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Researchers discover oldest fossil forest in Asia

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The forest, which covers an area the equivalent of 35 football pitches, is believed to have existed between 359 and 419 million years ago.

The oldest fossil forest in Asia has been discovered in the walls of clay quarries in China.

Researchers say it is the largest example of a Devonian forest, made up of 250,000 square metres of fossilised lycopsid trees.

The forest, which covers an area the equivalent of 35 football pitches, is believed to have existed between 359 and 419 million years ago.

It is the earliest example of a forest in Asia, according to the study published in the Current Biology journal.

The discovery was made near Xinhang in China's Anhui province.

Lycopsids found in the forest resembled palm trees, with branchless trunks and leafy crowns, and grew in a coastal environment prone to flooding.

They were normally less than 3.2m (10ft 6in) tall, but scientists estimate the tallest was 7.7m (25ft 3in) – taller than the average giraffe.



Top view of a stem base and rizomorph axes (Deming Wang and Le Liu/PA)

Giant lycopsids would later define the Carboniferous period, which followed the Devonian, and become much of the coal that is mined today.

Two other Devonian fossil forests have been found – one in the United States, and one in Norway.

Deming Wang, a professor in the School of Earth and Space Sciences at Peking University, said: "It might also be that the Xinhang lycopsid forest was much like the mangroves along the coast, since they occur in a similar environment and play comparable ecologic roles."



Reconstructions of lycopsid trees (Zhenzhen Deng/PA)

The fossilised trees are visible in the walls of the Jianchuan and Yongchuan clay quarries, below and above a 4m (13ft) thick sandstone bed.

Some of them included pine cone-like structures, and the diameters of the trunks were used to estimate the tree heights.

The authors acknowledged that it was difficult to mark and count all the trees without missing anything.

Prof Wang added: "Jianchuan quarry has been mined for several years and there were always some excavators working at the section.

"The excavations in quarries benefit our finding and research. When the excavators stop or left, we come close to the high walls and look for exposed erect lycopsid trunks."

Source: https://www.irishnews.com/magazine/science/2019/08/08/news/researchers-discoveroldest-fossil-forest-in-asia-1680992/