

How to: Create a bug hotel



Photo: russty67 via Wikimedia Commons



"Buglins" hotel Photo: Julie Newman St Alban's Primary School Havant

A bug hotel is a structure filled with all sorts of bits and pieces of sticks, straw, tubes and boxes of dry leaves. The idea is to create lots of diverse small spaces and nooks and crannies in which a variety of small insects can hide away from predators and can hibernate in safety. Making one is a fun exercise, especially for young children, but the jury is out on how useful they really are!

Target species:

Mainly small overwintering insects, like ladybirds and other beetles, lacewings, solitary bees, wasps and possibly butterflies and moths. If it is on the ground, you might get amphibia like newts and toads using it too.

Bug hotels (or insect hotels) shouldn't be mixed up with solitary [bee hotels](#) or boxes, which are specially designed to provide nesting sites for some solitary bees.

How to do it

How much space do you have? – and is it important that it “Looks nice”? Some people really go to town with bug hotels measured in metres, but something smaller (or the alternatives mentioned below) would be fine for a small garden

- You need a structure to hold everything together. This can be an open-fronted wooden box which shelters the contents from rain, or a much larger self-standing structure made up of stacked wooden pallets or logs resting on each other like a log cabin.
- The main structure should provide compartments which can be stuffed with materials amongst which insects will find shelter.
- Most people like to create a great variety of hide-aways within the structure using different materials, which can also look interesting to our eyes. The most popular material is thin dry sticks, cut to length and pushed tightly into the space. Then you can make loose balls of straw either tucked into flowerpots or jammed between sticks or small logs. Pine cones and teasel heads look attractive and contain many small cavities. Hollow plant stems like bamboo, raspberry, reeds or teasel can be used, as can lengths of dead bark.
- Dry leaves can be loosely stuffed into the interior of bug hotels where they won't get blown out by the wind
- Rolled-up cylinders of corrugated cardboard can be used if sheltered from rain
- If you can get hold of them, perforated bricks can provide colourful habitat space
- If your structure is large and free-standing, you can put stacks of broken tiles and large stones in the base to make a mini-[rockery](#) to shelter amphibians overwinter.

How easy is it to do?

It's quite easy to set up a bug hotel provided you can get hold of suitable materials.



How much will it cost?

It really shouldn't cost anything, because home-made bug hotels can be made largely from natural materials you can collect yourself. However, there are many firms that make and sell small hotel structures (see left), often looking like cute houses, for £15-30. Many of these include tubes or holes for solitary bees and so are a hybrid product. There is even an outdoor wooden discovery bug hotel that retails for £688.50 inc. VAT.

Photo: Timo Newton-Syms via Wikimedia Commons

How effective are they?

It's probably already clear that insect hotels are not proven to be very useful to insects that can usually manage very well using natural shelter. But if you have a small garden, with no space for hedges or climbers or dead wood piles, one or more small insect hotels may be of value.

Golden rules – what the science tells us.

- Never use treated timber, because it will poison the very animals you are encouraging!
- Insects have managed for millennia to over-winter successfully without the help of artificial structures, using natural crevices in bark, stones, hollow plants stems, and especially the shelter provided by climbing plants such as ivy
- There is every reason to think that bug hotels will be used, but as yet no evidence for how much they are used and what species actually benefit from their use
- It is possible that bug hotels, by attempting to bring lots of insects close together, could be counter-productive by encouraging predators, parasites or disease. There is good evidence that this can happen with solitary bee hotels
- Without hard evidence we can't say how important placement in a garden would be, but in general it would be best if they are in at least partial shade to avoid overheating in summer sun. In a deeply shaded site some of the wooden material will slowly rot, which will increase its value for wildlife.
- What science is telling us is that it would be *really* useful to set up a project to create a variety of bug houses, let them stand for a year, and then carefully dismantle them in late winter to see what species they are sheltering.

Be aware that...

- Your bug hotel should be sturdy enough to stand up to wind, and any tall structure must be safe and not able to fall over and hurt someone.
- Most gardens, unless they are hyper-tidy, will naturally have lots of overwintering habitat, especially under hedges, within mounds of ivy or ivy on walls, and open compost heaps
- Bug hotels have never been properly assessed scientifically, so they can most positively be considered a fun activity to get children interested in garden wildlife - and give them insights into life cycles and habitat needs

What will you see?

Chances are - not much. Bug hotels are intended as shelter, over winter or perhaps overnight. Unless you are lucky, you are unlikely to see much activity during daytime. However, the structure you have built should not be an eyesore and certainly will be a talking point for garden visitors.

Alternatives

Other structures fulfil similar purposes.

- Solitary bee hotels really do work for breeding bees, and of course many commercial bug hotels do include some solitary bee tubes.
- Habitat piles such as rockeries, wood piles and stone piles are all excellent. See How to: [Create habitat piles](#) for ideas
- Mature hedges accumulate twigs and dead leaves underneath, that make admirable overwintering habitat for all sorts of invertebrates – and hedgehogs and amphibia. You can encourage this by pushing dry garden trimmings under the hedge yourself!
- Ivy is a star wildlife plant. Growing up a wall, it eventually creates a thick layer of tangled aerial roots and stems in which all sorts of invertebrates can hide, and birds can nest. On a wall, it can grow to make big mounds of vegetation which are perfect overwintering habitat
- A lacewing overwintering chamber can be made from a large plastic bottle with the bottom cut off and a rolled piece of corrugated cardboard pinned inside. With the lid on hang the chamber up with some string.

Further information

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

How to: Create and maintain [bee hotels](#) www.wlgf.org/ht_bee_hotel.pdf