The lichens of Hinderclay Fen

C. J. B. Hitch

The survey was carried out on April 25th 2003. The area is acid heath to the south of Little Ouse River, which forms the boundary between Suffolk and Norfolk. A track leads to the fen, which divides it into more or less equal halves. The main open rabbit-grazed area lies to the east of the track, with mixed woodland, which consists of *Quercus* and *Sambucus* amongst other trees, east of this area. The area to the west of the dividing track is mostly mixed woodland, more marshy, with *Alnus*, at the westernmost end. A small area of *Calluna*-rich heath lies just to the west of the track.

The above survey was carried out, partly to determine whether a duck farm on the main road was having an effect on the lichen flora, but also to see what the lichen flora was itself. Splitting the area into two, the eastern side of the track, is hypereutrophicated, due to gaseous nitrogenous fall-out from the farm, as evidenced by the presence of Xanthorion elements, such as *Xanthoria parietina* and *Physcia adscendens* and *P. tenella*, which appear to require more nitrogen than some other species and therefore do particularly well in this environment, turning the branches of the trees yellow or grey. Other lichens are out competed by this excessive growth and cannot exist due to the high nitrogen levels, since most lichens growing incredibly slowly and break down if anything other than the minimum of foodstuffs, such as dust and rainwater are provided..

Due to the prevailing winds the nitrogenous input is mostly eastwards. so that that half of the fen to the west of the track, is much less effected. The majority of trees in the western half are small and form a *Salix* carr, rather dark, and therefore do not support a flora. The *Alnus* trees at the extreme western end of the reserve are big enough to support a flora, but this porophye has an acidic bark and with the added effect of acid rain, as in East Anglia, where rainfall is relatively low and therefore leaching is poor, does not support a good flora either. A single young *Quercus* on the boundary of the wooded area where light levels were greater did support a better flora.

The Little Ouse River is obviously heavily polluted as it looked disgusting and smelt of effluent, which again might effect the lichen flora.

Lichen Data

62(TM)/027-8.787 An open area of rabbit-cropped acid heath, with standing and fallen *Quercus*, *Salix* and *Fraxinus* at the boundary.

Soil – *Cladonia fimbriata, C. rangiformis, C. furcata, C. ramulosa, C. cervicornis* var. *cervicornis*.

Flints – *Micarea erratica, Xanthoria polycarpa* (unusual for this substrate), *Amandinea punctata*

Quercus – Xanthoria parietina, X polycarpa, Physcia tenella, Lecanora chlarotera, Lecidella elaeochroma var, elaeochroma, Parmelia sulcata, Melanelia subaurifera, Punctelia subrudecta,Lecanora coniziaeoides, Amandinea punctata, Arthonia radiata, Lepraria incana

Fraxinus – Candelariella reflexa. Xanthoria parietina (grey form).

62(TM)/029.787 *Quercus, Sambucus and Salix* by river.

Physcia adscendens, P. tenella, Xanthoria parietina, Anisomeridium polypori, Punctelia ulophylla, Parotrema chinense.

62(TM 0/288.788 An area of *Sambucus* and *Quercus* by river.

Lecania cyrtella, Phaeophyscia orbicularis, Anisomeridium polypori, Physconia grisea, Lepraria incana, Candelariella reflexa (non squamulose form), *Macentia stigonemoides.*

62(TM)/025.788 Ancient decorticated *Quercus* stump in woodland.

Cladonia coniocraea, Dimerella pineti, Lepraria incana, Micarea micrococca, M. viridileprosa.

62(TM)/023-5.787 Sunny area of open heath amongst woodland with *Calluna* and *Ulex*, also Quercus and Betula.

Cladonia rangiformis, C. furcata, C. foliacea, C diversa, Placynthiella icmalea, C. pyxidata, Candelariella reflexa, Cladonia fimbriata, Physcia tennela, P. adscendens, Xanthoria candelaria, Amandinea punctata, Lecanora expallens, Diploicia canescens, Lepraria incana, Cladonia floerkeana (noted by H.S.).

62(TM)/021.787-8 Alder carr at the western end of the reserve and *Quercus* on boundary, with *Crataegus, Sambucus* and *Salix.*

Cliostomum griffithii, Lecanora expallens, (*Xanthoria parietina* and *Physcia* spp. fallen from canopy), *Cyrtidula hippocastanii* (fungus)*Lepraria incana, Arthonia spadicea, Anisomeridium polypori, Lecania cyrtella, Scoliciosporum chlorococcum.*

The lichen flora for the area as a whole consisted of 40 lichens and 1 allied fungus (these are either fungi that grow on lichens, or were thought to be lichens in the past, but algae in close proximity, are now known, not to be associated. However, lichenologists still record them). Nomenclature follows Coppins (2002).

By far the most important lichen recorded at the site, was *Micarea viridileprosa*. Apart from this record, it is only known in the British Isles from 19 sites, in south-western Britain, Wales and Scotland. This outlier is most peculiar. It does occur in western Europe, and could be considered to be found on the western side of the North Sea basin, however, this side of the British Isles is not similar to oceanic Europe, though western Britain is, and that is why it is almost exclusively found there. It is very exciting to have this species new to Suffolk.

The rest of the flora was fairly standard, for damp mixed woodland and heath, with *Cladonia floerkeana, Macentina stigonemoides and Micarea micrococca*, being nice additions. The *Bacidia* cf *adastra* material could not positively be confirmed as this species, but it falls very close to it. It has only relatively recently been described (Sparrius and Aptroot 2003). One other collection, growing on *Sambucus*, was interesting. It has been named as *Candelariella reflexa*. Normal forms of this lichen were seen at the site, but this material, was quite lobate and virtually non-sorediate, and reminded Dr. Coppins of a *Candelariella* species from southern Europe, but he did not feel that it could be it.

The author is grateful to B. J. Coppins for the determination of critical material.

References

Coppins, B. J. (2002) Checklist of Lichens of Great Britain and Ireland. *British Lichen Society*.

Sparrius, L. B. and Aptroot, A. (2003) *Bacidia adastra*, a new sorediate lichen species from Western Europe. *Lichenologist* **35**(4): 275-278 (2003).

FLORA OF SUFFOLK (92-159) · LICHENS

Grid reference: . 8 7 . 2 0 2 9

Locality Hinderclay Fen Habitat Rabbit cropped and heath, flints, oak ash, elder hypereutrophicated due to duck farm

Vice-county West Suffolk 2 V.C. 26 Code 1

Name C.J.R. Hitch (Hitch Smith) Date 25042003

0010 Acarospora fuscata
0021 rufescens
0025 smaragdula
0036 Acrocordia salweyi
0038 Agonimia tristicula
0212 Amandinea punctata
0049 Anisomeridium nyssaegenum
0063 Arthonia impolita
0064 lapidicola
0068 punctiformis
0070 spadicea
1542 Arthopyrenia punctiformis
0103 Aspicilia calcarea
0107 contorta
0124 subcircinata
0132 Bacidia arnoldiana
0137 caligans
0140 chloroticula
0144 delicata
0165 sabuletorum
1593 saxenii
1583 viridifarinosa
0176 Baeomyces rufus
0200 Buellia aethalea
0219 ocellata
0231 Calicium viride
0239 Caloplaca aurantia
0263 chlorina
0247 citrina *c*
c flavocitrina
0285 dalmatica
0250 decipiens
0259 flavescens
0261 holocarpa
0271 obscurella
0275 ruderum
0277 saxicola
0281 teicholyta
0291 Candelariella aurella
0296 medians
0297 reflexa
0298 vitellina *v*
v flavovirella
0306 Catillaria chalybeia
0311 lenticularis
0430 Cetraria aculeata
0470 Chaenotheca brachypoda
0344 ferruginea
0354 Chrysothrix candelaris
0372 Cladonia ciliata *c*
0373 *c tenuis*
0375 coniocraea
1749 diversa
0384 fimbriata
0386 floerkeana (4)
0387 foliacea
0399 furcata
0391 glauca
0392 gracilis
0376 humilis
0396 macilenta
0409 portentosa
0410 pyxidata
0359 ramulosa
0412 rangiformis
0422 subulata
0426 uncialis *biuncialis*
0751 Clauzadea monticola
0429 Cliostomum griffithii
0433 Collema auriforme
0440 crispum
0460 tenax *ceranoides*
0474 Cyphelium inquinans
0489 Dimerella pineti
0491 Diploicia canescens
0494 Diploschistes muscorum
0495 scruposus
0496 Diplotomma alboatrum
0500 Dirina massiliensis *sorediata*
0504 Enterographa crassa
0511 Evernia prunastri
0533 Graphis scripta
0547 Gyalideopsis anastomosans
0555 Haematomma ochro. *porphyrium*
1125 Hyperphyscia adglutinata
0578 Hypocenomyce scalaris
0582 Hypogymnia physodes
0583 tubulosa
0613 Lecania cyrtella
0617 erysibe *sorediata*
1625 hutchinsiae
1691 turicensis
0627 Lecanora albescens
0635 campestris
0636 carpinea
0639 chlarotera
0643 conizaeoides
0644 crenulata
0646 dispersa
0649 expallens
0661 muralis
0757 orosthea
0667 polytropa
0675 saligna
0679 soralifera
0783 sulphurea
0688 symmicta
0690 varia
0724 Lecidea fuscoatra
0796 Lecidella carpathica

0797	elaeochroma	0732	icmalea
0802	scabra	0788	uliginosa
0803	stigmatea	1139	Placynthium nigrum
0820	Lepraria incana	1167	Polysporina simplex
1628	lesdainii	1168	Porina aenea
1629	lobificans	1690	Porpidia soredizodes
1604	Leproloma vouauxii	0572	tuberculosa
0825	Leproplaca chrysodeta	1189	Protoblastenia rupestris
0849	Leptogium turgidum	1200	Psilolechia lucida
0877	Micarea denigrata	1228	Pyrrhospora quernea
0719	erratica	1234	Ramalina farinacea
0885	nitschkeana	1266	Rhizocarpon reductum
0887	prasina	1289	Rinodina gennarii
1026	Neofuscelia verruculifera	1300	teichophila
0926	Ochrolechia parella	1306	Sarcogyne regularis
0938	Opegrapha atra	1307	Sarcopyrenia gibba
0940	calcarea	1315	Schismatomma decolorans
0953	niveoatra	1320	Scoliciosporum chlorococcum
0954	ochrocheila	1322	umbrinum
0964	varia	0630	Tephromela atra
0965	vermicellifera	1385	Thelidium decipiens
0943	vulgata	1389	incavatum
0987	Parmelia caperata	1415	Toninia aromatica
0998	glabr. *fuliginosa*	1431	Trapelia coarctata
1005	mougeotii	1432	involuta
1013	revoluta	1434	obtegens
1020	subaurifera	1595	placodioides
1021	subrudecta	0692	Trapeliopsis flexuosa
1022	sulcata	0727	granulosa
1034	Parmeliopsis ambigua	1471	Usnea subfloridana
1008	Parmotrema chinense	1479	Verrucaria baldensis
1053	Peltigera didactyla	1619	dolosa
1043	lactucifolia	1492	glaucina
1047	membranacea	1495	hochstetteri
1051	rufescens	1502	macrostoma *m*
1058	Pertusaria amara *a*	1519	m *furfuracea*
	a *flotowii*	1507	muralis
1087	pertusa	1510	nigrescens *n*
1106	Phaeophyscia nigricans		n *sorediata*
1107	orbicularis	1518	viridula
1110	Phlyctis argena	1526	Xanthoria calcicola
1112	Physcia adscendens	1527	candelaria
1114	caesia	1530	parietina
1116	dubia	1531	polycarpa
1120	tenella		ucranica
1127	Physconia grisea		
1735	Placynthiella dasaea		

62/02.78.

Allied fungi

1501	Arthonia clemens	0911	Mycoporum hippocastani *h*
2015	Athelia arachnoidea		h *majus*
2019	Bispora christiansenii	0912	quercus
2091	Lichenoconium erodens	2165	Polycoccum pulvinatum
2092	lecanorae	2261	Vouauxiella lichenicola
2095	xanthoriae	2266	Vouauxiomyces truncatus
2096	Lichenodiplis lecanorae	2267	Weddellomyces epicallopsimum
2116	Muellerella lichenicola	2272	Xanthoriicola physciae

Additions:- Cladonia cervicornis
Arthonia radiata
Punctelia ulophylla
Cladonia diversa
Cladonia pyxidata

herbarium material. (H)

Micarea micrococca
Micarea viridileprosa
Macentina stigonemoides
Bacidia cf adastra