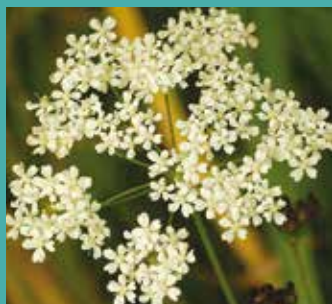




Life on the Verge

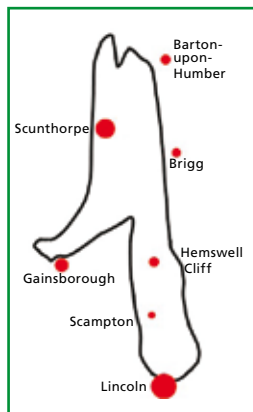
Wild Flower Identification Guide



This booklet... is designed to help volunteers identify wild flowers on road verges as part of the **Life on the Verge Survey**. It can be used in combination with the Survey Form and Survey Guidance Notes which are available from the project website (lifeontheverge.org.uk) or via the Project Officer (see back cover). The **Life on the Verge: North Lincolnshire Edge** project aims to identify species-rich grassland on roadsides throughout the Northern Lincolnshire Edge with Coversands National Character Area so that vital conservation work can be targeted effectively in the future. The North Lincolnshire Edge is a ridge of Jurassic limestone that stretches between Lincoln and the Humber Estuary and is a continuation of the rolling Jurassic limestone uplands that cross the full length of the county.

Why are the grasslands of the North Lincolnshire Edge important?...

With the right management, grassland growing on limestone soil can be one of the most diverse habitats in the country and a riot of wildflower colour in spring and summer. Both the variety of wild plants and animals it supports and its relative scarcity in Britain make this a habitat of high conservation value. Richer 'drift' soils and more acid 'coversand' soils are also found on the Edge which support different suites of grassland plants and associated wildlife. Together, all types of species-rich grassland that remain account for less than 1% of the National Character Area. Declining grassland plants include orchids, meadow saxifrage, field mouse-ear and vital food plants of declining butterflies. Threatened birds dependent on grasslands include barn owl, corn bunting, grey partridge, linnet and skylark. Sadly, there has been a sharp decline in the extent of wildflower-rich grassland across the UK, particularly in the last 60 years due mainly to changes in farming practices.



The Northern Lincolnshire Edge with Coversands National Character Area

Species-rich grassland on the North Lincolnshire Edge...

Very little species-rich grassland is thought to remain within the 514 square kilometres of the North Lincolnshire Edge National Character Area and it is likely that the location of much that may still exist is not yet known. It is hoped that most parishes in the area still contain some wildflower-rich road verges. Broad roadside and green lane verges sometimes up to 20m in width are an important and distinctive feature of Lincolnshire. The Enclosure Acts of the late 1700s led to the creation of new field boundaries leaving common land grazing along roadsides including drove roads which sustained stock in transit between grazing and markets. Lincolnshire's Roadside Nature Reserve (RNR) Scheme (formerly known as the Protected Road Verge Scheme), adopted in 1960, was the first in the UK. The existing 64 RNRs in Lincolnshire have formed the starting point for a new wave of surveys to improve our knowledge of this threatened habitat. If identified and managed sympathetically, road verges of conservation value offer a network of corridors vital to

the dispersal and survival of the county's wildlife.

How you can help... By taking part in this roadside verge survey, you will contribute vital information to help secure a future for wildlife. The project aims to identify the most important roadside verges for grassland species throughout the North Lincolnshire Edge National Character Area by surveying all of the 565km/350 miles of road in the area over the next two years. Once located, these verges can be managed in a way that will help protect plants and animals. It is also important to know which verges have lost important wildlife, so that attention can be focused on those of greatest value. Road verges represent a vital opportunity to link the few remaining patches of species-rich grassland across the landscape. A well cared for network of verges will act as 'green corridors' that can help species adapt as they need to in the face of climate change and disturbance.

About this guide... The plants illustrated here are relatively easy to identify with confidence and are widespread in the project area. The plants fall into two categories: 1) those characteristic of wildlife-rich limestone and neutral grassland and 2) those that indicate that the verge has deteriorated so much that it would be very difficult to restore. If you know of a verge where any of these plants grow, please do fill in a survey form. 'Ruling out' verges where restoration is unlikely to succeed is almost as important as learning about the best verges, so that attention can be focused on the places of highest conservation value.

Thank you for taking part in this important survey

Plants characteristic of chalk and neutral grassland in good condition

Orchids

Are a distinctive group of plants. Many are threatened and none should be picked. Shown here is a selection of the orchids you are most likely to notice on roadside verges. They have a range of flowering times throughout the summer. Of these, all have spear-shaped to oval leaves with parallel veins that are waxy to the touch (except common-spotted orchid which has papery leaves).



Bee Orchid
(*Ophrys apifera*)



Common Spotted Orchid
(*Dactylorhiza fuchsii*)



Fragrant Orchid
(*Gymnadenia conopsea*)



Pyramidal Orchid
(*Anacamptis pyramidalis*)



Burnet-saxifrage

(*Pimpinella saxifraga*)

Flowering: July to September

Flowers: Flower head comprises stalked clusters of small white flowers (2mm across); all branching from the same point

Leaves & stems: Lower leaves with paired oval, toothed leaflets; upper leaves with very narrow leaflets

Appearance: Upright, slender and downy with a rough round stem; 30-100cm tall

Confusion species:

Salad burnet (*Sanguisorba minor*) has very similar leaves, but the purple and globular flower heads are quite different. See page 6.



Field Mouse-ear

(*Cerastium arvense*)

Flowering: April to August

Flowers: Five white petals, notched less than half-length; 12-20mm across

Leaves & stems: Leaves narrow, downy, untoothed on edges, without stalks and in opposite pairs

Appearance: Shoots can be 30cm high and they rise from creeping stems

Confusion species:

Common Mouse-ear (*Cerastium fontanum*) is much commoner and has smaller flowers which have white petals that are split more deeply.

Lesser Stitchwort (*Stellaria graminea*) Commoner; leaves not downy but hairless and very thin and pointed; flowers smaller, only 5-12mm across.

Snow in Summer (*Cerastium tomentosum*) introduced and naturalised; flowers deeply notched and leaves densely white-hairy.





Hoary Plantain

(*Plantago media*)

Flowering: May to August

Flowers: Oblong spikes 2-6cm long, appearing pink initially and then conspicuously white

Leaves & stems: Leaves greyish, downy, almost circular and short-stalked

Appearance: Leaves all in a flat rosette, with a single flower head arising from the centre



Confusion species:

Two other plantains are both very common and widespread. Greater plantain (*P. major*) has similar shaped leaves, but they are longer stalked and largely hairless, while the flower head is long. Ribwort plantain (*P. lanceolata*) has much narrower leaves and a short, brown flower head.



Bulbous Buttercup

(*Ranunculus bulbosus*)

Flowering: April to June

Flowers: Bright yellow, with 5 petals; sepals (immediately below petals) yellowish and bent downwards against stem

Leaves & stems: Flowering stem grooved; lower leaves three-lobed with each lobe deeply lobed again; plant has no runners – all lower leaves grow from the same place

Appearance: Upright and hairy; 15-40cm tall

Confusion species:

Creeping buttercup (*Ranunculus repens*), which has rooting runners, sepals not bent back, leaves with 3 lobes but these not so deeply lobed again and flowers later from May until August.

Meadow buttercup (*Ranunculus acris*), which has leaves with 3-5 lobes, cut more deeply and from a central point, flower stalk not grooved and flowering later from May until August.



Common and Greater Bird's-foot Trefoil

(*Lotus corniculatus* & *L. pedunculatus*)

Flowering: June to September

Flowers: Buds flattened, flowers orange/deep yellow, can be bright-tinged; flower stems up to 15cm long, 2-12 pea-type flowers per head

Leaves & stems: Leaflets oval, in threes with a pair below

Appearance: Low and creeping, or upright; 10-60cm long

Confusion species:

Horseshoe vetch (*Hippocrepis comosa*); but this has leaves with 4-5 leaflets in opposite pairs, and only flowers from May to July.





Cowslip
(*Primula veris*)

Flowering: March to May

Flowers: Drooping flowers clustered on top of a single stem are apricot yellow, 8-10mm across and cup-shaped

Leaves & stems: The wrinkled leaves are broadest towards the tip and somewhat spoon-shaped

Appearance: Leaves all arise from the plant base



Confusion species:

Primrose (*Primula vulgaris*) has pale yellow, larger flowers, only one per stem. Leaves are more oval in shape.



Crosswort
(*Cruciata laevipes*)

Flowering: May to June

Flowers: Small (2-3mm across), yellow and honey-scented; in dense clusters where leaves join the stem

Leaves & stems: Stems are 4-sided; leaves are oval-oblong in whorls of 4

Appearance: Hairy; flowering stems are upright and 15-60cm tall



Confusion species:

Cleavers, also known as goosegrass (*Galium aparine*) is very rough to the touch and will attach itself to clothing. There are 6-8 leaves per whorl and its flowers are white. Hedge bedstraw (*Galium mollugo*) is not rough like cleavers but also has 6-8 leaves per whorl and its flowers are white.



Lady's Bedstraw
(*Galium verum*)

Flowering: July to August

Flowers: Small (2-3cm across), golden yellow; in branched clusters

Leaves & stems: Soft leaves are linear and bristle-tipped, in whorls of 8-12 along stem; 6-25mm long

Appearance: Upright flowering stems are 4-sided and hairless, 15-60cm tall



Confusion species:

Hedge bedstraw (*Galium mollugo*) has white flowers and wider leaves.



Meadow Vetchling

(*Lathyrus pratensis*)

Flowering: May to August

Flowers: Yellow and pea-like; in clusters of 5-12

Leaves & stems: Stems not round but angled; leaves grey-green comprising two pointed, oval leaflets and a tendril between them

Appearance: Can form dense patches in late summer; seed forms in black pods



Confusion species:

Bird's-foot trefoil (*Lotus corniculatus*), but this has rounded-oval leaflets in threes, with a pair below and no tendril. See page 2.



Yellow or Hay Rattle

(*Rhinanthus minor*)

Flowering: May to August

Flowers: Yellow, in short leafy spikes; flattened on each side; seeds rattle when ripe

Leaves & stems: Hairless, stalkless, narrow and pointed leaves are coarsely toothed and in opposite pairs; stems are black-spotted and hairless

Appearance: Up to 50cm tall, but can be much shorter



Confusion species:

Red bartsia (*Odontites verna*) looks similar, except that it has pink flowers.



Betony

(*Stachys officinalis*)

Flowering: June to September

Flowers: Purple-red and tubular with spreading lips; in an upper cluster, but also lower down in whorls where leaves meet the stem

Leaves & stems: Leaves in opposite pairs and bluntly toothed; upper leaves stalkless; lower leaves stalked, oblong with abrupt leaf bases; stem is four-sided

Appearance: Sparsely hairy and upright growing 10-60cm tall



Confusion species:

Selfheal (*Prunella vulgaris*), ground ivy (*Glechoma hederacea*), bugle (*Ajuga reptans*), hedge wound-wort (*Stachys sylvatica*), black horehound (*Ballota nigra*), are members of the same family with a square stem and opposite leaves, but have flowers of a different colour and leaves of a different shape.



Common Knapweed

(*Centaurea nigra*)

Flowering: July to September

Flowers: Flower heads thistle-like, red-purple; 2-4cm across

Leaves & stems: Lower leaves stalked; upper leaves stalkless, usually unlobed and oval-oblong

Appearance: Upright, roughly hairy, stems grooved and branched above; growing 15-60cm tall



Confusion species:

Greater knapweed (*Centaurea scabiosa*) tends to be taller. The mature leaves are normally deeply lobed. Flower heads often more than 4cm across always with spreading outer 'petals'. See page 6.



Common and Spiny Restharrow

(*Ononis repens* & *O. spinosa*)

Flowering: June to September

Flowers: Pink, pea-type flowers, 10-15mm

Leaves & stems: Leaves oval, toothed, 10-20mm long, sticky, hairy and with a strong odour when bruised

Appearance: Creeping or upright, sometimes with spines



Confusion species:

None, except each other. Just record as 'Restharrow'.



Field Scabious

(*Knautia arvensis*)

Flowering: July to September

Flowers: Blue-violet flowers clustered into a globular head, 3-4cm across

Leaves & stems: Leaves at base mainly unlobed; smaller stem leaves are deeply lobed with an oval, pointed end lobe

Appearance: Upright, robust and roughly hairy; can grow over 50cm tall



Confusion species:

Small scabious (*Scabiosa columbaria*) is more slender and softly hairy with thread-like upper leaves on flower stem and a rounded end lobe to the lower leaves.

Devil's-bit scabious (*Succisa pratensis*) flowers are deeper purplish blue; upper and lower leaves are unlobed.



Great Burnet (*Sanguisorba officinalis*)

Flowering: June to September

Flowers: Flower heads dull crimson clustered into dense oblong heads 1-2cm long

Leaves & stems: Leaves comprised of opposite, paired leaflets, which are oblong-oval and typically 2-3cm long

Appearance: Erect and up to 1m tall; leaves come from a basal rosette



Confusion species:

Salad burnet (*Sanguisorba minor*) grows to only 15-40cm tall, has more rounded leaflets and a more rounded flower head. See page 6.

Burnet-saxifrage (*Pimpinella saxifraga*) is also smaller; has very similar lower leaves but very different white flowers. See page 1.



Greater Knapweed (*Centaurea scabiosa*)

Flowering: June to August

Flowers: Flower heads purple-red, 3-6cm across, solitary and always with spreading outer 'petals'

Leaves & stems: Leaves stalked and deeply lobed, 10-25cm long

Appearance: Upright and downy, 30-80cm tall, stems grooved, branched above



Confusion species:

Field scabious (*Knautia arvensis*) is similar before it flowers, but is more roughly hairy, and has more pointed leaf lobes. See page 5.

Common/Black knapweed (*Centaurea nigra*) tends to be shorter. The leaves are never deeply lobed, flower heads are not more than 4cm across, and outer 'petals' are usually not spreading. See page 5.



Salad Burnet (*Sanguisorba minor*)

Flowering: May to August

Flowers: Globular heads of tiny green flowers with red/purple feathery stigmas

Leaves & stems: Lower leaves with round, paired, coarsely toothed leaflets often tinged purple; leaf stalks also often purple-tinged

Appearance: Upright, hairless, 15-40cm tall



Confusion species:

Burnet-saxifrage (*Pimpinella saxifraga*) has similar lower leaves, but the white flowers in branched clusters are very different. See page 1.



Quaking-grass

(*Briza media*)

Flowering: May to August

Flowers: These are grouped into oval structures 4-12mm long on slender, branching stalks

Leaves & stems: As with most grasses, the leaves are long and thin with parallel veins, and the stems are round

Appearance: A very distinctive grass when in flower, typically 15-30cm tall; the oval 'flowers' shake in the wind; the whole flower head is roughly pyramidal in overall shape

Confusion species:

You are unlikely to encounter any similar grasses.



Plants which, if growing in large quantities, indicate a verge likely to be of low botanical value



Bramble/Blackberry

(*Rubus fruticosus* agg.)

Flowering: May to September

Flowers: White or pink with 5 petals

Leaves & stems: Leaflets arranged in spreading groups of 3 or 5

Appearance: A scrambling shrub with arching stems bearing hooked spines

Confusion species:

None, except perhaps wild roses.



Cow Parsley or Kek

(*Anthriscus sylvestris*)

Flowering: April to June

Flowers: Many small (3-4mm) pure white flowers form clusters up to 6cm across

Leaves & stems: Leaves dull green, floppy and fern-like; stems furrowed and not purple-spotted

Appearance: Upright, downy and 60-100cm tall

Confusion species:

There are many other similar members of the carrot family, but this is the only common, early-flowering species with white flowers.





Hogweed

(*Heracleum sphondylium*)

Flowering: June to September

Flowers: Many small (5-10mm) white or pinkish flowers form clusters 5-15cm across

Leaves & stems: Rough, grey-green, large leaves (15-60cm) that are less divided than those of cow parsley

Appearance: Robust and roughly hairy, growing to 200cm



Confusion species:

Angelica (*Angelica sylvestris*); although quite similar in appearance, this plant is associated with damp places, not chalk grassland.



Creeping and Spear Thistle

(*Cirsium arvense* & *C. vulgare*)

Flowering: July to October

Flowers: Purple or white flower heads 1.5-5cm long and 1-3cm wide

Leaves & stems: Very prickly, with deeply lobed leaves

Appearance: Upright and branched, 30-150cm tall



Confusion species:

Carlina thistle (*Carlina vulgaris*) and dwarf thistle (*C. acaule*). Several other thistles may also be found, but it is not necessary to identify them at this stage.



Bracken

(*Pteridium aquilinum*)

Flowering: This is a fern, not a flowering plant

Flowers: There are no flowers

Leaves & stems: Leaves, known as fronds, are fern-like

Appearance: Fronds arise singly from the ground, not in clumps; often forms dense stands



Confusion species:

Other ferns such as male fern (*Dryopteris filix-mas*) and broad buckler-fern (*D. dilatata*), but these grow in clumps.



Common/Stinging Nettle

(*Urtica dioica*)

Flowering: June to August

Flowers: Yellowish-green, drooping, catkin-like clusters

Leaves & stems: Oval in opposite pairs with coarse teeth

Appearance: Very vigorous and robust; coarsely hairy, upright and with stinging hairs



Confusion species:

Deadnettles (*Lamium*), mints (*Mentha*), and woundworts (*Stachys*) etc. are similar, but none have stinging hairs.



Curled and Broad-leaved Dock

(*Rumex crispus* & *R. obtusifolius*)

Flowering: June to October

Flowers: Spikes of many, small, greenish flowers

Leaves & stems: Broad flat leaves or wavy-edged narrower leaves

Appearance: Stout and upright to 120cm



Confusion species:

Common sorrel (*Rumex acetosa*) is generally much smaller and more delicate. Several other docks may be found, but it is not necessary to identify them at this stage.



Ivy

(*Hedera helix*)

Flowering: September to November

Flowers: 5 yellow-green 4mm long petals; tends not to flower in shade

Leaves & stems: Hairless, glossy dark green leaves with paler veins; broad pointed lobes on lower leaves, oval higher up; all leaves un-toothed

Appearance: Evergreen woody climber which can creep across shaded turf



Confusion species:

None.

The Life on the Verge Wild Flower Survey...

aims to identify the most important roadside verges for grassland species in the North Lincolnshire Edge. The survey will rely on local volunteers of all skill levels. Surveys need only be done once, should take no more than 2 hours and rely only upon a shortlist of easily recognisable wild flowers.

Please contact us to take part...

To 'claim' your local verges for surveying and to obtain a survey form, or for more information, visit the project website or contact the Wildflower Meadow Project Officer:

www.lifeontheverge.org.uk

Lincolnshire Wildlife Trust
Banovalum House
Manor House Street
Horncastle LN9 5HF

Email: info@lincstrust.co.uk • Switchboard: 01507 526667

For more help with wild flower identification check the project website for free training days to be held in the project area. These will be aimed at beginners but will also be useful practice if you already know some wild flowers. If you remain in doubt about the identity of a plant, guides are available from the natural history section of libraries and bookshops. If you can recognise the plants in this guide and would like to carry out this survey in more detail, please do get in touch.



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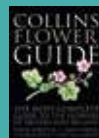
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