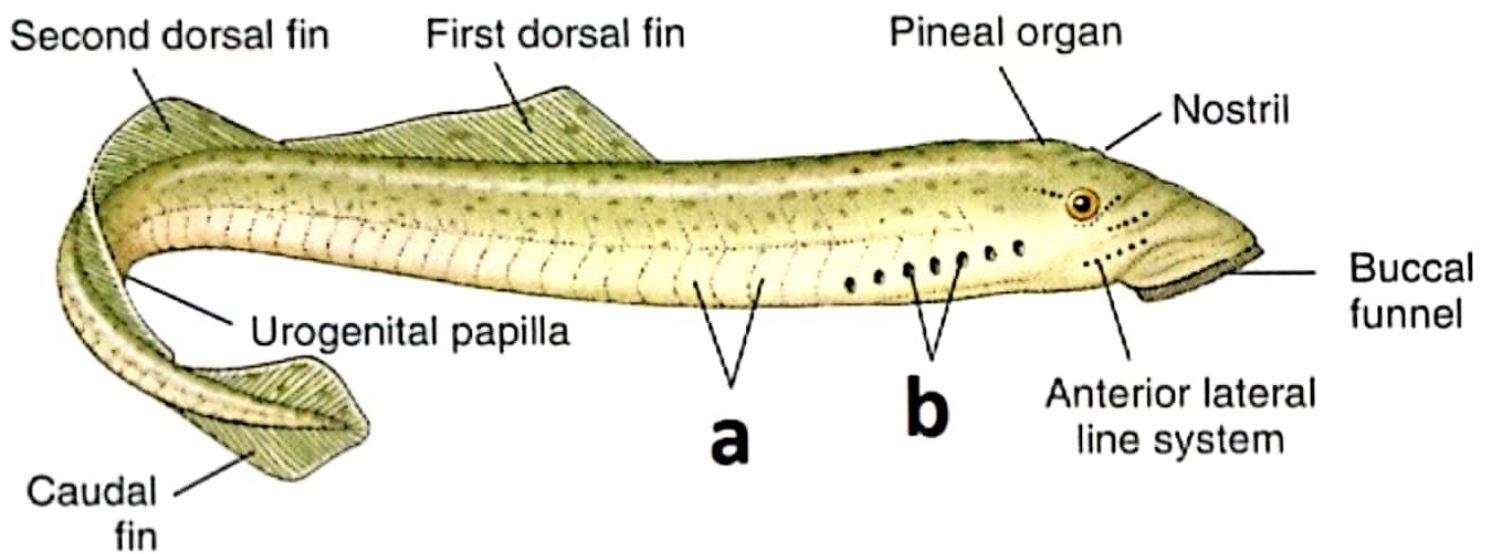
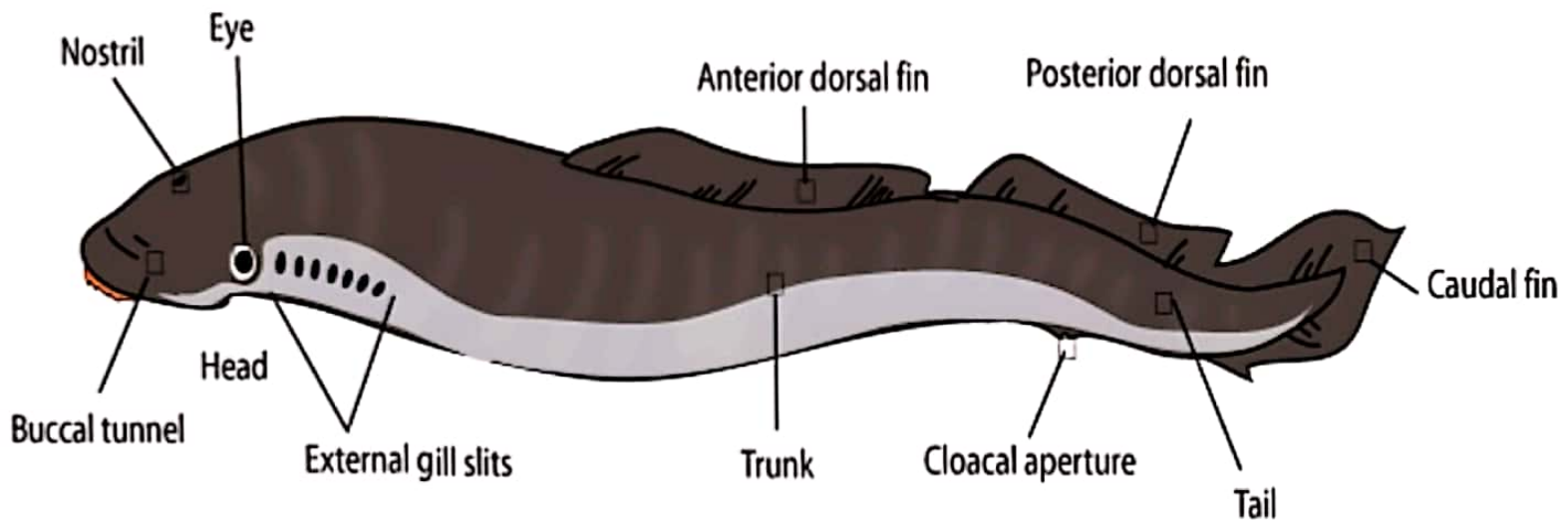


Habits

- It is a rather unpleasant animal
- The larval phase is a freshwater, sedentary and filter-feeding
- The adult lives in the sea and external parasites on fishes
- It clings to fishes, turtles etc. with its powerful suckorial mouth and cut the scales and skin using their teeth to get to the blood and body fluid and secreting an anticoagulant onto the tissue.



External features

- The body is divided into three divisions-head, trunk and tail
- Greenish-brown in color
- It is without exoskeleton, soft and slimy by secretations from epidermal glands

Fins:

Paired appendages are absent

Two unequal median dorsal fins-first and second, caudal fin

Buccal funnel:

- ✓ The anterior end of the body or head bears a ventrally directed large cup-like depression, ***the sucker or buccal funnel***
- ✓ Surrounded by a marginal membrane beset with numerous soft small projections, the ***oral papillae*** which help in attachment to a fish
- ✓ The longer sensory processes are project out from the papillae-***cirri***
- ✓ The inside of buccal funnel is beset with rows of conical yellow, horny, epidermal ***teeth***.
- ✓ A small circular ***mouth*** opening is situated at the apex of the buccal funnel
- ✓ The tongue bears large horny teeth

Lamprey characteristics

- ✓ Oral disc/buccal funnel, with epidermal denticles and rasping tongue; active "predatory parasites"
- ✓ No bone
- ✓ Nostril on top of head
- ✓ Well-developed vertebrate eyes
- ✓ Well-developed Lateral Line system
- ✓ Best developed pineal "eye" of any aquatic vertebrate;
- ✓ 2 pairs of semicircular canals;
- ✓ Uniformly 7 pairs of gills
- ✓ Cartilaginous
- ✓ Eggs deposited in freshwater; freshwater larva; many species have freshwater adult, but most migrate to sea and have marine adult stage (anadromous).

Systematic position.

Kingdom	Animalia
Phylum	Chordata
Class	Cyclostolata
Order	Petromyzontiformes
Family	Petromyzontidae
Genus	<i>Petromyzon</i>
Species	<i>Petromyzon marinus</i>

- ❑ Three species are found in both salt and freshwater.
- ❑ ***Petromyzon marinus*** (Sea lamprey) is the marine species, ***Lampetra fluviatilis*** is the freshwater lamprey
- ❑ Their name means stone lickers (lambere-to lick and petra=stone)
- ❑ They are external parasites



Classification of Cyclostomata

Order 1. *Petromyzontiformes* (Gr., petros-stone+ myzon-suck)

- Freshwater and marine
- Mouth ventral, within a suctorial buccal funnel beset with many horny teeth.
- Gill pouches and gill slits 7 pairs each
- Dorsal fin well developed
- Branchial basket complete

e.g. Lamprey (*Petromyzon*)

Order 2. *Myxiniformes* (Gr., myxa-slime+ oidea-type of)

- All marine
- Mouth terminal with 4 pairs of tentacles and few teeth. No buccal funnel
- Gill pouches 6-15 pairs. Gill slits 1-15 pairs
- Dorsal fin feeble and absent
- Branchial basket poorly developed
- Large mucous glands open along the sides of the body and secrete enormous quantity of slime, hence called slime eels

e.g. Hagfishes (*Myxine*)