

# Geranium firedot lichen

## *Blastenia herbidella* (syn. *Caloplaca herbidella*)

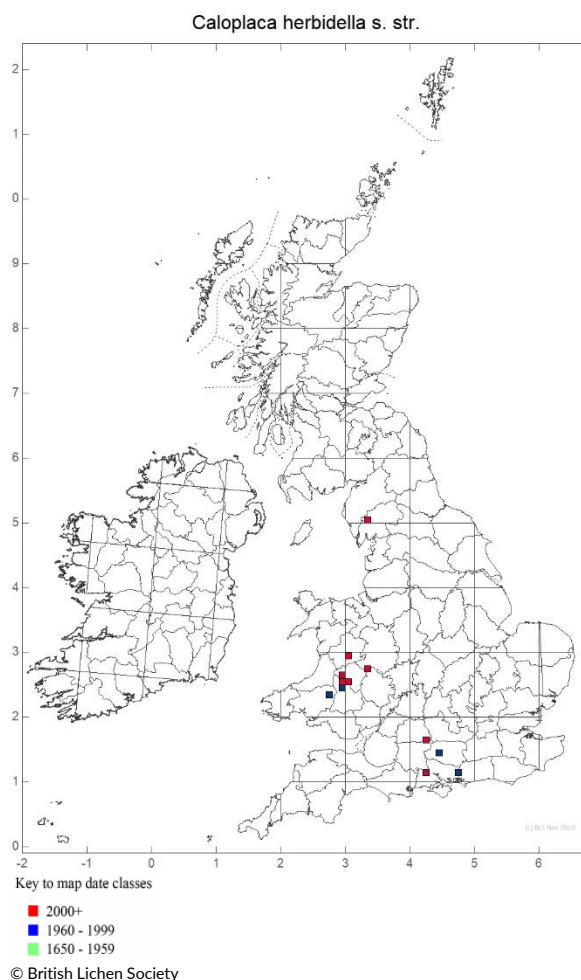


The Geranium firedot lichen is a 'crustose' lichen i.e. one that grows partly immersed in its substrate. It forms grey-green patches, which are lumpy with isidia, tiny peg-like vegetative reproductive structures that sit on the surface of the lichen. It usually, but not always, has fruiting bodies, which are a deep brick-red in colour often with wobbly edges.

It is a very rare lichen in Britain, assessed as Vulnerable in the GB Red List, is Nationally Rare and is a S41 Priority Species in England.

### Distribution

Primarily a southern species in GB, with a 'sub-oceanic' distribution along with *Blastenia coralliza*, *Lecanora quercicola* and *Lecanora sublivescens* which all have similar requirements for old oak trees with base-rich bark and well-lit trunks that are slightly damp. These species are often found on the same sites and even the same trees e.g. sheltered ancient parkland and wood pasture in southern Britain.



### Habitat

Geranium firedot lichen has a preference for the trunks of veteran oak trunks in well-lit situations e.g. on the edges of grazed woodland, in parkland and boundary and in-field trees in old unimproved farmland in areas with little or no acidifying air pollution.



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Well-lit veteran oaks in ancient wood pasture that support Geranium firedot lichen

## Current threats

Geranium firedot lichen requires:

- Veteran oak trees with non-acidified bark
- Continuity of habitat i.e. successive generations of suitable trees allowed to age naturally such that natural damage is able to occur to create the right niche
- Well-lit trunks
- Clean air

As such its main threats are:

- Death or collapse of suitable trees.
- Loss of continuity of suitable trees on a site and across the landscape. In common

with other rare veteran tree specialists Geranium firedot lichen probably has very low rates of occupation, with only a few trees occupied at any one site, and seems to require large populations of veteran trees in order to provide the exact niche required.

- Shade as a result of unmanaged regeneration and/or invasive non-native species inc. Ivy which can be a particular issue on boundary trees and in the absence of grazing/browsing or other management
- Air pollution, especially acidification e.g. from nitrous oxides and sulphur dioxide and excessive enrichment from ammonia.

## Habitat management

The aim of the following management advice is to ensure the long-term continuity and connectivity of Geranium firedot lichen habitat:

- Maintain well-lit conditions in and around veteran and mature trees with basic bark in locations that support Geranium firedot lichen e.g. by thinning regeneration (whilst being mindful of the need to retain some younger trees) and controlling invasive species, native or non-native e.g. Holly, *Rhododendron*.
- Halo thinning and other thinning works may be required to address understory and shade issues that have developed over time e.g. in response to changes in management.
- Ivy can be a particular problem and should be controlled when young growth is invading trees that support Geranium firedot lichen or suitable ones nearby.
- One of the best ways to maintain suitable conditions is with a controlled grazing regime. As with any wood pasture or pasture woodland grazing management this needs to be well considered and well managed to allow pulses of tree regeneration whilst maintaining generally open conditions.
- Identify younger suitable trees to become future veterans and manage around them to create the right conditions.
- If no suitable trees exist plant future veteran oak trees close to existing populations,

although not so close as to cause shade and competition issues.

- Remove or reduce sources of locally generated atmospheric pollutants e.g. by reducing stocking levels if excessive and by limiting fertilising of grasslands.



A cow grazing at Savernake Forest to restore open well-lit wood pasture structure around existing veteran oak trees

## Survey methods

Surveying for Geranium firedot lichen requires a specialist lichen surveyor.

## Further information

Sanderson (2014a) *Geranium Firedot Caloplaca herbidella Dossier: Assessment of Existing Data*. A report by Botanical Survey & Assessment to Plantlife International.

Sanderson (2014b) *Geranium Firedot Caloplaca herbidella Dossier: Survey of Sites 2012 – 2014*. A report by Botanical Survey & Assessment to Plantlife International.

The Back from the Brink Ancients of the Future project is led by Buglife in partnership with Plantlife and the Bat Conservation Trust.

