

Fossil of smallest Old World monkey species discovered in Kenya

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The Kanapoi site in Kenya, east Africa. Credit: University of Arkansas

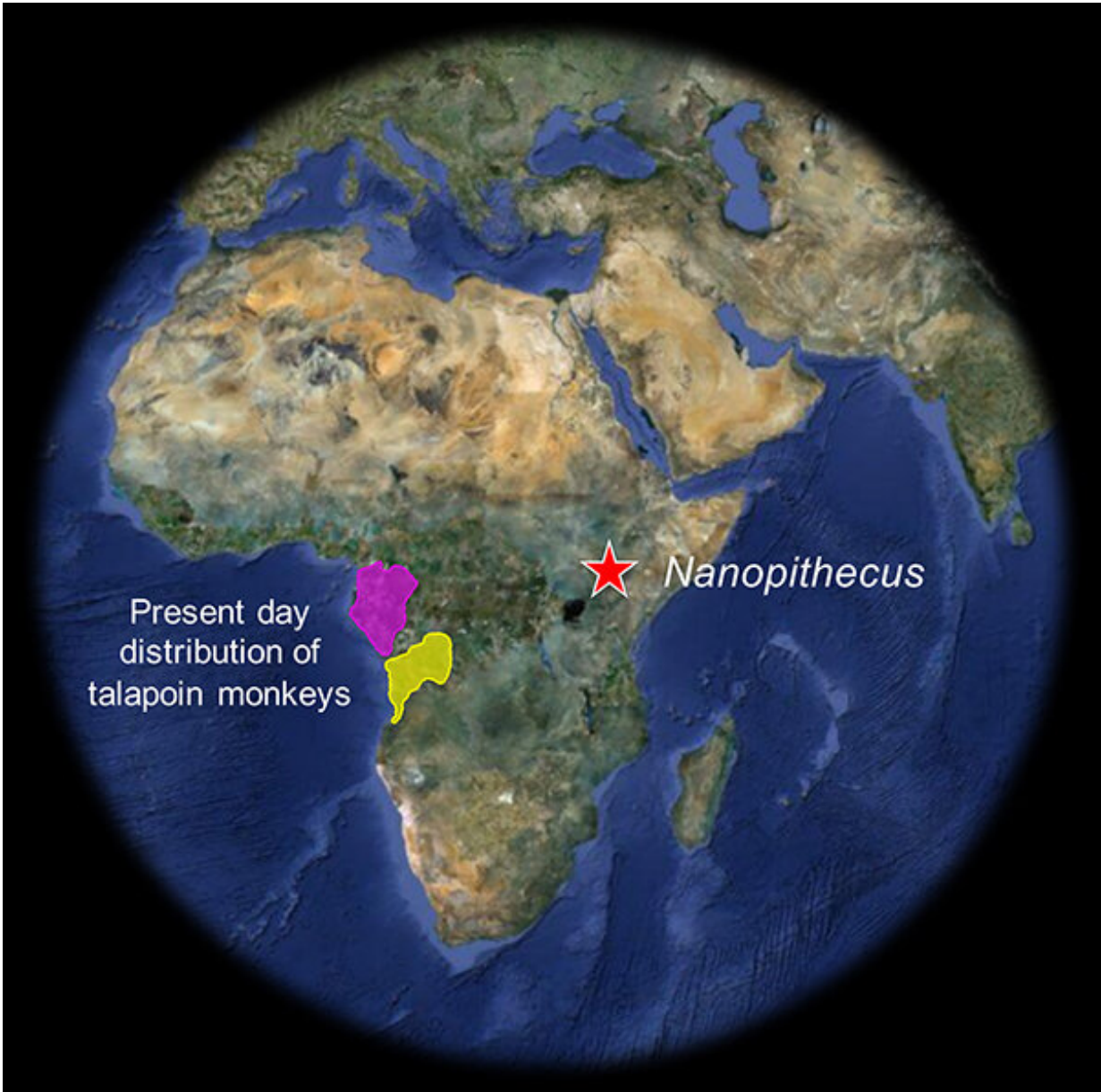
Researchers from the National Museums of Kenya, University of

Arkansas, University of Missouri and Duke University have announced the discovery of a tiny monkey that lived in Kenya 4.2 million years ago.

Nanopithecus browni was the same size as a modern talapoin monkey, the smallest living Old World monkey species that weighs only 2 to 3 pounds, about the size of a cottontail rabbit. Talapoin monkeys are part of a large group of [monkeys](#) called guenons, which are commonplace and widespread across Africa today. Most species are several times larger in size than *Nanopithecus browni*.

Guenon evolution is poorly understood but thought to be driven by changes in [forest](#) habitats, with the distribution of modern species reflecting the breakup and re-convergence of ancient forests. Talapoin monkeys live only in West Central Africa, are confined to [tropical forests](#), and are thought to be dwarfed from a larger ancestor in response to life in woody, swampy habitats.

Nanopithecus browni, though, was found in Kenya on the eastern side of the continent, at a site called Kanapoi. The Kanapoi [habitat](#) was dry and covered with grasslands and open forests—a very different place from the tropical forests of Cameroon and Gabon in West Central Africa. It is also at Kanapoi where remains of some of the earliest human ancestors, *Australopithecus anamensis*, have been found and would have lived alongside *Nanopithecus browni*.



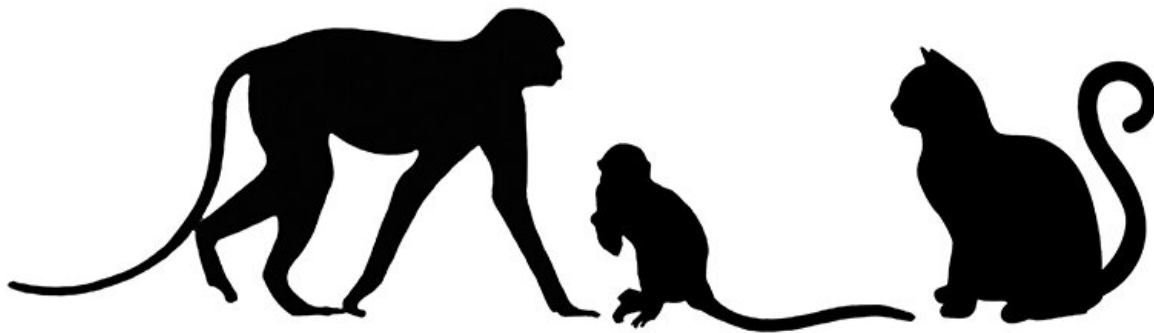
Location of Kanapoi site where *Nanopithecus browni* was found compared to present day distribution of talapoin monkeys. Image prepared by research team. Credit: Google Earth

Nanopithecus browni is the second oldest guenon found so far, just younger than the guenon single tooth found 10 years ago on the Arabian

Peninsula. The ancient date, combined with a habitat so different and so far away from that of modern talapoin, reveals a much more complex evolution of guenon monkeys than previously thought. This new enigmatic member of the primate family reveals that dwarfing occurred far longer ago than scientists suspected and may have happened more than once, and in very different habitats perhaps for different reasons.

Nanopithecus browni was discovered by the West Turkana Paleo Project, led by Fredrick Kyalo Manthi of the National Museums of Kenya, with project co-leaders Carol Ward of the University of Missouri and Michael Plavcan of the University of Arkansas. The fossils were analyzed in collaboration with Richard Kay of Duke University.

The fossil is housed at the National Museums of Kenya. The researchers published their findings in the *Journal of Human Evolution*.



Typical guenon (*Allenopithecus*), left, compared to how large *Nanopithecus browni*, middle, would have been. The typical domestic cat included for scale comparison. Credit: Carol Ward

"The discovery of *Nanopithecus browni* reaffirms Kenya's contribution

to understanding the evolution and diversity of Pliocene fauna and the environmental contexts in which they lived. Environmental changes during the Plio-Pleistocene may have influenced the present-day distribution of guenons," said Manthi.

Nanopithecus browni is named after the late Francis Brown of the University of Utah for his contribution to understanding the geological history of the Omo-Turkana Basin within which the Kanapoi site is located.

Provided by University of Arkansas

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