CNIDARIA

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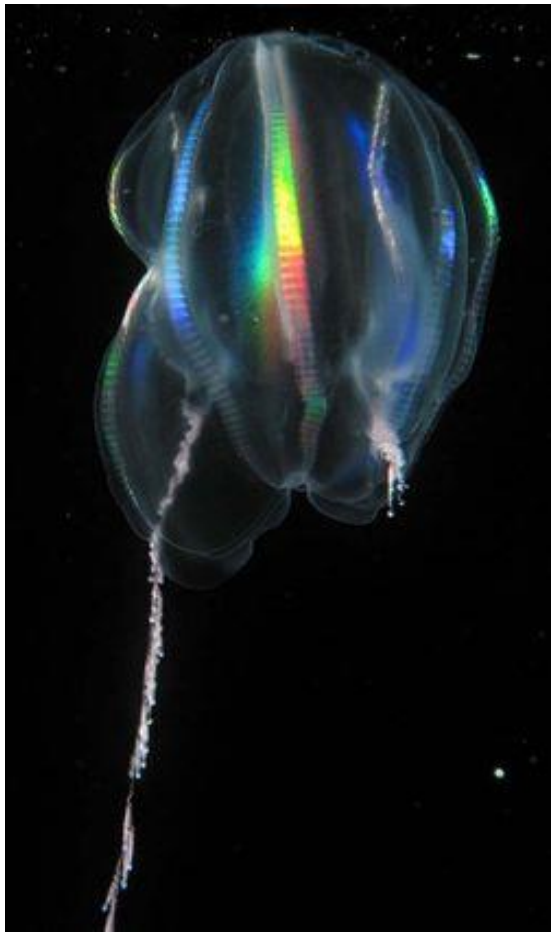
Cnidaria-Classification

- In the past, Cnidaria were classically grouped together with ctenophora as coelenterata
- The **Ctenophora** commonly known as **comb jellies**, is a phylum that includes the sea gooseberry (*Pleurobrachia pileus*) and (*Cestum veneris*).
- Classically grouped with Cnidaria (sea jelly) in the Coelenterata infrakingdom, ctenophores have recently been identified as the most basal known lineage of animals.



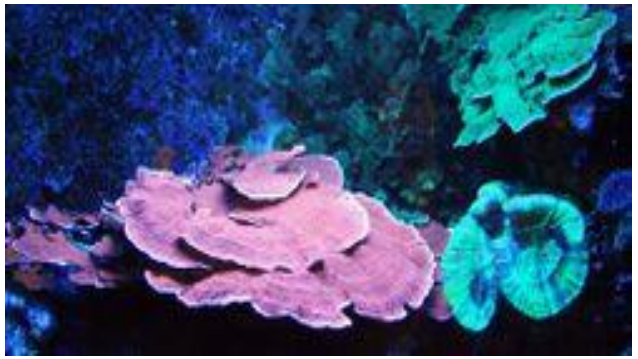
Cnidaria-Classification

- Despite their appearance, they are zoologically not sea jelly, not least because they lack the characteristic cnidocytes (stinging cells) but have connective tissues and a nervous system.
- There are close to 150 described species of ctenophora spread throughout the world's oceans, from shallow estuarine waters to the deep sea.
- Although there are a few benthic species, most are members of the gelatinous zooplankton and form a considerable proportion of the entire plankton biomass worldwide.

Cnidaria-Classification

Cnidaria are further divided into six main classes:

- Class Anthozoa (corals) includes about 6,000 species, including sea anemones and corals such as Scleractinia (stony star corals).
- Unlike other cnidarians, anthozoans do not have a medusa stage in their development.
- Instead, they release sperm and eggs that form a planula, which attaches to some substrate on which the cnidarian grows.
- Some anthozoans can also reproduce asexually through budding.



Cnidaria-Classification

- Class Scyphozoa (sea jelly) contains about 200 species, which mostly appear as medusae.
- Large free swimming marine organisms. The medusa is the dominant phase in the life cycle and the polyp stage is either absent or it is small and gives rise to medusae by asexual budding.
- There is a strong four-fold symmetry.

Cnidaria-Classification

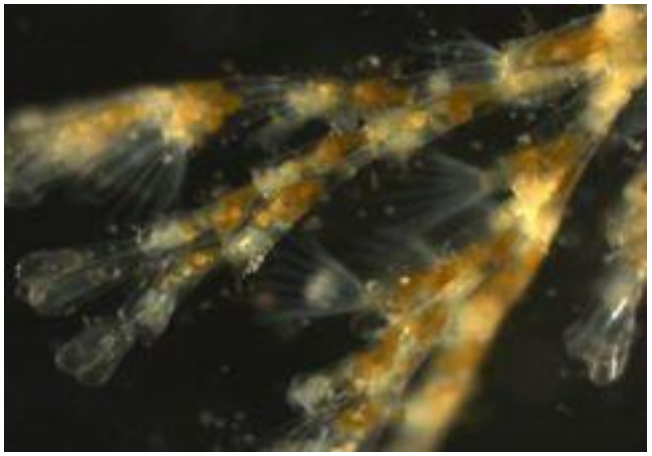
- Class Staurozoa (stalked sea jelly) are small sessile sea jelly with a stalk attached to a substrate.
- They do not enter the medusa stage, instead remaining polyps throughout their lives.
- After the larvae crawl across the sea floor and find a suitable place, they attach themselves to what is usually rock or algae to develop.
- Unlike most sea jelly that practice strobilation or the process of dividing themselves into body segments, which become new individuals.
- A **polyp** is one of two forms of individuals found in many species of cnidarians. The two are the polyp or hydroid and the medusa. Polyps are approximately cylindrical, elongated on the axis of the body.

Cnidaria-Classification

- Class Cubozoa (box sea jelly) encompasses about 20 species, which only appear as medusae. Among them are the species *Chironex fleckerii* and *Chiropsalmus quadrigatus*, known as sea wasps, which possess a highly potent toxin.
- Originally included as an order of the class Scyphozoa (sea Jelly) the Cubozoa are now considered to warrant separate class status.
- As with the Scyphozoa the medusa is the dominant phase in the life cycle. They differ from Scyphozoa in that they have a velum like structure, the velarium, the bell has four flattened sides and a simple margin, and each polyp produces a single medusa by complete metamorphosis. The name refers to the cubic form of the organism.
- They occur in tropical and subtropical oceans. There is only one order, the Cubomedusae.

Cnidaria-Classification

- Class Hydrozoa contains about 3,000 species and is a broad spectrum stretching from the tropical fire corals (*Milleporidae*) to the hydroides (*Sertularia*), some of which appear in the North Sea.
- Hydrozoa often alternate between asexual polyps and sexual medusae body forms.
- These are very small, predatory animals which can be solitary or colonial and which mostly live in saltwater. A few genera within this class live in freshwater.



Cnidaria-Classification

- ***Polypodium*** is a monotypic genus of strange parasitic animals; the only genus in family **Polypodiidae**.
- ***Polypodium hydriforme*** is a parasite of the eggs of sturgeon and similar fishes
- It is one of few metazoans living inside the cells of other animals.