

Ankara University, Faculty of Agriculture , Department of Fisheries and  
Aquaculture, Programme of Fisheries and Aquaculture

# AQS421: Aquatic Invertebrates

Reference: Brusca, R. C., & Brusca, G. J. **Invertebrates**. 2003.  
Sunderland, MA: Sinauer Associates, 2.

AQS421: Aquatic Invertebrates	
<b>Week 1:</b> <ul style="list-style-type: none"><li>Introduction</li></ul>	<b>Week 8:</b> <ul style="list-style-type: none"><li>Phylum Nemertea: The Ribbon Worms</li><li>Blastocoelomates and Other Phyla</li></ul>
<b>Week 2:</b> <ul style="list-style-type: none"><li>Classification, Systematics and Phylogeny</li></ul>	<b>Week 9:</b> <ul style="list-style-type: none"><li>Phylum Annelida: The Segmented Worms</li><li>Sipuncula and Echiura</li></ul>
<b>Week 3:</b> <ul style="list-style-type: none"><li>Animal Architecture and the Bauplan Concept</li></ul>	<b>Week 10:</b> <ul style="list-style-type: none"><li>The Emergence of the Arthropods: Onychophorans, Tardigrades, Trilobites, and the Arthropod Bauplan</li></ul>
<b>Week 4:</b> <ul style="list-style-type: none"><li>Animal Development, Life Histories, and Origins</li></ul>	<b>Week 11:</b> <ul style="list-style-type: none"><li>Phylum Arthropoda: The Crustacea</li></ul>
<b>Week 5:</b> <ul style="list-style-type: none"><li>The Protists</li></ul>	<b>Week 12:</b> <ul style="list-style-type: none"><li>Phylum Mollusca</li></ul>
<b>Week 6:</b> <ul style="list-style-type: none"><li>Phylum Porifera: The Sponges</li><li>Phylum Cnidaria</li></ul>	<b>Week 13:</b> <ul style="list-style-type: none"><li>Lophophorates</li><li>Phylum Echinodermata</li></ul>
<b>Week 7:</b> <ul style="list-style-type: none"><li>Phylum Ctenophora: The Comb Jellies</li><li>Phylum: Platyhelminthes</li></ul>	<b>Week 14:</b> <ul style="list-style-type: none"><li>Other Deuterostomes</li><li>Perspectives on Invertebrate Phylogeny</li></ul>

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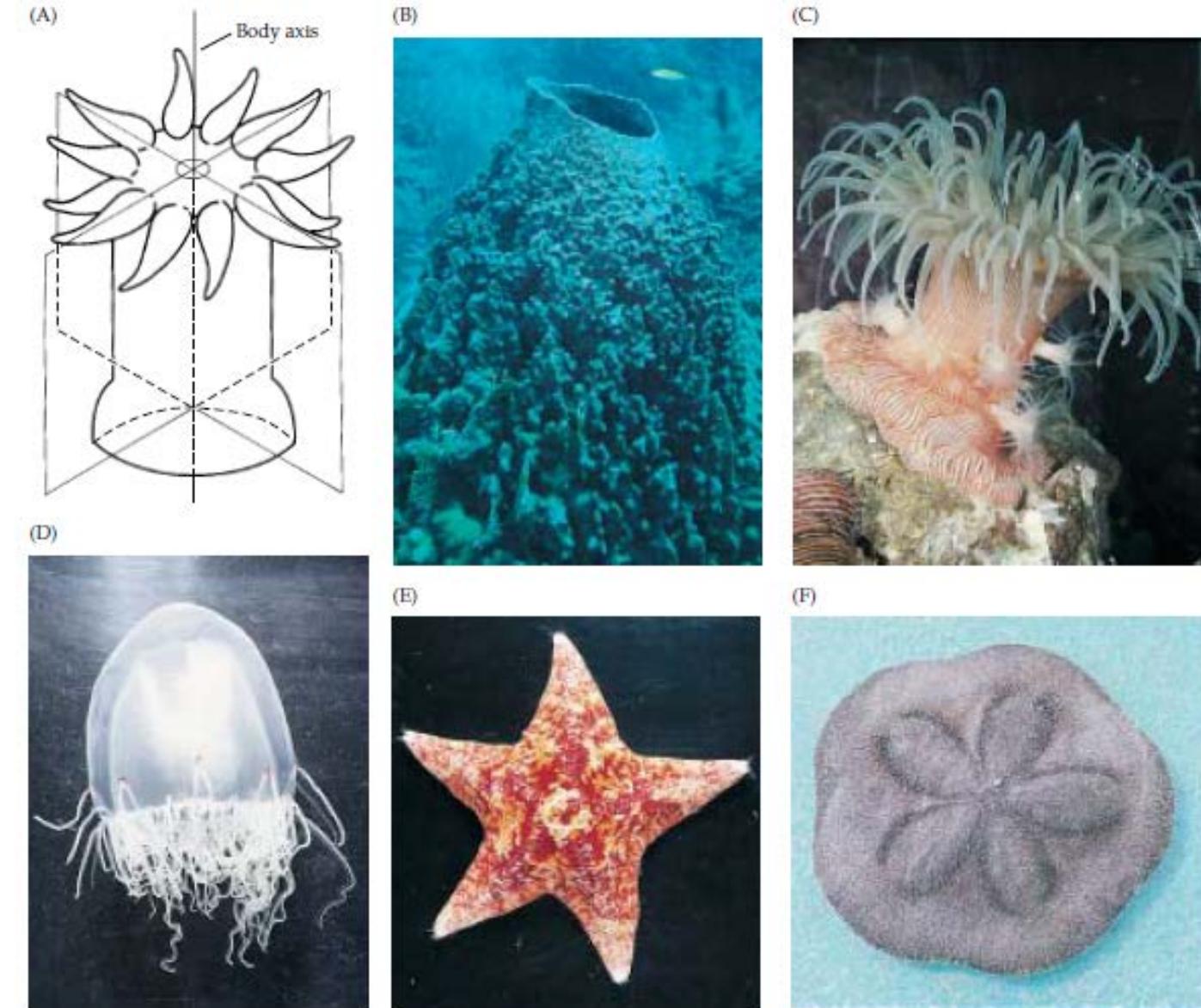
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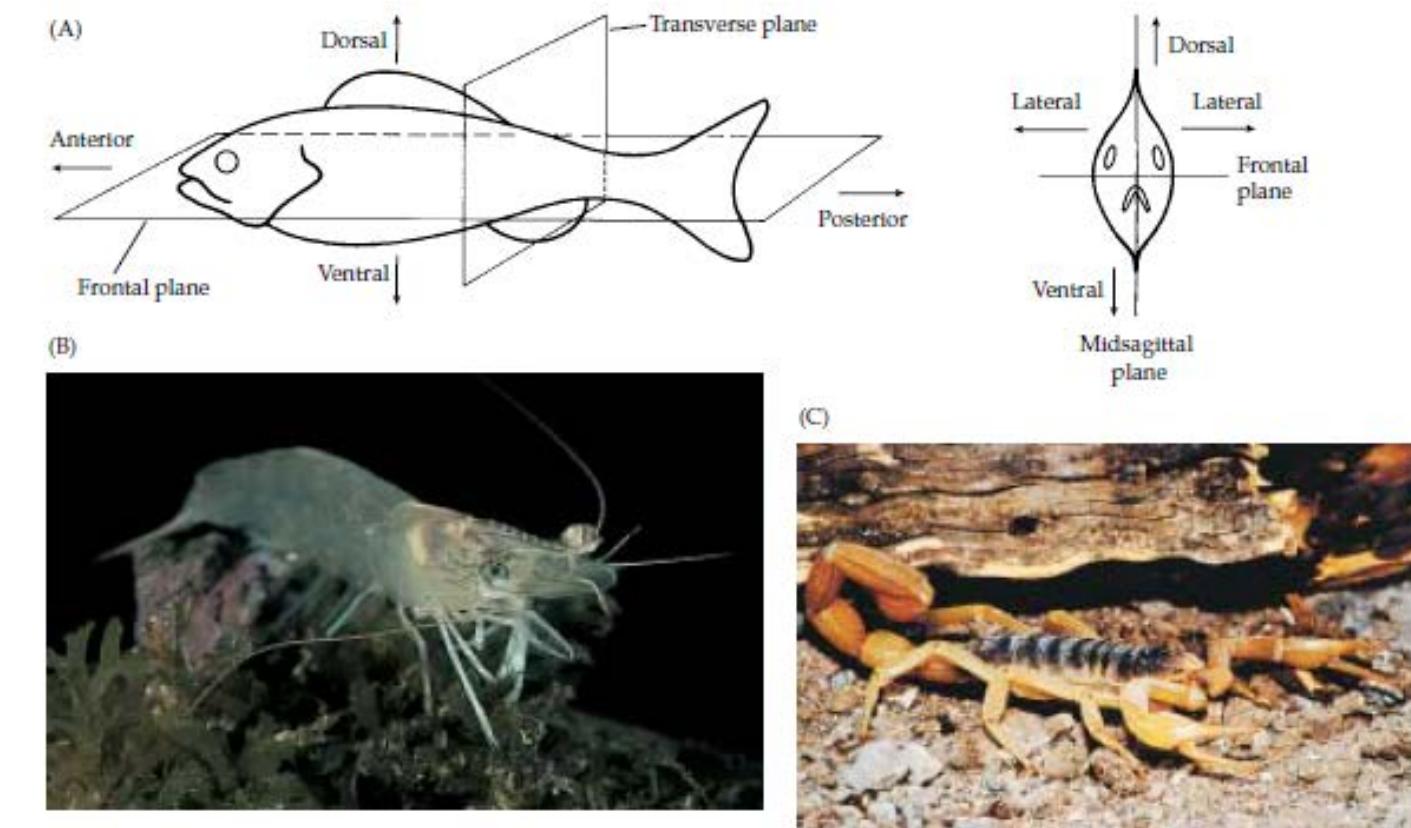
### 3. Week:

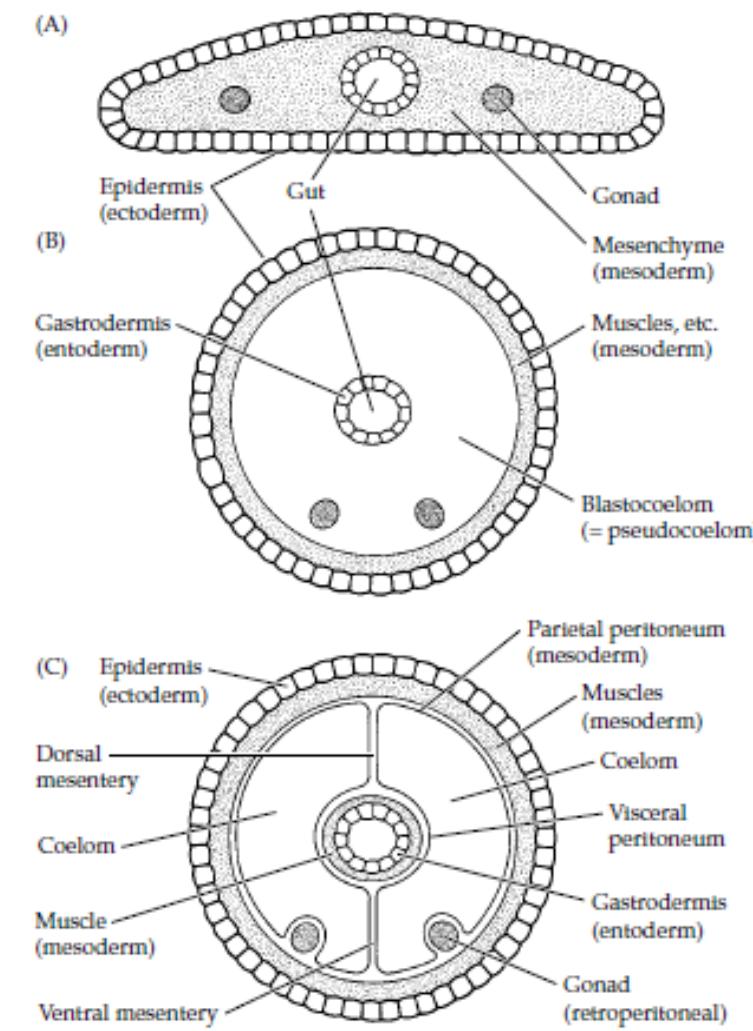
#### Animal Architecture and the Bauplan Concept

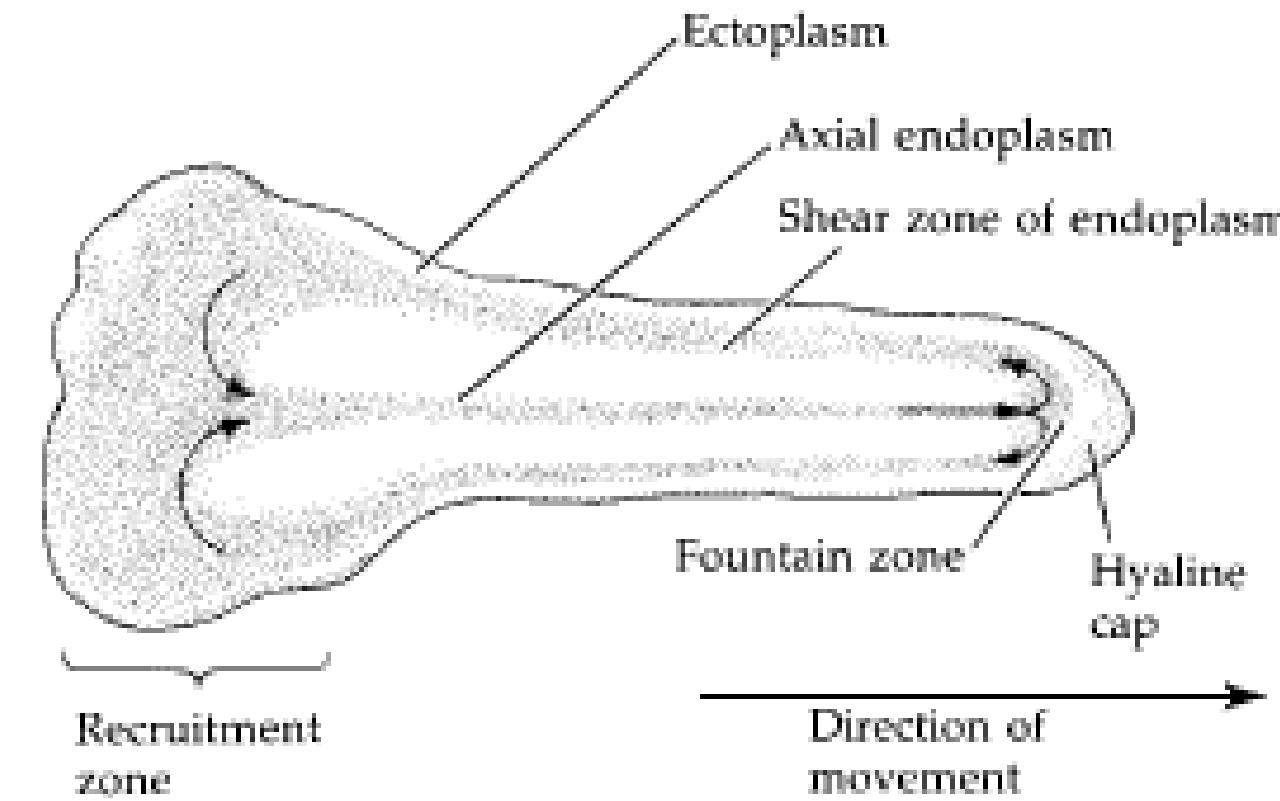
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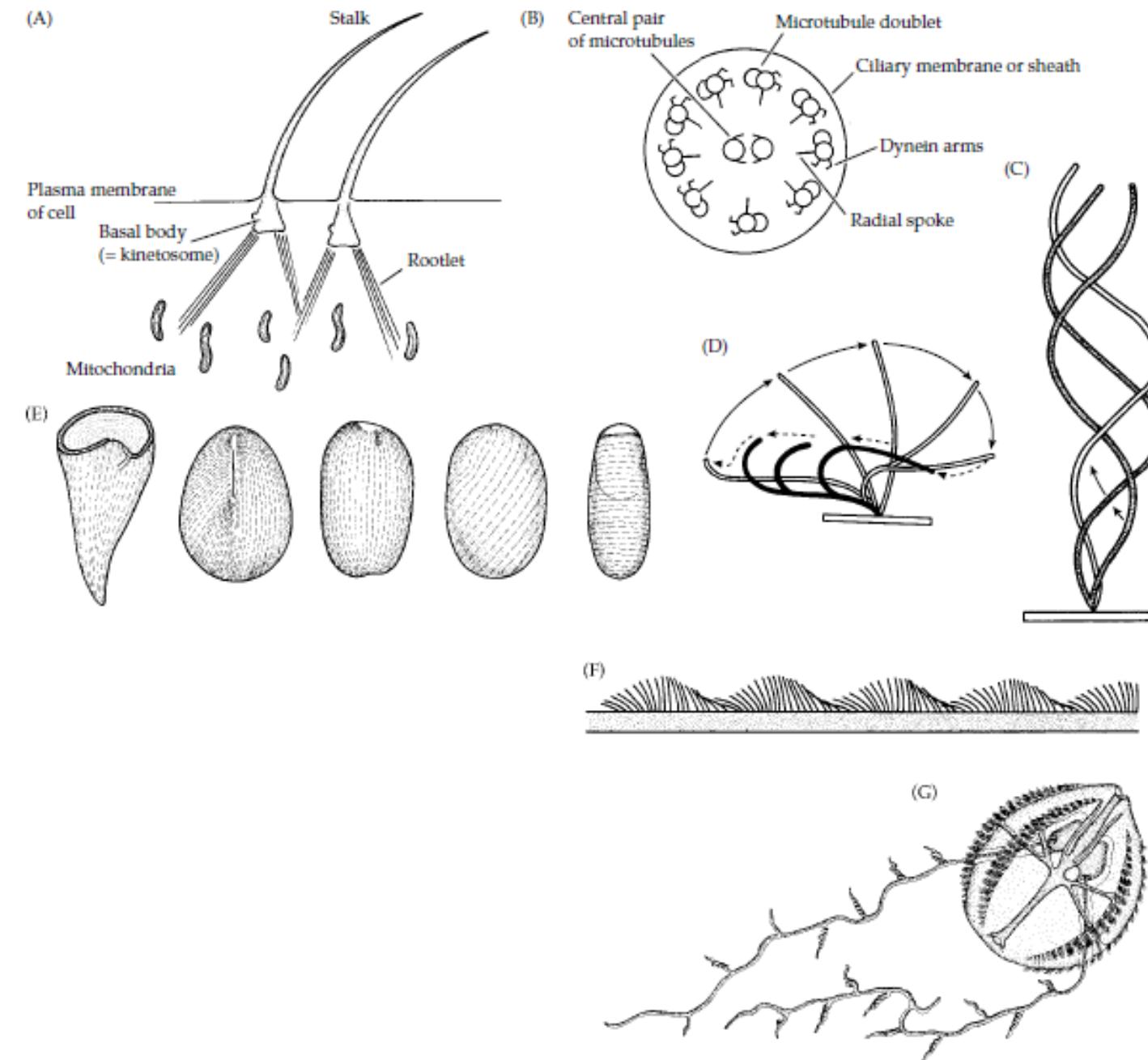


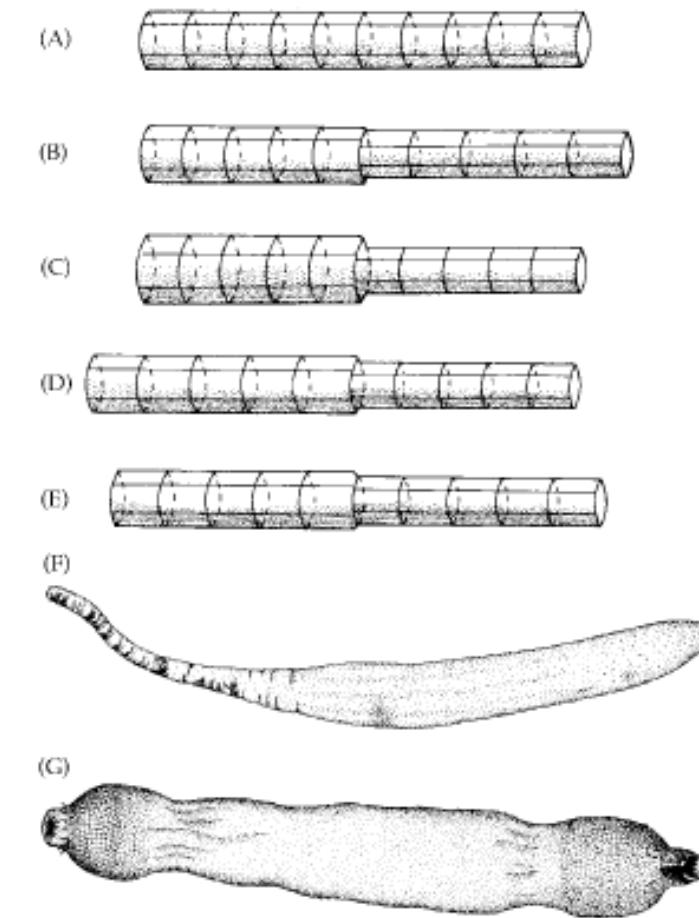


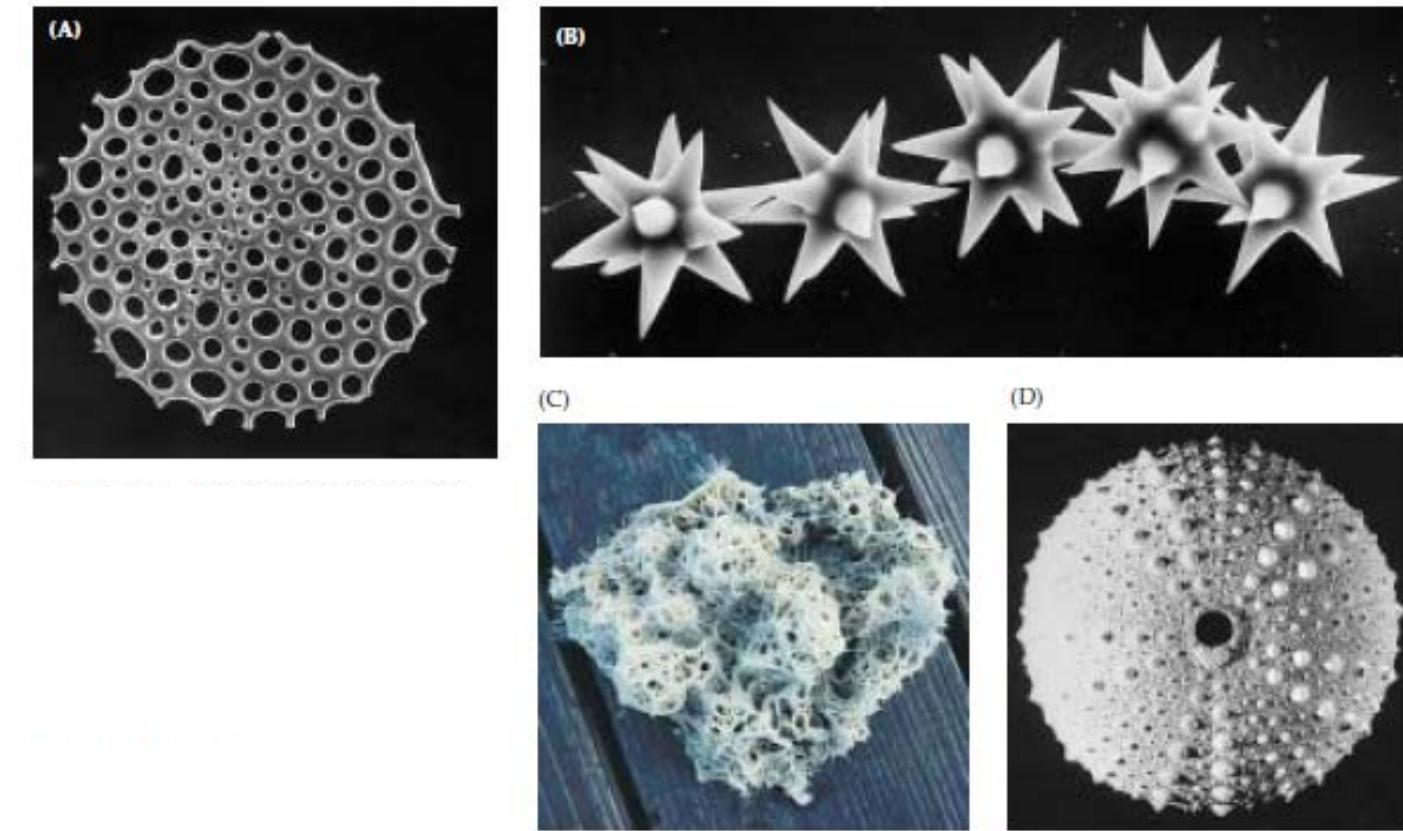


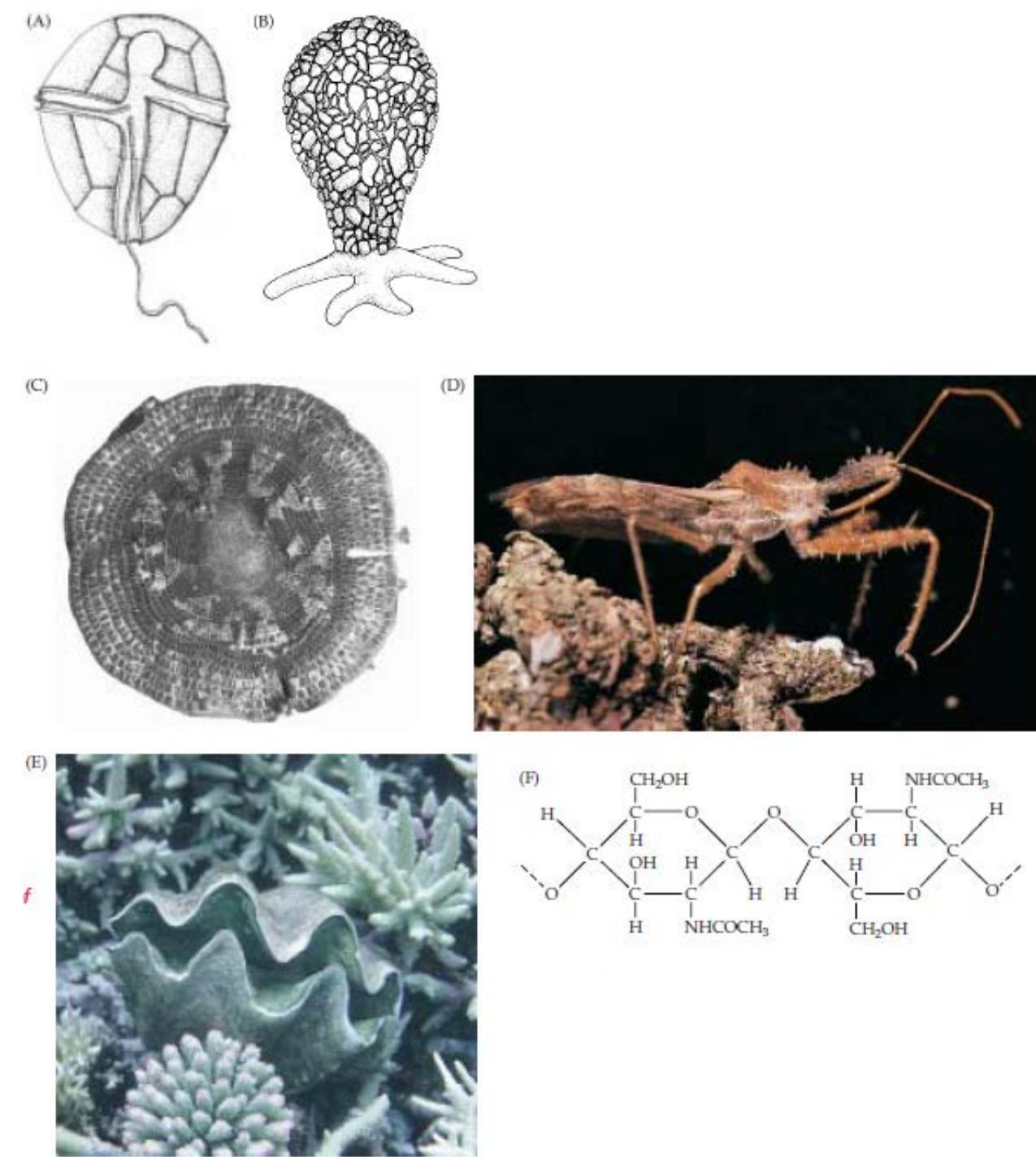


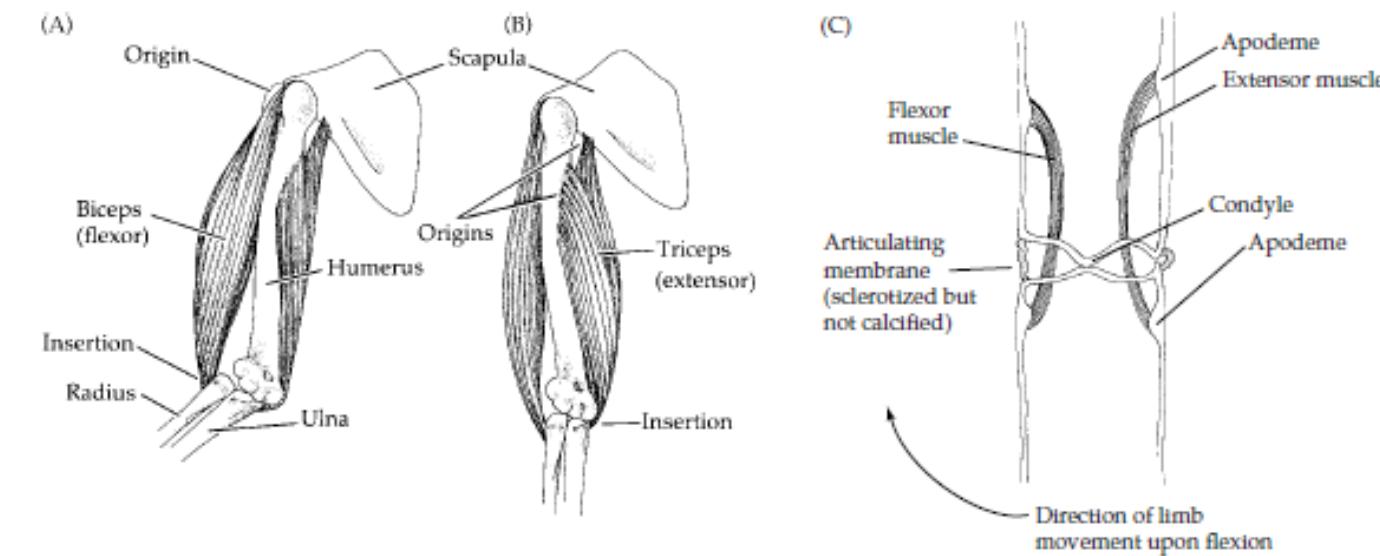


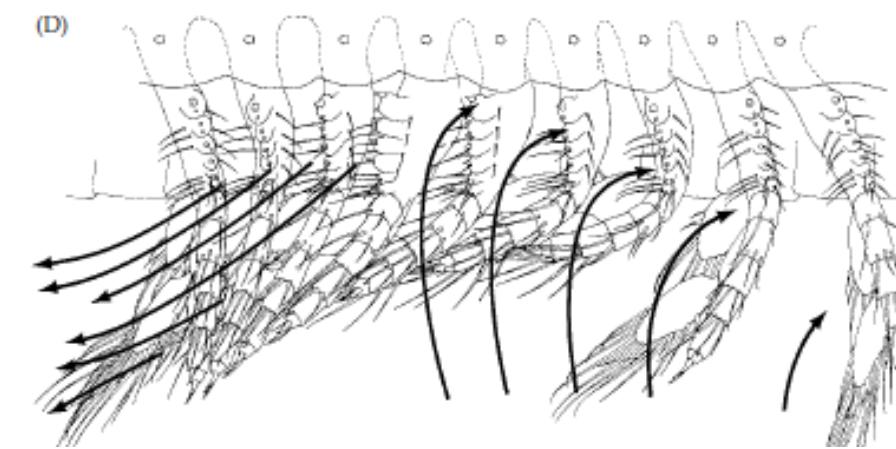




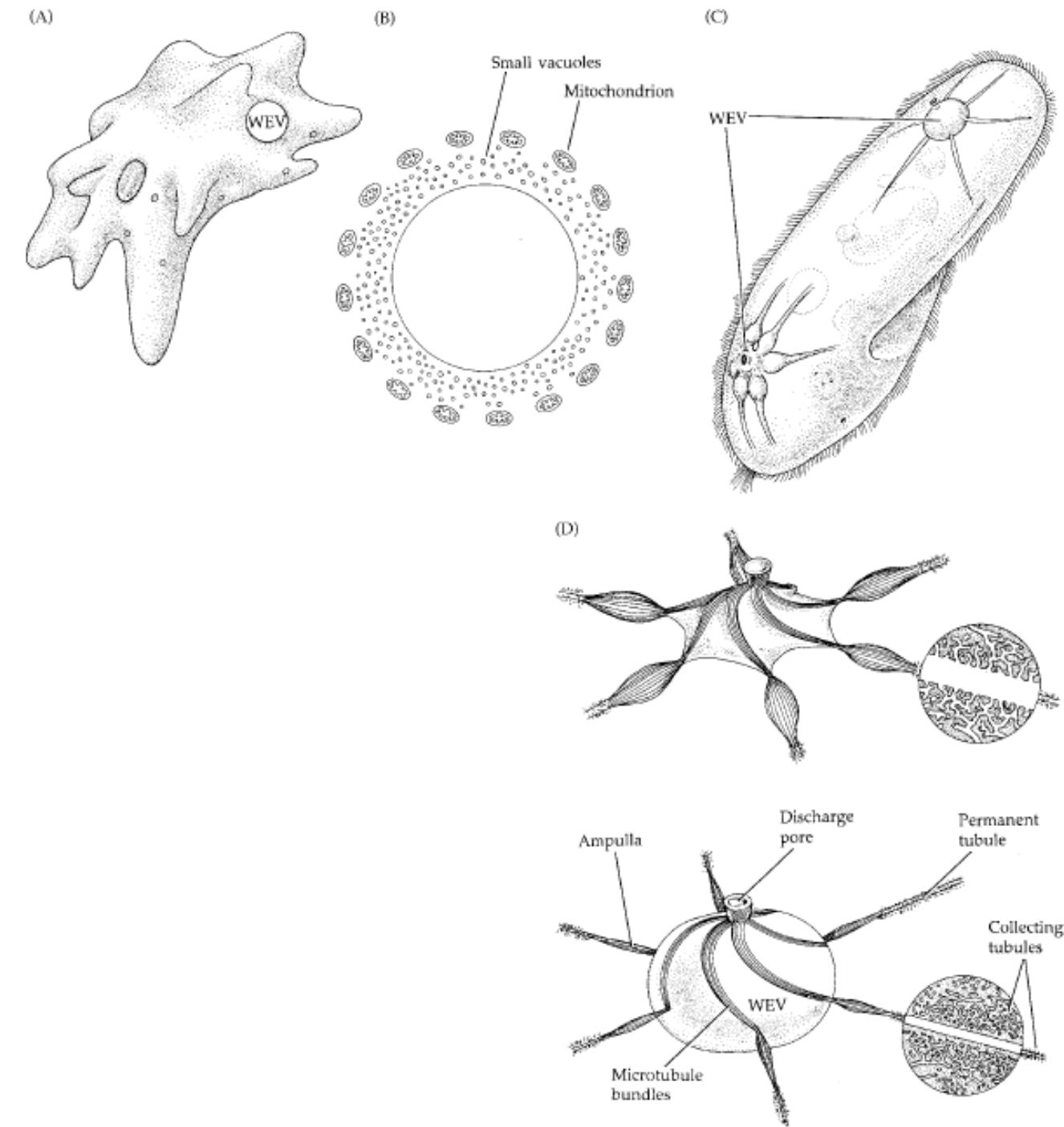


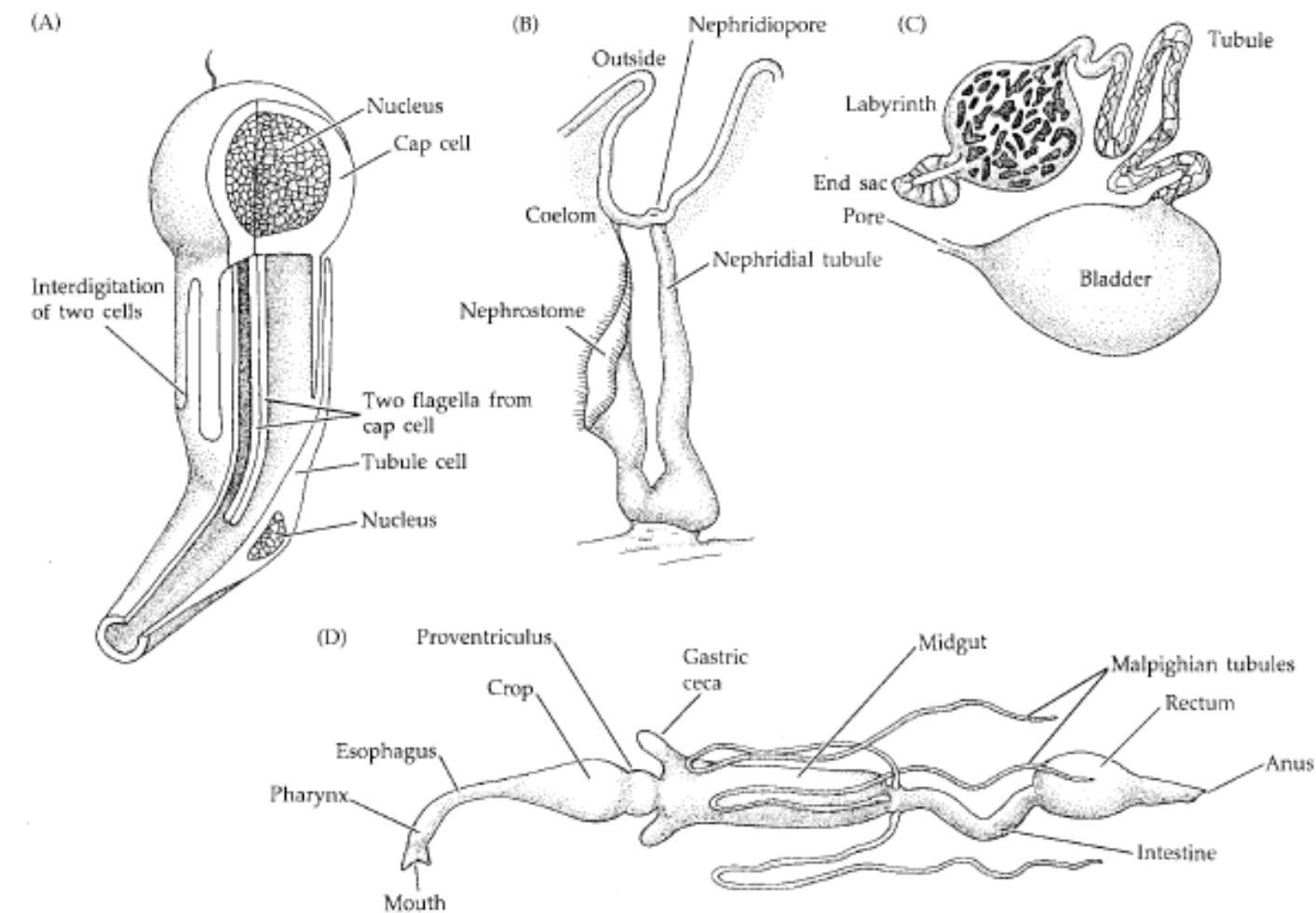


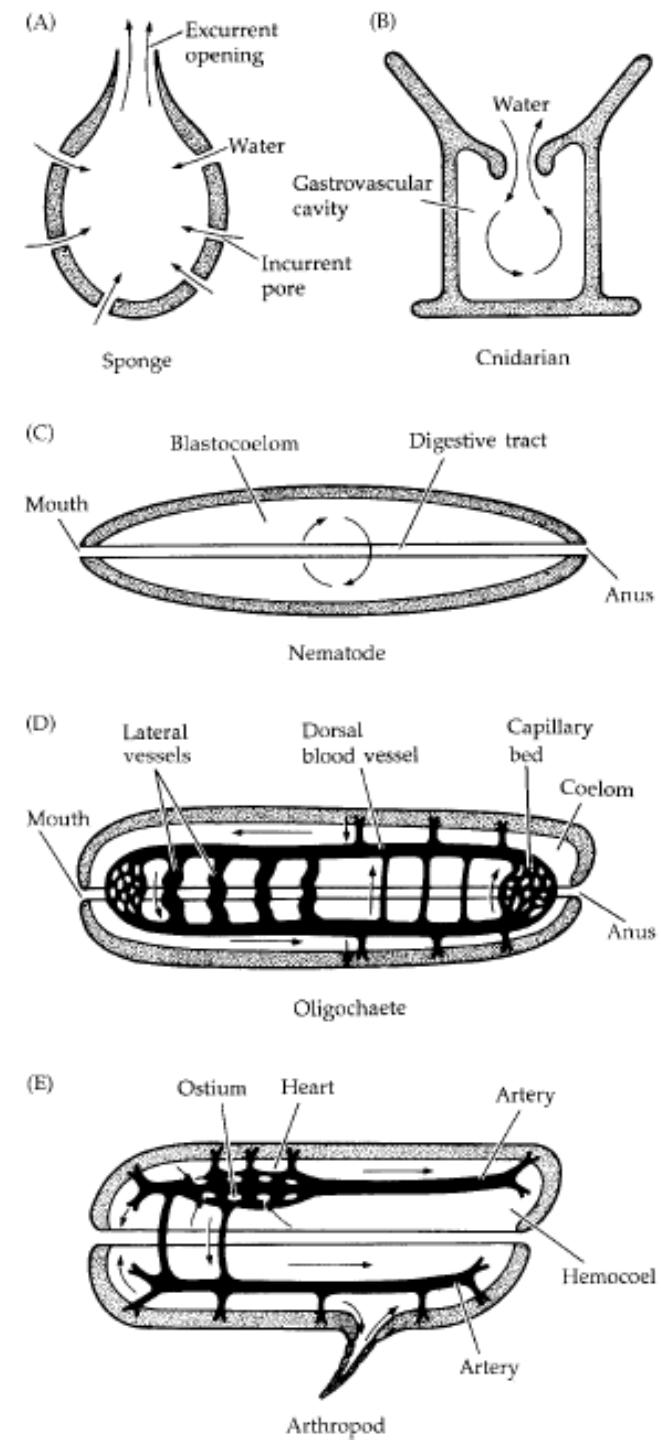












(A)



(B)



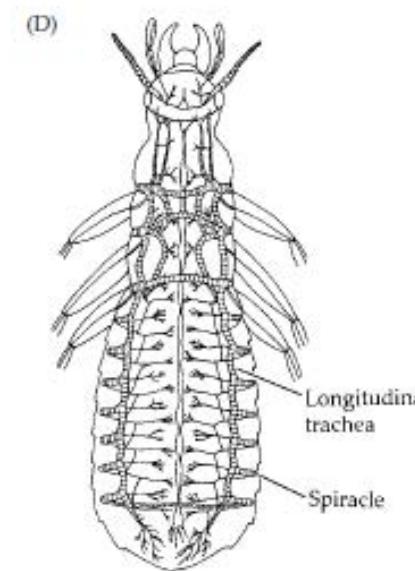
(C)



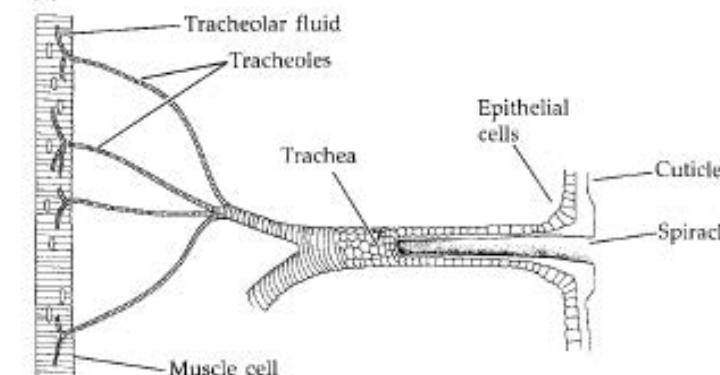
C

*Electronic files/need color proofs*

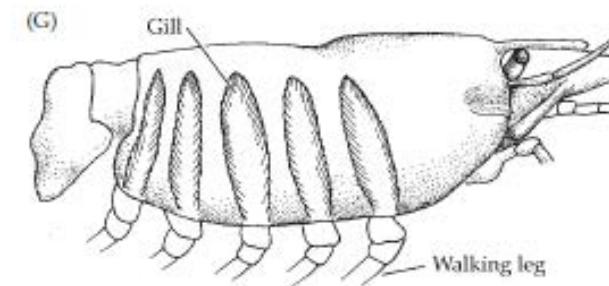
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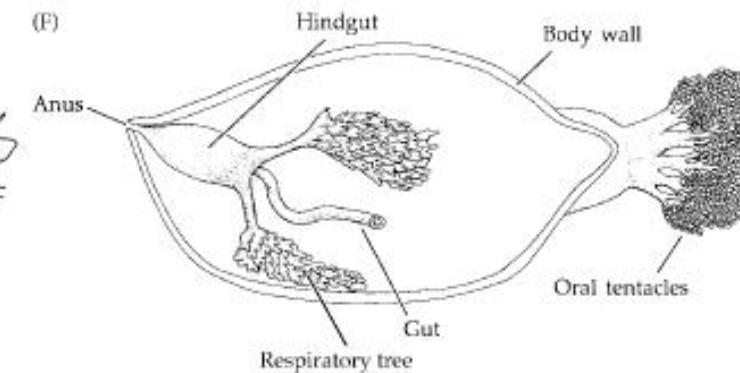
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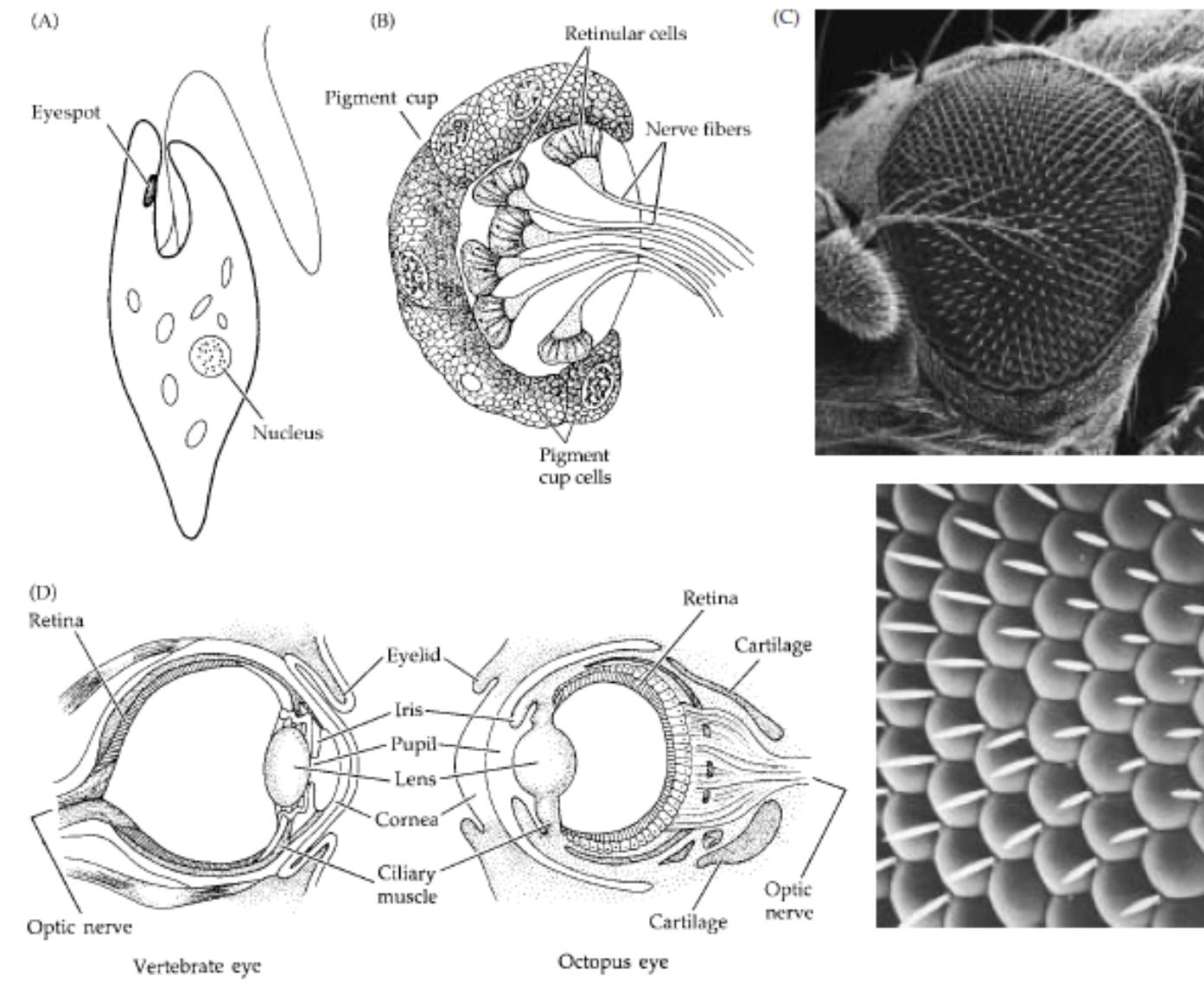


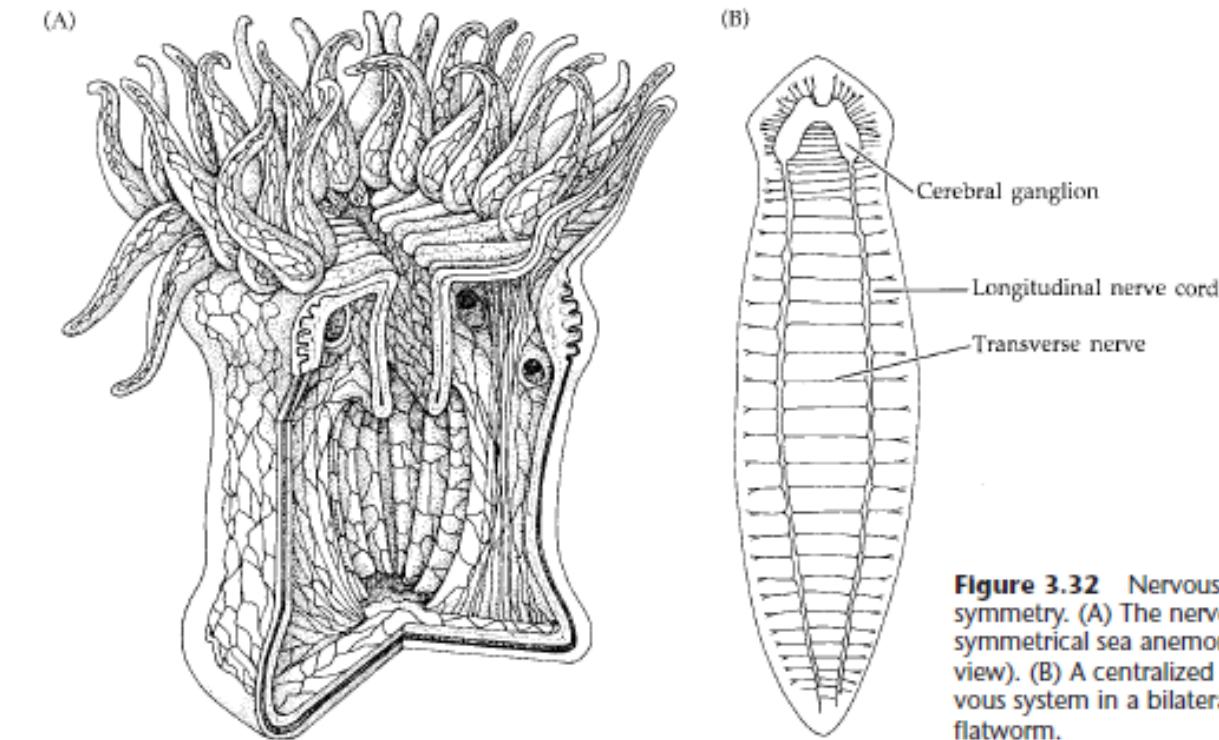
(G)



(F)







**Figure 3.32** Nervous systems and symmetry. (A) The nerve net in a radially symmetrical sea anemone (cutaway view). (B) A centralized ladder-like nervous system in a bilaterally symmetrical flatworm.