

Alchemilla monticola Opiz.

Velvet Lady's-mantle

Alchemilla monticola is a medium-sized Lady's-mantle with dense hairs that give the blue-green leaves a velvety appearance. In Britain it is restricted to Weardale and Teesdale where it was formerly locally abundant in hay-meadows and pastures over a large area. It has declined markedly since the 1950s due to agricultural intensification and is now largely restricted to banks within meadows, road verges and tracks where it often grows with *A. acutiloba*. It is categorized as Endangered in GB.



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IDENTIFICATION

Alchemilla monticola is a medium-sized Lady's-mantle with dense patent hairs on the lower part of the petioles and stem, on both surfaces of the leaves and the lowest inflorescence branches. The pedicels and hypanthia are glabrous.

The flat, rounded leaves are pale bluish-green, with obvious veins and a velvety texture. The leaf-lobes have equal, somewhat blunt, connivent teeth, with a distinct incision

between the lobes. A useful field character is the slight deflection of the leaf margin, which gives the leaf the appearance of having been cut out with a biscuit-cutter.

SIMILAR SPECIES

In Britain *A. monticola* is most closely related to *A. micans*, from which it differs in having patent, not erecto-patent, hairs and a rounded, not tapered, base to the hypanthium.

HABITATS

In Upper Teesdale *A. monticola* is a characteristic species of traditionally managed upland hay meadows associated with NVC MG3 *Anthoxanthum odoratum*-*Geranium sylvaticum* grassland, and adjacent roadside verges, pastures, tracksides and banks (Bradshaw, 1962, 2009).

Like *A. acutiloba* and *A. subcrenata*, with which it sometimes grows, it can be abundant in species-rich swards, becoming more marginal (e.g. edges, paths or farm tracks) where fields have been agriculturally improved (Wigginton, 1999).

BIOGEOGRAPHY

Alchemilla monticola is a Boreo-temperate European species with a very similar distribution to *A. acutiloba*. It is widespread in montane and sub-alpine regions, extending from the Alps to Greece and north and east to southern Scandinavia and Russia with outliers in the Netherlands and northern England.

Although *A. monticola* was first collected in Teesdale in 1903 (Wilmott, 1922), the extent of its distribution was not mapped till the 1950s (Bradshaw, 1962). Unlike *A. acutiloba*, with which it often occurs, *A. monticola* is almost exclusively confined to Teesdale, with single populations in Weardale and



Species-rich verge habitat of *Alchemilla monticola* in Upper Teesdale. ©Stuart Hedley

Alchemilla monticola Opiz.

North Northumberland where it was discovered in 2010 (Chris Metherell, pers. comm.). It has also occurred as a naturalised alien in Surrey, Buckinghamshire and Lanarkshire.

Its very restricted range has led to suggestions that it may be a long-established introduction in Britain (Wigginton, 1999).

ECOLOGY

Very little is known about the ecology of *A. monticola*, but like other British Lady's-mantles, it is a perennial apomict dependent on low intensity meadow, pasture or road verge management regimes. It quickly disappears under more intensive agricultural regimes or on road verges where overly-frequent mowing prevents it from setting seed. Flowering June-July.

THREATS

As with other lady's-mantles largely confined to hay-meadows the main threats are changes in farm management and animal stocking, in particular more intensive use of meadows by livestock, earlier cutting dates, use of artificial fertilizers, changes in the content of farmyard manure, decreases in the applications of lime and reseeded.

Road verge populations have also been affected by road-works (road widening, verge strengthening), eutrophication and changes in the way verges are managed (flailing rather than

cutting).

MANAGEMENT

At least an annual cutting of roadside verges is likely to be beneficial, but not before seed-set, and may be an important means of dispersing seeds and establishing new colonies.

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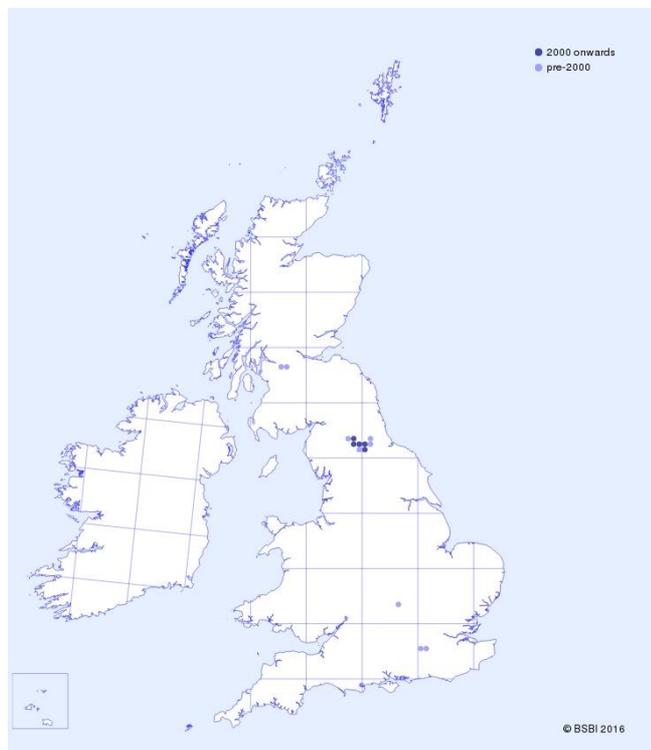
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AUTHOR VERSION

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SUGGESTED CITATION

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Distribution of *Alchemilla monticola* in Great Britain and Ireland.