



## *Little Door to the Eleventh of December*

Today we will learn about sharks (which are amazing animals). So, let's start with this ancient species which has been around for around 450 million years – long before the first trees and the dinosaurs.

The earliest evidence for sharks is scales from the **Late Ordovician** period – 450 million years ago. It is still debated whether these belong to true sharks or shark-like animals.

420 million years ago chimaeras (cartilaginous fishes) split from the rest of the group.

410 million years ago, in the **Early Devonian**, the first shark-like teeth appear in the fossil record belonging to an ancient fish called *Doliodus problematicus*).

380 million years ago, Cladoselache evolved and while we might recognize them as sharks today, they may have been part of the Chimera branch (see image below).



Before this gets too long, let's talk about the **Golden Age of the sharks** which began 359 million years ago and ended 252 million years ago with a mass extinction that wiped out 96% of all marine life. The domination sharks enjoyed in the **Carboniferous Period** was thanks to a mass extinction in the **Devonian** that killed off 75% of all species on Earth. Bizarre sharks appeared during this period, such as *Helicoprion* with a spiral buzz saw-like bottom jaw. Overall, sharks endured 5 mass extinctions due to their great diversity and thus varying diets. The youngest species is the Hammerhead shark which first appeared 23 million years ago during the **Neogene** (for more information online see: [Natural History Museum](#)).

Unfortunately, these great animals are threatened by misinformation, so to clear it up: Sharks are not immune to cancer and their cartilage is ineffective against human cancer.