

Lichen Survey
Church of the Holy Cross
Hoggeston
Buckinghamshire
6th January, 2016
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What are lichens?

Lichens are an enduring association between fungi and algae. The alga photosynthesizes and produces sugars which sustain the lichen while the fungus provides a safe habitat for the alga to live thereby extending the range of places where the alga can survive.

Nearly 2,000 species of lichen have been recorded in Great Britain and in the lowland counties churchyards are important in providing a wide range of different habitats. The majority of churchyards have a variety of different types and ages of stone that support different lichen communities.

Lichens at Church of the Holy Cross

A particularly good range of saxicolous lichens were recorded from the churchyard, these are lichens that grow on stonework. Very often the number of species recorded in a churchyard is boosted by records of corticolous lichens from trees and lignicolous lichens from the cut or exposed timber on grave markers and benches but this was not the case at Hoggeston. The ancient stonework of the church building provides a very important habitat as it has been left for centuries with the lichens being able to establish themselves unhindered (**See Photo 1**). The variety of different types of stone including limestone, ironstone, sandstone, flint, marble and granite also helped with recording a high number of saxicolous lichen species. Each type of stone attracts its own particular lichen community due to the texture and the different levels of acidity.

Photo 1 – Ancient stonework



On limestone on the northern wall of the church we recorded *Protoblastenia incrustans*. This is the first time this lichen has been recorded in Buckinghamshire with just one other record from immediately adjoining counties. It is a good record for the area and helps to demonstrate how important churchyards are in maintaining a high diversity of lichens in lowland Britain where there very few natural rock outcrops.

Another interesting lichen, *Lecanora pannonica*, (See **Photo 2**) was recorded on the ironstone chamfered plinths of corner buttresses and this is the third record for the county although it has frequently been recorded in counties just north west of Buckinghamshire where ironstone is more common. It has a distinctive warted thallus with small patches of blue/grey soredia. The purpose of soredia is for a method of reproduction, they consist of propagules of fungal hyphae and algal cells which disperse in the wind or on birds' feet.

The most exciting record from Hoggston was at first glance rather uninspiring to look at and has been recorded as tentative for now but hopefully will be confirmed in the coming months. UV light is sometimes used to help with the identification of lichens and in this case when the light was shone on the lichen the semi immersed fruiting bodies showed a bright green fluorescence. *Thelocarpon robustum* has only been recorded three times in the British Isles and there appears to be no mention of the fluorescence in the currently available literature.

Photo 2 – *Lecanora pannonica*



A few lichens recorded on the boundary wall were not present elsewhere in the yard. One example is *Trapelia coarctata* which is a common species but particularly well developed here (See **Photo 3**).

Photo 3 – *Trapelia coarctata*



Traditionally lichenologists also record fungi that are parasitic on lichens as they are the recorders most likely to encounter them. The total number of species recorded at Church of the Holy Cross is 100; 96 of these are lichens and four are lichenicolous fungi.

BLS Number	Species		Status	Substrate
0010	<i>Acarospora fuscata</i>		LC	Sax
0036	<i>Acrocordia salweyi</i>		LC	Sax
0212	<i>Amandinea punctata</i>		LC	Lig
1501	<i>Arthonia apotheciorum</i>	{LF}	LC NS	Lic
0069	<i>Arthonia radiata</i>		LC	Cort
0107	<i>Aspicilia contorta</i> subsp. <i>contorta</i>		LC	Sax
0145	<i>Bacidia egenula</i>		LC NS	Sax
0148	<i>Bacidia fuscoviridis</i>		LC NS Sc	Sax
0165	<i>Bilimbia sabuletorum</i>		LC	Bry
2442	<i>Caloplaca arcis</i>		LC NS	Sax
0239	<i>Caloplaca aurantia</i>		LC	Sax
2613	<i>Caloplaca austroclitina</i>		LC	Sax
0263	<i>Caloplaca chlorina</i>		LC	Sax
0825	<i>Caloplaca chrysodeta</i>		LC	Sax
0250	<i>Caloplaca decipiens</i>		LC	Sax
2443	<i>Caloplaca dichroa</i>		LC NS Sc	Sax
0259	<i>Caloplaca flavescens</i>		LC	Sax
2315	<i>Caloplaca flavocitrina</i>		LC	Sax
0275	<i>Caloplaca rudorum</i>		LC	Sax
0277	<i>Caloplaca saxicola</i>		LC	Sax
0281	<i>Caloplaca teicholyta</i>		LC	Sax
2607	<i>Caloplaca limonia</i>		LC	Sax
0291	<i>Candelariella aurella</i> f. <i>aurella</i>		LC	Sax
0296	<i>Candelariella medians</i> f. <i>medians</i>		LC	Sax
0297	<i>Candelariella reflexa</i>		LC	Cort
0298	<i>Candelariella vitellina</i> f. <i>vitellina</i>		LC	Sax
0306	<i>Catillaria chalybeia</i> var. <i>chalybeia</i>		LC	Sax
0384	<i>Cladonia fimbriata</i>		LC	Sax
0433	<i>Collema auriforme</i>		LC	Sax
0440	<i>Collema crispum</i> var. <i>crispum</i>		LC	Sax
0491	<i>Diploicia canescens</i>		LC	Sax
0495	<i>Diploschistes scruposus</i>		LC	Sax
0496	<i>Diplotomma alboatrum</i>		LC	Sax
0500	<i>Dirina massiliensis</i> f. <i>sorediata</i>		LC	Sax
0555	<i>Haematomma ochroleucum</i> var. <i>porphyrium</i>		LC	Sax
0616	<i>Lecania erysibe</i> s. str.		LC	Sax
1625	<i>Lecania hutchinsiae</i>		LC	Sax
1707	<i>Lecania inundata</i>		LC NS	Sax
1708	<i>Lecania rabenhorstii</i>		LC	Sax
0627	<i>Lecanora albescens</i>		LC	Sax
0640	<i>Lecanora antiqua</i>		LC	Sax
0635	<i>Lecanora campestris</i>		LC	Sax
0639	<i>Lecanora chlarotera</i>		LC	Cort
0644	<i>Lecanora crenulata</i>		LC	Sax
0646	<i>Lecanora dispersa</i>		LC	Sax
0649	<i>Lecanora expallens</i>		LC	Cort
1764	<i>Lecanora horiza</i>		NT NS Sc	Sax
0661	<i>Lecanora muralis</i>		LC	Sax

0757	<i>Lecanora orosthea</i>		LC	Sax
1837	<i>Lecanora pannonica</i>		LC	Sax
0667	<i>Lecanora polytropa</i>		LC	Sax
0679	<i>Lecanora soralifera</i>		LC	Sax
0797	<i>Lecidella elaeochroma</i> f. <i>elaeochroma</i>		LC	Cort
0802	<i>Lecidella scabra</i>		LC	Sax
0803	<i>Lecidella stigmathea</i>		LC	Sax
1974	<i>Lepraria incana</i> s. str.		LC	Sax
1604	<i>Lepraria vouauxii</i>		LC	Bry
1020	<i>Melanelixia subaurifera</i>		LC	Sax
2135	<i>Paranectria oropensis</i> subsp. <i>oropensis</i>	{LF}	LC NS	Lic
1022	<i>Parmelia sulcata</i>		LC	Sax
1112	<i>Physcia adscendens</i>		LC	Sax
1114	<i>Physcia caesia</i>		LC	Sax
1116	<i>Physcia dubia</i>		LC	Sax
1120	<i>Physcia tenella</i>		LC	Sax
1127	<i>Physconia grisea</i>		LC	Sax
1492	<i>Placopyrenium fuscillum</i>		LC	Sax
1171	<i>Porina chlorotica</i> f. <i>chlorotica</i>		LC	Sax
1690	<i>Porpidia soledizodes</i>		LC	Sax
0572	<i>Porpidia tuberculosa</i>		LC	Sax
1188	<i>Protoblastenia incrustans</i>		LC	Sax
1189	<i>Protoblastenia rupestris</i>		LC	Sax
1200	<i>Psilolechia lucida</i>		LC	Sax
1266	<i>Rhizocarpon reductum</i>		LC	Sax
1289	<i>Rinodina oleae</i>		LC	Sax
1300	<i>Rinodina teichophila</i>		LC	Sax
1306	<i>Sarcogyne regularis</i>		LC	Sax
0630	<i>Tephromela atra</i> var. <i>atra</i>		LC	Sax
1389	<i>Thelidium incavatum</i>		LC	Sax
1395	<i>Thelidium pyrenophorum</i>		LC NS	Sax
#N/A	<i>Thelocarpon robustum</i> cf.	#N/A	#N/A	Sax
1415	<i>Toninia aromatica</i>		LC	Sax
1431	<i>Trapelia coarctata</i>		LC	Sax
1432	<i>Trapelia glebulosa</i>		LC	Sax
2621	<i>Verrucaria squamulosa</i>	#N/A	#N/A	Sax
1479	<i>Verrucaria baldensis</i>		LC	Sax
1480	<i>Verrucaria calciseda</i>		LC NS	Sax
1871	<i>Verrucaria elaeina</i>		LC	Sax
1519	<i>Verrucaria macrostoma</i> f. <i>furfuracea</i>		LC	Sax
1507	<i>Verrucaria muralis</i>		LC	Sax
2514	<i>Verrucaria nigrescens</i> f. <i>tectorum</i>		LC	Sax
1510	<i>Verrucaria nigrescens</i> f. <i>nigrescens</i>		LC	Sax
1511	<i>Verrucaria ochrostoma</i>		DD NR	Sax
1518	<i>Verrucaria viridula</i>		LC	Sax
2263	<i>Vouauxiella verrucosa</i>	{LF}	NE NR	Lic
2267	<i>Weddellomyces epicallopusma</i>	{LF}	LC NS	Lic
1005	<i>Xanthoparmelia mougeotii</i>		LC	Sax
1526	<i>Xanthoria calcicola</i>		LC	Sax
1527	<i>Xanthoria candelaria</i> s. lat.		LC	Sax
1530	<i>Xanthoria parietina</i>		LC	Cort
0950	<i>Xanthoria ucrainica</i>		LC NS	Sax

Key

- LF** Lichenicolous fungi
Cort Corticolous (growing on trees)
Sax Saxicolous (growing on stone)
Lig Lignicolous (growing on exposed or cut wood)
DD Data deficient
LC Least Concern
NS Nationally scarce
NR Nationally rare

References

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For further information see the British Lichen Society website