

How to: improve your garden for beetles



Rose chafer beetle
Photo: Dr Ken Thompson



Devil's coach horse beetle
Photo: Daniel Ullrich via Wikimedia Commons



Ladybirds
Photo: Andrew Halstead

Around 4,000 species of beetle are native to the UK. Beetles serve many important functions in the garden, from pollinating flowers to decomposing waste to acting as natural pest controls, eating undesirable species such as aphids and mosquito larvae. There's a range of ways to help them in gardens but the most important, and simplest, is to avoid using insecticides!

Target species

Decaying wood will support the larvae of many beetle species, including the rose chafer and stag beetle. Longhorns and thick-legged flower beetles are important pollinators, so a good variety of flowers will encourage them. Decomposing leaf litter will be habitat for carrion, scarab and rove beetles. Some beetles have specific relationships with plants. Oak trees provide home for the acorn beetle, the very rare tansy beetle relies on the tansy plant and the beautiful rosemary beetle relies on strong-smelling plants such as rosemary and lavender.

How to do it:

- Please avoid using insecticides anywhere in the garden!
- Plant a dense mix of native and northern hemisphere plants for herbivorous beetles. This could include hawthorns, holly, wild privet and other shrubs
- Have plenty of variety of flowering plants, the denser packed the better
- Introduce water habitats to bring in several aquatic species. See our [How-to guide](#)
- To support beetle populations year-round, it is important to keep habitats available through the winter. Exotic plants tend to have a bigger range of evergreen, dense shrubs so, think about incorporating a few hardy exotic plants into your planting.
- Encourage rotting wood by building a log pile. Have a look at 'How to build habitat piles' for more information.
- Leaf litter and mulch under a hedge or shrub will provide cover for many ground beetles
- If you have space, make a "dead hedge", which is made from two rows of upright wooden stakes with branches, twigs and leaves piled in between to make a metre or more of height. See the booklet [here](#)
- Larger gardens may have space to build a beetle bank, which is a raised mound of flat soil, providing shelter and over-wintering habitat for beetles and other invertebrates. Ideally, the mound should be roughly 40 cm high, and in a flat, sunny position. Sow grass and wildflower seed over the mound once you have built it to stabilise the bank.

How easy is it to do?

Easy/moderate. This really depends on the amount of garden modification you choose to do; building a beetle bank will be rather more work than the other activities mentioned but it can be incorporated into a grand garden design.

How much will it cost?

Fairly inexpensive, depending on the number and types of plants you add. Most of these will also support many other groups on invertebrates, birds and rodents. Providing leaf litter piles and rotting wood, or creating log piles and beetle banks, can easily be done from materials already in your garden. Avoiding insecticides is also completely free! Shrubs for hedges such as hawthorn and privet can be bought as bare-roots from suppliers for as little £1 each and survive well if planted in late Autumn.

How effective is it for the target species?

Effective- a combination of techniques will support a wide diversity of beetle species, but you would probably have to use trapping to show the difference in populations of these cryptic species

Golden rules – what the science tells us

- Planting dense patches of plants (particularly native species) encourages abundance of all ground-active invertebrates, particularly beetles and woodlice. Leaving some sparse or bare patches nearby will encourage spiders too.
- Prioritise a diversity of plant species in your garden; research suggests that the higher diversity of plants, the higher the diversity of invertebrates your garden can support.
- Leave piles of leaf litter in undisturbed corners of the garden and leave any wood or tree stumps rotting in place.

What to look for?

Look out for herbivorous and pollinator beetle species on your plants throughout spring, summer and autumn. Ground beetles can be seen walking over bare patches of soil. Many beetle species overwinter in leaf litter or beneath the ground, so it can be harder to see evidence of beetle activity in the colder months.

Things to be aware of

- It is important to be tolerant of some level of herbivore damage. While this is usually minor, herbivorous beetles such as weevils and leaf beetles may cause some damage to vegetables and flowers. It is important to watch any plants you may need to protect from damage and take necessary steps. Lily growers will want to protect their plants from the lily beetle, which can be done by picking adults and larvae off as soon as you see them
- Native carnivorous ladybirds are prized by gardeners as a natural pest-control against aphids. The invasive harlequin ladybird *Harmonia axyridis*, also feeds on aphids as a primary food source, but may eat and suppress other ladybird species. Populations of harlequin ladybirds are now so well-established in the UK that there are a few ways to control them. This means it is particularly important to support native ladybird populations if you do have them in your garden!

Further information

How to: [Create habitat piles](http://www.wlgf.org/ht_habitat_piles.pdf) www.wlgf.org/ht_habitat_piles.pdf

How to: [Bring water](http://www.wlgf.org/ht_bring_water.pdf) into your garden www.wlgf.org/ht_bring_water.pdf

How to: [Create and maintain ponds](http://www.wlgf.org/ht_ponds.pdf) for wildlife www.wlgf.org/ht_ponds.pdf

Our web pages [on beetles](http://www.wlgf.org/beetles_intro.html) www.wlgf.org/beetles_intro.html

Research findings on plants for [invertebrates](http://www.wlgf.org/plants_for_bugs.html) www.wlgf.org/plants_for_bugs.html

Dead hedge - in "Bring back our beetles" [booklet](http://www.wildaboutgardens.org.uk/sites/default/files/2021-03/200204%20RSWT%20WAG2021%20Booklet_WEBSPREADS_cardinal%281%29_1.pdf) www.wildaboutgardens.org.uk/sites/default/files/2021-03/200204%20RSWT%20WAG2021%20Booklet_WEBSPREADS_cardinal%281%29_1.pdf