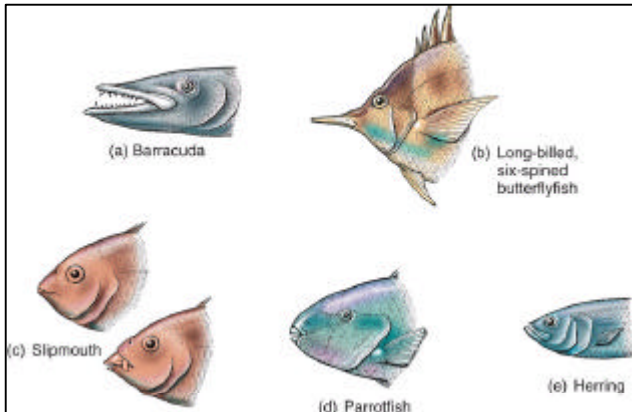
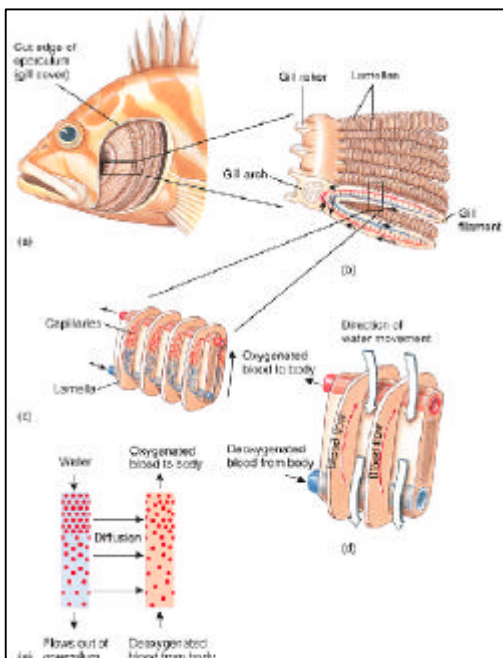


LECTURE 13: FRIDAY 5/2 (CH 8) – MARINE FISHES

Today's guest lecturer was Sean Van Sommeran, executive director of the Pelagic Shark Research Foundation. What are the three aims of the PSRF? In what three areas of the Monterey Bay do they study sharks? What approaches does the PSRF use to study great white sharks?

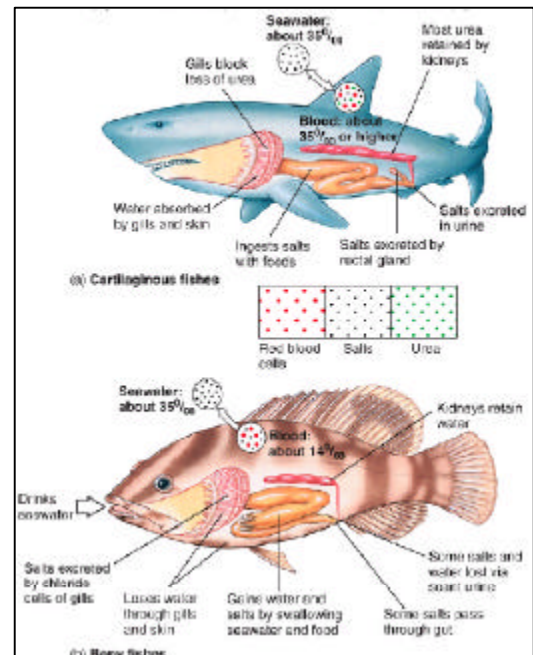


For each of the mouths shown in **Figure 8.13**, describe the feeding strategy/diet used.



We didn't have a chance to look at this slide (to the left) in class (it also appears in your book). Look at parts A-E in **Figure 8.17** and read about this in your textbook. Understand how part D (direction of water flow and blood flow) relate to part E (diffusion of oxygen from the water into the bloodstream). Note that the release of CO₂ from respiration follows the reverse pattern (diffuses from the blood into the water).

For **Figure 8.18**, compare and contrast how sharks and bony fish osmoregulate. Which has a blood concentration of salts equal to or greater than that of surrounding seawater? Which has a blood concentration of salts much lower than that of seawater? How does the latter regulate its internal osmolarity by drinking seawater? (you probably have to review this in your textbook to figure it out)



Describe the major sensory systems of bony fish. Why is an organized brain important for sensory functioning? How can a swim bladder improve a fish's sense of hearing?

Why do fish school? Give at least 3 reasons.

Fish migrations can be either small scale (vertical movements in water column or horizontal movements towards or away from shore) or large scale. These regular movement patterns can occur once a day, once a year, or once in a lifetime. Describe the difference between anadromous migrators and catadromous migrators and give an example of each.