Scientists Say New Hominid Fossils In Kenya Are Unique Find

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In an interview with HNGN, anthropologist John Hawks tells us why this is something that deserves attention -- lots of it.

New fossils from the human family have been found in an area that is farther east in Kenya than hominids were previously thought to have lived. That family of primates, Hominidae, includes humans and our fossil ancestors.

The new finds suggest that one of the known early hominid species, Australopithecus afarensis, also lived east of the Great Rift Valley, a good bit farther than previously known.

The research was conducted by an international paleontology team led by Emma Mbua of Mount Kenya University and Masato Nakatsukasa of Kyoto University. From an adult male, they found a forearm bone and fossilized teeth; they also found two infants. The fossils were in an eroded spot near the Kantis River in a settlement outside Nairobi. The site is called Ongaga-Rongai.

HNGN spoke with John Hawks, who was not involved in the research but is an anthropology professor at University of Wisconsin Madison and writes a popular paleo-anthropology blog. He said in an email, "Au. afarensis is the first hominin species that we find using a less wooded landscape, and if this [Kantis River] site extends that toward grassland further than we thought, it is evidence of behavioral flexibility. That helps to explain how this species was spread across a wider area than we know for other australopith species.

Australopith is the now-extinct genus of hominins to which the new fossils belong.

"So far, all other A. afarensis fossils had been identified from the center of the Rift Valley," said Nakatsukasa. "A previous Australopithecus bahrelghazali discovery in Chad confirmed that our hominid ancestor's distribution covered central Africa, but this was the first time an Australopithecus fossil has been found east of the Rift Valley. This has important implications for what we understand about our ancestor's distribution range, namely that

Australopithecus could have covered a much greater area by this age."

"Lucy" from Ethiopia was within A. afarensis, and that hominid is thought to have lived 3,700,000-3,000,000 years ago.

The team also conducted a stable isotope analysis, finding that while the Kantis area was humid, it was composed of plains and had fewer trees than locations in the Great Rift Valley where A. afarensis fossils had previously been found. "The hominid must have discovered suitable habitats in the Kenyan highlands. It seems that A. afarensis was good at adapting to varying environments," said Nakatsukasa.

A survey of the area also pulled up large amounts of fossils from mammals. These included a small number that may belong to new species of baboons or bovids. Bovids are ruminant, cloven-hooved animals that include antelope, bison and cattle.

The Kantis site was initially noted by archaeologists in a 1991 survey of its geology. A farmer at that point mentioned having found fossilized bones in the Kantis area in the 1970s. He and his family had not realized their importance. But after Kenyan television shows aired on paleontological research, the local population has identified Kantis and other sites to fossils.

Regarding the new area near the Kantis River, Hawks said in an email, "Really, Kantis is not in the kind of typical area or deposit where anthropologists have searched intensively for fossil hominins. These are not lakeshore deposits, and they are far from the classic Rift Valley areas. This is something that we've also seen in South Africa; the exploration of the past has missed many areas that are incredibly promising for fossil discoveries. And local landowners are so important in identifying the potential value of these small, localized fossil deposits. In the Kantis case, it seems that the fossil site was recognized for up to 40 years but the landowners did not appreciate the possible importance until after local media in Kenya began to promote recent fossil discoveries in other parts of the country. And then the landowners contacted the national museums, which led to the discovery of the site's importance."

The researchers hope that the discovery will also benefit the local community. "Kantis is in the vicinity of Nairobi, a major city," Nakatsukasa said. "We hope that the discovery of the new site and the fossils will aid in increasing tourism, and in improving educational awareness of the local community."

The new findings were reported in the Journal of Human Evolution.