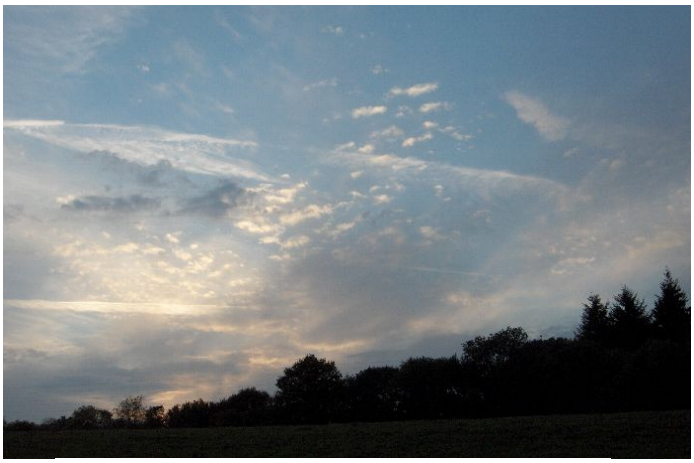
September

Weather Report

At the beginning of September a high-pressure system was firmly in place over England resulting in very settled conditions. Typically mild muggy nights were followed by cloudy, misty early mornings, then sunnier afternoons with gentle northerly breezes and maximum daytime temperatures between 19 and 23 C. Our pond finally dried up and the long standing puddles on the main ride disappeared. On the 14th a weak front approaching from the north brought some heavy cloud, after which there were two more sunny days.

Conditions for the remainder of the month though were much more unsettled with many blustery, sunny and showery days. On the 24th the south eastern region was affected by line squalls, causing damage to buildings and trees, but Long Wood was unscathed. The total rainfall for September of 37mm all fell between the 17th and the 30th.

A dry pond, the surface covered with early falling leaves.



A view of the trees along the southern boundary as the sun sets on a warm September evening.

Extracts from Rodney's Diary

1st September

Two more logs fitted to shelter and one front section half fitted, as will need a cross piece at free end to lift it up level.

4th September

Half-fitted front section completed with chestnut crosspiece fitted at free end and three more logs put into place, bringing all walls up to four rows.
Mouse box by Hazel Corner reattached to tree with wire as ties had been nibbled off.

13th September

Tidied up hemlock pile to sort out suitable building lengths. Several prepared lengths taken to picnic site ready for building. Oddments cut and stacked on log pile for drying. Dry spell continues with no standing water in pond.

15th September

Row 5 lifted onto shelter and all but eastern end pole notched to fit.
Struggling more to lift trunks-
am going to need longer ramp sections for next level. Almost six foot high at front now, so only require one more level of short logs at front
before fitting single log right across the top.

18th September

Row 6 rear and right front notched into shelter and right side lifted into position. Only four more
to lift and cut in before completion to roof level.
Conditions still very dry so yesterday's forecast heavy showers must have missed the wood.

19th September

Row 6 completed and front and back row 7 lifted into place with rough notch to hold in place till next visit.

23rd September

Last two timbers notched in and fitted across front and back. Bark stripped from drying sections to try to slow decay that might result from bugs lurking and munching under the bark layer. Floor raked flatter and worst of debris removed.

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30th September
Quick check of roof measurement for sheeting and stroll round with Heather on fungi survey. Not many un-nibbled samples. Still no standing water in the pond.

The Amanitas

On the 10th September 2006 my attention was drawn to a bright red blob in the leaf litter under a silver birch tree at the edge of the 'picnic site'. As I approached I could see that it was a toadstool with a brilliant scarlet cap covered in small white scales, identical to those often featured in British publications to symbolise and proclaim the arrival of autumn. Research at home later, informed me it was an *Amanita muscaria* or Fly Agaric, the common name probably deriving from the centuries old practice of crushing pieces of the cap into a bowl of milk to attract and destroy flies.

Curiosity aroused, my next visit to our wood was spent searching for other specimens and in doing so I not only discovered more Fly Agarics but many other species in an array of shapes, sizes and rather more subtle colours, sprouting out of the ground, tree trunks, stumps, branches and fallen twigs. I photographed everything, believing it would be a straightforward task to add a name once I had purchased an encyclopaedia of fungi.

It wasn't! In my naivety and ignorance I thought perhaps each species was a definite colour and size, and so regretfully on this first foray never considered inspecting the gills and stalk, sniffing it, measuring it, chopping it up or taking a spore print. Even after carrying out all these tasks, identification can often only be confirmed by looking at the spores through a powerful microscope and as I do not own one of these, I have only been able to positively identify about half of the fungi growing in Long Wood; the majority of the remainder have been assigned to family groups. It does not help that there are over six thousand species native to the British Isles, they seem highly adept at deviating from the norm and fungal classification is undergoing a major overhaul at present.

I have kept a survey with detailed notes of all the fungi growing in our wood throughout the year. In February I featured bracket, crust and jelly fungi because these fruiting bodies appear to be in their prime in the winter. I have chosen to concentrate on the Amanita genus for September, as it was the vividly coloured *Amanita muscaria* that triggered off my interest (or possibly obsession!) exactly a year ago.

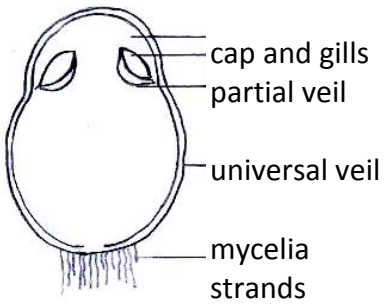

Diagram of a very young *Manita muscaria* showing stem ring and vulval bag

Amanitas belong to the phylum Basidiomycota, producing sexual spores on the outside of specialised club-shaped cells called basidia that, in the order of Agaricales, are attached to the surfaces of gills protected beneath a cap and raised above the ground by a stalk. Whilst developing they are further protected by a veil – a thin wall of tissue sealing the cap rim to the stem, which ruptures as the mushroom matures to disperse or leave a ring. Amanitas have a veil consisting of two layers, the second known as a universal veil that encloses the entire fruit body when it is young, so that it emerges from the soil looking

like a white egg. As the *Amanita muscaria* grows, the top of the veil breaks to reveal the red colour of the immature hemispherical cap. This eventually becomes flattened but is still covered with white speckled warty pieces – the remains of the veil and a bag like volva is left surrounding the base of the stem. All amanitas have some sort of volva but not all have a ring on the stem.

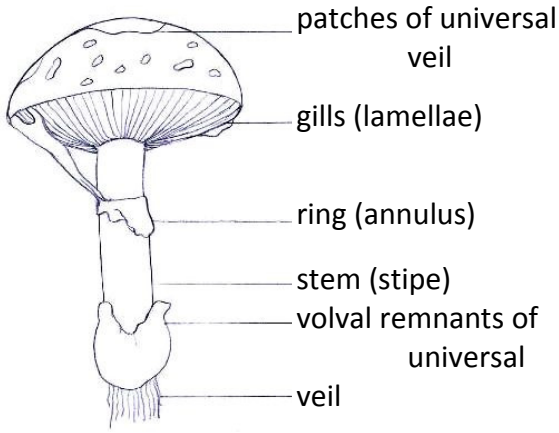

Diagram of a maturing Amanita mascaria

Because fungi have specific requirements, only certain species will ever be found in woodland and the types of tree growing in that wood further restrict the range. Amanitas are micorrhizal, their mycelium (the vegetative network of hyphal threads) forming an organic bond with tree roots, providing the fungi with sugars they are unable to produce for themselves and the tree with essential minerals such as potassium and phosphorus that the fungus' mycelia are more efficient at absorbing. Mycorrhyzal fungi usually only form a relationship with just one or a very limited number of tree species, so noting the type of tree a mushroom is growing under can be an essential aid to identification.

Although the amanita genus contains some of the most poisonous fungi known to man, the inhabitants of Long Wood – especially slugs, obviously appreciate them as a food source, with the result that several of the photographs I have taken are not of perfect specimens but nibbled or trampled remains. After reading about the consequences of mistaken identity, so far I have not been tempted to bring any mushrooms home to supplement our supper.

The two species that are lethally poisonous and for which there are no known antidotes to the toxins they contain are *Amanita phalloides* commonly known as the Death Cap, and *Amanita virosa or Destroying Angel.* The former has a pale greenish-brown cap and the latter is completely white; neither has been discovered in our wood to date. *Amanita pantherina* with its brown cap and white spots contains similar toxins to *Amanita muscaria* but often in a higher concentration and so is regarded as possibly lethal.

Usually described as dangerously poisonous and psychoactive, the *Amanita muscaria* is renowned for its hallucinogenic properties. It contains two toxins, ibotenic acid and muscimol, which when ingested affect the central nervous system causing convulsive twitching and give the intoxicated person a sense of heightened perception together with a loss of all sense of fear. This has given rise to speculation that the Vikings with their reputation for ferocity in battle, would consume the mushrooms during religious ceremonies prior to an invasion.

Shamans in Siberia used the fungi to aid communication with their gods and it is also collected, dried and ingested by members of the reindeer-herding Sami tribes of northern Scandinavia but because the concentration of toxins is known to vary considerably according to the season, location of the supply and weather conditions, all the reference books I have consulted list the mushroom as deadly poisonous and although it has rarely proved fatal, strongly advise against experimentation.

It has been reported that both reindeer and squirrels are tempted to seek out and eat Fly Agarics for their euphoric effects. Much smaller rodents have evidently made some of the tooth marks found on caps in Long Wood but I was not fortunate enough to witness any bizarre behaviour in the mouse or vole population in September.

Long Wood Fungi

Scientific name: *Amanita muscaria*

Common name: Fly Agaric

Location: Specimen in the photograph found growing under birch at the south-eastern edge of the 'Picnic site'. Many others throughout the eastern section of the wood but not within 5 metres of the stream bank.

Dimensions: Cap 11 centimetres across.
Stem 12 centimetres high.

Description: An almost perfect mushroom apart from a few very small nibbles. Red cap with white, pyramidal warts scattered over it. Crowded, white, free gills. White stem with a white ring and shaggy volval remains around the bulbous base. Cap and stem flesh both white.

Scientific name: *Amanita pantherina*

Common name: Panther Cap

Location: Under hornbeam, close to the northern boundary, just to the north-west of the 'Circle'.

Dimensions: Largest specimen -
Cap 8 centimetres across.
Stem 11 centimetres high.

Description:
Brown cap with white pyramidal warts scattered over it.. Crowded, free, white gills. White stem with a white ring that has no grooves or striate markings on the upper surface Bulbous base sheathed in a small volval sac, a distinctive gutter rim around the top and belt like rings on the stem just above it. Cap and stem flesh both white. This small group of Panther Caps had been badly nibbled and kicked over by animals. The photograph was taken in the rain in September 2006, since when I have not been able to find any other examples of this species growing in our wood.

Scientific name: *Amanita spissa*

Common name: Grey Spotted Amanita

Location: On the track around the 'Circle' under birch, hazel and hornbeam. Other specimens have been found across the wood between the old shed and the western boundary.

Dimensions: Un-nibbled cap 5 centimetres across.
Stem 7 centimetres high

Description: Dark brown cap covered in delicate greyish patches that fall or brush off easily leaving the cap bare and smooth. Gills white, crowded and narrowly attached to the stem (adnexed). White stem deeply set into the ground with a swollen basal bulb but no obvious volval sac. The top of the stem and large white ring are marked with lines on the surface. Beneath this to the base it is covered in small scales. White flesh.
The species is supposedly edible but it can very easily be confused with the potentially lethal *Amanita pantherina.*

Scientific name: *Amanita rubescens*

Common name: The Blusher

Location: Close to chestnut on the edge of the rim overlooking the pond, east of the 'Picnic site'. Specimens have also been found at the edge of the main ride close by and on the new 'Wolf Clearing'.

Dimensions: Cap 14 centimetres across.
Stem 13 centimetres high.

Description: Dull reddish brown cap covered with grey-brown warty velar remnants, almost looking like a dusting of burnt flour. Crowded, free, white gills. Top of ring and stem above marked with fine lines, beneath it has a reddish tinge – especially where bruised or damaged. The stem ends in a basal bulb. Flesh is initially white but two days after this photograph was taken, the nibbled patches had become brownish- pink. Poisonous when raw.

Scientific name: *Amanita citrina*

Common name: False Deathcap

Location: Under a hornbeam tree at the western edge of the new 'Wolf Clearing'.

Other specimens have been found along the western boundary.

Dimensions: Immature cap 3.25 centimetres across.

Stem 6 centimetres high.

Description: Pale lemon cap covered in coarse, white velar patches that turn a pale ochre-brown with age. Gills are creamy-white, crowded and narrowly attached. Pale yellow ring, upper surface lined and longitudinal lines to the top of the stem. Beneath the ring the stem is smooth, ending in a large basal bulb with a volval rim. Much of the base of this specimen had been eaten away by maggots.
The top of the stem and cap are only twisted because I squashed the sample into a bag that was too small!

Scientific name: *Amanita strobiliformis*

Common name: Warted Amanita

Location: Under hornbeam between the 'Picnic site' and rim overlooking the pond. Only specimen ever found.

Dimensions: Cap immature.

Stem 8 centimetres high.

Description: Pure white cap covered with thick, flat, shaggy scales that hang over the rim edge. The white partial veil was only just breaking away to reveal crowded, free, white gills. White stem covered in shaggy bits, ending in a bulbous base with remains of the volval bag attached to it. Cap and stem flesh both white.

Scientific name: *Amanita vaginata*

Common name: Grisette

Location: On slope leading down to the stream, south of pond.

Dimensions: Cap 8 centimetres across.
Stem 11 centimetres high.

Description: Grey-brown cap with darker centre, small umbo (central hump) and radial grooves around the rim. No velar remains. Pure white, crowded gills, narrowly attached. Stem thinner and paler at the top, widening and becoming buff coloured with a grainy looking surface towards the base that is encased in a very large volval bag measuring 4 centimetres high. No ring. Cap and stem flesh white.
This specimen had a large chunk bitten off the side. The Grisette is considered to be edible for humans but because of possible confusion with more deadly species, the advice given in reference books is to leave well alone.

Although over 30 different species of Amanitas can be found in Britain and I realise the improbability of discovering an example of every type fruiting in Long Wood, once an interest is in danger of turning into an obsession it becomes compelling to try to tick as many off the list as possible. It is easy to see how a desire to do so might result in trying to make a specimen match the criteria sources, so I have been careful to record detailed notes before attempting any research. The fungi I have described all conform to the characteristics that define the particular species, but there are many more that I have had to leave a question mark beside.