



## Activity: Berlese Funnel for Collecting Soil Invertebrates

Name: \_\_\_\_\_

### Things to Remember

The Berlese Funnel is a means for extracting invertebrates from soils and litter. It is suitable for collecting most invertebrates (e.g. earthworms, mites, springtails, centipedes, millipedes, and beetles) but not nematodes.

### Materials

1. Large funnel (e.g. 10 cm diameter canning funnel, 1 L pop bottle, 1 gallon plastic milk jug).
2. Heat source (e.g. lamp with a 20 to 40 watt bulb).
3. Piece of large mesh screen, approximately 25 square centimeters.
4. Jar or other container (e.g. quart mason jar, 400 mL beaker, bottom of pop bottle).
5. 70% Ethanol.
6. Microscopes.
7. Forceps, dissecting probes, and fine brushes to manipulate the invertebrates.
8. Small Petri dishes for holding samples.
9. Keys and books for identification of invertebrates.

### **Procedure**

1. Construct a Berlese funnel by cutting a 1 L pop bottle in half. Invert the top half into the bottom half of the pop bottle (to hold the inverted top half).
2. Place the piece of screen at the bottom of the funnel to hold in the soil/litter and soil.
3. Place the container with alcohol at the bottom of the Berlese funnel to collect the invertebrates.
4. Place about 2 cups of litter carefully into the funnel being sure not to let the soil/litter fall into the alcohol.
5. Move the lamp about 12-15 cm from the soil/litter
6. Allow the soil/litter to dry slowly under the light (about 3 days) and carefully remove the funnel so soil does not fall into the alcohol.
7. Pour the contents of the collection vessel (bottom half of the pop bottle) into a Petri dish.
8. Examine the contents.