



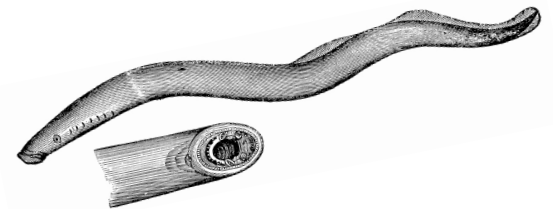
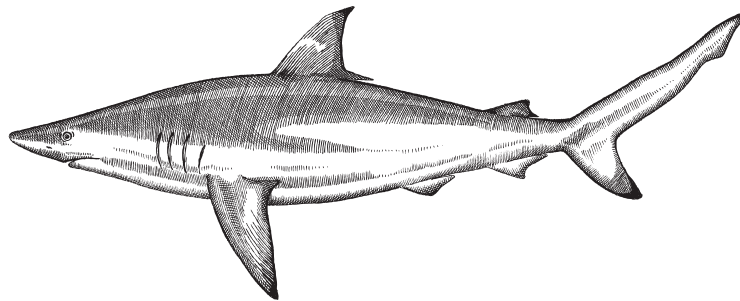
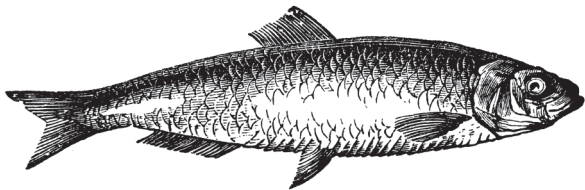
Fish

Discussion Questions:

- 1) How are fish classified?
- 2) What features do fish have in common?
- 3) What types of environments do they inhabit?
- 4) How do sharks differ from bony fish?

FISH

- Breathe underwater using gills.
- Have scales and fins.
- Are ectothermic (cold-blooded)
- Lay eggs.

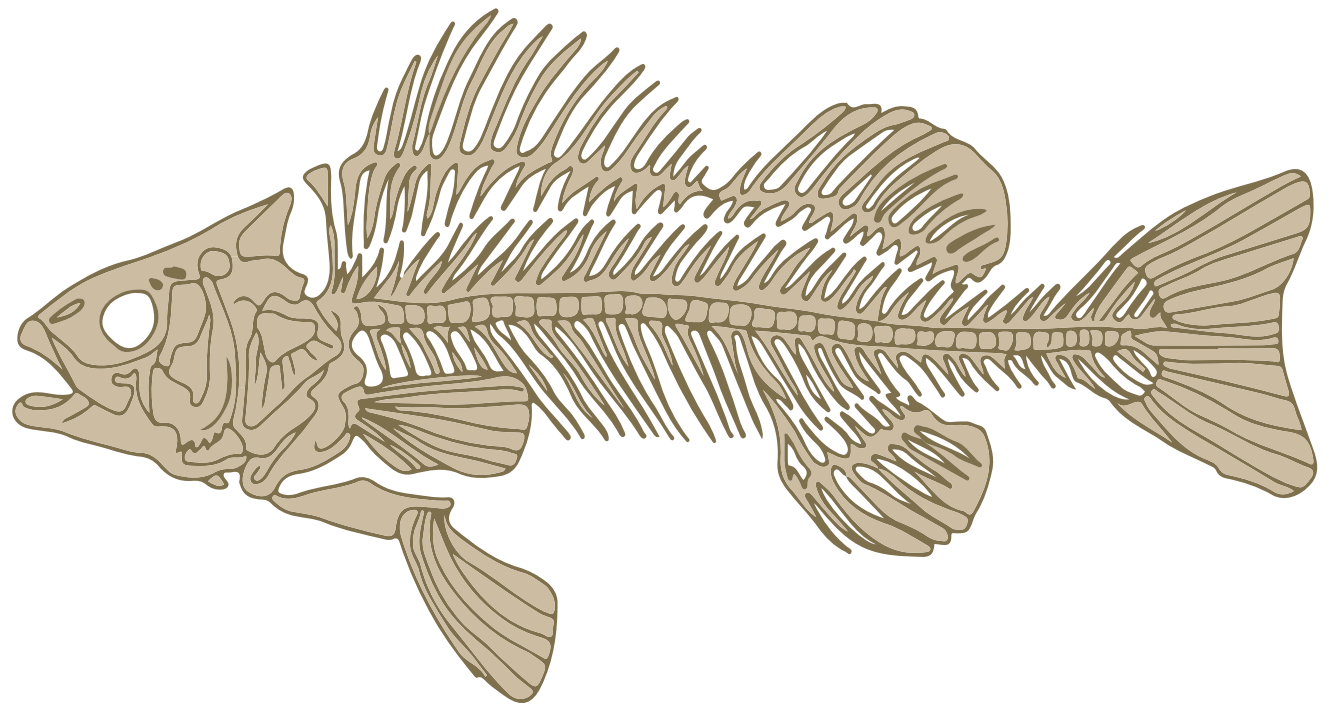
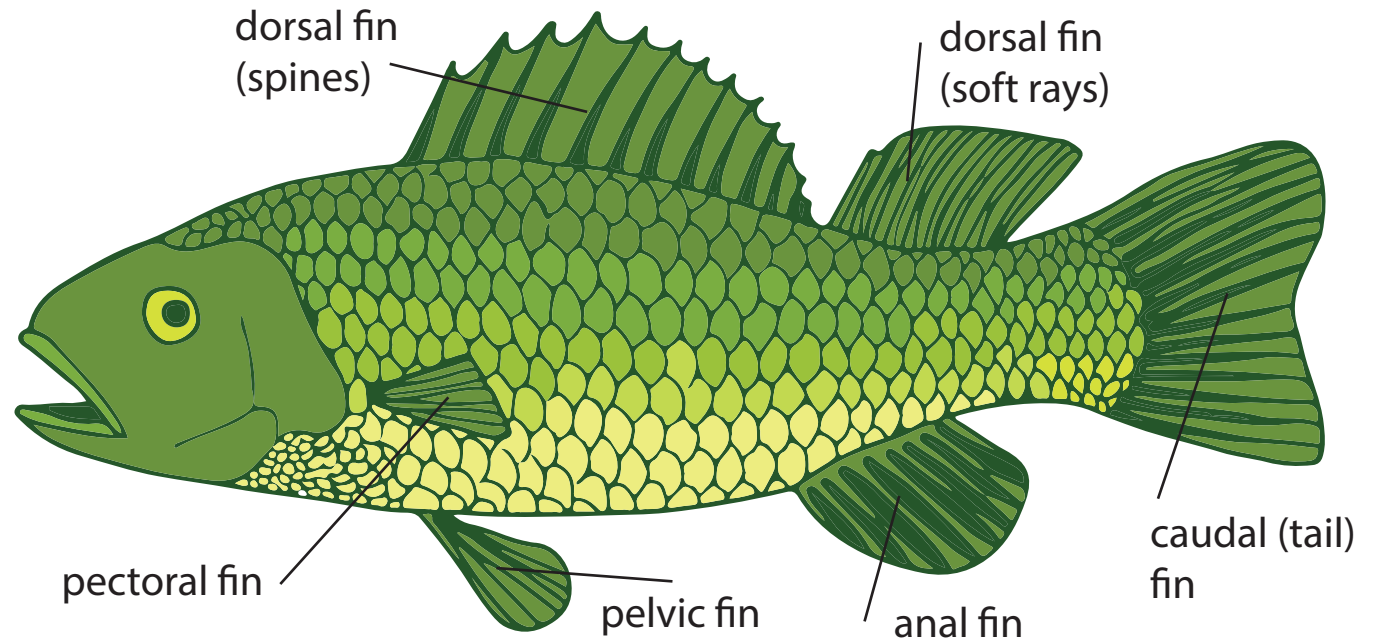


Bony Fish

A fish has many bones in its skeleton. They support the body of the fish and enable it to swim. The number of bones depends on the species of fish.

Most bony fish are covered with hundreds of overlapping scales. These scales provide protection for the skin.

Bony fish use their fins to help them keep their balance and to move through the water. The size and shape of the fins vary with different species. Different species also use their fins differently for swimming.

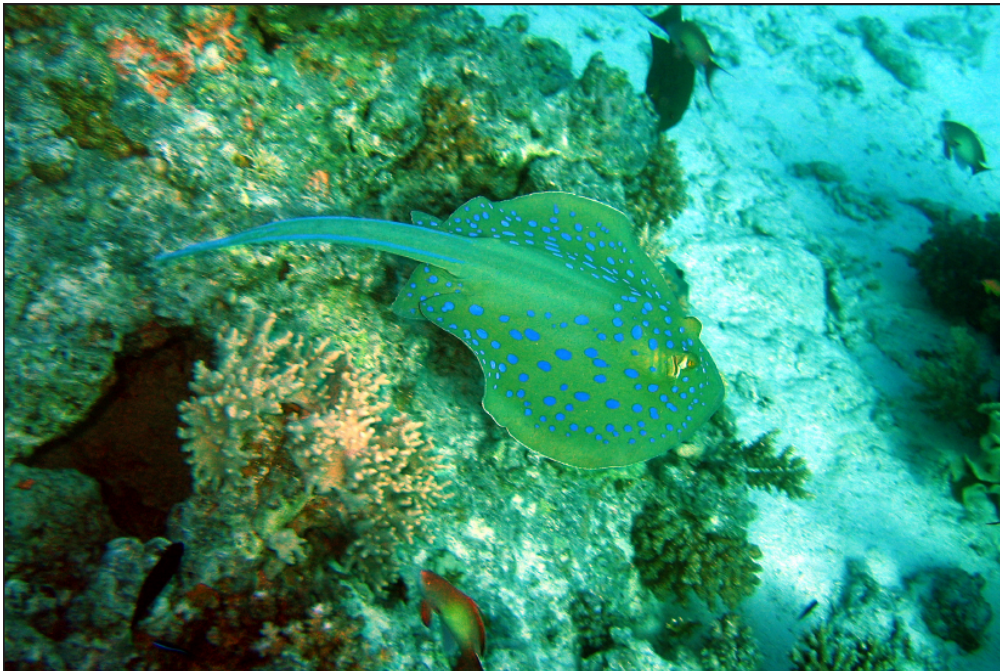


Cartilaginous Fish

Some types of fish have a skeleton that is made of cartilage rather than bone. Sharks, rays and skates are all cartilaginous fish.

A skeleton made of cartilage is an advantage for cartilaginous fish such as sharks. It is light weight and very flexible allowing the animal to glide speedily through the water.

These types of fish have placoid scales. These are like tiny little teeth covering the skin. This makes the skin very tough with a sandpaper-like feel. Placoid scales reduce drag in the water thereby making swimming more efficient for the fish.



Jawless Fish

Jawless fish include lampreys and hagfish. They are primitive fish.

Jawless fish have long smooth bodies without scales. They have seven or more pairs of gill pouches. They have a single nostril on the top of the head. Lampreys have a cartilaginous skeleton and fins, much like an eel. Hagfish do not have fins.

They do not have jaws. Instead they have a circular mouth containing rows of horny teeth which they use to latch onto and rasp the flesh of their prey. Their bodies produce a special slime that helps them digest the food.

Lampreys prefer cooler environments so they are not found in tropical waters. They can be caught for human consumption and are a popular fish in many parts of the world including Sweden, Finland, Russia, Japan and China.



Lampreys are eel-like fish.



Close-up view of a lamprey's mouth.