

Fungal Futures: Conservation news and views

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We're excited to launch a new regular feature on fungal conservation in the UK. Feedback from Field Mycology readers showed that there was a keen enthusiasm to know more about conservation efforts for fungi in the UK. Perhaps this is unsurprising, last year a survey of field mycologists by the Biological Records Centre found that conservation was a strong motivation for recording fungi, coming a very close second to science and research (Amy *et al*, In Press).

For six years Shelley Evans' regular column, Conservation Corner, kept field mycologists in the loop on all matters fungal conservation. Now, nearly 20 years after it ended, we'll be taking inspiration from Shelley's feature to report back to the field community about what is happening in fungal conservation. We'll celebrate the incredible diversity of our fungi while also highlighting the challenges that come with safeguarding these organisms, too often overlooked in the conservation paradigm. It will be a space to communicate what the agencies and non-governmental organisations (NGOs) are up to, reporting on exciting practical conservation stories and research projects, through to musings on what new policies might mean for fungi and field mycologists alike.

Importantly, we recognise that fungal conservation does not happen without field mycologists, whose data, insight and experience underpin all our efforts for a fungi-

rich future. Thus we believe it is crucial for field mycologists to be part of the conservation conversation. Dialogue is important and we encourage you to get in touch with us.

Our hope is that the column will inspire readers to advocate for fungi.

New Beginnings for Fungal Conservation in the UK...

Dull as it may seem, it's probably useful in this first episode to set out what the conservation landscape is looking like for fungi. Environmental policy and legislation has been a tricky beast to keep atop of, let alone trying to interpret what it means for fungi. In the post-Brexit landscape our four countries have lost the EU as an umbrella organisation on environment matters. This is leading to new and divergent governance structures and policies in the devolved nations. But as Tennyson put it, "The old order changeth, yielding place to new", and so we see the rise of the Global Framework on Biodiversity which may help to stop us drifting too far apart. Nonetheless differences are evident for fungi in the emerging biodiversity strategies being prepared by each devolved country. On species recovery, England's Environment Improvement Plan purged the only mention of fungi from its first iteration, the 25-Year Environment Plan, under its Goal of Thriving Plants and Wildlife. In contrast, the Scottish Biodiversity Delivery Plan 2024-2030 has



Fig. 1. The beautiful and rare *Chrysocephala grossula*, amongst many other fungi, has not yet had its conservation status assessed. Photo © Rich Wright.

actively avoided entrapment in the exclusive language of flora and fauna, stating in its draft Biodiversity Strategy that definitions were amended to replace “animals and plants” with “organisms” to include other taxa such as fungi. Go Scotland! They have also committed to revising the species of principal importance on the Scottish Biodiversity List which currently includes 161 fungal species, more than the other three devolved countries combined.



Fig. 2. *Polyporus umbellatus*, one of our larger rare fungi, was included on the Scottish Biodiversity list. Photo © Rich Wright.

In England, we have seen the publication of the first of the Local Nature Recovery Strategies. These local nature recovery plans emerged from the Environment Act and will set the trajectory for regional conservation planning. The West of England combined authority have pipped the other 47 LNRS areas to the post (West of England Combined Authority, 2024). The first consultation draft from May 2024 stated, “there is a lack of data on the abundance and distribution of fungi in the area covered”. We know well that this area has extensive records, perhaps some of the best recorded sites in the UK, such as Tynesfield which has a dense annual recording programme, and Dolebury Warren, now recognised as one of the richest grassland fungi sites in England. LNRS guidance from Natural England is that strategies should adopt broad taxonomic coverage when setting their priorities. So, it is a relief to see this feedback was accepted and the published version included eight species of fungi. It is clear there are some dataflow issues as well as a lack of appetite to look for data or ask informed organisations. Work at Plantlife is currently under way to address this by supporting all LNRS areas with a list of fungal species of conservation concern, tailored to their area, along with management advice and advocacy for fungi. A number of field mycologists have already contributed to these to make their local strategies fungi-inclusive. However, it’s clear that some Responsible Authorities could do with a nudge from local groups and specialists

to point out important sites, and lobby for rare species and the inclusion of fungi in every LNRS.

One exciting prospect in this barrage of new policy is that the conservation status of a species (i.e the Red List status) may finally have some teeth in decision making. In England, an ambitious legally binding target to reduce extinction risk (of all taxa) by 2042 has put Red Lists at the heart of conservation planning. The two official Red Lists for fungi, Boletes and Lichens, even form part of the Extinction Risk Indicator by which the Government will measure its performance against this target. Tensions over Red Listing are understood and Natural England has been working to come up with a way to move things forward. Put simply: no Red Lists, no funding. The imperative couldn’t be clearer. Work on a grassland fungi Red List (where the threat cannot be overstated) and an update to the Boletes will begin later in the year. We strongly encourage field mycologists to support this important work.

One of the big challenges facing fungal conservation in the UK is who will do it? Taxonomically inclusive policies could be great for fungi, but they are meaningless unless the conservation organisations actively engage in fungal conservation. Birds have the RSPB, invertebrates have Buglife, but who is the vociferous voice of fungi? Over the last year Plantlife has leapt into action to start filling this void. Fungi have always been part of their mandate, but even they would admit they have been quiet on fungi until recently. Now with two recently employed mycologists, Rich Wright and Aileen Baird, Plantlife is set to become champions (or is that champignons?) of fungal conservation. Plantlife is now leading the creation of a new Network for Fungus Conservation, bringing together a consortium of organisations and individuals from government institutions, NGOs, major landholders, academia and the field mycology community. The Network aims to strengthen collaboration between its partners and provide not just a voice, but the practical action that fungal conservation needs. The structure of this new Network is being developed but it already feels like an immensely exciting step forward.

... And abroad

The UK Government has shown some uncharacteristic leadership in fungal conservation on the world stage. At COP16 in Cali, Colombia, Secretary of State for Environment Steve Reed co-launched a ‘Pledge for fungus conservation’ with his Chilean counterpart Maisa Rojas. The Pledge encourages national governments to recognise Funga alongside Flora and Fauna in their domestic policies and legislation and

integrating “concrete measures for their protection into National Biodiversity Strategy and Action Plans and by promoting mycology as an essential science for future conservation measures” (Chile and UK, 2024).



Fig. 3. The Chilean Minister of the Environment, Maisa Rojas, and Secretary of State for Environment, Food and Rural Affairs, Steve Reed, signing the Fungal Conservation Pledge at COP16. Photo © Giuliana Furci, Fundación Fungi (Fungi Foundation).

Casting cynicism aside, this is an exciting moment for fungal conservation in the UK and the world. The ‘Orphans of Rio’, as Prof. Hawksworth once described them, have been adopted! Well, almost. The Pledge did not get the signatures it needed to make it onto the Convention on Biological Diversity (CBD) agenda. For its part, the UK does at least appear to be taking its international commitment on the Pledge seriously. Chile and UK are continuing to work together to persuade more countries to sign up in time for COP17 later this year in Armenia. The growing list of fungal advocates now includes Colombia, Benin, Spain, Mexico, Costa Rica, Peru, Ecuador, Cambodia, Guinea, Germany and Italy.

Several months later, the pertinent question is how much UK GOV will push for the institutional change that the Pledge demands of the four environment agencies. The Government’s public gestures on nature have been troubling. The vulnerable and voiceless have long been easy targets for politicians. So, while bats and newts are the fall guys for a faltering economy, and the agencies in all four countries are facing tough cuts, it remains to be seen whether the Pledge will keep fungal conservation buoyant through the coming storm. In spite of this, our feeling is that we are witnessing a step change in fungal conservation, but it’s on us all to continue to campaign for fungi, to make sure the Pledge leads to action, not platitudes.

Elsewhere on the global stage, the UK is pushing for amendments to the Convention on International Trade in Endangered Species (CITES) so that it formally recognises fungi at

COP20 in Switzerland. Fungi have been recognised by CITES since 2002, but since then no fungi have been proposed let alone listed. Listing was likely hampered by the lack of IUCN Global Red List Assessments. In 2015, there were just five species (four lichenised and one non-lichenised fungi), but with credit to the Global Fungal Red List Initiative (Mueller, Dahlberg and Krikorev, 2014) and an international network of supporting mycologists, more than 800 species have been assessed, with almost half considered threatened (IUCN, 2025). The UK’s recommendations to the Parties of CITES aim to remove fungi from the patronage of plants and to recognise them as their own kingdom. Despite concerns about rampant foraging, the UK does not have a burgeoning trade in endangered fungi but is expected to propose, or support proposals on behalf of non-UK species. Chinese Caterpillar Fungus *Ophiocordyceps sinensis* (Winkler, 2010), listed as Vulnerable due to harvesting and trade, is tipped to be the subject of the inaugural proposal.

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