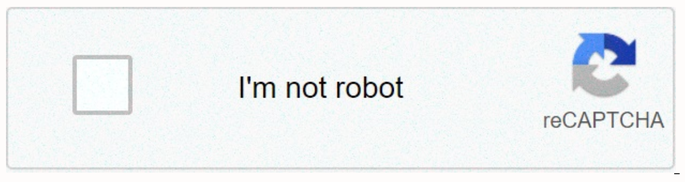

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Do fin whales have special adaptive cruises

Whales are an incredible species that evolved from creatures that inhabit the earth millions of years ago (through ancestral blood lines) to the marine mammals we know today. Throughout their evolution, the whales made many adaptations to their ocean lifestyle so that they could survive and thrive in the underwater world. To help them adapt to ocean whales developed echolocation, thick layers of fat, modified lungs, better hearing and larger arteries, among other things, to ensure their survival and prosperity. Blubber Blubber plays an extremely important role in whale life. Having fat allows whales to maintain their body heat and survive in extremely cold environments that would otherwise be uninhabitable to them. Some whales may also use their fat for energy during times when food is scarce or during long journeys. In fact, during migration periods, the blue whale will be without food for up to four months while migrating and lives mainly from body fat and calories stored within its fat. Echolocation In addition to having toothed ears whales also use a method known as echolocation to help them navigate the ocean, find food and avoid potential threats. Using toothed whales of echolocation can determine many factors about its environment, such as how far an object is, how fast it is moving, whether it is above or below them, in what direction it is traveling, how large it is and whether it is a hollow or solid object. Echolocation is extremely useful in areas where visibility is low and helps whales avoid colliding with other objects when they can't see what's around them. Lungs To survive in the ocean, the whales had to adapt their lungs so they could breathe easily and hold their breath for long periods of time when submerged submerged. Although whales are not born with massively large lungs, they are able to exchange up to 90% of the oxygen they inhale compared to humans who only exchange 10% to 15%. Larger red blood cells allow whales to transfer oxygen more effectively than humans and other terrestrial mammals, and when submerged under water their diving reflex allows them to distribute oxygen and blood to vital organs, restricting it in other non-essential areas. In addition to all these whales are able to fill your lungs with oxygen in just 2 seconds. Conscious breathing Because whales are mammals breathe oxygen and because they breathe oxygen they must come to the surface of the water to breathe. Because of this fact, whales are never able to sleep completely because if they did, there is a good chance they will drown. To combat this problem when a whale rest, she enters a semiconscious state and half of her brain shuts down, but the other half of the brain remains conscious allowing the whale to get up quickly to get oxygen and and when he needs it. During rest periods, whales can often be found around (resting motionless) on the surface of the water so they can easily get oxygen whenever needed. 4 Chamber heart & arteries A large part of a whales' ability to survive in the ocean has to do with their four-chamber heart and large arteries that allow blood to quickly pass through the body and move to vital organs effectively. The blue whale, for example, has a heart that can weigh the size of a small car (1,300 pounds) and its arteries are so large that a human could crawl through them. Excellent hearing One of the most important senses a whale has is its sense of hearing. Whales have a very acute sense of hearing and can detect sounds made by other whales from miles away, which can be important for mating or locating other whales in a pod. Having acute hearing when submerged is also extremely important because sound travels 4 times faster in the water than on earth, and those who have developed good underwater hearing have the best chances of survival, especially species that have to worry about potential predators. Survival-based adaptations (against predators) Throughout evolution, whales (or rather their ancestors) have evolved and adapted their physiology of living and walking ashore to live only in the ocean. These adaptations have played a huge role in their survival in the ocean and, in particular, against other ocean animals that could harm them. Not only did the whales have had to adapt to a purely aquatic lifestyle, but they also had to survive against predators that already lived in the ocean well before them. So how did they do it? There are a number of specific features or adaptations that whales have developed as a deterrent or way to protect themselves from predators. As many people know some species of whales have very thick layers of fat. This fat not only keeps whales warm, but also acts as a protective barrier against smaller predators such as sharks. In fact, some whales may have fat that is up to 11 inches thick! Another adaptation that whales have developed to protect themselves is related to size. These large marine mammals are often passed through numerous would be predators because they are simply too large to be successfully attacked and therefore trying to injure and kill a large whale would probably be a huge waste of time and energy. Speed is also a vital component for your survival. When threatened, some whales are able to reach speeds of 25 to 30 mph for short bursts in order to escape potential predators or threats. in the end, smaller species of whales and other cetaceans are known to form pods or large communities that increase social interaction between marine mammals and help deter large predators or at least minimize the chance of any animal being harmed, since they all belong to one Although large whales (particularly those belonging to the baleen whale sub-order) tend to live lonelier lives and are more likely to travel alone or in small temporary capsules. Unlike smaller species, these whales have a much lower risk of being attacked by a predator and therefore do not need to rely on large pods or groups for protection. While bringing joy and boiling to the vast and diverse ecosystem at sea, fin whales face many threats and challenges to their well-being and survival. In the mid-1900s, 725,000 fin whales in the southern hemisphere alone were killed by commercial whalers. Between 1947 and 1987, whalers killed about 46,000 fin whales in the North Pacific. Fortunately, between the 1970s and 1980s, commercial hunting was halted, making the devastating practice of whaling no longer a threat to these incredible giants. Although whaling is no longer a major threat to this species, some hunts exist in Greenland with whaling subsistence from the International Whaling Commission (IWC). The biggest threat facing the fin whale population comes from ship attacks. Other threats include the noise of the ocean that causes whales to run aground and ultimately die. In addition, entanglement in fishing equipment is also a threat to fin whales, as they can often become trapped in different gears, such as pots, gills and traps. Once tangled, whales can swim while dragging trapped equipment over long distances, occurring in compromised feeding, fatigue, serious injuries that lead to reproductive problems and, unfortunately, even death. Fin whale song 1Fin whales, Balaenoptera physalus (Linnaeus, 1758), like all rorquals (Family Balaenopteridae, the family that also includes blue whales, Bryde whales, humpback whales, minke whales and sei whales) these long and slender whales are much more aerodynamic than other large whales. They have a pointed snout, paired holes, and a wide, flat rostrum (top of the head). Its throat grooves, in addition to simplifying its shape, allow your throat area (called vent-rale cavum) to expand tremendously during feeding. This allows them to consume large amounts of water loaded with food that is then expelled through their baleen plates leaving the fish or krill to swallow. This efficient system allows the largest animals on Earth to feed on some of the smaller ones. His baleen plates are wide and short and his dorsal fin is falcate (curved). There are two subspecies of fin whales, Balaenoptera physalus:1. Northern whales (northern hemisphere), B. physalus physalus 2. from the southern (southern hemisphere), B. physalus quoyiWhale Evolution All members of the Cetacean Order (includes all whales; toothed and those using baleen) are believed to have evolved from terrestrial hoofmammals like cows, camels and sheep about 45 million years ago - that's it's is 40 million years before humans! Recent comparations of some milk protein genes (beta-casein and kappa-casein) confirmed this relationship and, strangely, suggested that the closest living relative of whales may be the hippopotamus. Throughout their evolution, cetaceans have become perfectly suitable for an aquatic environment. Cetaceans illustrate an example of adaptive radiation among mammals. Adaptive radiation allows mammals as a group to effectively inhabit land, sea and air by developing special adaptations necessary to survive in each of these environments. The members of the Cetacean Order have underwent a series of changes or adaptations necessary to get along well in their aquatic home: their bodies have become simplified for efficient movement through water; their forelimbs have been modified into fins that help them in the direction; their hind limbs disappeared almost completely; its tail has widened and consists of two large cases that propel them powerfully through the water, moving up and down as opposed to the side-by-side movement of the fish; in place of the hair they have developed a thick layer of fat called fat under the skin that isolates them from the cold and provides fluctuation; and the position of their norins changed to the top of their head creating a hole that allows them to effectively come to the surface in search of air. A whale's hole usually hits the surface before the rest of its body. Adaptation to the sea In addition, a number of other changes have occurred to help whales adapt to life at sea. Many of these changes are related to the position and abilities of their sensory organs, since life in water is not the same as life on earth. Sound and light travel differently in water than in the air. As a result, whales have developed unique ways of listening and seeing. Listening in particular is highly developed in whales, so much so that they depend on it in the same way that we rely on the combination of our eyes, ears and nose to understand the world around us. Many of the whale's sensory and reproductive organs have been internalized to reduce drag during swimming. For example, whales do not have external ears, but rely on an internal system of breasts and air bones to detect sounds. Changes in their reproductive and parental behaviors have also occurred, allowing whales to provide optimal care for their young in the cold and large ocean. Along with these differences, cetaceans have, however, many of the same physiological systems, such as circulatory, digestive, respiratory and nervous systems, such as terrestrial mammals from which they evolved. For example, many species have multi-chamber stomachs, although there is no obvious advantage in having this characteristic, while of cows in need of stomachs with four compartments to digest their fibrous fibrous plant matter. Fin whales Fin whales are the second largest animal after blue whales. Adult males measure up to 24 m in the northern hemisphere and 26.8 m in the southern hemisphere. Females are slightly larger than males. The weight for both sexes is between 45,360-63,500 kg. Fin whales are long, elegant and aerodynamic, with V-shaped heads that are flat on top. A single ridge extends from your hole to the tip of your podium (top of the head). There are a series of 56-100 folds or grooves at the bottom of your body extending from under your lower jaw to your navels. Fin whales are light gray to black-brown on their backs and sides. Two lighter colored chevrons begin the midline behind their holes and lean down toward their flukes (tails) on a diagonal upward to their dorsal fin, and sometimes recurring forward at the back. Its ventral side (under) fins and chance are white. Its lower jaw is gray or black on the left side and creamy white on the right side. This asymmetric coloring extends to your baleen plates as well and is inverted on your tongue. Fin whales have a prominent dorsal fin (curved) located far behind on their body. Its fins are small and tapered, and its chance is wide, pointed to the ends, and notched in the center. Like humpbacks, fin whales also communicate through vocalizations. World Range & HabitatGBIF network ~ OBIS distribution map ~ AquaMaps Fin whales are found in all the oceans of the world. They can migrate to subtropical waters for mating and childbirth during the winter months and to the colder areas of the Arctic and Antarctica for food during the summer months, although recent evidence suggests that fin whales may disperse in deep ocean waters during winter rather than migrating between winter and summer regions. Feeding behavior (Ecology)Fin whales, Balaenoptera physalus, feed mainly on small shrimp-like creatures called krill or euphausiids and educational fish. They have been observed circling schools of fish at high speed, rolling the fish into

compact balls and then turning on their right side to swallow the fish. Its color pattern, including its asymmetric color of the jaw, can somehow help in capturing such prey. They can consume up to 1,800 kg of food per day. Like baleen whales, fin whales have a series of overlapping plates with fringes of 262-473 hanging on each side of the upper jaw, where teeth could be located otherwise. These plates consist of a nail-like material called keratin that wears on thin hair at the ends within the near the tongue. The bale on the left side of the mouth has alternating bands of creamy-yellow and blue-gray color. On the right side, the front 1/3 section of the plates is all creamy-yellow. The plates can measure up to 76 cm long and 30 cm wide. During feeding, large volumes of water and food be taken to the mouth because the pleated grooves in the throat expand. As the mouth closes the water is expelled through the baleen plates, which hold the food inside near the tongue to be swallowed. Life historyAdult males reach sexual maturity at about 6-10 years of age. As in some other whale species, sexual maturity is achieved before physical maturity. Pregnancy is 12 months and calves are born at 3-year intervals. The length at birth is 5.5-6.5 m and the weight is 1,814 kg. Calves breastfeed for 6 months and are weaned when they are 10-12 m long. Conservation Status & IUCN Conservation Status Comments of Fin Whales| Conservation evidence| NOAAUNEP World Conservation Monitoring Center: Fin Whales| Check the Seafood Watch List for this speciesAssas are found most often alone, but groups of 3-7 individuals are common and larger groups can sometimes occur. The fin whale's blow is high and cone-shaped inverted. Its dive sequence is 5-8 strokes approximately 70 seconds away before a long dive. Fin whales do not raise their chance before the long dive, which can be as deep as 230 m.Their speed and their preference for the vastness of the open sea, gave them almost complete protection of the first whalers. With modern whaling methods, however, fin whales are easy victims. As the blue whales ran out, the whaling industry turned to smaller and still abundant fin whales. About 30,000 fin whales were slaughtered each year from 1935 to 1965. The International Whaling Commission (IWC) placed them under full protection in 1966, starting with the population of the North Pacific. It is estimated that the current populations are about 40,000 in the northern hemisphere and there may be up to 15,000-20,000 in the southern hemisphere, this is only a small percentage of the original population levels. Fin whales are classified as Threatened (EN A1d) on the IUCN Red List of Endangered Species:ENDANGERED A taxon is threatened when the best available evidence indicates that it meets any of criteria A to E for Threatened (see Section V), and is therefore considered to be facing a very high risk of extinction in the wild. References & Other ResearchACS fin whale Cetácean Technical Data Sheet – American Cetacean Society Cetacea – Whales, Dolphins and Porpoises Jefferson, T.A., S. Leatherwood, and M.A. Webber, guide to identification of FAO species, marine mammals of the world, Rome, FAO. 1993. 320 p. 587 figs. Usa. Fish & Wildlife Service Endangered SpeciesResearch Balaenoptera physalus @Barcode of Life ~ BioOne ~ Biodiversity Heritage Library ~ CITES ~ Cornell Library ~ Enciclopédia da Vida (EOL) ~ ESA Online Journals ~ FishBase ~ Florida Museum of Natural History Ichthyology Department ~ GBIF ~ Google Scholar ~ ITIS ~ IUCN RedList (Status Ameaçado) ~ Portal de Identificação de Espécies Marinhas ~ NCBI GenBank, etc.) ~ Ocean Biogeographic Biogeographic Sistema ~ PLOS ~ SIRIS ~ Tree of Life Web Project ~ Banco de dados de espécies UNEP-WCMC ~ WoRMSSearch for Fin Whales @Flickr ~ Google ~ Picsearch ~ Wikipedia ~ YouTube YouTube