

Bealeswood Common Wildlife

November 2023

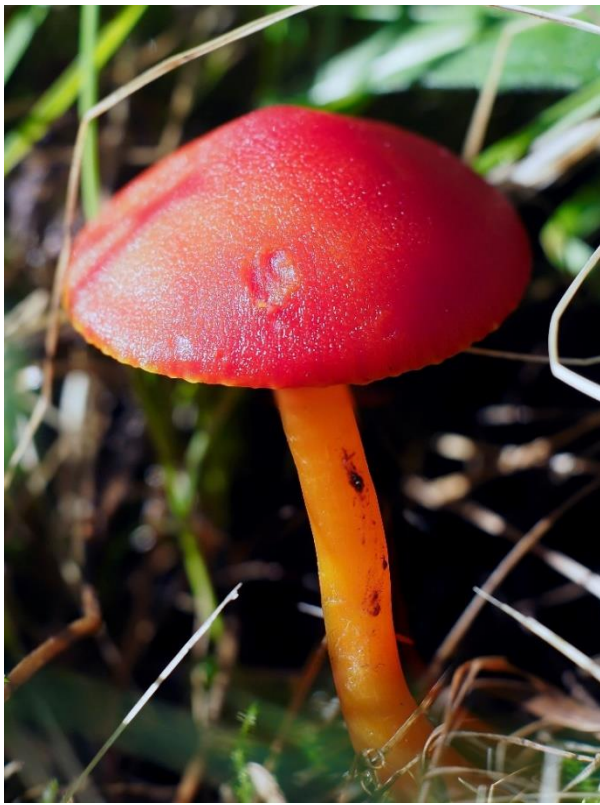


This month we focus on the third kingdom of the Tree of Life – **Fungi**. They provide a life force that is crucial to **Animal** and **Plant** wellbeing. Recent science has revealed their role in the evolution and sustainability of planetary life. The first land plants evolved 540 million years ago through interaction (symbiosis) with fungi. The process involved the absorption of carbon dioxide creating oxygen on such a gigantic scale that the earth's atmosphere changed. It became oxygen rich for the first time - triggering the evolution of life forms and ultimately creating humankind. The symbiotic relationship between fungi and plants is facilitated by the mycorrhizae, a subterranean network of microscopic fungal filaments entangled with plant roots. Around 90% of all green plants

have mycorrhizal symbionts. These networks are only visible to the human eye where they break through soil as fruiting bodies - better known as mushrooms. Our resident fungi enthusiast Manda Adolph has recorded 23 new species of mushrooms this month including the handsome Bruising Webcap above.



Extraordinarily nine different small but colourful Waxcap species were among the new finds. Illustrated are Parrot and Scarlet Waxcaps (opposite and overleaf). Waxcaps are found only in undisturbed soil and hence are indicators of landscape history. Colin Hall, at the Wild Dockenfield event, described Bealeswood as a Wood Pasture. Such woodland clearances have been used for grazing livestock since the Neolithic age. The first Ordnance Survey maps (150 years ago) suggest this historic usage here. The name *Beales Woode* appears in a minister's account of 1595 but is likely of earlier Norman origin. Undisturbed grasslands are becoming endangered throughout Europe so Waxcaps are subject to survey across Britain to document and protect these habitats as National Heritage sites. The updated total of ten Waxcap species raises



Bealeswood, already recognised for its wildflower diversity, to a site of regional importance for its grassland fungi too. The sympathetic management of the Common including late season grass cropping combined with a wet autumn have produced favourable conditions for these discoveries; including the endangered Citrine Waxcap, which favours wetter conditions for fruiting.

Although some waxcaps may be mycorrhizal, in support of living plants, their function is perhaps often to improve soil quality by cleaning up dead roots. Thus members of a class of fungi known as saprophytes. Mycorrhizae and saprophyte fungal networks are both long lived and known to stretch over acres. Replicated across the planet these fungal networks capture around nine thousand

million tons of carbon annually - exceeding the combined emissions of China and the USA.



Saprophytic fungi are Nature's waste disposers consuming all the autumnal

leaf litter and dead wood. Examples are the woodland Burgundydrop Bonnet (above left) and Amethyst Deceiver (above right) and the Nitrous Bonnet (centre) on grassland.



Some fungi are pathogenic such as the Honey Fungus opposite. Three species at least are present on Bealeswood including the Northern Honey Fungus which is thought to be rare in Britain. Honey fungi attack live plants including oaks.

Mushroom harvesting for food goes back to the earliest times and the Honey Fungus is more highly prized in Eastern Europe than even Chanterelles. But modern findings suggest caution as they contain toxins to which some are

susceptible even when thoroughly cooked. Worse more generally, if consumed with alcohol the combination will cause nausea and vomiting. Of course, fungi such as Penicillium are hugely important to the pharmaceutical industry.

Unlike other life forms many fungal species are native to both Britain and eastern North America, suggesting they evolved more than 65 million years ago, before the land masses began to drift apart. Thus, their resilience as a life form, with a crucial role in Carbon sequestration across wood and grass landscapes at global scale, is surely key to managing and ameliorating the threat of Climate Change. Scientific effort in this field is ongoing but more needs to be done at pace if we are to learn how to adapt and enhance fungal networks to service once more the Tree of Life.

Alan Cox and Manda Adolph

This and previous notices (with additional photos) are at: www.dockenfieldpc.org.uk/wildlife

Wild Dockenfield Oct 27th Report

A report on the presentation by the BWRG will appear in the December issue of the Dockenfield Newsletter – copies of which are available at: dwjbosence@btinternet.com.

Nature's Seasons 2024 Calendar

Nature's Seasons
The Wildlife of the Surrey
and Hampshire borders



Calendar 2024

The 2024 Calendar designed by Alex Potts, Manda Adolph and Alan Cox features a recent selection of their wildlife photos from Bealeswood and Frensham Commons. As in 2022 it is now on sale at the Frensham Village Shop at £8 per copy. Again, all proceeds will be donated to St Mary's Church, Frensham and the Church of The Good Shepherd. For home deliveries around the village please contact: Alan Cox (alanfjcox@gmail.com) or Alex Potts (acpotts@hotmail.co.uk).

Dec 24th-Jan 5th Local Bird Survey

Each year the wild birds of the Hampshire and Surrey borders are surveyed between the above dates. If you are checking your garden list or noting birds on local walks please send details to alanfjcox@gmail.com particularly giving any notable numbers of commoner species seen and details of all unusual species encountered.

Toad Watch February/March 2024

Volunteers are required to safeguard Toads crossing Boundary Road from Woodhill Lane to West End Lane. Toads cross en masse when 7-8 deg C, on a damp, drizzly evening. If anyone wants to help, please contact Philippa phall3422@aol.com or Colin Hall CHall3422@aol.com.

2024 Nature Walks Programme

A programme is being prepared but if you have any special requests to become better acquainted with local wildlife at Dockenfield or Alice Holt Forest please contact Friends of Bealeswood Common at: albosence@yahoo.com.

Bealeswood Wildlife Recording Group (BWRG): Manda Adolph, Dan & Alison Bosence, Alan & Pauline Cox, Philippa & Colin Hall, Alex Potts and Anne Tutt. 20/11/2023

Photo Gallery (Website Only)



Citrine Waxcap *Hygrocybe citrinovirens*



Butter Waxcap *Hygrocybe ceracea*



Golden/Lemon Waxcap *Hygrocybe chlorophana*



Spangle Waxcaps *Hygrocybe insipida*