

EDITORIAL

Keeping up with the advances in science, whatever field particularly interests you, often seems almost impossible these days. So many new papers are being published daily in so many journals that it is impractical to read them all.

For mycologists social media are a great help as there are many specialists in different fields online and they frequently alert us to new and interesting topics and publications. Facebook, for example, despite some of its negative aspects, is a great place to talk to fellow mycologists and discover what is going on in the world of mycology. Many experts give details of their publications or research there as well as answer questions; invaluable for both beginners and more advanced mycologists alike.

With the advent of DNA sequencing the number of new species, new genera, or revisions of these, has multiplied greatly and they may also be published in journals not exclusively associated with mycology, making it even harder to discover them. Very often these days, as well as in journals, new taxa are published digitally on www.indexfungorum.org but this can easily be checked at regular intervals to see what is new.

Simply using one of the standard search engines on the internet and searching for something like “mycology news” can yield good results. One of my favourite websites is www.sciencedaily.com. Here you can discover new research in all fields of science including mycology. It includes a search window so you can search its archives to see past articles on your topic of choice.

As it has for the past 22 years Field Mycology will endeavour to keep you abreast of the ever changing world of mycology and now we are better value than ever! As always we welcome documented photographs of interesting finds for our regular Readers' Finds feature and of course submissions of articles to include in future issues.

Fungi talk to each other (or perhaps not...)

In a Royal Society Open Science study by Prof. Andrew Adamatzky involving analysing electrical activity in four species of fungi, species-specific spikes of electrical oscillations were revealed.

The electrical spikes grouped into clusters with up to 50 differentiated clusters recorded. When viewed as analogous to words the groups could be seen to form ‘word lengths’ and ‘sentences’ that matched those seen in human languages. The four species used were *Cordyceps militaris*, *Flammulina velutipes*, *Omphalotus nidiformis* and *Schizophyllum commune*.

Adamatzky postulates that the fungi may be communicating through their mycelium, perhaps identifying sources of food, warning of threats, etc. The most ‘talkative’ species with the largest ‘vocabulary’ proved to be *Schizophyllum commune*.

He says “We do not know if there is a direct relationship between spiking patterns in fungi and human speech. Possibly not,” Adamatzky said. “On the other hand, there are many similarities in information processing in living substrates of different classes, families and species. I was just curious to compare.”

Of course, not everyone agrees with this speculation, pointing out that other types of pulsing behaviour have previously been recorded in fungal networks, such as pulsing nutrient transport.

“This new paper detects rhythmic patterns in electric signals, of a similar frequency as the nutrient pulses we found,” said Dan Bebber, an associate professor of biosciences at the University of Exeter, and a member of the British Mycological Society’s fungal biology research committee.

“Though interesting, the interpretation as language seems somewhat over enthusiastic, and would require far more research and testing of critical hypotheses before we see ‘Fungus’ on Google Translate.”

[Of course the fungi could be secretly plotting to take over the world...Ed.]

Adamatzky, A., (2022).
Language of fungi derived
from their electrical spiking
activity *R. Soc. open sci.*
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<http://doi.org/10.1098/rsos.211926>



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