

Learn about sharks: Become a Marine Biologist

Why we 3D Scan&Print



- Anatomy
- Software Engineering
- Materials Science

Read below about 8 different species of shark

Hexanchiformes

class → cartilaginous fishes

common name → hexanchiform sharks

entity classes → { animal taxon , fish taxon , orders }



kingdom → animals

name → hexanchiform sharks

number of members → 2

order → hexanchiform sharks

parent entity → cartilaginous fishes

phylum → chordates

scientific name → Hexanchiformes

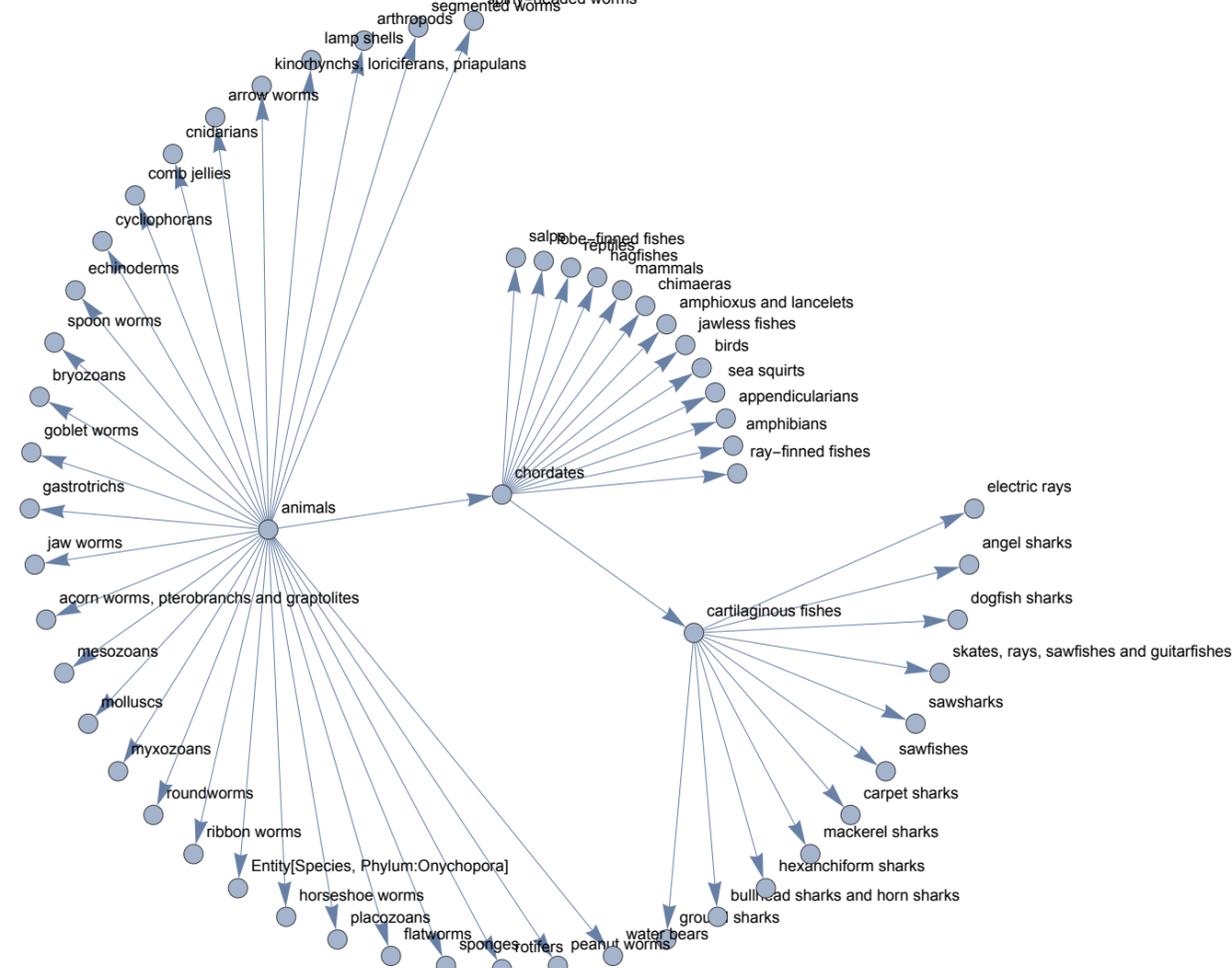
sibling taxa →

{ ground sharks , bullhead sharks and horn sharks , mackerel sharks , carpet sharks , sawfishes , sawsharks , skates, rays, sawfishes and guitarfishes , dogfish sharks , angel sharks , electric rays }

sub-entities → { frill sharks , cow sharks }

taxonomic level → orders

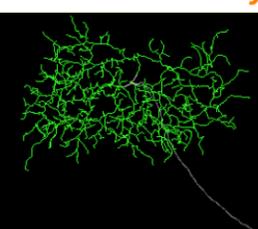
taxonomic sequence → { animals , chordates , cartilaginous fishes , hexanchiform sharks }



The Hexanchiformes are the order consisting of the most primitive types of sharks, and numbering just seven extant species. Fossil sharks that were apparently very similar to modern sevengill species are known from Jurassic specimens. Hexanchiform sharks have only one dorsal fin, either six or seven gill slits, and no nictitating membrane in the eyes. Shark teeth similar to those modern hexanchids are known from Devonian deposits in Antarctica and Australia, as well as Permian deposits in Japan. If these are in fact hexanchids, this may be the only extant order of elasmobranchs to have survived after the Permian extinction (and by extension, the oldest extant order of elasmobranchs



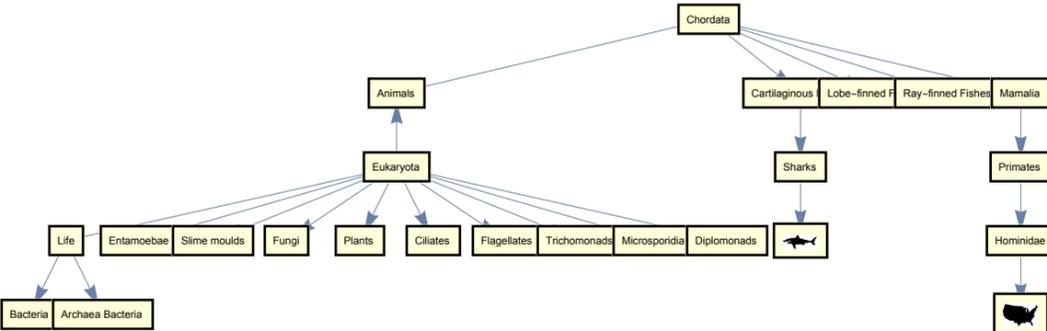
Neural Anatomy and Vision



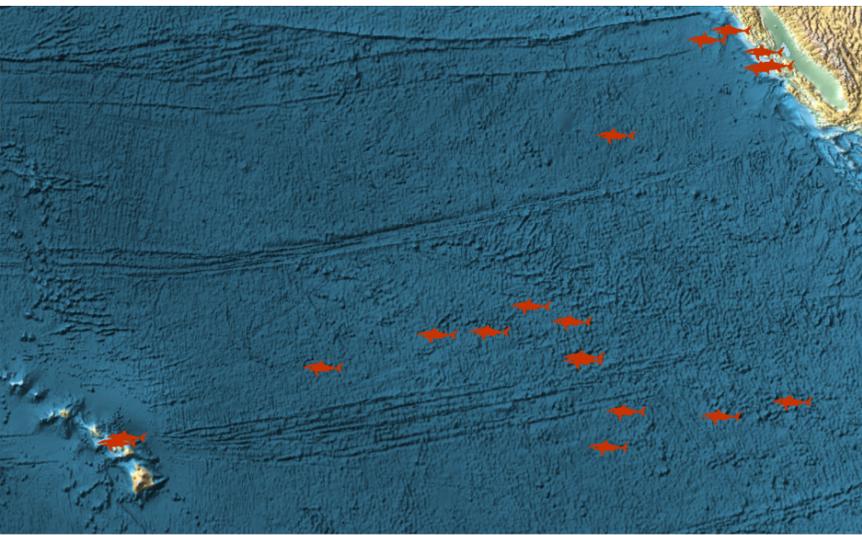
- RGC Cell: Connects the eyes to the brain of the shark
- Rod cells: To see in dim light (Shades of Black&White)
- Cone cells: To see in bright light (Color Vision)
- Tapetum Lucidum: A layer of tissue in the eye of sharks it helps them see in dim light

Shark Taxonomy

● Taxonomy is a fancy way of saying an animals family tree



18 REAL LIFE Sharks near Hawaii & California



Research Question

● What is the difference between migration patterns of white shark in the pacific basin and offshore Hawaii?

What these marine biologists discovered

- Long distance seasonal migrations of white sharks from the coast of California to the Hawaiian Islands.
- Migrations took about 23 days and other sharks went along similar paths defining a migration corridor.
- The visitation of white sharks to the waters surrounding the islands of Kauai, Maui, Lanai, Kahoolawe and Hawaii indicates these areas may be used for foraging