How to: Make habitat piles

Habitat piles are handy places where all sorts of creatures can find safe shelter, especially over the winter. When made of damp woody material and dead leaves, they quietly moulder and provide food and habitat for lots of fungi and small invertebrates.

Photo: Jake Rayson

Photo: J.M. Staines

Photo: Mary Morgan

Different sorts of habitat pile

Dead wood piles - dry

You can make habitat piles with dry wood (plus straw, dead leaves etc) in which insects can hide and overwinter. Often called "Insect hotels", these are popular projects in schools, but natural twigs and leaf litter left under hedges and in forgotten corners probably work better. Solitary bee hotels are excellent where you provide artificial nesting tunnels in wood or hollow stems – see our How-to guide.

Dead wood piles - moist

These create a dead wood resource that's lacking in most "tidy" gardens. Moist, decaying wood shelters lots of different (often attractive) fungi, beetles and small invertebrates and is essential habitat and food for a number of dead-wood beetles such as the amazing stag beetle.

Wildlife rock piles

Piles of stones create lots of hiding places, not as valuable as rooting wood, but great shelter for invertebrates and amphibia.

Other habitat piles All wildlife gardeners should make compost if they can, discussed in our guide "How-to: Make compost" A closed compost bin isn't an accessible habitat. But an open compost box or heap is a brilliant home for all sorts of cryptic wildlife. Hugelkultur is a cross between wood piles and composting on a grand scale.

How to do it: dry dead wood habitats

- Collect together a mix of small diameter logs, sticks, twigs and hollow stems.
- Assemble these into an old wooden box on its side, so that hibernating insects and other invertebrates can get in.

- Alternatively, if you have large shrubs or hedges, you can simply hide this material with dead leaves underneath, where they will provide very natural shelter.

How to do it: damp log piles

- Rotting wood needs moisture, so make the wood pile out of the full sun so it won't dry it out.
- Find logs from tree maintenance cutting in your own garden and your neighbours. You may need to build up a collection over a few months, but you can add new logs to a starter pile as you get them
- Logs of any diameter can be used, so long as you can handle them safely, but smaller logs and twigs are also valuable, creating more hiding space, and helping the pile keep moist.
- Lay logs flat on the soil, or slightly buried, then lay other logs and smaller branches over them to make a complicated 3D maze.
- You can also dig a hole and set longer logs upright and half buried in groups. These could make a low "rotting fence" that could contain a mix of smaller logs, twigs and dead leaves.
- All dead natural wood is useful, conifers as well as deciduous trees but *never* use treated wood from garden sheds or structures. This contains powerful chemicals to kill fungi and wood-boring invertebrates – exactly what we are trying to encourage.

How to do it: wildlife rock piles

- Many gardens contain plenty of builder's rubble or large stones and this is a way to turn a nuisance into an asset!
- Rockeries can be in full or part sun, and hot stones attract basking insects and reptiles.
- You can make a good habitat pile from discarded bricks and tiles
- Dig a shallow (10-15cm) hole the size you want your rockery to be and fill it with large and medium rocks and stones, making a damp set of tunnels for overwintering frogs and newts. Then build up the pile above ground level with more large stones, ideally with the more attractive ones at the top.
- You can put soil around the edges and plant some alpine plants, but make sure there are still lots of gaps and tunnels.

Target species:
For dry wood habitats, woodlice, spiders small insects especially when hibernating – you probably won't see them however.
In moist dead wood habitats, shade-loving moss and small plants, many fungi (especially as thin white nets of mycelium) lots of woodlice, worms, centipedes and tiny arthropods like springtails Various worms, adult beetles and beetle larvae, even some moth caterpillars, and perhaps slow worms. See our garden wildlife pages for info on these groups.
For rock piles, hiding or overwintering frogs, newts and toads, butterflies and other insects sunbathing on the hot stones.

How easy is it to do?

All these are quite easy to do. Making a rockery is a bit more like hard work and be careful handling big lumps of stone and rubble.

How much will it cost?

Nothing! People are usually happy to pass on unwanted logs and garden rubble. If you want to make a conventional feature rockery, you can spend a lot of money on stone, which may not have been sustainably sourced.

How effective is it for the target species?

Dry wood habitat is fairly effective (we believe) but damp wood piles are extremely effective and a great wildlife gardening addition. Rockeries serve a limited but useful purpose.

Golden rules – what the science tells us

- Don't take logs or big stones from the countryside where they are already making useful wild habitat
- Leave on the bark, and any lichens or mosses
- Don't use treated timber!
- Log piles with smaller diameter sections included make better habitats and decay more readily
- Try not to disturb the habitats when they are complete, it can destroy the small-scale structure

What to look for?

Moss and fungi growing on moist logs, more amphibia using your garden, butterflies basking on the rockery – and lizards too if you are lucky and they live in your area. If bark separates from rotting wood, carefully peep under it and see the fungal networks and small animals sheltering underneath.

Things to be aware of

Wood piles will rot away in a few years, so keep them topped up with new logs and prunings

Further information

How to: Make compost (in progress)
How to: Create and maintain bee hotels www.wlgf.org/ht_bee_hotel.pdf
PTES Youtube movie on making wood pile www.youtube.com/watch?v=-hHsCSSpHrw
Our web page on Hugelkultur www.wlgf.org/Hugelkultur.html
Our web page on dead-wood beetles www.wlgf.org/beetles_intro.html
Our web pages on mosses and liverworts in gardens www.wlgf.org/bryophytes.html