

# Api: Cultural guide to plants for solitary bees

There are over 243 species of solitary bee recorded in the UK. They are found in a wide variety of habitats occupying ecological niches other bees may not take advantage of. Aside from the flower bees *Anaphora* sp. Most have short tongues and prefer simple open type flowers where they can easily access the nectar and pollen.

Different species of solitary bees are active at different times of the year and can be grouped by their flight periods. Many species have a narrow window when they will be seen active flying and visiting flowers, others are multiple brooded and several generations will be produced over the course of a spring and summer.

One of the last solitary bees to emerge is the Ivy Mining Bee which is only active in the autumn when its primary food plant Ivy is in flower.

It is therefore important to ensure that there are flowers in bloom throughout the year to support solitary bees.

Solitary bees active very early in the spring when the weather is often unsettled and changeable prefer highly rewarding flowers with high nectar content. These flowers typically have deep structures requiring longer tongues, often they hang suspended which protects the nectar from rainfall washing it away e.g. Comfrey.

Access to high quality food sources enables them to survive sudden cold or wet periods.

Unlike the Honey Bee and many of the Bumble Bees which feed from a wide variety of flowers many solitary species are specialists feeding on a few or one type of flower only. Examples include the Ivy Mining Bee *Colletes hederæ* which feeds almost exclusively on Ivy blooms and the Davies Mining Bee (pictured right) *Colletes daviesanus* which is fond of Yarrow *Achillea* sp. And its various cultivars. These can be attracted to gardens by planting their preferred flowers. Another specialist is the mining bee *Macropis europaea* which collects pollen and fatty oils from the flowers of Yellow Loosestrife *Lysimachia vulgaris*.



In addition to being a food source several plants are very important to solitary bees as sources of nesting materials for their nests. Leafcutter and some of the Osmia bees cut and collect segments of leaves and petals to seal their nests. Some burrowing species collect oily secretions from plants to water proof their burrows and prevent their larva from drowning.

The Wool Carder bee *Anthidium manicatum* collects the fibres from Stachys to line its nests—it is the only UK solitary bee that 'carders' its nest in this way.



# Plants for solitary bees

## Time of Year

## Types of Flowers favoured

### Spring

Pulmonaria, Comfrey, Field Beans, Wall flower Bowles Mauve, Brassica's, Dandelion, Blue Bell, Anemones, Lesser Celendine, Daisy, Apple, Pear, Plum, Cherry Laurel, Cherry, Dead Nettle, Green Alkanet, Goat Willow, Bugle, Pyracantha

### Summer

Marjoram, Beans, cultivated Peas, Vetches. Everlasting Pea, Campanula's, Birds Foot Trefoil, Centaurea (both blue corn flower and perennial cornflower), Hawksbeards, Fox and Cubs, Verbascum, Heather, Stachys, Salvias, Catmints Nepeta, Oxe Eye Daisy, Poppies, Rosemary, Mints, Thyme, Thistles, Echium, Astrantia major, Echinacea, Rudbeckia, Achillea, Scabious, Rosa species.

### Autumn

Ivy



### Clockwise left to right:

Wool Carder Bee on  
Lemon Balm

Andrena Haemorrhoa on  
Canary Bird Rose

A megachille bee on  
Geranium Ann Folkard

Cultivated form of  
Pulmonaria, popular with  
hairy footed flower bees