

Lecture #8 – Mollusca

I. Mollusca

A. General Ecology and Economic Significance

B. Mollusca Body Plan (nearly complete organ systems)

1. **Muscular foot**
2. **Mantle & Shell**
3. Respiratory Organs (gills & lungs)
4. Digestive System (complete)
5. Nervous System and Sense Organs
6. **Coelum** (body cavity)
7. **Radula**

C. Larval type: **trochophore**

D. Evolutionary Diversity

1. Lesser Known Mollusca
 - a. Aplacophora (Caudofaveata & Solenogastres)
 - b. Monoplacophora
 - c. Scaphopoda: tusk and tooth shells
2. Better Known Mollusca Groups
 - a. Polyplacophora: Chitons
 - 1) Shell composed of **8 plates**
 - b. Bivalvia: Mussels, Clams, Scallops, & Oysters
 - 1) Shell divided into **two**, loss of radula, **suspension feeders**
 - c. Gastropoda: Snails, Slugs, and many others
 - 1) **Torsion and detorsion**
 - 2) Head can be pulled back into mantle cavity
 - d. Cephalopoda: Nautiluses, Octopuses, Squids, & Cuttlefishes
 - 1) **Actively swimming predators**; use jet propulsion
 - 2) Elaborate sensory organs, especially the eye.

Reading: Chapter 10 – pages 178-203.

Questions: Page 201 – 1, 2, 3, 4, 5 (radula, odontophore, trochophore, veliger), 6–15.

Figure 10-2



