

MUSHROOM NEWSLETTER

1 August 2015

TOXICITY RECAP

The recent bout of cold wet weather seems likely to prompt an early start to the main season. The first boletes are starting to appear and as I have discovered – only relatively recently – the biggest porcini hauls generally seem to come in August. With this in mind and last week's discoveries of the year's first Amanitas, now seems a good time to re-issue my normal warnings about toxicity. Or rather, it is the chance for me to put down some soothing advice about the remarkably low risk of accidental poisoning, coupled with pictures of the five real villains. If you can familiarize yourself with these last, you really shouldn't end up in the morgue.

First and foremost is, of course, the death cap (*Amanita phalloides*). According to a University of Copenhagen study of every fatality they could find from around the world, this accounts for about 80% of all deaths.



Amanita phalloides lives up to its common name

The destroying angel (*A. virosa*) is probably the next most toxic, accounting for about 10% of global fatalities (for a firsthand account – see www.theguardian.com/lifeandstyle/2010/nov/13/nearly-died-eating-wild-mushrooms).



The destroying angel is beautiful, but deadly

A reader, Keith Ashley, sent a link to a medical write up of Canadian poisoning. Apart from the medical details, I would make two observations. Firstly *Amanita bisporagia*, is not found here, but it closely resembles the destroying angel (*Amanita virosa*). The symptoms seem similar to those produced by the latter and death cap. Secondly, note the victim originally hailed from South East Asia. This is relatively common in *Amanita* poisonings. There is a tropical cultivated fungus, the paddy straw mushroom (*Volvariella volvacea*) which looks like a young *Amanita*. The last only grow in temperate zones, while paddy straw mushrooms are confined to the tropics. Thus people who migrate to colder climates have often never seen the poisonous varieties until they go for a woodland walk and find what appears to be a familiar, delicious, mushroom. Certainly this was major a factor in Britain's first fatal mushroom poisoning on the Isle of Wight about five years ago and appears to have been a factor in a mass-poisoning at a Californian old people's home a couple of years ago.

The most famous recent poisoning, however, was caused by the deadly webcap (*Cortinarius rubellus*) which was eaten by *Horse Whisperer* author Nicholas Evans, his wife and her sister and brother-in-law. The four survived, but I believe three have required kidney transplants and are still living with the after-effects. The deadly webcap also has an equally deadly, but much rarer relative, the fool's webcap (*C. orellanus*), which looks very similar.



Deadly webcap growing in bark mulch in a children's playground

The final really deadly species is the false morel (*Gyromitra esculenta*). Interestingly, this is edible when cooked (it is sold as such in Finnish markets), but is extremely toxic when raw.



The false morel – delicious when cooked but deadly when raw

These are certainly many more species which can kill on paper (e.g. false fairy rings (*Clitocybe rivulosa*) and panther caps (*Amanita pantherina*), but in practice most other poisonous species are so unpalatable that accidentally ingesting a fatal dose is very unlikely.

The final poisonous mushroom which one ought to be able to recognize is the source of the overwhelming majority of wild mushroom poisonings which end up in A&E departments. The yellow stainer, *Agaricus xerocomus*, is not exactly toxic, but it produces a violent allergic reaction in about half the people who eat it. They never die, but many are so traumatized by the experience that it puts them off wild mushrooms for life. The reason it is so often eaten is that it looks almost exactly like its relatives the field- and cultivated mushrooms (*A. campestris* and *A. bisporus*). So, if you see a familiar-looking mushroom growing in grassland this summer, make sure it doesn't quickly turn bright yellow where it's been cut or bruised – and the smell of carbolic is another warning sign.



The yellow stainer lives up to its name

Finally, a reminder that at the end of the month I am leading two morning forays targeting hedgehogs and porcini (15 and 16 August respectively – see my website for further details).

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P.S. As always, let me know if you want to be removed from the list and I will do it forthwith.