#POLLINATOR PLEDGE

LOOKING AFTER NATURE SO NATURE CAN LOOK AFTER YOU

Parish Pollinator Pledge

Guidance for pollinator improvements

If you have already completed a habitat map and relevant surveys, you are now ready to start thinking about how you can improve your parish for pollinators.

This guidance aims to provide you with some hints and tips to help you plan your pollinator improvements. To do this it is important to consider:

- **What pollinators you already have in the local area?**
  - *You should know this from your surveys.*

- **What pollinators should/could be in the local area?**
  - *A bit of research will be needed - the Hampshire Biodiversity Information Centre (HBIC) is a great source of information. There are also many 'experts' out there willing and able to get involved including Countryside Service staff, Wildlife Trust staff, National Park Rangers and local invertebrate recorders.*

- **What does a good pollinator area look like?**
  - *Some research will be needed – keep reading to find out more. You may also want to check out the following web resources:*
    - https://naturalresources.wales/media/681901/managing-the-grounds-of-public-buildings-for-pollinators.pdf
    - https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators
    - https://www.ceh.ac.uk/sites/default/files/Habitat%20Management%20and%20Creation%20For%20Pollinators.pdf
    - http://wildaboutgardens.org.uk/sites/default/files/2018-08/Wild%20about%20gardens_wild%20bee%20action%20pack.pdf
    - https://www.opalexplorenature.org/polli-nation

CONTACT US

Parish Partnership

Hampshire County Council
Countryside

What do pollinators need?

Like any living creature pollinators are governed by the basic needs of **sustenance** and **shelter** as well as a strong need to **reproduce**. These needs shape all pollinator behaviour, so if we can provide all three of these our chances of creating sustainable pollinator populations are greatly increased.

Sustenance

Most pollinators such as bees, visit flowers for the nectar they produce. This high energy food is vital if the pollinator is to complete its life cycle. The sustenance gained not only maintains the pollinator but is often stored away to feed future offspring.

Some pollinators are generalists and will seek nectar from a range of plants, others are very specialised and only seek nectar from specific flowers and at certain times of the year. Pollinator friendly areas therefore need a range of nectar sources throughout the year.

Nectar producing plants come in all shapes and sizes, from large trees and bushes to tiny flowering plants hidden in grassland. The key is to ensure that your local environment contains a wide range of connected habitats, from hedgerows which provide a huge nectar source in the early spring as well as fruits in the autumn, to short grass that permits a variety of flowers to flourish.

Many pollinator species require water, as not all its fluid needs can be met through its food, so ponds, streams and even puddles are an important provision to think about.

Garden plants can be useful for pollinators but be aware that non-native species don't provide the same benefit as a diverse range of native plant species.

Shelter

Pollinators need shelter for a number of reasons including breeding, hibernation and refuge from weather conditions.

Breeding shelter requirements are quite varied amongst pollinating insects. Everything from holes in the ground to bramble stems are used in ingenious ways. Some of these can be replicated by bug hotels or boxes but ensuring that there are a variety of habitat types and structure is the best way to help.

The same principles apply to some pollinator's requirements for hibernation. Ivy for example is used by a range of insects both as a nectar source and an overwintering area (and contrary to popular belief it doesn't actually damage trees!).

Some built environments contain high walls and buildings, and often wind-driven straight lines which make travelling to and from the best nectar or breeding difficult for some pollinator species. When planning improvements in your local area this should be considered and if possible mitigated through tree and scrub planting.

Reproduction

For a Pollinator to complete its life cycle it is very important that breeding conditions are met. Some nesting areas are very intricate and require access to mud, wood or grass, other species use simpler existing holes and cracks in trees and buildings.

The most important thing is that populations are of a viable size and that there is enough habitat connectivity to ensure individuals can meet up to mate, reproduce and disperse.

Examples of actions for pollinators…

The table below suggests some simple actions that can be taken to improve your local environment for pollinators. See Appendix 1-5 for planting and sowing guidance.

Task	Why?		
	Sustenance…	**Shelter…**	**Reproduction…**
• Maintain hedgerows • Plant new hedgerows	• Good for a range of insects especially early Spring	• Provides shelter all year around	• Lots of nesting material • Supports habitat connectivity
• Reduce mowing of grass verges, parks and green spaces	• Allows flowering plants to flourish, increases available nectar sources	• Long grass swards create additional habitat structure	• Increases the range of available breeding areas • Supports habitat connectivity
• Sow wildflower seeds or plant plugs	• Increases number of available flowering plants and range of species	• Additional species increases range of shelter opportunities	• Increases the range of available breeding areas • Supports habitat connectivity, can create steppingstone habitats
• Create/maintain wildlife ponds	• Makes water available, additional range of plant species	• Creates different opportunities for species	• Supports habitat connectivity through acting as steppingstones habitats
• Encourage wildlife gardening – allotments, gardens and schools	• Allows flowering plants to flourish, increases available nectar sources	• Creates different opportunities for species	• Supports habitat connectivity through acting as steppingstones habitats
• Build bug hotels		• Provides shelter all year around	• Supports habitat connectivity through acting as steppingstones habitats
• Tree planting	• Good for a range of insects especially early Spring	• Provides shelter all year around	• Lots of nesting material • Supports habitat connectivity

Appendix 1. Hedgerow planting guidelines

Hedgerow planting

- Carry out work between 1 November and 31 March.
- Prepare the ground along a 1.5m wide strip to provide good soil conditions and as little competition from other vegetation as possible.
- Plants must be:
    - 2-year-old transplants,
    - at least 450mm to 600mm high,
    - native species, with no one species making up more than 70% of the total.
- Planting and maintenance guidance:
    - plant in a staggered double row 40cm apart with a minimum of 6 plants per metre,
    - keep clear of weeds until they are established,
    - remove individual guards and tree shelters once the plants are established,
    - replace all failures in the following planting season,
    - trim the newly planted hedge in at least the first 2 years to encourage bushy growth, allowing the hedge to become taller and wider at each cut,
    - prevent livestock and grazing animals from damaging the hedge by setting fencing at least 1.2m from the centre of the hedge, or, if there is a bank, as close to the base of the bank as possible.

Hedgerow standard trees planting

- Carry out work between 30 September and 31 March when the hedge is still dormant.
- Plant each tree in a pit deep and wide enough to contain the full depth and width of the root system.
- Plant native species at least 2 metres tall.
- Plant trees in irregular spacing with at least 20m between them to allow for full crown development.
- Tag each tree with a brightly coloured durable material (so it is not trimmed during any hedge cutting).
- Stake and tie each tree securely, using material appropriate to the size and species of the tree:
    - drive a clearly visible stake into the hedgerow on either side of the tree,
    - use rubber flexible and adjustable tree ties to prevent wind damage.
    - maintain stakes and ties until the tree is established and no longer needs support.
- Prevent livestock and wild animal damage.
- Control weeds until the trees have established.
- Replace any dead trees in the following planting season.

Appendix 2. Suggested seed mix for sowing in specific habitats

Semi-improved grassland

Autumn hawkbit, black medick, cuckooflower, bulbous buttercup, common cat's-ear, common sorrel, field wood-rush, germander speedwell, lesser trefoil, ribwort plantain, meadow buttercup, red clover, selfheal, yarrow.

Lowland calcareous grassland

Betony, bird's-foot trefoil, carline thistle, clustered bellflower, common rock-rose, cowslip, dropworts, devil's-bit scabious, eyebright, fairy flax, field scabious, gentians, greater knapweed, hairy violet, harebell, hoary plantain, horseshoe vetch, kidney vetch, lady's bedstraw, marjoram, milkwort, mouse-ear hawkweed, orchids, ox-eye daisy, purple milkvetch, restharrow, rough/lesser hawkbit, salad burnet, saw-wort, small scabious, squinancywort, stemless thistle, thyme-leaved sandwort, wild basil, wild thyme, yellowwort.

Lowland dry acid grassland

Bell heather, betony, bilberry, bird's-foot trefoil, biting stonecrop, bitter-vetch, blue fleabane, buck's-horn plantain, common centaury, common rockrose, common stork's-bill, devil's-bit scabious, harebell, heath bedstraw, heath speedwell, heather, lady's bedstraw, lousewort, maiden pink, milkworts, mouse-ear hawkweed, parsley piert, pignut, purple milk-vetch, rough/lesser hawkbit, saw-wort, sheep's-bit, sheep's sorrel, shepherd's-cress, thymes, tormentil, violet, wild strawberry, wood anemone, wood sage.

Lowland meadows

Agrimony, autumn hawkbit, betony, bird's-foot trefoil, bitter-vetch, black knapweed, bugle, burnet saxifrage, common bistort, common meadow-rue, cowslip, devil's-bit scabious, dropwort, Dyer's greenweed, eyebright, field scabious, goat's-beard, great burnet, greater bird's-foot-trefoil, lady's bedstraw, lady's-mantles, marsh/fen bedstraw, marsh marigold, marsh valerian, meadow vetchling, meadowsweet, milkwort, orchids, ox-eye daisy, pepper saxifrage, pignut, ragged robin, rough hawkbit, salad burnet, saw-wort, sneezewort, tormentil, water avens, water mint, wood anemone, yellow rattle, small blue-green sedges (glaucous, common and carnation sedge)

Find out more: [Advice & Guidance | Magnificent Meadows]

Appendix 3. Plant and sowing density

Hedgerows	**Stems per 100m**	**Blackthorn (35%)**	**Hawthorn (35%)**	**Mixed species (30%)**
100m of hedgerow	600	210	210	180
Hedgerow trees	**Trees per 100m**	Native species at least 2 metres tall		
100m of hedgerow	4			
Scrub planting	**Stems per ha**	**Stems per 100sq m**	• 2-year-old transplants • at least 450mm to 600mm high	
	1100	11		
Grasslands	**Plug plants**			
Plugs required per square m	2 to 4			
Grassland seeding	**Grass seed**	**Wildflower seed**		
Seed required per square m	5g	1g		

Appendix 4: Hedgerow planting matrix - recommended species

To plan what species to put in your hedgerow mix you will first need to know which National Character Area profile you are in. Refer to the National Character Areas (England) | National Character Areas (England) | Natural England Open Data Geoportal (arcgis.com)

Base hedgerow species - 70% of total hedge				**Supplementary species - combined 30% of the overall mix** * may form small hedgerow tree																	
	Blackthorn	Hawthorn	Hazel (Selbourne area)	Spindle	Dog-rose	Field Maple*	Crab Apple*	Field-rose	Sweet-briar	Whitebeam	Elder	Wayfarer-tree	Honeysuckle	Holly*	Grey Willow	Hazel	Alder Buckthorn	Buckthorn	Bullace/ Damson	Wych Elm	Wild Privet	Dogwood	Goat Willow
120 Wealden Greensand	X	X	X		X		X			X	X		X	X		X	X						
125 South Downs	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X
126 South Coast Plain	X	X		X	X	X	X				X	X	X	X	X	X	X		X			X	X
128 South Hampshire Lowlands	X	X		X	X	X	X			X	X	X	X	X	X	X	X		X			X	X
129 Thames Basin Heaths	X	X			X		X			X	X		X	X	X	X	X						
130 Hampshire Downs	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X
131 New Forest	X	X			X		X						X	X			X						
132 Salisbury Plain & west Wiltshire Downs	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X
134 Dorset Downs & Cranbourne Chase	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X
135 Dorset Heaths	X	X			X		X						X	X	X	X	X			X			

Appendix 5: Hedgerow planting matrix – recommended structure & hedgerow trees species

Again you will need to know which National Character Area profile you are in. Refer to the National Character Areas (England) | National Character Areas (England) | Natural England Open Data Geoportal (arcgis.com). Structure refers to the style of hedges that already exist in these areas, in some circumstances it may be necessary to maintain the character of the landscape already found in your area. A standard tree is a hedgerow tree that can be planted and allowed to grow to full height either within or near the hedge.

	Structure				Hedgerow trees			
	Conservation headland - no hedge	Short hedge - no standard trees	Short hedge with standard trees	Tall structured hedge	Pedunculate Oak	Rowan	Hornbeam	Field Maple
120 Wealden Greensand			X	X	X	X	X	
125 South Downs		X	X	X	X		X	X
126 South Coast Plain			X	X	X	X	X	X
128 South Hampshire Lowlands			X	X	X	X	X	X
129 Thames Basin Heaths			X	X	X	X	X	
130 Hampshire Downs	X	X	X	X	X		X	X
131 New Forest			X	X	X	X	X	
132 Salisbury Plain & west Wiltshire Downs	X	X	X	X	X		X	X
134 Dorset Downs & Cranbourne Chase	X		X		X		X	X
135 Dorset Heaths		X	X	X	X	X	X	