Hunting for Freshwater Invertebrates Lab

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Introduction

Invertebrates are animals that do not have a backbone. Since we humans are vertebrates, we tend to pay more attention to the vertebrates of the world (humans, cats, dogs, cows, birds, etc.). In reality, more than 95% of all the species of animals on this planet are invertebrates! Invertebrates are fascinating organisms because they are so different from us in many ways, yet similar to us in some ways. In this lab you will take a safari through some pond water and identify some of the freshwater invertebrates living in it. Freshwater invertebrates are important because they make up some of the initial steps in many food chains.

Materials

- 1 binocular dissecting microscope with light source
- 1 glass Petri dish
- 1 plastic pipet
- 1 foam-well microscope slide
- 1 coverslip
- A source of pond water
- Turkey baster

Instructions

1. Using the turkey baster, place a small amount of pond water in a Petri dish.
2. Place this Petri dish under a binocular dissecting microscope and scan the Petri dish for tiny freshwater invertebrates. If you find an interesting specimen that swims too fast for you to see, suck the organism up in a plastic pipette and squirt it into a foam-well slide. Place a coverslip over the specimen and view it under the dissecting microscope.
3. Select four different kinds of invertebrates and carefully draw them in the spaces on the next page.
4. Using the identification materials in the lab, identify each of the four organisms that you draw. Under each specimen drawing, label it with its name.

Organisms you might find:

Hydra, flatworms, roundworms, segmented worms such as lumbriculus (mud worms), segmented worms such as leeches, clams, bryozoans, rotifers, ostracods, copepods, scuds, daphnia, mites, insect larvae or nymphs.
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<th>Organism #1</th>
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<td>Organism #3</td>
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