

Present Day Fact File

Rafflesia

This odd plant holds the record for producing the largest flowers in the world. The simple fleshy flowers often reach over a metre wide, and can take nearly ten months to develop from a bud the size of a large cabbage. But the flower is the only part of *Rafflesia* you are ever likely to see; the plant itself is a parasite of the vines that grow deep in the rainforests of Malaysia, and is nothing more than a network of threads invading the flesh of a vine.

A bizarre hoax?

When it was first discovered by an explorer (Lord Raffles) in the late nineteenth century, no-one believed that it was a real flower; it was thought that someone had set up a hoax to fool Western biologists. Because the flowers take so long to grow and because it is impossible to guess where they will appear (remember, you can't see where the rest of the plant is), they are very rarely seen even by people living in the area.

Why so big?

So why does a plant that is almost invisible, and seems quite happy to parasitize another plant need such big flowers? Well, after a few years of living inside its host vine, the vine may well begin to sicken. If it dies before the *Rafflesia* can produce seeds, then this is a disaster, so spending a bit more energy on producing a flower that has a good chance of attracting lots of pollinators is actually not a bad investment. The flowers themselves grow slowly because *Rafflesia* has to draw all of the resources it needs from its host vine; do this too quickly and it might kill the vine! Because they grow so slowly, making them a bit bigger than normal is not a problem.

The corpse-flower

The final touch is to make the flowers attractive to the flies and beetles that are going to carry pollen from one *Rafflesia* to another. *Rafflesia* does this by pretending that the flower it grows is a corpse; the five leaves and the domed centre are made of an uneven, blotchy red-and-white spongy material that looks like rotting flesh. To make the picture complete, the flower releases a terrible smell that mimics the smell of a dead animal. Flies and flesh-eating beetles come from far and wide to dine out; as they explore the inside of the flower, they are dusted with pollen which (hopefully) will make it to another flower to fertilise it.

The flower, having taken so long to grow, lasts for only a few days before dying. If it has been pollinated, the seeds develop inside the remains, and will later be taken away by rodents and wild pigs – hopefully they will bury the seeds somewhere near to another vine, ready to start the process again.

A modern extinction

Sadly, because of the delicate nature of the flower, the long time it takes to grow and the damage to their habitat, these massive flowers are becoming extremely rare. Researchers are trying to grow them artificially in laboratories by cutting holes in vines and manually infecting them with *Rafflesia* seeds.