

# Fishes

Fishes belongs to the subdivision **Gnathstomata**

## Tails

Diphycercal                      Cyclostomes

Heterocercal                    Shark

Homocercal                      Bony fishes

Tail is used for propulsion

Eyes are without eyelids

Kidney mesonephric or opisthonephric

RBC nucleated

Vertebrae Amphicoelous

Internal ears used for balancing

**Extinct fishes** Pterichthyes , Coccostei , Acanthodii

Young ones of fishes are Hatchlings or Fingerlings and Fries

Devonian period is the **Golden age** of fishes

Lateral line sense organs detect vibrations and electric charges

All cartilage fishes are marine

## **SCALES**

Placoid                      Cartilage fishes

Ganoid                      Chondrestans

Cycloid                      Lung fishes, bony fishes

Ctenoid                      Higher bony fishes

Cosmoid                      Extinct fishes

Teeth of shark is acrodont

**Scroll valve** is present in the intestine of shark

Swim bladder is absent in cartilage fishes

Cartilage fishes are ureotelic

**Claspers** are the copulatory organs of the sharks

**Protopterus** undergoes aestivation

**Latimeria** is a living fossil

**Lobe finned lung fishes** are the ancestors of tetrapods.

**Swim bladder** is the hydrostatic organ

**Sinus venosus and conus arteriosus are the chambers of heart**

Fishes have 10 pairs of cranial nerves

**Claspers** are absent in osteichthyes

**Hippocampus** exhibits **mimicry**

**Hippocampus** male has brood pouch

**Lung fish** exhibits **Cannibalism**.

Fishes live within a narrow range of salinity are **stenohaline**.

Fishes tolerate wide range of salinity are **eurhaline**.

**Catadromous migration** – Fresh water to sea eg:-Anguilla

**Anadromous migration** – From sea to fresh water eg:-Salmon, Shark.

**Lung fishes** have lateral line sense organs on the head.

**Shagreen** is the skin of shark used for polishing.

**Isinglass** is a jelly like material obtained from the swim bladder of fishes used for making jelly, glue etc.

**Largest fish** – Whale shark – Rhincodon (39 tons)

**Poisonous fish** – Stone fish – *Synanceja verrucora*  
**Smallest fish** – Pygmy goby – *Pandaka pygmeae* (8mm)  
**Slowest fish** – Dwarf sea horse – *Hippocampus zosterae*.  
*Fastest fish* – **Sail fish** – *Istiphorus platypterus* – **109 Km/hr**  
**Larvivorous fishes** – *Gambusia*, *Telapia*, *Labestes*  
**Fresh water food fishes** – **Labio, rohita, catla** *catla* *Etroplus*.  
**Flying fish** – *Exocoetus*.

## **CARTILAGE FISHES**

**Dog fish** - *Scoliodon*  
**Zebra shark** – Tiger fish- *Stegostoma*  
**Sting ray** – *Trygon*  
**Electric ray** – *Narcine* / *Torpedo*  
**Guitar fish** – *Rhinobatus*  
**Saw fish** – *Pristis*  
**Rat fish** or King of Herrings – *Chimera*

## **BONY FISHES**

**CAT fish** – *Clarius*  
**Sucker fish** – *Echeneis*  
**Sea horse** – *Hippocampus*  
**Mosquito fish** – *Gambusia*  
**Globe fish** – *Tetradon*  
**Porcupine fish** – *Diodon*  
**Flat fish** – *Sinoglossus*, *solea*  
**Climbing perch** – *Anabas*  
**Indian carp** – *Labeo rohita*  
**Pipe fish** – *Syngnathus*  
**Flute fish** – *Fistularia*  
**Gold fish** – *Carassius*  
**Fresh water eel** – *Anguilla*  
**Pacific salmon** – *Oncorhynchus*

## **FALSE FISHES**

**Jelly fish** – *Aurelia*  
**Shell fish** – *Oyster*  
**Silver fish** – *Lepisma*  
**Cuttle fish** – *Sepia*  
**Devil fish** – *Octopus*  
**Star fish** – *Asterias*  
**Whale fish** - *Whale*