

New gibbon genus discovered in ancient Chinese tomb

June 22 2018



Credit: The Zoological Society of London

Scientists studying bones excavated from an ancient tomb in Shaanxi Province, central China, have discovered an entirely new but already extinct genus of gibbons.

The discovery was made by scientists led by international conservation charity ZSL (Zoological Society of London), while studying the contents

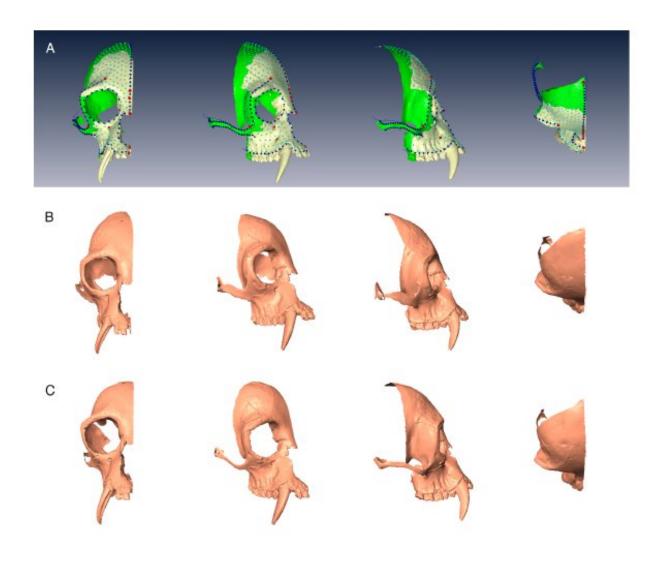


of a burial chamber dating from around 2,300 years ago that possibly belonged to Lady Xia – grandmother to China's first emperor, Qin Shihuang, the leader who ordered the building of the Great Wall of China and the Terracotta Warriors.

The tomb, first excavated in 2004, was found to contain 12 burial pits with animal remains, which included gibbon bones. Sophisticated computer modelling reveals that these ancient bones represent an entirely new genus and species of gibbon, which the team has named Junzi imperialis. Historical records reveal that Junzi probably survived until less than 300 years ago.

All of the world's apes – chimpanzees, gorillas, orang-utans and gibbons – are threatened with extinction today due to human activities, but no ape species were thought to have become extinct as a result of historic hunting or habitat loss. However, the discovery of the recently extinct Junzi changes this, and highlights the vulnerability of gibbons in particular.





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Commenting on the study, lead author Dr. Samuel Turvey from ZSL's Institute of Zoology said: "Our discovery and description of Junzi imperialis suggests that we are underestimating the impact of humans on primate diversity. These findings reveal the importance of using historical archives such as the archaeological record to inform our understanding of conservation and stress the need for greater international collaboration to protect surviving populations of gibbons in



the wild."

Eastern and Southeast Asia are currently home to some of the world's most threatened mammals, with 73 percent of Asian primates being threatened, compared to 60 percent globally. Two species of gibbon have recently disappeared in China, and all surviving Chinese species are currently classified as Critically Endangered by the IUCN's Red List of Threatened Species. The Hainan gibbon (Nomascus hainanus), a species of gibbon found on Hainan Island in southern China, is now probably the world's rarest mammal, with only 26 surviving individuals.

Gibbons are the smallest apes and are characterised by their distinctive song and long arms – which they use for moving through the forest canopy by a form of locomotion called brachiation.

Gibbons have played an important role in Chinese culture for thousands of years, being present in ancient literature and art. However, despite probably having a venerated status, Junzi became extinct due to past human activities, likely to have included deforestation and hunting.

The full research can be found published in *Science*.

More information: Samuel T. Turvey et al. New genus of extinct Holocene gibbon associated with humans in Imperial China, *Science* (2018). DOI: 10.1126/science.aao4903

Provided by The Zoological Society of London

Citation: New gibbon genus discovered in ancient Chinese tomb (2018, June 22) retrieved 10 April 2024 from https://phys.org/news/2018-06-gibbon-genus-ancient-chinese-tomb.html



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