

Oldest fossil 'rabbit' unearthed

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The fossilised skeleton of a rabbit-like creature that lived 55 million years ago has been found in Mongolia, Science magazine reports.



Gomphos elkema, as it is known, is the oldest member of the rabbit family ever to be found.

Gomphos was surprisingly similar to modern rabbits - and probably hopped around on its elongated hindlimbs.

Gomphos had long hindlimbs, just like a modern rabbit

The fossil adds weight to the idea that rabbit-like creatures first evolved no earlier than 65 million years ago.

"This skeleton is very complete," co-author Robert Asher, of Humboldt Universität, Berlin, Germany, told the BBC News website.

"*Gomphos* gives us valuable information about the anatomy of early rabbits - it tells us what they looked like.

"*Gomphos* had a true 'rabbit's foot'; that is, a foot more than twice as long as the hand that could be used for hopping."

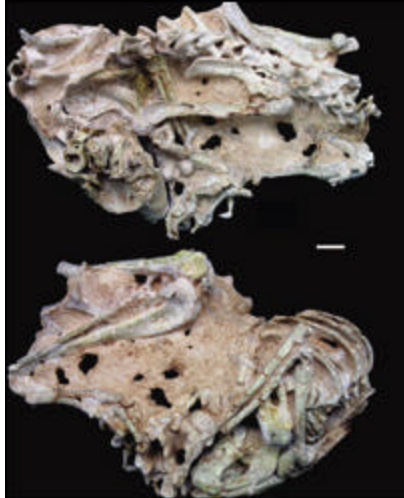
But the ancient creature did have some traits that were unlike its modern relative. For example, *Gomphos* had quite a big tail and some of its teeth were more squirrel-like than rabbit-like.

Scanty evidence

Prior to this discovery, the oldest, most complete fossil lagomorphs (the family which includes rabbits, pikas and hares) were about 35 million years old.

Scanty fossil evidence has led to some uncertainty about when modern placental mammals first appeared in evolutionary time.

One camp believes that modern placental mammals (which include elephants, bats, rabbits, lions etc, but not kangaroos, opossums or echidnas) existed long before the famed "KT" boundary 65 million years ago, which marked the demise of the dinosaurs.



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The other camp disagrees with this view, and instead claims that modern placentals did not originate until close to, or shortly after, this event.

Great extinction

Gomphos has waded - or hopped - into the debate, adding evidence to the latter theory.

Hitherto, there was a strong school of thought that suggested lagomorphs are more closely related to an extinct group of Cretaceous animals called the "zalambdalestids", than they are to other, modern mammal groups.

Zalambdalestids lived before the great mass extinction event 65 million years ago. So, if they were close relatives of the lagomorphs, it would suggest modern placental groups were diverging during the Cretaceous period.

But an analysis of *Gomphos* suggests this is not the case, Dr Asher and his colleagues believe. This makes it more likely that modern lagomorphs - and other placental mammals - originated after the dinosaurs went extinct.

"This skeleton gives us more data to throw into the analysis," he told the BBC News website. "And using this new information we favour the second idea."