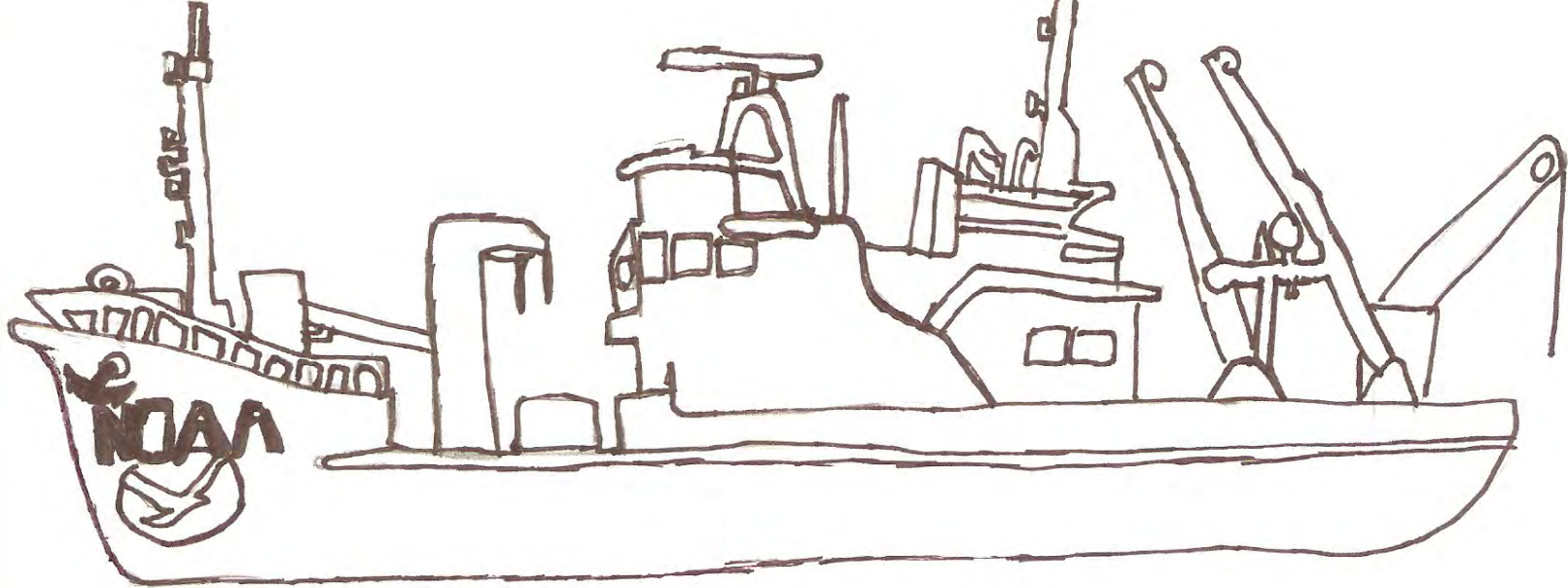




By Mrs. Daftari's 5th Grade Class (Jay, OK)  
Assisted by NOAA Research Fishery Biologists  
William B. Driggers III, Ph.D and Kristin Hannan  
and NOAA Teacher at Sea Jennifer Daftari



Osiyo from Room 8 in Jay, Oklahoma! Osiyo is Cherokee for "hello." Let us introduce ourselves. We are 5<sup>th</sup> graders in Mrs. Daftari's science class. We may be kids, but we have BIG ideas! Here are some of the things our class has done:

- Obtained a grant and built a tree house in our outdoor classroom
- Obtained a grant to build a merry-go-round pump for our outdoor classroom
- Visited by a research team from U.S. Satellite and Imagery and NASA to obtain information on 3-D VIEW in the classroom
- Featured in *Popular Science* magazine
- Won "The National School Inventors Challenge" for 2 years
- Took home top honors at Space Camp
- Designed paintings to sell at auction to help fellow classmates who have been abused

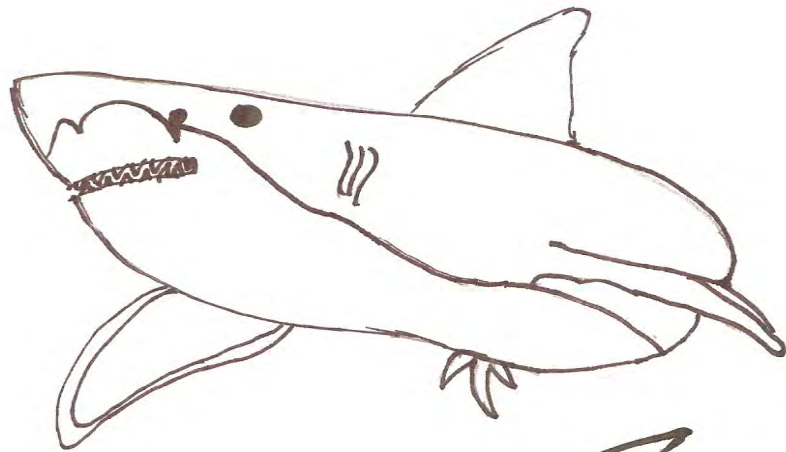
Most of us have never been to the ocean, so we were so excited when our teacher, Mrs. Daftari, was selected by National Oceanic and Atmospheric Administration (NOAA) to be a NOAA Teacher at Sea. In August 2011 she got to study aboard NOAA Ship *Oregon II* on a fishery cruise. She brought back a lot of awesome information about sharks and ocean careers! We were so inspired that we made this alphabet coloring book to share with other students.

We would like to thank the following individuals: our classmate, Dakota Feather for his wonderful illustrations; our research and design team (Dalton King, Brooke Cunningham, Sellor Lane, Breezy Stoddard) for their dedication to this project; the Jay 5<sup>th</sup> Grade Class and Sarah Martin for helping to edit; NOAA Research Fishery Biologists Dr. Driggers and Ms. Hannan for helping the research team; Commanding Officer- Master Dave Nelson and his NOAA Ship *Oregon II* crew for teaching our teacher cool things to share with us; Mrs. Daftari for teaching us about life aboard a ship and getting us excited about the ocean; and NOAA for inspiring us to greatness!

This book is dedicated to the crew, scientists, and volunteers who have worked aboard NOAA Ship *Oregon II*. This summer of 2012 marks their 300<sup>th</sup> research cruise. We are happy to be a part of their celebration!

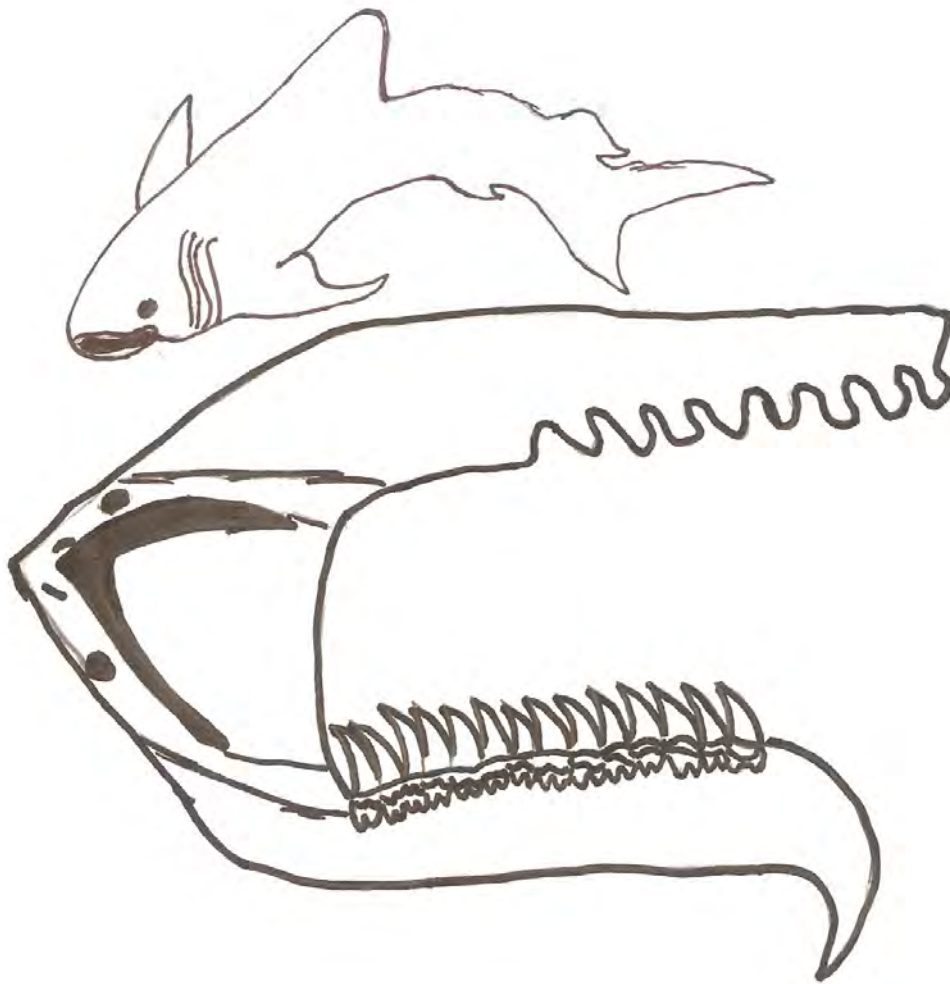
Mrs. Daftari's 5<sup>th</sup> Grade Class  
Jay Upper Elementary School  
Jay, Oklahoma

A- Apex Predator- Most sharks are apex predators because they reside at the top of marine food webs.



B- Batoids- Batoids are cartilaginous fishes commonly known as rays and skates.

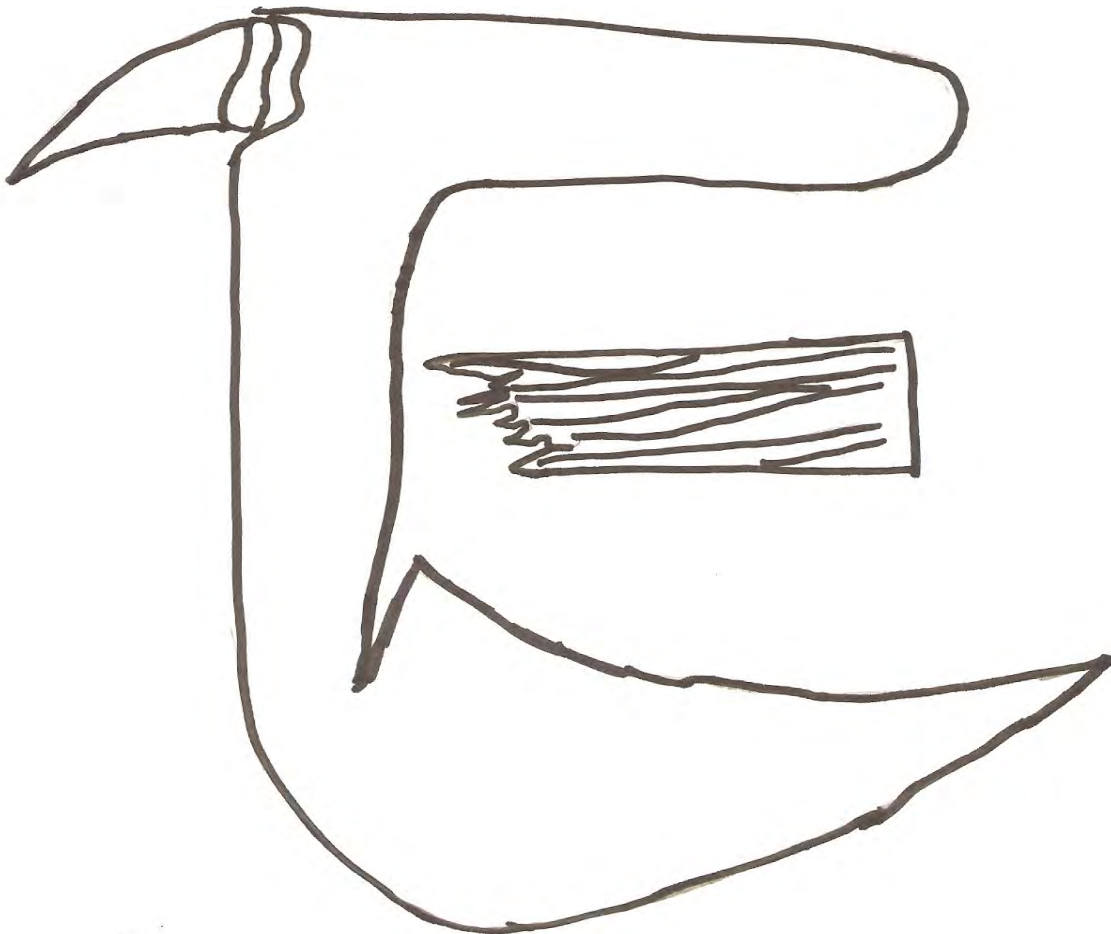
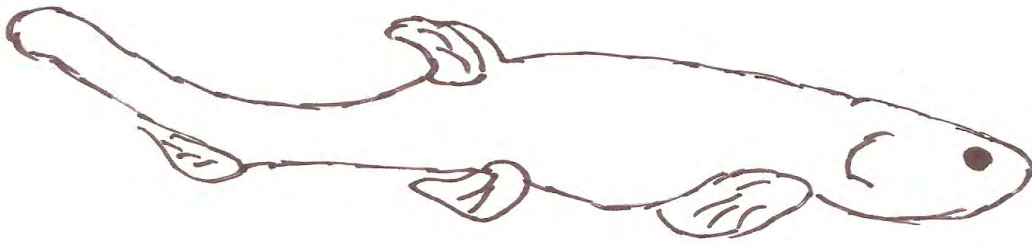




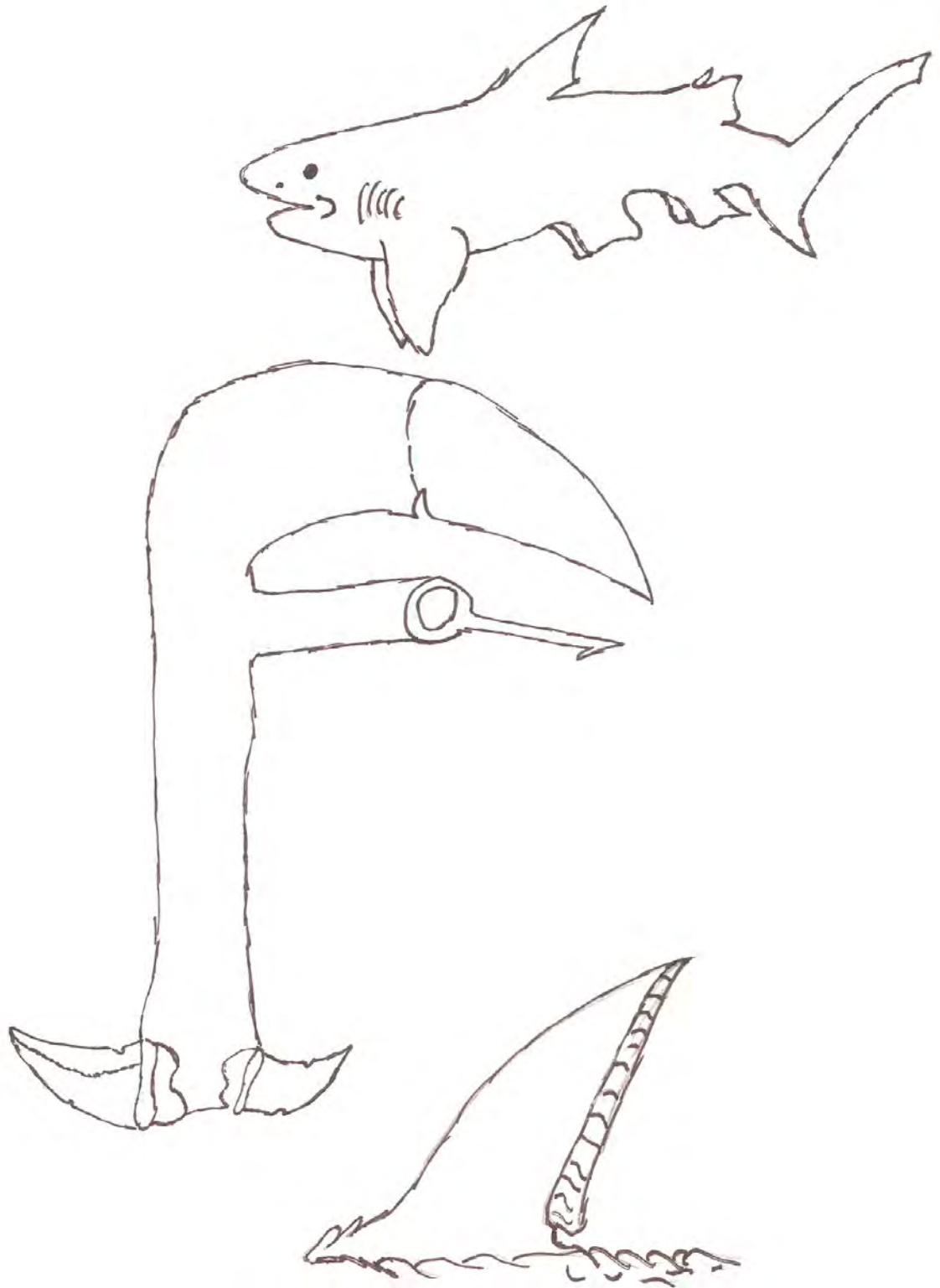
**C- Cartilaginous** - Cartilaginous fishes, like sharks, skates and rays, have skeletons made of cartilage rather than bone.

D- Dogfish- Dogfishes are a group of ancestral sharks. The spiny dogfish gets its name from two spines it has on its back.





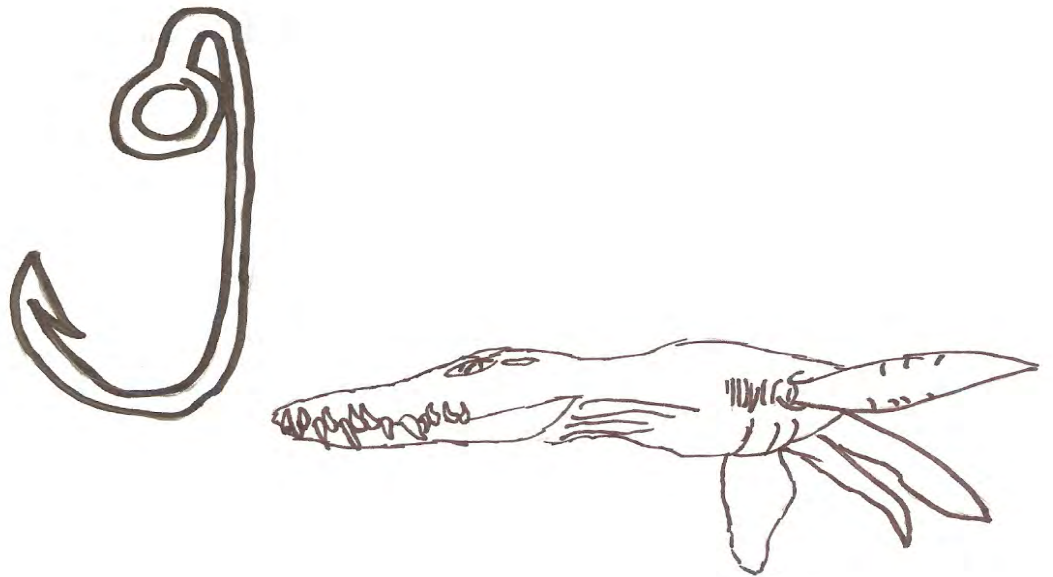
E- *Etmopterus*- Lantern sharks are in this genus and are a type of dogfish that is bioluminescent, thus it glows.

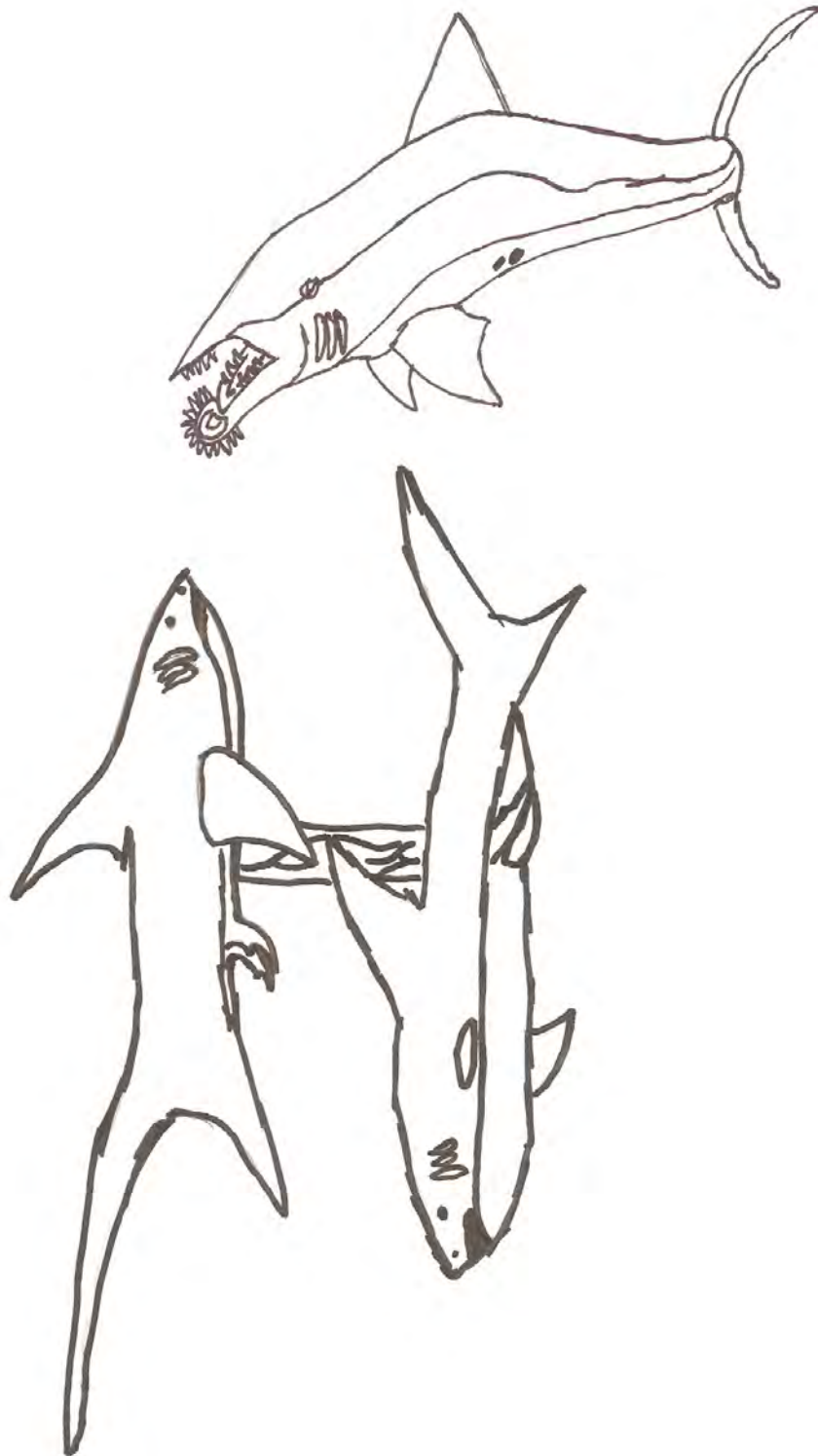


F- Fins- Fins help sharks swim through the water.



G- Gnathostome- Gnathostomes are vertebrates with jaws, such as sharks.



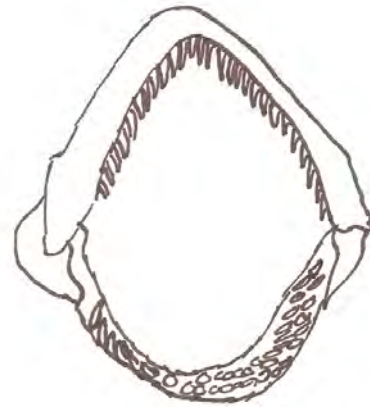


H- *Helicoprion* *Helicoprion* is a genus of extinct shark.  
It is known for its spiral jaw.

**I-*Isistius*** *Isistius* is a genus that includes cookiecutter sharks that attack whales, dolphins, and even other sharks. They get their name from the cookie-shaped bite inflicted on their prey.

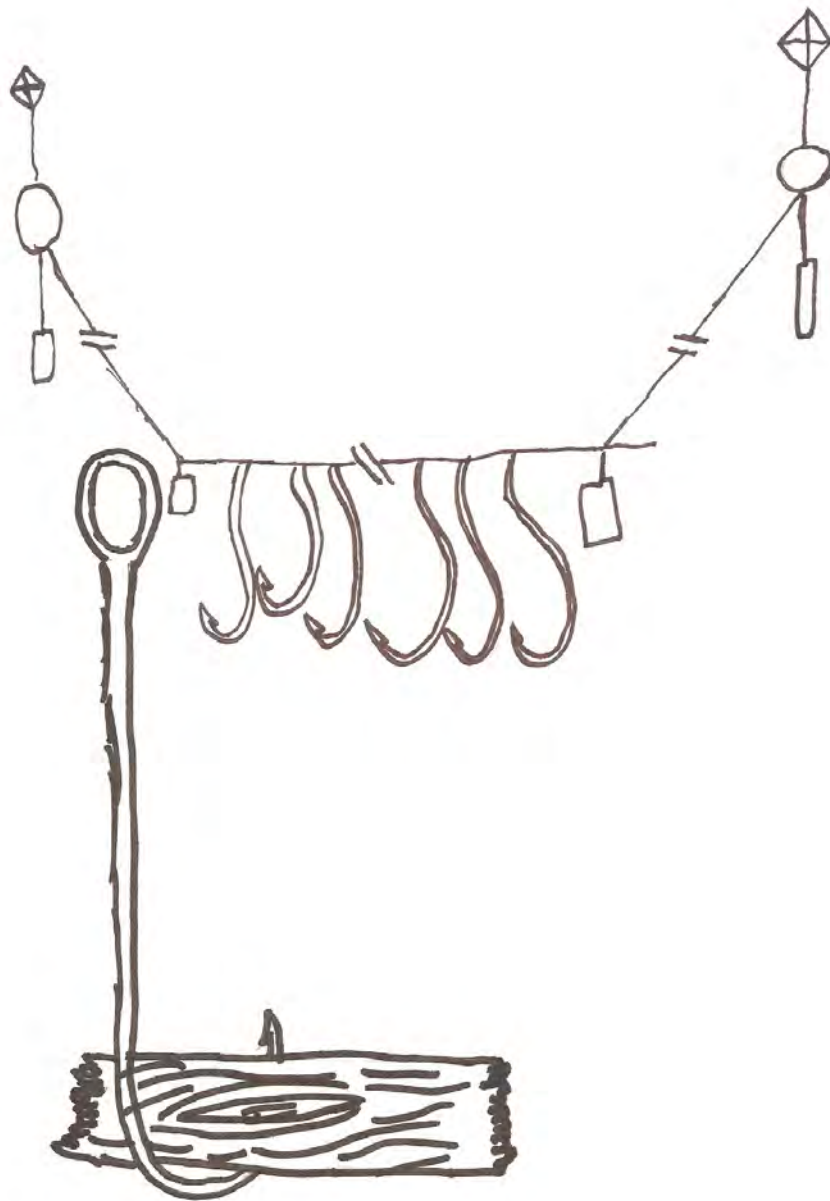


J- Jaws- The jaw provides support for the teeth and opening of the mouth.

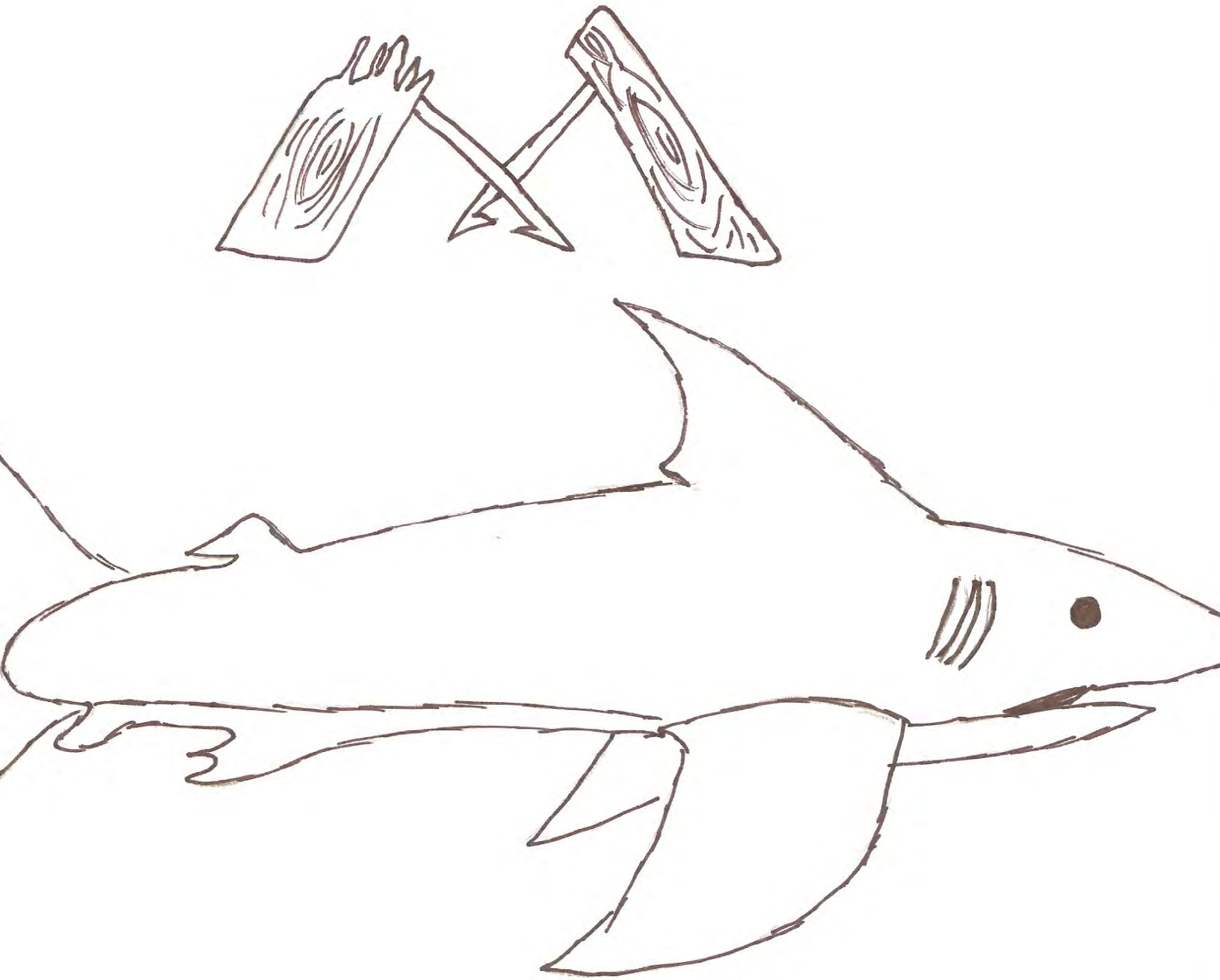




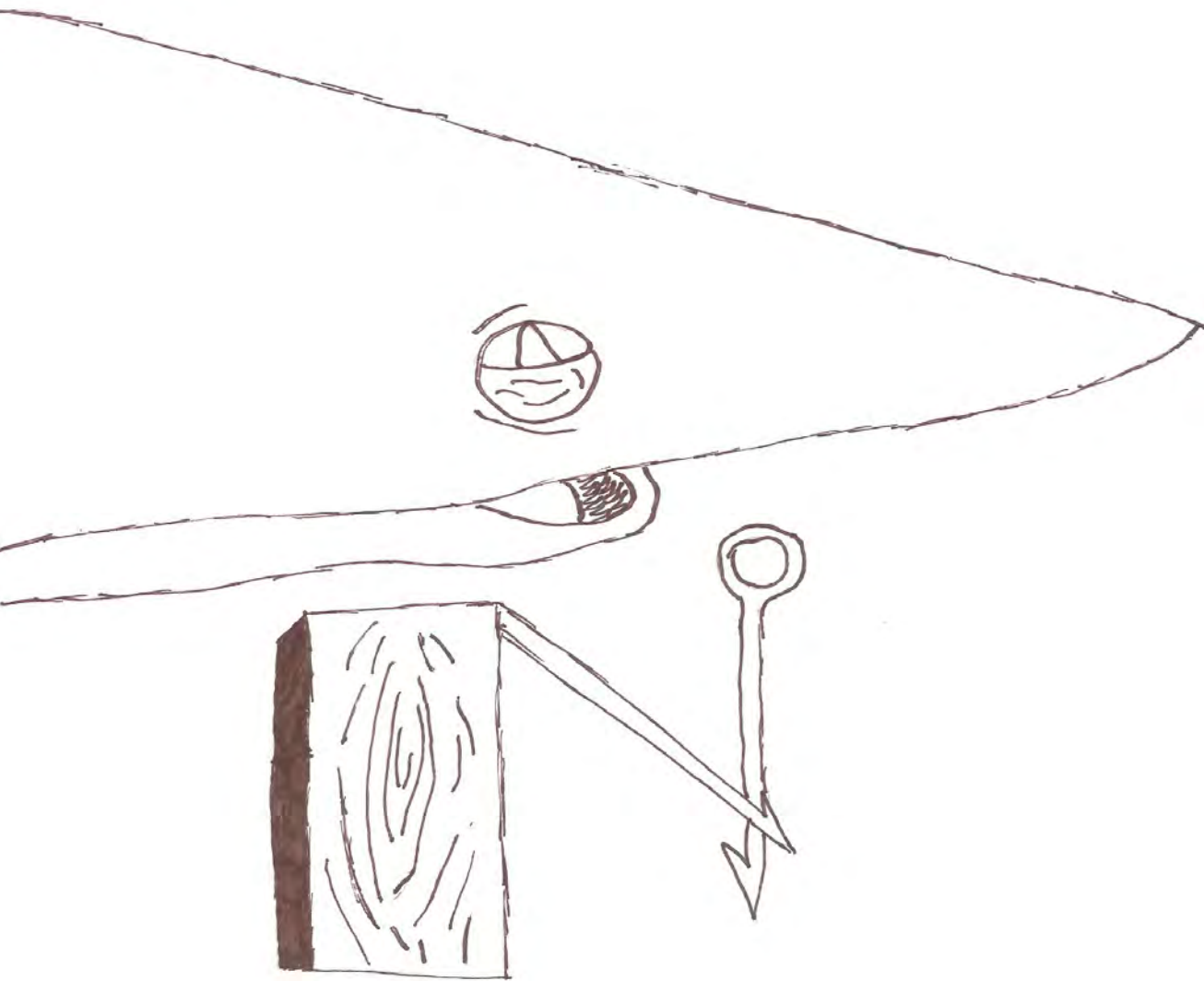
**K- Selected species-** This type of species grows slowly, matures at a late age, and has few young. K-selected species include sharks and humans.



L- Longline- Longline fishing is a technique used to catch sharks.

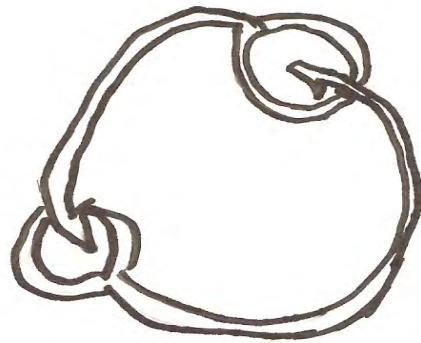
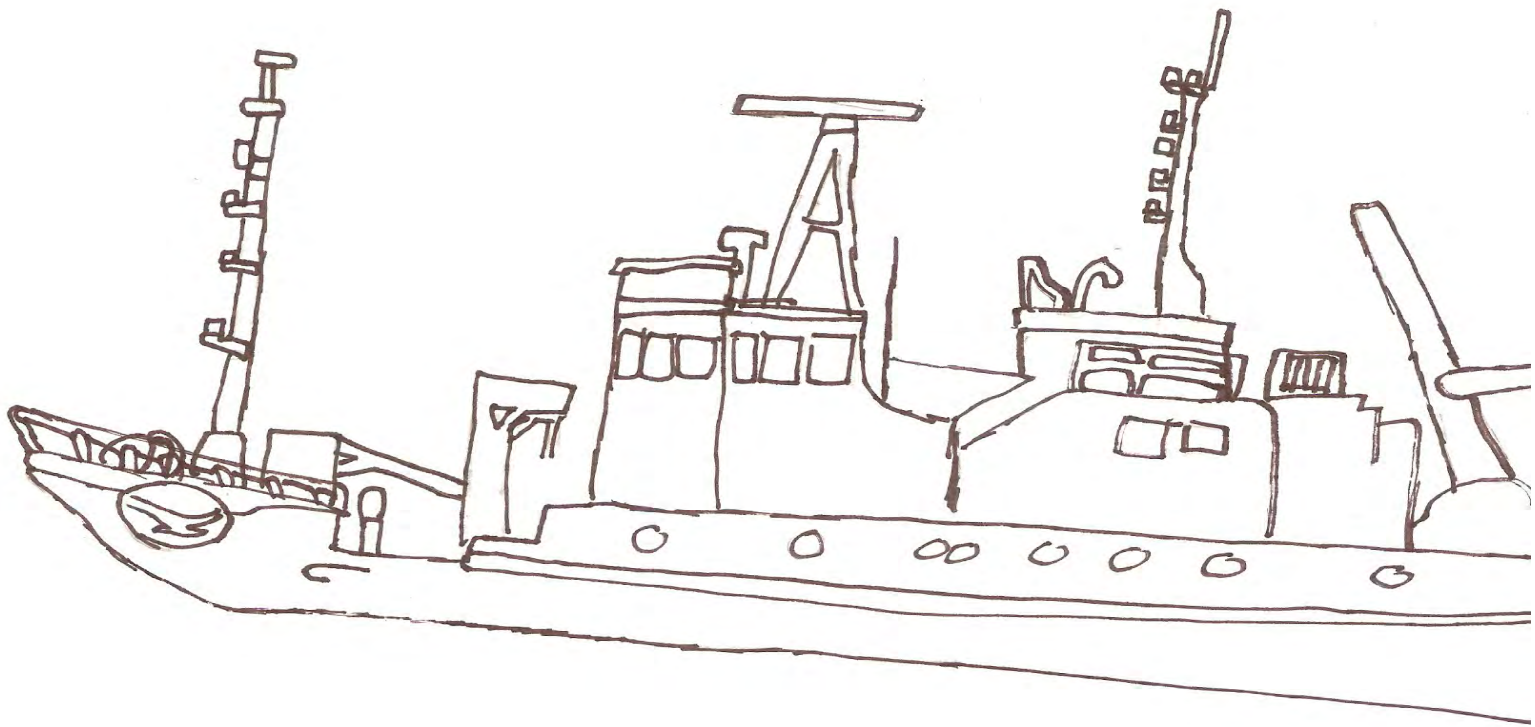


~~M- Megalodon~~ *Megalodon*, meaning "big tooth," is a very large relative of the great white shark that is now extinct. It is one of the largest sharks to ever live.



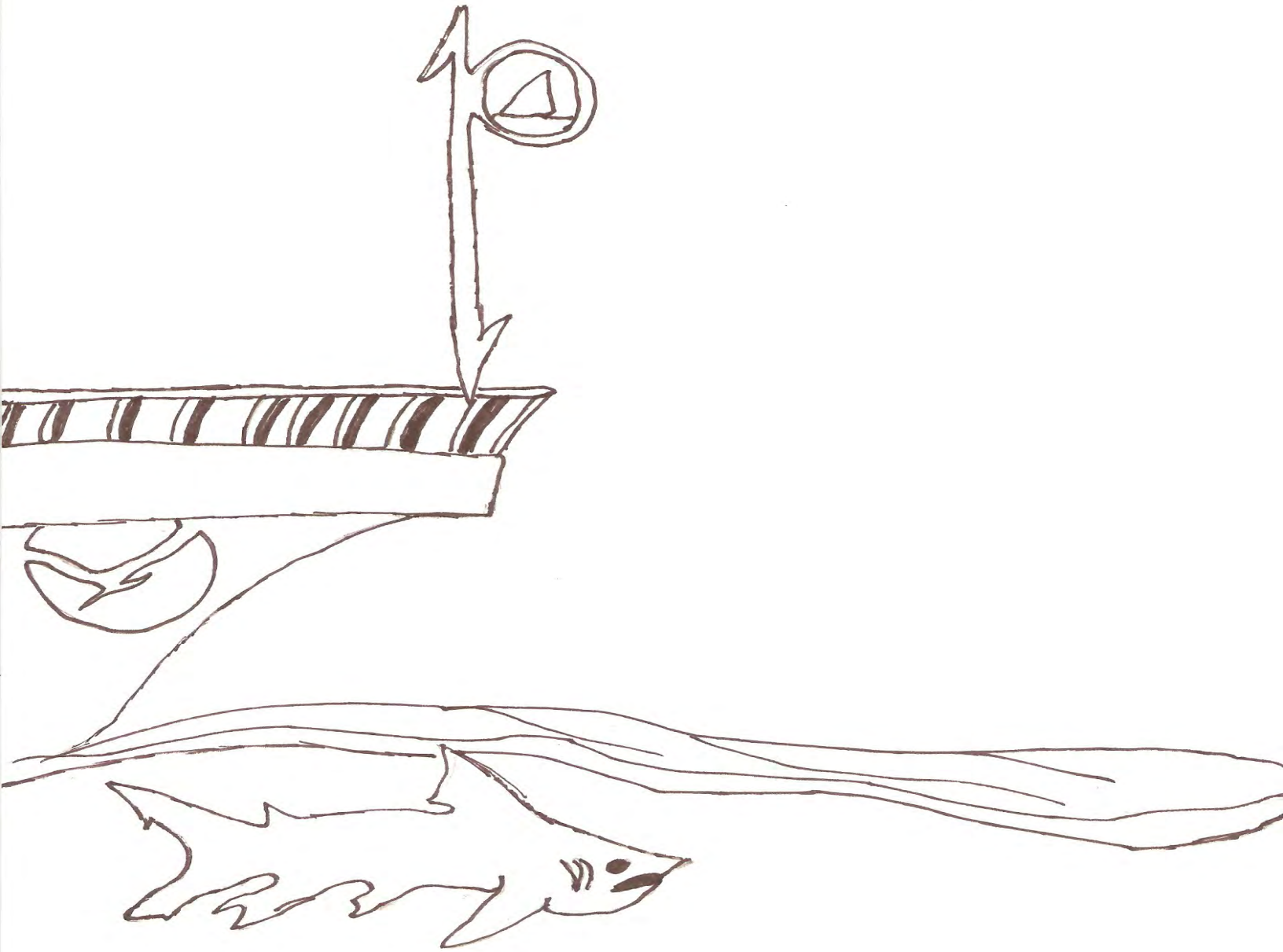
n- Nictitating eyelid- A nictitating eyelid is a structure that protects a shark's eye when it is feeding.

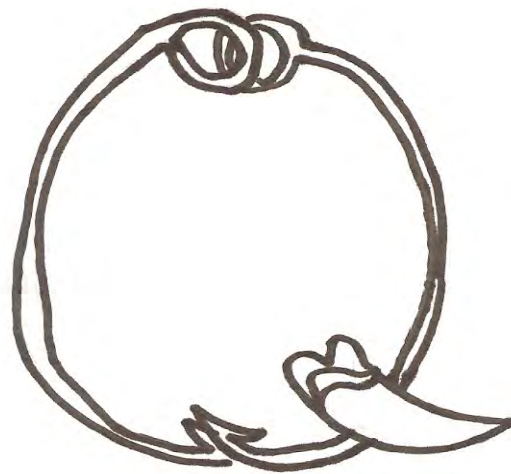




O- *Oregon II*- NOAA Ship *Oregon II* is a fishery research vessel that was launched in 1967. The home port of this ship is in Pascagoula, Mississippi. This ship is one of 18 NOAA ships that conduct research around the world. NOAA Ship *Oregon II* will celebrate its 300<sup>th</sup> research cruise in the summer of 2012.

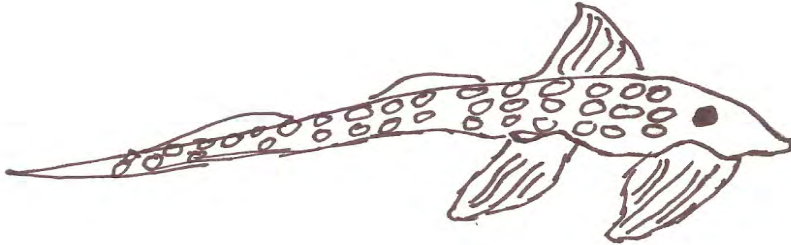
P- Pelagic shark- Pelagic sharks live in the open ocean.





Q- Quagga catshark- This is a species of catshark found in the Indian Ocean.

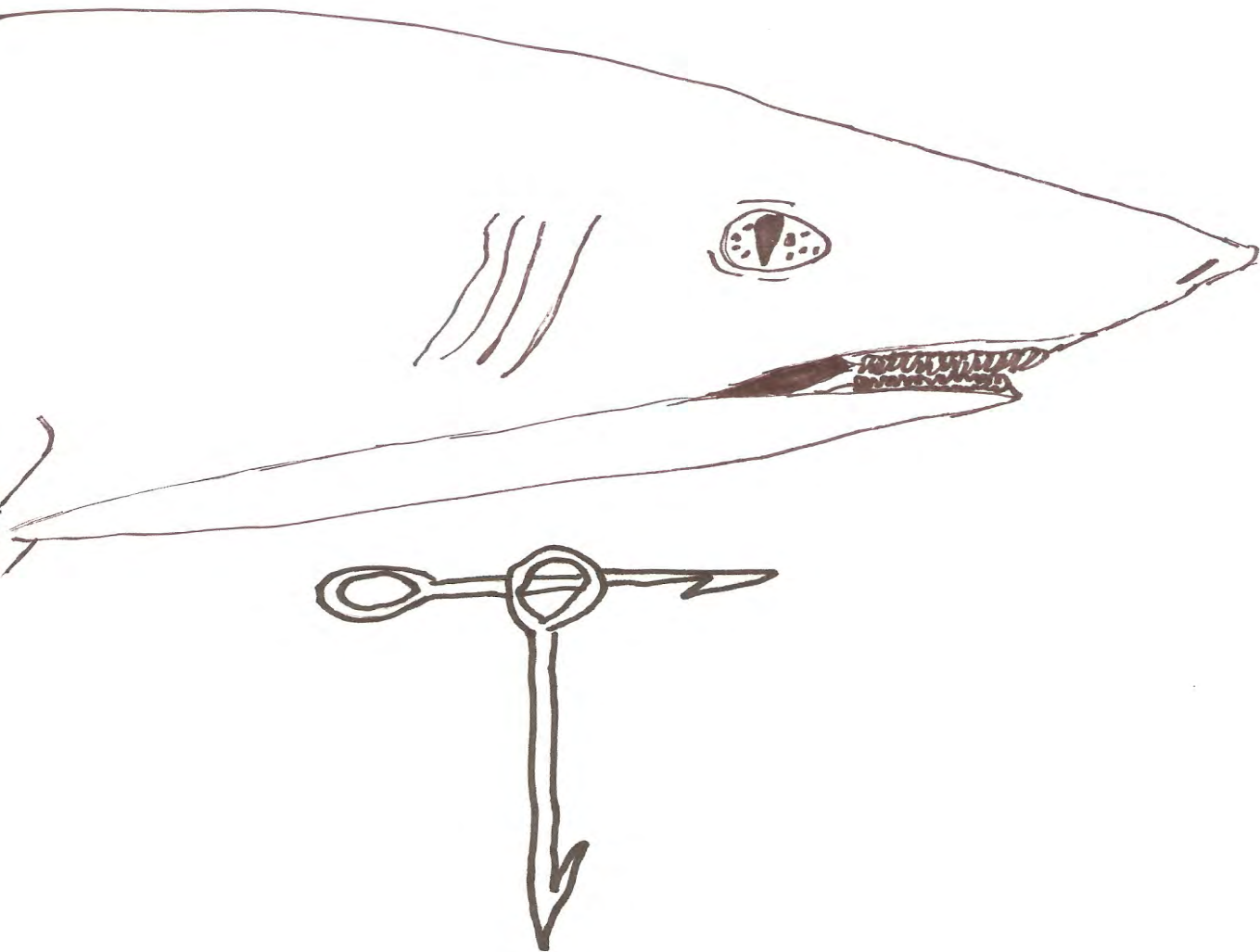
R- Ratfish- Ratfishes are closely related to sharks and rays.  
They are called "ratfish" because they have rodent-like  
teeth.



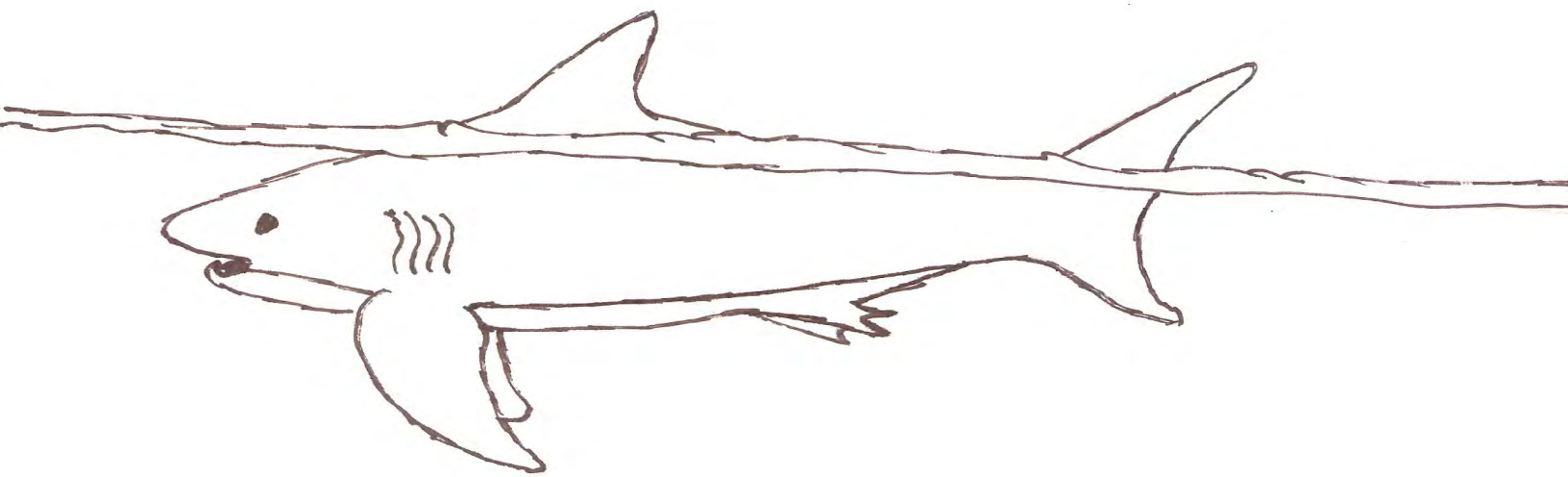


**S- Sand tiger-** This shark is gray to brown, has a narrow snout, and long, sharp teeth. This is one of the most common sharks displayed in large aquariums.

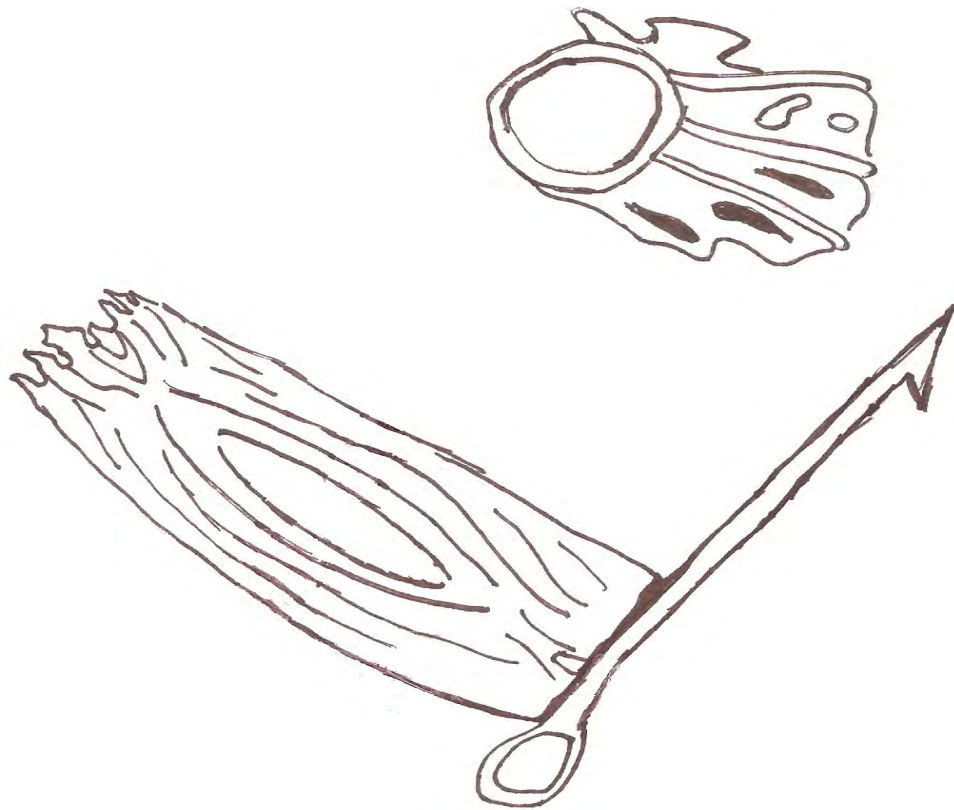
T- Tapetum lucidum- This is a mirror-like reflecting layer within a shark's eye. It allows sharks to see well in dim light.



U- Urea- Urea helps regulate a shark's blood chemistry.

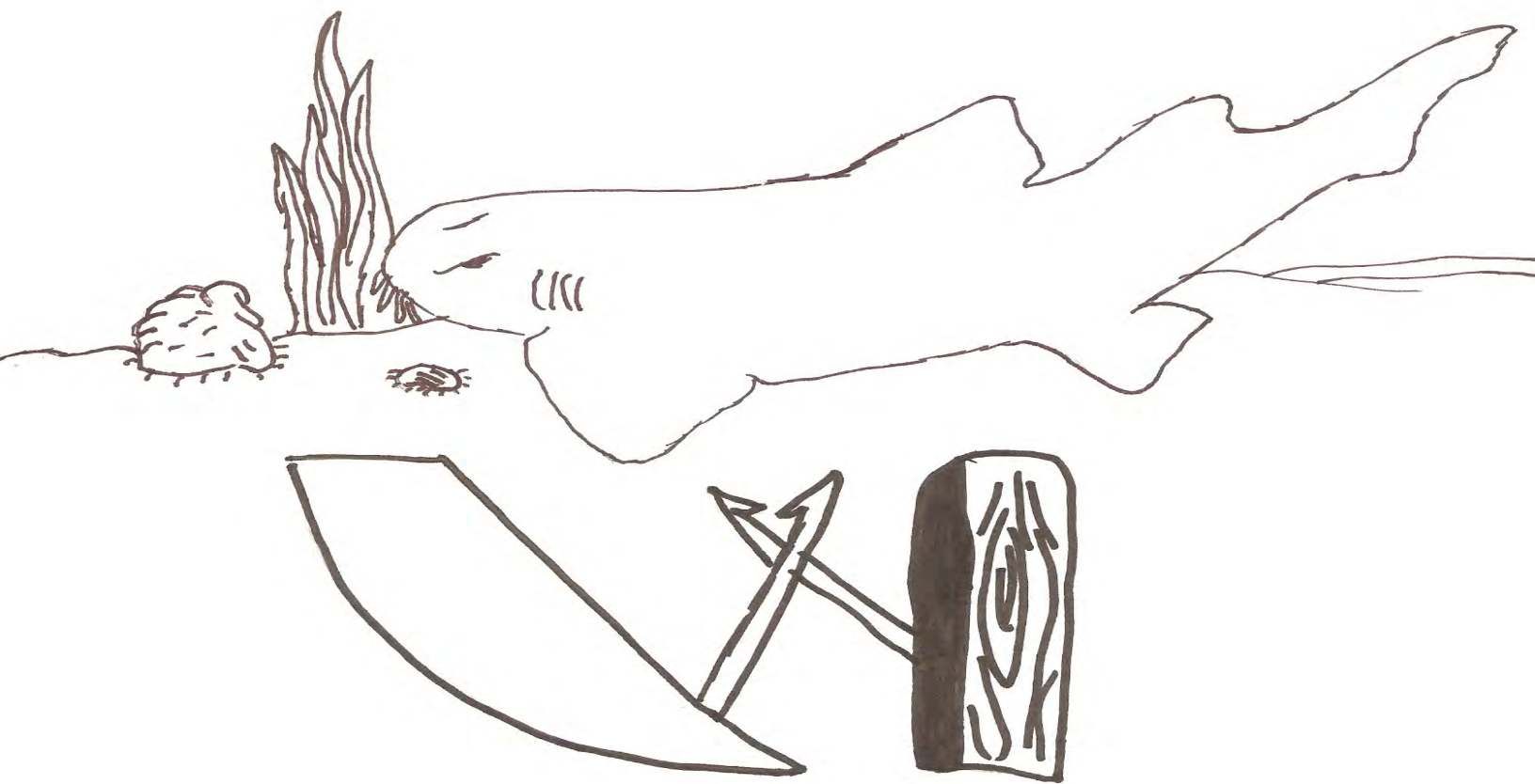


V- Vertebrae- The vertebrae, or backbone, of a shark is made of cartilage.

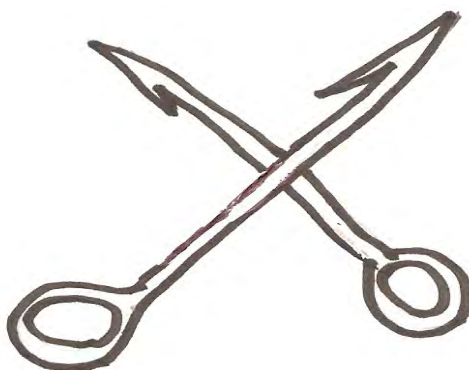




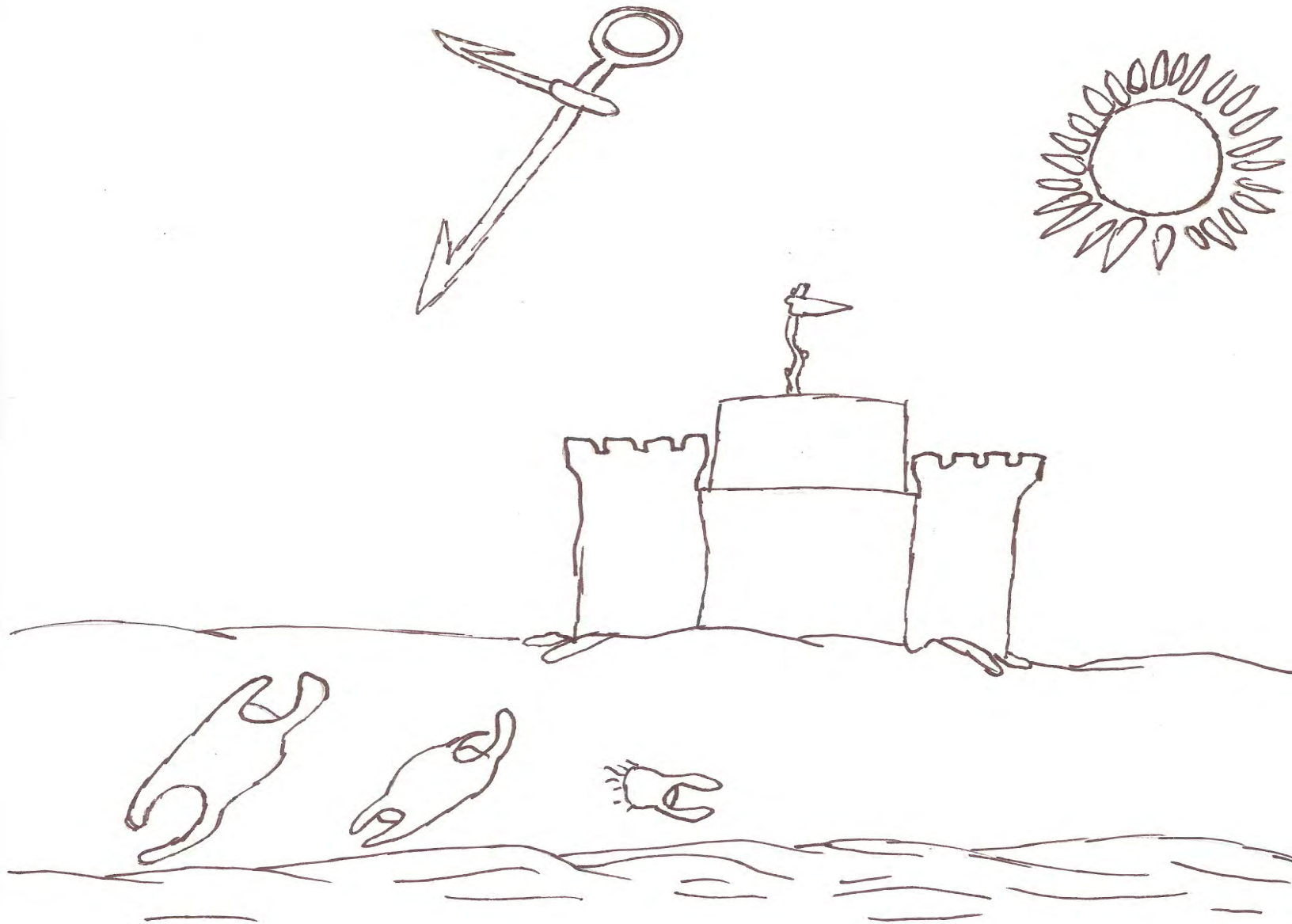
W- Wobbegong- Wobbegongs are flattened sharks that live on the sea floor. They are found in the Pacific and Indian Oceans.



X- *Xenacanthus* *Xenacanthus* is a genus of prehistoric sharks that are thought to have primarily lived in fresh water.



Y-Young- Some sharks give birth to live young while others have young that develop in egg cases. These egg cases are sometimes found on beaches and are commonly called "mermaid purses."



Z- Zambezi shark- The Zambezi shark is also known as the bull shark. It can tolerate extremely low salinities so it is sometimes found in fresh water.

