

# Lasting impressions



Sedgwick Museum  
of Earth Sciences

## What is a trace fossil?



Most of the fossils in the Sedgwick Museum are what palaeontologists (scientists who study fossils) call *body fossils*. This means that they are fossils formed from the actual left-over parts of something which was once alive, and which have been buried and turned to rock over millions of years.

*Trace fossils* are a bit different. Rather than being the actual remains of an animal or plant they are fossilised clues about the ways that ancient animals and plants behaved or interacted. Trace fossils can provide some amazing evidence of all sorts of different animal behaviour to help us bring ancient creatures back to life. Some animals without hard shells or bones don't fossilise very well, so the only evidence we have of them is from traces they have left behind!

Some examples of trace fossils that you can see in the Museum displays are:



### Footprints

Footprints in soft mud or sand can be fossilised if more mud or sand fills it up, and then turns to rock. If you look carefully at footprints (and other fossil trails) in the Museum you will see that they stick out! This seems a bit odd, but it is because it is much more common to find the natural cast of an ancient footprint than the hollow as it is less likely to get worn away by wind and water.



### Feeding trails and burrows

Look in the display cases in the Bay called "Deserts Evolution Extinction" to see lots of tracks and trails. Occasionally fossilised animals are found with their trails so we can pair them up, but more often we have to make guesses.



### Bite marks and gnawed bones

These are evidence of carnivores (meat-eating animals) having lived in a particular place at a particular time, and what they ate. There are some gnawed bones in the Ice-Age Cambridgeshire displays. Sometimes fossilised leaves show signs of having been eaten too, though it is hard to work out what ate them.



### Coprolites (fossil poo)

Poo is really interesting! They provide clues about the sort of diet animals had because they often contain fragments of indigestible bits such as bone or fish scales or tough plant material. They can also be a useful clue that animals lived or hunted somewhere even if we don't find any actual fossil remains of the animal.

*What sorts of trace fossils will we leave behind for palaeontologists in the future to discover?*

