management and compliance system adhered to by all whaling nations.

3. Shipping strikes

• In Canada, WWF was instrumental in a 2003 change to shipping lanes in the Bay of Fundy to protect North Atlantic right whales from collisions with ships in this feeding ground. Over the last decade, ship collisions have been responsible for nearly half of all known North Atlantic right whale deaths. The change, which is the first time that shipping lanes have been altered to protect an endangered species, will reduce the risk of collisions by 80%.

4. Habitat protection and restoration

- In Russia, WWF is campaigning against extensive, harmful oil and gas developments in the sole feeding grounds for Western Pacific gray whales, around Sakhalin Island off the country's east coast. The building of platforms and pipelines in the area would cause noise disturbance to the whales, physical damage to their feeding grounds, and expose them to greater risk of ship strikes, oil spills, and gas releases. One success was to stop seismic surveys that were displacing the whales from their feeding grounds.
- In Spain, WWF has campaigned against military manoeuvres at sea that disturb cetaceans through the use of low frequency sonar.
- In the South Pacific, WWF has been campaigning for a network of whale sanctuaries since 2001. We are working with South Pacific governments that have already established whale sanctuaries in their Exclusive Economic Zones (EEZs) to move forward with their management.
- In India, Pakistan, and China, WWF is working to reduce pollution and restore freshwater habitats to help save river dolphins and porpoises. For example in India, WWF is encouraging local communities in the upper Ganges River to use natural fertilizers; not to dispose of domestic sewerage in the river; and to reforest the river bank. In 2004, a joint WWF-HSBC project in China led to the regular opening of a dyke at Tian'e-zhou Oxbow Lake,

reconnecting it to the Yangtze River after 50 years. This has boosted water levels and quality in the lake, home to the Yangtze finless porpoise.

- WWF additionally has several large-scale initiatives and projects to address freshwater issues that also affect river dolphins. These include the Dams Initiative, which works to ensure that the benefits provided by dams are not overtaken by negative environmental and social impacts; agriculture initiatives, which work to reduce water use and pollution caused by agriculture; and the promotion of Integrated River Basin Management, which aims to maintain or restore functioning freshwater ecosystems and promote sustainable use of water resources in the world's major river basins.
- WWF also works to phase out and ban the most hazardous industrial chemicals and pesticides, which contaminate people and wildlife including cetaceans, and to identify and promote safe, effective, and affordable alternatives.

5. Research

- In India, Pakistan, Nepal, Colombia, and Venezuela, WWF has helped carry out surveys of river dolphin populations and threats. WWF is also involved in Irrawaddy dolphin research in the Mekong River in Cambodia and Lao PDR.
- WWF is also involved in research on different marine cetacean species, including the Franciscana dolphin in **Argentina**, Indo-Pacific humpback dolphins in **Hong Kong**, bottlenose and bowhead whales in **Canada**, humpback whales in the **Philippines and Colombia**, and population surveys in various countries.
- WWF has also performed groundbreaking analysis of the risks posed to whales by chemicals such as DDT, PCBs, dioxins, heavy metals, and plastics.

6. Trade

• In 2004, WWF and TRAFFIC — operated as a joint programme of WWF and IUCN-The World Conservation Union — supported a ban on the international live trade of Irrawaddy dolphins for oceanaria by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

7. Awareness raising

 WWF works in many countries around the world to raise awareness of cetaceans and their conservation. For example, an education programme in New Zealand visits schools and communities to provide information on the threats facing Maui's dolphins and what local communities can do to protect the species.

Find out more...

This fact sheet has been designed to give a broad overview of some of the threats faced by cetaceans, and to give examples of WWF and TRAFFIC's work and solutions on the ground. For more detailed information on species, WWF, TRAFFIC, and the work we do, please visit **www.panda.org/species** and **www.traffic.org**

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