

# **GENERAL CHARACTERISTICS OF CTENOPHORA**

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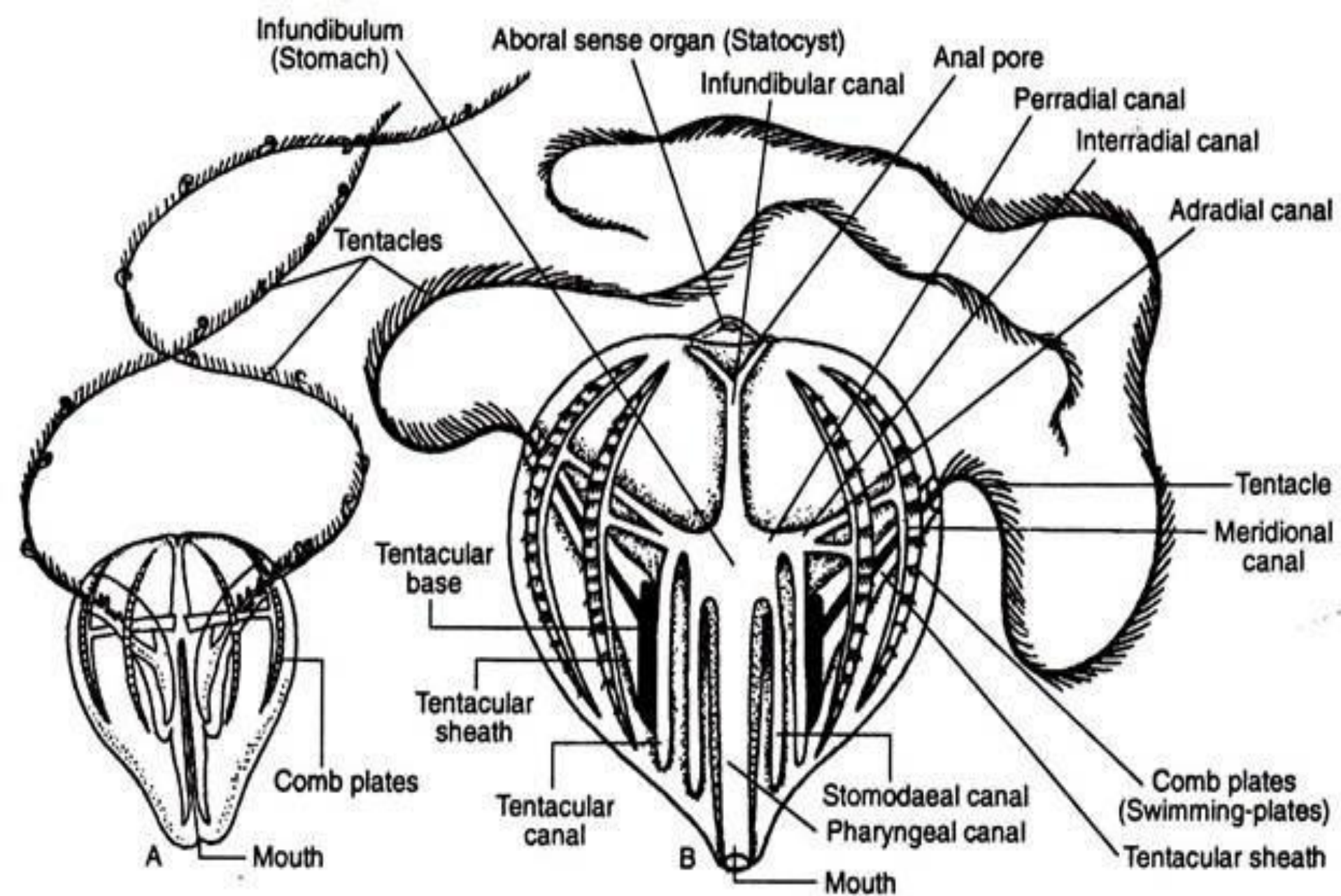
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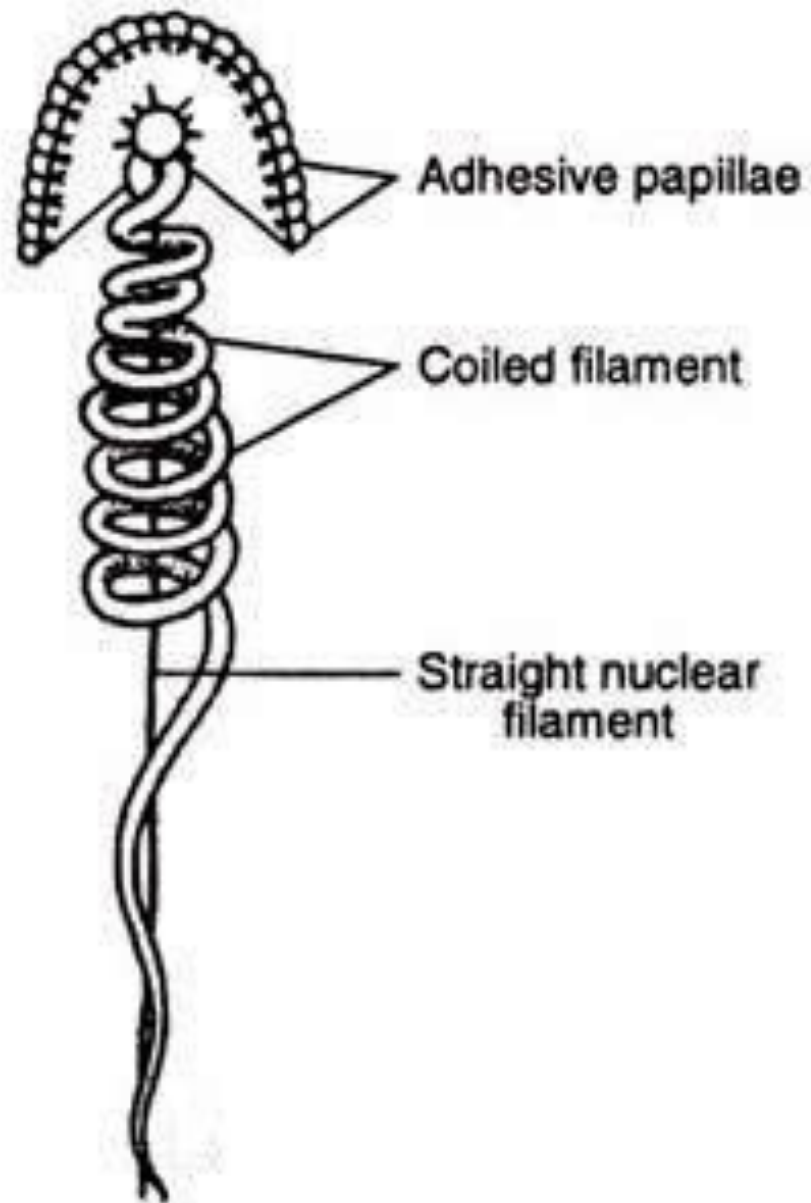
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# GENERAL CHARACTERISTICS OF CTENOPHORA

- **Ctenophora** (Gr.-ktenso=comb; phora=bearing) Commonly known as **Comb Jellies** or **Sea Walnuts**
- Phylum Ctenophora consists of about 100 species.
- Ctenophores are considered to be evolutionary intermediates between the radial Cnidarians and the bilateral Platyhelminthes (flatworms).
- They are usually planktonic, living in water from the surface to as deep as 3,000 meters and a few species may even be found crawling about on the bottom but never with a sessile or benthic form.



**Fig.** A. External view of Hormiphora from a side. B. Diagrammatic view of Hormiphora showing inner details. (after various sources).



**Fig. A LASSO CELL OR COLLOBLAST CELL**

## The Characteristic Features are –

- Exclusively marine, solitary, pelagic (planktonic), very active, carnivorous and often phosphorescent animals.
- Body soft, delicate, transparent, gelatinous and without segmentation.
- Form typically spherical, pear-shaped or cylindrical, flat ribbon-like in some (eg. *Cestum*- Venus's girdle )
- The size may vary from less than 01 cm diameter to over 01 meter for some ribbon-like forms.

- Symmetry definitely biradial along an oral-aboral axis.
- Body acoelomate, diploblastic with well developed cellular mesenchyme which gives rise to musculature including muscles and connective cells.
- Most characteristic feature is the presence of eight meridional rows of comb-like ciliary plates on the surface of the body, forming locomotary organ ; hence the common names '**Comb-jellies**' or '**Sea-walnuts**'.

- Generally a pair of long, solid, retractile tentacle present, projecting from blind pouches on opposite sides of the body.
- Nematocysts are absent but the tentacles bear special adhesive **Lasso cells or Colloblast cells** which help in food capture.
- Skeletal, excretory, circulatory and respiratory systems absent.
- The mouth, lying at the oral pole, leads into large stomodaeum (ectodermal) connected with a series of endodermal gastro-vascular canals and two aboral anal pores.
- A diffused nervous system consists of a nerve net, somewhat more specialized than that found in Cnidaria.

- The aboral end bears a sensory organ of equilibrium-the **Statocyst**.
- All are hermaphroditic. Testes and ovaries formed side by side from endoderm of gastro-vascular canals.
- Development usually includes a complex metamorphosis with a characteristic **Cydropid** larva.
- There is no asexual reproduction and alternation of generation (monomorphic).
- Regeneration and paedogenesis (development of adult characters in larva) are common.