New dinosaur fossil challenges bird evolution theory

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This is a reconstruction of *Eosinopteryx*. Credit: Royal Belgian Institute of Natural Sciences

(Phys.org)—The discovery of a new bird-like dinosaur from the Jurassic period challenges widely accepted theories on the origin of flight.

Co-authored by Dr Gareth Dyke, Senior Lecturer in Vertebrate

Palaeontology at the University of Southampton, the paper describes a new feathered dinosaur about 30 cm in length which pre-dates bird-like dinosaurs that birds were long thought to have evolved from.

Over many years, it has become accepted among palaeontologists that birds evolved from a group of dinosaurs called theropods from the Early Cretaceous period of Earth's history, around 120-130 million years ago. Recent discoveries of feathered dinosaurs from the older Middle-Late Jurassic period have reinforced this theory.

The new 'bird-dinosaur' *Eosinopteryx* described in *Nature Communications* this week provides additional evidence to this effect.

"This discovery sheds further doubt on the theory that the famous fossil Archaeopteryx – or "first bird" as it is sometimes referred to – was pivotal in the evolution of modern birds," says Dr Dyke, who is based at the National Oceanography Centre, Southampton.

"Our findings suggest that the origin of flight was much more complex than previously thought."

The fossilised remains found in north-eastern China indicate that, while feathered, this was a flightless dinosaur, because of its small wingspan and a bone structure that would have restricted its ability to flap its wings.

The dinosaur also had toes suited to walking along the ground and fewer feathers on its tail and lower legs, which would have made it easier to run.

More information: www.nature.com/ncomms/journal/ … full/ncomms2389.html

Provided by University of Southampton