Evolution rewritten, again and again

August 31 2010

A team of researchers at the University of Bristol decided to find out, with investigations of dinosaur and human evolution. Their study, which is published this week in *Proceedings of the Royal Society B*, suggests most fossil discoveries do not make a huge difference, confirming, not contradicting our understanding of evolutionary history.

This is especially true of the fossil record of human origins from their monkey relatives. Even though early human fossils are immensely rare, and new discoveries make a big splash in the scientific literature and in the media, they sit randomly across the evolutionary tree of early humans. In other words, most discoveries of new fossil species simply fill in gaps in the fossil record that we already knew existed.

As Dr James Tarver, leader of the study, said: "Human fossils are very rare, and they are costly to recover because of the time involved and their often remote locations. Scientists may be pushed by their sponsors, or by news reporters, to exaggerate the importance of their new find and make claims that 'this new species completely changes our understanding'."

The story of dinosaur evolution is a bit more complicated. New dinosaur fossils are being found in places around the world where they've never been looked for before, such as China, South America and Australia. These fossils are fundamentally challenging existing ideas about dinosaur evolution but this seems to tell us that there are still many new species of dinosaurs out there in the rocks.

"These are important results," said Professor Michael Benton, another member of the team. "It might seem negative to say that new finds do, or do not, change our views. However, to find that they don't means that we may be close to saturation in some areas, meaning we know enough of the fossil record in some cases to have a pretty good understanding of that part of the evolutionary tree."

Professor Phil Donoghue commented further: "We can use these studies as a way of targeting new expeditions. If dinosaurs are poorly understood from a particular part of the world, or if some other group is altogether incompletely known, that's where we need to devote greater efforts."

Provided by University of Bristol

Citation: Evolution rewritten, again and again (2010, August 31) retrieved 3 May 2024 from https://phys.org/news/2010-08-evolution-rewritten.html