

1 **Ancient Sharks**

By James And Chris

2 **objectives**

- What are ancient sharks
- Types of ancient sharks
- Then and now
- Extinction theories
- Evolution

3 **Ancient Sharks**

- The earliest sharks came about 440 million years ago during the Paleozoic era

4

5 **Then and Now**

- 1 ■ Snout was typically shorter and rounded and jaws located at front
- 2 ■ Snout pointed, jaws underneath head

6 **Then and Now**

- 1 ■ Upper jaws were fixed to brain case at both front and back (amphistylic)
- 2 ■ only the back is fixed (hyostylic)

7 **Then and Now**

- 1 ■ The braincase olfactory lobes were smaller so they had a less developed sense of smell
- 2 ■ They are bigger = smell better

8 **Then and Now**

- 1 ■ The teeth of the early sharks were smooth edged and multi-cusped
- 2 ■ Single cusped

9 **Then and Now**

- 1 ■ The pectoral fins are triangular, broad, and rigid
- 2 ■ Flexible, narrow, and more agile

10 **Then and Now**

1

- Backbone had simple vertebrae that did not construct a single column

2

- Fewer more complex vertebrae that make up a spinal column

11 **Types (Megalodon)**

- The actual length of the megalodon is about 43 feet. The 60 foot sharks heard in rumors don't exist
- The jaws were six feet across
- Weighed about 48 tons
- The largest megalodon based on teeth was about 52'
- The largest great white ever recorded was only 23 ½' and only 2.3 tons

12 **Types (Megalodon)**

13 **Types (Frilled Shark)**

- Frilled shark

14 **Types (Cladoselache)**

- It's in the Family Lamnidae
- the same family as makos mackerel sharks and great whites.
- Is unique because it seems to not have claspers, which is a characteristic of both modern and ancient sharks.

15 **Types (Cladoselache)**

16 **Extinction theories**

- Extinction of the sharks came about due to environmental changes and shortage of habitat.
- Widespread cooling, and shifting of tectonic plates
- And a shrinking food supply was also a factor because of the same reasons listed above