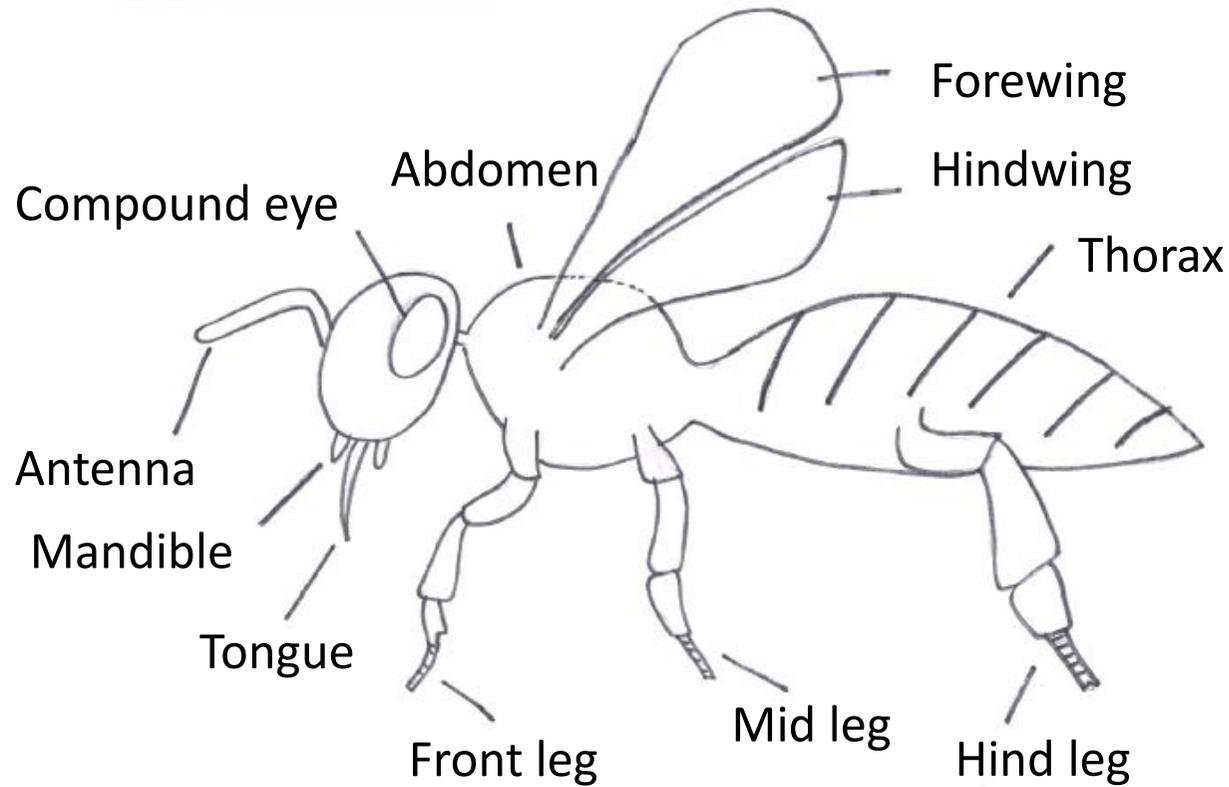


Sow Wild! Insect Identification Guide

In this guide you will find photos and descriptions of some of the insects you might find in your pan traps, which may help you fill out your recording sheet. There are also lots of online resources which could help in identification.

If you have prior knowledge of bees (or any of the other insects!) and are confident to tell us which genus/species you think you have caught - please do!

If you can't identify which group you are looking at –don't worry! Once you send your samples back to us we can tell you which species of bee you have pollinating your garden or allotment.



UK Bees

There are around 250 species of bee in the UK. There is just one species of honeybee, there are 24 species of bumblebee and the remaining 225 species are grouped together and called 'solitary bees'. Some insects can look like bees, and some bees can look like wasps. To help you tell if it's a bee:

Bees have:

- 2 pairs of membranous wings
- There are mandibles present, between which there is a visible tongue
- There are 12-13 segments of the antennae
- There is a distinction between the thorax and abdomen (although this isn't easy to see in very hairy species!)
- Most bees have hairs which are used to carry pollen

Photo John Severns

Honeybee



Brad Smith CC BY-NC 2.0

Honeybee



Honeybee



Brad Smith CC BY-NC 2.0

Honeybees

There is just one species of honeybee in the UK, *Apis mellifera*.

Honeybees are 14mm long, and light brown and black, with characteristic stripes. They are a similar size and shape to a common social wasp, but they have hairs to collect pollen whereas common social wasps are smooth and waxy.

Honeybees also have hair on their eyes.

Bumblebee



Copyright Dave Goulson

Bumblebees

There are 24 species of bumblebee in the UK.

Bumblebees are easy to recognise, with dense fur covering their bodies, and generally are larger than other bees.

Bumblebee



David Short CC by 2.0

Bumblebee



Copyright Beth Nicholls

Solitary bees

There are around 225 species of solitary bee in the UK. They come in all different sizes and colours.

Differentiating between different solitary bees takes a lot of practice and usually a microscope!

Any bee that you find that isn't a bumblebee or a honeybee, please mark it as a solitary bee on your recording sheet.



Wasps

Common social wasps have a smooth waxy appearance, and are usually black and bright yellow. They have a narrow 'waist'.

Mark Robinson CC BY-NC 2.0

Wasp



Mark Robinson CC BY-NC 2.0

Wasp



Some other species of wasp can look a lot like solitary bees – differentiating takes lots of practice. Your best guess will do!

Copyright Beth Nicholls

Hoverfly



Hoverfly



Copyright Saija Piironen

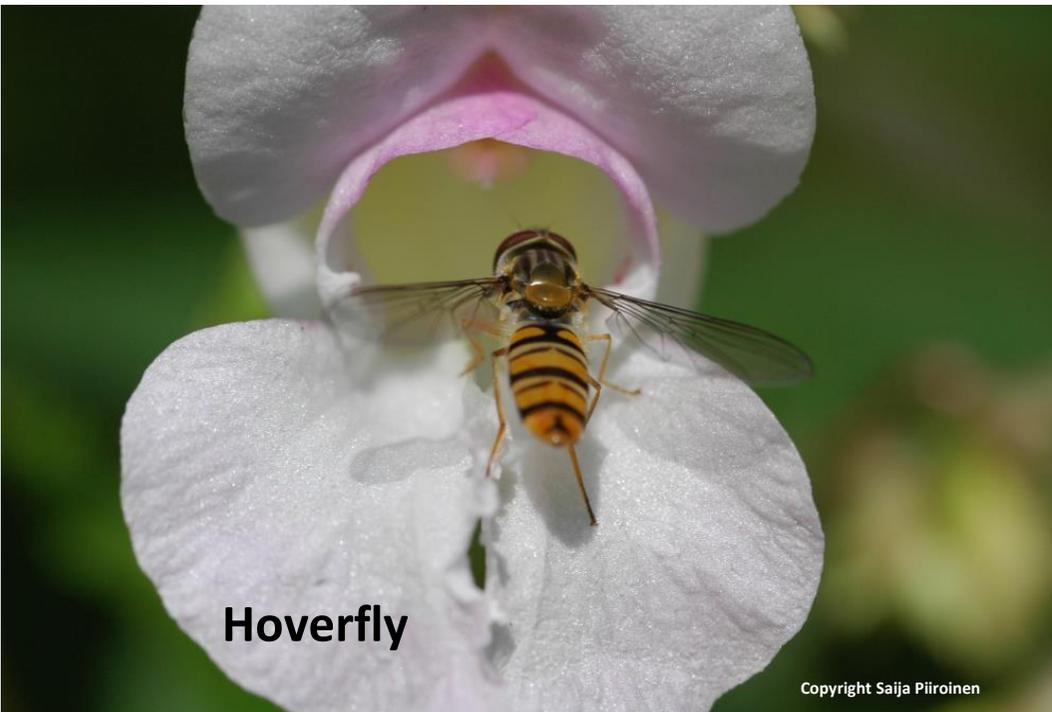
Hoverflies

Hoverflies are true flies, and only have one pair of wings (bees and wasps have two pairs). They are usually bright yellow and black with ornate patterns.

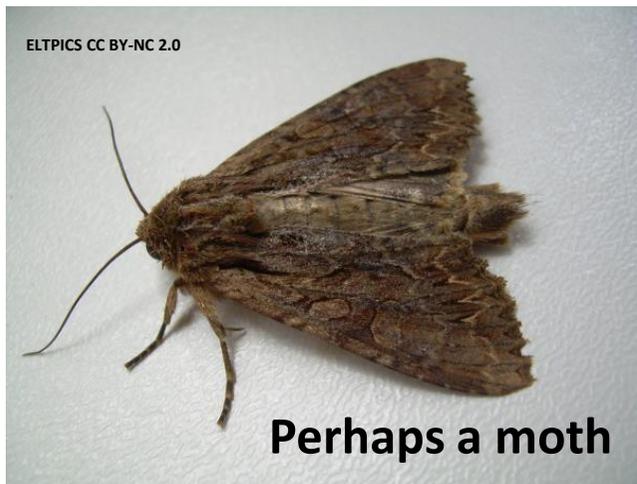
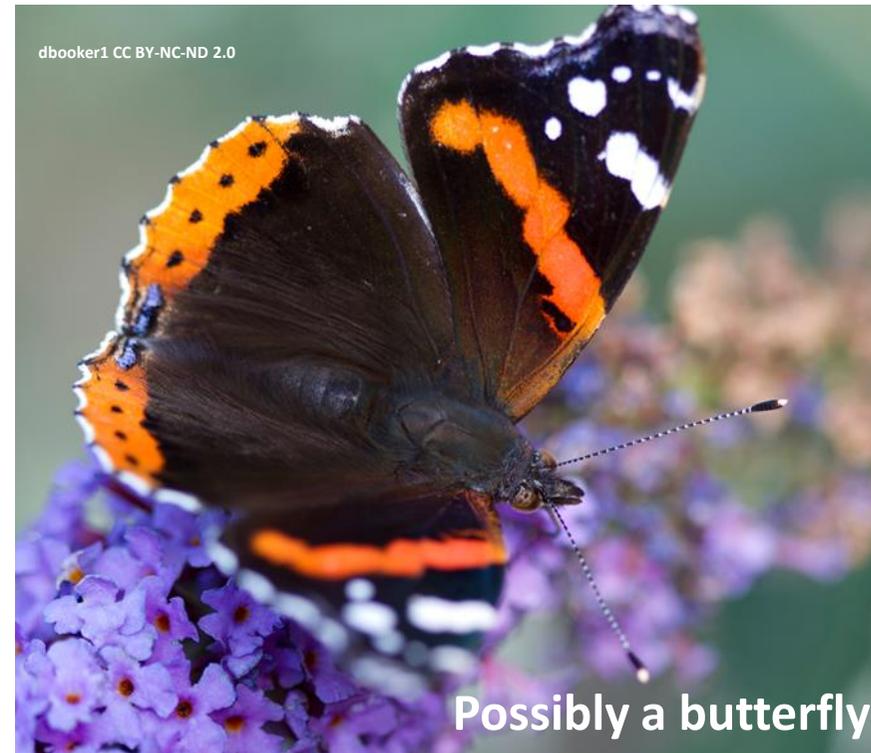
Hoverflies often mimic bees, but you can tell the difference as they only have one pair of wings, and shorter antennae. They generally also have larger eyes.

Hoverfly

Copyright Saija Piironen



Other insects you may find in your pan trap...



Sow Wild! Flower Identification Guide

In this guide you will find photos of the flowering plants that are in your mix, with the exception of the grasses – as you don't need to identify these! Due to climate/soil differences, not all of these flowers will germinate and appear in your wildflower patch.

Its hard to tell some of the flowers apart, and in these cases I have given some tips on how to tell the difference. But it can be tricky – so if you can't decide which species you are looking at please don't worry! A good guess will do.

At the end of this document there is a key to some of the terms used.

Betony (*Betonica officinalis*)



Cornflower (*Centaurea cyanus*)



Tip - In Common knapweed the bracts that make up the 'hard head' are pale brown with black/brown bristly edges. However the degree of overlap obscures most of the pale brown. In Greater knapweed these bracts are grey-green with black/brown bristly edges but, because there is less overlapping, much of the bract is still visible. In Common knapweed the leaves of the upper stem are lanceolate (meaning 'pointy both ends') and in Greater knapweed they are toothed (or 'jagged').

Greater knapweed (*Centaurea scabiosa*)



Common knapweed (*Centaurea nigra*)



Ragged robin (*Silene flos-cuculi*)



Red campion (*Silene dioica*)



Common sorrel (*Rumex acetosa*)



Tufted vetch (*Vicia cracca*)



Salad burnet (*Poterium sanguisorba*)



Selfheal (*Prunella vulgaris*)



Oxeye daisy (*Leucanthemum vulgare*)



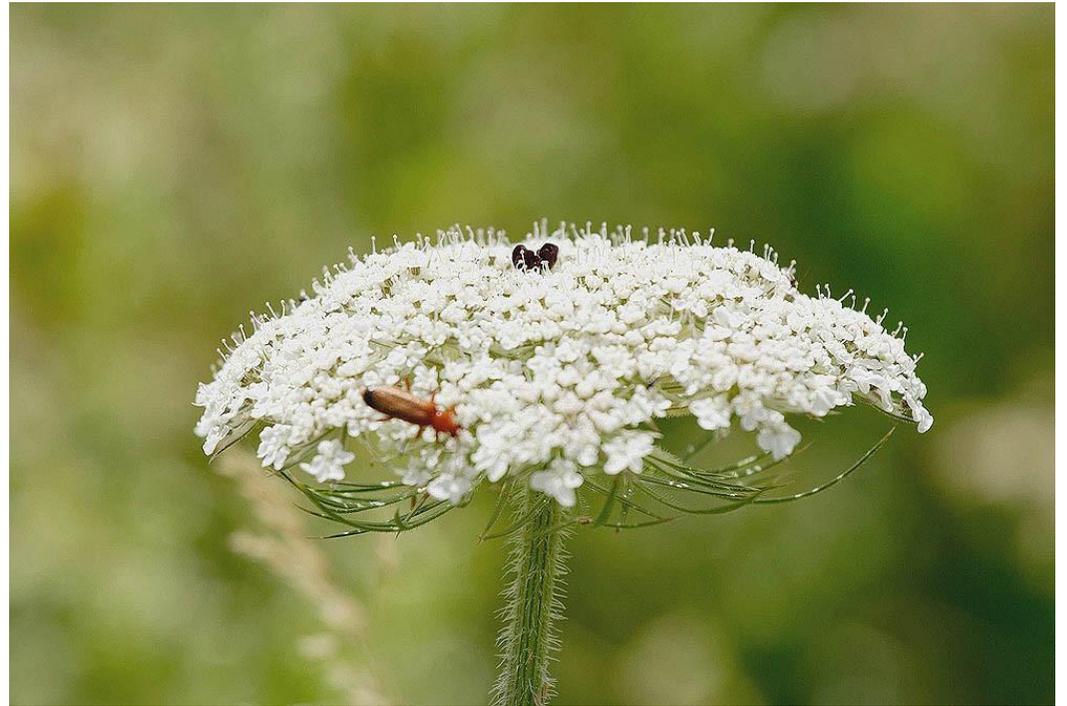
Yellow rattle (*Rhinanthus minor*)



Yarrow (*Achillea millefolium*)



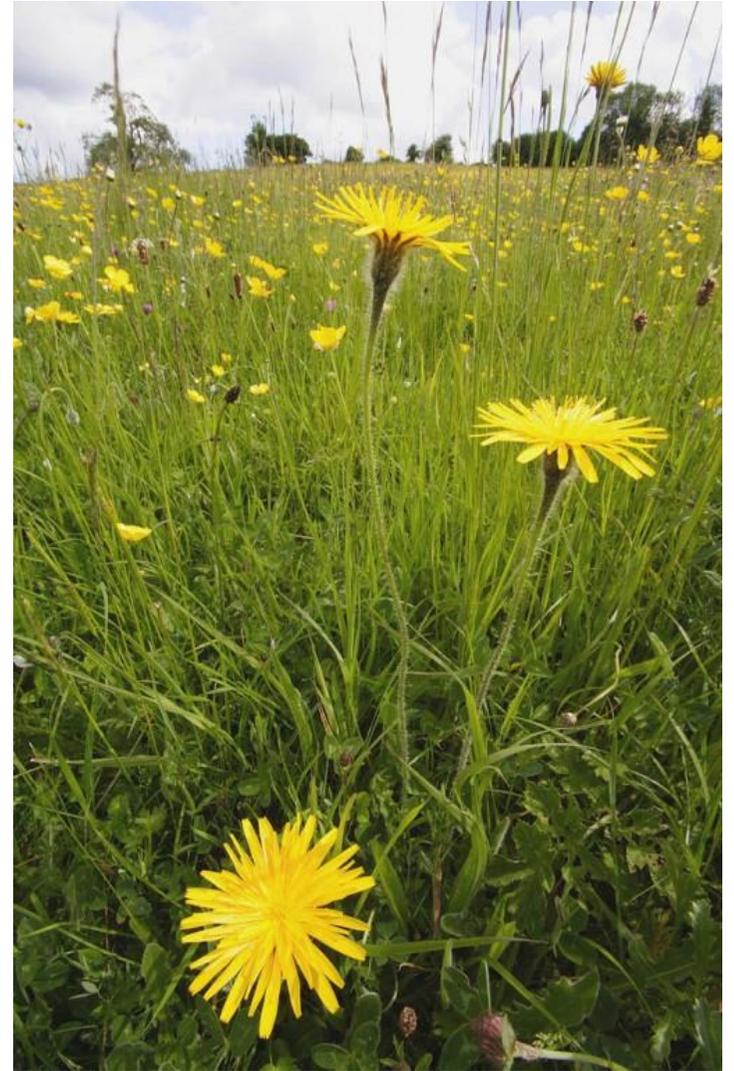
Wild carrot (*Daucus carota*)



Meadow buttercup (*Ranunculus acris*)



Rough hawkbit (*Leontodon hispidus*)



Cowslip (*Primula veris*)



Birdsfoot Trefoil (*Lotus corniculatus*)



Hedge bedstraw (*Galium album*)



Lady's bedstraw (*Galium verum*)



Meadowsweet (*Filipendula ulmaria*)



Wild marjoram (*Origanum vulgare*)



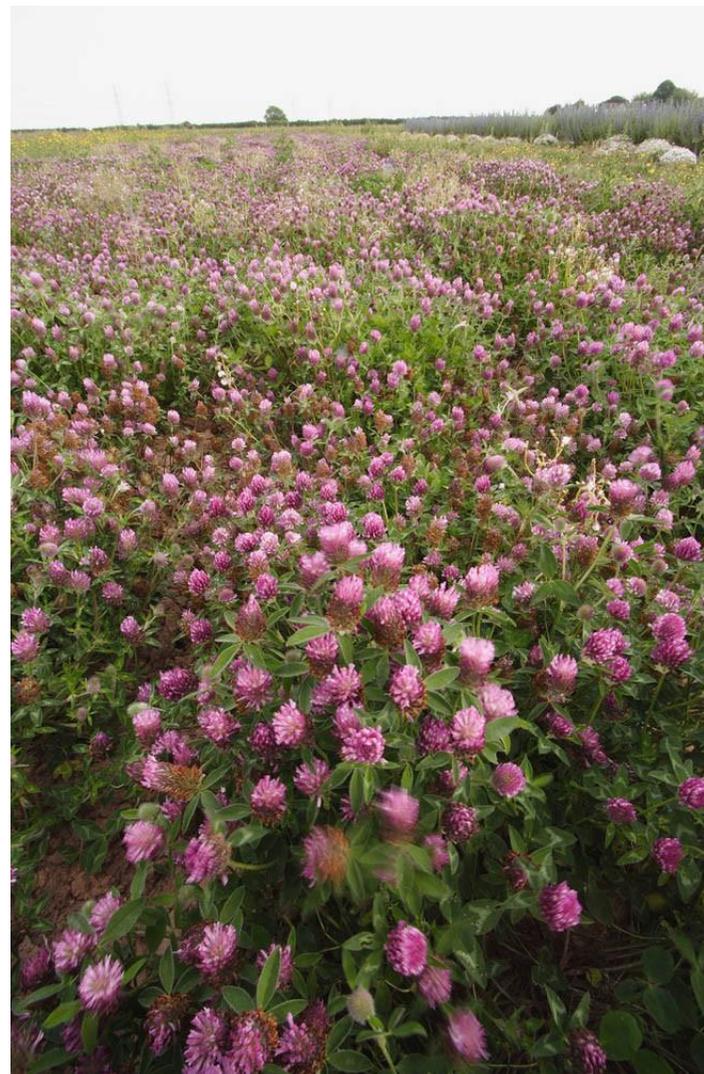
Hoary plantain (*Plantago media*)



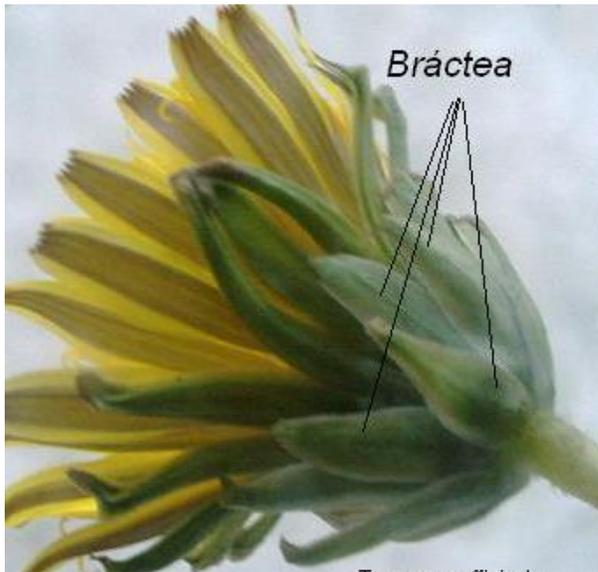
Common poppy (*Papaver rhoeas*)



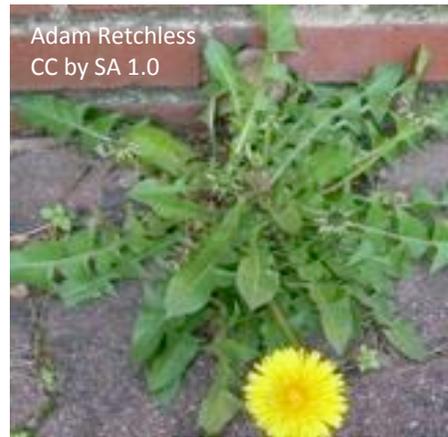
Wild red clover (*Trifolium pratense*)



Key to some of the terms used
in this guide



Bracts



Basal rosette



Entire leaf margin



Toothed leaf margin



Lobed leaf



Lanceolate leaf

Sow Wild! Flower Identification Guide

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Its hard to tell some of the flowers apart, and in these cases I have given some tips on how to tell the difference. But it can be tricky – so if you can't decide which species you are looking at please don't worry! A good guess will do.

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Sainfoin (*Onobrychis viciifolia*)



Clustered bellflower (*Campanula glomerata*)



Tip - In Common knapweed the bracts that make up the 'hard head' are pale brown with black/brown bristly edges. However the degree of overlap obscures most of the pale brown. In Greater knapweed these bracts are grey-green with black/brown bristly edges but, because there is less overlapping, much of the bract is still visible. In Common knapweed the leaves of the upper stem are lanceolate (meaning 'pointy both ends') and in Greater knapweed they are toothed (or 'jagged').

Greater knapweed (*Centaurea scabiosa*)



Common knapweed (*Centaurea nigra*)

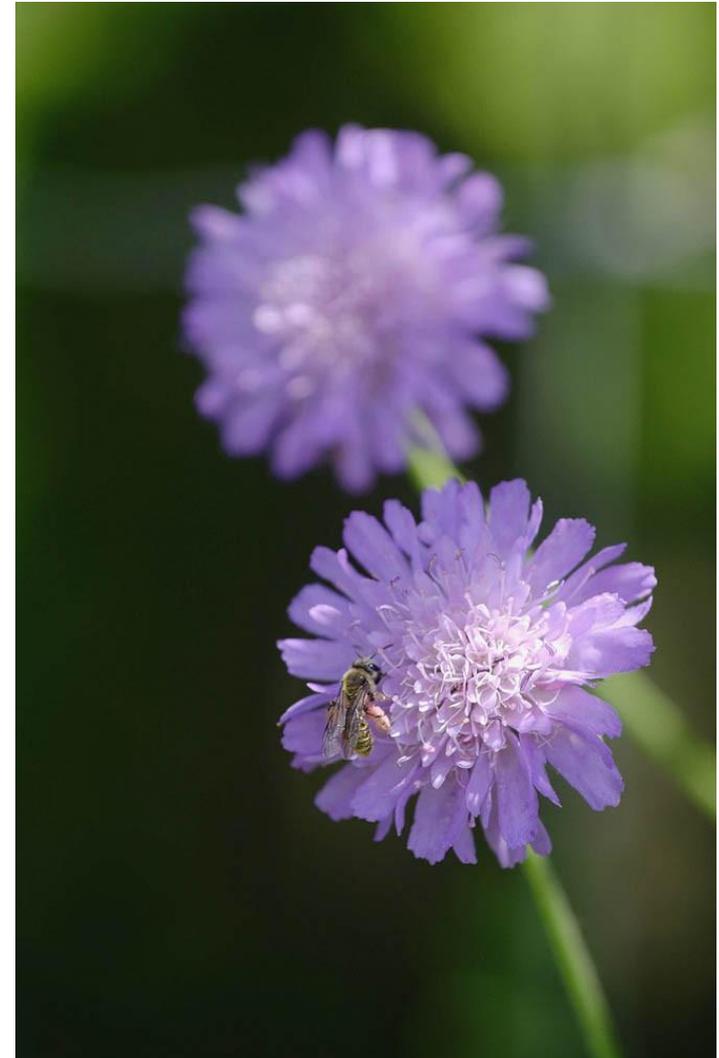


Tip - Small scabious is smaller, slimmer and less hairy than field scabious, and the individual flowers that make up the flower head have five not four petal lobes.

Small scabious (*Scabiosa columbaria*)



Field scabious (*Knautia arvensis*)



Cornflower (*Centaurea cyanus*)



Viper's bugloss (*Echium vulgare*)



Oxeye daisy (*Leucanthemum vulgare*)



Tip - Chamomile has divided leaves while those of oxeye daisy are entire and notched but not divided. Chamomile usually has many flowering heads on each flowering stem while oxeye daisy usually has a single flower.

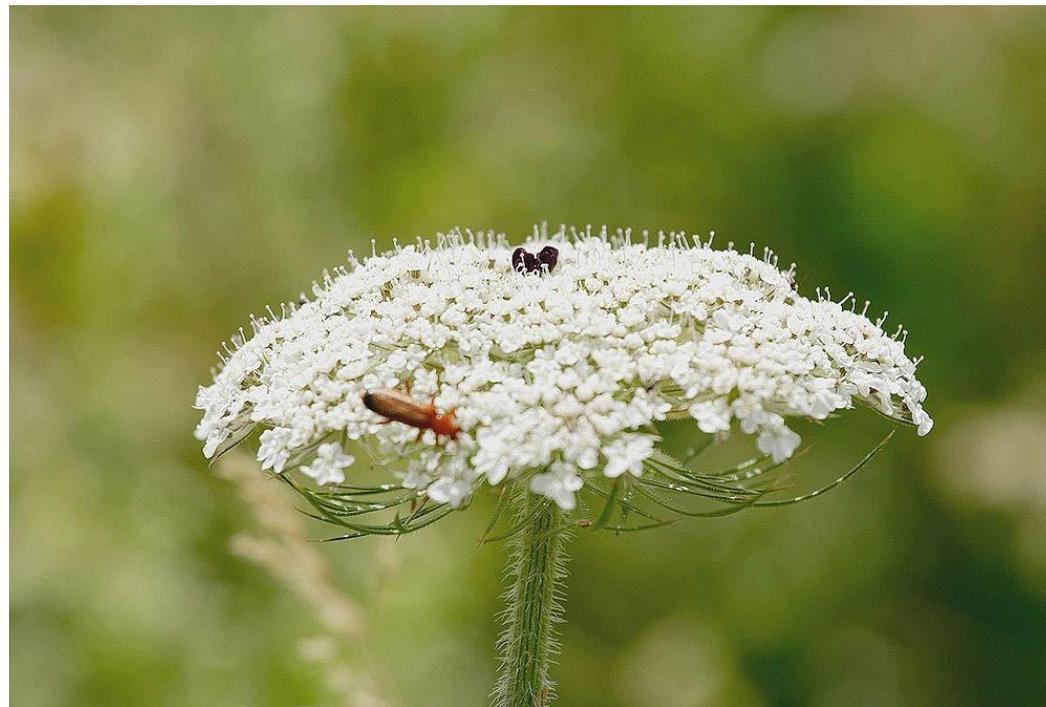
Chamomile (*Matricaria chamomilla*)





Garlic mustard (*Alliaria petiolata*)

Wild carrot (*Daucus carota*)



Meadow buttercup (*Ranunculus acris*)



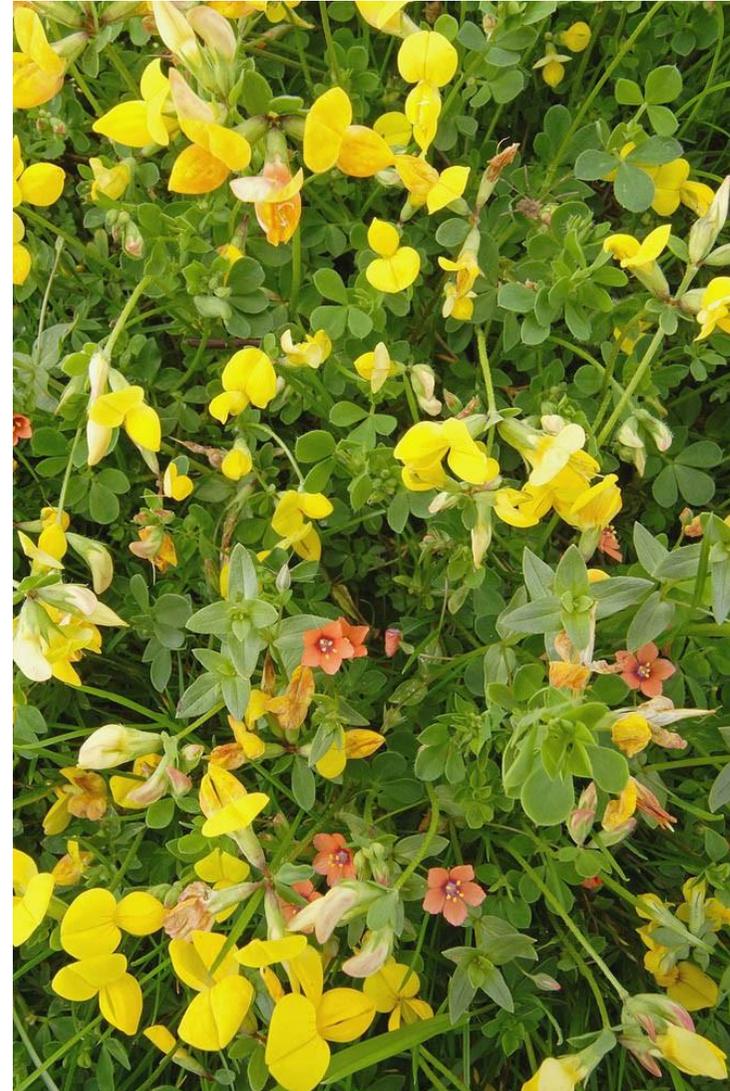
Winter cress (*Barbarea vulgaris*)



Wild mignonette (*Reseda lutea*)



Birdsfoot Trefoil (*Lotus corniculatus*)



Common poppy (*Papaver rhoeas*)



Cat's-ear, Rough hawkbit and Autumn hawkbit are very easily confused, but there are subtle ways to tell them apart. The differences are described on the next page...

Cat's-ear (*Hypochaeris radicata*)



Rough hawkbit (*Leontodon hispidus*)





Autumn hawkbit (*Scorzoneroides autumnalis*)

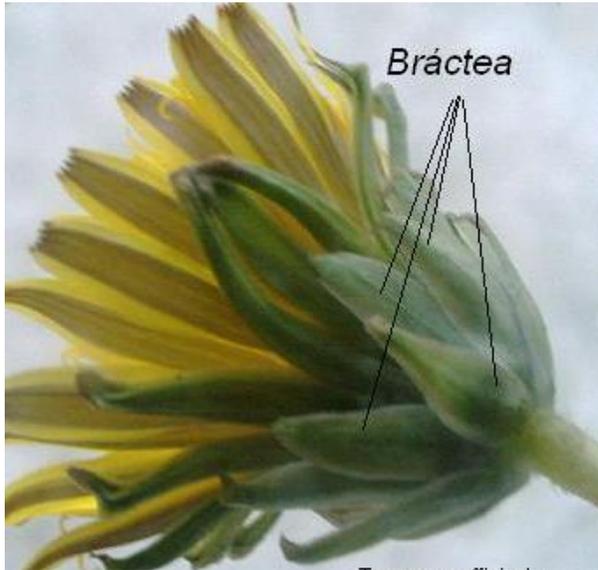
Tip -

Autumn hawkbit has a stem that swells towards the top, no chaffy scales among the florets and with outer florets reddish beneath. The leaves of the basal rosette of the have sharper tips and sharper lobes.

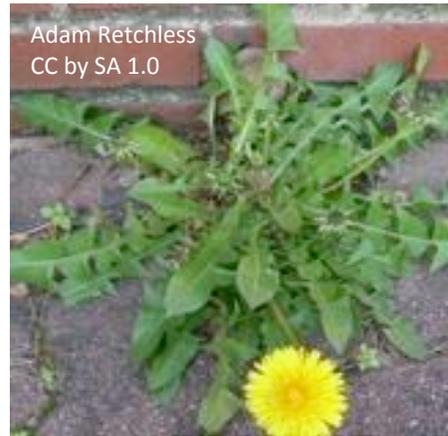
Rough hawkbit is a rich golden yellow with the outer florets often reddish or orange and the bracts behind the flower appearing very shaggy. The leaves which make up the basal rosette are long and bluntly lobed (meaning deeply indented).

Cat's-ear has chaffy scales among the florets and with outer florets greyish/greenish. The leaves of the basal rosette are long and bluntly lobed.

Key to some of the terms used
in this guide



Bracts



Basal rosette



Entire leaf margin



Toothed leaf margin



Lobed leaf



Lanceolate leaf