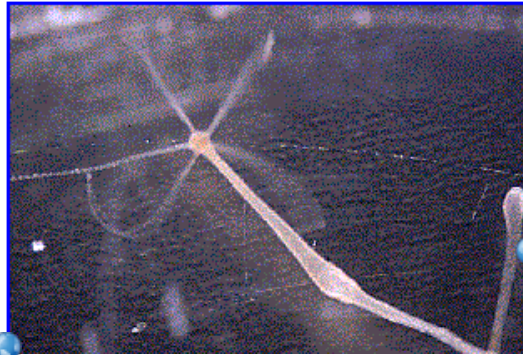


- Cnidarians
 - Sea anemone, jellyfish, hydra, coral



<http://www.ucmp.berkeley.edu/cnidaria/hydrozoa.html>



<http://www.cyhaus.com/marine/anemone.htm>

- Two body forms
 - Medusa - free-floating jelly-like forms
 - Often umbrella shaped



<http://www2.hawaii.edu/~ortogero/jellyfish.html>

- Polyp- forms are tube like and attached to a rock
- Usually fringe like tentacle surround the mouth located at the free end of the body



<http://www.cyhaus.com/marine/anemone.htm>

- Many exist only as a polyp while some only as medusa
- Some have both phases in their life

Cnidarians have tissues

- There are 2 body layers ectoderm and endoderm

Cnidocytes

- The tentacles have stinging cells
- These are what give the Phylum their name
- Within each there is a nematocyst (small barbed harpoon) 1

- Some contain deadly toxins, some only stun and kill
- When the food is stung the tentacles then push the food into the gastrovascular cavity

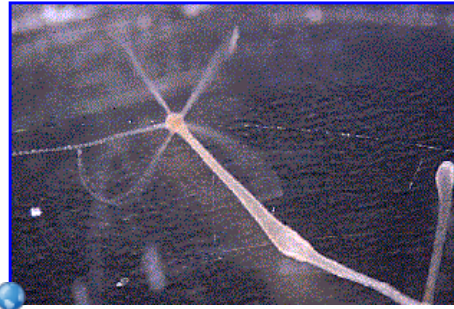
Extra cellular digestion

- Digestion occurs outside the cell
- Enzymes break down food into small fragments
- The cells lining the cavity engulf the fragments

- Digestion completes intracellularly
- This allows cnidarians to feed on things bigger than their cells

Class Hydrozoa- most primitive cnidarians

- Colonial organism
- Spend life as medusa and polyp



<http://www.ucmp.berkeley.edu/cnidaria/hydrozoa.html>

- Freshwater

- *Hydra* are unique because they exist only as Polyp

- Solitary

- Live in quiet lakes, ponds, or streams

- Basal disk-secrete substance to glide on

- Sometimes they move by tumbling

- Marine
- Live together in Colony
- Portuguese man-of-war
- Incorporate medusa and polyps
- A gas filled float allows the animal to float on the surface of the water



- Tentacles reach up to 50 ft long
- They are used to stun and entangle prey
- They have powerful neurotoxin in the tentacles
- It is even harmful to humans

- Reproduction in hydrozoans
 - In most polyps reproduce asexually by budding
 - Many are also capable of sexual reproduction

- Class Scyphozoa
 - Latin skyphos cup zoia animal
 - True jellyfish
 - Active predators that ensnare their prey with their tentacles
 - Some are as small as a thimble others are as large as a queen-size matress

- In many Asian countries they eat

jellyfish

- The salt in the food breaks down the toxins.



<http://www2.hawaii.edu/~ortogero/jellyfish.html>

- Class Anthozoans

- largest class

- Only polyps

- Bright color like sea anemones and corals

- thick stalk like body surrounded with tentacles in groups of 6

- Nearly all shallow water ones have symbiotic algae such as dinoflagellates
- The color of most of these is actually the dinoflagellate



<http://www.coralreef.noaa.gov/>



<http://www.cyhaus.com/marine/anemone.htm>

- Sea anemones
 - 0.2 inches to 4.0 inches
 - feed on fish and other things that swim past their tentacles
 - when touched they retract their tentacles and curl into a tight ball

- They can reproduce by pulling themselves in 2 halves
 - this results in large population of genetically identical sea anemones



<http://www.cyhaus.com/marine/anemone.htm>

- Corals

- Live in colonies called reef
- Live in symbiotic relationships with algae
 - The algae provides food while the coral provides shelter

- The top layer of the reef has living polyp
- The coral are living on top of old skeletons

- As many as 3000 species of animals live on one reef
- Coral reef protect coastlines from wave erosion
- The Great Barrier Reef is the largest
 - 1,200 miles distance from Warren to Dallas, Texas. 19 hours

