



Jacoby Creek Land Trust

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Amazing Aquatic Arthropods

Grades: 3-12 **Subjects:** Science, Environmental Studies

Group Size: 1+ **Duration:** 20+ min.

Setting: On the banks of the Jacoby Creek

Key Words: insect identification, wildlife habitat, and ecology

Goals/Objectives: Students will observe the complex world of aquatic insects, crustaceans, and their relatives in the Jacoby Creek.

Background: Arthropods are invertebrates that have exoskeletons and jointed appendages. The Jacoby Creek watershed houses both terrestrial and aquatic arthropods, all of which can be observed. Aquatic arthropods depend on the riparian for food, not the creek. They eat plant material, such as algae, alder leaves and woody debris, as well as detritus and other arthropods. They make up a crucial part of the food web as they support lots of creek life, including salmon and trout. Aquatic insects are also indicators of good water quality, especially dissolved oxygen.

Materials & Prep: JCLT's 'Amazing Aquatic Arthropods of Jacoby Creek: An Insect ID Guide' (see the following page). *If you want to temporarily capture any arthropods, please remember that they need oxygen from water to breathe and respectfully return them to the creek before they show signs of distress.* You may want to bring nets, pans, jars, magnifying glasses, and/or microscopes.

Activity: Use the JCLT's 'Amazing Aquatic Arthropods of Jacoby Creek: An Insect ID Guide' to try to find and identify the various aquatic arthropods in the Jacoby Creek. This activity can be tailored in many different ways to meet the needs of your group. Below are some ideas:

- After identifying the various arthropods, students can draw or write about something interesting they observed or learned during the activity.
- Students can collaboratively construct a food web including arthropods, fish, amphibians, birds, and mammals. The food webs can be drawn on paper or students can take on the different roles played by different organisms.
- Students can research water quality and how poor water quality affects aquatic arthropods and, therefore, salmon. They can also research which species are indicators for both good and bad water quality.