



# Earth Facts

FROM THE JAMAICA ENVIRONMENT TRUST

## MARINE MAMMALS GIANTS OF THE CARIBBEAN SEA

Have you ever seen a whale or dolphin and wondered about them? What do they eat, do they live in Jamaica and why are they called marine mammals? This issue of Earth Facts will answer some basic questions about marine mammals.



DR. ROBERT KENNEY

### WHAT IS A MARINE MAMMAL?

Marine mammals make the sea their home for most or part of their lives. Using this definition, marine mammals not only include whales, dolphins, manatees, seals and sea lions, but also polar bears. Just like land mammals, marine mammals are warm-blooded, breathe air and their young drink milk. However, there are some marine mammals that do not live in the sea but instead live in rivers and landlocked bodies of water, such as lakes. They are still considered marine mammals because they are very closely related to other mammals that do live in the sea.

### DO MARINE MAMMALS LIVE IN JAMAICA?

There are 28 species of marine mammal that spend part of their lives in Jamaican waters. These include Bottlenose Dolphins (*Tursiops truncatus*), Killer Whales (*Orcinus orca*), Pygmy Sperm Whales (*Kogia breviceps*) and the West Indian Manatee (*Trichechus manatus*). Not all of these species live in Jamaican waters all the time, but instead spend winters in our warm waters or just pass through en route to other countries. Very little is known about the species, their population sizes and ranges within Jamaica. It is therefore very important that more research be done on the species found in Jamaica.

## HOW MANY TYPES OF MARINE MAMMALS ARE THERE?

There are five classifications of marine mammals but only two of those classifications may be found in Jamaica. The five classifications are the cetaceans, the pinnipeds, the sirenians, the marine mustelids and the Polar Bear. Only cetaceans and sirenians can be found in Jamaica.

### CETACEANS

Cetaceans belong to the order Cetacea. These include whales, dolphins and porpoises. There are over 70 species of whales, dolphins and porpoises found throughout the world. Cetaceans are further divided into two types: the mysticetes and the odontocetes. The mysticetes are the baleen whales, like the humpback whale and fin whale. These whales do not have teeth but instead have baleen plates. Baleen plates act as sieves to

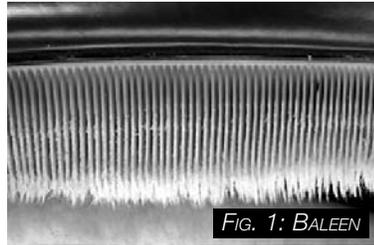


FIG. 1: BALEEN

© NOAA



FIG. 2: MYSTICETES

MINKE WHALE

HUMPBACK WHALE

© WHALE CENTRE OF NEW ENGLAND



FIG. 3: ODONTOCETES

ATLANTIC SPOTTED DOLPHIN

COMMON DOLPHIN

© N. ROSE

strain the water they take in when feeding, leaving in their mouths only the small prey, such as krill, that they feed on. Odontocetes, however, are the toothed whales like dolphins and porpoises. Any cetacean with teeth is considered a toothed whale. These whales tend to be smaller than mysticetes and feed on a wide variety of organisms from fish, crabs, squid and even other marine mammals.

### SIRENIANS

Sirenians consist of manatees, which can be found in Jamaica, and dugongs, which are found along the coasts of the western Pacific and Indian oceans. Both manatees and dugongs are herbivorous - they only eat plants such as sea-grass. The type of manatee found in Jamaica is the West Indian Manatee and these manatees are able to move between fresh and salt water. They move very slowly and have large, thick bodies. Manatees can be found in Jamaica in St. Thomas, St. Catherine, Clarendon, Manchester, St. Elizabeth, Westmoreland, Hanover, St. Mary and Trelawny. It is thought that there are less than 100 manatees in Jamaica. In Jamaica, manatees are protected under the Wildlife Protection Act. Major threats are planned or incidental entanglement in gillnets by fishermen.



FIG. 4: SIRENIAN

WEST INDIAN MANATEE

© NATIONAL ENVIRONMENT AND PLANNING AGENCY

### OTHER MARINE MAMMALS

The other types of marine mammals are not found in Jamaica. These include the pinnipeds, which are seals and sea lions; the marine mustelids, which are the otters; and the Polar Bear. There used to be a seal, the Caribbean Monk Seal (*Monachus tropicalis*) that lived in the Caribbean. Its last reported sighting was in 1952 but it was formally declared extinct in 1996. Pinnipeds spend most of their time in the sea but still come on shore, or on ice

## MARINE MAMMALS THAT MAY BE FOUND IN JAMAICAN WATERS

Atlantic Spotted Dolphin (*Stenella frontalis*) †  
 Blainville's Beaked Whale (*Mesoplodon densirostris*) †  
 Bottlenose Dolphin (*Tursiops truncatus*) †  
 Bryde's Whale (*Balaenoptera brydei*) †  
 Clymene Dolphin (*Stenella clymene*) †  
 Common Dolphin (*Delphinus delphis / capensis*) ‡  
 Cuvier's Beaked Whale (*Ziphius cavirostris*) †  
 Dwarf Sperm Whale (*Kogia simus*) ‡  
 False Killer Whale (*Pseudorca crassidens*) ‡  
 Fin Whale (*Balaenoptera physalus*) §  
 Fraser's Dolphin (*Lagenodelphis hosei*) †  
 Gervais' Beaked Whale (*Mesoplodon europaeus*) †  
 Humpback Whale (*Megaptera novaeangliae*) ¥  
 Killer Whale (*Orcinus orca*) ‡  
 Melon-headed whale (*Peponocephala electra*) ‡  
 Minke Whale (*Balaenoptera acutorostrata*) ¢

Pantropical Spotted Dolphin (*Stenella attenuata*) ¢  
 Pygmy Killer Whale (*Feresa attenuata*) †  
 Pygmy Sperm Whale (*Kogia breviceps*) ‡  
 Risso's Dolphin (*Grampus griseus*) †  
 Rough-toothed Dolphin (*Steno bredanensis*) †  
 Sei Whale (*Balaenoptera borealis*) §  
 Short-finned Pilot Whale (*Globicephala macrorhynchus*) ¢  
 Sperm Whale (*Physeter macrocephalus*) ¥  
 Spinner Dolphin (*Stenella longirostris*) ¢  
 Striped Dolphin (*Stenella coeruleoalba*) ¢  
 True's Beaked Whale (*Mesoplodon mirus*) †  
 West Indian Manatee (*Trichechus manatus*) ¥

† Data Deficient

§ Endangered

‡ Least Concern

¥ Vulnerable

¢ Lower Risk

to rest, give birth and take care of their young. Therefore, unlike whales, dolphins and manatees they still spend some time on land.

The sea and marine otters are found in the North Pacific Ocean and the west coast of South America, respectively. Sea otters feed on large-bodied prey which provide them with the greatest amount of calories. These include lobster, sea urchins and abalone. Marine otters, however, feed on shellfish, fish and freshwater shrimp.



FIG. 5: MUSTELID SEA OTTER

© NOAA

The Polar Bear is the only marine species of bear and is therefore considered a marine mammal. They have waterproof fur, are excellent swimmers and feed primarily on seals, but have also been known to attack whales and even reindeers.

## HOW DO MARINE MAMMALS COMMUNICATE?

Marine mammals rely on sound to communicate with each other. Sound can travel for hundreds of kilometres. Different marine mammals, however, use sound differently. Dolphins use clicks and whistles to communicate as well as identify objects underwater. Dolphins use clicks when echolocating (finding objects using sound). These clicks allow the animal to orient itself to its surroundings and locate objects by using the returning sound waves or echoes as they bounce back to the dolphin. Male Humpback Whales can sing for hours at a time and it is thought that they do this in order to attract females and also to assert their dominance over other males. Sound is also important on land since seal and sea lions use it to find pups on crowded beaches and when males threaten each other.

## WHAT THREATENS THEM?

The primary threat to marine mammals is humans. Many are threatened by whaling, which occurs in countries such as St. Vincent and the Grenadines, Japan and Norway. In addition to threatening wild populations, hunting methods are extremely inefficient and inhumane. And while commercial hunting of whales was banned in 1982, pro-whaling countries are working hard to overturn the moratorium. Seals continue to be hunted in Canada where an annual seal hunt takes place. The greatest threat to marine mammals, however, is fishing. Many marine mammals are caught in fishing gear each year and become trapped in



© HUMANE SOCIETY OF THE UNITED STATES

nets. Fishermen may also kill them either for bait or because they see them as competition for fish stocks. Marine mammals are also captured from the wild to stock captive dolphin facilities, in the absence of proper stock and populations assessments in many parts of the world. Another threat to these stocks is the practice of drive fisheries. Drive fisheries occur in countries such as Japan and the Solomon Islands. In these fisheries fishermen herd cetaceans onto shore where some are captured to be used in dolphin facilities and the rest are killed either for food, fertilizer or predator control.

## THREATS TO MARINE MAMMALS

- Whaling
- Entanglement in fishing gear
- Capture for use in captive facilities
- Pollution
- Boat traffic
- Noise
- Habitat degradation
- Drive fisheries

## HOW CAN WE PROTECT THEM?

There are many ways that we can protect marine mammals in Jamaican waters. These include:

- Lobby the government to ensure that no new captive dolphin facilities are opened in Jamaica.
- Lobby the government to ensure that dolphins in Jamaican waters are not captured for public display.
- Lobby the government to ensure fishing gear used in Jamaican waters is not harmful to marine mammals.
- Do not visit captive facilities in Jamaica.
- Do not degrade marine mammal habitat and feeding grounds.
- Urge Jamaican officials to work with other countries in the Caribbean to protect our shared regional resources, like whales and dolphins.
- Learn more about marine mammals and join organizations that are interested in protecting marine mammals.

## SOURCES

- Humane Society of the United States. [http://www.hsus.org/marine\\_mammals/what\\_are\\_the\\_issues/drive\\_fisheries.html](http://www.hsus.org/marine_mammals/what_are_the_issues/drive_fisheries.html)
- National Audubon Society. 2002. *Guide to Marine Mammals of the World*. Chanticleer Press.
- The Monachus Guardian. <http://www.monachus.org/profiles/cariseal.htm>
- The National Environment and Planning Agency. <http://www.nrca.org/yourenv/biodiversity/Species/manatee.htm>
- The National Marine Mammal Laboratory's Education Website. <http://nmml.afsc.noaa.gov/education/cetaceans/groupsofcetaceans.htm>
- Wynne, K & M. Schwartz. 1999. *Marine Mammals and Turtles of the U.S. Atlantic & Gulf of Mexico*.



**JAMAICA ENVIRONMENT TRUST**

**EARTH HOUSE**

11 Waterloo Road, Kingston 10, Jamaica

Phone : (876) 960-3693 • Fax: (876) 926-0212

Email: [jamentrust@cwjamaica.com](mailto:jamentrust@cwjamaica.com)

Website: [www.jamentrust.org](http://www.jamentrust.org)



**EARTH HOUSE**

11 Waterloo Road  
Kingston 10, Jamaica