How to build a bug hotel

This bug hotel was built by the North Wales Wildlife Trust for the Wildlife Trusts stand at the 2013 Royal Welsh Show.

You don’t have to build the whole thing – each element can work on its own – but we hope you agree the scale makes this more than a hidden wildlife habitat – it’s a garden feature.

Where to site your hotel
Some invertebrates like cool damp conditions while others prefer the sun. To cater for as many of them as possible, site the mansion where some of it will catch the sun but with the rest of it in shade - say partially under a tree or near a hedge. Choose a level, even surface: the hotel may end up fairly heavy, so will need a firm base.

The basic structure
The basic framework is made of old wooden pallets. The hotel does not need to be more than five pallets high (we used four in this one). Place the bottom pallet upside down which usually creates larger openings at the ends, which can be used for a hedgehog house. Although the structure should be stable, you might want to screw each pallet to the one below.

The top is some apex tiles from a roof (found in a skip) and underneath these place a sheet of plastic (or something equally water resistant), so the hotel stays dry. Now you just need to fill the gaps.

Dead wood
Dead wood is essential for the larvae of wood-boring beetles, such as the stag beetle. It also supports many fungi, which help break down the woody material. Crevices under the bark hold centipedes and woodlice.

Holes for solitary bees
Hollow stems, such as old bamboo canes, or holes drilled into blocks of wood, make good nest sites for solitary bees. Holes of different diameters cater for different
species (6 to 8 mm holes are usually best, and just the depth of the drill bit). You can place canes or hollow plant stems in a length of plastic drainpipe or traditional clay drain pipe if you can find some.

**Straw and hay**
This provides many opportunities for invertebrates to burrow in and find safe hibernation sites. Two small clay plant pots filled with straw attract solitary bumble bees (you are not going to get a swarm of bees by doing this). Make sure the drainage holes in the pots are clear.

**Dry leaves**
More homes for a variety of invertebrates; this mimics the litter on the forest floor.

**Loose bark**
Beetles, centipedes, spiders and woodlice all like decaying wood and bark.

**Hedgehog house**
Hedgehogs need a secure place to build their nests in; a wooden box under a pile of sticks and debris in a sheltered corner is ideal. Add dry leaves inside as bedding.

**Toad hole**
Although frogs and toads need a pond to breed in, they can spend most of the year out of water. Stone and tiles provide the cool damp conditions they need. The centre of the mansion will provide a frost-free place during the winter.

**Crevices**
Many garden invertebrates need a safe place to hibernate in through the winter, and cracks and crevices in the hotel are ideal.

**Lacewing homes**
Lacewings and their larvae consume large numbers of aphids, as well as other garden pests. You can make a home for them by rolling up a piece of corrugated cardboard and putting it in a waterproof cylinder, such as an old lemonade bottle.

**Ladybirds**
Ladybirds and their larvae are champion aphid munchers. The adults hibernate over winter; they need dry sticks or leaves to hide in.

**Bumblebees**
Every spring, queen bumblebees search for a site to build a nest and found a new colony. An upturned flowerpot in a warm sheltered place might be used.

**Nectar-producing plants**
Why not plant some nectar-rich flowers around your habitat. These provide essential food for butterflies, bees and many other flying insects.

Credits: Based on an original leaflet by the Cheshire Wildlife Trust.