Phylogenetic analysis confirms existence of five goral species

June 24 2020, by Zhang Nannan

Goral from Northern Myanmar. Credit: XTBG

Researchers have recognized one to seven species of goral gorals

(Naemorhedus spp., Caprinae, Bovidae), small goat antelopes. However, the phylogenetics remains unclear because of limited genetic data.

There was no molecular evidence from northern Myanmar until recently, when researchers from the Southeast Asia Biodiversity Research Institute of the Chinese Academy of Sciences obtained eight molecular samples during several expeditions.

The researchers compared all known whole Naemorhedus mitogenomic sequences in order to revisit goral taxonomy and reveal the evolutionary history of the genus. Their analysis confirms the existence of five goral species.

Naemorhedus caudatus remains a valid species. Naemorhedus griseus is a synonym of Naemorhedus goral. Naemorhedus evansi is a valid species, with a geographic range that extends northwards into southwestern China. Naemorhedus cranbrooki and Naemorhedus baileyi are distinct species, not synonyms.

Two major clades were identified within Naemorhedus, and the cladogenetic event producing them occurred at ~ 4.6 Ma during increased dispersal from the Hengduan Mountains and Himalayas—Qinghai -Tibetan Plateau in the early Pliocene.

The study, titled "Phylogenetic reassessment of gorals with new evidence from northern Myanmar reveals five distinct species," has been published in *Mammal Review*.

More information: Guogang Li et al. Phylogenetic reassessment of gorals with new evidence from northern Myanmar reveals five distinct species, *Mammal Review* (2020). DOI: 10.1111/mam.12200