

Spreading Hedge-parsley

Torilis arvensis



Lifecycle

An annual herb, flowering from June to October, often not setting much seed until August. Germination is usually between October and December with seedlings form an overwintering rosette. However, seed can continue to germinate into the new year and as late as early March. This species therefore seems to have a long growing season (approximately from October to the following August/September), during which it requires no disturbance. Seed longevity it thought to be less than five years in clay soils but can be longer in free-draining soils.

Habitat

Spreading Hedge-parsley is an annual species, typically found in the margins of arable fields sown with winter cereals. This species has also occasionally been recorded in road verges and railway sidings passing through arable land.

A member of the carrot family which looks similar to its close relatives, Cow Parsley, Upright Hedge-parsley and Knotted Hedge-parsley. It grows up to 40 cm tall and is very branched. Stems are solid, cylindrical and strongly ridged. Leaves are triangular in outline but are divided into small bristle-tipped leaflets, giving it a feathery appearance. Hairs pressed against the leaf surface give the plant a 'frosted' look. The small white to pink flowers (2 mm across) are grouped into three and five flower clusters, which collectively form an umbrella inflorescence. Each individual flower produces two oval seeds (between 4-6 mm long) which are covered in slender, long spines that have tiny hooks at the very tip.

Spreading Hedge-parsley is largely associated with clay loams and calcareous clays. It is normally found within species-rich arable plant communities with species such as Shepherd's-needle, Corn Buttercup, Broad-leaved Spurge and Corn Parsley.

GB status and rarity

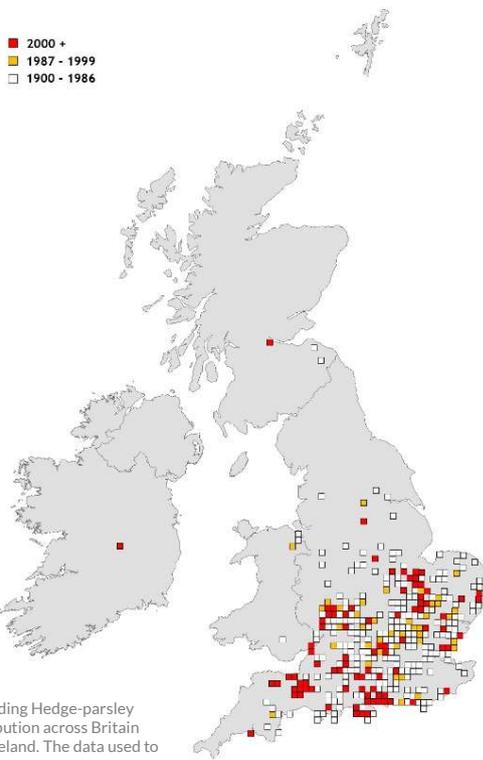
Endangered.

Protection under the law

This plant is included as a species of principal importance for the purpose of conserving biodiversity under Section 41 (England) of the Natural Environment and Rural Communities Act 2006.

Survey method

Individual plants should be counted in smaller populations and larger populations should be estimated.



Spreading Hedge-parsley distribution across Britain and Ireland. The data used to create this map has been provided under licence from the Botanical Society of Britain and Ireland (BSBI) and accessed from the Society's online database.

Distribution

Spreading Hedge-parsley was formerly widely distributed across England as far north as Yorkshire, with the majority of the records concentrated in the south and east. Although previously reasonably widespread, this species was never a noteworthy agricultural problem. However, its distribution has significantly reduced over the past 60 years, mainly because of the intensification of arable farming. Spreading Hedge-parsley is now most frequent in Somerset, Worcestershire and East Anglia.

Reasons for decline

Spreading Hedge-parsley is a poor competitor in crops with high fertiliser applications. This species produces seed late in the summer and is badly affected by early harvesting dates (especially for winter barley) and early cultivation of stubbles (ploughing or minimum tillage following herbicide application). This species is likely to be susceptible to broad-spectrum herbicides.

Habitat management

Ideal management on arable land involves annual cultivation in autumn (between October and early December), without subsequent disturbance until Spreading Hedge-parsley plants have flowered and set seed, preferably leaving stubbles as long as possible into the autumn. Spreading Hedge-parsley prefers less intensive methods of cultivation, such as minimum tillage, compared to inversion ploughing.

Spreading Hedge-parsley will grow within a crop, such as an autumn-sown cereal or within an uncropped cultivated margin or plot. Using a reduced seed rate and/or a crop variety that has fewer tillers on conservation headlands will also benefit Spreading Hedge-parsley, as it is not very competitive. If this species is growing within a crop, it is best if the crop is harvested after Spreading Hedge-parsley has set seed, usually later into August. Additionally, leaving stubbles as long as possible into the autumn will allow more time for seed to mature and shed.

The application of broad-spectrum herbicides to areas where it occurs will reduce population sizes. If required, treatment of problematic weed species could be undertaken through targeted herbicide use, particularly of graminicides to reduce the cover of autumn germinating grass weeds. Spreading Hedge-parsley can withstand occasional spring cultivation in order control pernicious weeds, but the seed becomes unviable after 3-5 years and autumn cultivation should be reinstated at this point. Fertiliser is not usually applied to uncropped areas, and application should be limited on cereal headlands, wildlife cover mixes or low-input cereals where Spreading Hedge-parsley occurs.



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