

Marine Biology

Phylum Cnidaria: Corals, Jellies, Sea Anemones, Hydra

Phylum Cnidaria (or Coelenterata)

* Basic Characteristics:



* Cnidaria = “stinging threads”

* 9000 marine species -all sting!!

* Most live in warm, shallow marine habitats

* Radial Symmetry

* Nerve net, but no true brain

* Acoelomate - no true gut

* Mouth only = food in AND waste out



* **Body Form: Polymorphism - many forms**

* **Medusa Form:**

* **Polyp Form:**

* sessile

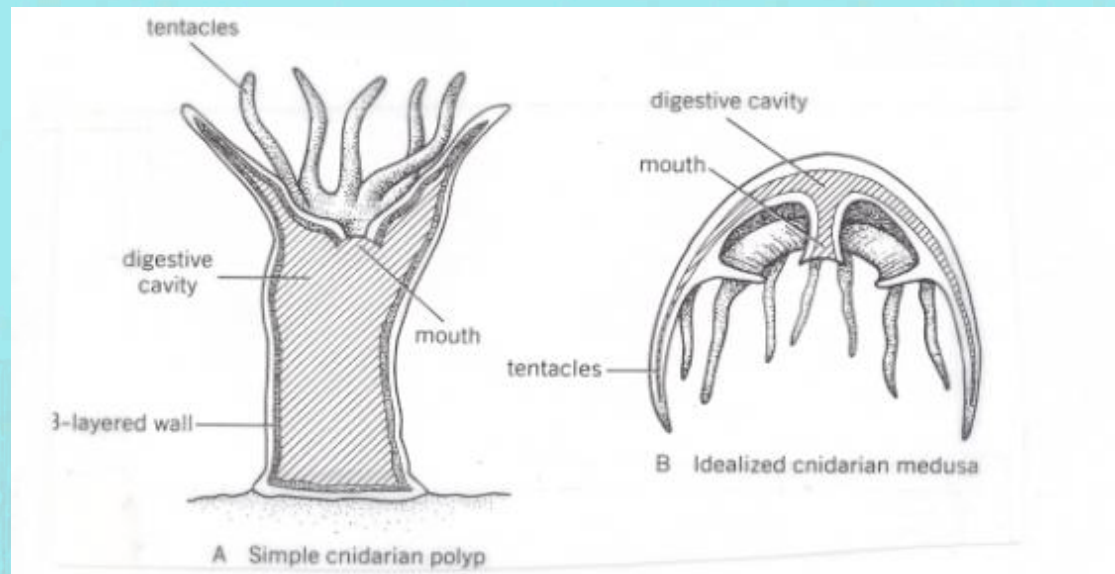
* tubular, cylinder shape

* mouth, ring of tentacles face upward

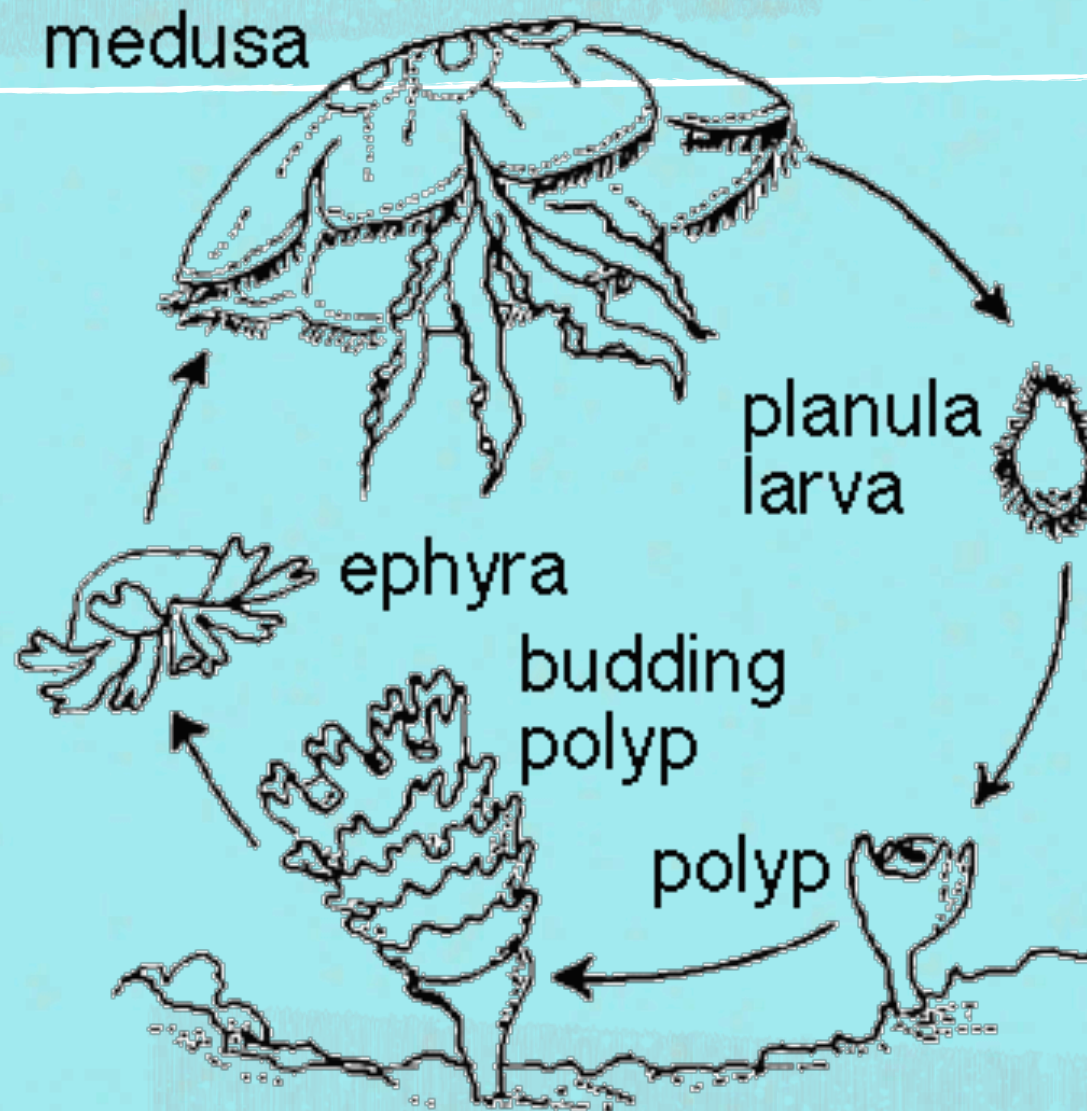
* free swimming

* bell or umbrella shape

* mouth and ring of tentacles face downward



Jellyfish Life Cycle



* **Feeding Behavior:**

* Two Types of feeding

* Filter Feeding = corals

* Predatory = jellyfish and sea anemones

* **Nematocysts** = stinging cells - used for defense

* each Nematocyst has a long hollow filament coiled up within a Cnidocyte

* Filaments are sticky and barbed - once fully embedded, protein toxins are pumped through filament into prey

* Each Nematocyst fires once, but each tentacle has 1000's!!!

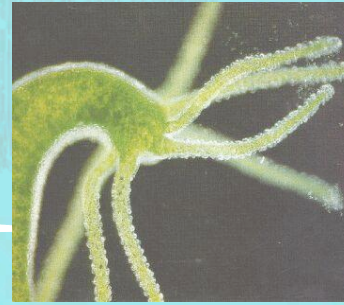


Classification: 4 Classes to Know

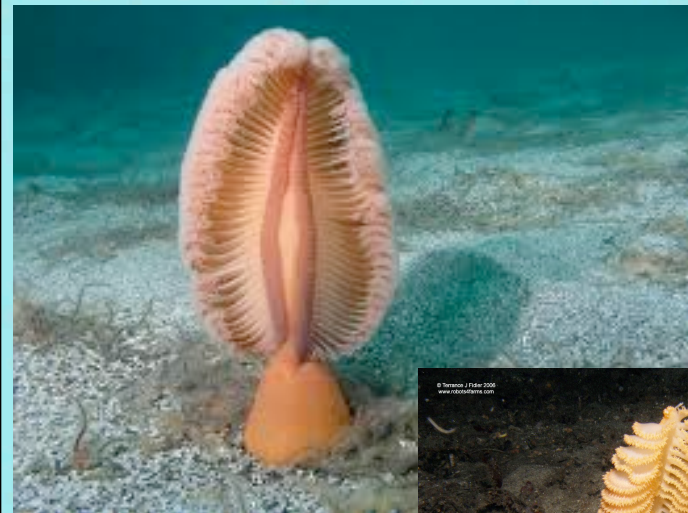
* Class Hydrozoa

- * many fresh water species
- * usually consist of a GROUP of organisms working together

Sailor By the Wind



Hydras



Sea Pen



Portuguese Man-O-War

* Classification: 4 Classes to Know

* Class Scyphozoa

* large jellies

* Medusa Form dominant

* 90% water

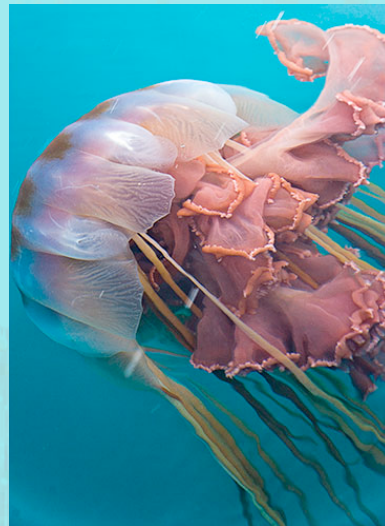
* Swim by pulsing bell or floating



Moon Jellies



Upside Down Jelly



Lion's Mane



Sea Nettle