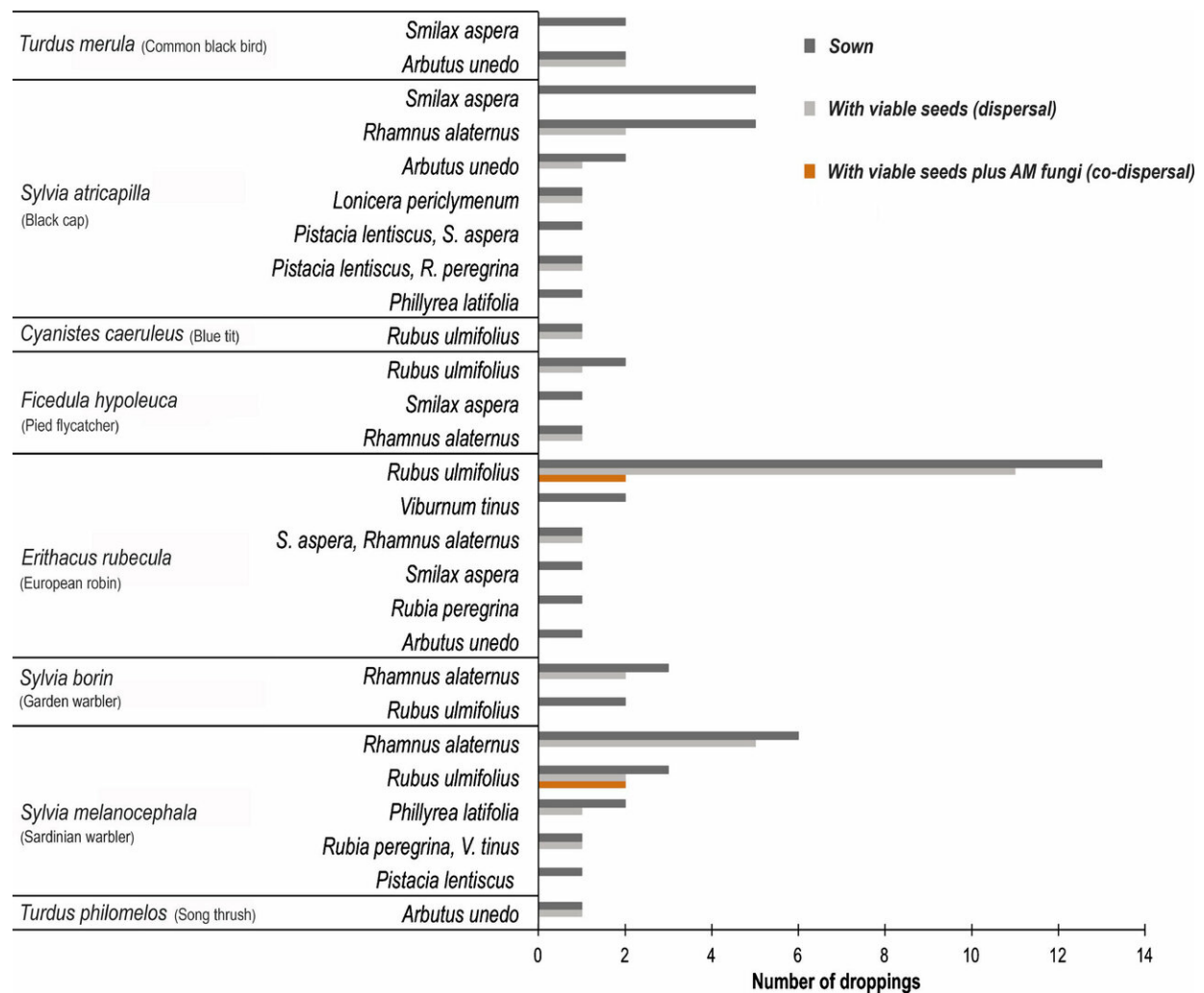


Stowaway fungi hitch a ride with birds to be with their plant partners

January 24 2019



Details of the glasshouse experiment: identity of seed dispersers and plant species, number of droppings with seeds collected and sown (dark grey bars), number of droppings with viable seeds (light grey bars), and number of droppings containing viable seeds with arbuscular mycorrhizal (AM) fungi

(orange bars). Credit: Wiley

For the first time, scientists have shown that fungal hitchhikers use birds to colonize new territories with their plant partners. In a *New Phytologist* study, the researchers provide the first evidence that birds don't just carry plants to new places, but their fungal partners too.

For the study, the team collected numerous bird droppings. A total of 54 [plant seedlings](#) from six species emerged from 34 bird droppings. Some of the plants that germinated were already colonized by fungi—revealing that [birds](#) carry both plants and their fungal partners to new areas, often over long distances.

Many plants form [close relationships](#) with a type of fungi called *arbuscular mycorrhizal* fungi. These symbiotic relationships benefit both the plant and the fungus. Scientists have long thought that sharing the same transport mechanism would give plants that grow in symbiosis with fungi an advantage. This is the first time that the role of birds in dispersing both partners has been confirmed.

"This is a fundamental piece of the puzzle to understand the global distribution of mycorrhizal fungi and the colonization of remote territories by plants and associated fungi," said lead author Dr. Marta Correia, of the University of Coimbra, in Portugal.

More information: Marta Correia et al, First evidence for the joint dispersal of mycorrhizal fungi and plant diaspores by birds, *New Phytologist* (2018). [DOI: 10.1111/nph.15571](https://doi.org/10.1111/nph.15571)

Provided by Wiley

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