

## What's your favourite fungus?

# The One That's the Largest Organism on Earth

If you ask people what the world's biggest organism is, most will guess the Blue whale. They can grow up to 33 metres long and are the largest animals alive today. Whales are pretty big, but there's an even bigger organism that claims the title 'largest organism on earth'.

This living thing is estimated to be between 1900 and 8500 years old, it spans an area of 2,200 acres (that's about the same as 1,220 football pitches) and weighs at least 150 metric tons. This makes it among the heaviest, but certainly the largest and oldest living thing on this planet. You must have guessed it by now; it's a fungus!

The common name of the fungus is the 'honey mushroom' as during Autumn it produces golden-coloured mushrooms. Its scientific name is *Armillaria ostoyae*. This gigantic fungus was found in the Blue Mountains of eastern Oregon in America, and is a pathogen of the roots of trees. Being a pathogen means that the fungus is harmful to the tree on whose roots it lives. The fungus takes water and carbohydrates from the tree and so interferes with its growth.

The tree eventually dies owing to lack of nutrients. The fungus is hidden, because it grows underground extending its hyphae from tree to tree in special structures called rhizomorphs. It cannot be tracked easily on the surface, but because the fungus slowly kills trees it has infected, it makes the leaves turn yellow as they become starved of nutrients.

By looking for trees with yellow leaves the mycologists were able to map the presence of the fungus. Because it grew over such a large area, a helicopter was used to obtain an aerial view of the forest showing all the trees that had been infected.

