Wildlife Report 2010

Fungi

Tony Leech

Coral Tooth *Hericium coralloides*, Whitlingham Country Park. *Anne Crotty.*

Despite the fact that over 3200 species of fungi have now been recorded from Norfolk, new county records continue to be made. Some of these species are genuine newcomers, but others are added as a result of more intensive searching, the better availability of good identification literature and a greater number of interested naturalists. As an example of the last, Anne Crotty has contributed no fewer than four new county fungus records this year. Her main expertise lies in fungi on treesb, especially brackets, so it was appropriate that she noticed *Inonotus cuticularis* in 2009 growing in a hollow dead Beech tree at Holt Hall (TG0739) and confirmed it in 2010. Jonathan Revett found the same species in West Norfolk in 2010 (St Helens TL8287). *I. cuticularis* is not a particularly rare fungus nationally, with the majority of records coming from the London area, Sussex and Hampshire, but it had hitherto escaped the eyes of Norfolk mycologists.

A second bracket found by Anne, on worked wood on a bench at Whitlingham Country Park (TG2607), looked at first to be Conifer Mazegill *Gloeophyllum sepiarum,* which is common in Scotland but for which there are only two Norfolk records. However, the Whitlingham specimen possessed sinuous and convoluted pores rather than the slit-like pores of *G. sepiarum*. This raised the possibility that the bracket was actually the much rarer *G. trabeum,* for which there have been very few British records and which has Red Data List 2 Endangered status (see photograph on inside back cover). Martyn Ainsworth (RBG Kew) has kindly confirmed that it is indeed the latter species. As often seems to happen, a second specimen of this species was found a few weeks later, on a boardwalk at Sculthorpe Moor (TF9030).

Anne Crotty's contributions have also included two species from her greenhouse at Whitlingham (TG2707); *Conocybe vexans*, a small brown agaric with a ring (see photograph on inside back cover), and *Lepiota* (=*Echinoderma) carinii*. The latter resembles a tiny version of the Freckled Dapperling *Lepiota (=Echinoderma) aspera* and has been recorded from only three other sites in Britain. It is probable that neither of these new fungi would have been identified had it not been for the publication of *Funga Nordica*, a compendious set of keys to the agarics of Northern Europe.

Janet Metcalfe also has a keen eye for the unusual. In May she sent me specimens of an irregular yellow discomycete that she

had found in a bag of peat-free compost packed in County Tyrone. It turned out to be *Otidea (= Flavoscypha) phlebophora*, now flagged up as a Red Data Book species, designated Vulnerable/Rare. Most of the post-1990 records are from Perthshire and may refer to only two sites, but during the 20th century it has occurred in a few places in England. Given that it is growing in a bag of imported compost, is this a Norfolk record?

Janet's second find was on a roadside verge near her home at Barnham Broom (TG0807). She and her mother (Lil Evans) were in no doubt that it was an unusual ring-less *Amanita* (formerly *Amanitopsis*), but which one? After much deliberation with *Funga Nordica* we considered that the specimens (first found in 2009) were closest to *Amanita magnivolvata*. The volva was indeed relatively large and thick on at least some specimens (as well as being orange-spotted in some cases and deeply buried). However, none of the specimens showed stem-banding (although some showed cracking) and this species is not on the British list, so the most likely identification becomes *A. argentea,* despite the vinaceous-buff cap and slightly narrower spores of the Barnham Broom specimens. There are a number of records for the latter species throughout England and Wales. In 2008 Martyn Ainsworth commented that this group was in need of molecular investigations to resolve species limits.

An exciting development this year has been the consolidation of the Dersingham Mushroom Club, set up by Ash Murray and supported financially by Natural England. The collecting emphasis is on West Norfolk sites and expertise is growing rapidly. In September Ash found *Cordyceps longisegmentis*, a parasite on *Elaphomyces* truffles, on Dersingham Bog NNR (TF6729). This species was separated from *C. capitata*, for which there is a single Norfolk record, in 1988. In 2010 Jonathan Revett encountered C. *capitata/longisegmentis* on two forays in West Norfolk but was unable to retain specimens for critical determination.

The early autumn of 2010 was an exceptional time for the fruiting of the larger mycorrhizal fungi. A damaged specimen of *Lactarius mairei*, a shaggy species resembling a dark *L. torminosus*, was found by Tony Leech under oak in parkland at Gunton Park (TG2233). Coincidentally, at about the same time Jonathan Revett made the first Suffolk record for this species, which is designated Near Threatened on the Red Data List.

New records for some of the scarcer Norfolk fungi are shown in Table 1.

Coral Tooth *Hericium coralloides*, a second tooth fungus at Whitlingham

On 9 November 2010, Albert Ward, Information Assistant at Whitlingham Visitor Centre, noticed four whitish fungal fruiting bodies high on the trunk of a dead Beech tree in Whitlingham Country Park (TG2607). Although unable to identify the fungus, which was well out of reach, he thought it might be similar to the Bearded Tooth *Hericium erinaceus* which was seen, for the first time in Norfolk, at nearby Trowse Woods in 2006. Albert took photographs and informed others, including Martin Horlock (NBIS) who suspected that it was a second *Hericium* species, Coral Tooth *H. coralloides*. Once a specimen had been collected it was possible to confirm that it was indeed *H. coralloides* (see photograph on inside back cover).

All three British species of *Hericium* are scarce, with virtually all records being south of a line between the Severn Estuary and The Wash, with a further eastern bias (especially for *H. coralloides*), although scattered records from northern England do exist for all three. In the first Red Data List all three were assigned Vulnerable status and in the 2nd edition this has been revised to Near Threatened for *H. coralloides*.

Until *H. coralloides* was found by Jonathan Revett in King's Lynn in 2006 the only

Table 1 New records for some scarcer Norfolk fungi

Species	Place	Collector [Identifier if different*]	Previous Norfolk sites
Anthracobia macrocystis	West Rudham TF8227	Tony Leech	1
Agaricus rufotegulis	Dersingham Bog TF6729	Keith Fox	1
Anthrocobia maurilabra [1]	Kelling Heath TG1042	Nick Owens [ARL]	2
Astraeus hygrometricus [2]	Saxthorpe TG1132	C Rolph [JR]	1
Coprinus heterosetulosus	Wigston Villa TL5294	Jonathan Revett	1
Cortinarius croceocaeruleus	Two Mile Bottom TL8488	Jonathan Revett	1 (1926)
Cystolepiota pulverulenta	Cockley Cley TF7804	Jonathan Revett	2
Entoloma formosum	Holt Lowes TG0837	Tony Leech	2
Galerina atkinsoniana	Holme TF7043	Tony Leech	1
Geopora arenicola	Wigston Villa TL5294	Jonathan Revett	1
Geopora cervina [3]	Wigston Villa TL5294	Jonathan Revett	1
Hydnellum spongiosipes Velvet Tooth	Smallburgh Fen TG3224	Steward Milburn [ARL]	2
Lactarius zonarius	Foxey Wood TG0422	Jonathan Revett	2
Lepiota ochraceofulva [4]	Lynford Arboretum TL8294	[JR]	0
Leucoagaricus badhamii	Wigston Villa TL5294	Jonathan Revett	4
Mitrophora semilibera Semifree Morel [5]	Ringstead Downs TF6940	Keith Fox	5
Ramaria abietina [6]	near Hockering Wood TG0714	Anne Crotty [ARL]	1
Sarcodontia crocea Orchard Tooth [7]	Hunstanton TF6641	Ash Murray [ARL]	1
Schizophyllum amplum [8]		Anne Crotty [ARL]	1
Schizophyllum amplum [8]	Wigston Villa TL5294	Jonathan Revett	1
Suillus collinitus [9]	Wigston Villa TL5294	Jonathan Revett	1
Tephrocybe tylicolor	Holt TG0839	Tony Leech	1
Terana caerulea Cobalt Crust	Brinton Hall TG0335	Jeremy Bagnall-Oakeley [ARL]	2
Terana caerulea Cobalt Crust	Ditchingham TM3292	Dorothy Cheyne [ARL]	3
Verpa conica Thimble Morel [5]	Ringstead Downs TF6940	Keith Fox	3

* Identifiers: JR = Jonathan Revett; ARL = Tony Leech.

Note [1] Carpeting large area of burnt heath

[2] Still hanging on at the only Norfolk site despite vehicular erosion

[3] Nationally rare species, previously confirmed by Brian Spooner from same site

[4] Found in previous years on public forays but material not recovered. Also known from Brandon Country Park.

[5] *Mitrophora semilibera* and *Verpa conica* occur together as they do at both Lynford and Hoe Rough

[6] Almost certainly this species but on rotten lime.

[7] On old apple tree; Red Data List Vulnerable B.

[8] Nationally rare species.

[9] With pine and showing strong pink mycelium in the stem base. Previously only found (by JR) at Holkham, in sandy soil.

Norfolk record for this species (on the national fungus database, FRDBI) was from West Norfolk dated 18xx (sic) but probably before 1833. It has been recorded from Cambridgeshire in 2000 and 2001 (possibly at the same site), from East Suffolk in 1985 (and earlier) and from West Suffolk sometime in the 20th century.

There was much excitement in 2006 when the Bearded Tooth *Hericium erinaceus* appeared, for the first time in Norfolk, in Trowse Woods, close to Whitlingham Woods. It is remarkable that two scarce members of the same genus have occurred so close to each other in the space of a few years. *Hericium erinaceus* was seen again at Trowse Woods in 2007 but not, apparently, subsequently. It was recorded in East Suffolk in 1990, in West Suffolk earlier in the century and appeared at Minsmere, in East Suffolk, in 2009.

An orange 'mould' on a Barn Owl pellet – an undescribed *Gymnascus* sp.?

At the 'Wild About Wymondham' event in June 2010, I noticed that one of the owl pellets that David & Chris Cannon were displaying for dissection had an orange mould on it. Relatively few fungi have been recorded from bird pellets but what made the challenge of identification more appealing was that the provenance of the pellet was known: it had been collected on 6 September 2007 by Tim & Jenny Francis in Essex, donated to the RSPB and kept for at least the past year in a sealed container in a refrigerator.

The fungus formed discrete, irregular, orange-red patches up to 2.5 mm across. The patches had a powdery appearance with a slight dusting of white particles, probably oxalate crystals. Under the microscope, the presence of spores in clusters of eight, without an ascus wall, indicated that the fungus was a 'plectomycete'. Most are known from dung and the only one I could find fitting the general description and having this colour was *Arachniotus ruber* (Ellis & Ellis 1985). *A. ruber* is a scarce (or under-recorded) fungus with only 13 records on FRDBI, the national fungus database, of which one was from a falcon pellet.

Dried material was sent to Alick Henrici at Kew. Neither he nor Brian Spooner (Head of Mycology) were able to see an equatorial groove on the spores, so *A. ruber* is excluded. As they were unable to match it to any described species, it may well be an undescribed species in this little-studied group, now included within the genus *Gymnascus*. The material has been deposited in the herbarium at the Royal Botanic Gardens, Kew.

A puzzling *Coprinopsis* spp. from a hen house at Briston

Not only have molecular studies resulted in the old inkcap genus *Coprinus* virtually disappearing (two species remain in it), but the three genera into which former *Coprinus* species have been distributed (*Coprinellus, Coprinopsis* and *Parasola*) have been transferred to the family Psathyrellacea. The latter three genera are separated by veil characteristics and by the presence or absence of cystidia (hair-like cells) on the cap. *Coprinopsis* species have a veil but lack pileocystidia.

In April I was brought a collection of inkcaps from a hen house in Briston (TG0632), where they were growing on chipboard. Since they had branched hyphae in the veil and rough spores it was relatively easy to assign them to the group containing *Coprinopsis echinospora, C. phlyctidospora* and *C. rugosobispora*. There are two Norfolk records for *C. echinospora*, none *for C. phlyctidospora,* and *C. rugosobispora* has not been recorded from Britain. Both *C. echinospora* and *C. phlyctidospora* have been recorded in association with bird droppings.

The Briston specimens were all 2-spored (rather than having the normal 4-spored basidia). From the keys available this would indicate *C. rugosobispora,* but the

spores were far too large. There is an ongoing debate as to whether 2-spored forms are separate species or merely varieties. In general, spore sizes are much greater for corresponding 2-spored forms. Derek Schafer, the UK expert on these genera, considers that the specimens could be *C. rugosobispora* with abnormally large spores or a 2-spored form of *C. phlyctidospora.* If the latter were deemed to be a distinct species it would be new to science. The only way of resolving this is to carryout DNA sequencing and Derek Schafer is hoping that Laslo Nagy, a Hungarian mycologist, will be able to do this.

Is the Hoof Fungus *Fomes fomentarius* spreading?

The Hoof Fungus *Fomes fomentarius* is common on birch in Scotland and occurs in south-east England on a variety of hosts but, at least until recently, was hardly known from the Midlands and East Anglia. Its discovery on Roydon Common in 2008 led to the revelation that it had been known from the wooded parts of Dersingham Bog NNR for some time. In 2010 the species was seen on Holt Lowes (TG0837) and at Bodham Common (TG1039). In both cases brackets were found on single trees. It has also been seen recently at St Faith's Common (TG1817).

The Hoof Fungus was one of three species included in a fungus survey organised by the Norfolk Biodiversity Information Service. There were several reports of its occurrence but these still have to be investigated.

Since this bracket is prominent and distinctive it is hard to escape the conclusion that it is indeed extending its range, but we must not ignore the fact that *F. fomentarius* may have been in the county for a long time: a fossil specimen of this species, found at Shropham and on display at the Castle Museum, Norwich, is dated 115,000-130,000 years BC!

Pepperpot *Myriostoma coliforme* - not quite in Norfolk

The Pepperpot *Myriostoma coliforme* is something of a holy grail for mycologists. It is a striking and distinctive earthstar, being the only British species in which the sporesac has multiple stalks and multiple perforations. Until recently the last record of its occurrence in mainland Britain was Charles Plowright's record at Hillington, West Norfolk (TF7125), in 1880. It was found in Jersey in the 1990s and in Suffolk, at a site that has not been disclosed, in 2006.

On his way home from a foray in Norfolk this autumn, Neil Mahler (Suffolk County Fungus Recorder) stopped his motorcycle just 230 metres over the border into Suffolk to examine a bank which looked 'promising for earthstars'. To his great excitement what he found was a large colony of *Myriostoma coliforme.* An extensive search by Neil elsewhere in Suffolk, especially around places where the fungus was known in the eighteenth century, has failed to reveal any further sites. Over to Norfolk's mycologists!

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Gloeophyllum trabaeum, Whitlingham Country Park. *Anne Crotty.*

Cortinarius croceocaeruleus. Two Mile Bottom. *Jonathan Revett.*

Conocybe vexans. Whitlingham. *Anne Crotty.*

Gymnascus* sp. on an owl pellet, collected in Essex.** *Tony Leech.**