















Fungi Walks October 2022

Here are the main species we spotted on our fungi walk in the Pheasantry Gardens in Bushy Park with Brian Spooner. This just goes to show when you start looking, they are everywhere!

I've added some general information from our walk last year with Brian at the end

			
<p>Oyster Mushroom <i>Pleurotus ostreatus</i> A bracket-like fungus found on dead trunks of various trees.</p>	<p>'Dyer's Maze Gill' on the dead fir tree (<i>Phaeolus schweinitzii</i>) A bracket-like fungus which is a serious root pathogen of conifers</p>	<p>Pleated Inkcap or Little jap umbrella <i>Parasola plicatilis</i>. A delicate little toadstool, quite common in grassy places</p>	<p>'Red-lead Round head' (<i>Leratiomyces ceres</i>). An introduced species native to Australia, now seen commonly on wood-chip mulch</p>
			
<p>Shaggy Pholiota (<i>Pholiota squarrosa</i>) Has a dry, shaggy cap and stem. Grows in tufts at the base of various broadleaf trees.</p>	<p>Stump Puff Ball <i>Lycoperdon pyriforme</i> The only puffball species which grows on wood, recognised also by the white rhizomorphs at the base.</p>	<p>Stump Puff ball showing its characteristic rhizomorphs that contact the wood</p>	<p>Beefsteak <i>Fistulina hepatica</i> A bracket fungus, quite common on older oak and sweet chestnut trees, gradually rotting the heart wood</p>
			
<p>Southern bracket - <i>Ganoderma australe</i> - a perennial fungus growing on broad-leaved trees eating the heartwood.</p>	<p>Bracket Fungi Frilly wood rot</p>	<p><i>Peniophora quercina</i> A crust fungus, common on dead branches of oak</p>	<p>Honey Fungus <i>Armillaria mellea</i> A root pathogen of many kinds of trees and shrubs</p>

			
<p>Birch Polypore or Razor strop <i>Piptoporus betulinus</i> A common bracket fungus, always growing on birch</p>	<p>Fairy ring Champignon <i>Marasmius oreades</i>. A common species in grassland, forming distinctive fairy rings</p>		

General information about fungi:

Brian Spooner PhD, a mycologist, gave a guided fungus walk through the Woodland Gardens in Bushy Park and shared his knowledge of their magical Kingdom. And yes, fungi are not plants nor animals, they are so unique they have a Kingdom of their own. The Kingdom is huge with 14-15,000 species in the UK, millions worldwide, and with perhaps 90% of them globally yet undescribed! The mushrooms that we found are the fruiting bodies of the fungi, most of which, in the form of mycelium composed of innumerable microscopic threads called hyphae, lies below the surface. Fruitbodies are the spore-producing structures, designed to spread the spores to create future fungi. Fungi are responsible for the majority of nature’s recycling by breaking down dead plants and animals and returning their nutrients to the environment to be re-used.

Many features can be used to identify fungi, such as their overall shape (e.g. toadstool or bracket), their size, whether they have gills or pores, whether they have a ring on the stem, what colour are they and their spores, where are they growing, and what are they living off. For example, many of the fungi you see on dead trees are breaking down the tough lignin and cellulose of the log through a network of hyphae that run through the dead wood. Such fungi are termed saprotrophs, and include e.g. bonnet caps and some bracket fungi amongst many others. Other fungi are mycorrhizal, living in unique, intimate and essential partnerships with plants. This is a symbiotic (mutually beneficial) relationship developed with the roots of trees and shrubs. Many woodland toadstools, such as the Fly agaric, form such relationships. They provide nutrients, such as phosphates and nitrogen, to the tree and in return receive sugars. But some fungi can also be parasitic, only taking things from the relationship and hence causing harm to the host. Honey Fungus, a serious root parasite of many plants, is a good example.

Fungi typically produce their fruitbodies once a year, either in the spring or the autumn, depending on species. Most require damp conditions that aren’t too cold, and during periods of drought few fungi will be evident. The hyphae aggregate to form the fruiting bodies, for example a toadstool or a bracket. However not all fungi produce such large and elaborate fruiting bodies to reproduce, many species being microscopic

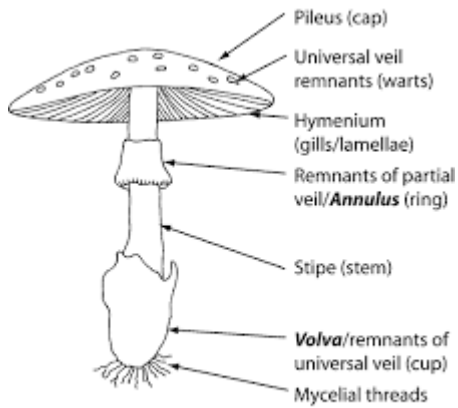


Fig. 1A

The key parts of a typical toadstool are shown to the left (fig 1A). Not all toadstools have all these features which therefore can be used to help identify them to genus. For example, a universal veil, which initially encloses the entire toadstool, and ruptures as it expands to leave a sac-like structure or volva at the stem base and remnants on the cap, is found only in a couple of genera. A partial veil, which initially joins the cap margin to the stem and protects the gills as they develop, breaking and leaving a ring on the stem as the toadstool expands, is present in a much wider range of genera.

What's the difference between a mushroom and toadstool? This was a question asked by those on the walk. The word mushroom is more commonly use to describe an edible fungus.