

# How bioluminescent fungi helped restore my mental health

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**M**ore than ten years straight in a newsroom without a proper break is a bit like overstaying your time in the Chernobyl exclusion zone. The unedited rushes (i.e. the raw news footage straight from the camera) of wars, revolutions, disasters and famines, is enough to eventually bring even the most robust and resilient person to their knees.

I can write this from the perspective of somebody who spent too much time in the radioactive zone, failing to recognise when my mind and body had had enough, and needed a visual diet of something more kind and nourishing.

In French there's a beautiful expression: 'la goutte d'eau qui fait déborder le vase.' It literally translates to: 'the drop of water that made the vase overflow,' but really it's a more poetic translation of the English expression: 'the straw that broke the camel's back.' After a long career in television news, by Christmas last year, I had finally become that overflowing vase.

Working long 12-hour days, often including the weekends, I witnessed everything from the unimaginably brutal final moments of Colonel Gaddafi's life in the Libyan Revolution, to the rise of the Islamic State as militants overran large cities like Fallujah, Raqqa and Mosul.

As the pro-democracy hopes of the Arab Spring gave way to the bitter conflicts that would ensue in countries like Egypt, Yemen, Syria and Iraq, footage of war poured into the newsroom like an incessant flow of toxic sludge. Drop by drop, it slowly filled my internal vase.

During the peak of the conflicts, both I and my colleagues would often find ourselves faced with the unenviable task of wading through the footage, trying to figure out what we could, and what we couldn't, broadcast to the world.

Some of what I witnessed is still too awful for me to put into words. Recently, I've begun to realise how images can stay with a person, and as a result, I'm just that little bit more careful about the types of images I choose to evoke in a reader's mind.

Over the years that followed I doubled down on my workload, rarely taking weekends off and paying almost no attention to the toll my time in the radioactive zone of the newsroom was exacting - not just on my mind and body, but also on my soul.

In 2015, when I decided to train as a psychotherapist, I came to understand from an emotional, psychological and biological perspective, the resultant impact of violent imagery (vicarious trauma) on the human nervous system. I was stuck in a low level of fight or flight, with increased levels of adrenaline and cortisol slowly changing the physiology of the body.

Both body and mind wanted a break, and since I hadn't been willing (or perhaps didn't know how) to take that long overdue sabbatical, the part of me that knew better decided to make the decision for me.

In the days and weeks leading up to Christmas Day in 2021, I could feel something building inside me - like a red hot ball of magma in search of a way out. On Christmas Eve it happened, all the awfulness I'd pushed deep down inside rose to the surface and demanded to be felt all at once. This wasn't something I could disconnect my emotions from anymore; what I'd witnessed during the course of my work needed to be felt, experienced and crucially, it needed to be properly grieved.

Over the following weeks all aspects of my life ceased to function. To make sense of it I began journalling, scheduled Zoom calls with mental health colleagues, and I let myself cry over some of the awful things I'd witnessed and reported on, including the countless number of lives lost during the coronavirus pandemic. I took the smart decision to take a sabbatical and went surfing in Cornwall just as the Russian tanks crossed the border into Eastern Ukraine. It would be almost six months before I'd be back in the newsroom to see any footage of the invasion.

A few years ago I bought a sweater I quite liked. The words on the front of it say: 'And into

the forest I go, to lose my mind and find my soul' (Fig. 6). It seemed prescient as I began research for a mental health book I'd started writing entitled: *Back to the Garden*. Maybe Mother Nature had the anecdote to assuage the wounds of my news trauma; turn off the television and get back into the garden. Just like the lyrics to the Joni Mitchell song, *Woodstock*:

“We are stardust  
We are golden  
And we've got to get ourselves  
Back to the garden”

While I was off work recovering from what from the outside looked like a mental health breakdown, but to me looked like a mental health breakthrough, I drove past the Natural History Museum and saw the banners advertising the Wildlife Photographer of the Year exhibition. I had a strange impulse to park the car and go and see the exhibition....perhaps it could give me some ideas about ways to connect with nature (Fig. 1).



Fig. 1. Wildlife Photographer of the Year exhibition at the Natural History Museum, London 2021.

I entered the darkened gallery and began walking around the exquisite images from photographers all around the world: a scuba

diver's crystal clear reflection in a vibrant underwater seaweed jungle off the coast of Australia; a hidden rainforest in a sunken ravine in Colombia; until finally my gaze fell on a photograph which stopped me in my tracks. Entitled *Mushroom Magic*, photographer Juergen Freund had skilfully managed to brave the wet rainforest and the leeches to capture the bioluminescent ghost fungi in the middle of a tropical highland rainforest in the Atherton Tablelands in Queensland, Australia on a bright full moon night (Fig. 2).

As Juergen lay on the wet rainforest floor for ninety minutes in my homeland, Australia, capturing the stunning photograph, little could he have realised the wonderful way the pixels would draw me into a dance with the world of mycology halfway across the other side of the world.

Like a mycelium network itself, Juergen's photograph seemed to be extending from the rainforests of Australia, and forging an invisible but conscious connection with my mind. And even though I wasn't in the rainforest with Juergen, just seeing the remarkable image had already given nature an opportunity to begin working her healing magic on my burnt out and exhausted mind.

Over the weeks that followed, the image of the ghost fungi kept finding its way back into my mind. I even ventured back to the Natural History Museum to see it again, mesmerised by the glow of the fungi climbing the trunk of the tree. It seemed to be beckoning me - like the trail of breadcrumbs in the fairytale *Hansel and Gretel*, to partake in a mycological adventure.

One morning I woke up before sunrise and sat up in bed and said out loud to myself "I think I'd like to study mycology!" A warm feeling of relief washed over me, like I'd just realised something really important. Looking back, I can now see just how much sense it made; the imagery of the beauty of the natural world providing the perfect healing salve for a mind hardened and brutalised by the incessant stream of images of violence and war. If images of death had worn me down, then images of life - in all its forms - could build me back up.

The bioluminescent fungi had quite literally led me to Kew Gardens' gate and the respite of the natural world. Despite living just a stone's throw from Kew since I moved to London over a



Fig. 2. Me in front of Juergen Freund's photo of bioluminescent fungi at the Natural History Museum. The full caption reads: "Mushroom magic: Juergen Freund lies on the ground for 90 minutes braving mosquitos and leeches to capture this image. On a summer's night Juergen searched the rainforest for bioluminescent ghost fungus. Scanning the darkness for the strange glow, faint to the naked eye, he was rewarded with this magical sight: clusters of ghost fungus seeming to climb the base of a dead tree. The bioluminescence of ghost fungus results from a chemical interaction between a compound known as luciferin and the luciferase enzyme in the presence of oxygen. The function of the glow remains a mystery to be solved." Photo © James Scurry, With the permission of J. Freund.



Fig. 3. Scarlet Elf Cup, either *Sarcoscypha coccinea* or *S. austriaca*. My first ever fungal discovery on a visit to County Donegal in Ireland during my sabbatical. Photo © James Scurry.



Fig. 4. Hiking on the Ridgeway trail in Buckinghamshire; I still need to do some more research to identify this one. [Ed. this is *Fomitopsis betulina*, formerly *Piptoporus*]. Photo © James Scurry.



Fig. 5. A stunning find on a fallen log just around the corner from my house in Gunnersbury Park in west London, young *Cerioporus squamosus*. Photo © James Scurry.

decade ago, my hectic schedule had meant that I'd never taken the time to visit.

A few weeks after visiting Kew for the first time, I attended the British Mycological Society's 125th Conference at Cranfield University in Bedford, where I was introduced to a number of incredible mycologists and their work, which only deepened my curiosity about this fascinating and understudied field. I've even started taking my own photographs of fungi—admittedly nothing as remarkable as Juergen's image—but I've accepted the ghost fungi's call to me to partake in the mycological adventure (Figs 3–5).

The legendary author and mycologist Geoffrey Kibby helped me identify my first find while I was researching at the British Mycological Society's library at Kew Gardens.

At the bottom of Juergen Freund's photograph in the exhibition there is a caption that reads: "The bioluminescence of ghost fungus results from a chemical interaction between a compound known as luciferin and the luciferase enzyme in the presence of oxygen. The function of the glow remains a mystery to be solved."

I wasn't sure where the ghost fungi's mysterious glow was leading me, but I decided to email Juergen and ask him for permission to use his photograph on my blog. I wanted to tell him about the unlikely series of events that had ensued since I saw his picture, a pathway which eventually led me to beginning as a Visiting Researcher at Kew Gardens, home to over 1.25 million dried specimens of fungi, one of the largest, oldest and most scientifically important collections in the world. His photograph had

quite literally led me back to the garden, to restore my mind and find my soul.

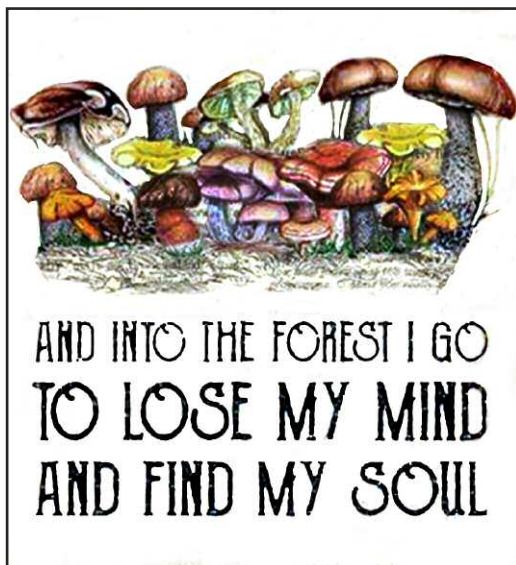


Fig. 6. The words on the sweater which meant so much to me at the beginning of my research.

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