

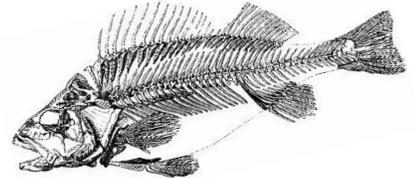


## Student Checklist

**Perch Checklist:** Identify the following structures/locations.



Perch are vertebrates in a group called the “ray finned fishes” because they have rays/spines in their fins. They are the largest group of vertebrates; there's more than 20,000 species of these, which is nearly three times the next largest group of vertebrates.



Perch (fish) characteristics:

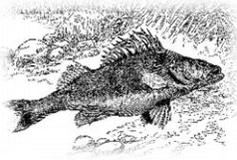
- Fins – Provide movement forward (propulsion), maneuverability (directional movement), and stabilization
- Vertebrate – has backbone (spinal column)
- Uses gills for respiration
- Lives entire life in water

Use lines provided for additional notes

External structures

Draw and label the fins of a perch

- Dorsal fin (cranial and caudal sections) – Stabilize fish
- Caudal fin - Movement forward
- Anal fin – Stabilize fish
- Pelvic fins (paired) – maneuverability
- Pectoral fins (paired) – maneuverability



# Dissection 101: Perch

Student Checklist (Continue page 2)

- Mouth – Specially adapted mouth that extends to form large gape (wide opening); the mouth is then quickly retracted resulting in a suction drawing prey into the mouth

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- Eyes – Paired; does not have eyelids

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- Nostrils – Paired; used to sense chemicals in the water; not connected to the throat

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- Lateral Line – Specialized sensory structure for detecting pressure changes/movement (Ex. vibration (waves) from movement of prey)

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- Operculum - Bony flap that covers and protects the gills; opens and closes to help move (pump) water from the throat, across the gills, and then out the operculum

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- Cloaca – Common opening for both the urogenital and digestion systems

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- Scales - Very thin protective layer, almost transparent; made of bone like material and lie underneath a layer of skin (epidermis)

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- Internal structures

- Swim bladder – Large adjustable air-filled sac-like structure that changes the density of bony fish (Osteichthyes) resulting in increased buoyancy (not found in sharks)

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# Dissection 101: Perch

## Student Checklist (Continue page 3)

- Gonad – Reproductive structure
  - Ovary – Single female gonad which has a granular appearance; produces eggs  
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  - Testes - Paired male gonads (testis - singular) which have a glandular appearance, produce sperm  
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  - External Fertilization: Female lays eggs externally; male spreads gametes (sperm) over them; poor survival rate so many eggs and sperm released  
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- Liver (green in this specimen) – The liver is large, has a waxy appearance, and is usually white/tan; detoxifies blood and produces bile for fat digestion  
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- Heart – Pumps blood throughout the body
  - Atrium (thin walled) – Receives deoxidated blood from the body and pumps it into the ventricle  
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  - Ventricle – Muscular structure that pumps blood to the gills for oxygen exchange and then to the rest of the body  
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- Pyloric caeca – food storage and digestion  
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- Stomach – Muscular structure that mixes and stores food; food broken down by digestive juices  
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- Spleen – Immune (white blood cell production); filters and stores blood  
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# Dissection 101: Perch

## Student Checklist (Continue page 4)

- Intestine – Digestion of food and absorption of nutrients (small section); movement of undigested waste to the anus (large section) – complete digestive system

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- Gills: Feather-like structures (increased surface area); used to remove oxygen from water for respiration

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- Pancreas – Enzyme producing structure for digestion; insulin production

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