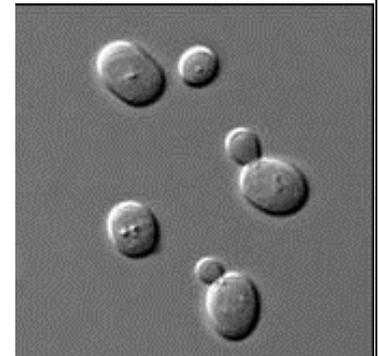
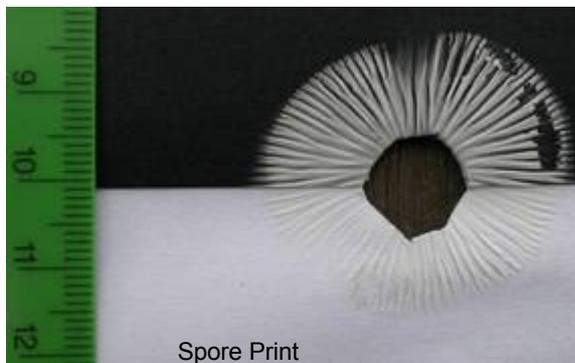


FUNGI FACTS – DO YOU KNOW THE DIFFERENCE? ...Neil Tucker

- Fungi perform an essential role in the decomposition of organic matter, and have fundamental roles in nutrient cycling and exchange. Certain fungi can degrade insecticides, herbicides & petroleum, and turn them into carbon dioxide, water, and basic elements. Some have been shown to biomineralize uranium oxides. They can break down manufactured materials and buildings, and become significant pathogens of humans and other animals.
- They have long been used as a direct source of food, such as mushrooms and truffles, as a leavening agent for bread, and in fermentation of various food products, such as wine, beer, and soy sauce. Certain types of cheeses require inoculation of milk curds with fungal species that impart a unique flavor and texture to the cheese. The fruiting structures of a few species are consumed recreationally or in traditional ceremonies as a source of psychotropic compounds.
- Since the 1940s, fungi have been used for the production of antibiotics, and more recently, various enzymes produced by fungi are used industrially and in detergents. Mushrooms can be used for dyeing wool and other natural fibres – the dyes are organic compounds, and produce strong and vivid colours, and all colours of the spectrum can be achieved. Fungi are also used as biological agents to control weeds and pests.
- Many species produce bioactive compounds called mycotoxins that are toxic to animals including humans. Some are parasitic on other fungi. Fungal spores are also a cause of allergies. Losses of crops or food spoilage due to fungal diseases can have a large impact on human food supplies and local economies.
- Some species grow as single-celled yeasts that reproduce by budding or binary fission. Dimorphic fungi can switch between a yeast phase and a hyphal phase (A hypha is a long, branching filamentous structure of a fungus). Some species have spores that can swim.
- Some individual fungal colonies can reach extraordinary dimensions and ages, as in the case of a clonal colony of *Armillaria solidipes* (formerly *Armillaria ostoyae*), which extends over an area of more than 900 ha, with an estimated age of nearly 9,000 years.
- If the cap of a fungus is cut off and placed gill-side-down overnight, a powdery impression reflecting the shape of the gills (or pores, or spines etc.) is formed. The color of the powdery print, called a spore print, is used to help classify mushrooms, and can help to identify them.



Single-celled Fungus



Spore Print

- There is no generally accepted system of naming fungi, and there are frequent name changes at every level, from species upwards. Currently, seven phyla are proposed. Some discussion of this was included in the article in Newsletter NL 2012 #4 May **FUNGI GROUPS – DO YOU KNOW THE DIFFERENCE?**

Copyright

Any article or information appearing in this *Newsletter* may be copied to further interest in the conservation of native flora and fauna or in environmental care, provided that the source and contributor(s) are acknowledged.