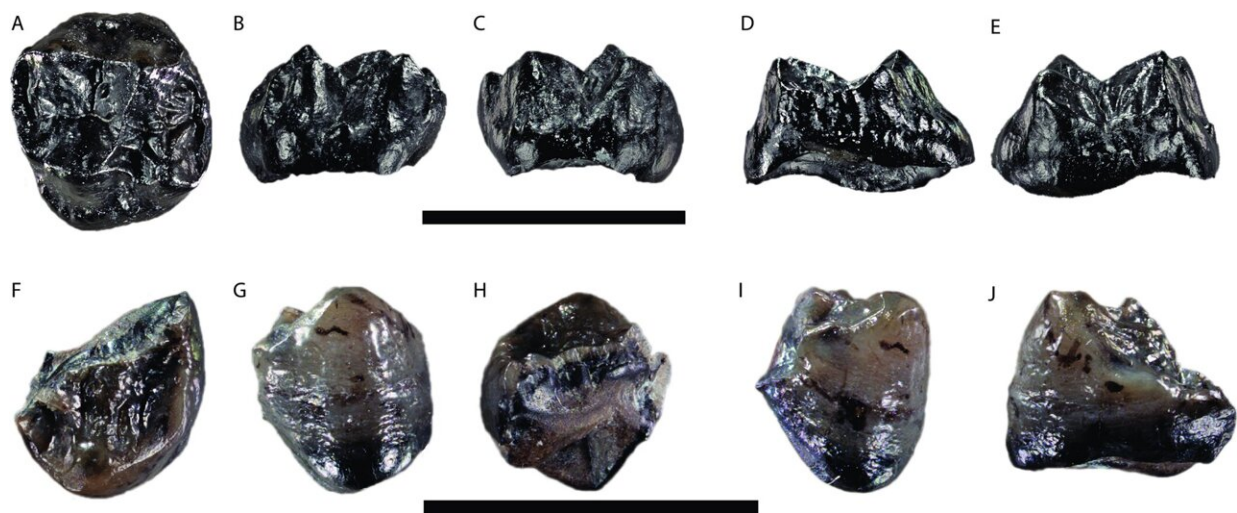


First ever report of two ancient ape species cohabiting in Miocene Europe 11 million years ago

June 7 2024



Buronius manfredschmidi nov. gen. et sp. photographs. Upper panel: holotype left upper M2 (GPIT/MA/13005), A–occlusal, B–buccal, C–lingual, D–mesial, E–distal. Lower panel: paratype left lower P4 (GPIT/MA/13004), F–occlusal, G–buccal, H–lingual, I–mesial, J–distal. Scale bars equal 10 mm. Credit: Böhme et al., 2024, *PLOS ONE*, CC-BY 4.0 (creativecommons.org/licenses/by/4.0/)

Ancient apes in Germany co-existed by partitioning resources in their environment, according to a study published June 7, 2024 in the open-access journal *PLOS ONE* by Madelaine Böhme of Eberhard Karls University of Tübingen, Germany and David R. Begun, of University of

Toronto, Canada and colleagues.

The Hammerschmiede fossil site in Bavaria, Germany is best known for exceptional remains of the ancient great ape *Danuvius* dating to the late Miocene Epoch, 11.6 million years ago. Other experts contest the strength of the evidence to support whether *Danuvius* is a hominid or whether this is a [new genus](#) or not.

No Miocene sites in Europe are known to have more than one [species](#) of fossil ape, and Hammerschmiede has been no exception until now. In this study, Böhme and colleagues identify a second species of great ape from the same stratigraphic layer as *Danuvius*.

This new ape is represented by partial remains of two [teeth](#) and one patella whose size and shape are distinct from *Danuvius* and all other known apes. The authors name this new species *Buroni* *manfredschmiedi*.

Based on the structure of the teeth and patella, the authors infer that *Buroni* was an adept climber who ate a diet of soft foods such as leaves. From the size of the fossils, the authors estimate a full body size of around 10kg, making *Buroni* the smallest known great ape.

These features suggest that *Buroni* had a distinct lifestyle from *Danuvius*, which is a larger bodied species with a diet of tougher foods. These differences likely allowed these two species to share a habitat without competing for resources, similar to modern gibbons and orangutans which share habitats in Borneo and Sumatra.

This is the first known example of a European Miocene fossil site with multiple ancient ape species, though the authors suggest that re-examination of other similar sites might uncover more examples of this cohabiting behavior.

The authors add, "The new great ape from Hammerschmiede, *Buroni* manfredschmiedi, is, with about 10 kg body weight, not only the smallest known crown ape, but also the first attested case of hominid syntopy for Europe. The leaf-eating *Buroni* shared the habitat with the omnivorous bipedal ape *Danuvius guggenmosi*."

More information: *Buroni* manfredschmiedi—A new small hominid from the early late Miocene of Hammerschmiede (Bavaria, Germany), *PLoS ONE* (2024). [DOI: 10.1371/journal.pone.0301002](https://doi.org/10.1371/journal.pone.0301002)

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