BEE HAPPY

A STRATEGY ON BEES & POLLINATING INSECTS FOR SOUTHEND-ON-SEA

2015-2020

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town, shore and so much more

southend onsea
BOROUGH COUNCIL

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INTRODUCTION

There are so many plants across the town, in fields, parks, gardens and natural open spaces; we often take them for granted.

However, they could not flourish without their pollen being spread by bees and hundreds of species of other insects – hoverflies, wasps, moths, beetles and butterflies.

There is evidence that bees and other pollinator populations are less healthy and abundant than they have been in the past. If action is not taken, it is generally accepted that pollinator decline will have serious implications for food production, ornamental gardens and the countryside.

In recent years the plight of bees across the world has been covered by the media. However, since many plants rely on other insects, such as hoverflies to transfer pollen from one flower to another in order to set fruits and seeds, it is important to consider all pollinators.

Without pollinating insects not only would the environment be a much drabber place, food production and the economy would also be seriously damaged.

This strategy sets out to the Councils approach to help promote the conservation of pollinators with in the borough.

THE COUNCIL'S VISION AND COMMITMENT

The Government's national pollination strategy for bees and other pollinators in England sets out a vision to see pollinators thrive, so they can carry out their essential service of pollinating flowers and crops.

Almost any insect that visits flowers can carry out pollination; over 1500 insect species are thought to carry out pollination services in the UK. This includes bees, hoverflies, butterflies, moths and some beetles.

Understanding the importance of pollinators, Southend-on-Sea Borough Council has chosen to adopt the Government vision on bees and pollinators.

> **"...to see pollinators thrive, so they can carry out their essential service to people of pollinating flowers and crops, while providing other benefits for our native plants, the wider environment, food production and all of us."**

By adopting the Government vision the Council aims to deliver across four key areas recognised in the Government strategy:

1. **Supporting pollinators across the town and countryside.**
2. **Enhancing the response to pest and disease risks.**
3. **Raising awareness of what pollinators need to survive and thrive.**
4. **Improving evidence on the status of pollinators and the service they provide**

By delivering on these aims the Council is committed to delivering on the following outcomes.

1. **More, bigger, better, joined-up, diverse and high-quality flower-rich habitats (including nesting places and shelter) supporting our pollinators across the borough.**
2. **Healthy bees and other pollinators which are more resilient to climate change and severe weather events.**
3. **Enhanced awareness across the borough including greater public understanding of the essential needs of pollinators.**
4. **Evidence of actions taken to support pollinators.**

WHY ARE POLLINATORS IMPORTANT?

Most bees are pollinators, eating pollen and nectar from flowers. Pollen sticks to their bodies, and is transferred between the flowers they visit.

This fertilises the plants, allowing them to reproduce, and grow fruits and seeds. This process is called pollination. Like bees, many insects transfer pollen between plants and are known as pollinators.

If pollinators went into steep decline, our borough would be a less beautiful place as they are essential for biodiversity and our wider environment. They maintain the diversity of wild flowers and support healthy ecosystems, particularly by helping plants to produce fruits and seeds, which birds and other animals rely on.

As part of our natural world, pollinators contribute to our health and well-being. However, the importance of pollinators is not always understood, leading to large numbers being destroyed. The common wasp is a good example of a pollinator that is regularly killed, due to lack of understanding of their importance.

WHAT IS THE PROBLEM?

It is generally accepted that pollinator numbers are in decline. However, whilst the distribution of some species of pollinator has become more restricted and there are a number of problems facing honeybees, the extent of the decline in pollinators overall is largely unknown.

WHAT IS KNOWN:

- The strength and health of honeybee colonies has declined. However, in Europe (including the UK), extensive colony collapse that has been observed in North America has not yet occurred.
- Some bumblebee and solitary bee species have increased their distribution in Britain. Others have shown a decline in distribution.
- Pollinators that are able to collect nectar and pollen from a wide range of plants, including garden flowers, are believed to be maintaining their numbers and distribution. Species that are more selective in their flower-visiting habits, or have special requirements for nest sites, now have a more restricted distribution.
- Many species of moth and butterfly are in decline, thought to be largely due to habitat loss. Less is known about the distribution and abundance of other pollinators such as hoverflies.
- Many garden plants and agricultural/horticultural crops need pollinators to transfer pollen from the flowers. Plants that are not pollinated will not set fruit or produce seeds.
- Climate change is having an effect on pollinator flood plants and habitat.

WHY ARE POLLINATORS IN DECLINE?

There is no one simple answer and the problems facing the honeybee are different to those affecting bumblebees, solitary bees and other pollinators.

HONEYBEES

Several causes are likely related specifically to honeybee decline.

- **Varroa destructor:** This is a parasitic mite that sucks bee blood from the bodies of honeybee larvae, pupae and adult bees.
- **Diseases:** Honeybees and their larvae are affected by many diseases caused by bacteria, fungi and viruses. This affects their efficacy as pollinators and nectar gatherers. These diseases can kill off a complete colony.
- **Neglect by the beekeeper:** Honeybees today need more care and management to prevent damaging levels of Varroa mites building up. In early autumn it is important to ensure honeybees have enough honey in their hives to keep them going until nectar becomes available in the spring. Hives that have insufficient honey must be fed to top up their stores.

BUMBLEBEES, SOLITARY BEES AND OTHER POLLINATORS

Varroa mite does not attack bumblebees and solitary bees. The main problem affecting them and other pollinators is loss of suitable habitat. This affects them in two ways:

- **Forage:** Specialist pollinators, including some bumblebees and solitary bees, collect nectar and pollen from a limited range of plants. These are often wild flowers, so garden plants are not of benefit to them. Traditionally managed flower-rich meadows, are now a rare feature of the British landscape and this may be a contributory factor in the decline of some bumblebee and solitary bee species. Where suitable habitat remains, it is often fragmented, making it more difficult for populations to expand and colonise new areas. Those pollinators that feed on a wide range of plants can do well in gardens.
- **Nest and breeding sites:** Some bumblebees and solitary bees have specific requirements for nest sites. Many other pollinators such as hoverflies, butterflies and moth have specific habitat requirements for their larvae. The loss and fragmentation of suitable habitats reduces nesting and breeding opportunities.

PESTICIDES

Pesticides, especially insecticides, are often blamed for bee and other pollinator losses. When used according to the manufacturer's instructions, and by not spraying open flowers, the risk to bees and other pollinators can be reduced.

Particular concern has been raised about some neonicotinoid insecticides (clothianidin, imidacloprid and thiamethoxam). These systemic insecticides were used by farmers and gardeners to control a wide range of pests. Focus on this group of insecticides has been because minute quantities of these chemicals can be found in sap, nectar and pollen of treated plants.

In addition several bee poisoning incidents with neonicotinoids have happened abroad as a result of incorrect application.

Some research has shown harmful effects on the foraging ability of honeybees and the colony size of bumblebees. However, other research showed no clear evidence of harm being caused to bees when the chemicals are applied correctly.

Due to the potential impact of neonicotinoids, in April 2013 the European Commission restricted their use (Neonicotinoid restrictions) including the withdrawal of all products containing imidacloprid and thiamethoxam available to amateur gardeners. This withdrawal (in effect a ban) came into force on 30 September 2013. The restriction has made it illegal to use them. It remains legal to use other neonicotinoid-based products that are not affected by the withdrawal.

The restrictions was reviewed in 2015 and farmers are now permitted to use two neonicotinoid pesticides for 120 days on about 5% of England's oil seed rape crop. Products will also be deployed to ward off the cabbage stem flea beetle.

Pesticides, including weed killers, can also remove potential food plants and prey species for those pollinators that have herbivorous or predatory larvae.

ACTIONS

SUPPORTING POLLINATORS ACROSS THE TOWN AND COUNTRYSIDE

- Manage council land and properties with consideration to providing food, shelter and nest site for pollinators.
- Use flowers, shrubs and trees that provide food and habitat for pollinators as part of council planting schemes when practical.
- Not kill pollinators or destroy nests, including wasps.
- Encourage good practice to help pollinators through initiatives with a wide range of organisations.
- Encourage developers to consider pollinators in all developments and landscaping schemes.
- Encourage beehives at suitable locations on council owned land such as allotments.
- Minimise the use of herbicide on all council land including highways.
- Restrict the council's parks sections use of pesticides to the council nursery and fine turf sports pitches (accepting the occasional need to address infestations such as brown tail moth caterpillars in other locations).
- Encourage a greater acceptance of naturalised area including long grass with wild flowers across the town.
- Encouraging the public to take action in their gardens, allotments, window boxes and balconies to make them pollinator-friendly or through other opportunities such as community gardening and volunteering on nature reserves.

SUPPORT FOR THESE ACTIONS

- Deliver a state of nature report for Southend-on-Sea.
- Identify sites that will offer the greatest benefit to pollinators from improvements in landscape scale linking of food, shelter and nest sites.
- Identify amenity areas, highways verges and other spaces that can have changes in management to help support pollinators.
- Encourage the public to take action by providing them with suitable information on support of pollinators.
- Work with charities and other organisations with an interest in supporting pollinators.
- Support national campaigns including Bees Needs http://www.essexwt.org.uk and River of Flowers http://www.riverofflowers.org

CASE STUDY: COPPERMILLS WATER TREATMENT WORKS

Thames Water asked the Bumblebee Conservation Trust to survey a number of their sites and two rare species of bumblebee were discovered. Following the surveys, the company took action on two trial sites, including the Coppermills Water Treatment Works. There they planted a bee-friendly mix in a woodland glade area and introduced yellow rattle to replace coarse grasses. They also tried mowing less often. The result was a 37% increase in bumble bee numbers.

ENHANCING THE RESPONSE TO PEST AND DISEASE RISKS

- Keeping under review any evidence of pest and disease risks associated with pollinators.

SUPPORT FOR THESE ACTIONS

- Work with charities and other organisations with an interest in supporting pollinators.
- Support the beekeepers by promoting their work and produce.

CASE STUDY: TREGOTHNAN ESTATE

The Tregothnan Estate is situated in Cornwall, south-east of Truro. Along with private botanical gardens and arboretum, Tregothnan has an expanding commercial beekeeping operation. The Estate makes detailed observations on the health of the hives and how they are affected by their position in relation to terrain, flora, and proximity to neighbouring hives. Over 2014, Tregothnan has been able to increase the number of colonies of honey bees across the estate and will have roughly 40 hives by the end of this season. This has been a managed and sustainable period of growth, and they will be going into winter with strong hives with plenty of honey. There is a significant and varied gene pool of bees in the country. Looking ahead, Tregothnan will be undertaking a significant amount of work into the genetics of the different species, in particular production, hygiene, and temperament.

RAISING AWARENESS OF WHAT POLLINATORS NEED TO SURVIVE & THRIVE

- Work with charities and other organisations to develop and disseminate advice to the public and a wide range of landowners.
- Support the sharing of knowledge and evidence on issues effecting pollinators between council sections, departments and outside organisations, so action taken to support pollinators is based on up to-date evidence.
- Provide information on the council website on pollinators.
- Install pollinator friendly signs in suitable planting schemes around the town.
- Advise members of the public to consider planting a range of flowers and other plants in their gardens, balconies or window boxes to provide nectar and pollen as a food source for pollinators and to provide other resources such as shelter and nest sites.
- Use a pollinator friendly logo at council plant sales and in parks and open spaces across the borough.

SUPPORT FOR THESE ACTIONS

- Work with charities and other organisations with an interest in supporting pollinators.
- Keep information provided by the council current and relevant.

IMPROVING EVIDENCE ON THE STATUS OF POLLINATORS AND THE SERVICE THEY PROVIDE

- Produce and maintain a state of nature report for the borough.
- Understand the causes of pollinator declines and where council actions will have most effect.
- Improve the council's understanding of the value and benefits pollinators provide.

SUPPORT FOR THESE ACTIONS

- Keep up-to-date on latest research.

A FRAMEWORK TO DELIVER POSITIVE CHANGE FOR POLLINATORS

This strategy provides a framework for Southend-on-Sea Borough Council to work with others to achieve results for pollinators. In particular, to improve their overall status and to reduce losses in the diversity of pollinator species.

Principles guiding implementation

Southend-on-Sea Borough Council will:

- Build partnerships to expand and join up pollinator actions, guided by our understanding of what pollinators need to thrive.
- Raise public awareness so that people and organisations know how to help pollinators.
- Improve our understanding of pollinator populations and trends within the borough.
- Increase understanding of pollinator interactions with wild flowers.

Given the general uncertainty over the status of many pollinators, this strategy is starting point and must be flexible and adapt to new data and understanding as it emerges. The strategy will be kept under review, with a review of the actions in 2020.

POLLINATOR FRIENDLY PLANTS

There are many pollinator friendly plants. The following is a short list of plants that help support pollinators. The internet and horticultural books are a good reference source for other pollinator friendly plants.

SHRUBS

Ceanothus ‘Autumnal Blue’

Californian Lilac ‘Autumnal Blue’: Glossy evergreen foliage. Rounded heads of light blue flowers from July to September on a shrub up to 2.5-3 metres tall. Good wall/fence shrub.

Ceanothus ‘Blue Mound’

Californian Lilac ‘Blue Mound’: Glossy evergreen foliage clothed in late spring by deep blue flowers. Forms a mound up to 1 metre or more high with a spread of some 2 metre.

Lavandula angustifolia

True Lavender: A compact lavender with grey-green linear leaves. Purple flower spikes produced above the plant on green stalks open in June and continue into July. Grows to a height of 1 metre with a similar spread.

Lavandula angustifolia ‘Hidcote’

Lavender ‘Hidcote’: Dwarf growing compact form up to 60cm. Silvery grey-green leaves with flower spikes of deep violet-blue from June.

Lavandula x intermedia ‘Grosso’

English Lavender ‘Grosso’: A strong growing form up to 60-80cm, with blue flowers on long stems in June.

Rosa arvensis

Field Rose: A scrambling, suckering, native shrub with green, toothed leaflets. White, sometimes pink-tinged flowers are produced in June and July with the red fruit referred to as ‘hips’ appearing in October. The hips are held after the leaves drop, although they are a source of food for birds. Reaches around 2 metres high with some form of support with a spread to 2.5 metres.

Rosa canina

Dog Rose: The Native Dog Rose has white or more usually pink, single scented flowers followed by red hips on vigorous thorny stems.

Rosa ‘Fire Meidiland’

Rose ‘Fire Meidiland’: Glossy green foliage; red flowers from late spring through to autumn. Vigorous and upright with arching branches giving a rounded outline

Rosa glauca

Redleaf Rose: Also known as Rosa rubrifolia, this strong growing, bushy rose has glaucous leaflets, pink-tinged. Dusky, deep-pink single flowers are followed by red-brown hips in autumn.

Rosa ‘Hertfordshire’

Rose ‘Hertfordshire’: A compact groundcover rose from the County Series with single carmine flowers from summer through to autumn.

Rosa ‘Pride Meidiland’

Rose ‘Pride Meidiland’: Relatively tall ground cover, vigorous, producing numerous pink flowers with faded white centres. Useful for slopes and banks.

Rosa rugosa

Japanese Rose: A strong growing, tough, deciduous shrub with dark green leaves made up of oval leaflets held on very prickly stems. Fresh light green leaves when young, turn yellow in autumn. Single, fragrant magenta flowers with a yellow centre of stamens are produced throughout the summer from June followed by large, red and orange-red, rounded hips which are held well into the winter, although becoming shrivelled. Spreads via suckers to form dense clumps. Grows to a height of 1.5 to 2 metres high with a 2+ metre spread.

Rosa xanthina ‘Canary Bird’

Rose ‘Canary Bird’: Fern-like leaves, grey-green with canary-yellow flowers from late May into June. Grows to a height of 3 metres with a spread to 4 metres.

Viburnum tinus

Laurustinus: The Laurustinus is a medium to large evergreen shrub, producing pink budded white flower clusters from autumn to spring. Blue-black berries by autumn. Good in sun or semi-shade.

Viburnum tinus ‘Eve Price’

Laurustinus ‘Eve Price’: A more compact, dense growing form with more pink in the buds and flowers. Blue-black berries by autumn.

HERBACEOUS

Achillea ‘Fanal’

Yarrow ‘Fanal’: Low growing perennial with finely divided linear foliage coloured greyish-green. Flat bright red flower-heads spotted yellow on stout stems in June up to 75cm high with a 60cm spread.

Achillea filipendulina ‘Gold Plate’

Fernleaf Yarrow ‘Gold Plate’: Clump forming evergreen herbaceous perennial with finely divided, aromatic, hairy grey-green foliage. From June to August produces large, flat bright golden yellow flower-heads on stout stems. Grows to a height of 120cm with a spread of 45cm.

Achillea millefolium ‘Paprika’

Milfoil ‘Paprika’: Clump forming perennial with finely divided, aromatic, hairy grey-green foliage. From June into September produces flat orange-red flower-heads with tiny yellow centres on stout stems. Flower colour fades with age. Grows to a height and a spread of 40-60cm.

Achillea millefolium ‘Summer Pastels’

Milfoil ‘Summer Pastels’: Clump forming perennial with finely divided, aromatic, hairy grey-green foliage. From June to August produces flat flower-heads in pale shades of pink, apricot and white on stout stems. Flower colour fades with age. Grows to a height of 60cm and a spread of 50cm.

Achillea ‘Terracotta’

Yarrow ‘Terracotta’: Clump forming perennial with finely divided aromatic grey-green foliage. Grows to a height of 90cm. From June August produces flat brownish-orange flower-heads which fade to pale yellow.

Agastache ‘Black Adder’

Giant Hyssop ‘Black Adder’: Recent research shows this plant is the favoured source of nectar for Honey Bees. The plant produces an abundance of sweet nectar which bees make a bee-line for once discovered by the hive.

Aquilegia McKana Hybrids

Columbine McKana Hybrids: The long spurred flowers occur in a range of shades, including bicolour, borne on 60cm purple-flushed green stems in late spring and early summer. Leaflets green. Very popular with bumble bees

Aster x frikartii ‘Wonder of Stafa’

Aster ‘Wonder of Stafa’: Foliage dark green. Light violet-blue with orange-yellow centres produced towards the end of July through to September. Upright plant with a height of 70cm and a spread of 40cm. Late summer flowering plant is good for late flying insect pollinators

Aster ‘Little Carlow’

Blue Wood Aster ‘Little Carlow’: This hybrid forms a dense bushy clump with green leaves on upright stems. An abundance of lilac-blue daisy-like flowers with yellow centres ageing to dark red are produced in September to October. Grows to 100cm.

Astilbe ‘Granat’

False Goatsbeard ‘Granat’: This Astilbe x arendsii hybrid forms a clump of serrated glossy green leaves with crimson-red upright flower plumes from July to August. Grows to a height of 50-60cm with the flowers and has a spread of 40-45cm. Ideal for planting alongside water bodies.

Campanula carpatica ’Dark Blue Clips’

Carpathian Bellflower ‘Dark Blue Clips’: Short growing ground cover Campanula favoured by bum,ble bees and honey bees alike. One of the best sources of nectar for bees.

Centaurea montana

Mountain Knapweed: A spreading perennial forming clumps with ovate to lance-shaped green leaves. Blue flowers with purple centres on green hairy stems from May to through June. Attractive to butterflies and bees. Grows to a height of 60cm with a 60cm spread.

Echinops ritro

Globe Thistle: A clump-forming perennial with deeply-cut, spiny, dark green leaves downy underneath. Metallic bluish-violet spiky globe-shaped flowers on branching stems are produced above the foliage in July to September. The globes remain to form seed heads. Attractive to butterflies. Grows to a height of 100-120cm with a spread of 40-50cm.

Eryngium bourgatii

a Sea Holly: An eye-catching clump-forming perennial with deeply cut green leaves, clearly veined. Blue-green thistle-like flower heads with deeply cut silver veined basal bracts of the same colour on upward branching steel blue stems from the end of June through to August. Grows to 45-60cm high with a spread of 30cm. Very striking!

Eryngium x tripartitum

a Sea Holly: A clump-forming perennial with toothed, dark green leaves. Small metallic-blue cone-shaped flower heads with silvery-blue bracts on upward multi-headed blue stems are produced in July to September. Grows up to 60cm with a spread of 50cm.

Helenium or Sneazeweed

Many of the Helenium’s are attractive to bees and butterflies as well as a host of other insect pollinators such as Hover Flies. There is a wide variety available, some early summer flowering but many are mid or late summer into the autumn flowering which offer a great source of nectar late in the season.

Helleborus niger

Christmas Rose: Virtually evergreen foliage, clump-forming with dark green and leathery, which sets off the large saucer-shaped white flowers sometimes tinged strong pink, with yellow stamens, from December to March. Needs neutral or limey moist soil as well as shade from full sun. Grows 30cm high. Good nectar source for early and very late flying insect pollinators

Helleborus orientalis

Lenten Rose: The Lenten Rose has saucer-shaped flowers of various white, green and pink shades from winter to spring. Foliage leathery dark green. Generally easier to grow than Helleborus niger.

Melissa officinalis ‘Aurea’

Golden Lemon Balm: This culinary herb is a deciduous perennial with green and golden-yellow, oval-pointed toothed leaves which smell of lemons, especially so when crushed. Pale yellow flowers later turning white are produced in July and August and are attractive to bees. Grows to 40cm high with a 40-60cm spread.

Origanum vulgare

Oregano: This culinary herb is a mound-forming, spreading perennial with very small, oval green, aromatic leaves. Terminal clusters of white to pink fragrant flowers on square, reddish-brown tinged, hairy upright green stems are produced in July through to early September which are attractive to bees. Grows to 50 centimetres high with a 60-90cm spread. Reported to be one of the best sources of nectar for bees.

Origanum vulgare ‘Aureum’

Golden Marjoram: This culinary herb is a low growing, spreading semi-evergreen perennial forming mounds of very small, bright golden-yellow, aromatic leaves. Terminal clusters of pink fragrant flowers on square, reddish-brown tinged, upright yellow stems are produced in July through to early September which is attractive to bees. Grows to 20-30cm high with a 30cm spread.

Pulmonaria angustifolia ‘Munstead Blue’

Narrow-leaved Lungwort ‘Munstead Blue’: A low growing semi-evergreen or possibly deciduous perennial forming green clumps with ovate-shaped leaves. Deep blue funnel-shaped flowers on short upright stems are produced in March and April. Grows to a height of 30cm with a 45cm spread. A good early spring nectar source for bees.

Pulmonaria rubra ‘Redstart’

Lungwort ‘Redstart’: An early flowerer with rosy-red funnel-shaped flowers on short green upright stems in late February or early March to April. Produces low growing clumps with ovate-shaped green leaves, pale green when first emerge. Grows to a height of 30cm with a 60cm spread.

Salvia elegans ‘Tangerine Sage’

Tangerine Sage: This culinary sage can be classed as an herbaceous perennial forming mounds of green, pointed, hairy leaves which smell strongly of tangerine especially when crushed, hence the common name. Red tubular flowers on square, hairy, upright bronzed stems are produced from July to September. Grows to a height of 90cm high with a 100cm spread.

Salvia x superba

Sage: An upward branching, clump-forming perennial with lance-shaped green leaves. Purple flower spikes are produced from June to September. Grows to a height of 70-90cm high with a 40-60cm spread.

Salvia x sylvestris ‘Mainacht’

Sage ‘Mainacht’: An upright, clump-forming perennial with square, slightly hairy, green stems and green, shiny leaves. Violet flower spikes are produced above the leaves in June to August. Grows to 45-50cm high, reaching 60-70cm to the tops of the flower spikes. Spread is to 40-45cm.

Sedum Spectable

Great autumn source of pollen and nectar when most other plants have finished flowering

Solidago ‘Cloth of Gold’

Golden Rod ‘Cloth of Gold’: Tall upright perennial and a good source of nectar for insects.

Symphytum officinale

Common Comfrey: broad leaved perennial producing flowers attractive to bees. Deep tap roots allow it to grow in poor soils. The leaves can be made into a liquid plant feed.

Thymus x citriodorus

Lemon Thyme: This culinary herb is a low-growing, mound-forming, bushy evergreen perennial with very small, green, lemon-scented leaves. Numerous pink flowers are produced in June-July which are attractive to butterflies and bees. Drought tolerant. Grows to 20-30cm high with a 25-30cm spread. Thyme is not only a good nectar source for bees but chemicals found in Thyme are proven to help bees under stress from Varroa mite infestation. Many bee keepers feed their bees syrup with essence of thymol to boost the bees immune system.

Thymus x citriodorus ‘Aureus’

Golden Thyme: This culinary herb is a low-growing, mound-forming, bushy evergreen perennial with very small, golden-yellow and green, lemon scented leaves which are brightest when fresh from emerging in spring. Numerous pink flowers are produced in June-July which are attractive to butterflies and bees. Drought tolerant. Grows to 20cm high with a 20-25cm spread.

Thymus x citriodorus ‘Bertram Anderson’

Lemon Thyme ‘Bertram Anderson’: This herb is a low-growing, mound-forming, bushy evergreen perennial with very small, golden-yellow and green, lemon scented leaves which are brightest and red-tinged when fresh from emerging in spring. Numerous pink flowers are produced in June-July which are attractive to butterflies and bees. Drought tolerant. Grows to 10cm high with a 20-25cm spread.

Thymus x citriodorus ‘Silver Queen’

Lemon Thyme ‘Silver Queen’: This herb is a low-growing, mound-forming, bushy evergreen perennial with very small, green and cream-edged, lemon scented leaves. Numerous pale purple flowers are produced in June-July which are attractive to butterflies and bees. Drought tolerant. Grows to 15cm high with a 20-25cm spread.

Thymus doerfleri ‘Bressingham Pink’

Thyme ‘Bressingham Pink’: This creeping Thyme forms a dense mat of tiny dark green, aromatic leaves. Pink flowers are produced in June-July which are attractive to butterflies and bees. Drought tolerant. Grows to 10cm high with a 25cm spread.

Verbena bonariensis

Argentinian Vervain: A semi-transparent perennial, just frost-hardy with upright, tall, square green stems, tinged red when young. Green leaves are oblong to lance-shaped and toothed, also red-tinged when young. Pinkish-violet purple flowers are produced in clusters at the top of the stems in June right through to November in London. Grows to 1.75 to 2 metres high with a spread of only 35-45cm.

Armeria maritima

Sea Thrift: Flowers in late spring through to the summer.

Mallow

A perennial whose Barbie pink flowers are a magnet for bees. Produces copious amounts of pollen. Often grows wild on London's brownfield sites and easy to grow from seed.

Phacelia tanacetifolia

An annual often grown for use as a green manure. The flowers are attractive to bees.

BULBOUS

Crocus

Small cormous herbaceous perennial with linear green leaves with a silvery-white midrib is an early spring flowering plant. Small species crocus are better than the showy large bloomed varieties.

Narcissus

Daffodil: strong growing bulbous perennial has initially upright, strap-like green leaves. Clusters of very long-lasting flowers with a golden-yellow trumpet and slightly arched-back outer petals are produced from the end of February-March. These can soon be followed by green seed pods. Leaves die down by the end of June. Ideal for naturalising. Grows to a height of 15cm. Avoid double headed and showy types which have less nectar.

Anemone blanda

Gorgeous blue-purple flowers which track the sun across the sky and flower from February to March are a magnet for early emerging honey bees. On a recent visit to a garden centre in Neasden vast numbers of honey and bumble bees were seen foraging on a display stand filled with these plants.

WILDFLOWERS

Digitalis purpurea

Foxglove: A biennial forming a rosette of large hairy veined green leaves in the first year. In the second year, one-sided flower spikes on tall, upright stalks are produced from early June to July. Individual tubular-shaped flowers in shades of pink, purple and white spotted purple within open in succession from the base upwards. Very small dark brown seeds are then produced in quantity and thus will spread rapidly unless dead-headed after flowering. Ideal for the woodland situation and popular with bumble bees. The Foxglove has a spread of 30-40cm with the flower spike reaching to a height of 100-150cm. TIP: cut down the seed heads before they mature once most of the flowers have passed to force a second flush of flowers. The second flush will not be as spectacular as the primary flowering but will provide bees with nectar for several weeks a few weeks after the cut.

Echium vulgare

Viper's Bugloss: A stiffly hairy biennial with narrow green pointed leaves. Bright blue flowers starting out pink in bud are borne on upright spikes above the leaves in June to September. Attractive to bees and other insects. Occurs on dry, light calcareous soils on coastal dunes, sea cliffs, grassland as well as roadsides. Drought tolerant. Grows to 70cm high with the flowers. One of the best sources of nectar for bees.

Myosotis arvensis

Field Forget-me-not.

Papaver rhoeas

Common Poppy: A bristly haired annual with small, toothed to deeply cut green leaves. Wiry erect stems bear solitary flowers which in bud droop down becoming upright when open scarlet with or without a black centre in June to August. Flowers followed by oval, green seed casings with a brown lined flat top filled with an abundance of tiny rounded seeds which are very long lasting. A long-standing weed in corn fields until the introduction of herbicides. Occurs on disturbed ground including roadsides and waste places. Reaches a height of 60cm.

Thymus polytrichus

Wild Thyme: good nectar source for bees with many health benefits for the bees as well.

Valeriana officinalis

Common Valerian: A good source of nectar attractive to insect pollinators.

GARDEN ANNUALS

Cosmos

Annual daisy like flowers in a variety of colours. Great source of nectar and pollen.

Linaria

Annual flower, popular in bedding displays - don't go for the bedding types but the taller upright less showy forms

Lantana

Small half hardy shrub, prolific producer of nectar invaluable to bees and butterflies. Requires a sheltered, warm sunny position. Can be raised in pots and over wintered in green house or a poly tunnel. Widely planted in the southern united states and sub-tropical regions where they attract clouds of bees and butterflies.

Sun Flower

Tall upright annual with large flowers in red, orange and yellow.

Borage

Low growing annual, blue flowers are a prolific source of nectar and favoured by Honey Bees. Second only to Agastache in terms of popularity with honey bees.

ACKNOWLEDGMENTS
AND REFERENCE SOURCES

GOVERNMENT POLICY

National pollinator Strategy: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/409431/pb14221-national-pollinators-strategy.pdf

ROYAL HORTICULTURAL SOCIETY

Withdrawal of chemicals: https://www.rhs.org.uk/advice/Profile?pid=820

Pollinators: https://www.rhs.org.uk/advice/profile?pid=528

ESSEX WILDLIFE TRUST

http://www.essexwt.org.uk/

THE WILDLIFE TRUSTS

Bees Needs: http://www.wildlifetrusts.org/bees-needs

RIVER OF FLOWERS

http://www.riverofflowers.org

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CASE STUDIES

Government Pollinator Strategy

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http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/**

PHOTOGRAPHS

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southend·on·sea

town, shore and so much more

southend onsea BOROUGH COUNCIL