

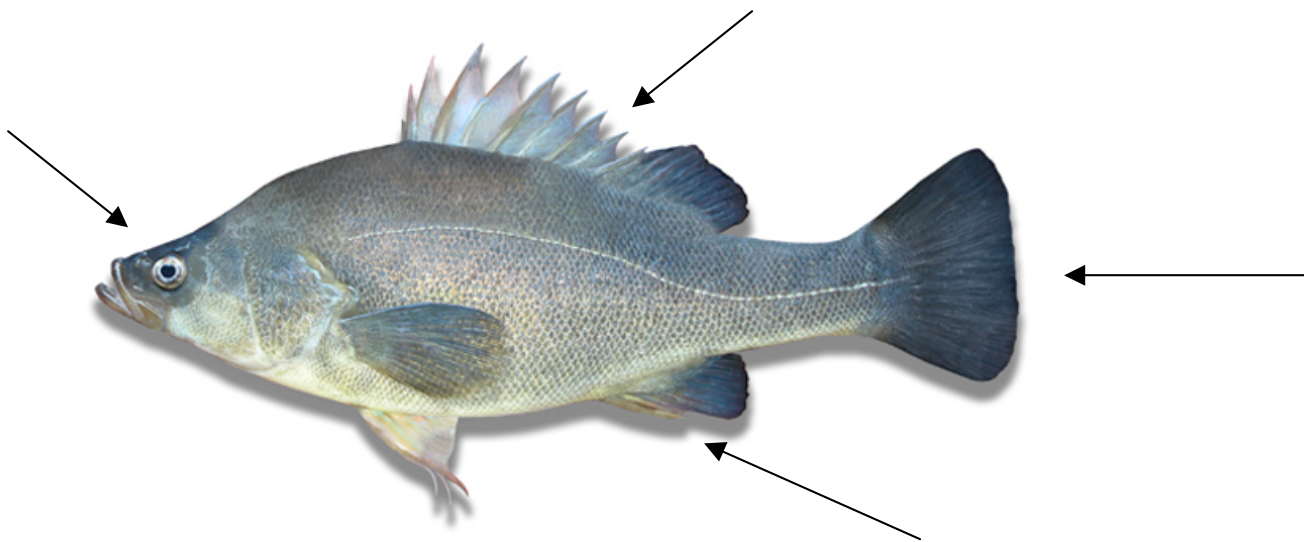
Perch Dissection

Materials:

Preserved perch, dissecting pan, scalpel, scissors, forceps, magnifying glass, dissecting pins, apron, gloves, eye cover, stereoscope microscope

Procedure (External Anatomy): 🐟

1. Obtain a perch & rinse off the excess preservative, dab with paper towel. Place the perch in your dissecting pan.
2. Label the anterior, posterior, dorsal, and ventral sides of the perch on Figure 1.

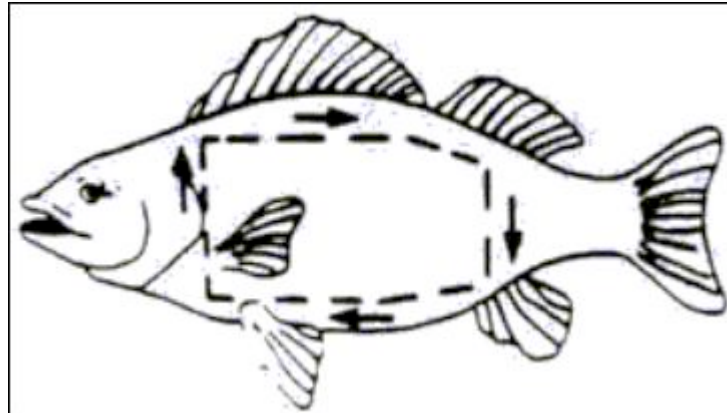


4. Open the perch's mouth and observe its bony jaws.
5. Feel the inside of the mouth for the teeth. Locate & label the tongue & teeth on Figure 1.
6. Open the mouth wider and use a probe to reach back to the gill chamber.
7. Locate the nostrils.
8. Locate and note the location of the eyes. Examine the eyes. Any eyelids?
9. Find the bony covering on each side of the fish's head called the operculum. The opercula cover & protect the gills. Use your picture to find these.
10. Use a probe to lift the operculum and observe the gills. Note their color, texture, structure.
11. Use a scissors to cut away one operculum to view the gills. Find the gill slits or spaces between the gills.
12. Use your scalpel to carefully cut out one gill. Find the cartilage support called the gill arch and the soft gill filaments that make up each gill.
13. Observe the different fins on the perch. Locate the pectoral, dorsal, pelvic, anal, and caudal fins. Note whether the fin has spines. Locate the anus on the perch anterior to the anal fin. In the female, the anus is in front of the genital pore, and the urinary pore is located behind the genital pore. The male has only one pore (urogenital pore) behind the anus. Determine the sex of your perch.
14. Find the lateral line on the side of your perch. Label this line on Figure 1.
15. Use forceps to remove a few scales from your fish. Observe the scales under the stereoscope microscope. Sketch a scale on Figure 3.

Procedure (Internal Anatomy):

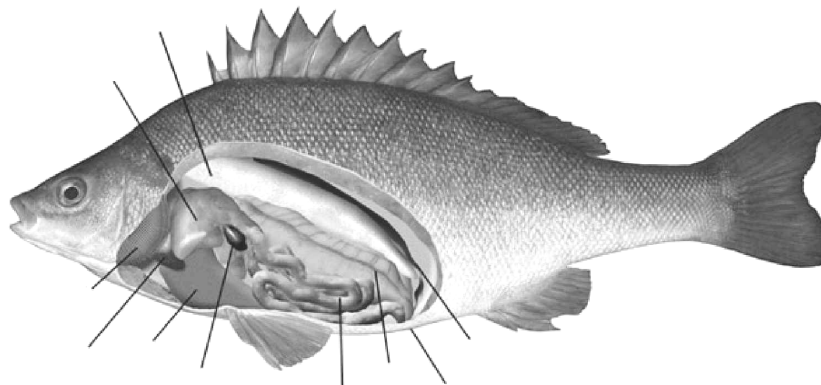
1. Secure the fish to the dissecting pan. Use scissors to make the cuts through skin and muscle shown in Figure 1.

Figure 1 - Cut Lines for Internal dissection



2. After making the cuts, carefully lift off the flap of skin and muscle to expose the internal organs in the body cavity.
3. Locate the cream colored liver in the front of the body cavity. Also locate the gall bladder between the lobes of the liver. Use your fish anatomy page as a guide.
4. Remove the gall bladder & liver to observe the short esophagus attached to the stomach
5. At the posterior end of the stomach are the coiled intestines. Locate these on your perch.
6. Find the small reddish brown spleen near the stomach.
7. Below the operculum, are the bony gill rakers. Locate these.
8. In front of the liver & behind the gill rakers is the pericardial cavity containing the heart. The heart of a fish only has 2 chambers --- an atrium & a ventricle. Locate and examine the heart.
9. In the upper part of the body below the lateral line is the swim bladder. This sac has a thin wall and gives the fish buoyancy. Find the swim bladder using your anatomy paper as a guide.
10. Below the swim bladder are the gonads, testes or ovaries. In a female, these may be filled with eggs. Find the Reproductive organs on your anatomy paper.
11. Find the 2 long, dark kidneys in the posterior end of the perch. These filter wastes from the blood. Use your paper as a guide.
12. Wastes exit the body through the vent located on the ventral side of the perch. Use your paper as a guide and locate it on the fish.

Figure 5 - Internal Perch Anatomy



Perch Dissection: Post-Activity Questions & Observations:

Tape/glue this into Journal. Answer the questions, using complete answers and diagrams, where appropriate.

1. Are both jaws of the fish equally movable? Explain your answer.
2. Does the perch have eyelids?
3. How many gills are located on each side of the perch? What covering protects them?
4. What is the function of the gill rakers?
5. Explain how gas exchange occurs at the gills.
6. Which fin was the largest? What other difference do you notice in this fin when it was compared to the others?
7. What was the sex of your fish?
8. What is the function of the lateral line?
9. Describe how the scales are arranged on the trunk & tail of your fish.
10. Explain how the swim bladder controls buoyancy.

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