BASICS OF A FUNGUS

WHAT ARE FUNGI?

Fungi are neither plants nor animals and there are special terms used to describe their body parts.

One of the more visible and commonly seen parts of the fungal body is the fruiting body or mushroom. The mushroom is made up of thread-like structures called hyphae (singular: hypha). You may remember seeing such filaments growing on your camera lenses if they have not been cleaned properly! There is much more to a fungus than what we see as the mushroom above ground. The mushroom is only the sexual reproductive part of the fungus and the main body actually exists as an extensive network underground or hidden in wood or decomposing matter.

WHAT DO FUNGI FEED ON?

Fungi do not make their own food but rely on breaking down living or dead plants, animals or other fungi for nutrition. The fungus releases enzymes to digest complex materials into simpler substances that are then absorbed into its body for growth.

Some fungi grow mainly on dead or decomposing matter such as leaf litter, wood chips and animal remains. They release important nutrients back into the soil and are called decomposers or saprotrophs. These form the majority of the fungi.

Other fungi attack and feed off living host cells, and in some cases, result in the death of the host plant, animal or fungus. These are parasites, pathogens or mycoparasites. Some live off their host but keep them alive for longer periods of time. Pathogens, on the other hand, cause diseases in hosts (e.g. leaf spot, rust and viral diseases of plants).

Yet others like the necrotrophs, destroy and kill their host so that they can feed off the dead organism (rather like predators in some ways).

Fungi can also live in mutually beneficial associations with plants and animals and are called biotrophs. Read more about these in the bottom half of this guidesheet.

Black Tooth Mould (Hypomyces lactifloorum) growing on the surface of a Lactarius sp. The fungus feed off the host mushroom and in some cases, the host dies before it can reproduce. The black tooth mould is a parasitic fungus which uses the host mushroom as a nutrient source.

Black Tooth Mould (Hypomyces lactifloorum) growing on the host mushroom. The black tooth mould is a parasitic fungus which uses the host mushroom as a nutrient source.

Fungal parasites (Cordyceps species) growing on the host insects.

Fungal parasites (Cordyceps species) growing on the host insects.

WHERE DO WE FIND FUNGI?

Fungi may be found in a diverse range of habitats. Many are terrestrial and found in soils. They live off decomposing organic matter in leaf litter, in fallen logs, and growing on or in plants, animals and other fungi. They can be found in forests, grasslands, agricultural fields, gardens and even deserts. Some may survive and grow on the film of dust and dirt that form on inanimate objects such as glass panes, lenses and concrete walls. Others may even be found in marine and aquatic environments growing on drift wood, tree stumps and in the leaf litter floating along freshwater streams.

Fungus on Fungus
Fungus on plants
Fungus on Fungus
Fungus on Fungus
Fungus on Fungus