

INSECT EXPLORERS' SERIES: PITFALL TRAP

A pitfall trap is an essential tool for catching and studying ground-dwelling insects and other soil animals. You can build and set up a simple pitfall trap in less than half an hour, using recycled materials.

Learning Objectives: After this activity students will learn

- To identify ground dwelling insects
- About wingless insects
- About adaptation to ground dwelling life

Group size: 1 student per 5 pits

Duration: 30 minutes for setting up, observation overnight.

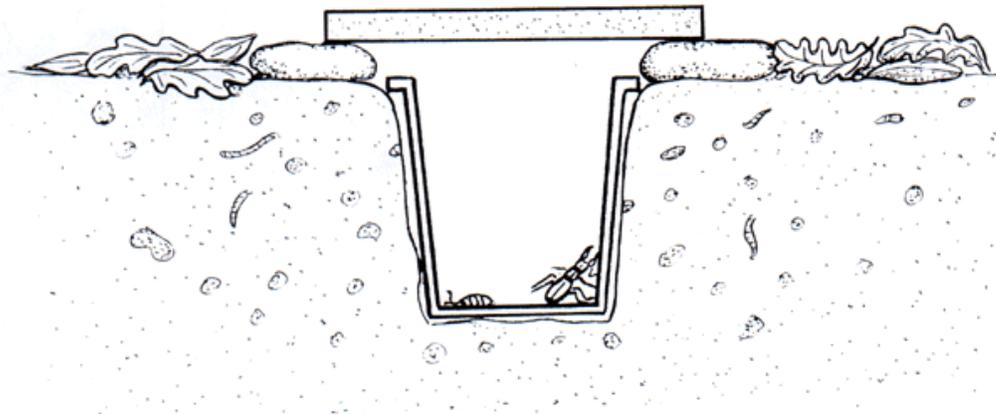
Requirement: coffee cup with a plastic lid, four rocks or objects of equal size, a board or piece of slight large wider than the coffee cup, trowel, Insect Data Sheet, Insect Field Guide.

Method:

1. Choose an area with good ground cover to set up your trap. Identify a loose soil area for digging
2. Dig five holes in different corners of a shaded area, the depth being as deep as the cup.
3. Place the cup in the hole, so that the mouth of the cup is level with the ground. This is a pitfall trap, as insects fall into this pit and the smooth walls of the cup prevent them from climbing back out.
4. Place each pebble on either side of the mouth of the cup and rest the cardboard on top of them, ensuring that there is enough room underneath for the insect to pass. This protects the trapped insects from the sun, water and predators.
5. Set up another two cups
6. Leave the trap overnight. Insects walking past will fall into the cup and get trapped.
7. The next day, remove your cup and see what insects you have caught!
8. Study the insects and note down your observations in the insect data sheet. You may even make sketches.
9. Return the insects to the wild.
10. Use an insect field guide to identify your crawling critters

Tips:

- Close the coffee can with the plastic lid when you cannot attend to your pitfall trap, or if heavy rain is expected.
- Make sure to check the trap at least once every 24 hours, and remove any insects you have caught. Keep them for study or release them.
- If you want specimens for a collection and don't need the insects to be alive, pour one inch of water in the pitfall trap and add 1-2 drops of dish soap.



INSECT EXPLORER'S DATA SHEET

Name of Student : _____ Location : _____

Date : _____ Time : _____

Name of the insect	Number of individuals	Total
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Data Summary:

Number of Insect Groups in the sample	
Total Number of individuals	
Number of non-insect groups	
Total Number of individuals	
Which insect group was abundantly represented?	
Which insect group was moderately represented	
Which insect group was least represented?	

Conclusion:

1. Why you think a particular insect was abundant, moderate, less? Give your own justification

2. What type of adaptation you found in these insects?

3. What did you learn from this exercise?
