



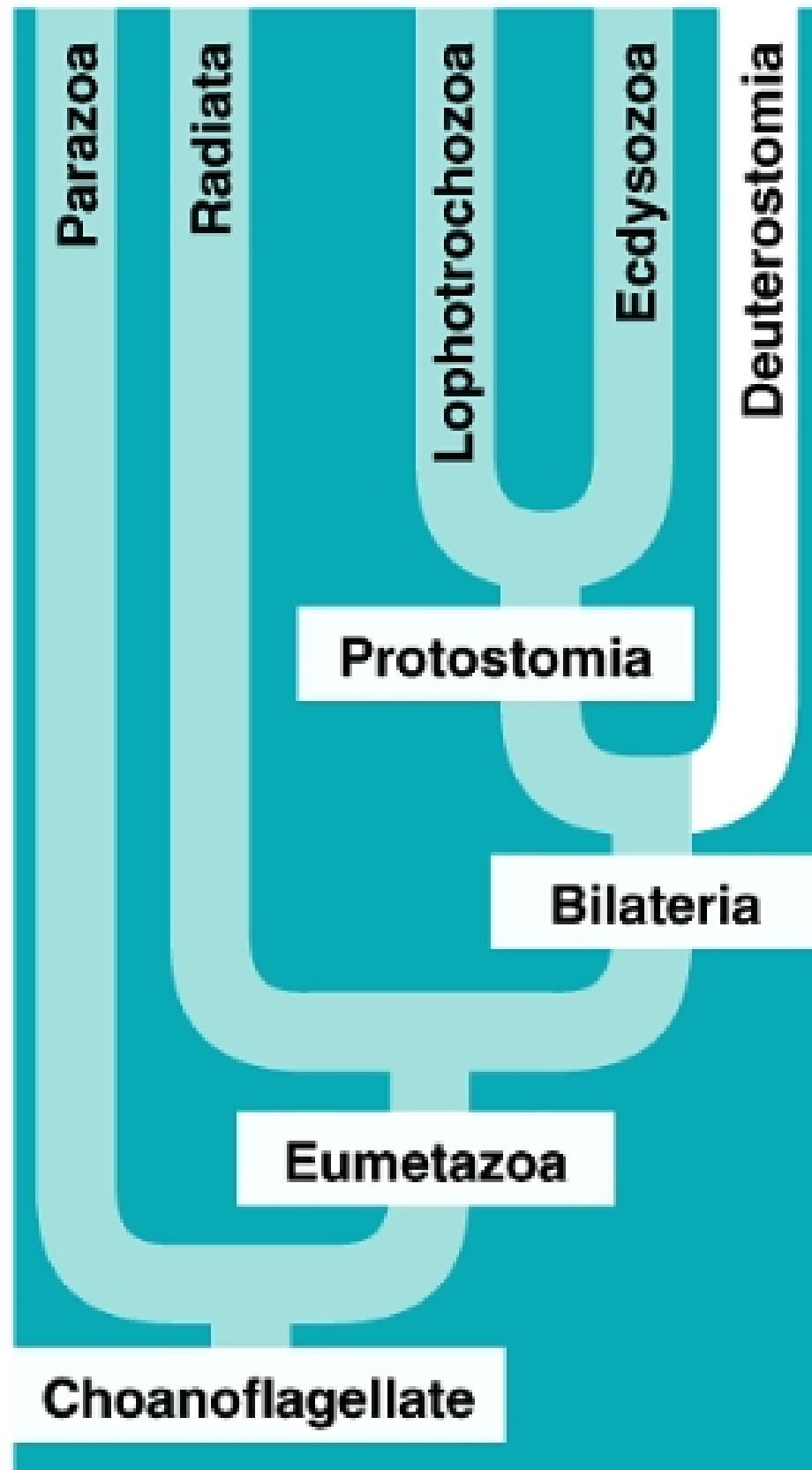
# Vertebrate Evolution & Diversity

# Trends in Animal Evolution

- **Symmetry**  
none → radial → bilateral
- **Pattern of gastrulation**  
no blastopore → protostome → deuterostome
- **Digestive system**  
None → gastrovascular cavity → complete digestive system
- **Body cavities**  
acoelomate → pseudocoelomate → eucoelomate
- **Segmentation**  
none → segmented → fused segments
- **Skeletons**  
none → hydrostatic → exoskeleton → endoskeleton

*What are exoskeletons made of? ...endoskeletons?*

*Consider animals with endoskeletons...Do they demonstrate evidence of segmentation? Describe the relationship.*



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# Deuterostomia

- **Phylum Echinodermata**

- “spiny skinned”
- water vascular system

*What is this vascular system used for?*

- **Phylum Chordata**

- named for the **notochord**

*What features of embryonic development are shared by members of these two groups?*

*Do all chordates have a vertebral column?*