

Feathered cousin of 'Jurassic Park' star unearthed in China

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Artist's impression of *Zhenyuanlong suni*. Credit: Chuang Zhao

A newly identified species of feathered dinosaur is the largest ever discovered to have a well-preserved set of bird-like wings, research suggests.

Palaeontologists working in China unearthed the fossil remains of the winged dinosaur - a close cousin of Velociraptor, which was made famous by the Jurassic Park films.

Researchers say its [wings](#) - which are very short compared with other dinosaurs in the same family - consisted of multiple layers of large [feathers](#). They found that the species' feathers were complex structures made up of fine branches stemming from a central shaft.

Although larger [feathered dinosaurs](#) have been identified before, none have possessed such complex wings made up of quill pen-like feathers, the team says. Scientists have known for some time that many species of dinosaur had feathers, but most of these were covered with simple filaments that looked more like hair than modern bird feathers.

This latest discovery suggests that winged dinosaurs with larger and more complex feathers were more diverse than previously thought.

The species belonged to a family of feathered carnivores that was widespread during the Cretaceous Period, and lived around 125 million years ago, the team says.

The near-complete skeleton of the animal - which is remarkably well preserved - was studied by scientists from the University of Edinburgh and the Chinese Academy of Geological Sciences. The fossil reveals dense feathers covered the dinosaur's wings and tail.



Fossil remains of *Zhenyuanlong suni*. Credit: Junchang Lu

The newly discovered species - named *Zhenyuanlong suni* - grew to more than five feet in length. Despite having bird-like wings, it probably could not fly, at least not using the same type of powerful muscle-driven flight as modern birds, researchers say.

It is unclear what function the short wings served. The [species](#) may have evolved from ancestors that could fly and used its wings solely for display purposes, in a similar way to how peacocks use their colourful

tails, researchers say.

The study is published in the journal *Scientific Reports*. The research was supported by Natural Science Foundation of China, the European Commission, and the US National Science Foundation.



A close-up of *Zhenyuanlong suni*'s feathers. Credit: Junchang Lu

Dr Steve Brusatte, of the University of Edinburgh's School of GeoSciences, who co-authored the study, said: "This new dinosaur is one

of the closest cousins of Velociraptor, but it looks just like a bird. It's a dinosaur with huge wings made up of quill pen feathers, just like an eagle or a vulture. The movies have it wrong - this is what Velociraptor would have looked like too."

Professor Junchang Lü, of the Institute of Geology, Chinese Academy of Geological Sciences, who led the study, said: "The western part of Liaoning Province in China is one of the most famous places in the world for finding dinosaurs. The first feathered dinosaurs were found here and now our discovery of Zhenyuanlong indicates that there is an even higher diversity of feathered dinosaurs than we thought. It's amazing that new feathered dinosaurs are still being found."

More information: *Scientific Reports*,
[nature.com/articles/doi:10.1038/srep11775](https://doi.org/10.1038/srep11775)

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