



# MYSTIC AQUARIUM



**Beluga Whale**  
*(Delphinapterus leucas)*

**Size:** Although males reaching close to 3500 pounds have been documented, the estimated average range is between 12-15 feet (3.7-4.6m) and 1600-2500 pounds in weight. Females are slightly smaller than the males with an average length of 11-13 feet and weight of 1100-2000 pounds. Calves at birth are approximately 5 feet in length and weigh about 150 pounds.

**Appearance:** Born a light brown to grey, the beluga's white color does not appear until they reach maturity. A thick blubber layer creates a rounded body center which tapers towards the head and tail. On their distinctive head, belugas have a bulging melon located above the upper jaw and in front of the blowhole. They are able to change the shape of their melon at will which is used to create a variety of vocalizations. Beluga whales lack a dorsal fin on their back but instead have a dorsal ridge which assists in breaking ice.

**Range/Distribution:** Beluga whales are found solely in the Northern Hemisphere and inhabit the cold waters of the Arctic Ocean and the subarctic regions. Belugas can be found in areas of Russia, Canada, Norway, Greenland, and Alaska.

**Habitat:** Belugas can easily navigate shallow river mouths, enter estuaries (an area where fresh and salt water meet and mix) during molting seasons or dive to depths of 2600ft. However, they will typically follow the pack ice as it melts and freezes throughout the seasons.

**Prey:** Depending on prey availability, season, and the region, belugas have a varied diet that includes fish, squid, octopus, shrimp, crab, marine worms and large zooplankton. The gathered lips of the beluga allow the animal to spit a burst of water to uncover and suction prey. The peg like teeth of the beluga is used to capture prey to swallow whole, not to chew.

**Predators:** Natural predators of beluga whales include orcas (killer whales) and polar bears but the greatest threat is human impact.

**Mating Behaviors:** A female beluga whale will become sexually mature around 5-7 years of age while a male is a little later at 8-9 years. Most breeding occurs from April to May but may start as early as February and end as late as June in some regions. Females are pregnant for approximately 15-16 months, with most calving occurring in late spring and early summer. The young beluga will be nursed for 2 years and a female will give birth every 2-4 years.

**Conservation Status:** Least Concern (Cook Inlet population – Critically Endangered)

**Threats:** The largest threat to beluga whale populations is due to human impact which includes competition with fisheries, oil and gas development, offshore drilling, pollution and climate change. In some areas, chemical contaminants have increased bacterial infection, parasites, ulcers, and cancer.

**What's being done in Zoos and Aquariums?** The study of belugas in zoological parks and aquariums has increased our understanding of factors threatening the sustainability of the species in the wild, so that steps can be taken to conservation and protect these animals. This research increases understanding of belugas' biology, physiology and disease and creates a baseline to better understand issues threatening belugas in oceans and rivers. Hearing and bioacoustics research help scientists understand responses, thresholds and effects of underwater sound levels on these animals. Other research helps explain how beluga whales cope with the increasing pathogens and changing water temperatures in oceans and rivers. Additional studies address nutritional needs and metabolic rates of belugas that face increasing challenges for food sources.

The belugas cared for at Mystic Aquarium have cooperated in a number of studies, and new studies are initiated each year. Studies conducted since 2005 include artificial insemination, effects of the exposure of blood to organochlorine contaminants, testing of EKG and ultrasound tags for use on wild cetaceans, beluga cognition, metabolic rate determination, immune system function, body condition and others.

**Fun Facts:**

- The beluga whale is one of only a few whales that can swim backwards.
- Beluga whales are the only whale with a flexible neck so that it can turn its head from side to side.
- Beluga whales are a close relative of the narwhal.
- The maximum dive record for a beluga whale is 25 minutes and the deepest record dive was to 3300 feet.
- Beluga caviar DOES NOT come from the beluga whale but sturgeon.
- Beluga whales are nicknamed the “canary of the sea” because of the wide range of vocalizations that they are able to produce.