The Lichens of Swineshead Wood, Bedfordshire

A survey by Mark Powell, 17th February 2015
markpowell222@btinternet.com

The most important lichen communities are those on the oldest trees within the SSSI area; such communities comprise inconspicuous species which survive as relics from pre-Industrial times. Three notable lichen species are new to Bedfordshire: *Chaenotheca stemonea*, *Schismatomma cretaceum* and *Strigula taylorii*.

A fourth addition to the Bedfordshire list (*Catillaria fungoides*) was made near the south-west corner of Swineshead Wood (TL057.667). *C. fungoides* is not an ancient woodland species, it is a recently described (2001) species which was first found in the Iberian Peninsula and has spread across Western Europe in recent years. This occurrence at Swineshead Wood is only the second British record; the first record was at the south edge of West Wood near Grafham in Huntingdonshire a few days before the Swineshead discovery. *C. fungoides* forms patches of dark blackish soredia and grows in nutrient-rich communities. It has subsequently been found at a third British site, Kingston Wood in Cambridgeshire. Further information can be found at:
http://fungi.myspecies.info/all-fungi/catillaria-fungoides

A casual walk around any of the woodlands in this region will give the impression that the lichen communities are sparse and contain few species. It is possible to walk for many metres within these woodlands and observe little more than *Lepraria incana* and *Lecanora expallens* on the lower trunks of trees. The lichenologist gains a much more complete picture of the lichens of a woodland site by exploring the following possibilities during the survey:

- Woodland edges provide access to well-lit twigs.
- Felled material and windblown branches provide proxy access to the canopy.
- The oldest trees should be searched for and examined thoroughly, especially ancient trees with exposed lignum. These support the lichens with highest conservation significance.
- Niche habitats (such as exposed roots in the sides of large ditches, fallen trunks and tree stumps) often yield a few specialities.
- Particular species of trees and shrubs support their own suites of lichen species. Elder bushes often yield more than their fair share of records

In the SSSI area there are remnants of lichen communities which we presume survived on old, sheltered trees from before the height of the sulphur dioxide pollution of the twentieth century. Old ash trees at this site sometimes have the sulphur-dusted pin lichen *Chaenotheca brachypoda* tucked away in dry crevices. Also present on the best trunks are *Chrysothrix candelaris*, *Enterographa crassa*, *Lecanactis abietina*, *Pyrrhospora quernia*, *Schismatomma cretaceum*, *S. decolorans* and *Strigula taylorii*. The old oak trees are generally less rich than the ash trees but occasionally the 'pins' of *Chaenotheca stemonea* and *Chaenotheca trichialis* can be found if the bark crevices are scanned with a lens. Stubby old field maple trees are often much older than their size would suggest, and they provide suitable habitat for *Porina byssophila*, which is classed as Nationally Rare since it is only recently that its occurrence on bark has been realised, having been previously considered a rare saxicolous species. Another feature of field maple trunks is the frequent presence of extensive crusts of *Bacidia delicata*.

Where fallen branches are available for examination the higher light levels and nutrient-enrichment from the wider environment produce a different community of lichens, not as important for conservation but of interest in illustrating the rapid changes taking place. *Lecanora barkmaniana* is one of the 'new' species, not newly evolved, but so rare before the 1980s that no trace of it was found

before then. It was described as new to science in 1999 and has spread to become quite common across Western Europe.

List of lichen species recorded in Swineshead Wood (SSSI area)
The first column gives the standard British Lichen Society number. The second column has the names of the lichens recorded (few lichens have English names). The third column contains codes for the conservation evaluations. LC = Least Concern, NE = Not Evaluated, DD = Data Defficient, IR = species for which Britain has international responsibility. NR = Nationally Rare (recorded from 1-15 British hectads), NS = Nationally Scarce (recorded from 16-100 British hectads). The fourth column gives the substratum (Cort = corticolous, Lig = lignicolous). The fifth column gives details of the tree species on which the lichen was growing (Ac = *Acer campestre*, Co = *Corylus*, Fx = *Fraxinus*, Q = *Quercus*).

49	*Anisomeridium polypori*	LC	Cort	CFx
56	*Arthonia didyma*	LC	Cort	CCo
69	*Arthonia radiata*	LC	Cort	CFx
70	*Arthonia spadicea*	LC	Cort	CQ
144	*Bacidia delicata*	LC	Cort	CAc
242	*Caloplaca cerinella*	LC	Cort	CFx
297	*Candelariella reflexa*	LC	Cort	CQ
316	*Catillaria nigroclavata*	LC NS	Cort	CFx
470	*Chaenotheca brachypoda*	LC	Cort	CFx
344	*Chaenotheca ferruginea*	LC	Cort	CFx
348	*Chaenotheca stemonea*	LC NS	Cort	CQ
349	*Chaenotheca trichialis*	LC	Cort	CQ
354	*Chrysothrix candelaris*	LC	Cort	CQ
375	*Cladonia coniocraea*	LC	Lig	LQ
384	*Cladonia fimbriata*	LC	Cort	CFx
408	*Cladonia polydactyla var. polydactyla*	LC	Lig	LQ
429	*Cliostomum griffithii*	LC	Cort	CAc
489	*Dimerella pineti*	LC	Cort	CQ
504	*Enterographa crassa*	LC	Cort	CFx
533	*Graphis scripta*	LC	Cort	CCo
2468	*Hypotrachyna afrorevoluta*	LC	Cort	CQ
592	*Lecanactis abietina*	LC	Cort	CFx
613	*Lecania cyrtella*	LC	Cort	CFx
614	*Lecania cyrtellina*	LC	Cort	CFx
159	*Lecania naegelii*	LC	Cort	CFx
2121	*Lecanora barkmaniana*	LC NS	Cort	CFx
639	*Lecanora chlarotera*	LC	Cort	CFx
649	*Lecanora expallens*	LC	Cort	CFx
621	*Lecanora hagenii*	NE	Cort	CFx
797	*Lecidella elaeochroma f. elaeochroma*	LC	Cort	CFx
1974	*Lepraria incana s. str.*	LC	Cort	CFx
1629	*Lepraria lobificans*	LC	Cort	CFx
1020	*Melanelixia subaurifera*	LC	Cort	CFx
887	*Micarea prasina s. lat.*		Lig	LQ
954	*Opegrapha ochrocheila*	LC	Cort	CFx

965	*Opegrapha vermicellifera*	LC	Cort	CFx
943	*Opegrapha vulgata*	LC	Cort	CFx
1022	*Parmelia sulcata*	LC	Cort	CFx
1008	*Parmotrema perlatum*	LC	Cort	CQ
1107	*Phaeophyscia orbicularis*	LC	Cort	CFx
1110	*Phlyctis argena*	LC	Cort	CFx
1112	*Physcia adscendens*	LC	Cort	CFx
1120	*Physcia tenella*	LC	Cort	CFx
1614	*Porina byssophila*	DD NR	Cort	CCo
2070	*Punctelia subrudecta s. str.*	LC	Cort	CFx
1228	*Pyrrhospora quernea*	LC	Cort	CAc
1234	*Ramalina farinacea*	LC	Cort	CQ
1318	*Schismatomma cretaceum*	LC IR	Cort	CFx
1315	*Schismatomma decolorans*	LC	Cort	CFx
1378	*Strigula taylorii*	LC NS IR	Cort	CFx
692	*Trapeliopsis flexuosa*	LC	Lig	LQ
1530	*Xanthoria parietina*	LC	Cort	CFx

Figure 1. *Enterographa crassa* is a species of ecological continuity – broadly speaking an ancient woodland indicator. It is usually found growing on large old trees but here it is growing on rather small stems (which may be considerably older than their size suggests).

Figure 2. The sort of large old *Quercus* tree which provides suitable habitat for 'pin' lichens such as *Chaenotheca stemonea* and *C. trichialis*. These diminutive lichens tend to grow in deep bark crevices and rough bark below old burrs is often particularly rewarding.

Figure 3. An ancient Fraxinus tree which supports notable lichens including *Schimatomma cretaceum*.

Figure 4. *Fraxinus* poles near south-west corner of Swineshead Wood (TL057.667) the left hand of the twin trunks behind the carrier bag supporting the second British record of *Catillaria fungoides*.

References

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