

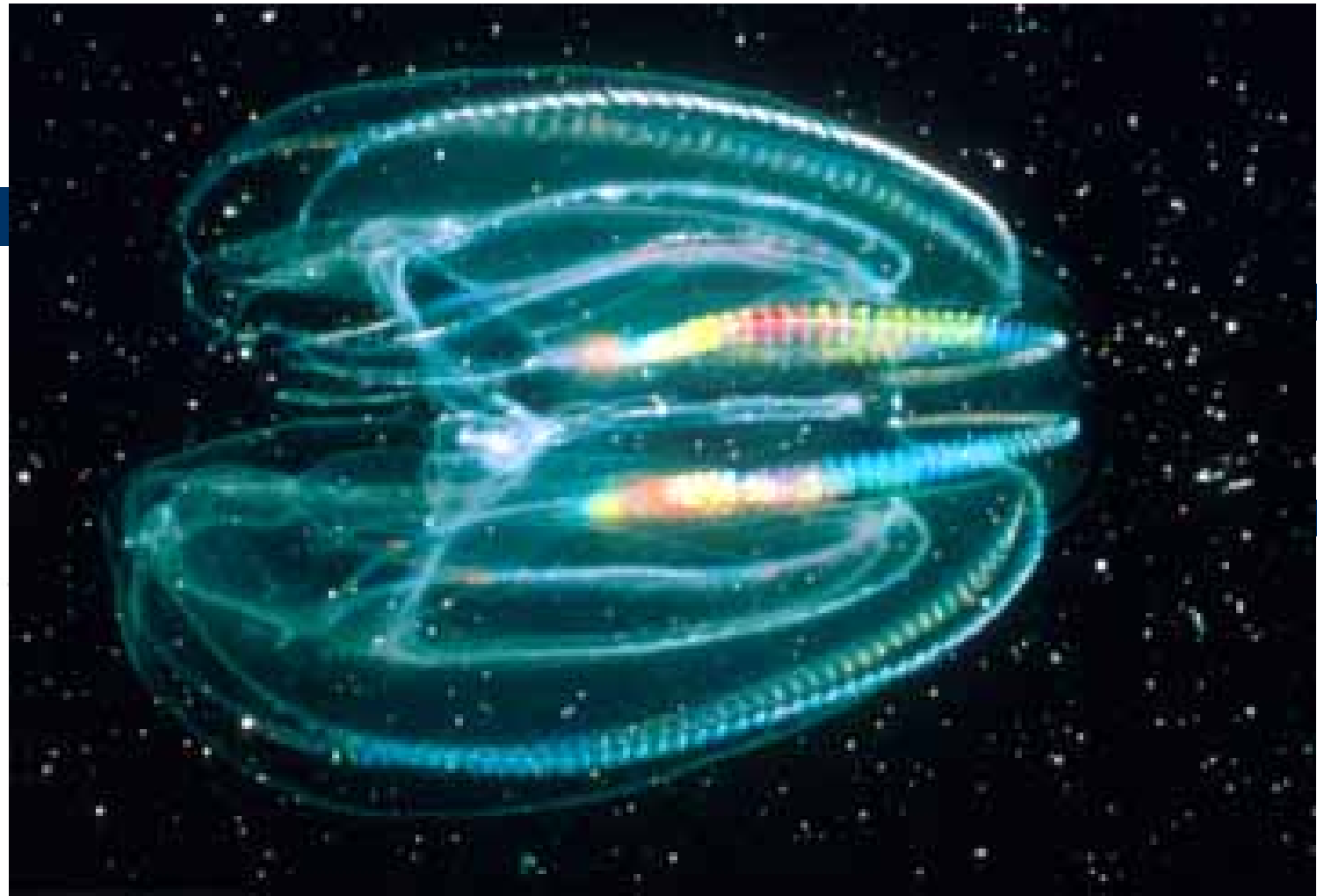
Phylum Ctenophora

Comb Jellies



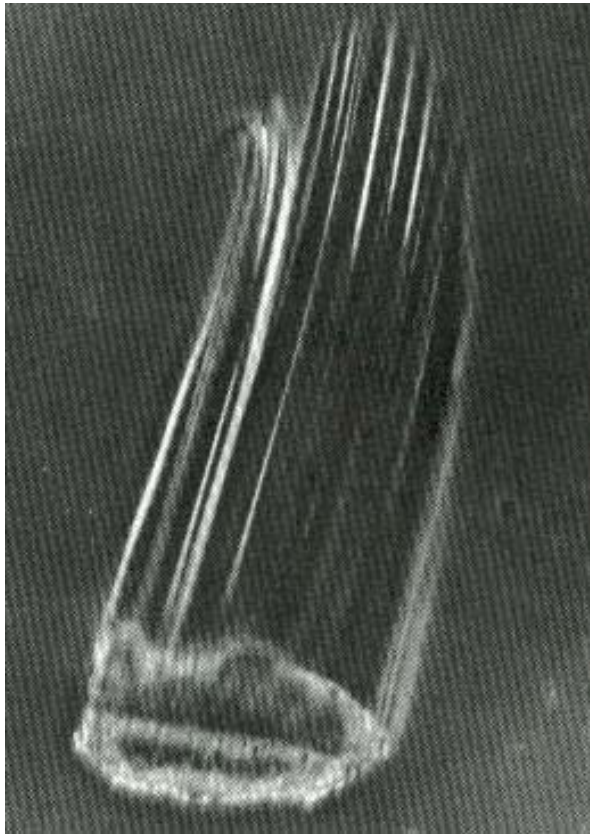
Phylum Ctenophora (Comb Bearers)

- Defining Characteristics
 - Plates of fused cilia arranged in rows
 - Adhesive prey capturing cells (colloblasts)
- Comb jellies are delicate, transparent, non-stinging predators



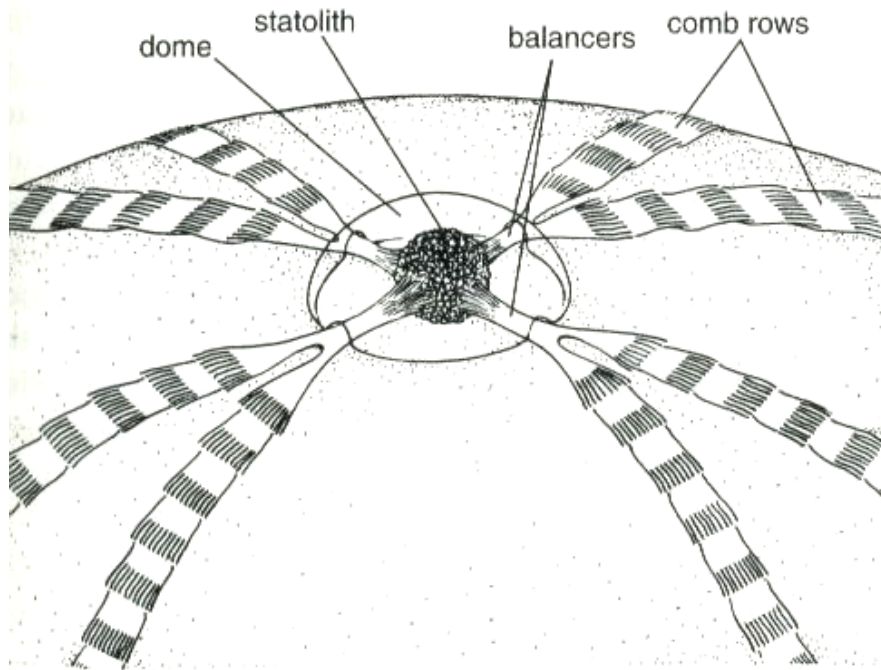
pharynx
mouth

Ctenophore Structure



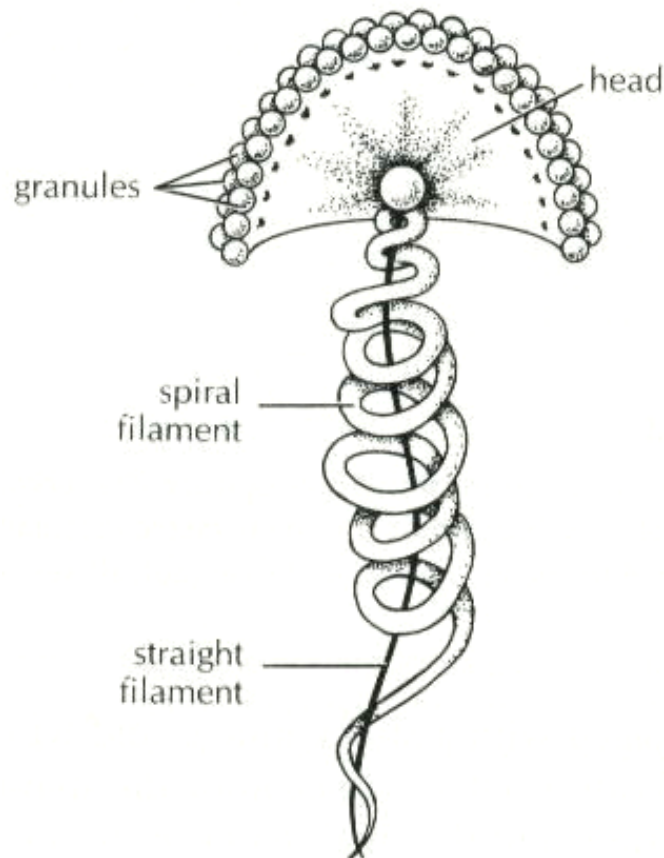
- Body surface has eight rows of comb-like paddles
- Comb paddle has thousands of cilia used to swim

Apical Sense Organ



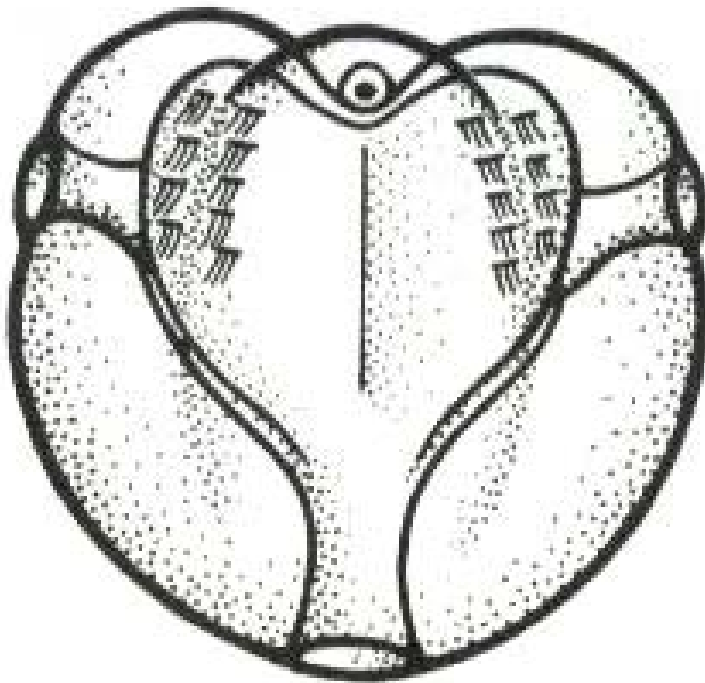
- Apical sense organ located on the aboral surface controls beating of cilia
 - Statolith and balancers

Colloblasts



- Sticky retractile tentacle used to catch prey
 - Colloblast discharge an adhesive thread which is sticky to the touch
- Some spp. lack tentacles and the body is studded with colloblasts

Reproduction



Developing **cydippid larva**.

- Can rapidly regenerate lost or damaged parts
- Usually hermaphrodites
- Developmental stage
 - Cydippid larva, this develops into an adult

Evolutionary history and Bioluminescence



Evolutionary History

Characteristic	Ctenophores	Cnidarians
Developmental Stage	Cydippid	Planula
Digestive System	Gastrovascular canals	Gastrovascular canals
Nematocysts	None	Present
Colloblast	Present	None
Sexuality	Hermaphroditic	Gonochoristic

Ctenophore diversity

- Most species live in the open ocean and are not well studied
 - New studies use submersibles and divers to collect specimens, eliminating specimen destruction by fast towed nets
- Phylum Ctenophora
 - Class Tentaculata
 - Class Nuda