Phylum

Mollusca

(5 Classes)

Paul chases girls in scant bikinis!

Scaphopoda
Cephalopoda – Head foot
Bivalvia – Hatchet foot
Polyplacophora – Many plates on a foot
Gastropoda – Stomach
**Scaphopoda** - “tusk shells”

Currency for Wampum Indians. Head in sand. Respire through mantle (no gills.) Captacula for feeding on foraminiferans,
Class **Cephalopoda** - Octopuses, Squid, Nautilus, Cuttlefish...beak, pen, ink sac, chromatophores, jet propulsion........dissection.

I see Spot very well

I swim faster than Spot

I make make spots all over me in order to hide!

My tentacles (2) & arms are derived from the Gastropod foot
Bivalvia or Pelecypoda - clams, scallops etc. filter feeders, bivalved shells...... dissection
**Bivalvia** or **Pelecypoda** - clams, scallops etc. filter feeders, bivalved shells...... dissection
Schematic Diagram of a Clam Dissection

- Mouth
- Ventilator
- Heart
- Ventricle
- Bulbus arteriosus
- Adductor muscles
- Anterior
- Posterior
- Area of gastric & digestive glands
- Gills or ctenidium – Each = 2 demibranchs
- Path of water ($O_2$)
- Foot
- Mantle
- Visceral mass
- Adductor muscles

Gills or ctenidium – Each = 2 demibranchs
Chitons radula, 8 plates

Class Polyplacophora
Class **Gastropoda** - snails, conchs
torsion/coiling, radula, operculum.

**Subclass Prosobranchia** – pointed shells!

Aquatic **GILLS**

**Subclass Pulmonata** – rounded shells!

Land snails and slugs **LUNG**

**Gastropoda** - snails, conchs
torsion/coiling, radula, operculum.
Detorsion

If it looks strange, chances are its something from Class **Gastropoda**
Class **Gastropoda**

‘POP’

**Subclass Prosobranchia**
- aquatic & terrestrial snails

**Subclass Opisthobranchia**
- Marine
- Nudibranchs / Sea slugs / Sea hares
- mantle cavity & shell reduced or absent

**Subclass Pulmonata**
- Terrestrial Slugs and snails
Phylum Bryozoa

Encrusting vs. Plant like forms

Freshwater vs. Marine

What’s this?

Bird’s nest?
Coral?
Fur ball?
Plant Forms

Encrusting Forms
Freshwater Bryozoa

Have **statoblasts** for surviving through the winter.

Gelatinous **zooecium**

Zooids all the same

**Marine**

Plant like, Colonial Polymorphic zooids
**Freshwater Form**  
Note: lophophore (A) (u-shaped feeding structure) on a zooid
**Phylum Bryozoa**

**Avicularia** – for defense & perhaps food capture.

**Vibracula** - keep colony free of debris and settling organisms.

**Marine Form**    Excellent example of polymorphism
They have autozooids for basic feeding and modified zoooids for other functions.
Basic Bryozoan Body Plan

Ring of tentacles = Lophophore
= circular ring in marine,
= U-shaped in freshwater

Mouth

Intestine

Stomach

Zoecium = chamber in which the individual ZOOID lives

Anus

Retractor muscle to pull organism back into zoecium

What do you call the structures that enable freshwater bryozoans to over winter?
Basic Bryozoan Body Plan

- Ring of tentacles = Lophophore
  - circular ring in marine,
  - U-shaped in freshwater
- Mouth
- Anus
- Stomach
- Intestine
- Zoecium = chamber in which the individual ZOOID lives
- Retractor muscle to pull organism back into zooecium
- Statoblasts