

Bird ancestor reclaims its branch on tree of life

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This image recieved May 11, 2010 courtesy of the US Department of Energy's SLAC National Accelerator Laboratory shows an Archaeopteryx, a 150 million year old "dinobird" fossil. Venerated for 150 years as the forebear of all birds until being relegated two years ago to the common class of winged dinosaurs, the Archaeopteryx was restored to its hallowed branch on the tree of life on Wednesday.

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A fossil find in China proved the winged creature was in fact an ancestor of modern birds, said a study in the journal *Nature*.

Since the discovery of the first fossilised Archaeopteryx specimen in Bavaria in 1861, most evolutionary scientists placed it at the base of a broad group of proto-birds, known as Avialae, from which our feathered friends emerged.

It was discovered less than two years after the publication of <u>Charles Darwin</u>'s game-changing <u>theory of evolution</u>: On the Origin of Species, and was long held up as THE case study of evolutionary transition—from dinosaur to bird.

But in 2011 a team of Chinese researchers said they had discovered another <u>feathered dinosaur</u>, not a bird, that shared many characteristics with Archaeopteryx.

They took this fact to mean that Archaeopteryx was never a bird at all but belonged to a neighbouring branch called Deinonychus.

Now the genealogical map is being redrafted yet again.





An undated image released by the Royal Belgian Institute of Natural Sciences shows the skeleton of a recently discovered dinosaur dubbed Aurornis xui that roamed China during the middle to late Jurassic period. A new study published in the journal Nature finds the discovery restores the fossil creature Archaeopteryx back to the "bird" branch of the evolutionary family tree. Credit: Thierry Hubin, Royal Belgian Institute of Natural Sciences

Scientists, again in China, said Wednesday they had discovered yet another new, feathered species from the <u>Jurassic period</u>.

A team led by Pascal Godefroit of the Royal Belgian Institute of Natural Sciences baptised the new animal Aurornis xui, and re-analysed the entire map of related dinosaurs from the period.

"We came up a robust and very well-defined family tree," the palaeontologist told AFP.



"We can show that <u>Archaeopteryx</u> was in fact a primitive bird, and the little beast that we found an even more primitive one," he said.

"For the time being, this (Aurornis xui) is the oldest bird known to Man."

Aurornis xui lived about 150 million years ago, said Godefroit. It was about 50 centimetres (20 inches) long and "could probably run very fast".

"Its small teeth let us to conclude that it was probably an insect-eater," said the scientist.

More information: *Nature* paper: dx.doi.org/10.1038/nature12168

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