

# Perch Dissection

## Introduction:

In this lab each student will work with a lab group in order to learn from the dissection of a Perch. Dissection gives the student the opportunity to observe the placement of organs and their relationships to one another. Before beginning the lab each student must perform **pre-lab research** in order to familiarize themselves with the Perch. Pictures and diagrams will aid in the completion of this lab dissection. Be thorough and 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? \_\_\_\_\_.
3. Draw the eye in the space below. Describe the eyes form and function.

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

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

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

9. 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	

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

11.. How many fins? Caudal \_\_\_\_ Dorsal \_\_\_\_ Anal \_\_\_\_ Pelvic \_\_\_\_ Pectoral \_\_\_\_

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

a). caudal fin \_\_\_\_\_

d). anal \_\_\_\_\_

b). dorsal fins \_\_\_\_\_

e). pelvic \_\_\_\_\_

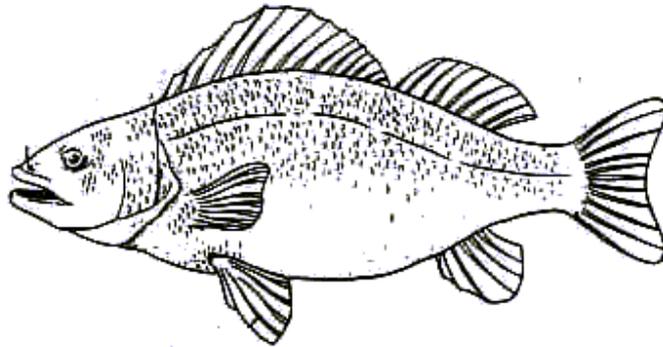
c). pectoral fin \_\_\_\_\_

13. Locate the lateral line. Using the hand lens and look at the line and the surrounding area.

14. Draw the lateral line in the space below. Describe its form and function.

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

Figure 1



**B. Internal Anatomy: Gill**

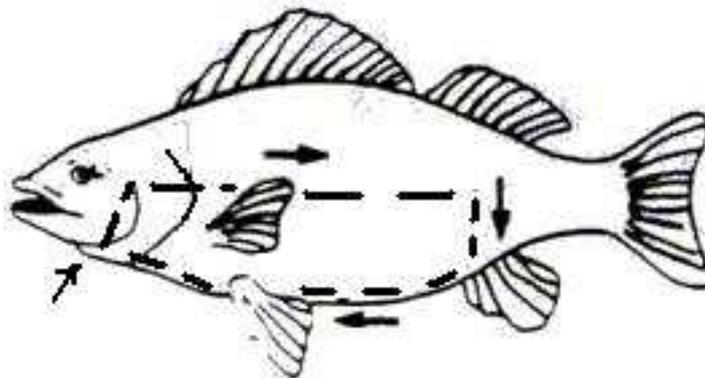
16. Using your thumb, lift up the edge of the operculum and raise it up as far as you can. Using your scissors, cut the operculum off as close to the eye as possible. You have exposed the gills. The gills are layered one on top of another. Using your probe, carefully lift each of these layers.

17. How many layers do you find? \_\_\_\_\_

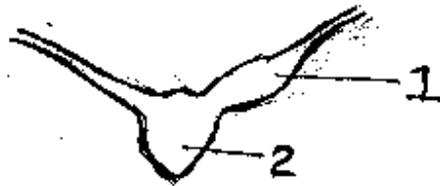
18. Using your scissors, remove one of these layers. Examine the feathery structure.

19. Draw the gill structure in the space below. Describe the form and function.

20. To expose the internal organs grasp your fish and expose the ventral surface. Using your scissors, insert the point into the skin just in front of the anus. Cut forward to the front of the gills. Be careful not to destroy any of the internal organs, since they are mostly found in this area. Next cut up toward the dorsal surface just to the top of the operculum. Next cut straight back down the side of the fish toward the posterior end. Stop when you are just above your original starting spot by the anus. Next make a lateral cut back down to your original starting spot. This should create a window on the side of the fish. Peel back to remove while using scissors to cut underneath. See the figure below. **Figure 2.**



21. The fish contains a 2 chambered heart. Locate this organ found just behind and below the gills.  
**Label the parts of the heart below.**



**Fish Heart**

22. Part 1 \_\_\_\_\_ Function: \_\_\_\_\_

23. Part 2 \_\_\_\_\_ Function: \_\_\_\_\_

**24. Label the heart on figure 3.**

25. 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.

26. What is a gullet?

27 How could this help the fish? \_\_\_\_\_

**28. Label the mouth on figure 3.**

**29. Label the pharynx on figure 3.**

**30. Label the esophagus on figure 3.**

31. The esophagus leads into the stomach. Cut out the stomach and split it open.

32. Draw the inside of the stomach in the space below. Describe its texture and function.

**33. Label the stomach on figure 3.**

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

35. Draw the liver in the space below. Describe its form and function.

36. Label the liver on figure 3.

37. Follow the intestine to the anus.

38. Label the intestine and anus on figure 3.

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

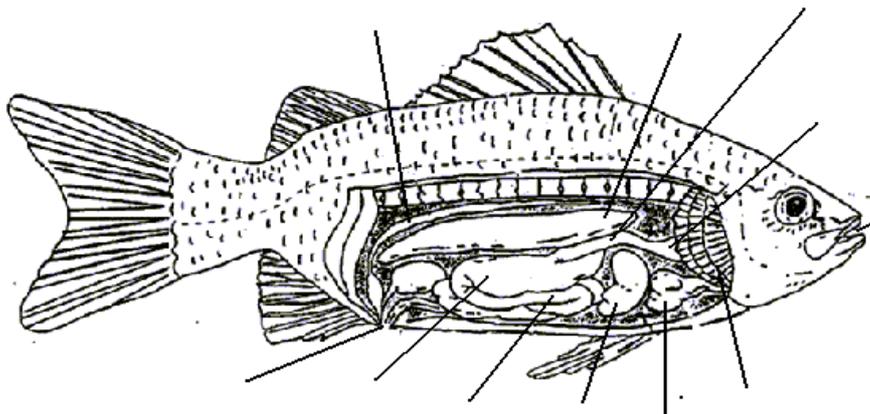
40. Label the kidneys on figure 3.

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

42. What is the function of the swim bladder \_\_\_\_\_

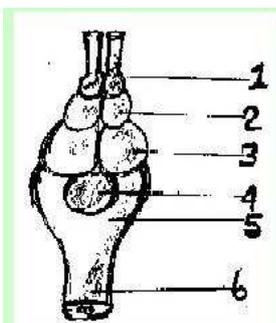
43. Label the swim bladder on figure 3.

**Figure 3 Internal View of Perch**



44. Research information & diagrams on the perch brain and how to dissect the brain

45. Using the information dissect the fish brain. Label and give function in the space below.



- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_