



Extreme Bug Hunting A Pitfall Trap for Burying Beetles



This is definitely not an activity for the faint hearted, and it is probably best suited to families with older children! Nonetheless it is an amazing way to discover the secret life of some of the chief mini composters and recyclers of our natural world.

Our BFT Woodland Engagement Officer (and in-house ecologist) Michelle Stamp has put this activity together for you to try.

Burying beetles comprise a whole family of beetles called the Silphidae, many of them associated with carrion which means they are important decomposers and recyclers. They are known as the undertakers of the animal world and without them we would be up to our knees in dead animals. Burying beetles help to dispose of carcasses by burying them and laying their eggs close to them and they are used extensively in forensic science to solve murders.

Male and female burying beetles are attentive parents and when they find small dead vertebrates they work together to defend the carcass and bury it in a suitable location (some are able to bury carcasses up to 30 times their own weight!). They prepare the body by removing the hair and feathers, and then spread their gut bacteria (antimicrobial) over the carcass to preserve it. The female lays her eggs close to the carcass and once the babies (larvae) hatch, they move on to the carcass and the parents care for them by feeding on the dead body and regurgitating it for their babies.

There are 21 species recorded in the UK and the Silphidae Recording Scheme was set up in 2016 to monitor their distribution and status. They provide an indication of ecosystem health and some of the beetles are considered vulnerable or locally scarce or rare. The main threats are agricultural intensification, pollution, climate change, the use of insecticides and medication for livestock, and most importantly the removal of carcasses which may end up in our bins or landfill. Burying beetles can be recorded by anyone by setting up a harmless pitfall in your own garden.

What do you need?

- A quiet corner of your garden to set up your pitfall trap.
- A small carcass (if you find a small dead rodent, bird or rabbit whilst you're out and about) or some raw chicken. The bait needs to be matured for about a week in an airtight container or plastic bag.
- A plastic tub such as an ice cream tub with some very small holes in the bottom so that water doesn't collect in the tub but not too large that beetles can escape
- Chicken wire to place your carcass on over the tub.
- You may want to cover it with more chicken wire/ small cage so that it won't be taken away by a fox or any local pets.
- A waterproof covering such as a small piece of roofing felt, a slate or a piece of wood.

Setting up your trap

- Dig a hole deep enough for your plastic tub. This should be sunk in to the ground so that the opening is level with the soil so that the beetles will fall in to the trap but not escape.
- The bottom of the tub should have a layer of leaves so the beetles can hide, as some of them will fight over their carcass.
- Place your chicken wire over the top of the tub



Place your carcase on top of the chicken wire and then if you can - cover the whole thing with more chicken wire and don't forget your waterproof covering.

Your trap should be checked at least daily and you occupants removed and released as soon as you have identified and photographed them.



Some of the beetles you may find include:



The little orange mites that you can see hitch a ride and help to get rid of predators who will eat the food

The Undertaker (with mites)



The wrinkled death lover



Red breasted carrion beetle

You can find more information on the recording scheme here:
<https://www.coleoptera.org.uk/silphidae/home>
 and there are also useful ID guides which you can download.



