

Kingdom: Animalia**Phylum: Coelenterata****1. Class: Hydrozoa**

a- Order: Hydroida

Family: Campanulariidae

Obelia sp.

1. Obelia freely lives sessile attached to substratum in colonies in marine water.
2. Body is consisted of two layers ectoderm and endoderm with mesoglea; these layers together are called Coenosarc.
3. Obelia is consisted of **two forms**:
 - A. Colony** is the sessile hydroid form consisted of Hydrorhiza; Hydrocaulus bears 3 types of polyps (zooids) which are **Hydranth** (nutritive zooid); **Blastostyle** (budding zooid) and **Medusa** (sexual zooid) with a common Enteron and Perisarc.
 - B. Medusa** is the sexual swimming zooid, none dominate, having an umbrella-like body with tentacles; nematoblasts; statocysts; manubrium; mouth; small enteron; flagellated canals (4 radial & 1 circular).
4. Obelia reproduces **asexually** by budding of blastostyle, then **sexually** by gamete formation (four ectodermal gonads below radial canals). The gametes release to water and external fertilization is happened. Sexes are separated (dioecious).
5. **Lifecycle** is dimorphic (2 forms) **hydroid** and **medusa** form that are alternating regularly with one another in the lifecycle.

♂♀ Gametes → Zygote → Planula larva → Hydrula → Colony → Sexual Medusa

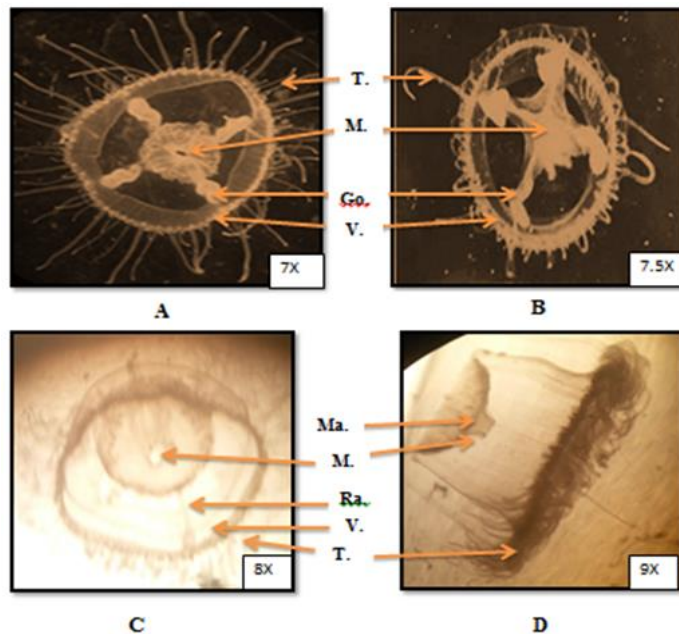
b- Order: Limnomedusae

Family: Olindilidae

Craspedacusta sowerbii

It is a hydromedusa measures about 5–25 mm. Translucent with a whitish color, Water forms 99% of the body. Tentacles protrude from the upper margin, shorter

tentacles facilitate feeding. Long tentacles give stability for swimming. This organism is heterothermic with radial symmetry.



Craspedacusta sowerbii (Go. Gonads, M. Mouth, Ma. Manubrium, Ra. Radial canal, T. tentacles, V. vellum).

2. Class II: Scyphozoa(Scyphomedusae)

Order: Semaestomeae

Family: Ulmaridae

Aurelia aurita (jellyfish)

1. Aurelia aurita freely lives swimming in colonies in marine water.
2. Body is readily recognized by its gelatinous structure and by its **4 pink horse-shoe** shaped endodermal gonads.
3. Aurelia aurita is consisted of **two forms**:
 - A. Colony** is very much reduced **hydroid** form only as a polypoid larva.

B. Medusa is predominant phase, differ from obelia medusa in have very short manubrium; mouth with 4 elongated oral lips; 4 gastric pouches each contains a tentaculocyst, (8 adradial, 4 inter-radial; 4 per-radial and 1 circular radial canal).

3. Aurelia aurita reproduces **asexually** by budding and **sexually** by gametes formation, internal fertilization occurs inside female medusa. Sexes are separated.

4. **Lifecycle** includes **hydroid** and **medusa** form that are alternating regularly.

♂♀ Gametes → Zygote → Planula larva → Scyphistoma (polypoid larva) → fully formed Scyphistoma → Ephyra (small medusa) → Adult Sexual Medusa

