

Coral firedot lichen

Blastenia coralliza (syn. *Caloplaca coralliza*)



Coral firedot lichen specimen from Savernake Forest held at the Natural History Museum

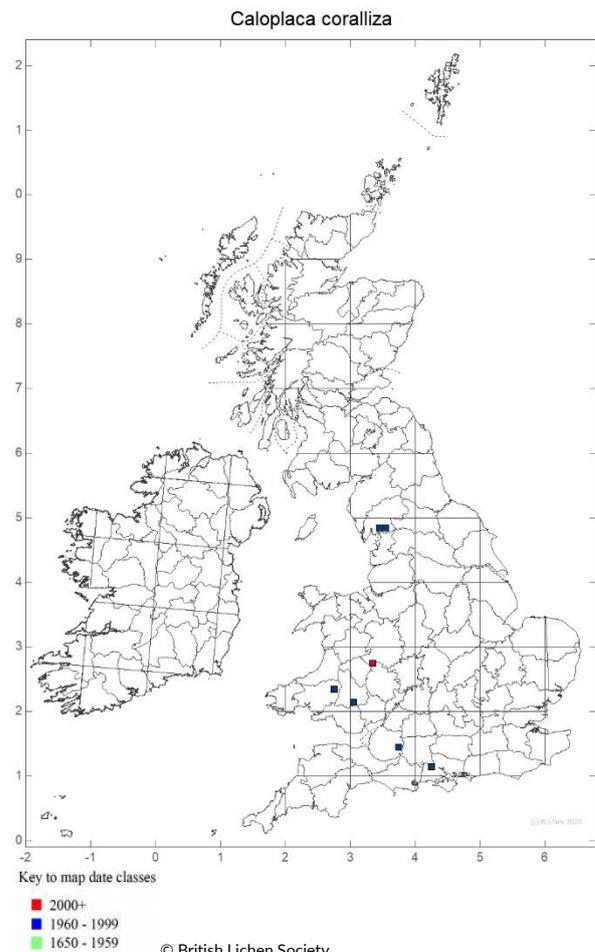
The Coral firedot lichen is a 'crustose' lichen i.e. one that grows partly immersed in its substrate. It has only recently been segregated from *Blastenia* (*Caloplaca*) *herbidella* of which it was thought to be a form. It is characterised by fine orange isidia, tiny peg-like vegetative reproductive structures that sit on the surface of the lichen which is otherwise grey.

It is a very rare lichen in Britain, assessed as Data Deficient in the GB Red List on account of its recent segregation from the commoner (but still very rare) *B. herbidella*, is Nationally Rare and is a S41 Priority Species in England.

Distribution

A review of herbarium specimens has shown that this species has been very rare in GB, known from just five sites (see map below). Recent surveys of the English sites have failed to find it so it may be extinct in England, although the possibility must remain that it will be refound at some stage.

Primarily a southern species in GB, with a 'sub-oceanic' distribution along with *Blastenia herbidella*, *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

Being recently described and also rather rare Coral firedot lichen is poorly known, but it is likely to have similar habitat requirements to *B. herbidella* of well-lit veteran oak trunks 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.



Well-lit veteran oaks in ancient wood pasture that support *B. herbidella*, likely the same habitat for Coral firedot lichen

Current threats

Coral firedot lichen probably 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 Coral 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 Coral firedot lichen habitat:

- Maintain well-lit conditions in and around veteran and mature trees with basic bark in locations that support Coral 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 Coral 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 Coral 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.

