

The Biggest Monsters That Ever Swam the Seas



Most people know that the blue whale is the biggest animal that ever lived. With a length of 30 metres and a weight of 170 tons, it is bigger than any dinosaur and almost as big as a passenger plane. The immense size of the blue and many other whale species mean that they have few natural predators. But it was not always so. There was a time, before the existence of whales, when gigantic sea monsters ruled the oceans - and some were even as big as the blue whale itself.

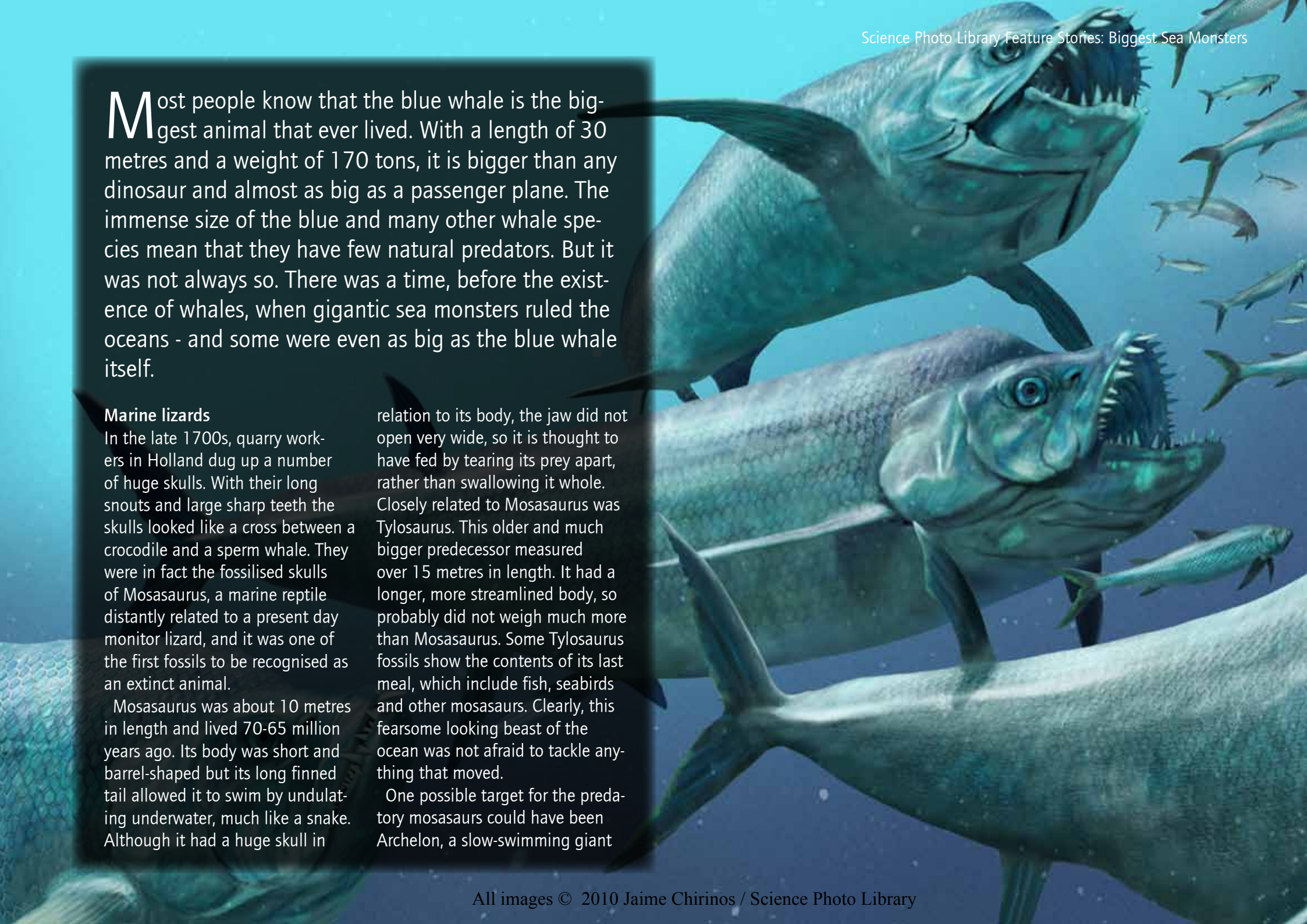
Marine lizards

In the late 1700s, quarry workers in Holland dug up a number of huge skulls. With their long snouts and large sharp teeth the skulls looked like a cross between a crocodile and a sperm whale. They were in fact the fossilised skulls of Mosasaurus, a marine reptile distantly related to a present day monitor lizard, and it was one of the first fossils to be recognised as an extinct animal.

Mosasaurus was about 10 metres in length and lived 70-65 million years ago. Its body was short and barrel-shaped but its long finned tail allowed it to swim by undulating underwater, much like a snake. Although it had a huge skull in

relation to its body, the jaw did not open very wide, so it is thought to have fed by tearing its prey apart, rather than swallowing it whole. Closely related to Mosasaurus was Tylosaurus. This older and much bigger predecessor measured over 15 metres in length. It had a longer, more streamlined body, so probably did not weigh much more than Mosasaurus. Some Tylosaurus fossils show the contents of its last meal, which include fish, seabirds and other mosasaurs. Clearly, this fearsome looking beast of the ocean was not afraid to tackle anything that moved.

One possible target for the predatory mosasaurs could have been Archelon, a slow-swimming giant





sea turtle. Fossilised specimens show that it grew over four metres long and had a flipper 'wingspan' of about five metres wide. A live specimen may easily have weighed over two tons. Like modern turtles, it most probably journeyed huge distances across the oceans feeding on a variety of food, such as jellyfish, fish and plants. Its large sharp beak suggested it was adept at cracking open the shells of ammonites and other shell creatures.

Giant Sea monsters

Long-necked sea monsters have been a favourite sea fable told by mariners for centuries. But they did exist at one time. The plesiosaurs were a large group of marine reptiles that thrived for over 130 million years until, like the vast majority of beasts that roamed the Earth at the time, they died out after the great Cretaceous-Tertiary (KT) extinction event 65 million years ago.

The plesiosaur named Styxosaurus had one of the longest necks of any marine reptile. In fact, half of its entire 12-metre-long body was neck. Scientists dispute why animals such as Styxosaurus evolved such long necks. Some think that a long neck can be useful for snatching individual fish using stealth and speed, much like a cormorant does when diving underwater. Others believe that a long neck was used to stretch down to the bottom of the sea floor and feed. One interesting aspect is the fact that Styxosaurus and the related Elasmosaur species contain stones in their bellies. It is thought that the stones were used to help grind hard to digest fish bones.

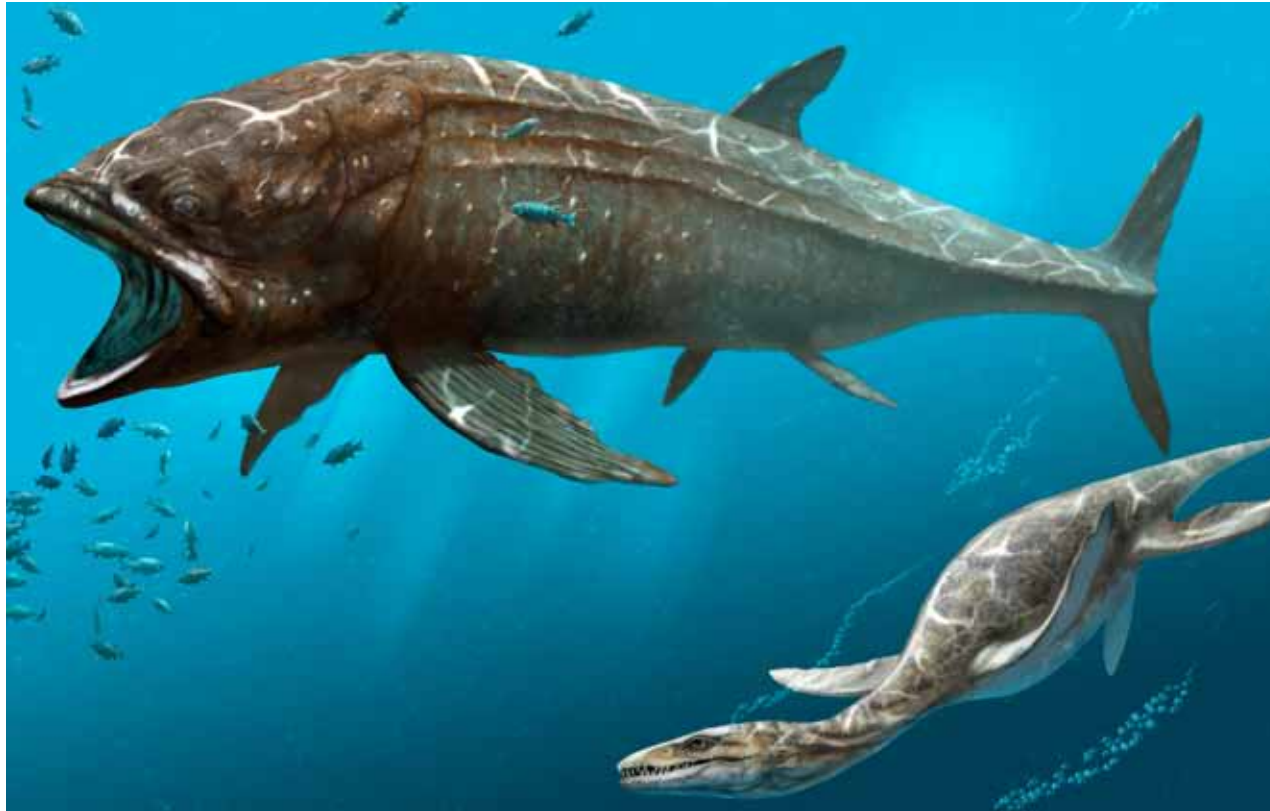
Pliosaurus were the shorter-necked cousins of the plesiosaurs. These predators, at the top of their food chain, grew to sizes of 15 metres or more. Pliosaur species such as Kronosaurus and Liopleurodon had huge heads that were

crammed full of razor-sharp teeth. They also had four huge limbs shaped like paddles and a short but strong tail, indicating they were powerful swimmers.

But by far the largest marine reptile ever discovered belongs to the Ichthyosaur family – a group of reptiles that closely resembled modern-day dolphins. Known as Shonisaurus, this gargantuan beast measured a staggering 21 metres long. It was so large that it took researchers three years to



remove it from its remote Canadian location. Shonisaurus lived 220 million years ago - bizarrely, it had no teeth. It probably fed by sucking in small sea creatures through its mouth.



By the time of the middle Jurassic era (176-161 million years ago) the oceans contained animals that had evolved to fill every niche. One of the first animals to evolve filter-feeding, the method of feeding for modern day whale sharks and basking

big as a blue whale. Others believe the estimate is more like 10 metres in length. Whatever its size, Leedsichthys will remain a curious fish whose method of feeding would later prove successful for some of the largest animals on Earth.

At a little over four metres long, Xiphactinus, a bony fish from the late Cretaceous (99-65 million years ago) was one of the biggest and most voracious predatory fish of that era. Its huge sharp fangs and streamlined body indicate that it was a fast swimmer that hunted down its prey with ruthless efficiency. Some fossil specimens show very large and whole fish prey inside Xiphactinus. The prey may still have been struggling inside Xiphactinus and ruptured its stomach, causing the bigger fish to die.

In the oceans 25 million years ago swam a predator so large and fearsome that even the biggest whales were defenceless. That animal was the biggest shark that ever lived, Megalodon.

Megalodon, like all sharks, had a skeleton made from cartilage - which does not preserve well. So the only remains are its fossilised teeth, which at 18-20 centimetres in length are

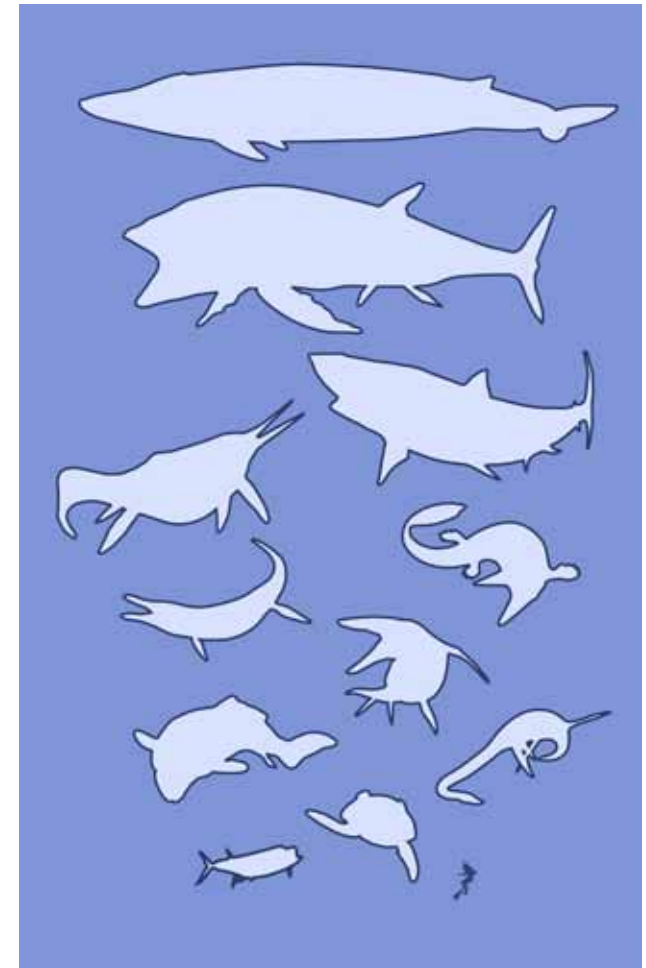
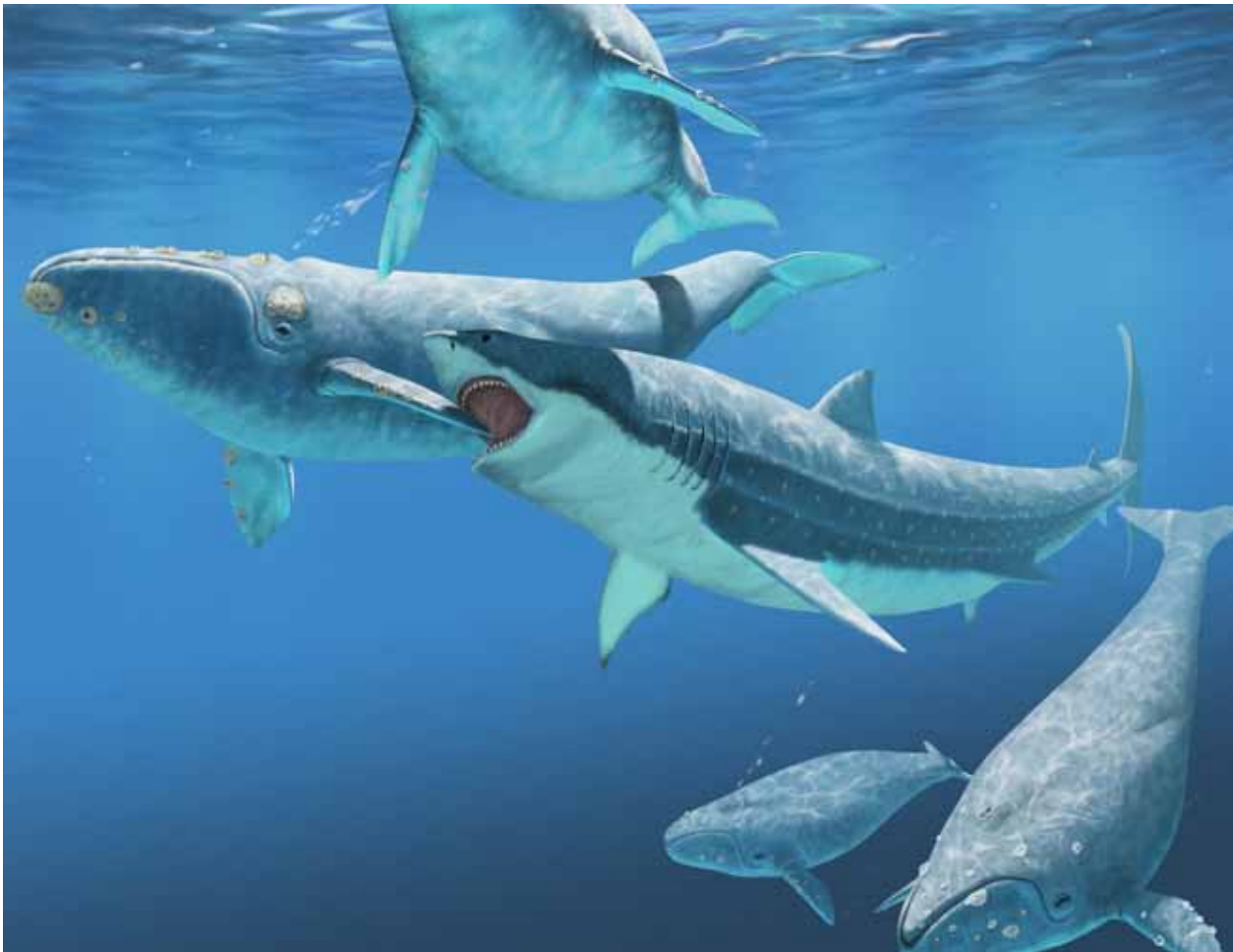
Because of its huge size, it did not swim very fast and had to rely on excellent eyesight to spot prey. Which probably explains why Shonisaurus had the largest eye of any animal that ever lived – the eye socket was over one one-metre in diameter.

Super-sized fish

The ancient seas of the late Devo-

nian (380-360 million years ago) were warm and abundant with sea creatures such as trilobites, early fish, sharks and ammonites. Preying in these waters was Dunkleosteus, a ten-metre-long predatory fish with an armour-plated head and pointed bones instead of teeth. Dunkleosteus was probably the top marine predator of its era.

sharks, is thought to be Leedsichthys. This large bony fish had specialised gills that were used to filter out plankton and other small aquatic creatures from the water. Its fossil remains have led to wild speculation about the size of its total body length. Some believe it was the biggest fish to ever swim, reaching 27 metres in length or more – easily as



larger than a human hand. Scientists using teeth from the Great White shark, its closest living relative, have estimated that Megalodon grew to a length of 20 metres from head to tail and weighed over 100 tons.

It is not known why this monster became extinct around 1.8 million years

ago. Some believe it could not adapt quickly enough to cooling climate change, others believe it ran out of the whale and squid prey that it needed to sustain its enormous size. One thing is certain however - Megalodon was the largest carnivore that ever lived – on land or in the water.

The prehistoric oceans were dangerous places, ruled by beasts that grew to immense sizes. Some were ruthless hunters, others were gentle giants. Though they died out long before human sailors first explored the oceans, their fossil remains prove that these creatures were the biggest monsters

that ever swam the seas.

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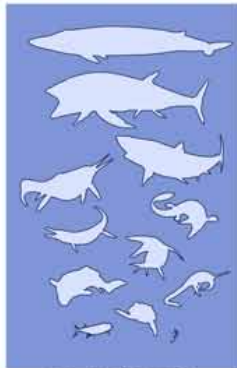
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