

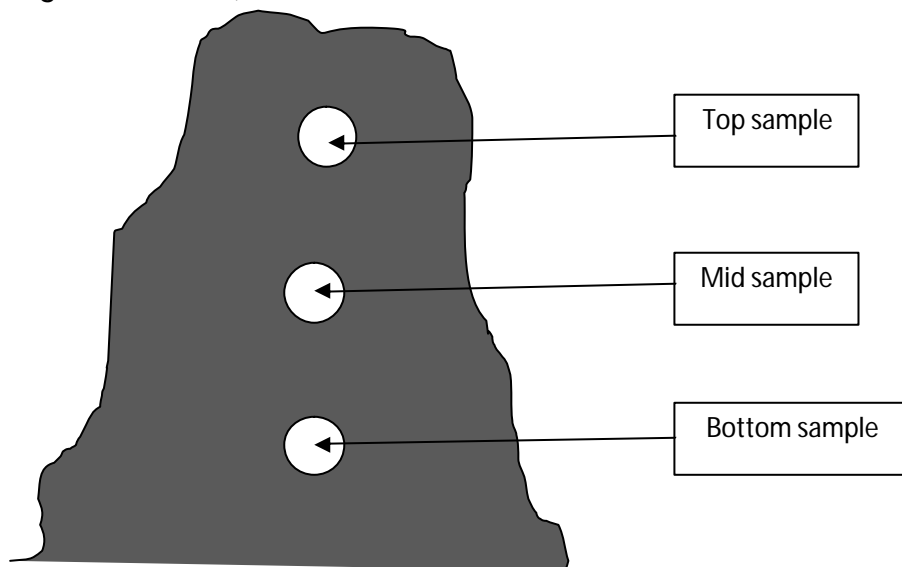


Compost Invertebrate Survey

Relatively little is known of the invertebrates that live in our compost heaps and no systematic survey of compost faunas has been conducted in the UK.

The Recycle Works have joined forces with Peter Smithers of the University of Plymouth in an exciting project to catalogue the fauna of our compost heaps and bins in order to gain a better understanding of their role in the composting process.

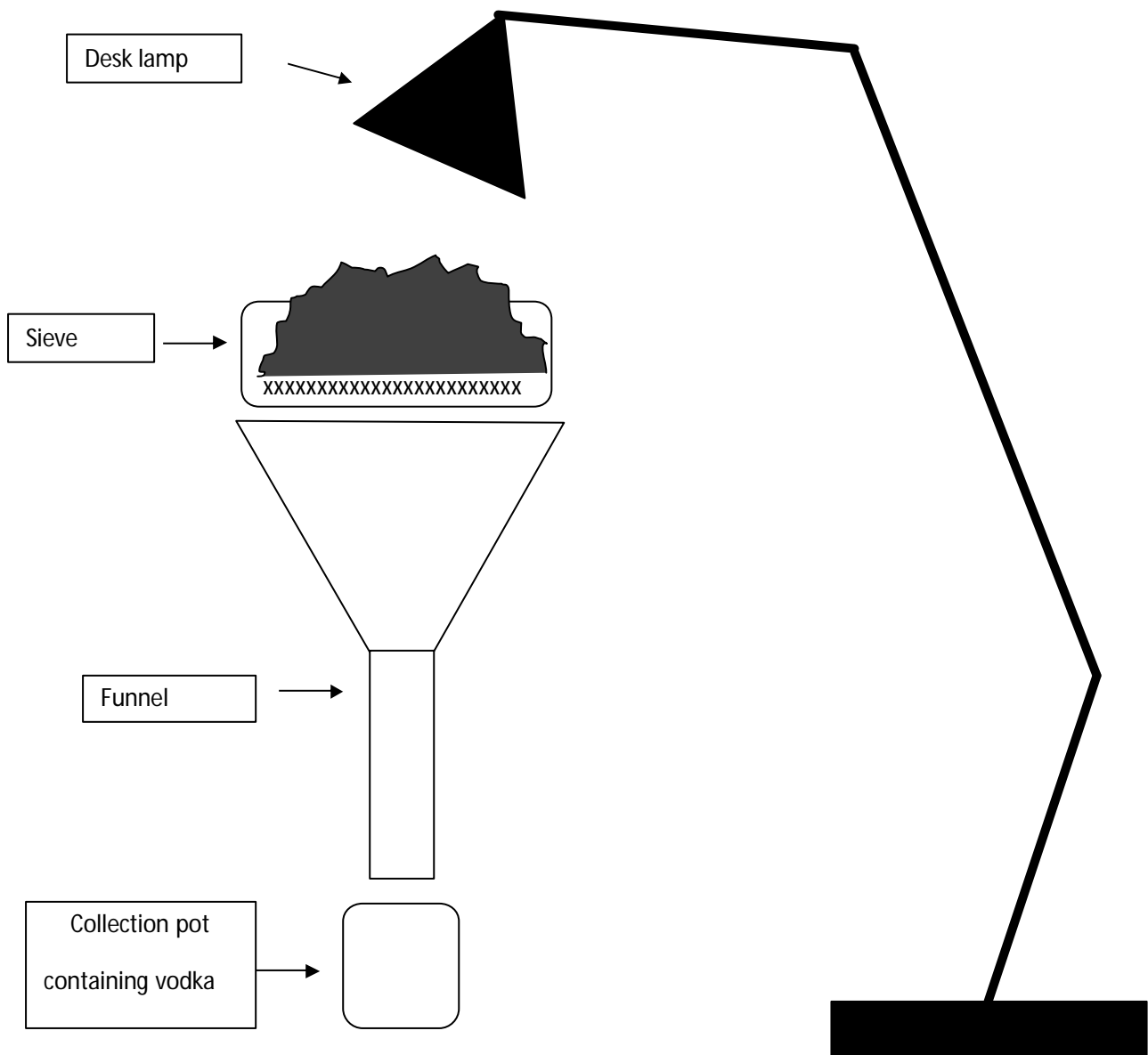
We are asking gardeners to assist by collecting samples of compost from their heaps and to extract the invertebrates from them using the method described below or to send in their samples to the address below. We would like three samples from each heap but if this is impractical a single sample will do. Samples should be taken from the centre of the heap at three levels: top, middle and bottom (see diagram below).



Samples need to be approximately the size of a large grapefruit (i.e. large enough to fill and form a mound in a kitchen sieve).

To take the temperature, dig a hole approximately 30 cm down from the top. Place your thermometer in it and cover over. Leave for 5 minutes to equilibrate then remove and read.

To extract the invertebrates from the samples you will need to set up a temporary extraction funnel. To do this you will require a sieve with a coarse mesh i.e. one where the holes are greater than 4 mm wide and with a diameter of approximately 15 cm (these can be found in most kitchen or hardware stores). You will also need a funnel in which the sieve will sit, a desk lamp (with a tungsten bulb, 60 watt) and a collecting jar or pot. In order to preserve the invertebrates for later identification we will use vodka in the collecting pot; I suggest the cheapest brand available to you.

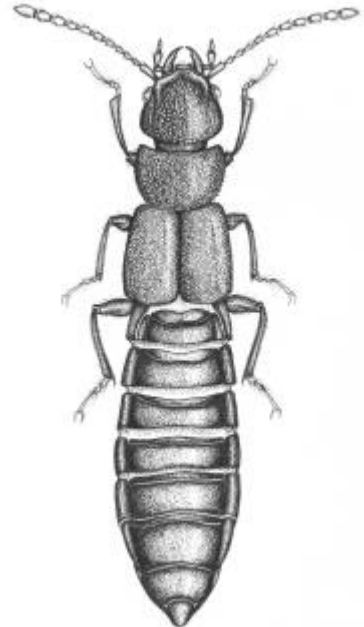
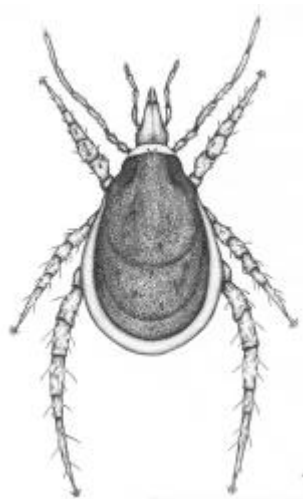


Place the compost in the sieve and turn on the desk lamp this warms up the sample and sets up a gradient of temperature and desiccation which drives the invertebrate fauna deeper into the compost in search of cooler, moister regions. This migration eventually causes the invertebrates to fall out of the sample down the funnel and into the collecting pot where they are preserved in vodka.

If a 15 cm diameter funnel is used the samples should be run for 7 days. If the funnel is larger the samples should be run for longer.

Samples of compost or extracted invertebrates with a completed survey form can be sent (or hand delivered if local) to

Peter Smithers
School of Biomedical and Biological Sciences
University of Plymouth
Drake Circus
Plymouth
Devon PL4 8AA
Psmithers@plymouth.ac.uk



Images courtesy of Fergus McBurney



Compost Heap Invertebrate Survey

Name & Address

Email address

Type of Input (please indicate the categories of waste that go into your compost heap and the approximate % that they make up of your weekly input)

Kitchen waste	<input data-bbox="805 889 1053 945" type="text" value="%"/>
Hedge trimmings	<input data-bbox="805 952 1053 1008" type="text" value="%"/>
Weeds & garden waste	<input data-bbox="805 1019 1053 1075" type="text" value="%"/>
Grass cuttings	<input data-bbox="805 1086 1053 1142" type="text" value="%"/>
Shredded paper	<input data-bbox="805 1153 1053 1209" type="text" value="%"/>
Other (Please indicate what)	<input data-bbox="805 1220 1053 1281" type="text" value="%"/>

How often do you turn the heap? Weekly Fortnightly Monthly Other (please state)

Time since last turning (in weeks)

Usual time between turnings (in weeks)

Temperature (°C) when the sample was taken (see instructions above)

Type of container (please circle) Plastic wooden Wire cage Open heap

When did you start this compost heap.

Please note any larger animals that live in your heap (Hedgehogs, grass snakes etc).

Surrounding Area (please circle) Yard Urban Garden Rural Garden Allotment

Please ensure your 3 samples are clearly labelled Top, Mid or Bottom and if only one sample is sent in please indicate which level it came from.