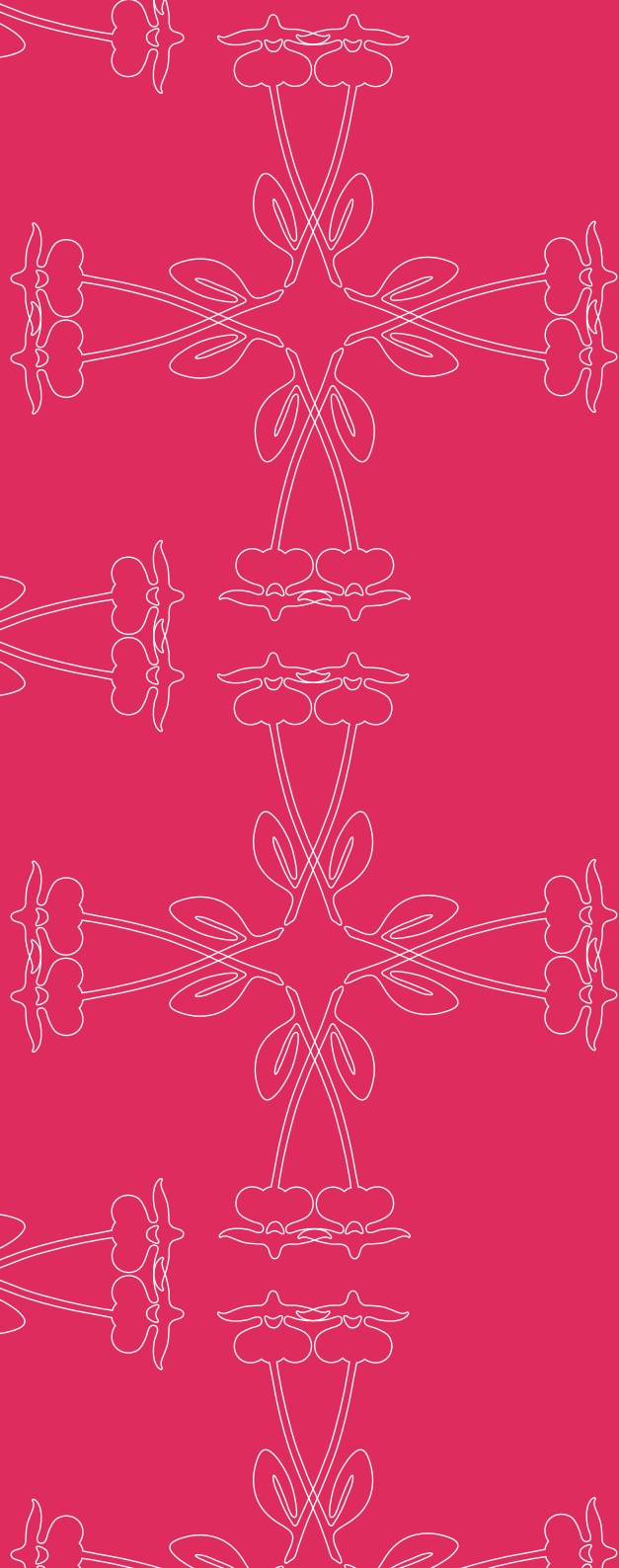




**ORCHID
OBSERVERS**

Identification Guide

Orchid Observers is a research project investigating how the flowering period of orchids in the UK is being affected by climate change. By gathering photographs of flowering orchids and combining them with data from orchid specimens in the Natural History Museum's collections and observations of orchids in the wild, we can plot flowering times against a series of climate variables.

Read more about the research and get involved at www.orchidobservers.org.

About this guide

The research focuses on 29 native species of UK orchid. This guide introduces these species and gives details of how to identify them and where they may be found.

It is not a comprehensive guide to UK orchids, of which there are 56 native species. For a full guide, see *Orchids of Britain and Ireland: A Field and Site Guide* by Anne Harrap and Simon Harrap (ISBN: 9781408105719).

Orchid flowering times

Orchids of the same species can vary greatly, and features such as plant height and flowering times may depend on a plant's

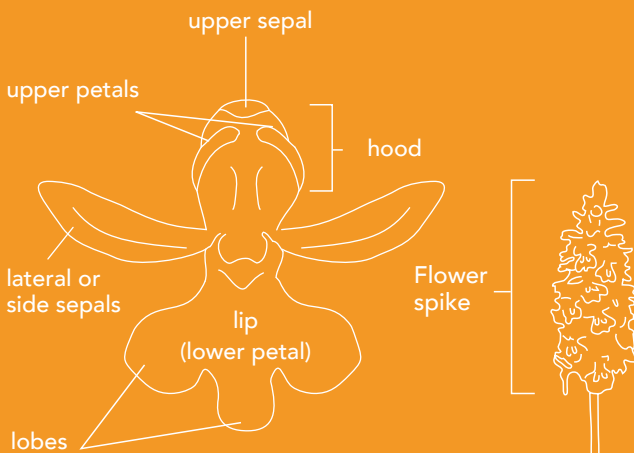
geographic location in the UK, its exact position such as on a sunny slope or in a shaded valley, and local environmental conditions such as soil quality. In this guide we use averages. In general in the UK, orchids growing in northern regions and at higher altitudes tend to flower later than those in the south or at lower altitudes. Within a given orchid species, plants growing in wetter conditions may flower later than those in drier habitats. Orchids growing on sheltered south-facing slopes tend to flower earlier than those on exposed westerly or north-facing aspects, and flowering

also tends to occur earlier in orchids growing near or on the coast.

Conservation status classifications are based on the UK Red List.

Distribution maps are provided to indicate where each species has been found in the past, with darker areas representing the most recently recorded.

-  pre-1930
-  1930 - 1969
-  1970 - 1986
-  1987 - 1999
-  2000 - 2009
-  2010 onwards



Identification features of orchids

Orchids have beautiful, ornate flowers. In this guide we use terms you may not be familiar with, so this diagram shows the main identifying features.



Common spotted-orchid (*Dactylorhiza fuchsii*)

This is the most common and widespread orchid in the UK, often identified by the dark spots and blotches on the leaves.

Description: Plant height 15–50cm. The spike is pyramidal to cylindrical with 20–70 flowers. The flowers are various shades of pale pink to purplish pink, occasionally white. The lip is divided into three equal lobes and marked with a pattern of dark pink dashes and broken lines. The flowers are slightly scented, but in common with other species in the genus *Dactylorhiza* produce no nectar. It is

likely to be pollinated by a variety of insects.

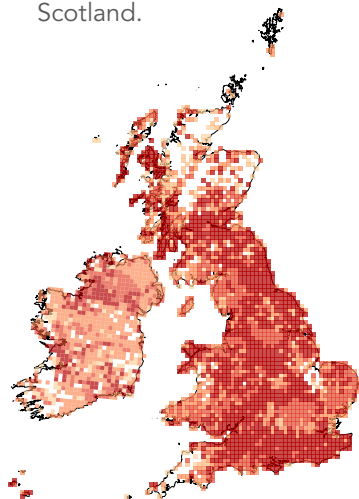
Similar species: Similar to other spotted-orchids (p7), marsh-orchids (p8–10) and the early-purple orchid (p14). Check the lip shape and markings.

Habitat: Very variable. Woodland, dry grassland, wet meadows, marshes, dune slacks, as well as human-made habitats such as industrial waste tips, road verges and railway embankments.

Flowering time: Mid May to early August in the south, later in the north.

Distribution in UK:

Found throughout the UK but absent from much of Cornwall, Devon and northern and northeastern Scotland.



© RSB 2015



©FR



©FR

Heath spotted-orchid (*Dactylorhiza maculata*)

Closely related to the common spotted-orchid and similar in appearance, but this species prefers acid heathland and moorland habitats.

Description: Plant height 10–25cm. The leaves are marked with solid dark spots that are more rounded in appearance than those of the common spotted-orchid. The spike is rounded or pyramidal with 5 to 20 whitish to pale pink flowers. The lip is whitish pink and marked with fine darker pink dots and dashed lines. It is divided into three lobes by shallow notches, with the side lobes

much larger than the central lobe. The flowers are faintly scented and are pollinated by a variety of insects including bees and flies.

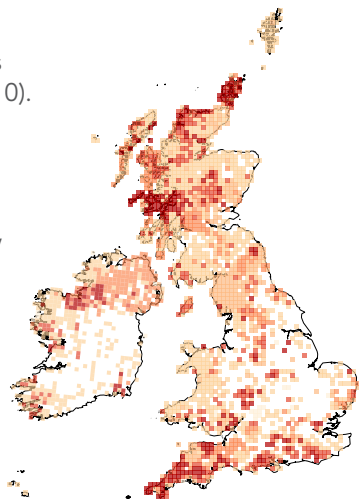
Similar species: Similar to other spotted-orchids and marsh-orchids (p6–10). Check the habitat and lip shape to help with identification.

Habitat: Acid grassland, moorland, bogs and heathland.

Flowering time: Mid May to July.

Distribution in UK:

Throughout, but mainly in northern and western regions.



© BSBI 2015



Early marsh-orchid (*Dactylorhiza incarnata*)

This is the most widespread of the marsh-orchids and is found in a variety of habitats. There are five subspecies, which can make identification difficult.

Description: Plant height 20–40cm. The spike is crowded with up to 70 relatively small and narrow flowers. Very variable in colour between subspecies, from pale pink to purplish pink (brick red in dunes). Flower shape is the best ID feature. The upper sepals and petals form a hood and the side sepals are held vertically. The un-lobed lip is patterned with dots and lines enclosed

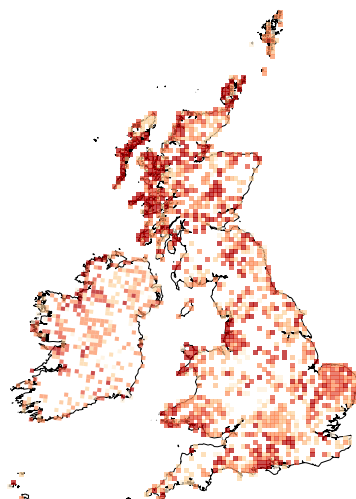
within a U-shape. The sides of the lip fold downwards creating a central ridge. The flowers are pollinated by bumblebees.

Similar species: Similar to other marsh-orchids and spotted-orchids (p6-10). Check the lip shape and markings to help with identification.

Habitat: Meadows, calcareous marshes and sand dunes.

Flowering time: Late May to late June. Plants in the south and west may flower earlier, and in wetter habitats a little later.

Distribution in UK: Locally throughout England and Wales, with scattered sites in Scotland.



© BSBI 2015



©FR



©MMW

Southern marsh-orchid (*Dactylorhiza praetermissa*)

This species often occurs in large numbers and in a variety of habitats. It hybridises with spotted-orchids, sometimes making identification difficult.

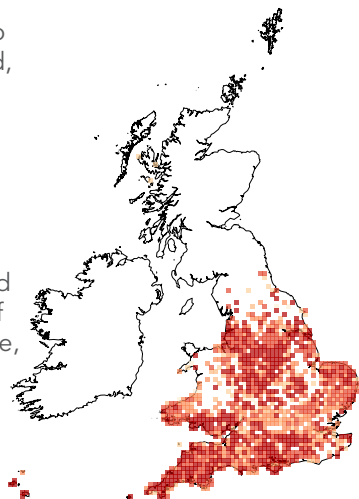
Description: Plant height 20–50cm. The leaves are usually unspotted. The spike usually carries 20–60 purplish pink flowers. The lip is purplish pink and circular with two broad, rounded side lobes that turn downwards at the base, and a small tooth-like central lobe. The lip is marked centrally with darker dots and dashes.

Similar species: Similar to other marsh-orchids and spotted-orchids (p6–10). Check the habitat and distribution to help with identification.

Habitat: Marshes, damp meadows, wet grassland, dune slacks and old industrial sites.

Flowering time: Late May to early July.

Distribution in UK: Widespread in south and central England south of a Lancashire/Durham line, in the Channel Islands and parts of Wales.



© BSBI 2015



Northern marsh-orchid (*Dactylorhiza purpurella*)

Occurring widely in northern regions, the northern marsh-orchid also hybridises with spotted-orchids, which can make identification difficult.

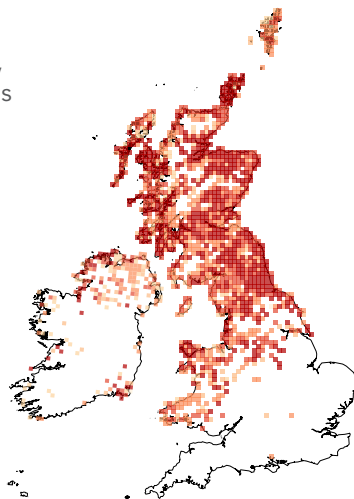
Description: Plant height 10–30cm. The leaves are unspotted or with a few spots. The spike is oval to cylindrical and dense with usually 10–40 deep magenta to red-purple flowers. The lip is relatively small and distinctively diamond-shaped, patterned with dark crimson lines and dots. Probably pollinated by various species of bee.

Similar species: Similar to other marsh-orchids and spotted-orchids (p6–10). Check the habitat and distribution to help with identification.

Habitat: Damp wet sites such as marshes, grassland, fens and lake margins. It has also been found colonising old quarries, urban brownfield or old industrial sites.

Flowering time: Late May to late July, mainly early June to mid July.

Distribution in UK: Widespread in north and west Wales, northern England and Scotland.



© BSBI 2015



Common fragrant-orchid (*Gymnadenia conopsea*)

A strongly scented orchid of species-rich grassland.

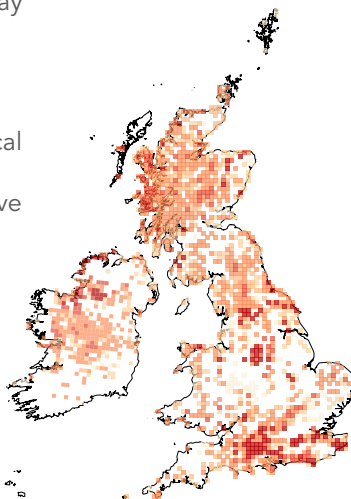
Description: Plant height 20–40cm. The cylindrical spike holds between 20 and 50 plain lilac purple flowers. The lip is flat with three rounded lobes. The lip is about as wide as it is long – a feature that separates it from the other fragrant-orchids. The flowers have a strong sweet scent and produce nectar that attracts pollinators including butterflies and moths.

Similar species: Similar to other fragrant-orchids (p12–13) and the pyramidal orchid (p15). Check the lip shape, habitat and flowering time to help with identification.

Habitat: Dry grassland, and also sometimes calcium-rich soils on dunes, road verges and old quarries.

Flowering time: Late May to late July, mainly June.

Distribution in UK: Widespread in England and Wales. Rarer and local in Scotland. Throughout its range populations have declined, probably due to habitat destruction, ploughing of pastures and drainage.



© BSBI 2015



Heath fragrant-orchid (*Gymnadenia borealis*)

A smaller, more delicate relative of the common fragrant-orchid, and with fewer flowers.

Description: Plant height 10–25cm. Small conical spikes of lilac to dark pink flowers that are smaller than the common and marsh fragrant-orchids.

The lip is less obviously trilobed and is usually longer than it is wide – a feature that separates it from the other fragrant-orchids.

The flowers have a sweet clove-like scent. There is little information on which pollinators may visit this species.

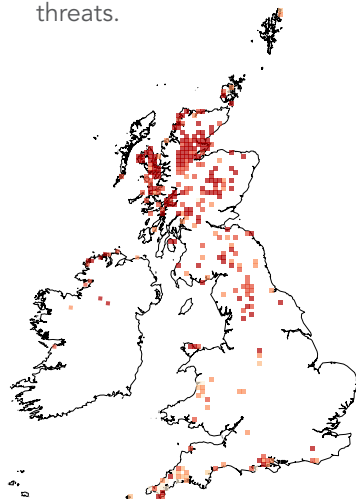
Similar species: Similar to other fragrant-orchids (p11–13). Check the lip shape and habitat to help with identification.

Habitat: In the north and west it grows on hill pastures, roadside verges and grassy moorland. In the south it is found in grassy heaths.

Flowering time: June to August.

Distribution in UK: The most common fragrant-orchid in northern and western areas, with small scattered populations in southern England. In the

UK, populations are mostly small and very local, with numbers thought to have decreased rapidly due to overgrazing of upland grasslands and other threats.



© RSB 2015



©FR



©MW

Marsh fragrant-orchid (*Gymnadenia densiflora*)

Similar in appearance to the other species of fragrant-orchids, but found in meadows and fens.

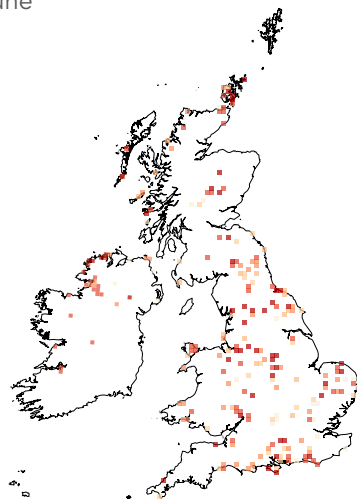
Description: Plant height 30–60cm. Tall narrow spikes of pink flowers with a purple tinge. The flat lip is clearly three-lobed and is wider than it is long – a feature that separates it from the other fragrant-orchids. The flowers have a spicy, clove-like scent. There is little information on which pollinators may visit this species.

Similar species: Similar to other fragrant-orchids (p11–12). Check the lip shape and habitat to help with identification.

Habitat: Meadows and fens flushed with calcareous-rich water, and occasionally on north-facing chalk grassland slopes.

Flowering time: Late June to mid August.

Distribution in UK: Uncertain distribution. Fairly scarce with local populations in scattered localities throughout the UK due to habitat destruction of fens. In England it can be found in the southern counties from Cornwall to Kent, and the Isle of Wight.



© BSBI 2015



Early-purple orchid (*Orchis mascula*)

The first orchid to appear in the spring, the purple flowers and spotted leaves are distinctive. Unspotted leaves, and an uncommon white-flowered variety, also occur.

Description: Plant height 10–45cm. The spike is oval or cylindrical and carries between 10 and 50 flowers in various shades of purple. The upper sepals and petals form a hood and the two side sepals are pushed backwards. The lip is three-lobed with crinkled edges. The flowers have a sweet scent initially, which changes to a rank smell, likened to tomcat urine. The flowers produce no nectar but are

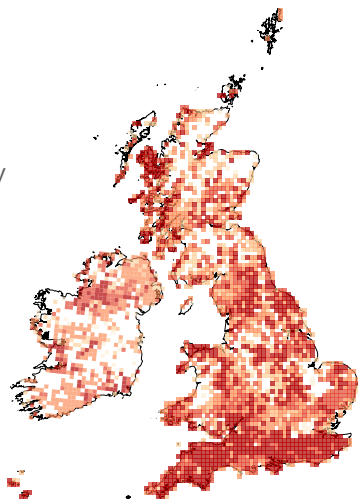
nevertheless pollinated by a variety of bees.

Habitat: Variable habitats mainly on chalk and limestone, including woodland, grassland, rocky cliffs, railway embankments and road verges.

Flowering time: Early April to early June, possibly later in upland areas and in Scotland.

Distribution in UK: Found throughout, including the Channel Islands and north to the Scottish islands, although very scattered or absent from some regions, particularly central England and

parts of Scotland. Most losses are due to the destruction of woodland and the loss of grasslands and meadows to ploughing.



© BSBI 2015



©FR



©FR

Pyramidal orchid (*Anacamptis pyramidalis*)

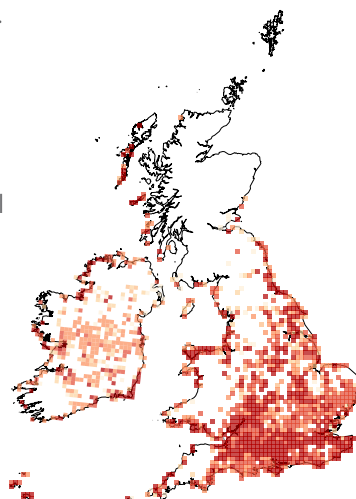
Widespread in open grassland and named for the pyramid shape of the flower spike.

Description: Plant height 20–60cm. The spike is densely flowered with up to 100 plain pale pink, pink or reddish pink flowers. The lip is divided into three equal lobes with two raised ridges at the base. The flowers may have a vanilla-like scent but do not produce nectar. The pyramidal orchid is pollinated by day- and night-flying moths, and butterflies.

Habitat: Chalk and limestone grassland and sand dunes. It also grows well on human-made habitats such as road verges, roundabouts and old industrial sites.

Flowering time: Early June to mid August.

Distribution in UK: Throughout England, Wales and the Channel Islands, but rare in Scotland.



© BSBI 2015



Green-winged orchid (*Anacamptis morio*)

One of the UK's loveliest plants, the delicate green-striped sepals are found on both the purple and much rarer white flowered varieties.

Description: Plant height 7–15cm. This small orchid has unspotted leaves and a spike with well-spaced flowers. Flower colour varies from whitish to pink to purple, but most are purple shades. The lip is three-lobed and the three sepals and upper two petals have green lines running lengthways. These green lines are the key identification feature. Green-winged orchids

are pollinated by bees, especially bumblebees.

Similar species:

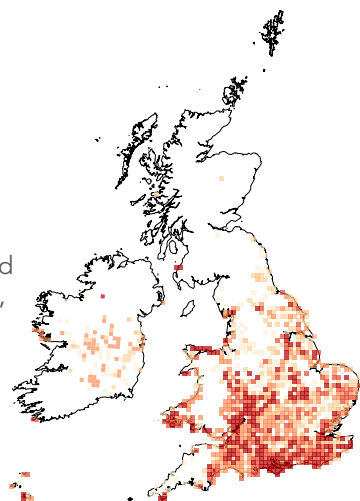
Superficially similar to the early-purple orchid (p14), but this species has no spots on its leaves.

Habitat: Optimum habitat is unimproved grassland on calcareous soils and damp pastures on clay soils. It can also be found growing on banks, village greens, churchyards and old industrial sites. It is seldom, if ever, found in woodland.

Flowering time: Mid April to mid June, mostly in May.

Distribution in UK:

Throughout England, mainly coastal regions in Wales, absent from much of northern England, very rare in Scotland.



© RSB 2015



©MMW



©MMW

Burnt orchid (*Neotinea ustulata*)

Named for the deep purple colour of the unopened buds at the top of the spike, giving a burnt appearance. There are two forms: early-flowering and late-flowering. Although they are genetically very similar, they have subtle differences in flower colour.

Description: Plant height 2.5–15cm, a little taller in northern England. The densely packed spike is conical to cylindrical in shape and the flowers have dark reddish purple sepals and paler petals. The four-lobed lip is white with reddish purple spots. The early-flowering burnt orchid flowers have a strong, sweet

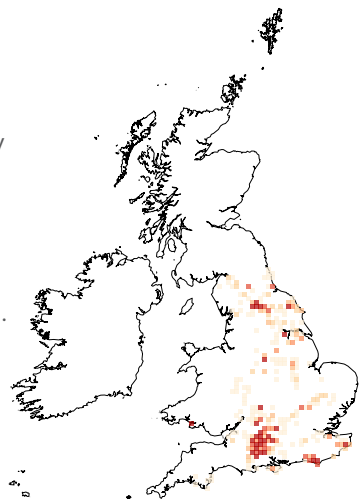
scent and are pollinated by flies. Butterflies have also been recorded visiting the flowers.

Habitat: Short grassland, on chalk and limestone, and sometimes in water meadows on chalky silt.

Flowering time: Early-flowering form: mid May to mid June. Late-flowering form: late June to early August.

Distribution in UK: Mainly southern England. In the midlands and the north of England the species has greatly declined and can be found in only a few localities. Losses have been caused in the main

by habitat destruction and changes in agricultural practices. Classified as Endangered.



© BSBI 2015



Common twayblade (*Neottia ovata*)

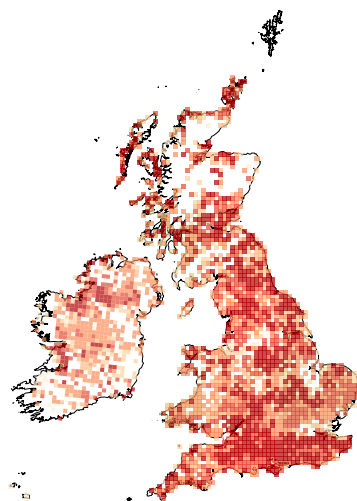
One of the most common and widely distributed wild orchids in the UK.

Description: Plant height 20–60cm. Easily identified by a pair of equal-sized round or egg-shaped opposite leaves near the base of the stem. The spike is tall and usually carries 15–30 small green flowers. The lip is yellowish green and divided into two long narrow lobes. The flowers can have a light musky scent and are pollinated by small insects including parasitic wasps, beetles and sawflies.

Habitat: Many habitats including grassland, limestone pavement, dune slacks, road verges, fens, scrub and deciduous woodland.

Flowering time: Late April to early August, later in the north.

Distribution in UK: Throughout.



© RSB 2015



Lesser twayblade (*Neottia cordata*)

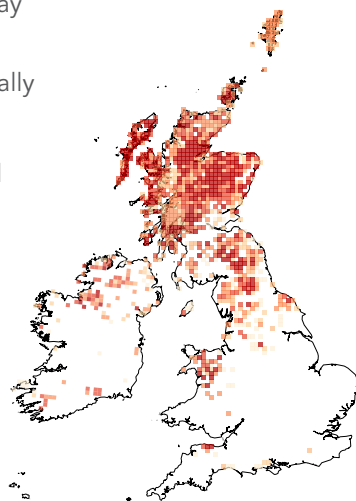
Similar to common twayblade, but much smaller and with opposite heart-shaped leaves approximately one third of the way up the stem.

Description: Plant height 5–10cm, sometimes taller in woodland. The spike may have between 3 and 20 flowers that are small and variable in colour from green to reddish. The greenish sepals and the reddish petals form a star-like shape. The lip is pale green with reddish tones and divides into two long pointed lobes. The flowers are pollinated by small insects such as gnats.

Habitat: Usually under heather (*Calluna*) bushes on moorlands and bogs. Also ancient pinewoods and mature pine woodland.

Flowering time: Mid May to mid July.

Distribution in UK: Locally common in Scotland, northern England and Wales, with one isolated population in southwest England on Exmoor.





Bird's-nest orchid (*Neottia nidus-avis*)

Its brown spikes are unique among UK orchids. It is named for the resemblance of the root system to a bird's nest. It has no green leaves and no chlorophyll, relying on nutrients provided by fungi throughout its lifetime.

Description: Plant height 20–40cm. The spike is cylindrical and may carry up to 100 brownish yellow flowers. There may also be one or two single flowers further down the stem. The sepals and petals form a fan-shaped hood. The lip is darker brown and divided into two widely spread curved lobes. The flowers

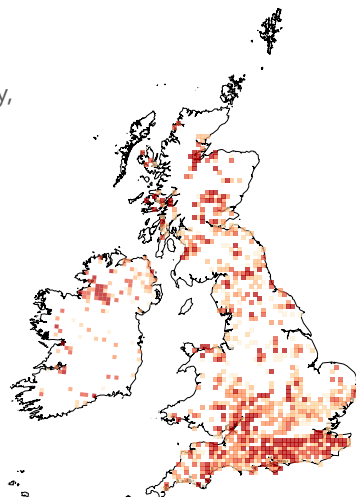
produce nectar and may have a sweet honey-like scent. It is pollinated by small insects including flies.

Similar species: While the bird's-nest orchid may appear superficially similar to some members of the unrelated Broomrape family, the structure of the flowers is very different.

Habitat: Woodland, especially mature beech.

Flowering time: Early May to late June, mostly flowering mid to late May.

Distribution in UK: In mature woodland in southern England, but scarce and very local elsewhere.



© RSB 2015



©FR



©FR

Bee orchid (*Ophrys apifera*)

One of the most distinctive of the UK's wild orchids, named for its flower's resemblance to the body of a bumblebee.

Description: Plant height 10–30cm. The spike has several relatively large flowers. The wing-like sepals are pink, two strap-shaped petals form the bee 'antennae', and the rounded lip with furry side-lobes is maroon to purplish brown with irregular grey and pale yellow markings. In the UK the structure and colouration of the flower has lost its significance for pollination. The species of bee pollinator doesn't

occur in the UK and the bee orchid relies on self-pollination.

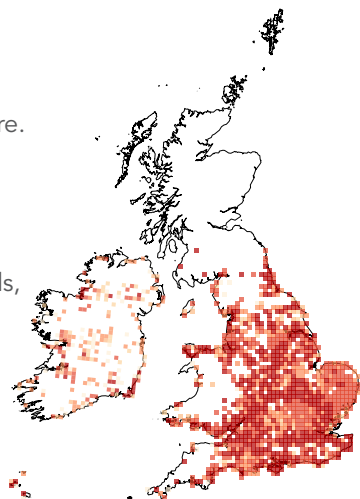
Similar species:

Superficially similar to the early and late spider orchids, which are not included in this survey. They occur in southern England and are very rare.

Flowering time: Early June to late July.

Habitat: On dry, chalk and limestone grasslands, calcareous dunes, but also frequently on roadsides and industrial waste ground.

Distribution in UK: Found throughout, but scarce or absent in Cornwall, north Devon and Scotland.



© BSBI 2015



Fly orchid (*Ophrys insectifera*)

Very distinctive, the fly orchid flowers have evolved to resemble insects in order to attract pollinators.

Description: Plant height 50–60cm. The sepals are yellowish green and the smaller petals are dark brown and rolled thin appearing like antennae. The velvety textured dark purplish brown lip with blue markings is long and hangs down vertically. The lip is divided into two short side lobes and a central lobe that is notched at the tip. Despite its name it is male digger wasps, not flies, that are lured by the orchid's pheromones and pollinate

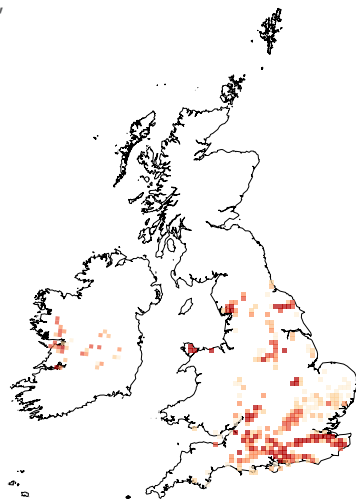
the plant as they attempt pseudocopulation with the flowers.

Habitat: Deciduous open woodland, particularly beech in southern England, and open scrub. Also on limestone pavements and hillsides in northern England.

Flowering time: Late May to early June.

Distribution in UK: Widespread but very local from southern England to Cumbria in the north. Populations have declined, possibly due to woodland clearance or increased shade in unmanaged woodland

and scrub. Classified as Vulnerable.



© RSB 2015



©MMW



©MMW

Man orchid (*Orchis anthropophora*)

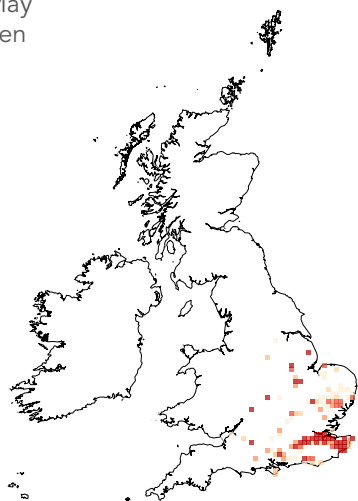
This orchid is named for the resemblance of the flowers to tiny human figures.

Description: Plant height 20–30cm. The spike is long, narrow, cylindrical and densely flowered. The flowers are green or yellow and the sepals and petals form a hood. The lip is divided into two long side lobes (the 'arms'), and a central lobe which divides again halfway into two short lobes (the 'legs'). Little is known about which insects may pollinate this species.

Habitat: Grassland on chalk or limestone. Also scrub, roadside verges, churchyards and stabilised dunes and shingle.

Flowering time: Early May to late June. Flowers open slowly and progressively from the bottom of the spike, giving a longer flowering time.

Distribution in UK: Southern and eastern England. It is rare and very local elsewhere. Classified as Endangered.



© BSBI 2015



Frog orchid (*Coeloglossum viride*)

Small, inconspicuous and green, the frog orchid can be hard to find.

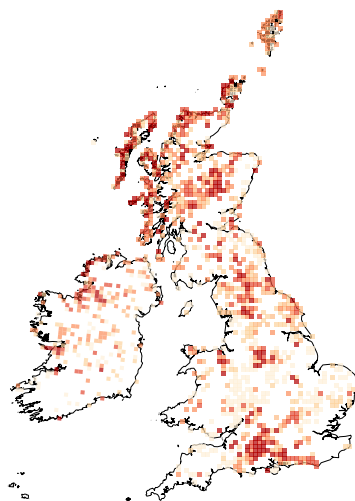
Description: Plant height 5–15cm. Green to reddish green flowers in a loose irregular-shaped spike. The sepals and upper petals form a green hood. The lip is strap-shaped and divides into two lobes with a tiny central tooth. The frog orchid is pollinated by small beetles and wasps and also sometimes self-pollinates.

Habitat: In southern areas it is confined to short grassland on chalk or limestone. More common in the north and west where it can be found in more variable habitats

such as limestone pavements, road verges, railway embankments, mountain pastures, coastal grassland and dune slacks.

Flowering time: Early June to early August.

Distribution in UK: Widely but very locally distributed, the frog orchid has declined in southern England due largely to the ploughing and improvement of pastures. Classified as Vulnerable.



© BSBI 2015



©MMW



©MMW

Autumn lady's-tresses (*Spiranthes spiralis*)

This delicate little plant is the last species to flower in the orchid season.

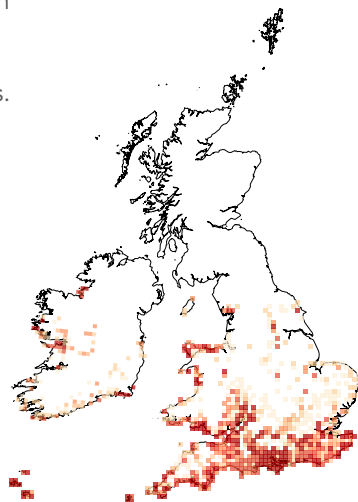
Description: Plant height 3–15cm. There are between 3 and 21 small white tube-shaped flowers in a strongly spiral-shaped spike. The sepals, petals and frilled lip together form a tube. The flowers have a honey-like scent and are pollinated by bumblebees. The short rather diamond-shaped leaves form a tight rosette closely pressed to the ground.

Habitat: Short dry turf, often in sunny locations near the coast on calcareous soils, and also on dunes and shingle banks.

Flowering time: Early August to late September.

Distribution in UK:

Southern England including the Isles of Scilly, and in coastal and southeastern regions of Wales. Rarer towards the north with just a few scattered sites.



© BGBI 2015



Creeping lady's-tresses (*Goodyera repens*)

Distinctive spikes of small and very hairy white flowers.

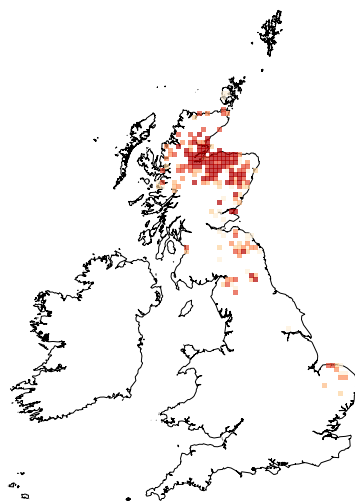
Description: Plant height 7–20cm. The spikes carry creamy white flowers held in a spiral, mostly facing one way. The lip is white and oval-shaped with a pointed tip. The flowers are thought to be pollinated by various bee species. A distinguishing feature is that while most UK orchids have parallel leaf veins, creeping lady's-tresses has leaf veins arranged in a net shape.

Similar species: Similar in appearance to autumn lady's-tresses (p25), which has fewer hairs on the flowers and a frilled tip to the lip.

Habitat: Pinewoods. Unlike most UK orchids, creeping lady's-tresses is found on acid soils and almost always under pine trees on damp and shaded forest floors. A classic habitat is mature Caledonian woodland of scots pine and birch. Sometimes, though rarely, it can be also be found on damp dunes or moorland.

Flowering time: Late June to late August, mainly July.

Distribution in UK: Northern England and northern and eastern Scotland, and a small population on the north Norfolk coast.



© BSBI 2015



©MMW



©MMW

Small-white orchid (*Pseudorchis albida*)

This tiny orchid can be difficult to spot amongst long grass.

Description: Plant height usually less than 20cm. The spike is dense with small creamy white bell-shaped flowers. The petals and sepals form a tight hood and the lip is deeply three-lobed, with the central lobe wider and longer than the side lobes. The flowers have a vanilla scent, and produce nectar. Although a specific pollinator has not been identified, the flower is visited by butterflies, day-flying moths and solitary bees.

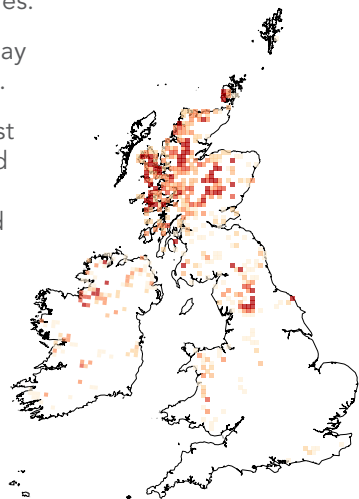
Similar species:

Superficially similar to creeping lady's-tresses (p26), but with a lobed lip.

Habitat: Grassland, grassy moorland and hill pastures.

Flowering time: Late May to mid July, mainly June.

Distribution in UK: Most common in northern and western Scotland, the species has disappeared from much of England and survives in only a few sites in Wales. Classified as Vulnerable.



© BSBI 2015



White helleborine (*Cephalanthera damasonium*)

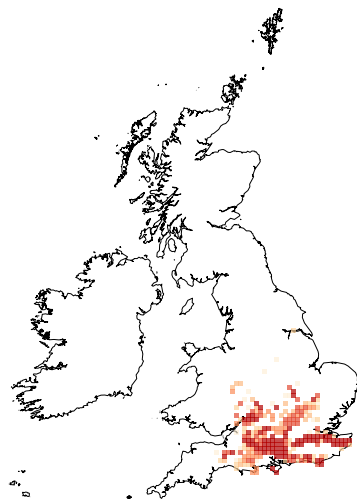
A distinctive woodland plant that tolerates deep shade.

Description: Plant height 15–40cm. White helleborine has distinctive, relatively large, creamy white egg-shaped flowers in a loose spike. The lip is short and broad with a spout-like tip and yellow or orange markings. There is no scent, and the species is largely self-pollinated.

Habitat: Woodland, where it is strongly associated with beech, and scrub. Confined to well-drained calcareous soils on chalk and limestone.

Flowering time: Mid May to late June, occasionally from late April to mid July.

Distribution in UK: Southern England. Classified as Vulnerable.



© RSB 2015



Marsh helleborine (*Epipactis palustris*)

Adapted to survive in calcareous marshy habitats, this species flowers in mid summer.

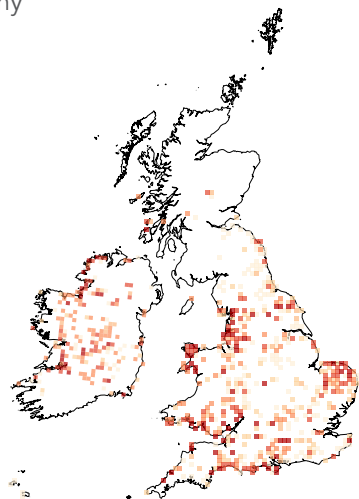
Description: Plant height 20–45cm. The marsh helleborine has up to 25 purple and white flowers on a spike and they bloom mostly on one side. The rounded lip is white, and partly yellow, with a frilly margin. It is unclear which insects pollinate this orchid but many including hoverflies, beetles and honeybees visit the flowers.

Habitat: Only found in fens and coastal dune slacks.

Flowering time: Late June to early August, mostly July.

Distribution in UK:

Widespread but rare and declining in England and Wales and absent in many counties. Very rare in Scotland.



© BSBI 2015



Bog orchid (*Hammarbya paludosa*)

The smallest of the orchids in the UK, and possibly the hardest to find.

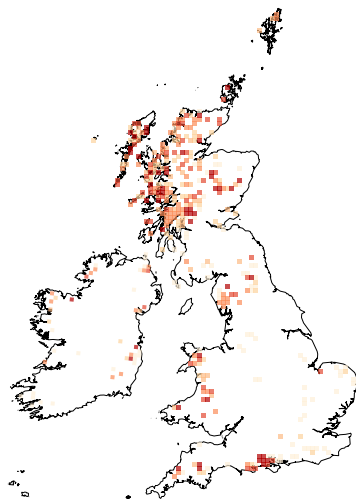
Description: Plant height 4–8cm. Though small, this green orchid is distinctive. The spike carries up to 25 tiny greenish flowers. The un-lobed lip, which is shorter than the sepals, points upwards and is dark green with pale green stripes. The leaves may be fringed with tiny lumps called bulbils, which drop off and may develop into new plants if the right fungi species is present in the soil. The flowers may have a sweet scent, like cucumbers.

The pollinators are probably gnats and other small flies.

Habitat: Bogs, where it often grows on carpets of *Sphagnum* moss.

Flowering time: Early July to mid August.

Distribution in UK: Widespread in northwest Scotland, as far as the Hebrides and parts of Shetland. Very locally distributed in England with a few sites in the north, one site in Norfolk, and a few localities in Cornwall, Devon, Dorset and Hampshire.



© BSBI 2015



Musk orchid (*Herminium monorchis*)

Similar to the bog orchid in size and colour, but with a very different flower structure.

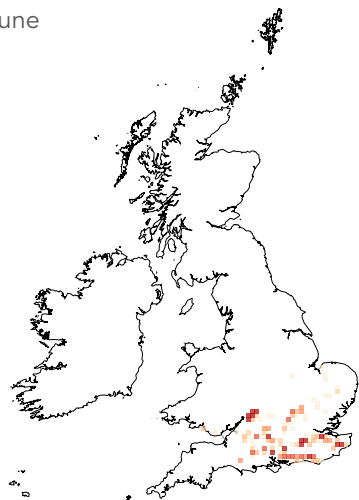
Description: Plant height 5–15cm. Another small, yet distinctive orchid, the spike carries up to 30 densely packed tiny greenish yellow bell-like flowers. The lip, petals and sepals are similar in form. The downward-pointing lip has a narrow central lobe flanked by two shorter side lobes. The other two petals have smaller side lobes. The petals are paler and longer than the sepals. The flowers have a sweet honey scent and are pollinated by small insects

such as beetles, small flies and parasitic wasps.

Habitat: Occurs only on short grassland on chalk or limestone soils.

Flowering time: Early June to early July, sometimes to early August.

Distribution in UK: Confined to chalk grasslands in southern England. Classified as Vulnerable.



© BSBI 2015



Lesser butterfly-orchid (*Platanthera bifolia*)

An orchid with delicate, highly scented white flowers. There are two forms: heathland and woodland.

Description: Plant height 15–30cm. There are 5 to 25 whitish flowers on a cylindrical spike. The upper sepal and petals form a hood and the lateral sepals spread sideways. The lip is greenish white, long, narrow and undivided. Its pollen-bearing structures are closely parallel to one another, and a very long spur holds the nectar. The flowers are heavily scented and are pollinated by night-flying moths.

Similar species: Similar to the greater butterfly-

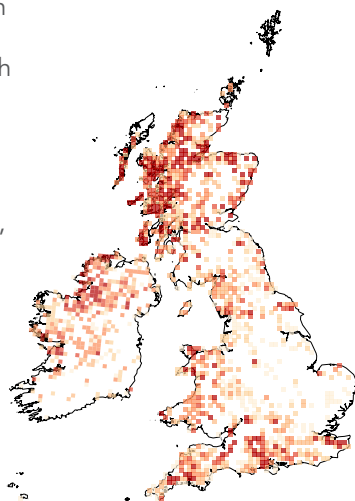
orchid (p33), but shorter and carrying fewer, smaller flowers. The main difference is the position of the pollen-bearing structures.

Habitat: The more common heathland form grows on damp heathland in the south and east, and on moorland in the north and west. The woodland form is restricted to southern England in deciduous woodland, scrub, chalk downs and dry grassy heaths.

Flowering time: Late May to June (woodland form), June to July (heathland form).

Distribution in UK: Throughout, particularly

in the north and west. The species has greatly declined, vanishing from many southeastern areas. Classified as Vulnerable.



© BSBI 2015



©MMW



©MMW

Greater butterfly-orchid (*Platanthera chlorantha*)

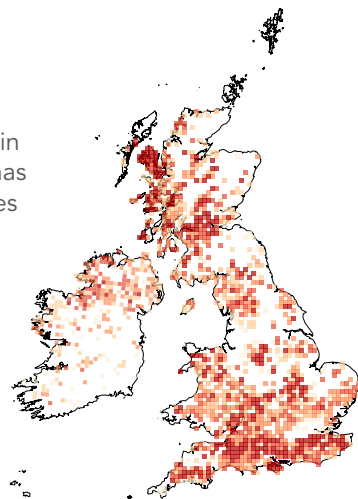
Look for a tall spike of white flowers, and two shiny, oval leaves at the base of the stem.

Description: Plant height 20–40cm. The spike usually carries up to 30 greenish white flowers, sometimes more. The flower structure and lip are similar to that of the lesser butterfly-orchid, and the flowers also emit a powerful scent at night. However, its pollen-bearing structures are held more widely apart than in the lesser butterfly-orchid and slant inwards. Various species of moth, including hawkmoths, pollinate the flowers.

Habitat: Usually in deciduous woodland and on chalk grassland on calcareous soil.

Flowering time: Late May to late July, later in parts of Scotland.

Distribution in UK: Distributed locally throughout, particularly in the south. The species has been lost from many sites due to disturbance and felling of woodland, and the agricultural improvement of pasture and scrub.



© BGRI 2015



Coralroot orchid (*Corallorhiza trifida*)

Named for its coral-like form of root system, this orchid is parasitic on fungi from which it receives nutrients.

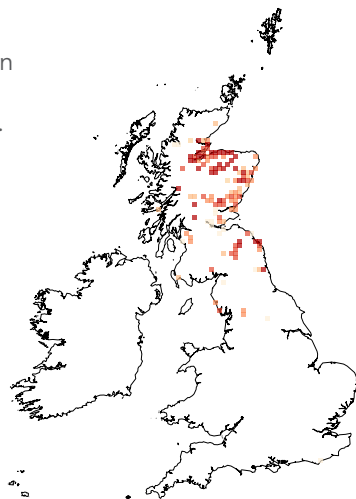
Description: Plant height 10–13cm. Small yet distinctive, the coralroot orchid has no green leaves and tiny greenish white flowers. The lip is tongue-shaped with a ruffled margin, white with crimson spots or blotches at the base. It has a slight, musk-like scent. Small insects visit the flowers, but it is usually self-pollinated.

Habitat: Woodland and scrub. Also on damp ground, raised bogs, and damp dune slacks.

Flowering time: Plants bloom from May to July, in dune slacks from May to early June, and in woodland from early June to late July.

Distribution in UK:

Widespread in eastern and central Scotland. In northern England it has very local distributions in dune slacks. Classified as Vulnerable.



© RSB 2015

Acknowledgements

This guide was written by Kath Castillo and Lucy Robinson, and is an output of the Natural History Museum's Angela Marmont Centre for UK Biodiversity. The authors would like to thank Mark Spencer and Fred Rumsey for their support and expertise in developing this guide. The guide can be freely distributed in its original form for non-commercial purposes. All content is copyright authors and Natural History Museum, and no images or sections of text can be extracted and used elsewhere without first obtaining permission.

The distribution range maps have been reproduced with the kind permission of the Botanical Society of Britain and Ireland (BSBI) www.bsbi.org.uk.

Photographs are by Fred Rumsey (FR), Mike Waller (MW), and Chris Raper (CR).

Orchid Observers is funded by the Arts and Humanities Research Council through its Science in Culture theme. It is part of a wider programme called Constructing Scientific Communities

www.conscicom.org.

ZOONIVERSE



