

Fossil Of 'Dragon Ghost Hunter' Flying Reptile Unearthed In China

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<http://www.asianscientist.com/in-the-lab/guidraco-venator-dragon-ghost-hunter-flying-toothed-reptile-liaoning-china-2012/>

AsianScientist (Mar. 26, 2012) - Paleontologists have discovered a new toothed flying reptile from the Early Cretaceous period in Western Liaoning, China, and named it “Dragon Ghost Hunter” after its dragon-like teeth, flying skills, and hunting ability.

Led by Dr. Wang Xiaolin of the Institute of Vertebrate Paleontology and Paleoanthropology at the Chinese Academy of Sciences, the international team discovered the skull fossil in Sihedang, near Lingyuan City in Liaoning province, China.

Its name, *Guidraco venator*, is a combination of Chinese and Latin and translates literally to Dragon Ghost Hunter. 'Gui' means ghost in Chinese, while 'Draco' means dragon in Latin. Its species name, 'Venator,' is Latin for hunter.

Although paleontologists have made discoveries that greatly increased the pterosaur diversity in the last decades, very little is known about how these pterosaurs lived.

The article, published in the April 2012 issue of the journal *Naturwissenschaften*, adds to our knowledge of pterosaur distribution and enhances the diversity of cranial anatomy found in those volant reptiles.

The specimen, consisting of a skull and the anterior portion of a neck, is 380 mm long (measured between the tip of the premaxillae and the posterior margin of the squamosal), with the rostrum (205 mm in length) occupying 54 percent of the cranial length.

According to clues from the fossil, the pterosaur may have been a teenager at the time of death, and was likely a hunter and meat-eater.

"Several cranial elements such as the frontal and the premaxillae are unfused suggesting that this was a subadult animal at time of death," said Wang. "The association of the new specimen with coprolites and the cranial morphology suggest that *Guidraco venator* preyed on fish."

Guidraco has a nasoantorbital fenestra, a typical trait of the Pterodactyloidea, but differs from the pteranodontoid Istiodactylidae and the Pteranodontidae by features such as the dentition and the shape of the nasoantorbital fenestra. A frontal crest is present in pteranodontids but, in all cases, differs from that of *Guidraco*.

The cranial morphology clearly indicates that *Guidraco* is closely related to a rare taxon, *Ludodactylus*, from the Brazilian Crato Formation of Araripe Basin, with whom it shares the rounded ventral margin of

the orbit and an extensive frontal crest.

The main differences found in the Chinese taxon that justifies the separation at a generic level are the more inclined rostral teeth, the direction and position of the frontal crest, the absence of a spike-like lacrimal process, the comparatively smaller nasoantorbital fenestra, and the more constricted ventral portion of lower temporal fenestra. *Luddodactylus* was reported to bear a dentary crest, but none could be found in *Guidraco*.

However, more studies are required to understand these ancient flying reptiles, the authors say.

"Our overall knowledge regarding the distribution of those volant vertebrates is still very limited compared to other Mesozoic reptiles such as nonavian dinosaurs," said study co-author Prof. Alexander Kellner from the Museu Nacional Universidade Federal do Rio de Janeiro (UFRJ), Brazil.

"In particular, the paucity of the African record, where most specimens are rather incomplete, hampers a more comprehensive knowledge of the pterosaur evolutionary history."

Kellner added that specimens like *Guidraco*, among others, support the hypothesis that several of the main Early Cretaceous pterodactyloid clades, such as the Anhangueridae and the Tapejaridae, may have originated in Asia.

The article can be found at: [Wang X et al. \(2012\) New toothed flying reptile from Asia: close similarities between early Cretaceous pterosaur faunas from China and Brazil.](#)

Source: [Chinese Academy of Sciences.](#)

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