

Perch Dissection

Introduction:

In this lab, you will be working in partners to examine the anatomy of a perch. Perch are bony fish in the class Osteichthyes. Pictures and diagrams will aid in the completion of this lab dissection. Do not rush through the lab. **Read all directions carefully and make all drawings as accurate and neat as possible.**

Materials:

- Preserved perch
- hand lens
- dissecting tray
- dissecting probe and scissors
- pre-lab pictures & diagrams

Procedure

A. External Anatomy:

1. Place a preserved perch on a dissecting tray. Locate the head region. Examine the eyes.
2. Are there any eyelids present? _____. If not, why do you think there are no eyelids. _____
3. Draw the eye in the space below.

Label the eye on the external view (figure 1) of the fish.

4. Examine the two flaps located on either side of the head.
5. What is the name of these flaps? _____
6. What is their function? _____

Label the flaps on the external view (figure 1) of the fish.

7. Examine the 5 types of fins. In each box below, draw one of the fish's five types of fins.

Dorsal	Caudal	Anal
Pelvic	Pectoral	

Label each fin on the external view (figure 1) of the fish.

8. How many fins? Caudal ____ Dorsal ____ Anal ____ Pelvic ____ Pectoral ____

9. Each fin has a purpose or job, what is the purpose of the following fins?

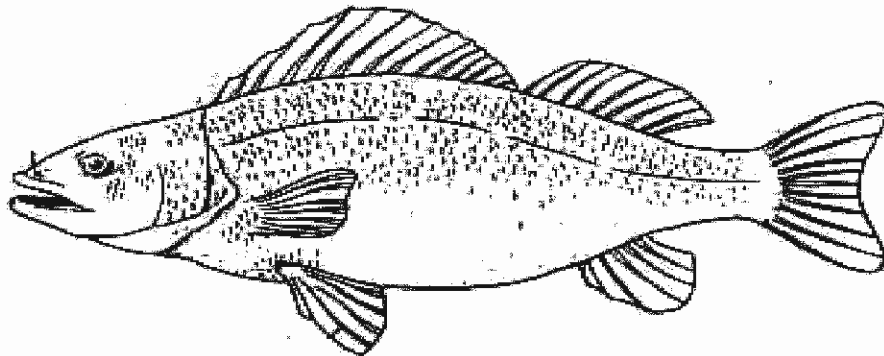
- a). caudal fin _____
- b). dorsal fins _____
- c). pectoral fin _____
- d). anal _____
- e). pelvic _____

10. Locate the lateral line. How can it be differentiated from its surroundings?

11. Draw the lateral line in the space below.

Label the lateral line on the external view (figure 1) of the fish.

Figure 1

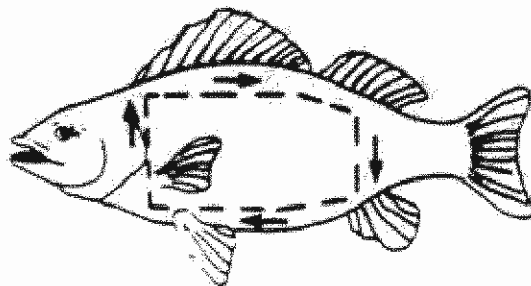


B. Internal Anatomy: Gill

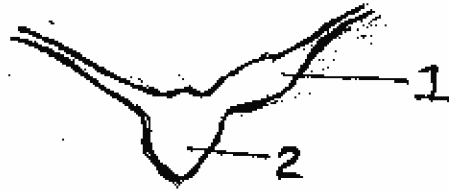
12. Using your thumb, lift up the edge of the operculum and raise it up as far as you can. Using your scissors, cut the operculum off as close to the eye as possible. You have exposed the gills. The gills are layered one on top of another. Using your probe, carefully lift each of these layers.
13. How many layers do you find? _____
14. Using your scissors, remove one of these layers. Examine the feathery structure.
15. Draw the gill structure in the space below.

16. How is the feathery structure of the gills an adaptation that enables the fish to breathe more efficiently? _____
17. To expose the internal organs you will cut away part of its muscular wall. Grasp your fish, holding it with your thumb on one side and fingers on the other. See the figure below.

Figure 2.



18. The fish contains a _____ chambered heart. Try to find the heart, found just behind and below the gills.



Fish Heart

19. Part 1: Atrium

20. Part 2: Ventricle

Label the heart on figure 3.

21. Locate the tube-like digestive system. Begin just behind the mouth in the area called the pharynx. This area leads into the gullet or the opening of the esophagus. This area is very elastic and can stretch when the fish is alive.

22 How could this help the fish? _____

Label the mouth on figure 3.

Label the pharynx on figure 3.

Label the esophagus on figure 3.

23. Attempt to find the stomach

Label the stomach on figure 3.

24. Locate the rather large liver located just in front of the stomach.

25. Draw the liver in the space below.

Label the liver on figure 3.

26. Follow the intestine to the anus.

Label the intestine and anus on figure 3.

27. Locate the kidneys, found just below the spinal column. Their main function is to rid the body of nitrogenous waste.

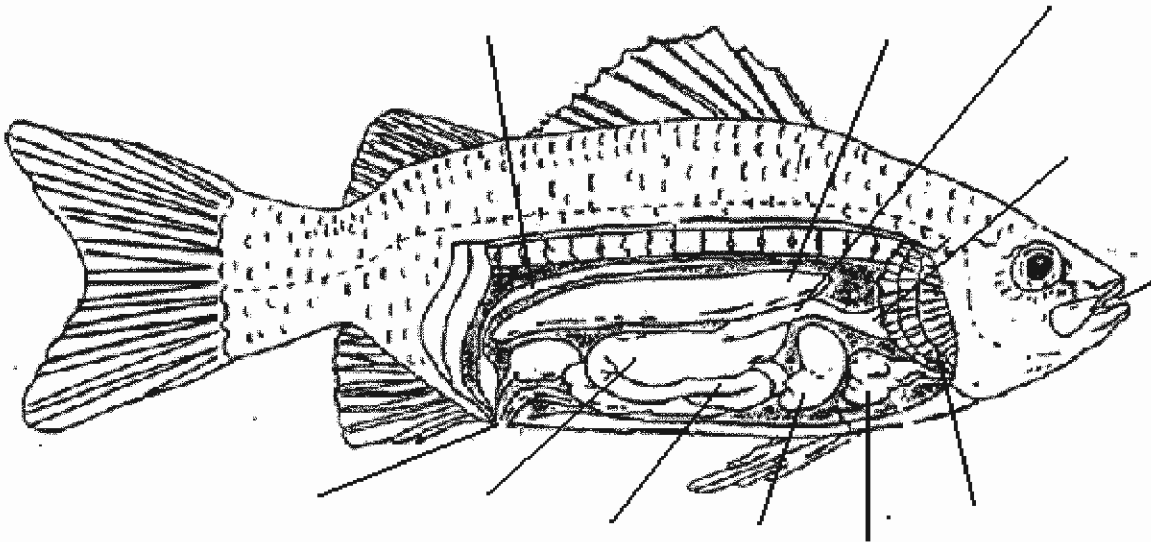
Label the kidneys on figure 3.

28. The swim bladder is the last remaining organ to be identified. It is located between the kidneys and gonads.

29. What is the function of the swim bladder _____

Label the swim bladder on figure 3.

Figure 3: Internal View of Perch



30. Attempt to find the brain using provided diagrams