

Fumaria purpurea



Status

UK Biodiversity Action Plan Priority species.
Nationally Scarce.

IUCN threat category: Least concern (2005).

Taxonomy

Magnoliopsida: Fumariaceae
Scientific name:

Fumaria purpurea Pugsley

Common names:

**Purple Ramping-fumitory,
Mwg y Ddaear Glasgoch.**

The genus *Fumaria* is composed of ten closely related species in Britain, which are often confused. The most detailed accounts are those of Pugsley (1912) and Murphy (2009).

Fumaria purpurea has two forms, var. *purpurea* with oblong sepals 5-6.5 mm long, and the rare var. *brevisepala* Pugsley, with broadly oval sepals 4.5-5 mm long.

Biology & Distribution

Murphy (2009) is essential for identification. *Fumaria purpurea* is endemic to the British Isles, and is widely scattered, predominantly in the west. It has been reported to be declining or even 'almost extinct', but recent data compilation and field survey has shown local concentrations of populations in Cornwall, Lancashire, SE Scotland and Orkney with a scattering of records elsewhere. Details of all records are held in the Threatened Plants Database (Lockton 2003). It occurs on hedge-banks, walls, arable land, waste ground, roadsides and rarely earthy sea-cliffs, especially in disturbed places or habitats opened up by summer drought.

Identification & Field survey

Properly developed flowers are critical for identification. They are generally produced from April to June, and in late summer, but in hot sunny weather from mid-summer onwards they do not generally develop properly (they are often small and pale) and the plants often shrivel up. Flowers on the first few racemes are often darker and larger than those on later racemes. Flowers in shade can also be small and pale.

Parts of the flower are shown in Figure 2. Although often given as a key feature of *F. purpurea*, the recurving of the pedicels in flower/fruit is quite variable (often straight in shaded plants, on the upper raceme and/or starved plants). The sepals are particularly useful and tend to maintain their shape irrespective of other factors - the long, oblong shape of *F. purpurea* is almost diagnostic on its own (Figure 3).



Figure 1. *F. purpurea* showing recurved flowers (© T. Rich).

Fruits have the annoying habit of falling off, but those of *F. purpurea* do have a distinctive neck (Figure 4) which is helpful for separating from some other species. Leaf shape can be quite variable, but the leaflets are never finely divided.

Field surveys are best carried out in May and June when material is most typical. Often more than one species (sometimes up to five species) will grow in the same habitat. A problem with field survey is that being an annual it has dynamic populations which appear and disappear, and it is difficult to get an idea of its long term population trends.

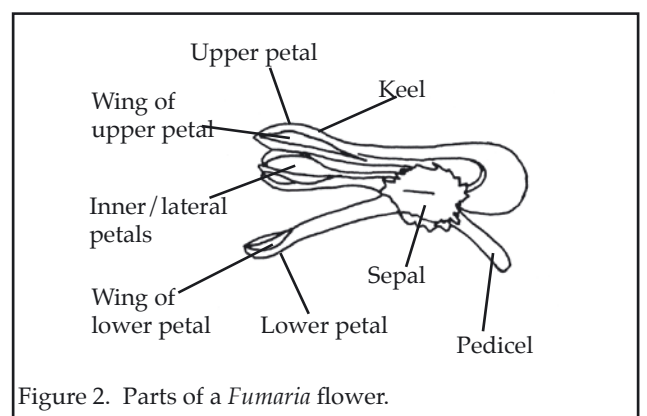


Figure 2. Parts of a *Fumaria* flower.

Key characters

Often robust annual. Leaflets broad. Lower racemes 20-24 flowered, lax, about as long as the peduncle. Bracts about as long as the fruiting pedicels. Pedicels recurved in fruit, and often in flower (often not recurved later in the season). Sepals oblong, 5-6.5 mm long (or broadly ovate 4.5-5 mm in var. *brevissepala*), apex round or shortly acute. Corolla 10-13 mm long, pale or deep purple. Wings of upper petal exceeding the keel. Lower petal with erect and narrow margins. Fruits about 2.5 mm, squarish in profile, usually truncate, faintly rugulose when dry.

Characters separating it from the three species with which it is most often confused are set out in the tables below. The other six British species have flowers less than 10 mm long and/or sepals less than 4 mm long.

References

- Lockton, A. J. (2003). *Fumaria purpurea* in the British Isles. TPDB contract report to English Nature, March 2003.
- Murphy, R. J. (2009). *Fumitories of Britain and Ireland*. BSBI handbook no. 12. BSBI, London.
- Preston, C.D., Pearman, D. A. & Dines, T. D. eds. (2002). *New Atlas of the British & Irish flora*. Oxford University Press, Oxford.
- Pugsley, H. W. (1912). The genus *Fumaria* L. in Britain. *Journal of Botany* 50 supplement: 1-76.
- Rich, T. C. G. & Jermy, A. C., eds. (1998). *Plant Crib 1998*. BSBI, London.
- Stace, C. A. (1997). *New Flora of the British Isles*. 2nd edition. Cambridge University Press, Cambridge.

A briefing sheet is available on the Plantlife website (www.Plantlife.org.uk)

Additional photographs are available on the ARKive website (<http://www.arkive.org/species>).

	<i>F. purpurea</i>	<i>F. capreolata</i>
Racemes	Laxer	Denser
Sepals	More oblong, rounded or shortly acute at apex, weakly toothed mainly at base	Ovate, acute to acuminate at apex, toothed about the base
Corolla	Usually purple to pinky-purple; wings of upper petal just reaching apex and exceeding the keel	Usually white in UK with brackish-red tips, sometimes suffused pinkish after fertilisation; wings not reaching the apex and not covering the greenish keel.
Fruits	Squarish in profile, truncate or even sub-emarginate at apex, faintly rugulose when dry	Subrotund, obtuse at apex, smooth when dry

	<i>F. purpurea</i>	<i>F. occidentalis</i>
Racemes	Pedicels often recurved in flower/fruit	Straight or arcuate, rarely decurved
Sepals	Weakly toothed mainly at base	Deeply toothed
Corolla	10-13 mm, usually purple to pinky-purple	12-14 mm, rosy white
Fruits	c. 2.5 mm long, faintly rugulose when dry, neck distinct	c. 3 mm long x 3 mm wide, strongly rugose, neck indistinct

	<i>F. purpurea</i>	<i>F. muralis</i>
Racemes	Lower racemes typically 20-24 flowered, pedicels often recurved in flower/fruit	Lower racemes typically with 15 or fewer flowers, pedicels usually straight, occasionally recurved
Sepals	4.5-6.5 mm long x 2-3 mm wide, oblong, weakly toothed mainly at base	3-5 mm long x 1.5-3 mm wide, ovate, usually quite toothed
Corolla	10-13 mm, usually purple to pinky-purple	9-12 mm long (often less than 11 mm), pink
Fruits	c. 2.5 mm long, squarish in profile, truncate or even subemarginate at apex, faintly rugulose when dry	< 2 mm long (including apiculus), ovate to subrotund, subacute or apiculate, smooth when dry

