

Fungarium

Ten things you never knew about fungi



1. 'Mycophobic' means fearing mushrooms. 'Mycophilic' means having enthusiasm for mushrooms. (Which are you?)
2. Of the estimated 2.2 to 2.8 million species of fungus on Earth, fewer than 5% have been identified. We are discovering new species all the time. There may very well be one in your back garden or your house.
3. Bracket fungi and corticioid fungi are the only organisms that can break down the lignin of wood. Without them dead wood couldn't decay, and forests would be full of log litter.
4. Mycorrhizal networks – sometimes called the 'wood wide web' – are systems of fungi and plant roots that communicate and share nutrients. Around 90% of plants on Earth could not survive without them.
5. In the classical world it was believed that mushrooms were caused by lightning strikes.
6. Some fungi infect insects and change their behaviour. The 'zombie ant fungus' releases chemicals into the brain of an ant, forcing it to walk to a high branch. The fungus then grows in the ant's body. It can disperse its spores widely because of the ant's high position.
7. Ants and termites were the world's first farmers – of fungus! They farm fungus for food. Leaf cutting ants feed their fungus gardens with pieces of leaf, while termites bring theirs on dead grass and other plant material.
8. There are 22,000 known mushroom-producing species on Earth. Out of these a mere 120 species are seriously poisonous. Nonetheless, mushroom gatherers should beware! Some poisonous species look a lot like edible species such as the true morel (edible) and the false morel (poisonous).
9. The Ergot fungus, found growing on rye, causes hallucinations. It is believed to have been behind the behaviours that led to the Salem Witch Trials of 1692–1693.
10. A fungus that infects a scarab beetle, *Tolypodadium inflatum* is an important reason that more organ transplants are successful today than ever before. In nature the fungus produces a compound to help it evade the beetle's immune system. This compound, Cyclosporine, is now used in the immunosuppressant drugs given to patients to stop their bodies rejecting new organs.



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