

Fungi

Tony Leech

Introduction

During 2024 members of the Norfolk Fungus Study Group, and others, maintained momentum by submitting over 12,000 records of fungi in the county. Whilst most were for widespread species, a fair sprinkling were rarities, or at least of species not widely recorded. Those not hitherto recorded in Norfolk are presented in these notes.

The DNA team has met regularly to extract samples and, between sessions, to evaluate the results. The latter process is not straightforward but can be fascinating. In general, specimens collected in 2024 are sequenced in the following year, so many of the accounts below depend on sequencing carried out in 2025.

What it means to be British

Rarity is not a virtue in itself (especially for the organism involved) but it does excite many recorders: new for the site, new for Norfolk, new for Britain! But consider what 'new for Britain' means for fungi. If a species has authentically occurred in Britain it will be on the United Kingdom Species Inventory (UKSI), a database which, for fungi, is curated by the Natural History Museum. If it is not on UKSI, a fungal species cannot be entered onto the national database. Understandably, rigorous criteria must be met before a species is accepted and this can take time. A number of species described below do not appear to have been previously recorded in Britain and for some we will be submitting an application for their consideration.

The fibrecap, *Inocybe tarda*, however, has been accepted, making that found by Tony Moverley, on a roadside verge near his home in Holt in October 2024, the first



Figure 1. *Inocybe tarda*. Tony Moverley.

British record (Fig. 1). This genus, of mostly small brown or grey mushrooms, presents challenging identification problems and recent molecular advances have revealed many hitherto unknown species. Our DNA barcoding produced a very good match with *I. tarda*, a European species found on sandy soils under pine. The collection has been deposited at Kew (K-M001445550).

A second, potentially 'new for Britain' fungus, is a brittlestem *Psathyrella owyheensis* found by Yvonne Mynett in woodland at Stonehouse Farm, Bridgham in October 2024. Its DNA was a very good match for this species, and its identity confirmed by Leif Örstadius, European expert on this genus, so an application to the UKSI will be made. There will still be many species awaiting description by professional taxonomists. Another, quite large, fibrecap, found at Watermill Broad, Cranwich near a beech tree had been puzzling us for some time (Fig. 2). Collected in October 2022 on a NFSG recording foray, its DNA was a close match for another recently defined European species, *Inocybe griseotarda* but this species occurs under pine. Vasco Faschada, who had worked



Figure 2. *Inocybe arrabidensis*. Tony Leech.

in the group responsible for defining this species, has recently moved to Kew and we are grateful to him for the advice that our material more closely resembles a yet undescribed species occurring under beech which has been given the provisional name '*Inocybe arrabidensis*'. It is interesting to note that each of these three fungi were initially identified as a different species by experienced field mycologists, thus underlying the revolutionary value of DNA barcoding.

Brackets with gills

Polypore brackets are not the only fungi that grow stemless, horizontally from trunks and logs. This growth form has been adopted by numerous unrelated gill fungi. These are collectively known as pleurotioid fungi, after one of their largest examples, Oyster Fungus *Pleurotus ostreatus*, but most are much smaller and have acquired the English group name of oysterlings. Most are pale or brown although the **Cinnabar Oysterling** *Crepidotus cinnabarinus* is unmistakably orange-red – but rare. The first Norfolk specimen was recorded by Mark Joy at Hillington in 2017 and in November 2024 a fine specimen was noted and photographed by Trevor Atkins in Ladybelt County Park,



Figure 3. *Crepidotus cinnabarinus*. Trevor Atkins.

Ketteringham (Fig. 3). Most records for this rare fungus are from the west of England. Because of its distinctive appearance it was assumed that DNA sequencing would confirm its identity but only a poor match was obtained. It transpires that all the comparison sequences were from North American specimens so it is possible that the British fungus is actually a new, and undescribed, species. This possibility is being pursued.

The find of an arguably less exciting looking (but significantly less recorded) pleurotioid fungus was made by James Emerson when he encountered the **Pinkspored Oysterling** *Clitopilus daamsii* at Sporle Wood in November 2024 for the first time in Norfolk – indeed there appear to be only four other British records (Fig. 4). Steve Judd was able to identify the oysterling from measurement of its pink spores.

An even smaller pleurotioid, *Resupinatus europaeus* was collected and identified by Jeremy Bartlett at Sporle Wood in November 2024 on conifer wood chips.

Inkcaps and their relatives

At one time, all inkcaps were placed in the genus *Coprinus* but once molecular evidence revealed that species belonged in two different families they were split into four genera. Of the 120 or so British species only three remain as *Coprinus*. Coprinoids, as they are now collectively called, are a particular interest of Yvonne Mynett who has added two more to the Norfolk list. The first of these was **Threespored Inkcap** *Coprinopsis trispora* found on pony dung on Holt Lowes in September 2024. Unusually, and as its specific name suggests, most of its basidia on the gills bear three spores, rather than the normal four. It has rarely been recorded in Britain and its identity was confirmed by DNA barcoding.

The second was **Exquisite Inkcap** *Coprinopsis bellula* collected from rotten alder wood at Lynford Arboretum in September 2024, also confirmed by barcoding and again with few British records (Fig. 5). *C. bellula* is one of a number of two-spored coprinoids which pair with otherwise similar four-spored forms. The debate as to whether these are truly



Figure 4. *Clitopilus daamsii*. Steve Judd.



Figure 5. *Coprinopsis bellula*. Yvonne Mynett.



Figure 6. *Coprinopsis alnivora*. Jeremy Bartlett.

separate species or variants continues, as summarised by national expert Derek Schafer's comments on our results:

C. bellula seems to be one of those intriguing two-spored taxa that match, or almost match, their four-spored sisters. In the Wächter & Melzer (2020) paper they label them as separate but question that in the discussion. I am close to labelling them as temporary sympatric species, that is, they switch and become isolated biologically, so distinct species when studied in culture but exchanging their genes again when the process flips back, maybe over hundreds or thousands of years.

A rather larger inkcap, emerging from a wound in an oak tree about 1.5 metres from the ground, was found by Jeremy Bartlett at Sennowe Park, near Guist in April 2024 (Fig. 6). He was able to access a *Wild New Forest* Facebook page (<https://www.wildnewforest.co.uk/post/wild-new-forest-find-a-potential-first-for-britain-the-inkcap-fungus-coprinopsis-alnivora>) that described the discovery of the first British specimen of **Rothole Inkcap** *Coprinopsis alnivora* in 2022 and realised that his inkcap was probably also this species, as was later confirmed by DNA barcoding.



Figure 7 left. *Psathyrella cortinarioides*. Jeremy Bartlett.

Figure 8 right. *Psathyrella scatophila*, Tony Leech.

As hinted above, the majority of coprinoids are now placed in the family Psathyrellaceae rather than the Agaricaceae. This places them with another large genus of mostly small fungi, *Psathyrella*, known as brittlestems. When Jeremy Bartlett encountered what he thought was a brown webcap at Stonehouse Farm, Bridgham in November 2024 (Fig. 7) he was surprised to discover from its DNA barcode that it was actually *Psathyrella cortinarioides* masquerading as a *Cortinarius* – the specific name exonerates Jeremy!

Knowing of his predilection for coprophilous fungi, a dog-walking friend brought Tony Leech a fungus collected from pony dung on Holt Lowes (Fig. 8). More attractive than most members of the genus, it turned out to be the second British record of *Psathyrella scatophila*.

Brown webcaps revisited

The webcap genus *Cortinarius* is the largest in Britain with at least 325 species. The number was much larger until recent sequencing work on types established that many of these were synonyms (Liimatainen, *et al*, 2020). Although some of the webcaps are large and colourful, about half are brown and mostly small. Lacking many distinguishing microscopic features, these have largely been ignored by mycologists in the county but a well-illustrated monograph (Kibby & Tortelli, 2021) made possible by the molecular work has reignited interest. Provisional identifications, often still wrong, can be confirmed, or otherwise by DNA barcoding (Table 1).

More Norfolk novelties

Clavarioid fungi (clubs, spindles and corals) are the C-group in the CHEGD abbreviation used to represent the five groups of fungi which indicate a grassland mycota of conservation significance. When plans to replace the Orangery Lawn at Felbrigg Hall with a new garden were being drawn up, National Trust managers noted that members of NFSG had recorded a significant number of CHEGD species on Felbrigg lawns. Accordingly, Vicky Rusby and Neil Mahler were commissioned to carry out a fruit body survey in November 2023 during which they found a *Ramariopsis* sp. which Neil tentatively identified as *Ramariopsis robusta*, a rare coral fungus not previously recorded in Norfolk (Fig.14). Confirmation of this was only possible

Table 1. New for Norfolk *Cortinarius* species barcoded in 2024.

Collectors: JB Jeremy Bartlett, GK Geoffrey Kibby, TL Tony Leech, VB Vanna Bartlett.

FRDBI - Fungal Record Database of Britain and Ireland

Species	Coll.	Date	Place	Prev. FRDBI
<i>C. geraniolens</i>	JB	Nov 2024	Coston Church	12 Fig. 9
<i>C. incisior</i>	JB	Nov 2024	Sporle Wood	2 Fig. 10
<i>C. lacustris</i>	JB	Oct 2024	Sweet Briar Marshes	27 Fig. 11
<i>C. lignicola</i>	GK	Oct 2024	Sennowe Pk. Guist	0 Fig. 12
<i>C. lignicola</i>	GK	Nov 2024	Litcham Common	
<i>C. punctatiformis</i>	TL	Sept 2024	Holt Lowes	2 Fig. 13
<i>C. punctatiformis</i>	VB	Oct 2024	Broadland CP	



Figure 9 top left. *Cortinarius geraniolens*. Jeremy Bartlett.



Figure 10 top centre. *Cortinarius incisor*. Jeremy Bartlett.



Figure 11 top right. *Cortinarius lacustris*. Jeremy Bartlett.

Figure 12 bottom left.

Cortinarius lignicola. Jeremy Bartlett.



Figure 13 *Cortinarius punctatiformis*. Tony Leech.



when an authentic DNA sequence became available in 2025 and a 100% match was shown. Plans for disturbing the lawn have now been abandoned.

Pallid Club *Clavaria crosslandii*, a small white spindle fungus growing in grass, was



Figure 14. *Ramariopsis robusta*. Tony Leech.

recorded by Jenny Kelly on the Ken Hill Estate in November 2024. There are very few British records.

Zoned Rosette *Podoscypha multizonata*, a striking clustered polypore, was found by Anne Edwards in October 2024 growing at the base of a boundary oak tree at Hethersett (Fig. 15). It is scarce outside the Greater London area.

A further three gill fungi collected in 2024 proved to be new for the county with all identifications confirmed by DNA barcoding:

Warty Dapperling *Echinoderma perplexum*. Found by Ian Senior in woodland at Great Hockham in October 2024 and identified by Anne Crotty. Uncommon but quite widely recorded in Britain.

Least Pinkgill *Entoloma rhodocylix*. Found and identified by Yvonne Mynett, growing



Figure 15. *Podoscypha multizonata*. Jeremy Bartlett.

with moss in wet woodland at Holt Lowes in September 2024. There are about 25 British records

Rugosomyces obscurissimus (Fig. 16). Found by Ian Senior at Earlham Cemetery in grass under lime trees in November 2024. Identification made by Geoffrey Kibby from a Facebook posting. Uncommon but quite widely recorded in Britain.

Two encrusting (resupinate) fungi new to Norfolk were recorded and identified by Stewart Wright in 2024:

Peniophora proxima. Found in three locations (Lynford Arboretum, Repps-with-Bastwick and Little Plumstead) in November 2024. This fungus is restricted to dead Box *Buxus sempervirens*.

Vuilleminia cystidiata. Found at East Harling Common in November and Hoveton Hall in December 2024. This fungus is also virtually host specific, in this case on Hawthorn *Crataegus monogyna*.

Neither of these species are nationally rare but have to be searched for by somebody who knows what they are looking for.

Microfungi

Microfungi are not a discrete taxonomic group but a convenient way of referring to a very large number of small species, mostly ascomycetes and their asexual forms, which are generally under-recorded



Figure 16. *Rugosomyces obscurissimus*. Ian Senior.

although many are widespread. Most are restricted to a small number of host plants, living or dead, so a requirement for their study is to be a proficient botanist. Stewart Wright is such a person and contributes an enormous number of fungus records to the Norfolk Mycota each year and, amazingly, the number of these that are new to Norfolk does not diminish. His 2024 records, together those from a few other recorders, are shown in Table 2 (p. 178).



Figure 17. *Bryonectria hypothallina*, a parasite on the underleaf of the moss *Metzgeria furcata* which it kills. George Grieff, who found the first British specimen in 2018, has confirmed the identification. Rob Yaxley.



Figure 18. *Clavariopsis aquatica*. Fungi that decompose plant material in fresh water are not easily studied directly but their often bizarre conidia (asexual spores) can be collected from the foam that accumulates in disturbed water. Tony Moverley recorded this at Selbrigg Pond near Holt in February 2024. *Tony Moverley*.



Figure 21. *Onygena equina*. When is a Norfolk record not a Norfolk record? Mary Goddard reported this fungus growing on a sheep's horn in her garden. But she had collected the skull in either Wales or the Lake District! *Mary Goddard*.



Figure 19. *Hypoxylon fuscooides*. Until recently, any *Hypoxylon* species occurring on dead Alder was recorded as the very common *H. fusca* but there is a second species, *H. fuscooides*, difficult or impossible to distinguish in the field but which sheds a purple pigment in potassium hydroxide solution (right). Regular *H. fusca* releases an orange-brown pigment. *Tony Leech*.



Figure 22. *Zyzygomyces bachmannii*. This orange fungus is parasitic on the lichen *Cladonia rangiformis* and was recorded at Snettisham by a visiting lichenologist. The only previous records on FRDBI are one from Scotland and one from Wales. *Martina Sekirnik*.

Figure 20. *Leptotrochila astrantiae* right. In August 2024, Royal Horticultural Society plant pathologist Fay Newbery contacted NFSG to enquire whether we had been finding *L. astrantiae*, a leafspot fungus on cultivated *Astrantia major*, in Norfolk. She had found it in Yorkshire but there were only four records on FRDBI. Tony Leech found it immediately in his garden and at about the same time three other members of NFSG reported finding it, too. *Tony Leech*.



Table 2. Microfungi added to the Norfolk list in 2024. Identifiers/confirmer: AB Andy Beaumont, AC Anne Crotty, CP Chris Preston, DC Duerden Cormack, FN Fay Newbery, IS Ian Senior, JB Jeremy Bartlett, JE James Emerson, MG Mary Goddard, MS Martine Sekirnik, RY Rob Yaxley, SW Stewart Wright, TL Tony Leech, YM Yvonne Mynett. In most cases the identifier was the collector. Notes: 0 = no UK records on FRDBI or NBN; x = not on UKSI (in most cases because they have been split from existing species due to host-specificity.)

* Confirmed by Danny Haelewaters.

Species	Place	Substrate	Associated organism	Ident. Notes
<i>Acrogenospora sphaerocephala</i>	Buxton Heath, Hevingham	rotten wood		SW
<i>Actinocladium rhodosporum</i>	Buxton Heath, Hevingham	dead wood	<i>Ulex europaeus</i>	SW
<i>Alatospora acuminata</i>	Costessey, Costessey Mill	foam		FN
<i>Alternaria anagallidis</i>	Hoveton Hall	living leaf	<i>Anagallis arvensis</i>	SW
<i>Amphiportha hranicensis</i>	Tacolneston Hall	fallen branch	<i>Tilia</i>	TL
<i>Aquanectria submersa</i>	Costessey, Costessey Mill	foam		FN
<i>Ascobolus lignatilis</i>	Sutton Fen	rotten wood		YM
<i>Ascochyta boltshauseri</i>	Ashmanhaugh	living leaf	<i>Phaseolus</i>	SW 0
<i>Ascochyta kabatiana</i>	Hoveton Hall	living leaf	<i>Laburnum x watereri</i>	SW
<i>Ascochyta sonchi</i>	Blofield	living leaf	<i>Sonchus oleraceus</i>	SW
<i>Basidiophora entospora</i>	Hoveton Hall	living leaf	<i>Conyza sumatrensis</i>	SW 0
<i>Botrytis croci</i>	Repps-with-Bastwick	dead leaf	<i>Crocus tommasinianus</i>	SW 0
<i>Botrytis globosa</i>	Dillington Carr	live leaf	<i>Allium ursinum</i>	SW
<i>Botrytis sphaerosperma</i>	Hoveton Hall	decaying leaf	<i>Allium triquetrum</i>	SW
<i>Bryonectria hypothallina</i>	Foxley Wood	moss	<i>Metzgeria furcata</i>	RY Fig.17
<i>Calycellina asperipila</i>	Repps-with-Bastwick	dead leaf	<i>Alnus glutinosa</i>	SW 0
<i>Camarosporium robiniae</i>	Lynford Arboretum	dead twig	<i>Robinia pseudoacacia</i>	SW
<i>Cejpina hystrix</i>	Buxton Heath, Hevingham	dead stem	<i>Molinia caerulea</i>	SW
<i>Cercophora sulphurella</i>	South Walsham	dead wood		SP
<i>Ceriospora polygonacearum</i>	Hoveton Hall	dead stem	<i>Fallopia japonica</i>	SW
<i>Ciliolarina laricina</i>	Bacton Woods	dead twig	<i>Larix decidua</i>	SW
<i>Clavariopsis aquatica</i>	Selbrigg Pond	foam		TM Fig. 18
<i>Coleophoma prunicola</i>	Hoveton Hall	dead leaf	<i>Prunus lusitanica</i>	SW
<i>Colletotrichum samararum</i>	Shotesham	keys	<i>Fraxinus excelsior</i>	SW
<i>Cosmospora arxii</i>	Hoveton Hall	stromata	<i>Hypoxylon fragiforme</i>	SW
<i>Dacryobolus karstenii</i>	Dersingham Bog	dead wood	<i>Betula</i>	AC
<i>Dendrostilbella smaragdina</i>	West Acre	conifer wood		SW
<i>Dendrostoma castaneum</i>	West Acre	fallen twig	<i>Castanea sativa</i>	SW
<i>Diaporthe insignis</i>	Repps-with-Bastwick	dead stem	<i>Rubus fruticosus</i>	SW
<i>Diaporthe intermedia</i>	Repps-with-Bastwick	dead stem	<i>Saponaria officinalis</i>	SW 0
<i>Diaporthe minuscula</i>	Repps-with-Bastwick	dead stem	<i>Campanula trachelium</i>	SW 0
<i>Diaporthe oncostoma</i>	Hoveton Hall	dead twig	<i>Robinia pseudoacacia</i>	SW
<i>Diaporthe phaseolorum</i>	Repps-with-Bastwick	dead stem	<i>Phaseolus</i>	SW
<i>Diaporthe sorbariae</i>	Repps-with-Bastwick	dead twig	<i>Spiraea x billardii</i>	SW 0
<i>Diatrype decorticata</i>	Baconsthorpe	dead wood	<i>Corylus</i>	TL
<i>Didymaria linariae</i>	Sutton Fen	live leaf	<i>Linaria purpurea</i>	SW
<i>Didymascella thujina</i>	Hoveton Hall	dead leaf	<i>Thuja occidentalis</i>	SW
<i>Didymella bryoniae</i>	Earlham Cemetery East	dead stem	<i>Bryonia dioica</i>	JB
<i>Didymella caulicola</i>	Dillington Carr	dead stem	<i>Dipsacus fullonum</i>	SW
<i>Diplodia lonicerae</i>	Bacton Woods	dead stem	<i>Lonicera periclymenum</i>	SW

Species	Place	Substrate	Associated organism	Ident. Notes
<i>Diplodia magnoliae</i>	Tacolneston Hall	dead leaf	<i>Magnolia grandiflora</i>	SW
<i>Discinella boudieri</i>	Winterton Dunes	sandy soil		SW
<i>Dothiorella candollei</i>	Shotesham	dead leaf	<i>Buxus sempervirens</i>	SW
<i>Drepanopeziza populi</i>	Bridgham, Stonehouse Farm	fallen leaf	<i>Populus x canadensis</i>	SW
<i>Elsinoe pyri</i>	Hoveton Hall	living leaf	<i>Malus</i>	SW
<i>Endophragmiella boothii</i>	Buxton Heath, Hevingham	dead wood	<i>Ulex europaeus</i>	SW
<i>Entomophthora syrphi</i>	Foxley Wood		<i>Melanostoma scalare</i>	SW
<i>Entomophthora trinucleata</i>	Barton Turf	dead sciarid fly		AB x
<i>Entyloma boraginis</i>	Repps-with-Bastwick	living leaf	<i>Borago officinalis</i>	SW x
<i>Entyloma serotinum</i>	Hoveton Hall	living leaf	<i>Amsinckia micrantha</i>	SW
<i>Epichloe bromicola</i>	Dickleburgh Moor	live stem	<i>Bromus sterilis</i>	SW
<i>Erysiphe elevata</i>	Hoveton Hall	living leaf	<i>Catalpa bignonioides</i>	SW
<i>Erysiphe friesii</i>	Hethel	living leaf	<i>Rhamnus cathartica</i>	JB
<i>Erysiphe prunastri</i>	Norwich, UEA	living leaf	<i>Prunus cerasifera</i>	JB
<i>Erysiphe viburniphila</i>	Norwich city	living leaf	<i>Viburnum tinus</i>	JB x
<i>Eutypa ulicis</i>	East Harling Common	dead twig	<i>Ulex europaeus</i>	SW
<i>Gnomoniella rubicola</i>	Weeting	dead stem	<i>Rubus fruticosus agg.</i>	SW
<i>Golovinomyces biocellatus s. str</i>	Welney		<i>Glechoma hederacea</i>	CB
<i>Heterosphaeria linariae</i>	Little Plumstead	dead stem	<i>Linaria purpurea</i>	SW
<i>Hypoxylon fuscoides</i>	Buxton Heath, Hevingham	dead wood	<i>Alnus glutinosa</i>	SW Fig. 19
<i>Intralichen christiansenii</i>	Beeston Regis	apothecia	<i>Caloplaca flavescens</i>	SW
<i>Laboulbenia flagellata *</i>	East Wretham Heath	carabid beetle	<i>Laenostenus terricola</i>	DC
<i>Laetinaevia minutissima</i>	Hoveton Hall	dead stem	<i>Cruciata laeovipes</i>	SW
<i>Leptosphaeria cesatiana</i>	Cranwich Camp	dead stem	<i>Echium vulgare</i>	SW 0
<i>Leptosphaeria haematites</i>	Swardeston Carrs	dead stem	<i>Clematis vitalba</i>	SW
<i>Leptostroma osmundicola</i>	How Hill (Ludham)	dead petiole	<i>Osmunda vitalis</i>	SW
<i>Leptotrochila astrantiae</i>	Little Plumstead	living leaf	<i>Astrantia major</i>	SW Fig. 20
<i>Lophodermium piceae</i>	Lynford Arboretum	dead needles	<i>Abies procera</i>	SW
<i>Lylea tetracoila</i>	Holt	fruitbody		TL
<i>Mariannaea elegans</i>	Repps-with-Bastwick	split logs	<i>Acer pseudoplatanus</i>	SW
<i>Marssonina sorbi</i>	Sweet Briar Marshes (East)	live leaf	<i>Sorbus intermedia</i>	SW
<i>Mastigosporium album</i>	Ashwellthorpe Lower Wood	living leaf	<i>Alopecurus pratensis</i>	SW
<i>Mastigosporium deschampsiae</i>	Ashwellthorpe Lower Wood	living leaf	<i>Deschampsia cespitosa</i>	SW
<i>Mastigosporium muticum</i>	Swardeston Carrs	live leaf	<i>Dactylis glomerata</i>	SW
<i>Mastigosporium rubricosum</i>	Sutton Fen	live leaf	<i>Calamagrostis</i>	SW
<i>Microbotryum kuehneanum</i>	Buxton Heath, Hevingham	inflorescence	<i>Rumex acetosella</i>	SW
<i>Microbotryum stygium</i>	Thompson Common	flowers	<i>Rumex acetosa</i>	SW
<i>Microdiplodia narthecii</i>	Dersingham Bog	dead penduncles	<i>Narthecium ossifragum</i>	SW
<i>Milospium graphideorum</i>	Felbrigg Park	thallus	<i>Sporodophoron cretaceum</i>	RY
<i>Monacrosporium subtile</i>	How Hill (Ludham)	hyphomycete	<i>Viscum album</i>	TL
<i>Morenoina clarkii</i>	Hoveton Hall	dead stem	<i>Rubus idaeus</i>	SW
<i>Mycosphaerella cerasella</i>	Hoveton Hall	living leaf	<i>Prunus domestica</i>	SW
<i>Nectriopsis rexiana</i>	Tacolneston Hall	myxocarp		TL
<i>Neonectria lugdunensis</i>	Costessey, Costessey Mill	foam		FN

Species	Place	Substrate	Associated organism	Ident. Notes
<i>Neopseudocercospora capsellae</i>	Wisbech	living leaf	<i>Sinapis arvensis</i>	IS
<i>Niptera lacustris</i>	Hoveton Hall	dead stem	<i>Phragmites australis</i>	SW
<i>Nodulisporium cecidiogenes</i>	Holt Country Park	fungus	<i>Coniophora puteana</i>	JE
<i>Onygena equina</i>	Hindolveston	sheep skull		MG Fig. 21
<i>Peronospora arabidis-glabrae</i>	Ickburgh	seed pod	<i>Arabis glabra</i>	IS x
<i>Peronospora erythraeae</i>	Winterton Dunes	living leaf	<i>Centaurium erythraea</i>	SW
<i>Peronospora hyoscyami</i>	Little Plumstead	living leaf	<i>Nicotiana</i>	SW
<i>Peronospora parva</i>	Barton Turf	living leaf	<i>Stellaria holostea</i>	SW
<i>Peronospora rumicis</i>	Hoveton Hall	inflorescence	<i>Rumex acetosa</i>	SW
<i>Peronospora trifolii-arvensis</i>	Repps-with-Bastwick	living leaf	<i>Trifolium dubium</i>	SW
<i>Peronospora trifoliorum</i>	Sutton Fen	live leaf	<i>Trifolium repens</i>	SW 0
<i>Phomatodes nebulosa</i>	Repps-with-Bastwick	dead stem	<i>Alcea rosea</i>	SW
<i>Phomopsis sophorae</i>	Repps-with-Bastwick	dead twig	<i>Styphnolobium japonicum</i>	SW
<i>Phyllactinia mali</i>	Sweet Briar Marshes (East)	live leaf	<i>Crataegus monogyna</i>	SW
<i>Phyllactinia marissalii</i>	Sweet Briar Marshes (East)	live leaf	<i>Acer pseudoplatanus</i>	SW
<i>Phyllosticta foliorum</i>	Hoveton Hall	dead leaf	<i>Taxus baccata</i>	SW
<i>Phyllosticta lauri</i>	Tacolneston Hall	living leaf	<i>Laurus nobilis</i>	SW
<i>Phyllosticta pseudacori</i>	How Hill (Ludham)	living leaf	<i>Iris pseudacorus</i>	SW 0
<i>Phyllosticta ruscicola</i>	Tacolneston Hall	cladode, live	<i>Ruscus aculeatus</i>	SW
<i>Phyllosticta syringae</i>	Bridgham, Stonehouse Farm	live leaf	<i>Syringa vulgaris</i>	SW
<i>Pirottaea symphyti</i>	Santon Downham	dead stem	<i>Symphytum officinale</i>	SW
<i>Plasmopara petroselinii</i>	Ashmanhaugh	living leaf	<i>Petroselinum crispum</i>	SW 0
<i>Pocillum cesatii</i>	Sutton Fen	dead leaf, wet	<i>Quercus robur</i>	SW 0
<i>Podosphaera collomiae</i>	Norwich city	living leaf	<i>Phlox paniculata</i>	JB 0
<i>Podosphaera pruni-lusitanicae</i>	South Walsham	live leaf	<i>Prunus lusitanica</i>	SW 0
<i>Pseudoidium neolycopersici</i>	Norwich, Earlham Road	living leaf	<i>Solanum lycopersicum</i>	IS 0
<i>Pustula obtusata</i>	Welney		<i>Senecio vulgaris</i>	CB 0
<i>Pyrenopeziza galii</i>	Ashwellthorpe Lower Wood	dead stem	<i>Galium aparine</i>	SW
<i>Pyrenopeziza karstenii</i>	Tacolneston Hall	dead leaf	<i>Dactylis glomerata</i>	SW
<i>Pyrenopeziza polygoni</i>	Hoveton Hall	dead stem	<i>Persicaria amphibia</i>	SW
<i>Pyrenophora biseptata</i>	Hoveton Hall	dead inflorescence	<i>Holcus lanatus</i>	SW
<i>Ramularia succisae</i>	Sweet Briar Marshes (East)	live leaf	<i>Succisa pratensis</i>	SW
<i>Rhymocarpus cruciatus</i>	Hoveton Hall	thallus	<i>Diploicia canescens</i>	SW
<i>Scolecopusarium ciliatum</i>	Wheatfen, Surlingham	dead stem	<i>Typha latifolia</i>	SW
<i>Septoria armoraciae</i>	Norwich, Chapel Break	living leaf	<i>Armoracia rusticana</i>	IS
<i>Septoria dianthi</i>	Repps-with-Bastwick	living leaf	<i>Dianthus caryophyllus</i>	SW
<i>Septoria matricariae</i>	Sutton Fen	live leaf	<i>Matricaria discoidea</i>	SW
<i>Septoria tanacetii</i>	East Harling Common	living leaf	<i>Tanacetum vulgare</i>	SW 0
<i>Spiloma auratum</i>	Shotesham	thallus	<i>Dirina massiliensis</i>	JE
<i>Sporidesmium cookei</i>	Catfield	dead wood	<i>Sambucus nigra</i>	SW
<i>Stemphylium vesicarium</i>	Holkham Hall	living leaf	<i>Allium ampeloprasum</i>	SW
<i>Tetracladium marchalianum</i>	Costessey, Costessey Mill	foam		FN
<i>Tremella polyporina</i>	Sporle Wood	fruitbody	<i>Bjerkandera adusta</i>	SW
<i>Tricladium angulatum</i>	Costessey, Costessey Mill	foam		FN

Species	Place	Substrate	Associated organism	Ident. Notes
<i>Uromyces minor</i>	Repps-with-Bastwick	living leaf	<i>Trifolium dubium</i>	SW
<i>Venturia oleaginea</i>	Felbrigg Park	living leaf	<i>Olea europaea</i>	JE
<i>Zygomycetes bachmannii</i>	Snettisham	lichen	<i>Cladonia rangifera</i>	MS Fig. 22

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