



Learning through Landscapes

# S3 Pollinators and Minibeasts Survey

Accessible version



## About you

Name of your school

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How many participants are in your survey group?

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What ages are the participants?

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## Aims

- To become familiar with identifying different pollinator and minibeast groups using some key features
- To be aware of how many different pollinators and minibeasts there are in your school grounds

## What you will need

### Essential

- This sheet and 'Practitioner Guidance' document
- Pen, Pencil and Eraser + Clipboards

### Helpful

- Coloured pencils/crayons
- Camera
- Sampling pots
- Identification aids (see guidance)

## Funders and partner organisations

Green Recovery Challenge Fund



The National Lottery Heritage Fund



## Key Information for Practitioners

- You can complete this as a survey or a scavenger-hunt style competition. An example of a scavenger hunt competition worksheet is at the end of this survey - this covers the elements of lots of surveys, so could be adapted or used as it is.
- This survey would work best in small groups - explore your school grounds for 10 minutes and see how many of the below pollinators and minibeasts you can find!
- Bug pots can be used if children want a closer look, but emphasise treating them with respect and being gentle with them, and make sure any bugs are released at the end. Also be careful about putting different bugs in the same pot - predatory beetles and centipedes might try to eat another minibeast if put in the same pot! The slime from slugs and snails can sometimes hurt smaller minibeasts if they get covered in it.
- This survey can be completed in different ways:
  1. Tallying them by numbers of legs. This is the simplest way, and allows you to separate minibeasts and pollinators into four groups. See the table below which gives the four categories with some key facts about each. There is a set of cards at the end of this survey for this level - four cards with the numbers of legs on. To use these, children can collect minibeasts using bug pots, and then place the bug pot on the card which they think corresponds to the number of legs. You can then go through all the bugs as a group and see if everyone agrees. (Table 1).
  2. Tallying them by general groups which children might be familiar with. (Table 2)
  3. Tallying them by more specific groups, and even by species if children are able-for this ID guides might be needed, and bug pots so children can have a better look for identification. (Table 3)

Number of legs	Type of animal	Key facts/ Identification aids
No legs	All annelids (like worms), molluscs (like snails and slugs), and some insect larvae	<ul style="list-style-type: none"> <li>• Worms eat soil, and recycle nutrients back into the soil-they are very important for making sure the soil is healthy and plants can grow!</li> </ul>
6 legs	All insects and the remaining insect larvae	<ul style="list-style-type: none"> <li>• All invertebrate pollinators are insects-there are 5 groups of insect pollinator which are bees, wasps, flies, beetles, and moths and butterflies</li> <li>• All adult insects have three main body sections-head, thorax, abdomen</li> <li>• Anything flying will be an insect, as the wings are attached to the thorax, however some insects have lost their wings (like fleas because they live in animal hair, so wings would get caught)</li> <li>• Pollinators visit flowering plants and move pollen from the anther to the stigma which fertilises plants</li> </ul>
8 legs	All arachnids (like spiders, harvestmen and mites)	<ul style="list-style-type: none"> <li>• All arachnids have two main body sections</li> <li>• Lots of arachnids spin webs, and for its weight spider web silk is stronger than steel!</li> </ul>
Many legs (more than 8)	All isopods (like woodlice) and myriapods (like millipedes and centipedes)	<ul style="list-style-type: none"> <li>• Woodlice are related to lobsters, crabs and shrimps!</li> <li>• An easy way to tell centipedes and millipedes apart is if it is moving quickly it is usually a centipede, which needs to move quickly to catch its prey! If it is moving slowly then it is probably a millipede, which eats decaying plant material</li> </ul>

## Survey preparation

When conducting a survey, it is important to record what was happening on the day of the survey - just in case the results of the survey are affected by the weather! If you don't think children will engage with this section, please feel free to skip it. If you do this section, emphasise observing your surroundings - you could start by asking everyone to stand silently for one minute, and notice the weather and the conditions. You could then answer the below questions as a group, discussing what children noticed. For flying insects, their flight muscles don't work when it is below 16 degrees Celcius, as they get too cold because they do not generate their own body heat!

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. Which of these symbols best describes the weather today?



4. How windy is it today?

Leaves still     Leaves moving gently all the time     Leaves moving strongly









## Survey method

1. In small groups (or however works best for your children) explore your school grounds and look for minibeasts and pollinators.
2. Encourage children to think about where they might find pollinators (near flowers, in sunny spots to warm up) and minibeasts (under rocks, in decaying wood, in any damp dark spots).
3. You can assign one pupil to record what is seen, or this can be done by a member of staff.
4. If children are using bug pots to catch minibeasts and pollinators, you could all bring them back and show each other what has been caught, and discuss how many legs or what group you think the animal might go in.
5. One pupil could also be a 'photographer' and take photos of any pollinators or minibeasts found.
6. You could send different groups to different areas of your grounds, or explore one area and then another, to compare how many minibeasts and pollinators are found in a flower bed, compared to a tarmacked area for example.













The recording tables for all three levels of surveys are below - use whichever is most suitable.

**Table 1. Number of legs - Tally the total number from each group you see.**














Number of legs	Examples	Total number seen
Example	Example	IIII
No legs	Slugs, snails, worms 	
6 legs	Bees, wasps, flies, beetles, butterflies, moths, shield bugs, ants 	
8 legs	Spiders, mites, harvestmen 	
Many legs	Millipedes, centipedes, wood lice 	






**Table 2. Pollinator and minibeast table - Tally the total number of each group you see!**

General group	Picture aid	Total number seen
Earthworms		
Ants		
Centipedes and millipedes		
Woodlice		
Spiders and harvestmen		
Beetles		
Bees		
Wasps		
Snails and slugs		
Butterflies and moths		
Hoverflies, other flies and mosquitos		
Other, e.g. Crickets, grasshoppers, earwigs, shield bugs, insect larvae		

**Table 3. Pollinators and minibeasts.**

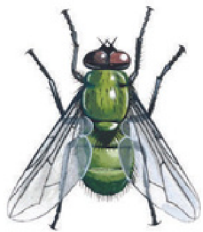
Species group	Picture aid	Total number seen	Total number of species
Earthworms			
Ants			
Centipedes and millipedes			
Woodlice			
Spiders and harvestmen			
Beetles			
True bug			
Insect larvae			
Snails and slugs			
Other minibeasts e.g. Crickets, grasshoppers, earwigs			
Bees			
Wasps			
Butterflies			

Moths			
Hoverflies			
Other flies and mosquitos			





No legs



6 legs





8 legs



Many



legs



## Scavenger Hunt

Work in small groups to find as many of the things in the table as possible! You only get the points for the first one you find. Set a timer so all groups only have a limited amount of time! Add up your points at the end and see who has won!

Can you find....	Points	Yes/No
A bee	15	
A beetle (look for a shiny black one or a ladybird)	15	
A fly	10	
A butterfly	15	
A woodlouse	10	
An ant	15	
A worm	5 points per worm	
A minibeast burrow (will look like a small hole in the ground, could be from a burrowing bee, an ant or an earthworm)	30	
A spider	25	
A slug	15	
A snail	15	
A centipede or millipede	25	



**S3**

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