

# MUSHROOM NEWSLETTER

5 July 2011

## TOXICITY AND EXCITEMENT



Chanterelles are up . . .

This month I am going to break with my normal tradition and split the newsletter in two. The first half is devoted to toxicity. Well, to be precise it's a summary of a very surprising snippet of information gleaned from my morel trip to Turkey at Easter. For regular readers, it will also serve as an update on the ridiculous (and very pompous) rant I was subjected to by Leif Goodwin last autumn. The second half is devoted to a brief resume of what mushrooms are up and where.

### TOXICITY

Last Easter while chatting with Professor Henning Knudsen of the University of Copenhagen. I made some sweeping comment about there being 100-odd edibles and only 30 seriously poisonous mushrooms around Britain's 8,000-odd species. To my surprise he observed mildly that in practice there are only five genuinely deadly species.

This is based on research by Danish toxicologists who'd studied mushroom poisonings across Europe. The team had determined there were real mushrooms which account for almost all fatalities. The 'fatal five' were the false morel, death cap, destroying angel, the deadly- and the fool's webcap. "The problem with these five is that there is no 'cure'," he explained. "This leaves the doctors reduced to no more than fire-fighting each potentially fatal symptom as it occurs."

"Obviously there are plenty of other mushrooms which can kill you in theory," he expanded. "But even the most serious effects of these are reversible if you seek medical help in time." In other cases the body's own natural defences would step in: "If you eat

*Clitocybe rivulosa* [the false fairy ring], for example, then you will almost certainly throw up before you absorb a fatal dose and get rid of the toxins that way," he said.

I asked about another famously poisonous mushroom, *Paxillus involutus* [brown roll rim]. "Ah yes," he smiled. "That can certainly kill you, but it's not poisonous as such." This very common fungus used to be regarded as edible, but is now known to produce a cumulative allergic reaction in susceptible individuals. This response is relatively rare, but can be as bad as it gets if you happen to be that person.

That brings me back to the five species which he did regard as truly deadly. The first of these, the false morel (*Gyromitra esculenta*) is a real killer if eaten raw.



The false morel – deadly when raw . . .

This same proviso goes for several other species which are mildly toxic when raw, but safe when thoroughly cooked. For example, honey fungus (*Armillaria mellea*) and the blusher (*Amanita rubescens*) will make you unwell when uncooked, but are generally regarded as good to excellent after heat-treatment. And on a lesser level, many other edible species, such as blewits (*Lepista saeva* and *L. nuda*) should always be cooked because they are indigestible and can upset some stomachs if eaten raw.



Blushers, honey fungus and wood blewits are all mildly poisonous when raw . . .

No such treatment will render Henning's other four species safe. The death cap is almost certainly responsible for more mushroom fatalities across the world than all the others put together. This is because it is extremely toxic, has no antidote and is also fairly common in temperate woodland. It accounts for several deaths every year across Europe and America, although, as far as I can know, there has only been one adult fatality in Britain over the last century.



Death cap (photo by Charles Potter) and destroying angel . . . both deserving their names and reputations

The destroying angel is just as toxic as its near relative the death cap while Henning's last two really dangerous mushrooms: the deadly- and fool's webcaps (*Cortinarius rubellus* and *C. orellanus*) are equally lethal, but fortunately the second is extremely rare. The first is uncommon, but still responsible for deaths on the Continent and it has been behind several near-fatal incidents in Britain. In 1979, for example, three people camping in Scotland mistook these for chanterelles. Two weeks later they were admitted to hospital with acute renal failure. One recovered fully, but the others had suffered irreparable damage and needed kidney transplants.

Much the most famous webcap incident, however, is that of Nicholas Evans, best-selling author of *The Horse Whisperer* (which was later turned into a film directed by and starring Robert Redford). While staying with his wife at his brother-in-law's Scottish estate in 2008, Evans discovered a crop of delicious-looking mushrooms on a morning walk, returning to fry the haul in butter and parsley which he then served to his hosts and wife. They next morning the four began to suffer from vomiting and diarrhoea. After several terrifying days when it appeared that at least one might die, they slowly began to recover, but three years later three still require dialysis. Both men and Evans' wife will require kidney transplants.

All this ghoulish talk of deadly mushrooms is in danger of leading us down the familiar path of 'toadstool prejudice', however. The point should actually be that fatalities are extremely rare. The overwhelming bulk of 'poisonings' hinge around a combination of indigestion and fear. Wild mushrooms can be very indigestible and should generally be treated more as a herb or spice than a major ingredient – particularly on the first outing.

#### LATEST DEVELOPMENTS

Right, that's enough pandering to your innate British suspicion of all things fungal. Let's turn to the more cheerful topic of what's currently available and here it's thanks to all those who have been giving me feedback from around the country (and beyond).

Thelma Atkins in Berkshire, Gillie Tuite in West Sussex and Steve in South West Scotland all tipped me the wink that chanterelles are up in many areas. Despite this, it was only yesterday that I found my first of the year. This is still significant, however, because they usually start to fruit in about the third week of July – yet another indication that this year is looking set to imitate the bumper crops of last year.

Perhaps more excitingly, however, Bas reports summer ceps in the Pyrenees while Bob Smith has found a blusher much closer to home and Cath Jones stumbled across bay boletes in Kent at the end of May. On my own home patch Rhys has also found a purple-staining boletes (*Boletus erythropus*) which is hardly exciting from a gastronomic point of view, but a good indicator that far more edible species may shortly emerge.



*Boletus erythropus* – a bland (and suspect) species, but an indicator of things to come?

Finally, I am indebted to Kitty Corrigan who found the following poem in The Financial Times. It tickles my pro-European senses, but I can't help feeling the author has, while trying to display a love of fungi, yet again displayed the characteristic British mycological ignorance. It seems fairly clear that he is describing nothing more interesting than *Agaricus bisporus* (or at best field mushrooms) – although what they are doing growing in birch woodland is beyond me.

### Europeans (An Extract from November by Sean O'Brien)

Now we are in Europe let us take  
To selling mushrooms by the roadside,  
Broad-brimmed platefuls and uniform buttons  
Plucked before dawn in the forest of birch,  
The dank delicious one-legged flesh

Climbing from grave-pits as big and as deep  
As the forests themselves, for it does not  
Take long to establish the custom, not long  
To forget the beginning, to hold up  
A bucket or basket of mushrooms  
And talk about always and offer a shrug  
That proves our knowledge and our ignorance  
Identical, proverbial, entirely  
Beyond the scope of history or law,  
And since we have always been here  
On our fold-away chairs near the crossroads,  
Hunched in black overcoats, pale as our produce,  
Seeking and selling the flesh of the earth  
By the handful and kilo in brown paper bags,  
We cannot be other than real.

Daniel Butler

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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.