

# Valerianella rimosa



## Status

UK Biodiversity Action Plan Priority species.  
Red Data Book species.  
IUCN Threat category: Endangered (2005).

## Taxonomy

Magnoliopsidae: Valerianaceae  
Scientific name:

*Valerianella rimosa* Bast.

Common names:

**Broad-fruited Cornsalad,  
Gwylaeth yr Oen Llyfn**

*Valerianella* Miller is a genus of about 80 species in the Valerianaceae. It differs from the other two genera in Britain (*Valeriana* and *Centranthus*) in being small annual herbs without a feathery pappus on the fruits. It has opposite entire leaves, tiny tubular flowers in dense or lax clusters, and three stigmas and stamens.

*Valerianella rimosa* is one of five species recorded in Britain, which tend to look fairly similar to each other. It varies little except in size, which is presumably related to habitat conditions.

## Biology & Distribution

*Valerianella rimosa* is now an extremely rare species, mainly occurring in southern England, and nearly extinct in Wales. It has declined largely due to agricultural intensification. It is regarded as an ancient introduction to Britain, having been present since the Iron Age (Preston *et al.* 2002).

It occurs in arable land, usually on the edges of fields which have been less intensively managed, quarry edges and spoil heaps. It occurs on a range of soil types, often with other annuals. Seed is thought to be short-lived, and germination occurs in both spring and autumn.

## Identification & Field survey

The five species can be distinguished by fruit shape, whether the fruits are immature or mature as fruit formation begins soon after flowering. Voucher material should always include ripe fruit. (Figure 2). The scanning electron microscope pictures in Stace (1997) are excellent.

*Valerianella locusta*, *V. carinata* and *V. eriocarpa* have pale blue flowers in dense clusters, *V. dentata* and *V. rimosa* white flowers in loose, branched clusters. It is not possible to distinguish the species vegetatively reliably. The development of toothing on the leaves is very variable.



Figure 1. *Valerianella rimosa* (from J. E. Smith & J. Sowerby (1852). *English Botany*. London).

## Key characters

Erect annual to 15(-40) cm. Inflorescence lax. Flowers white. Fruits to 2.5 mm long, shaped like a flattened pear, with one nearly entire tooth at apex 0.5-1 mm long, hairless.

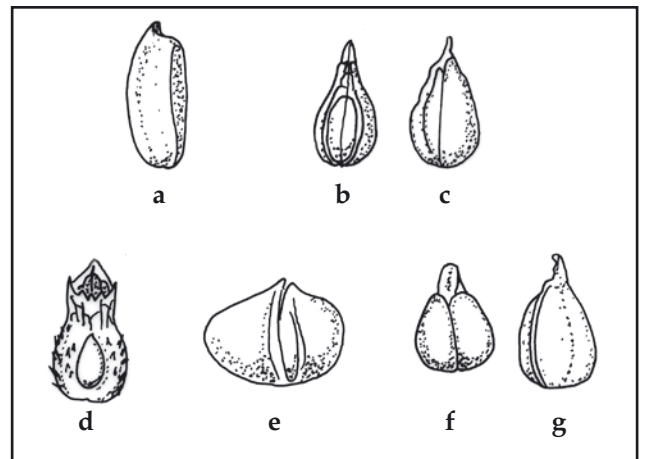


Figure 2. Fruits of *Valerianella* a *V. carinata*; b, c *V. dentata*; d *V. eriocarpa*; e *V. locusta*; f, g *V. rimosa*.

## Differentiation from similar species

- |  |                     |
|--|---------------------|
| 1. Fruit apex with remnant of calyx small or absent  | 2                   |
| 1. Fruit apex with calyx remnant present as conspicuous teeth  | 3                   |
| 2. Fruit ± oblong in side view about twice as long as wide (Figure 2a)   | <i>V. carinata</i>  |
| 2. Fruit 'chestnut-shaped', about twice as wide as long in side view (Figure 2e)   | <i>V. locusta</i>   |
| 3. Calyx remnants forming a 5 to 6-toothed 'crown' around the fruit apex; fruit usually hairy, rarely hairless (Figure 2d) | <i>V. eriocarpa</i> |
| 3. Calyx remnants forming a single tooth at fruit apex; fruit usually hairless, rarely hairy                               | 4                   |
| 4. Fruit narrowly pear-shaped, calyx tooth with small 'sub-teeth' (Figure 2b, c)   | <i>V. dentata</i>   |
| 4. Fruit broadly pear-shaped, calyx tooth nearly entire (Figure 2f, g)   | <i>V. rimosa</i>    |

### References

- Preston, C.D., Pearman, D. A. & Dines, T. D. eds. (2002). *New Atlas of the British & Irish flora*. Oxford University Press, Oxford.
- Stace, C.A., (1997). *New Flora of the British Isles*. 2nd ed. Cambridge University Press, Cambridge.
- Wigginton, M. J., ed. (1999). *British Red Data Books. 1. Vascular plants*. 3rd edn. Joint Nature Conservation Committee, Peterborough.
- Wilson, P. J. (1998). *Valerianella*. pp. 283-284 in Rich, T. C. G. & Jermy, A. C., eds. (1998). *Plant Crib 1998*. BSBI, London.
- A full species dossier and briefing sheet are available on the Plantlife website ([www.Plantlife.org.uk](http://www.Plantlife.org.uk))
- Additional photographs are available on the ARKive website (<http://www.arkive.org/species>).