

Fishes

General Characters of Pisces

Fishes exhibit the following common characters most of which are related to their permanently aquatic mode of life.

- <1> Fishes are aquatic Cold-blooded (Poikilothermic) Gonathostome vertebrates.
- <2> They are usually with a streamlined body, but some are snake-like and a few are dorso-ventrally flattened. Body is divisible into head, trunk and tail.
- <3> They swim or move by seven sets of fins which are supported by fin-rays of dermal origin. Of these, four are paired, that is one on each side of the body. Thus there are Pectorals, pelvic, median dorsal, ventral and Caudal fins.
- <4> Exoskeleton or scales is usually present, but some species are naked secondarily.
- <5> Endoskeleton Cartilaginous or bony. Jaws are hinged.
- <6> Notochord is partially replaced by vertebrae, which may be Cartilaginous or bony.
- <7> Paired visceral arches present. The first pair forms the upper and lower jaws. Second pair forms the suspensorium and remaining support the gills.
- <8> Respiration by gills.
- <9> A swim- or air- bladder is usually present (except in elasmobranches).

- <10> Kidney is mesonephric. Excretion ureotelic.
 - <11> Heart two chambered. Heart has one auricle & one ventricle and is of a venous type. pumping blood to gills for respiration.
 - <12> Lateral line system well developed.
 - <13> middle ear is absent. Internal ear present.
 - <14> There are ten pairs of ~~Cranial~~ Cranial nerves.
 - <15> Sexes are separate.
 - <16> Extraembryonic membrane (e.g. amnion and allantois) absent.
 - <17> In some fishes, there are several pairs of feelers around the mouth, sensitive to touch these are known as barbels.
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