Lab 6: Pest, Predators and Parasitoids, PII

Name: _____

Part I. Soil/Leaf Litter Samples

We are going to make use of the bank of Berlese funnels in the back of the classroom (finally!). As a class, we're going to examine the soil arthropod communities in response to two dimensions: linear distance from edge habitat and soil depth.

1. Linear Distance Samples

At our study site, we'll begin at the immediate edge of a chosen habitat or disturbance and take our first edge-habitat sample. We will remove the upper 10 x 10 x 10 cm of soil/leaf litter. The second sample will be taken 10 meters from the selected start-point and the third will be 20 meters from the start-point. The samples will be of equal size. Each will be clearly labeled and brought back to the classroom.

2. Soil Depth

At the FIRST linear distance sample location (0m), two additional samples will be taken of the next successive 10cm of soil each (depth = 20 cm, depth = 30cm). These will also be clearly labeled and returned to the classroom.

The class will be broken into groups responsible for each soil sample. Once you have collected and clearly labeled your soil sample, we will have time to collect for approximately 30 minutes before returning to the classroom to complete lab.

1. What was your specific role in collecting soil samples for lab?

2. What differences in arthropod communities would you expect to see along the linear transect?

3. What differences would you expect to see in arthropod morphology with increasing soil depth?

Part II. Collection Review

Today, we're using the Berlese funnels to survey for soil arthropods. Is this an active or passive collection technique?

Which collection method is the best for capturing insects with piercing/sucking mouthparts on ornamental trees and shrubs?

Which collection method is the best for nocturnal, ground-dwelling insect? Is this active or passive collection?

Using the Pocket Guide provided, give three ways to monitor a production system for the presence of natural enemies:

1. _____

2. _____

3. _____