

Insect Restaurants



Emm Barnes,
Mark Brown and
Deborah Harvey

Royal Holloway
University of London



Insect gardening

Wildflowers are disappearing from our countryside and gardens. There is fashion in garden design just as there is in clothes. As people choose to plant imported or specially bred new varieties of garden plants, there is less space for the plants that have always grown here. Gardeners often pull up wildflowers as weeds. The new plants are often no use to English insects – the flower heads are the wrong shape for bees to get into, for example, or they are no use as food for the caterpillars of butterflies and moths. Now many native species of insect – that is, types of insect that have always lived in England and are not moving in from other areas – struggle to find enough food and are in danger of becoming extinct.

You can do something to help – at home or in school, or in your local wildlife reserve, you can plant “insect restaurants” and even create “insect guest houses”, places where beetles can stay warm over the winters and can hide away from hungry birds.



Gardening for bees and butterflies

To attract bees and butterflies to your garden, you need to plant two types of plants: ones with lots of nectar to feed the adults, and ones with the right leaves for particular species of caterpillars. Most of the plants that are best for bees and butterflies are easy and cheap to grow from seed but for speed you could ask local keen gardeners, or look for a plant nursery that sells wildflowers – this way you can find out what grows best in your local area.

The best plants to look for include:

Dandelion

Lavender

Ox-eye daisy

Buddleia

Herbs like marjoram, mint, and chives

Candytuft

Forget-me-not

Honeysuckle

Clover

Dead nettle

Marigold

Dropwort

Cranesbill

Bird's-foot-trefoil

Jacob's ladder

Thistles

Bluebells

Foxglove (though this is poisonous)

Flowering fruit trees

Snapdragons



You could do some research in your local library or on the internet to see what other plants you can find out about. Look for pictures of these plants and choose ones which flower in different months – you want to have food for bees and butterflies right from March through to September. If you plant a wide range of plants, your insect restaurant will attract lots of different kinds of butterfly, bee, and bumblebee.

Gardening for beetles

Beetles often have a very long life cycle, spending many months or even years as larvae, also known as grubs. They are very vulnerable as grubs, making tasty snacks for hungry birds, hedgehogs, or even foxes.

Some of the things we do in gardens are really bad news for beetles. People put down plastic sheets to control weeds, then cover the plastic with gravel or bark chips. Any grubs underneath the plastic are trapped and cannot get out when they are ready to become mature beetles, and so they die. People do not leave rotting wood and other wild places in their gardens, and so grubs have nowhere to hide and nothing to eat.

Instead of working to keep a “tidy” garden that is not a good home for wildlife, you could try these ideas:

- to help beetles, and the birds and mammals that eat them, leave a corner of your garden or school grounds as wild as possible, with long grass and weeds;
- in the autumn, don't tidy away piles of fallen leaves, but leave them on the soil and let insects and worms break them down and take their goodness into the soil;
- if you cut down a tree, leave the stump so that it can become home to lots of families of beetles.



Stag beetle grub (larva) in wood

No matter how small your patch of garden, you can be creative and make spaces for beetles alongside plants for bees and butterflies. The Royal Horticultural Society runs a competition every year for school gardens and many of the prize-winners are wildlife gardens.



This garden, designed by a year 6 class in a school in Bracknell, has a hedgehog home, a bird feeder, plants for bees and butterflies, and a “bug hotel” – a bundle of lengths of garden bamboo cane wrapped up tight together to make lots of warm snug hiding holes – as well as places for bumblebees to hibernate.

Guidance for teachers and parents

This resource is intended for use by children in years 4 through 9, at school or at home. It can be used in conjunction with our other resource packs – Meeting Stag Beetles (Key Stage 2), Meeting Stag Beetles (Key Stage 3), and 3D Bug Art.

National Curriculum links

Science, key stage 2, Life processes and living things, section 1, Making links between life processes in familiar animals and plants and the environments in which they are found; section 4, How to identify and classify locally occurring animals and plants; and section 5, Feeding relationships.

Science, key stage 3, Life processes and living things, section 5, Living things and their environment – learning that a habitat supports a diverse group of plants and animals that are interdependent, learning how competition for resources and predation affect the size of populations, and learning about food webs and how they can be quantified using pyramids of numbers.

Ideas for further work

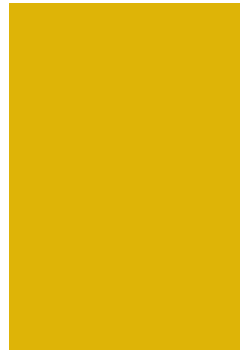
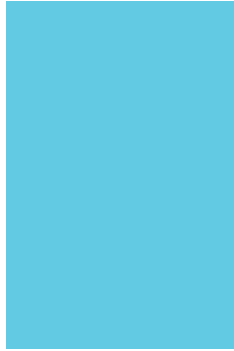
http://www.growingschools.org.uk/Resources/Downloads/Final_butterfly_and_bee_border.pdf gives guidance on how to plant a border that will attract and feed bees and butterflies.

http://www.bumblebeeconservation.org/gardening_for_bumblebees.htm gives suggestions for planting to attract and sustain bumblebees.

<http://www.butterfly-conservation.org/downloads/48/gardening.html> lists plants that will feed caterpillars and adult butterflies and moths.

<http://www.rspb.org.uk/wildlife/wildlifegarden/atoz/b/beetles.asp> and <http://www.wildlife-gardening.org.uk/default.asp?gallery=galleries%5Canimals%5Cinsects%5Cbeetles> describe other beetles commonly found in gardens.

<http://www.plantpress.com/wildlife.html> is an excellent site for investigating the feeding relationships between particular species of butterflies and bees, and native English wildflowers.



Royal Holloway, University of London
Egham, Surrey, TW20 0EX
T: 01784 434455
www.rhul.ac.uk