

News & Comments

The Long-standing Mystery of *Palaeospondylus* is Solved Using an X-ray

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In 1890, *Palaeospondylus gunni* was discovered in Scotland, and its phylogenetics was a mystery ever since. This tiny eel-looking creature is said to be around for more than 390 million years ago.

There are no teeth or dermal bones in its fossil record, making it a mysterious fish-like fossil vertebrate. Researchers have been unable to solve it since its discovery in 1890.

Scientists used synchrotron radiation X-ray micro-computed tomography to analyze *Palaeospondylus gunni* cranial skeletons at the histological level.

A cartilaginous skeleton and the lack of paired appendages indicate that *Palaeospondylus gunni* belongs to Sarcopterygii, a group of lobe-finned fishes.

According to Dr. Hu, the lead author, it is still difficult to determine exactly what the animal was.

This discovery could provide a wealth of information about four-limbed animals' evolutionary history and morphological features.

Dr. Hu is of the view that this new information, comprising of a long-last joint investigation of scientists around that globe, is required for solving the mystery behind *Palaeospondylus gunni*.

KEYWORDS

Evolution, genetics, fossils, mystery, x-ray, *Palaeospondylus gunni*, mammals, early ancestors of humans, fish, tetrapod, Evolutionary developmental biology, Palaeontology, Phylogenetics.

