



OSU EXTENSION
4-H YOUTH DEVELOPMENT

Stream and Lake Critter Identification

Oklahoma Cooperative Extension Service • Division of Agricultural Sciences and Natural Resources

Marley Beem
Area Extension Aquaculture Specialist

Welcome to the wild world of underwater insects and other critters. A magnifying lens and your curiosity can take you into a totally different place. Enjoy a close look at the critters you collect – they are very different from the common animals you know best. Do you agree that some of the outer space aliens you have seen in movies must have been copied from them? Some are ferocious predators of other critters, but relax – they cannot hurt you. See 4-H Lit. No. 21 for more information on collecting methods and equipment as well as critter hangouts like pools, riffles, runs, and weed beds. If you only look one place, try turning over rocks!

Collect only one of each type of critter. Put them all into one babyfood jar with some rubbing alcohol. A critter identification “bookmark” can be found on the reverse of this page. Cut it out and use it to check off all critters that you identify. The drawings will not match exactly so just make your best guess. Use the last item in the bookmark to report how many unidentified types of critters you have collected. Use a string to hang the bookmark from the neck of the jar.

Once you have collected some underwater critters and identified them, go back to your collecting site and try getting up close to eyeball some critter behavior. You may need an old piece of carpet to make it easier to lay on your stomach. Surface critters are easy to watch. For underwater critters, you can make a simple viewer: Cut the bottom off a large plastic pop bottle, use duct tape to cover the sharp edge and secure some plastic food wrap across the bottom with a rubber band. Stick the bottom in the water and look through the opening of the pop bottle.

Water Critters Match Game

Streams, lakes, and ponds are the “nurseries” for many types of flying insects. See how many correct matches you can make between the adult flying insect and its underwater young.

[Draw a line connecting the larva (young) to the matching adult.]

Underwater Young

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Flying Adults

- A. Black fly
- B. Caddisfly
- C. Crane fly
- D. Damselfly
- E. Dragonfly
- F. Dobsonfly
- G. Mayfly
- H. Stonefly

Focus in on one critter to watch: How does it shelter itself? What does it eat? What does it do to keep from being eaten? Try imagining that you are the critter.

- Are you in a riffle and attached to the top of rocks? You probably catch food particles from the water flowing overhead or scrape algae attached to rock surfaces.
- Do you have large pincher-type mouthparts and hide in the “weeds”? You might be an ambush predator.
- Do you walk on top of the water and move fast? You may be a predator or scavenger of flying insects that fall into the water.

You will never think of streams and lakes in quite the same way again.

Safety

Always go with an adult to your stream, lake, or pond. Do not take any measurements unless it is safe to do so. Do not collect samples when water is too deep or too fast for easy standing or walking. Wear appropriate clothing for the site: old tennis shoes and long pants. If the stream or lake is on private property be sure to get permission before you go to the site.



Trust me, they're all delicious!

Most images are from “Common Aquatic Flora and Fauna of the Tennessee Valley Water Quality Series Booklet 4.” Used with permission. Frog image is from UWEX Water Quality Digitized Clip Art Collection.

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, sex, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Samuel E. Curl, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 20 cents per copy. 0604 JA.

Water Critters Bookmark

- | | | |
|--------------------------|---------|-----------------------------|
| <input type="checkbox"/> | | Water penny |
| <input type="checkbox"/> | | Leech |
| <input type="checkbox"/> | | Flatworm |
| <input type="checkbox"/> | | Black fly (on top of rock) |
| <input type="checkbox"/> | | Crane fly |
| <input type="checkbox"/> | | Caddisfly (on top of rocks) |
| | | (Inside it's case) |
| <input type="checkbox"/> | | Backswimmer (surface) |
| <input type="checkbox"/> | | Damselfly |
| <input type="checkbox"/> | | Mayfly |
| <input type="checkbox"/> | | Stonefly |
| <input type="checkbox"/> | | Dragonfly |
| <input type="checkbox"/> | | Water boatman (surface) |
| <input type="checkbox"/> | | Water scorpion |
| <input type="checkbox"/> | | Water strider (surface) |
| <input type="checkbox"/> | | Whirligig beetle (surface) |
| <input type="checkbox"/> | | Hellgrammite (under rocks) |
| <input type="checkbox"/> | Unknown | How many types? _____ |