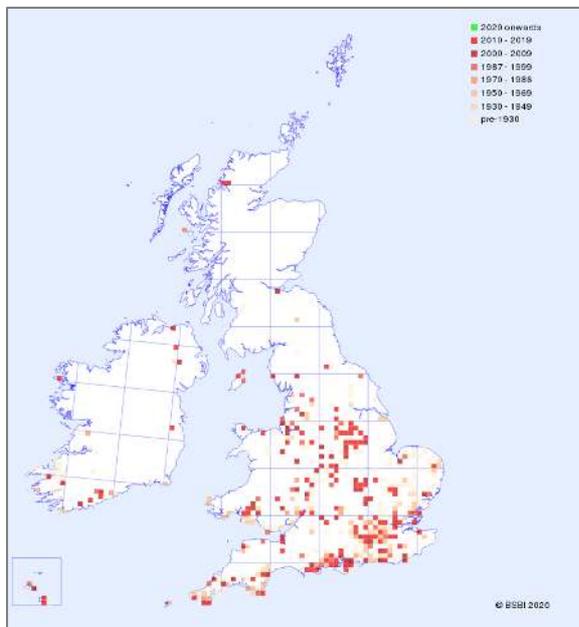


# Pennyroyal

## *Mentha pulegium*



### Pennyroyal distribution across Britain and Ireland.

The data used to create this map has been provided under license from the Botanical Society of Britain and Ireland (BSBI) and accessed from the Society's online database.

### Description

Pennyroyal is a small, distinctively-scented mint. It grows no taller than 30cm in height and often less. It tends to have two growth forms, and may be found either as a low mat of trailing stems and leaves, or be more upright and vigorously flowering. The small, paired leaves are smooth, slightly shiny and untoothed (or finely serrate). When in flower, densely-packed whorls of short-stalked, lilac flowers with a white, hairy tuft in the throat are found at regular intervals along the square stem.

It can be distinguished from the superficially similar Water Mint *Mentha aquatica* by its lack of obvious marginal teeth on the leaves and absence of a terminal whorl of flowers.

The name Pennyroyal is derived from Old French *Pulioi ryal* (a derivation which suggests its use against fleas). It has a long history of varied use as a medicinal and pot herb (note that the essential oil is toxic in excess).

### Lifecycle

In Britain, at the north of its global range, Pennyroyal is a short-lived perennial herb. It generally spreads via over-ground runners by rooting from nodes. It also sets seed and can form a lasting seed bank in the soil. It flowers from August through until October.

### Habitat

Pennyroyal is generally found in a heathland context where there is some form of disturbance (including livestock grazing) and an element of silt or clay in the substrate. It favours seasonally inundated situations such as pool margins, runnels, wheel ruts on unmetalled tracks and poached areas in short, damp grassland. For example, in Dorset it is now mainly known from tracks associated with quarries, while in the New Forest, it is typically found in the poached margins of pools and winter-wet, summer-parched depressions in close-grazed greens and droves. It

is also found on river margins and, in some cases, newly sown grasslands (presumably from imported seed).

## Distribution

Historic populations are located near the south coast of England (e.g. Cornwall, Dorset and the New Forest), and the Welsh borders, but the natural distribution of Pennyroyal is obscured by centuries of cultivation, along with it being a seed contaminant in amenity grass mixes, and it appears to be spreading.

The smaller spreading form and the more robust upright form are sometimes differentiated as var. *decumbens* and var. *erecta* respectively, with the latter considered by some to be introduced. However, as individual populations show considerable morphological plasticity, it may not be possible to distinguish native and non-native populations in this way.

Pennyroyal is native to Europe, the Middle East and North Africa but has been widely introduced elsewhere. In some places it is grown as a crop but in others is considered to be a problematic weed.

## GB status and rarity

This species is classified as Endangered in Britain (i.e. facing a very high risk of extinction in the wild in the near future) and National Scarce (i.e. occurring in 100 or fewer hectads in Great Britain).

## Protection under the law

Pennyroyal 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. It is also protected by Schedule 8 of the Wildlife and Countryside Act (1981). It is illegal to pick, uproot or collect seeds from Pennyroyal without a license.

## Survey method

Individual plants can be counted, or in more extensive patches where it covers a large area, the number of plants in a typical square metre can be counted and multiplied by the overall area occupied to give a population estimate. Where it has a prostrate form, the percentage cover is a more appropriate measure.

## Reasons for decline

Pennyroyal was once widespread on heathy commons and coastal pastures and its loss from many sites is an indicator of the decline of pastoral economies in the British landscape. Habitat loss and the loss of seasonally wet areas and a reduction in intense livestock activity on remaining habitat are the main factors in its decline.

## Habitat management

Pennyroyal is dependent on very open conditions such as are found in short, disturbed turf or sparsely vegetated tracks. It is confined to areas that are generally inundated or at least very damp in winter, such as hollows and wheel ruts. Most populations are therefore dependent on high levels of grazing and trampling by large livestock, or on gross disturbance such as that created by heavy vehicles. Where it has been lost, it may still be present in the seedbank, and disturbance of the soil has been successful in restoring populations on the Lizard and in Dorset.



Pennyroyal habitat in the New Forest (left) and Dorset (right).

## Sources and further information

Chatters C, 2004. *Mentha pulegium* L. pennyroyal. Online atlas of British and Irish flora. RDB species accounts

[Species account: Mentha pulegium. Lockton, A.J. Botanical Society of the British Isles](#)

[Pondnet recording form \(for pond populations\)](#) Freshwater Habitats Trust

Pennyroyal by C. Chatters in Stewart, Pearman and Preston 1994 *Scarce Plants in Britain* JNCC