



Learning through Landscapes

S4 Minibeasts and Leaves Survey



About you

Name of your school

How many participants are in your survey group?

What country are you participating from?

What is the average age of the participants?

Aims

- To familiarise students with taking a subsample within their sampling area
- To assess proportional coverage of habitats with a focus on living vegetation cover
- To observe, group and identify a range of minibeasts in their natural habitat

What you will need

t

Essential

- This sheet and 'Practitioner Guidance' document
- Pen, Pencil and Eraser + Clipboards
- 1-metre-long stick(s) and/or 5-metre rope
- Timer

Helpful

- Gloves
- Camera
- Sampling pots and pre-made 1x1m square
- Identification aids (see guidance)

Funders and partner organisations

Green Recovery Challenge Fund



The National Lottery Heritage Fund



Leicester City Council



Wildlife Gardening Forum



Naturskolan i Lund



Survey preparation

Please ensure you have completed the 'School Grounds and Habitat' survey (S1) and recorded the coordinates of your school and the measurements of your school grounds.

1. Record the date on which the survey was completed (e.g. 01/01/21)

2. Record the time that you started the survey (e.g. 10:25 AM)

3. Circle the symbol which best describes the weather today.



4. What is the temperature at the moment?

 °C 

Use a thermometer to record the air temperature. To do this, place the thermometer in a shaded area for at least 10 minutes, about 1 metre above the ground. Then take reading.

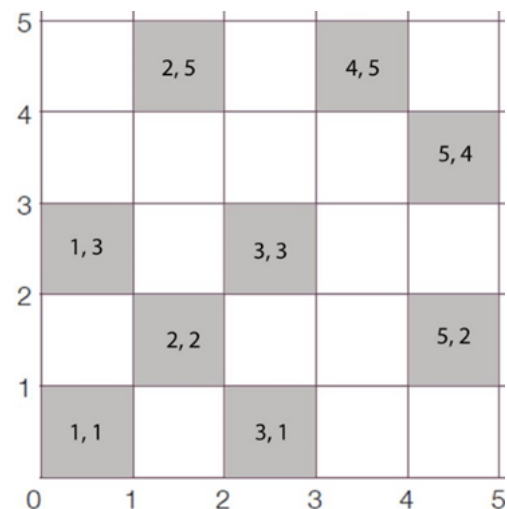
5. How windy is it at the moment?

Leaves still Leaves moving gently all the time Leaves moving strongly

Survey method

Step 1. Mark out square metres in your survey site

1. Students should be divided into groups of 3-4 per group.
2. Use the same 5x5 metre sampling area from the 'Pollinators and Flowering Plants Survey' (S3).
3. With the help of your previous mapping with photos, markers, and coordinates, you should be able to find your way back to the exact same area.
4. The 5x5 metre survey site may need to be re-established.
5. Inside existing site, each group creates/places one square of 1x1 metre (see guidance)



You can use the same 1-metre-long sticks to measure the site as you did with the 'Flowering plants and pollinators' survey, or you can find a 5-metre-long rope and make a mark at every 1 metre. Individual 1x1m squares can be measured out with a marker placed at each corner or a pre-made quadrat (1x1m square) can be placed.

6. It should be placed so that at least half of the 1x1 square metre is covered by vegetation.
7. Name the square metre after its position in the coordinate system (see the example in the picture). Enter the name in table 1 below.
8. Each group of 3-4 students should survey one square from grid, so your total number of squares surveyed will depend on class size.
9. Estimate the type of habitat that most of the square consists of. Fill in Table 1. See the habitat guide from 'School Grounds and Habitat Survey' (S1) you have used before for help.

Optional: take a photo of the square metre that can be attached to your report on the web.

Table 1. Dominant habitat

Number of square metre	Dominant type of habitat
Example: 1,3	Example: Other - short grass











Step 2. Observing minibeasts

1. Each group should have access to a guide of minibeast species groups (see above).
2. Look for five minutes (use a timer) for minibeasts in the square metre.
3. Photograph or capture your finds. Photos/specimens can be checked against guides later!
4. Use table 2 below to write how many minibeasts of each species group you observe.
5. If you can also distinguish different species within each species group, enter the number of different species you have found in the column on the far right.



You can look closely under stones, logs, and dead leaves (leaf litter) within your square metre but do not move anything that is bigger than the palm of your hand.

Table 1. Dominant habitat

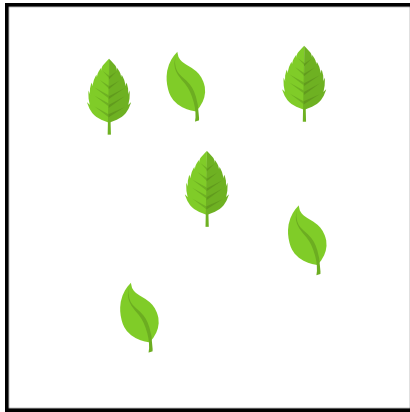
Species group	Picture aid	Total number seen	Total number of species
Earthworms (Annelida)			
Ants (Hymenoptera)			
Centipedes and millipedes (Myriapoda)			
Woodlice (Isopoda)			
Spiders and harvestmen (Arachnidae)			
Beetles (Coleoptera)			
True bug (Hemiptera)			
Insect larvae (Insecta)			
Snails and slugs (Gastropoda)			
Other, e.g. Crickets, grasshoppers, earwigs (Gryllidae, Caelifera, Dermaptera)			

Step 3. Counting the number of different leaves from living vegetation.

We have now come to the last part of the survey where we will be looking at living vegetation.

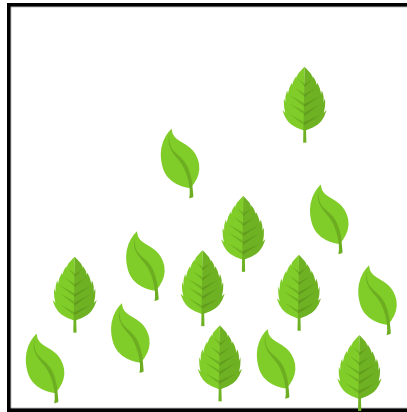
Look at the images below.

Which most closely matches your 5x5m sampling area? 1, 2 or 3?



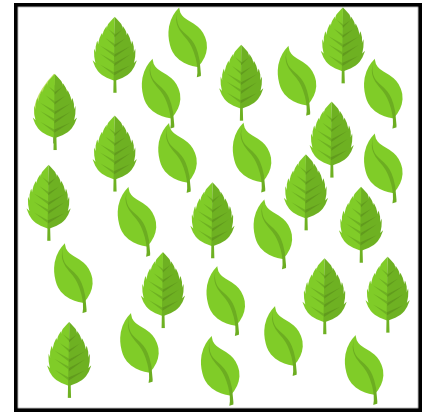
1

Living vegetation occupies less than half



2

Living vegetation occupies half



3

Living vegetation occupies more than half

Now it is time to focus on how many different kinds of leaves of grass and other plants you can find within the 1x1 square metre from living plants only.

Count the number of different types of leaves you can see. It does not matter if there are flowers on the plant or not. Do not count mosses.

Total number of different kinds of leaves:

You might find more minibeasts while counting the number of different leaves. If so, you can add these in Table 2 (previous section).



Make sure to release any captured specimens after Step 3 back to where you found them

Feedback

Thank you for completing this survey!

Please rate this survey out of 5 stars.



Please describe any issues or practical problems that arose during the survey process.

Please also let us know if you have any questions and/or comments regarding survey content.

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Name:



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