

Biodiversity Survey – Insect Counts on Vegetation

Essential Question(s):

How diverse is my school site?

How can I count the insects on the vegetation?

Background Information:

In this survey students will be counting species present on the vegetation types that were identified on the Biodiversity Map. Students will be using the Vegetation Sweep sampling method. This method is appropriate in warmer seasons when more insects are present on vegetation. (In cooler seasons, not many insects are visible, but the pitfall trap method may still be useful.)

You may wish to divide the students into groups to gather data or have them work as a class, each sample the same data, and take an average of the data sampled. Identification of the differences between species is necessary in order to do this baseline data check. In some cases species identification is required. Also, it is important to avoid duplicate counts of the same species.

Getting Ready:

Decide whether the group will be working as a class or in smaller groups. Familiarize self with area of sampling and inspect for any dangers. (Prepare for any dangers, such as bee allergies.)

Procedure:

1. Use the following sweep net method for sampling insects in grassy areas. Mark the sample areas on the Biodiversity Map.
2. Distribute sweep nets to the students (most likely students will need to take turns using the sweep nets). Allow each student to make five sweeps with the net, brushing the net on the vegetation while sweeping. Remove the contents of the net and place them in a vial or insect box for further observation. Have students move around the grassy area and sample places that have not been sampled by other students.
3. Each student should record the number and types of insects or other arthropods in his or her net. Students should use a field guide to identify the insects and arthropods that they caught.

Discussion/Assessment:

Did you catch a wide variety of insects?

Were all the insect caught capable of flight?

Do you think you would have found different insects using other methods of capture?

Location: outside at school site, classroom

Objectives: *Learners will:*

- 1) conduct a survey of insects on vegetation.
- 2) use sweep nets to sample insect population.

Skills: data collection, recording data

Supplies:

- sweep nets
- biodiversity Map
- paper
- pencil
- field guide
- vial or insect box

Subjects: science, math

Time: 20 – 30 minutes

Insect Counts

Date of sampling: _____

Time of day: _____

Weather conditions: _____

List the insects and other arthropods that were found:

	Method of capture (pitfall trap or sweep net)	Total number of types found	Other comments
Site 1			
Site 2			
Site 3			
Site 4			
Site 5			