

Hemichordates

Phylum Hemichordata

Wormlike and stalked marine animals


Body with proboscis, collar, trunk

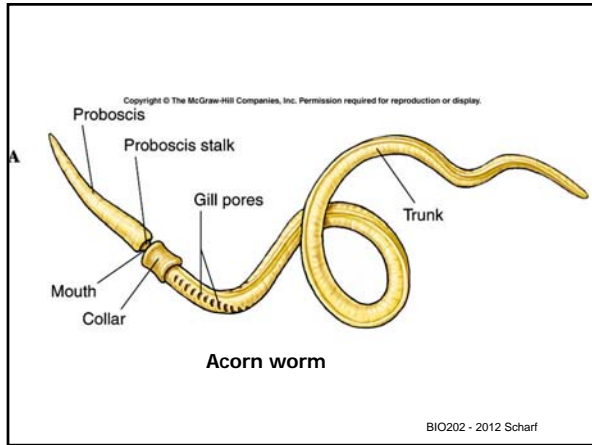
Originally thought to be Chordates based on **gill slits**, **dorsal nerve cord**, and **notochord (mis-ID)**

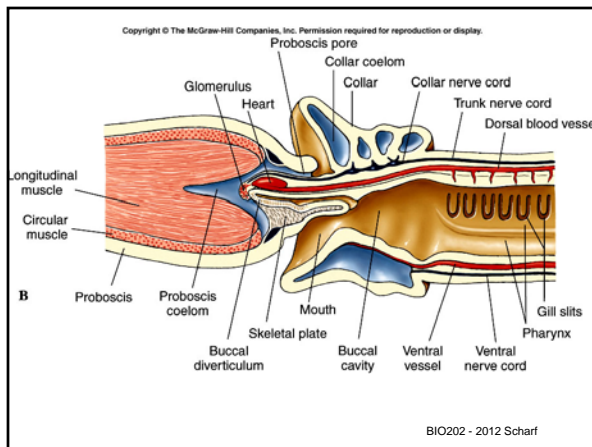
Pouch of gut extending forward (**buccal diverticulum**) thought to be **notochord**

Gill slits function in filter feeding

Dorsal nerve cord is hollow near collar


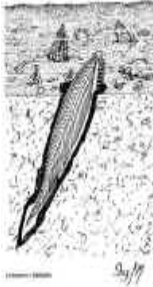




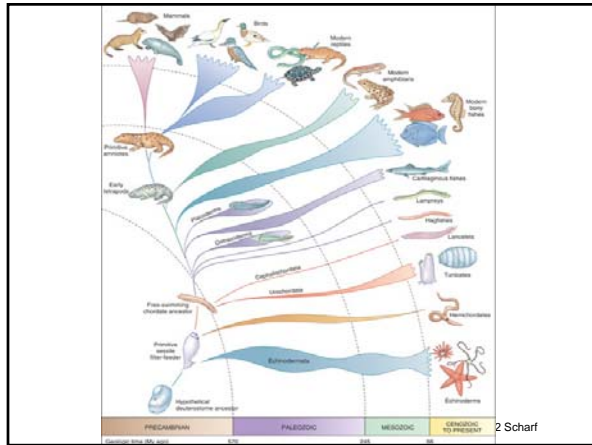


Chordates

- **Single Phylum**
- Includes tunicates, lancelets, fishes, amphibians, reptiles, birds, and mammals
- Bilateral symmetry
- Segmentation (muscles)
- Endoskeleton in most
- **5 distinctive traits.....**



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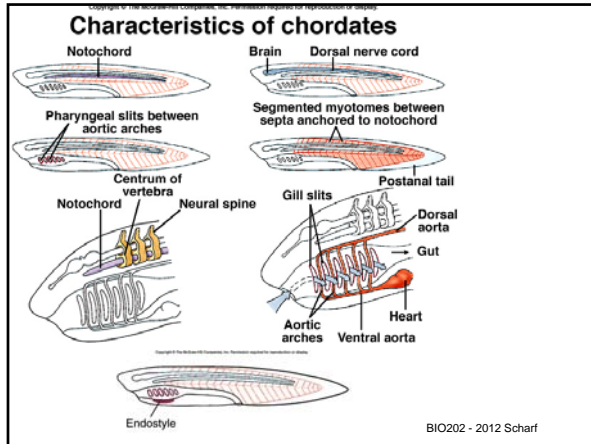


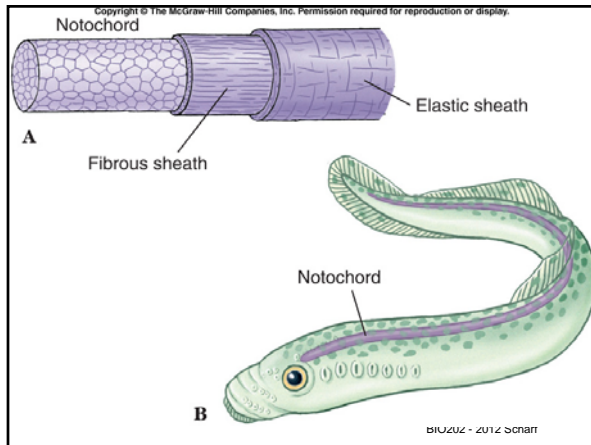
Chordates

5 distinctive traits

1. **Notochord**
 - Flexible rod, first to appear in embryo
 - Replaced by vertebrae in most
2. **Dorsal hollow nerve cord**
 - Sits dorsal to alimentary canal
 - Anterior end enlarges to form brain
3. **Pharyngeal slits**
 - Connects pharyngeal cavity to outside
 - Developed for filter feeding, then gills
4. **Postanal tail**
 - Evolved for locomotion in water
5. **Endostyle (thyroid gland)**
 - Filter feeding with mucous





Chordates

Subphylum Urochordata (tunicates)

- Marine, solitary but can form colonies
- Common name from **non-living tunic** or test
- **Only larvae** have all 5 chordate traits
- Adults are pharynx dominated and filter feed using mucous
- Both sessile and pelagic forms

