

BEETLE HUNTERS

We set temporary research traps for nocturnal predatory beetles

Lesson Objectives:

- Students will **prepare a ground beetle trap** following simple instructions.
- Students **observe and record the activity** and presence of invertebrates in the field.
- Students **use simple tools** and digital apps to identify animals.
- Students **learn to handle living organisms** responsibly during field research.

TIME: Preparation: 15 min, the trap catches overnight, observation the next morning: 20 min.

AGE: Primary and lower secondary (5th–6th grade)

WHERE: School garden, forest, meadow

WHEN: Spring, summer

YOU NEED: Plastic bowl (10–30 cm), Bait (cotton pad with beer, strong cheese, or tuna), Garden trowel, Work gloves, Bark and forest litter (for the trap bottom), Small board or large piece of bark (as a cover), Jar or container for temporarily storing beetles, Beetle atlas or mobile app (Seek or iNaturalist), Flashlight, Worksheet, Pencil

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Step 1 – Motivation and Introduction

The teacher presents the activity as field research of nocturnal ground beetles.

Students learn that ground beetles and their relatives are mostly active after dark when they search for food such as slugs, worms, or carrion.

Show some typical species (photos or illustrations) and mention an ethical approach to research – we do not collect beetles for collections, only observe them gently and briefly.

Introductory questions:

- When was the last time you saw a beetle running on the ground?
- Do you think there are more of them during the day or night?
- What might they eat?

Step 2 – Let's Go 'Hunting'

Students receive clear instructions (verbally and on the worksheet):

1. Prepare the trap:

- Dig a hole so the bowl fits into it. The rim should be level with the ground.
- Add some forest litter, bark, or twigs to the bottom so beetles can hide.
- Add bait – a cotton pad with beer or a piece of cheese / tuna.
- Cover the bowl with a roof (e.g., larger piece of bark) to prevent rain from getting in.

2. Place the trap:

- In the garden, at the edge of a field, in the forest or hedgerow – depending on availability.
- Avoid protected areas.
- You can place traps in different locations and compare the results.

3. Time control:

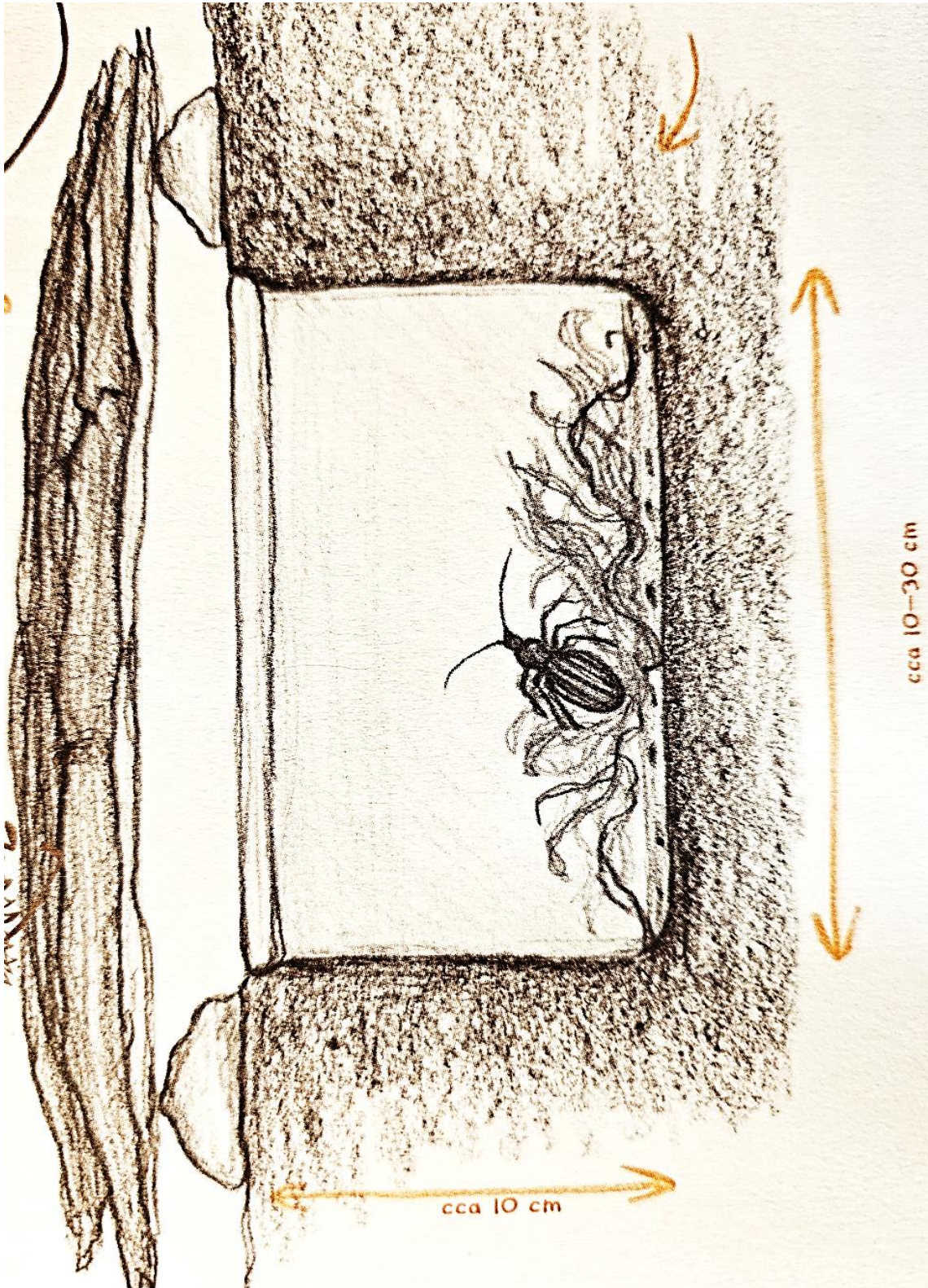
- Leave the trap in place overnight for at least several hours (maximum 10).
- Try the same method during the day – compare the number of captured creatures.

4. Examine the trap contents:

- Inspect the captured animals – wearing gloves.
- Identify them using an atlas or the Seek app.
- After observation, release the animals and remove the trap or leave it for the next day's observations.

Step 3 – Evidence of Learning

- Completed worksheet including:
 - Name of the observer
 - Location and time of research
 - Description of the site and weather
 - Record of species and number of animals
 - Notes and interesting findings
- Photos of the trap or discovered animals
- Comparison of results with other students



WORKSHEET - BEETLE HUNTERS

Name(s) of Researcher(s)/Hunter(s):

Village or municipality:

Description of the trap location (meadow, edge of field, garden, forest):

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Weather during research (temperature, cloud cover, rain):

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Date and time of trap placement:

Date of trap check / research end (and removal of the trap!):

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Trap size and type of bait:

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CAPTURE TIME	BEETLES FOUND	WHAT ELSE WAS IN THE TRAP