

# Gigantic Jurassic pterosaur fossil unearthed in Oxfordshire, UK

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Credit: University of Portsmouth student Hamzah Imran

A team of paleontologists has discovered a fossil of a gigantic flying reptile from the Jurassic period with an estimated wingspan of more than three meters—making it one of the largest pterosaurs ever found from

that era.

Excavated from a gravel pit near Abingdon-on-Thames, Oxfordshire, the fossil includes part of the pterosaur's wing bone, which was broken into three pieces but still well-preserved.

Experts from the universities of Portsmouth and Leicester have published a [paper](#) on the specimen in *Proceedings of the Geologists' Association*. The fossil was topographically scanned and identified as belonging to an adult ctenochasmatoid; a group of pterosaurs known for their long, slender wings, long jaws and fine bristle-like teeth. It is now housed in the Etches Collection in Kimmeridge, Dorset.

Professor David Martill from the University of Portsmouth said, "When the bone was discovered, it was certainly notable for its size. We carried out a numerical analysis and came up with a maximum [wingspan](#) of 3.75 meters. Although this would be small for a Cretaceous pterosaur, it's absolutely huge for a Jurassic one!

"This fossil is also particularly special because it is one of the first records of this type of pterosaur from the Jurassic period in the United Kingdom."

Pterosaurs from the Triassic and Jurassic periods typically had wingspans between one and a half and two meters, so were generally smaller than their later relatives from the Cretaceous period, which could have wingspans of up to 10 meters. However, this new discovery suggests that some Jurassic pterosaurs could grow much larger.



An image of the bone. Credit: *Proceedings of the Geologists' Association* (2024). DOI: 10.1016/j.pgeola.2024.05.002

Professor Martill added, "This specimen is now one of the largest known pterosaurs from the Jurassic period worldwide, surpassed only by a specimen in Switzerland with an estimated wingspan of up to five meters."

Geologist, Dr. James Etienne, discovered the specimen while hunting for fossil marine reptiles in June 2022 when the Late Jurassic Kimmeridge Clay Formation was temporarily exposed in the floor of a quarry. This revealed a number of specimens including bones from ichthyosaurs and plesiosaurs and other ancient sea creatures including ammonites and bivalves, marine crocodiles and sharks.

Dr. Dave Unwin, from the University of Leicester, said, "Abfab, our nickname for the Abingdon pterosaur, shows that pterodactyloids, advanced pterosaurs that completely dominated the Cretaceous, achieved spectacularly large sizes almost immediately after they first appeared in the Middle Jurassic right about the time the dinosaurian ancestors of birds were taking to the air."

**More information:** James L. Etienne et al, A 'giant' pterodactyloid pterosaur from the British Jurassic, *Proceedings of the Geologists' Association* (2024). [DOI: 10.1016/j.pgeola.2024.05.002](https://doi.org/10.1016/j.pgeola.2024.05.002)

Provided by University of Portsmouth

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