

Ribes spicatum Robson

Downy Currant

Ribes spicatum is a native currant which chiefly occurs by streamsides in ancient woodland in northern England, north-eastern Scotland, Islay and Skye. It is inexplicably missing from large areas which are apparently suitable, and is absent from Ireland. It is sometimes found amongst rocks in limestone woodland, but does not usually occur in this habitat despite statements to the contrary. It is easily confused with the frequently cultivated and dubiously native *R. rubrum*, with which it may hybridise, but differs in twig colour, leaf shape, leaf colour and indumentum. It is a nationally scarce species, assessed as of Least Concern in Great Britain.



©John Richards

IDENTIFICATION

The leaves of *Ribes spicatum* are matt, rather stiff, a somewhat dull, dark green and are shortly pubescent above, at least when young; hairs usually persist on the leaf margin. Leaves are held characteristically at approximate right-angles to the stem, and the old wood is dark; even blackish.

The petiole is green, and the sinus angle of the leaf-base greatly exceeds 90° and may approach 180°. With practice, bushes can be accurately identified from a distance of 10 m or more, even in mixed populations. Most published accounts concentrate on rather obscure floral characters, but as flowering occurs very early, usually in mid-April, and many plants fail to flower, vegetative features are more useful.



West Dipton Burn, near Dipton Mill, Northumberland, with *Ribes spicatum* to the immediate right of the tree. April 2009.
©John Richards.

SIMILAR SPECIES

Confusion is most likely with the commoner and more widespread *R. rubrum* (Redcurrant). In this latter species the leaves are shinier, a rather paler yellowish green, more floppy, the wood is a pale orange-brown and the petiole is often tinged orange. Any pubescence on the top surface of leaves of *R. rubrum* is scattered and the hairs longer and coarser. Definitively, the sinus angle of the leaf-base is usually 90° or less in *R. rubrum*.

In *R. nigrum* (Blackcurrant) there are three rather than five main leaf-lobes and the central lobe exceeds the laterals. The scent of bruised leaves in Blackcurrant is also characteristic.

HABITATS

In north-east England at least, *R. spicatum* has a narrow and distinctive habitat niche. It occurs mostly in upland areas, but at low altitudes (rarely above 200 m) in semi-natural woodland within 50 m of shallow, rocky rivers and streams, usually in 'denes' (steep declivities in sandstone country). It roots amongst water-borne boulders in areas where the water course regularly changes position, either on raised islands or on steep banks, often in considerable shade, most usually from alders (*Alnus glutinosa*). It appears to compete poorly with comparable life-forms, and persists in a tension zone between the erosive powers of flooding, and the establishment of a dense, shrubby ground layer.

R. spicatum has a wide range of associates, but seedling *Acer pseudoplatanus*, *Allium ursinum*, *Chrysosplenium oppositifolium*, *Dryopteris dilatata*, *D. filix-mas*, *Geum urbanum*, *Luzula sylvatica* and *Urtica dioica* are amongst the most typical. Most localities classify as NVC W6 *Alnus glutinosa-Urtica dioica* woodlands (Rodwell 1991). It is

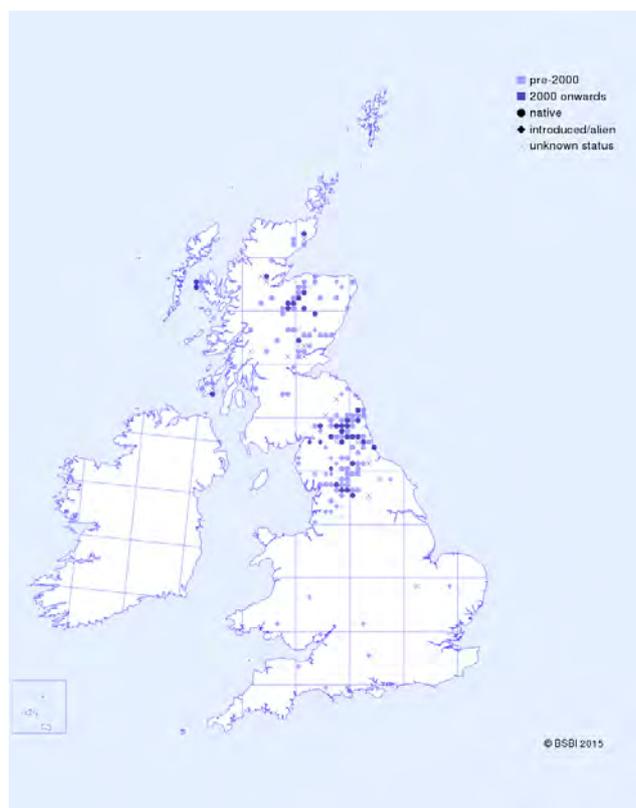
Ribes spicatum Robson

noteworthy that this habitat bears little relationship to the views cited in Warburg (1962) - 'Woods on limestone' - or that in Preston et al. (2002) - 'a shrub of limestone woods' - and although it does occur rarely in this habitat (including grikes of wooded and non-wooded limestone pavement) in Lancashire and Yorkshire, it usually occupies a streamside position there, and is much more commonly met with in the sandstone denes of Northumberland, Durham and north-east Scotland.

BIOGEOGRAPHY

A species of boreal woodlands, apparently extending eastwards to Manchuria (Warburg 1962), and indumentum varies across the European range. *R. glabellum* has been used to describe glabrous arctic and subarctic varieties, while *R. hispidulum* from eastern Europe and Russia has small hairy leaves.

In Britain *R. spicatum* is curiously absent from south-east Scotland, south-west Scotland and much of western Scotland, where it should be looked for. In this context, its occurrence in high rainfall districts of Islay and northern Skye is difficult to explain. Although said by Warburg (1962) to occasionally escape from cultivation and to have hybridised with redcurrants, there is little evidence that it has been cultivated in the UK in the modern era, or that it escapes (Webb 1993), and records outside the native distribution and habitats should be reviewed critically. Typically, plants of *R. rubrum* and *R. nigrum* are found close to the nearest habitation, and as the natural riverside woodland is penetrated further, *R.*



Distribution of *Ribes spicatum* in Great Britain and Ireland.

spicatum finally appears.

ECOLOGY

R. spicatum typically forms clonal individuals, varying from one to more than 100 stems. Large plants may cover 10 m or more and are considered to be of a considerable age. They are deep-rooted and capable of withstanding flooding, although it seems that repeated flooding and root erosion can eventually lead to the death of large parts of the clone, and many individuals tend to be partially senescent.

Many plants, especially those in deep shade, flower rarely, and fruit-set is usually very poor. Flowers are visited by bees, especially queen *Bombus*, but plants are probably self-incompatible. It is notable that fruit-set is best where several flowering individuals occur within a relatively small area (<100 m). Seeds are presumably dispersed by birds, but in most populations evidence of regeneration by seed is absent. Regeneration by seed is probably dependent on periodic flooding of riverine habitats, as *R. spicatum* seems to be a poor competitor that is readily outcompeted by ground vegetation and other shrubs.

Further studies might concentrate on the extent to which *R. spicatum* and *R. rubrum* remain distinct in mixed populations. If intermediates are found, are these the result of recent hybridisation, or do they reflect the complex origin of *R. rubrum* (Simmonds 1976)? These questions would probably be best answered using molecular markers such as those from AFLPs, but a simple examination of e.g. pollen stainability might indicate whether wild *R. spicatum* is introgressed by *R. rubrum*. It would be interesting to attempt to age large clonal individuals, but this may be very difficult as the plant could be far older than the oldest stem. It is possible that woody stocks show annual growth rings.

THREATS

Flash-flooding can damage mature plants. It is susceptible to forestry operations and loss of woodland cover. The quarrying of limestone is an additional threat in some areas (e.g. Craven region of Yorkshire).

MANAGEMENT

No specific management is required, although propagation from seed and cuttings followed by transplantation into wild populations may be required where the extant population is small and threatened and regeneration from seed seems to be absent (as is usually the case).

REFERENCES

Bolkhovskikh, Z., Grif, V., Matvejeva, T. & Zakharyeva, O. 1969. *Chromosome numbers of Flowering Plants*. Nauka, Leningrad.

Ribes spicatum Robson

Croft, J.M. 2002. *Ribes spicatum*. In: Preston CD, Pearman DA, Dines TD. *New Atlas of the British and Irish Flora*. pp. 306. Oxford University Press, Oxford.

Rodwell, J.S. 1991. *British Plant Communities. Woodlands and Scrub*. Cambridge University Press, Cambridge.

Simmonds, N.W. 1976. *Evolution of Crop Plants*. Longman, London.

Warburg, E.F. 1962. *Ribes spicatum*. In: Clapham AR, Tutin TG, Warburg EF., *Flora of the British Isles* ed. 2. Cambridge University Press, Cambridge.

Webb, D.A. 1993. *Flora Europaea* I, ed.2. Cambridge University Press, Cambridge.

AUTHOR VERSION

John Richards. Version 1: 31 January 2015.

SUGGESTED CITATION

Richards, A.J. 2015. *Ribes spicatum* Robson. Downy Currant. Species Account. Botanical Society of Britain and Ireland.