**Hunting for Freshwater Invertebrates**

**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, dogs, cats, fish, birds, cows, 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 so similar to us in other 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**

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| 1 binocular dissecting microscope  | 1 microscope slide  |
| 1compound light microscope | 1 coverslip  |
| 1 glass Petri dish  | A source of pond water  |
| 1 plastic pipette  | Protoslo® solution |

**Procedure**

1. Using the pipette (dropper), place a small amount of pond water in a Petri dish.

2. Place this Petri dish under a **bi**nocular 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 onto a **slide**. You may add 1 drop of Protoslo® solution if you have some fast-moving organisms. Place a coverslip over the specimen and view it under either the dissecting microscope or compound light microscope.

3. Select three different kinds of organisms and carefully draw them into your notebook. Color.

4. Using the link below, identify each of the four organisms that you drew. Under each specimen drawing, label it with its name.

5. Also draw at least 1 photosynthetic species that you find, identify it, label it with its name.

\*You will have 4 drawings when finished.

Use this link to identify your organisms: <http://www.microscopy-uk.org.uk/index.html?http://www.microscopy-uk.org.uk/ponddip/index.html>