

Molluscs

(a brief introduction)

Hannah McLean

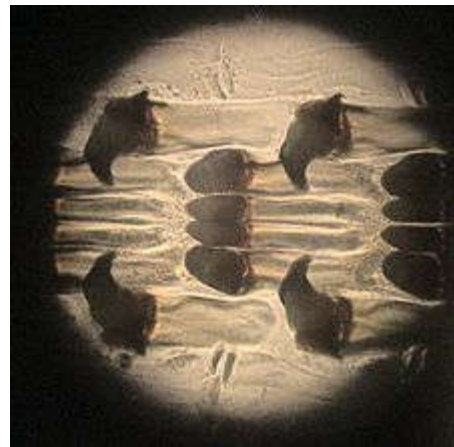
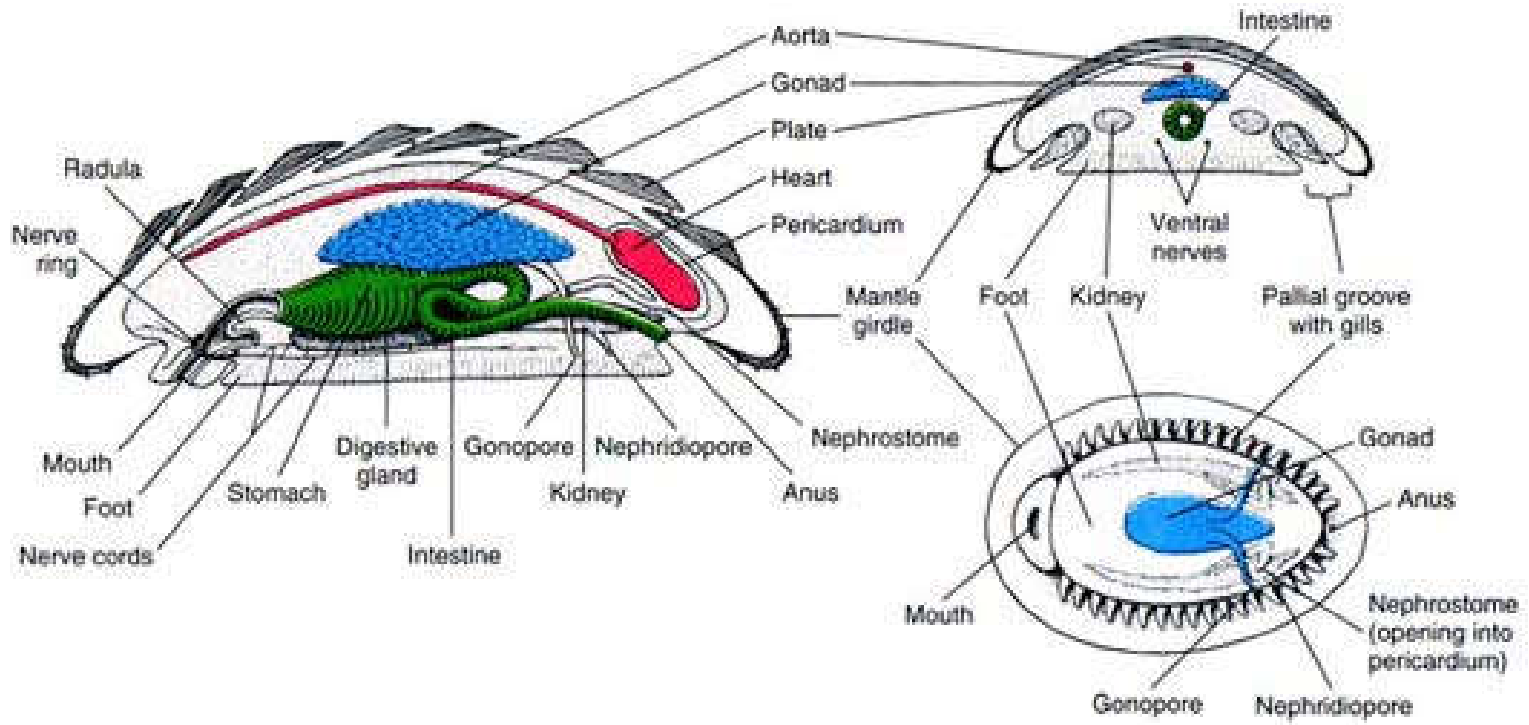
- Molluscs are soft bodied animals, often with hard shells for protection.
- They are one of the most diverse phyla, second only to Arthropods (insects, crabs, shrimp, and others).
- There are 8 known living classes of molluscs and new species are constantly being discovered.
- Many species can actively change their skin color or naturally blend into their surroundings.

Class Polyplacophora

- Commonly called Chitons, this group of molluscs has approximately 500 species in it.
- The name Polyplacophora refers to the 8 plates that cover the backs of Chitons.



Gumboot Chiton “wandering meatloaf”





Lined Chiton



Heath's Chiton



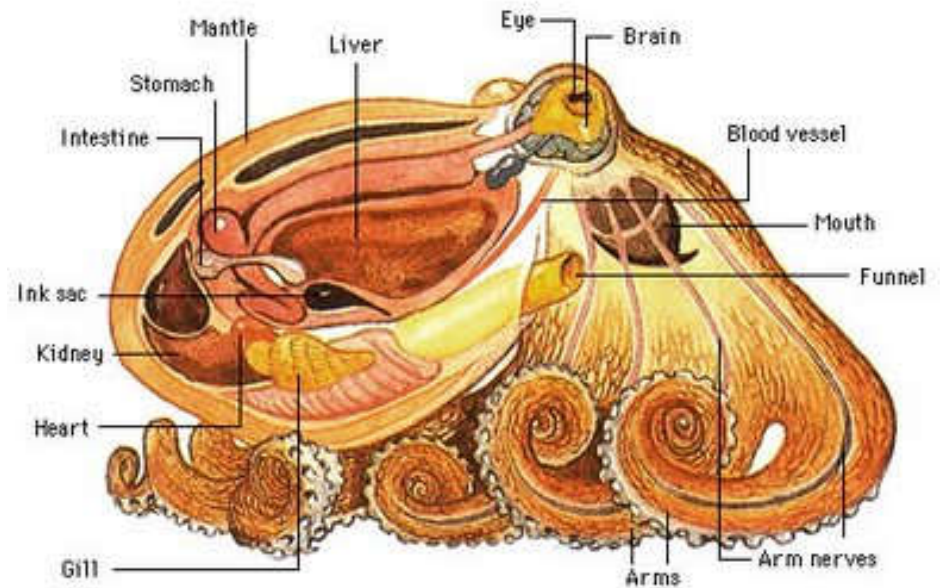
Veiled Chiton



Hairy Chiton

Class Cephalopoda

- Cephalopoda means “head foot.”
- Members of this class include Octopus, Squid, Nautilus, and Cuttlefish.
- Except the Nautilus, members of this group have no external shell.





Order Octopoda

- This order is named for its 8 legs.
- Octopuses are best known for their extraordinary shape and color changing abilities.
- Octopuses are among the smartest invertebrates with the intelligence and curiosity of a domestic house cat.



Giant Pacific Octopus

Paper Nautilus



Dumbo Octopus

Blue Ringed Octopus



Mimic Octopus

Order Teuthida

- This order contains most squid.
- Unlike octopuses, squids have two long tentacles and eight arms.
- While they do not have a shell, they have a “pen” which remains for structural purposes.





Humboldt squid



Cock-eyed squid



Humboldt squid beak



Giant Squid washed up on beach



Sucker marks found on sperm whale skin

Order Sepiida

- Name for “sepia,” the color of ink released from body when frightened.
- Contains cuttlefish which are squid like, but have a more rigid body due to their cuttlebone.
- Have the ability to change their texture and color more rapidly and widely than squid.



Paintpot Cuttlefish

<http://www.youtube.com/watch?v=zC0zOLqYnRg>



Pfeffer's Flamboyant Cuttlefish



Pyjama Squid



Broadclub Cuttlefish



Australian Giant Cuttlefish



Common Cuttlefish

Order Nautilida

- Last known extant (non-existent) family of subclass nautiloidea.
- Only living cephalopod with a true shell.
- Known as a “living fossil” because they resemble ancient ammonites.



Chambered Nautilus shell



Class Bivalvia

- This class includes: clams, mussels, scallops, oysters, cockles, and jingle shells.
- The only class of molluscs that has two shells.
- The smallest bivalves are microscopic and the largest are 4 feet across.
- Most bivalves are filter feeders taking all floating particles out of the water column.
- Bivalves attach themselves to hard substrate, bury in the sea bottom, and some, like scallops, are able to flap their valves together and move freely.





Giant Clam



Blue Mussel



Hard Clam



Atlantic Thorny Oyster



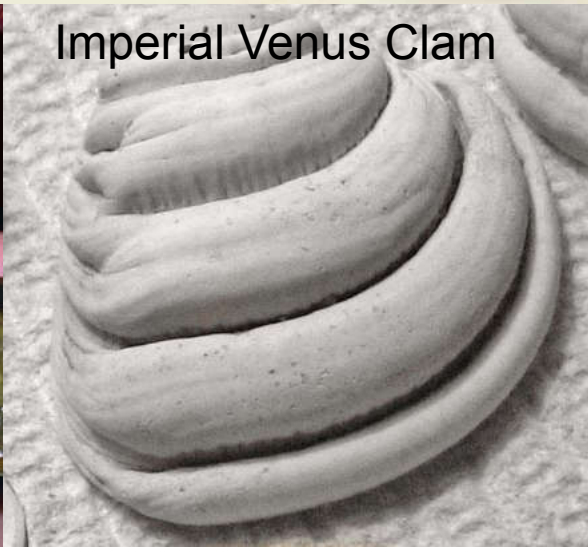
Pen Shell



File Shell



Shipworm

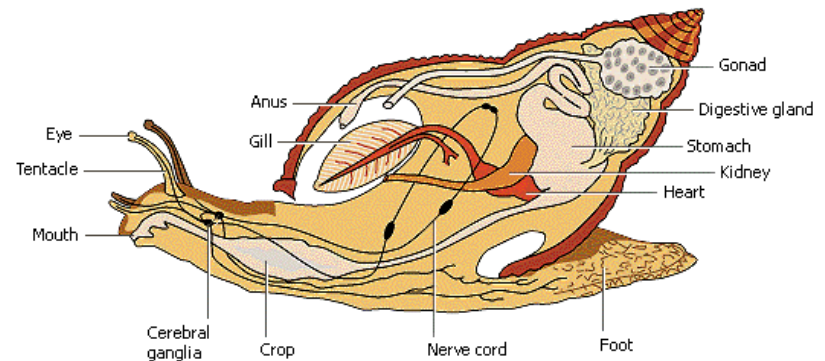


Imperial Venus Clam



Class Gastropoda

- Most diverse molluscan class with 80,000 known species.
- Only molluscan class to colonize land.
- Taxonomy under constant revision due to DNA analysis.
- This class contains several poisonous species.
- Some gastropods lack a shell, but most are known only by their extraordinary shell coloration.

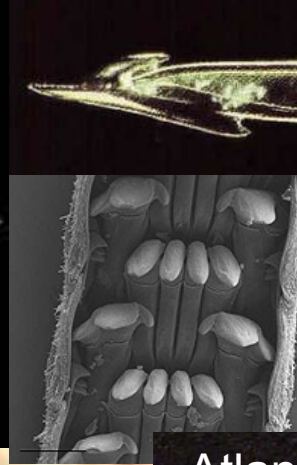


[Cone Snail devouring fish](#)

Blue Dorid Nudibranch



Carrier shell



Lightning
Whelk



Atlantic Slipper Shell

C. marmoreus
feeding on
cowrie



Chestnut cowrie



Florida Horse Conch



Knobbed Whelk

My research

Studying the Asian Clam (*Corbicula fluminea*), testing population sizes in rivers with different environmental influences (such as temperature, salinity, flow rate, and nutrients) by measuring the number and size of the clams and native bivalves present.

