**Beluga – The White Whale**

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Whenever I am down or free, I immediately skim through the pictures of these beautiful creatures of the ocean called **Belugas** (Delphinapterus leucas). The pictures of them immediately cheer me up. They are the happy chaps of the ocean and have an attitude so similar to our home pets.

Belugas are one of the marine mammals called *white whales*. Like all the toothed whales, they are humongous deep-divers. They breathe through blow-holes and make a huge noise. A matured whale looks completely white and males are significantly bigger than the females. The distinct white color of belugas is acquired as an evolutionary feature.

Belugas lack the traditional *dorsal fin*, like the one sharks have in the back. However, they have the ability to rotate their neck around their body like humans, since their neck vertebrae are not fused together.

**Social animals**

A male beluga can grow to a length of 5.5 m and weighs 1600 kg. They are extremely social and live in groups. A group of belugas, typically 6 to 100, is called a 'pod.' Unlike other animals, members of a pod are mostly made up of *non-relative* belugas, as identified from recent researches. Pods made of non-family whales make them stronger as the individual members use their collective knowledge about the ecosystem to their benefit.

Belugas are extremely chatty and have earned the name 'the canary of the sea.' They produce many different sounds like chirps, clicks, clangs, whistles, and squeals.

Belugas have a distinct physical feature like a hump on the head which is called 'Melon.' The movement of bones inside the melon produce the necessary sounds for vocalization and echo-location. The bone vibration gets amplified by the squishy melon fluid, and the sound is transmitted through the head. Upon reflecting from the surfaces or sheltering-preys, the signal is received through the lower jaw, and the brain maps a clear vision of the surroundings.

Belugas' vocalizations are unique to a pod or a community of pods in a specific geographical location-- just like we have regional languages. They learn the vocalization from their mother and other non-family members during socializing, like a baby learn to babble seeing their elders talking. The communication knowledge and hunting ground locations are passed down to the pod members, as they tend to have a life span of 35-50 years.

Presently, there are over 1,50,000 Belugas in the ocean, and the population is alarmingly unstable.

**Adaptation to Arctic life**

Belugas are warm-blooded animals living in freezing Arctic waters around the north pole. The thick fat deposit (10-15 cm) around the body called ‘blubber’ helps them to remain warm. It, in fact, constitutes 40% of its body weight. Belugas feed on various sea species like salmons, herrings, arctic cods, crabs, worms, snails, shrimps, and squids. They dive deep to hunt squids and migrate to the estuaries to feed on salmons.

 Their white colour helps them camouflage neatly under the arctic ice sheets to avoid predators like the orcas and polar bears. The absence of the dorsal fin also aids while hiding beneath the ice. Both belugas and polar bears are not seen anywhere except in the northern arctic seas.

**Migration and spa cleansing**

During cold winters, belugas migrate to the lower latitudes having warm waters, especially closer to the estuaries where ocean and river meet. They also swim sometimes into the freshwater as they migrate. Belugas migration event is considered as one of the most spectacular migrations in the world. Every year almost 2000 belugas migrate to the Cunningham Inlet (Canada) during the summer. Some even migrate to a distance of 6000 km in a year (about half of the Earth’s diameter). They swim in large herd in the shallow clear waters. They generally nurse or have calves or socialize during the summer migration.

Belugas perform an interesting ritual at the time of migration. During high-tides, belugas ride the shallow waters where they rub their skin on the sand and mud. They repeatedly splash their bodies against the pebbles and other small rocks. They shed their old skins (moulting) and enjoy having a thorough spa cleansing. In the winter times during foraging (search for food resources in the wild), belugas are covered with saltwater parasites and algae, which turns their white coat to pale-yellow color. Spa cleaning activity is necessary for them to get rid-off the parasites and to reacquire the milky white coat.

**Reproduction and Feeding**

Belugas are mammals. Beluga gestation lasts for more than 12 months, and it produces a single calf every three years. Elderly females are valued more in a pod as the belugas society is matriarchal. Their knowledge is much needed for the survival of the pod.

A beluga calf is not white in color when it is born. It remains dark grey for almost 5 to 12 years before turning white. Belugas produce huge loads of milk, and the calves suckle for almost 2 years. The milk is fat rich and contains 3000 calories per liter. Family nursing is very common in belugas society. The chances of a calf's survival increase when other female members of the pod babysit for a parent regularly.

Belugas are pack hunters. They travel in a group and encircle their prey. Later they take turns to feed on the trapped fishes. Thanks to their echolocation capabilities, they never go hungry. They also dive very deep, almost to 1000 m in the sea, for hunting prey. Although they have teeth, they only use them to grab the food and swallow it as a whole.

**Climate changes, and dumping wastes**

Killer whales having a larger dorsal fin cannot sail beneath the ice sheet for a long time to hunt the belugas. They need to surface regularly to breathe. A covered ice sheet offers hindrance to the killer whales, and hence they leave the belugas in peace. Due to climate changes, arctic ice is melting. When there is no ice, belugas are exposed to the ocean and terrestrial predators. They have no more covers to hide and are killed easily.

Belugas can hold their breath for only between 15-20 minutes. They need to resurface regularly to breathe. Polar bears spot the small openings in the land surface that belugas use to resurface and dive-in to hunt them. A polar bear weighs about 180 kg but can easily hunt and drag a 1000 kg beluga onto the land surface.

Besides, melting ice releases a variety of parasites which severely affects the beluga population. They go blind, suffer from lung failure, get skin-related diseases and eventually die. Too many chemical dumps seen in the ocean also affect the belugas’ health indirectly. Think of tons of ice melting in the arctic and the release of frozen parasites into the water bodies. It will be catastrophic to the entire arctic ecology. Climate change is a real threat to many species!

**Illegal displays, and boat hits**

Belugas' facial bone structure gives them a smiley face. That does not mean that they are always happy. Entertainment industries like the sea worlds and aquariums capture hundreds of these social creatures for public displays. Most of them are killed during the transport process itself. Many illegally captured belugas are planned to be released into the wild in a progressive way. They are initially moved into a sanctuary where they have a controlled open space to wander and learn to forage. Once they learn to be independent, they will be released into the world.

They also get hit by military vessels and oil containers which regularly move in the Arctic waters. During the early days of the industrial revolution, belugas were killed for their skin (at least by 2000 every year in the 1950s) which were made into belts and bullet-proof vests. Currently, the Canadian government is trying to conserve them.

BOX: Belugas and humans

They are a very peaceful species and show no aggression to humans. In fact, a Beluga named Mila saved a diver named Yang Yun. She got paralyzed during a dive into the deep tanks of belugas in Harbin, China. The whale sensed the diver’s distress and grabbed her legs. Mila pushed Yun using her nose to the surface quickly, thereby saving her life.

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**Noisy ocean floor**

Humans have polluted the ocean floor with a huge noise level in recent days in the name of oil exploration, military navigation, and cargo shipping. The rising temperature in the arctic melts the ice caps, thereby creating further noises from ice crackles and ice ridges. Recent surveys report that the belugas are exposed to almost 85% of the time to an increased noise level around the 10-1000 Hz frequency range (the vocalization frequencies for calling in beluga society) just by ships. These noises travel even to greater depths in the ocean. Whales are extremely stressed due to these noises. They make them disoriented, fail to guide or nurture calves, miss their feeding ground migration, and get more susceptible to other predators.

**Sanctuaries**

Many researchers, volunteers, and activists are helping to enrich these poor creatures' lives. The Sea Life Trust in the Vestmannaeyjar islands off the south coast of Iceland has opened a beluga sanctuary. Currently, two white whales named Little White and Little Grey are inhabiting the sanctuary. They were transported through an aircraft which traveled for 6000 miles from the Changfeng Ocean World in Shanghai to reach this place in 30 hours. Let's hope the remaining goodness in humans will strive hard to recover the population of Belugas and other whales.