

## Chapter 4

# Ctenophora

### 4.1 Description

The presence of a third germ layer represents an evolutionary advance over the diploblastic condition of cnidarians; the discrete organ systems represent another advance.

### 4.2 Classification

Phylum **Ctenophora**

Class **Cydippida**

Class **Beroida**

Class **Lobata**

### 4.3 Observing Live Animals

- Observe ctenophores swimming in the circular tank in the back of the room. Note their orientation and the direction of the metachronal wave along the comb rows.
- Remove a ctenophore from a glass beaker<sup>1</sup> and place it in a finger bowl filled with seawater. Work in groups if there are not enough ctenophores. Touch gently the

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<sup>1</sup>Do not remove the ctenophores from the circular tank.

ctenophore with a probe and observe its behavior. Observe and draw the ctenophore (we need a figure for this).

- Remove part of the tentacle with a pair of scissors and place on a microscope slide and cover with a cover slip. Observe the colloblasts with the compound microscope. You should be able to clearly see the gland cells (add a figure).

### 4.4 Demonstrations

- Observe ctenophores eating in the circular tank.
- If *Beroe* spp. is available, observe it interacting with *Pleurobranchia bachei*.