August. 18, 2025

Ethiopian fossils reveal new species in human evolutionary lineage

(Reuters) -Researchers have unearthed tooth fossils in Ethiopia dating to about 2.65 million years ago of a previously unknown species in the human evolutionary lineage, one that lived in the same time and place as the earliest-known member of the genus Homo to which our own species belongs.

The scientists discovered in the Ledi-Geraru research project area of northeastern Ethiopia's Afar Region 10 teeth - six molars, two incisors, one premolar and one canine - that they concluded belonged to a new Australopithecus species. The teeth came from two individuals.

Until now, six species of the genus Australopithecus, an important early human ancestor that displayed a mix of ape-like and human-like traits, were known from fossils at various African sites. The researchers said the newly found teeth bore traits indicating they belonged to a seventh species.

The scientists also discovered three other teeth dating to 2.59 million years ago that had traits showing they belonged to the oldest-known species of Homo, one that was first revealed by a jawbone unearthed in the same vicinity in 2013.

Scientists have not yet assigned names to the Australopithecus and Homo species represented by these 13 teeth because of the incomplete nature of the fossil remains. Our species Homo sapiens is the most recent member of the Homo genus, first appearing roughly 300,000 years ago in Africa before later spreading worldwide.

The new dental fossils provide insight into a poorly understood period in human evolution. The close age of the teeth suggests that this newly identified Australopithecus species coexisted in this region with the early Homo species, raising questions about whether they competed for the same resources.

The teeth also indicate that there were four hominins - as species in the human evolutionary lineage are known - that inhabited East Africa at the time.

The presence of these contemporaneous hominins illustrates the complicated nature of the human evolutionary process.

"This reinforces the idea that the story of human evolution is not of a single lineage changing slowly through time," said University of Nevada, Las Vegas paleoanthropologist Brian Villmoare, lead author of the research published on

Wednesday in the journal Nature.

The researchers are seeking clues about the nature of any interaction between the Australopithecus and Homo species represented by the 13 teeth.
"We are currently analyzing teeth to see if we can tell if they ate the same thing," said Arizona State University paleoecologist and project co-director Kaye Reed.

If so, they may have fought over resources, Reed said. Crude stone tools dating to about the same time were previously discovered nearby, Reed said, probably made by the Homo species.

The Afar Region, one of Earth's hottest and lowest places, is an arid expanse of badlands.Homo is generally thought to have descended from a species of Australopithecus, though the exact species and the timing have been a matter of debate. Australopithecus eventually died out.

Australopithecus includes the famous fossil Lucy, who was a member of the species Australopithecus afarensis who lived approximately 3.18 million years ago. The newly discovered teeth had characteristics that showed they did not belong to Lucy's species, the researchers said.

"This new Australopithecus species is in no way some 'missing link,' and we actually don't think that it was necessarily ancestral to any known species," Villmoare said.

"Species arose and many went extinct," Reed said.