

Ash Dieback and Lichens

The implications for lichens of the spread of Ash Dieback, a disease of ash trees caused by the fungus *Hymenoscyphus pseudoalbidus*, could be very serious.

Ash is one of our most common trees, both in woodlands and as isolated trees in fields and hedgerows. The light dappled shade beneath its canopy is ideal for many of the lichens that grow on tree bark and wood. Like elm, the bark of ash has a relatively high pH, a requirement for many lichens.

Several of the more 'demanding' species that were severely affected by loss of habitat following Dutch Elm Disease found refuge on ash. Now they are further threatened. The mixed ash woods of northern and western Britain are particularly rich lichen habitats, as are wayside trees everywhere, particularly veteran trees that may be many hundreds of years old.

Analysis of the BLS database give some idea of the scale of the potential impact. It contains 31k records of lichens and lichenicolous fungi on ash (*Fraxinus excelsior*), for 582 taxa: 536 lichens (27.5% of the British lichen flora), 31 lichenicolous fungi, and 15 non-lichenized fungi.

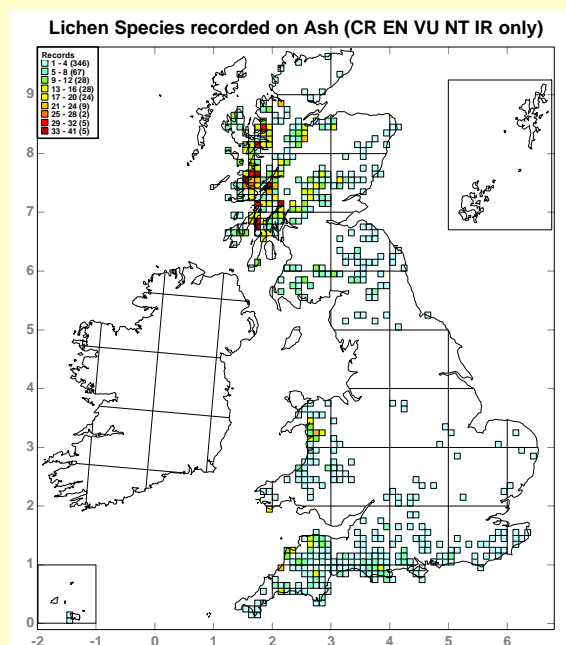
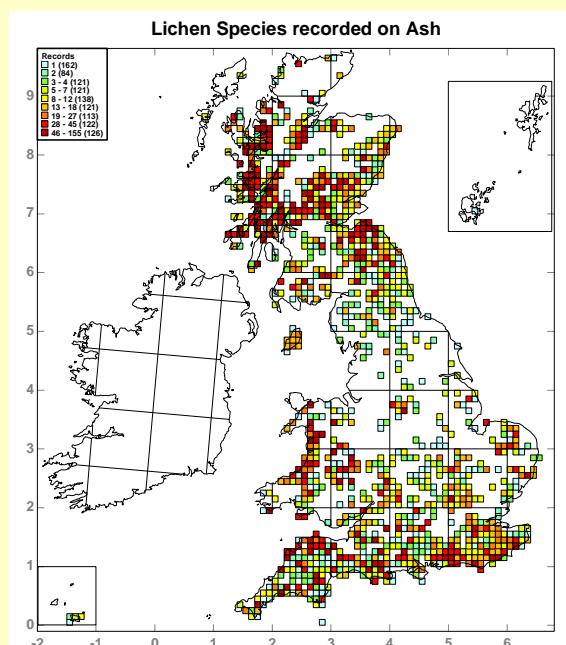
Of these, 220 are Nationally Rare or Nationally Scarce and 84 have a conservation status of near-threatened or above.

A very high proportion, 101, also have a status of International Responsibility (IR), meaning that the British population is considered to be of international significance in a European or global context. Also, 50 are priority species listed within the UK Biodiversity Action Plan (BAP), and 6 are given special protection under Schedule 8 of the Wildlife and Countryside Act (1981).

Nationally Rare (NR)	59
Nationally Scarce (NS)	161
Critically endangered (CR)	3
Endangered (EN)	9
Vulnerable (VU)	20
Near-threatened (NT)	52
Data deficient	13

Further Information (links from the BLS website)

- Coincident Distribution Maps of Lichen Species occurring on Ash in England, Scotland & Wales.
- A paper modelling the co-extinction risks to lichens on Ash on the island of Gotland, Sweden
- Neil Sanderson has posted some useful notes on Chalara Ash Dieback and lichens on the Wessex Lichen Group website, with links to relevant information.
- Ray Woods has reviewed the likely impacts of Chalara Ash Dieback on lichens in Breconshire and Radnorshire.
- A 2012 review paper by Marco Pautasso European ash (*Fraxinus excelsior*) dieback – A conservation biology challenge
- Full list of lichen species occurring on ash with conservation status and record counts (Excel spreadsheet)



Lichens of conservation importance for which ash is an important host tree

<i>Anaptychia ciliaris</i> subsp. <i>ciliaris</i>	NS	EN, BAP
<i>Arthonia anglica</i>	NR	EN, BAP, IR
<i>Bacidia auerswaldii</i>	NR	DD
<i>Bacidia incompta</i>		VU, BAP
<i>Bacidia subincompta</i>	NS	VU, BAP
<i>Biatoridium monasteriense</i>	NR	EN, BAP
<i>Caloplaca flavorubescens</i>	NS	EN, BAP
<i>Caloplaca luteoalba</i>	NS	EN, S8, BAP
<i>Caloplaca virescens</i>	NS	EN, BAP
<i>Catapyrenium psoromoides</i>	NR	CR, S8, BAP
<i>Chaenotheca laevigata</i>	NR	EN, BAP
<i>Cryptolechia carneolutea</i>	NS	EN, BAP, IR
<i>Collema fragrans</i>	NR	EN, BAP, IR
<i>Fuscopannaria ignobilis</i>	NS	VU, S8, BAP
<i>Leptogium cochleatum</i>	NS	VU, BAP, IR
<i>Leptogium saturninum</i>	NS	VU, BAP
<i>Lithothelium phaeosporum</i>	NR	NT
<i>Physcia tribacioides</i>	NS	VU, S8, BAP
<i>Ramonia nigra</i>	NR	CR, IR
<i>Schismatomma graphidioides</i>	NS	VU, BAP, IR
<i>Teloschistes flavicans</i>	NS	VU, S8, BAP
<i>Thelenella modesta</i>	NR	CR, BAP
<i>Wadeana dendrographa</i>	NS	NT, BAP, IR.

