

Nature Notes 3: "Born of Leaves Decaying"

(*Censor's classification: **Cert X:** Contains reference to drugs and sudden death*)

At this time of year lyrics by the Moody Blues from the 1960s often drift into my mind:

...And the browns, reds and golds of autumn

Lie in the gutter, dead.

Remember then....,

Spring's new hope

Born of leaves decaying.

In autumn, obviously born of decay on the commons, are the profuse fungal fruiting bodies that spring up amongst the dead leaves. These fruiting bodies are the reproductive 'tips of icebergs', most of which comprise hidden networks of microscopic threads, or hyphae, breaking down organic matter in the soil.

One of the most colourful fungi is the red and white **fly agaric** beloved by illustrators of fairy tales. This is most often found near birch trees, with which the hyphae form a mutualistic association, the fungus obtaining carbohydrates from the tree, in exchange helping the tree to absorb nutrients from the soil. Amongst other toxins, fly agaric contains muscimol, which induces hallucinations and euphoria. In the vast birch forests of East Siberia the tribal Shaman used to eat the partly cooked caps, suffer the toxic side effects, then give other members of the tribe his urine as a potent concentrated solution of the hallucinogen minus most of the other toxins. (Perhaps use of drugs by hippies in the 1960s was not so revolutionary after all).



Fly agaric



Death cap: note veil near top of stalk and bulbous base

Many of the fungi on the commons are edible but not so two other members of the *Ammonita* genus: the **destroying angel** and the **death cap**, both found on Ugate Common. All members of this genus can be recognised by a bulbous base to the stalk and the remains of a veil hanging from the top of the stalk. If you see these on any fungus they will definitely not be a good idea for breakfast. One death cap can kill several people. There are no symptoms for about 7-24 hours by which time it has been absorbed into the liver and kidneys and it is too late for any antidote. The toxins cause agonising pain for about a week. Then the patient appears to recover and feels much better, then dies!!!!

On a lighter note, if you smell a rank odour of rotting meat in the woods it might emanate from the **stink horn**, the odour of which attracts flies to disperse its spores from its sticky top. This species has a very distinctive shape, aptly reflected in its scientific name: *Phallus impudens*. which goes to show that taxonomists, those scientists who classify organisms and give them their names, can have very fertile imaginations.

I am a big fan of taxonomists since one named a new species of isopod (similar to a woodlouse) found in caves in southern Brazil after me: *Leonardoniscus hassallei*, thereby guaranteeing my immortality in the annals of scientific literature!!!!



Stink horn

Mark