ADVICE SHEET

Managing Parks and Green Spaces for Pollinators

Crocuses © Urban Green Newcastle

This resource has been designed for local authorities managing parks and green spaces for wildlife and the local community, with a particular focus on providing for the needs of pollinators, especially within B-Lines.

Parks and green spaces can easily provide plenty of pollen and nectar sources for pollinators with some very simple adjustments. Relaxed mowing regimes and prioritising nectar and pollen-rich flowers in planting beds are some quick wins for providing a pollinator buffet. It is important to remember that it is not just flowers that pollinators need to survive and thrive. They have complex lifecycles and alongside foraging habitat will require nesting habitat, hibernating habitat and larval food sources. If you can accommodate some, if not all, of those features within your park or open space then you are really providing a boost for pollinators as well as an attractive environment for people.

What are B-Lines?

B-lines are pollinator super highways, a landscape-scale solution to reverse the decline in pollinating insects. They run 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 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!

Local Authorities can play a huge role in contributing to B-Lines by simply changing how greenspaces are managed to make them more attractive to pollinators. Please visit our map B-Lines - Buglife and add your work for pollinators, be it areas where grass cutting has been relaxed, where sites have been restored, or where meadows, ponds or hedgerows have been created.

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

Look after what you've got

The first step is to know what you already have and are already doing for pollinators. You may manage semi-natural habitats like woodland, heathland, meadows, etc. Make sure that they are mapped, and appropriate management plans are in place. You may even look to smaller features within your more managed spaces like species-rich hedgerows, flower-rich grassy areas, ponds, and bare earth on slopes that provides excellent nesting habitat. An audit of the features already existing within your managed spaces is a good first step to ensure they are recognised and protected.

The easy wins

A logical second step is to look at your maintenance and management regimes and see where adjustments could be made to provide a boost for biodiversity. It could be as easy as relaxing your mowing.

Don't mow, let it grow

Often there is a veritable feast waiting undiscovered in our parks and green spaces, and all it takes is giving the mower a rest and removing cuttings when you do mow. In spaces where the grass has been cut regularly and the arisings have been taken away this will have actually helped make the area more flower-rich. Wildflowers do best in nutrient-poor soils; by removing cuttings you can help to reduce the nutrients in your grassland area. The regular mowing will have suppressed grass growth, time and time again meaning some flowers have space to establish leaves but not flower.

Look closely at a tightly mown area and you may be lucky enough to see the leaf rosettes of many wildflowers, they just need time without cuts to flower. Areas which have been regularly cut and the arisings left in situ are likely to be more species-poor and will take longer to be colonised by wildflowers. They may require more cut and collects initially to lower the nutrient levels. If you would like to keep an area as fairly short grassland you could try relaxing the cutting to four or less cut and collects per season between March and October. This will still allow short-flowering plants that were just ready and waiting like Self-heal, White Clover and buttercups to flower.

If you have areas of grassland that you can allow to grow longer, then a management regime of one or two cuts would be most appropriate. This would allow for a longer, grassier area providing refuge for butterflies like Ringlet (*Aphantopus hyperantus*) and Meadow Brown (*Maniola jurtina*), as well as crickets, grasshoppers and much more. It will allow for flowering and full seed-set of many wildflower species and provide cover for a wide range of wildlife. The most crucial cut and collect should be undertaken at the end of summer in August or September with an area left uncut to provide continuous cover through the late summer and winter months. Rotate the uncut area each year to avoid it becoming too overgrown. The second cut and collect could either be undertaken in October to take off any grass growth before heading into winter, or in March to knock back early growth of grass. More details can be found in the farming hub: www.buglife.org.uk/resources/farming-hub

Regardless of the cutting regime you decide on, **ensure that cuttings are always removed** and that the grass cutting team are fully onboard with where to cut when. Grounds maintenance staff will need access to appropriate machinery to remove cuttings and sites to dispose of them. Compost sites or anaerobic digestion sites are two options that may be available. If you are moving from a cut and drop system to a cut and collect system you will gradually reduce the nutrient level of your grassland and allow more wildflowers to flourish. Each year you should find more wildflowers appearing.

Removing cuttings © Urban Green Newcastle

Reducing or eradicating the use of chemicals

Chemicals are harmful to our pollinators, reducing or eradicating their use is a positive step for wildlife and people. Many councils are moving to a needs must or zero tolerance of herbicides - we believe that zero tolerance is the best approach for wildlife and local communities.

Many of our native wildflowers are perceived as weeds, species like dandelions, ragwort, White Dead-nettle and brambles, are often seen as untidy and sprayed off. These species are hugely important in their provision of pollen and nectar and should be left to flower. A change in perception can lead to less chemical use, more flowering plants, and more insects.

Creating and restoring habitats for pollinators

Creating or restoring a meadow is a major boost for pollinators, providing a diversity of flowers and grasses for foraging which benefit different pollinator groups. We have lost 97% of our wildflower-rich grasslands since the 1930s, the effort to restore them is critically important.

It may be that you have identified a patch of grassland that is suitable to grow long during the summer and have adopted the cutting regime specified in the earlier section. If there is little species diversity present and changing the cutting regime has not increased the diversity through natural regeneration (this can take a few years) then you might want to think about enhancing the site by bringing in native wildlfower seed.

List of suitable ornamental plants

- Single Dahlias
- Catmint
- Lungwort
- Rudbeckia
- Lavender
- Bellflower
- Alyssum
- Flowering Currant

Common Carder Bumblebee (*Bombus pascorum)* on lavender © Louise Hislop

Toll Cross Park, Glasgow, Knapweed and Yarrow © Rachel Richards

There are numerous things to think about when restoring an area to species-rich grassland; the nutrient status of the soil, ground preparation, sourcing seed, seed mixes, sowing rates and timing. More information can be found here Sheet-2-Wildflower-rich-grassland-restoration-1.pdf and Sheet-3-Wildflower-rich-grassland-creation-1.pdf (buglife.org.uk)

Ornamental planting

Areas of ornamental planting can become effective pollinator pitstops with a few tweaks. Most ornamental planting consists of big, colourful bedding plants that look very showy but actually provide very little to no nectar for visiting insects. Simply adding a few attractive nectar and pollen-rich flowers will make it useful for pollinators and beautiful for people. It is important to make sure that ornamental plants are responsibly sourced and that sourced plants aren't potted in peat or treated with neonicotinoid pesticides.

In many parks planting regimes of old are still visible. Large evergreen shrubs were a popular choice due to their hardy and fast growing nature, but they need regular pruning to avoid them growing over footpaths, and because they are so heavily pruned they bear no flowers or fruit rendering them of little value to wildlife. Replacing these with something of a higher wildlife value would create a chain of pollinator pitstops and create attractive areas for people to enjoy.

Planting or enhancing a hedge

Hedges provide a multitude of resources for pollinators; nesting habitat, hibernating areas and foraging resources. Planting a native species-rich hedgerow is a sure-fire way to provide for pollinators. If you factor in a blossom sequence to your hedge you will be able to supply nectar and pollen to pollinators right through the year. Aim for between 4 and 5 woody species in your hedgerow, species like Hawthorn, Blackthorn, willow, Crab Apple and Rose are all popular pollinator plants. If possible plant your hedgerow on a low earth bank and once the hedge is established the tussocky grasses and old mouse and vole holes at its base will provide nesting habitat for bumblebees. Brambles, Clematis, Ivy and bryony can provide additional pollinator value. Use plants native to your area.

Nesting habitat for solitary bees and wasps © Liam Olds

Patchwork Leaf-cutter Bee (*Megachile versicolor*) nest building in a drilled fence post © Rachel Richards

An important thing to consider when planting a hedge is the future maintenance and management it will require. In the first few years when the plants are establishing an effort to cut long grass back in the summer must be made to avoid the establishing saplings being crowded out.

Once the hedge has grown and established it may need laying, although this may not be for another 20 years after planting if it is trimmed every three years or so. The process of laying rejuvenates a hedge, it serves to fill any gaps and encourage new bushy growth from the base up. An unlaid hedge will eventually just become a row of trees. Alternatively, a sensitive cutting regime may suffice for the management of the hedge.

Trees for pollinators

Trees are often unsung heroes when it comes to pollinators, but they can provide plenty of flowers at crucial times of the year. Willows provide a valuable pollen and nectar source for emerging queen bumblebees in early spring. Rowan, Whitebeam, Hawthorn, Blackthorn, Wild Cherry, Holly and Crab Apple will provide forage for pollinators from April to June, and fruits into the late summer and early autumn which provide a sugary snack for flies, butterflies and birds. Oak and Lime flowers are all visited by various pollinators and also attract aphids which produce sugary honey dew, another source of sugars for many insects.

Nesting habitat

You may find there are already cuttings or bare areas of soil in sunny locations being used by nesting bees. If not there are wonderful ways to create nesting habitat for pollinators, either very subtly or making an attractive feature for your park or open space.

- **Bare sand or earth banks:** A patch of free-draining, sunny and bare earth can be a hive of activity. 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. Or, you could make a bolder feature like a large bank, with signage installed to explain what it is and what species may use it. See Bee-bank-booklet-4.pdf (buglife.org.uk)
- **Dead wood** is an important resource for many invertebrates, the holes created by wood-boring insects like beetles are utilised by aerial nesting solitary bees. If it is safe to do so then leaving standing dead wood in-situ will provide nesting opportunities for bee species like leafcutter and mason bees. Variety is the spice of life and that is no different for dead wood. Leave dead wood in sunny and shady locations, both standing, and on the ground, and it will provide habitat for a diverse range of invertebrates and other wildlife. Dead wood nesting habitat can be replicated by drilling holes into fenceposts, or by providing a bespoke bee hotel. See Bee-hotel-guide.pdf (buglife.org.uk). The latter can make a great educational feature and there are plenty of options out there for building one yourself or purchasing one.

  Even rot holes in dead wood are important for pollinators. The little pools of water that may collect in a branch junction or a hole in the wood 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. Rot holes in trees or even hedges will support this lifecycle.
- **Larval foodplants:** Lots of pollinators require specific plants for their larvae to feed on. Many species of butterfly rely on grasses as foodplants, Meadow Brown (*Maniola jurtina*) would thank you for an area of long grass, whereas Red Admiral (*Vanessa atalanta*) would make good use of a patch of Common Nettle.

Engaging local communities

Making spaces more wildlife friendly often means breaking from management regimes that prioritise neatness above all else. Whilst this will be a welcome shift for many, others may be upset by what they perceive as neglect or abandonment of their parks. Bringing the community with you on these changes as early as possible in the process is crucial for their long-term success.

Plug planting © Kate Jones

Carrying out public consultations, hosting volunteer days or visit days, and working with local schools and community groups helps to bolster the support in the community for the work. Attractive signage that details why the work is being carried out, what benefits it brings and perhaps species profiles is a great feature on a site that lets people know that there is management going on tailored to the habitats and species present.

Reducing 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 impacts of light pollution are on invertebrate. 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 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.

Wetland habitats

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. Well-placed stones also provide excellent places for invertebrates to bask on a sunny day.

A good wildlife pond will be free of fish, not too deep with sloped or stepped edges providing a range of habitats, will boast native marginal vegetation that will provide pollen and nectar and be kept relatively free of overhanging vegetation. Incorporating a boggy area that perhaps takes the overflow will provide an opportunity to get in some wonderful plants that will provide a real boost for pollinators.

List of suitable plants

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

Bug-friendly-ponds.pdf (buglife.org.uk)

Valerian © Rachel Richards

Incorporating some or all of these suggestions will make your park/open space a dynamic place for wildlife and people. 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.

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