



THE WILDLIFE CONSERVATION CHARITY

## Mini-beast conservation

### Why conserve invertebrates?

As well as a fascinating group to study and appreciate, invertebrates provide many important ecosystem services. They are a **food source** for many animals higher up the food chain; notably birds and bats. At the other end of the food chain, invertebrates such as woodlice and worms are needed to break down organic matter. In this way, the nutrients taken up by plants and ingested by animals are returned to the soil, so we can say that some invertebrates are **recyclers**. Insects including bees, hoverflies and butterflies are **pollinators** and many plants rely on them to provide pollen from another plant before they can set seed. It is estimated that 84% of EU crops (valued at £12.6 billion) and 80% of wildflowers rely on insect pollination (Buglife, 2014). Predators such as beetles and spiders are **biological controls**, controlling common insect pests. Some farmers leave wider grassy margins around field edges or strips of uncultivated land (called beetle banks) to provide refuge areas for these predatory species. This is a biological alternative to chemical pesticides and insecticides, which can also harm beneficial insects.

### What are the threats?

As human populations have grown and destroyed increasing areas of natural habitats, many types of wildlife have become threatened, and invertebrates are no exception. In the UK, at least 15% of all invertebrates (around 4,500 species) are under threat (Buglife). Some groups are more threatened- 71% of butterflies and half of our native bumblebee species are in long term decline. Flower-rich habitats have been lost to **urbanisation** and **intensive agriculture**. **Pesticides**, intended for destructive insects, also kill beneficial insects such as pollinators and natural predators. Invertebrates are also threatened by more unpredictable and extreme weather due to **climate change**. Non-native **invasive species**, such as the harlequin ladybird can cause great damage by outcompeting native species.