

## Fossils- clues of the past

Only one percent of the animals that have ever lived have been found as fossils. Palaeontologists could have come up with this figure by looking at populations of organisms today and using what we think the conditions were like in the past to estimate what percentage were fossilised. They would have known it would have only been a small percentage. There are a number of reasons for this ranging from the animals being soft bodied, organisms not being fossilised because of the conditions, that we just haven't found them yet or that the land they are on is owned by someone or it is being used for something already.

The fossil record is incomplete, because many early forms of life had soft bodies. Anything soft cannot be fossilised as easily as things like bones and shells. Organisms with bones and shells came later in the history of life than soft bodied animals.

Many of the fossils created have been destroyed in some way. This could be through volcanic eruptions, or even humans. Humans could have destroyed many fossils without even realising it. For example, when we build towns and cities, we dig up areas of land to make foundations and put concrete over them.

The vast majority of organisms that lived never became fossilised. This is because, for an organism to become fossilised, it requires very specific conditions. For example, most organisms were buried in the presence of oxygen and were therefore decomposed by decomposers and detritus feeders. Most of the same species of organism will live in a similar habitat. This means that certain species may be more likely to be fossilised than others, because they live in conditions where their bodies can be fossilised. Other species may live in conditions where it is more unlikely for their bodies to be fossilised. For example plant species that lived in swamps were probably more likely to be fossilised as the water in a swamp means that when they are buried, they are usually buried in the absence of oxygen and are therefore less likely to be decomposed. If an organism lived in an area with conditions which result in fast decay, they are less likely to be fossilised.

Many fossils buried in the earth's crust have not been found yet. This is because huge amounts of land have been covered in concrete to make roads, roads and cities. This is inconvenient and expensive to dig up and so any fossils buried here are unlikely to be found. Large amounts of land are owned by people, who will not want people digging it up to search for fossils. An example of this would be farmland.

In conclusion, it is very unlikely for an organism to have been fossilised, because of the specific conditions needed and then found, because of the limited amount of land that we can actually search for fossils in. This means that only a small number of organisms and species of organisms will be found.