

# Plant-Fungal Relationships

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## What are mycorrhizal fungi?

Ecosystems are complex phenomena. And much of this complexity lives below ground in a plant's rhizosphere - or root system.

Mycorrhizal fungi live in symbiotic relationships with plants: they make nutrients available to plants, and the plants make photosynthesized energy available to the fungi. But there's a lot we don't know about these relationships.

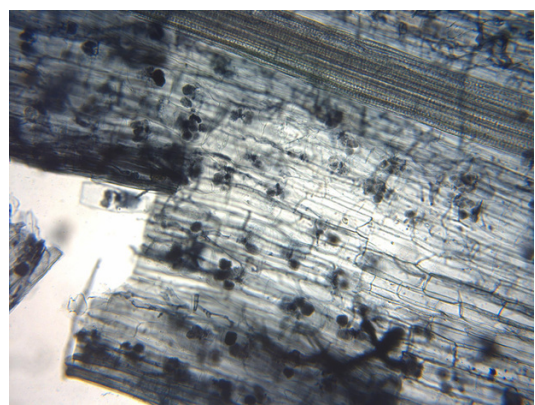
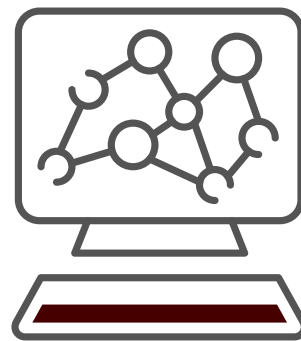
**What factors influence the ability of certain plants and species of fungi to form symbiotic relationships?**

**What impact do mycorrhizal fungi have on the health and biodiversity of our forests?**

**What is the influence of climate change on these interactions?**

To answer these questions, Corrina uses pre-existing data and computer simulations to model the spread and evolution of associations of these symbiotic relationships.

This subterranean mapping is crucial to understanding both the nature of these relationships and the full impact of human activity on our environment.



Corrina's work analyses the plant-fungal relationships of two classes of micorrhizal fungi - arbuscular mycorrhiza and ectomycorrhiza.

Arbuscular mycorrhizal and ectomycorrhizal fungi both provide nutrients to the plant in exchange for energy and help the plant avoid disease, but the two types associate with different plants, access different kinds of nutrients, and provide different levels of disease protection.

**You may have never seen or heard of mycorrhizal fungi. But their underground network of hyphae play a big role in plant growth and the biodiversity of ecosystems.**

**The more we know about them the better we will be able to manage our forests and other natural resources.**

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