Managing Community Spaces for Pollinators





This resource is designed for local authorities to share with community groups interested in improving green spaces for wildlife with a particular focus on providing for the needs of pollinators, especially within B-Lines. For advice for local authorities on managing parks and larger green spaces see, Managing parks and Green Spaces for Pollinators.

What are B-Lines?

B-lines are pollinator super highways, a landscape-scale solution to reverse the decline in pollinating insects. They stretch across Britain's countryside, towns and cities, running north to south and east to west joining up the best remaining flower-rich habitats.

Within B-Lines corridors we are encouraging everyone to create flower-rich stepping stones, big and small, to help pollinators and other insects travel safely through our landscape. Built-up and intensively farmed or managed environments can be very difficult for insects to move through as there is no food or suitable resting places. Many insects are unable to travel very far and can become isolated within small 'islands' of good habitat, unable to colonise new areas or recolonise old sites. This means both habitats and species can become increasingly fragmented and vulnerable. B-lines is the beautiful solution to joining up the flower-rich places in

our towns and countryside to help halt the decline in insect populations, and we need your help! Visit our B-Lines map_B-Lines - Buglife to see if your community space falls within a B-Line and add your project to the map!



UK B-Lines network. Interactive map accessible at buglife.org.uk

Community buy-in

Be sure to involve the local community and those supporting with management in the development and plans for the site from as early on as possible. Listen to people's concerns and opinions, addressing them together and ensuring that everyone is on-board as much as possible with the idea of creating a space which is beneficial both to nature and the local community. If some of the group prefer tidy formal areas and others wilder areas, create a bit of both.

Design and put up a sign to explain that an area has been left uncut, not because it is uncared for, but quite the opposite, because it has been designed to benefit pollinators and other wildlife which need wild places.



An example of a sign used for B-Lines meadow creation work.

Community green spaces

A community green space can be as small as a garden or green space beside a community centre, a church or other faith group garden, or a valued local park managed by local people, often with some local authority input. What they are all likely to have in common is that these spaces can be managed or influenced by enthusiastic local people.

Managing community green spaces for pollinators and other invertebrates, is also beneficial for other wildlife and the local community who enjoy these spaces. Even though community spaces may be very diverse and multi-use, such varied spaces can be a real boost for pollinators. This resource provides management tips and habitat creation ideas to maximise the biodiversity benefits of your space.

Grass cutting for pollinators

Simply **cutting less** and **removing cuttings** can have a big impact on plant diversity and flower abundance, with a knock-on effect on insect diversity and abundance, while at the same time, reducing costs and lowering your carbon footprint.

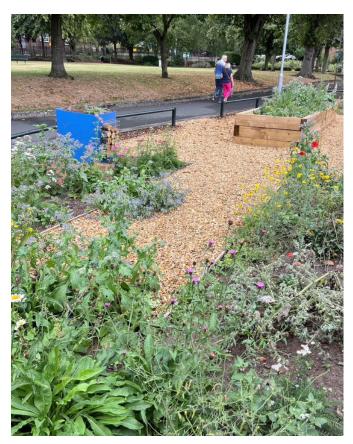
Common wildflowers, like buttercups, daisies, dandelions, Self-heal, Cat's Ear and White Clover will attract insects. Why not jump on the "No Mow May" bandwagon and see what comes up when you simply delay mowing? You can even extend this no cut period through the summer to late August or early September. If you would like your community space

to be a little "tidier" then cut a margin beside the path more frequently, leaving longer areas away from the path. You could mow paths through the long vegetation and add in a meander to entice visitors to explore and provide sheltered areas for basking butterflies and other insects.

Areas of tall grass and wildflowers provide a refuge not only for pollinators. Hedgehogs, other small mammals and garden birds like Blackbirds and thrushes can forage for food, while the stridulations of grasshoppers will add to the buzz of the bees. These areas will be crucial in our increasingly dry, hot summers when many lawns are left short and brown. If you have the space, you could even create a mini meadow, see 'Grassland' below. Good meadows can take a while to get right, but it's very rewarding watching them develop.

When you do cut the grass, always remember to remove the cuttings, as wildflowers grow better in low nutrient soils but leaving cuttings means that as they dry and rot the nutrients go back into the soil. If there are too many nutrients, large, competitive grasses, docks and Nettles can take over and smother the flowers and finer grasses. Cuttings can be added to a compost heap or left in a corner.

If you have a large enough area **leaving a small patch of uncut tussocky grass over winter** provides valuable shelter for overwintering invertebrates and small mammals and may be used the next summer by ground-nesting bumblebees. Make sure to cut this area back at the end of the following summer and choose a new area to leave long; this way there will always be a refuge area for invertebrates to escape the mower, and rotating these areas means it won't undergo succession and turn into scrub.



Dawley Gardens pollinator garden © Kate Jones

Wild areas

Don't forget to leave some "scruffy" wild areas with beneficial wild plants like Nettles, brambles, thistles, Hogweed, dead nettles and dandelions. Nettles alone support over 40 species of insects including many moths and the caterpillars of some of our most loved butterflies such as Red Admiral (*Vanessa atalanta*) and Small Tortoiseshell (*Aglais urticae*). Hogweed, along with other umbellifers, such as Cow Parsley, Angelica and Ground Elder are enjoyed by many species of pollinators and add attractive structure to green spaces. The hollow stems of cut brambles and other plants can also be used as a nesting site by small solitary bees, so don't tidy up too much!

Plants for pollinators

Locally occurring, native wildflowers, trees and shrubs are always our first choice for providing food for native pollinators and other wildlife. Ensure that there are plants in flower all year, spring, summer and autumn so there is pollen and nectar available for pollinators from March to October.

Here are a few plants which are particularly popular with pollinators. We have focused on native plants, whilst including a few non-natives (NN) which may be suited to formal garden areas.

It is also important to find out how plants that you might be buying for your green space were grown, and where they



Large White Butterfly (Pieris brassicae) on Creeping Thistle © Rachel Richards

have come from. Ask for plants which haven't been treated with insecticides, are grown in peat-free soils and have been grown in UK nurseries as importing plants helps to spread invasive non-native species.

For more pollinator plants see <u>Plants-for-bees.pdf</u> (buglife.org.uk)

SPRING

Try willows, Blackthorn, Cherry Plum,
Hawthorn, Flowering Currant (NN), fruit
trees like Apple, Pear, Plum and Cherry. In flower beds
- hellebores (NN), aubretia (NN) and Lungwort (NN).
In lawns, verges and along village greens dandelions
are very popular with a vast array of insects, including
spring solitary bees. Though less abundant, Ground Ivy,
Coltsfoot and dead nettles are also valued by pollinators.

AUTUMN

Autumn is an important time for our pollinators as new bumblebee queens need to be well fed to last through hibernation and late solitary bees are still finishing off their nests. In fact, the Ivy Mining Bee (*Colletes hederae*) is a solitary bee which relies on Ivy, a very late-flowering and important food plant for many pollinators including wasps and hoverfly species. Other, late-flowering, pollinator friendly plants include Globe Thistle (NN), heathers, Devil's Bit Scabious and Sunflower (NN).

SUMMER

Summer herbs like Sage, Thyme, Rosemary and Lavender are all very popular with pollinators and people. Plants in the pea family, including clovers, Gorse, Broom and trefoils, etc. and the daisy family, which includes thistles, knapweeds, Yarrow and Oxeye Daisy are also very popular with bees and hoverflies. For the long-tongued bee species, try plants like Foxglove, monkshood (NN), aquilegia (NN) and fuchsia (NN and can be invasive). Hoverflies like more open flowers like umbellifers (Hogweed & Angelica are popular) and for butterflies, Red Valerian (NN and can be invasive) is a favorite.

WINTER

In some parts of the country, particularly in the south, some bumblebee species, such as Buff-tailed Bumblebee (*Bombus terrestris*) remain active all year round. You may wish to consider including winter flowering species like Mahonia (NN), Hellebores (NN) & winter aconites (NN).









Top left: Dark-edged Bee-fly (Bombylius major) © Lucia Chmurova, top right: Nomad Bee (Nomada sp.) on speedwell © Lucia Chmurova Bottom left: Bumblebees (Bombus sp.) on bramble © Rachel Richards, bottom right: Seven-spot Ladybird (Coccinella septempunctata) © Liam Olds

Grassland

As you reduce your cutting frequency and remove cuttings you should find an increasing diversity and abundance of wildflowers starting to appear, such as Common Daisy, buttercups, dandelions, White and Red Clover, vetches, Self-heal, Cat's Ear and hawkbits. It may take a while for flowers to appear as they adjust to changing management. The species you find will depend on the history of the site but in many instances, there is no need to add seed, simply change the management and wildflowers will reappear. If your grassy area has been previously sown with a grass seed mix it may be species-poor so you could enhance it with native wildflower seed or plug plants, sourcing locally if possible.

Once some bare areas have been created using a rake or similar, a general wildflower seed mix can be sown to enhance the area. In some instances, you may wish to carry out a soil test to look at nutrient levels like phosphate, soil type and pH, considering factors such as how wet the site is, the species of wildflowers found growing in your local area and how often you wish to cut the area depending on usage. For shorter and well used areas you could use a short-flowering lawn seed mix, and in longer areas a tall wildflower meadow mix. Commercial seed mixes can be used, but avoid non-native species and showy annuals like

poppies and Cornflower, which only flower for a short season and need to be reseeded annually. It might be possible to use locally sourced wildflower seed if you have a nearby wildflower site and can obtain permission to collect.

See Sheet-3-Wildflower-rich-grassland-creation-1.pdf (buglife.org.uk) for further guidance on meadow creation and Sheet-4-Management-of-wildflower-rich-grasslands-for-in-sects-1.pdf (buglife.org.uk) for advice on grassland management.

Pollinator herb garden

Both pollinators and the general public love a well-planned herb garden. The colours, smells and structures of the plants can invigorate the senses and have a therapeutic, calming effect on visitors. They also act as a magnet for many pollinators, which we can enjoy watching. Position a bench or an old log among the herbs to encourage visitors to take some mindful time out of their day.

Popular pollinator friendly plants for herb gardens include: Lavender, Rosemary, Thyme, Oregano, Chives, Sage, Marjoram, mints (although these can be invasive), Parsley, Fennel and Comfrey. Aliums are also popular with bees and will add colour and structure.

Trees and shrubs

Before adding more trees and shrubs to your site take a good look at what you already have and the value of those plants both to wildlife and to visitors. Many sites support fast growing evergreen shrubs with little or no value to nature, especially if they are beside paths so require regular pruning which results in no or little production of flowers and fruits. Additionally, they may shade out understorey plants and offer few nesting opportunities to birds. You may wish to remove some of these shrubs to cut down on management time and costs and to open up parts of your site, creating more light and space where more beneficial plants can be added.

Before planting always consider the space you have available, how big plants will grow and the management that you will be able to carry out. Be aware that some non-native plants can become very invasive and problematic in more natural habitats. Species such as rhododendron, buddleia and cotoneasters can spread and become a real menace unless they are kept under a tight control.



Native trees and shrubs with high wildlife value, particularly to pollinators, includes:

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- Willows
- Rowan
- Cherry
- Apples
- Hawthorn
- Blackthorn
- Gorse
- Broom

- Rose
- brambles
- limes
- Field Maple
- Ivy
- Alder Buckthorn
- Wild Raspberry



Ivy Bee (Colletes hederae) on Ivy © Rachel Richards

Water provides a major biodiversity boost when added to any space, big or small. Ponds can host an exceptional amount of wildlife and they provide a multitude of benefits for invertebrates; pollen and nectar-rich flowers on the banks, habitat for aquatic larvae, and simply a place to drink. A good wildlife pond will be free of fish and not too deep with sloped or stepped edges. See Bug-friendly-ponds.pdf (buglife.org.uk) on creating and managing ponds for pollinators including hoverfly lagoons.

If you already have a pond, consider how you might enhance its value for wildlife. Ensure the edges slope gradually into the water with marginal vegetation including a diversity of native flowering water plants. Some of your edges may be shaded by vegetation but ideally some will also be open and sunny. If your entire pond becomes vegetated over you may need to clear some out, placing the removed vegetation in a pile beside the pond so invertebrates can easily return to the pond.

Similarly if you have a ditch or stream running through your site you may wish to add native marginal plants and clear out a section to reduce silting. Don't clear out the whole ditch or pond at once, this way you will be providing a range of different habitats for plants and insects.



Plants for ponds and ditches:

- Purple Loosestrife
- Water Mint
- Amphibious Bistort
- Marsh Marigold
- Water Avens
- Marsh Woundwort
- Meadowsweet
- Angelica
- Greater Bird's-foot Trefoil



Hoverfly (Sericomyia silentis) © Liam Olds



Reduced cutting, Climate Action NE © Rachel Richards

Nesting habitat for pollinators

There are wonderful ways to create nesting habitat for pollinators, either very subtly or making an attractive feature for your green space depending on the space you have and the particular nesting and over wintering requirements of different species.

Leaving some uncut areas of **tussocky grass** is beneficial for ground-nesting bumblebees to use in the summer and hibernating bumblebees and other insects like grasshoppers, bugs and spiders to use in the winter. Many bumblebees, some solitary bees and other invertebrates will also use holes in old stone walls, so resist regrouting these where possible, especially when south facing.

Dead wood is another very important habitat for many invertebrates. Many species of beetles depend on dead wood, with different beetle species preferring wood from particular tree species.

Leaving logs and sticks of varying ages and sizes in different locations will provide a home for a range of species. When safe to do so, consider leaving standing dead wood rather than cutting it all down. Some invertebrate species specialize in standing dead wood habitats. Small holes left in wood by beetles, especially in sunny locations, are then often reused by nesting solitary bees and wasps. Select a few old logs full of small holes and move these to a sunny location to make your own natural bee and wasp hotel.

Even **rot holes** in dead wood are important for pollinators. The little pools of water that may collect in a branch junction or in a hole in the trunk are breeding habitat for some species of hoverfly. They will lay an egg in stagnant water where the larvae will live until ready to emerge as an adult.

Look for any **existing bee nesting habitat** within your green space. You may find small vertical cuttings beside a footpath, anything from an inch to a foot or more in height, or flat

or sloped bare areas of soil. These areas will have a sunny aspect and when bees are active small holes will give them away. Try to keep these areas free from scrub and excessive trampling in the summer. If no nesting areas are found you can create them on free-draining bare sand or earth in a sunny location. Many species of solitary bees will dig into it creating nesting burrows. If you can provide a quiet spot, preferably south-facing and on a slope, (it could be around the base of a tree, hedge or infrastructure) free of vegetation and just keep an eye out for the tell-tale holes and piles of sand. You could make a bolder feature out of it and make a large bank, with signage installed to explain what it is and what species would use it.

See Bee Bank Booklet (buglife.org.uk).

A variety of wooden bee hotels can be bought from various sources, but these may be of variable quality. <u>See our Bee</u> Hotel Guide (buglife.org.uk) for more details.



Nesting habitat for solitary bees and wasps © Liam Olds







Insects attracted to a street light © T.Vishwa, FLICKR, licensed under CC BY-SA 2.0

Go chemical free

It can seem a quick fix to spray unwanted vegetation with herbicide, to get rid of small patches of vegetation. But herbicides can have a real impact on our wildlife, so it is important to look for other ways of managing plants growing in the wrong place. Simply strimming them down to the ground can be a good chemical-free solution. Any herbicides or pesticides used to control a particular "problem" can, unfortunately cause a lot more harm than intended. Our pollinating insects need a clean, chemical-free place to live, eat and breed if they are to live full, healthy lives and provide free ecosystem services, like pollination, pest control and nutrient recycling.

Light pollution

Perhaps less acknowledged when it comes to managing green spaces for pollinators is the impact of lighting. Many invertebrates, particularly moths, beetles and flies, are attracted to artificial lights, this disrupts their natural movements including migration and mate searching and makes them more vulnerable to predation, particularly from bats.

Light pollution has been linked to invertebrate declines, but we still have a limited understanding of how powerful the impact of light pollution is on invertebrates. We certainly know it is one of the many drivers in invertebrate declines and mitigation measures need to be implemented. Understandably light is an important safety measure, but there are steps that local authorities and community groups can take to mitigate against the effects of light pollution.

Wherever possible aim for natural darkness, only using artificial light where it is needed and as little as possible. Light should be directed away from important areas of habitat, installing covers on streetlights to reduce light 'leakage' and where possible consider the use of motion sensors. The colour of the light and it's impacts on wildlife is a complicated topic. Generally avoid short wave length LEDs (UV and blue), warmer colours are preferable so adding a filter to LEDs is a good solution to this.



Incorporating some or all of these suggestions will enhance your green space for people and wildlife. Local engagement, including good quality and attractive signage, will engage

visitors, the variety of habitats on offer will make it an exciting place for children to explore, and the wildlife attracted to the space will bring beauty and the buzz of summer with it. Together we can all make a difference.

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