

# 'Hobbit' fossils a new species, anthropologist says

January 8 2009, By Delthia Ricks

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An analysis of an 18,000-year-old fossil, described as the remains of a diminutive humanlike creature, proves that genuine cave-dwelling "hobbits" once flourished in Southeast Asia, according to a Long Island anthropologist who conducted X-ray studies of a skull.

Karen Baab, the Stony Brook University anthropologist, said her evidence is the most compelling to date bolstering the existence of a tiny early human ancestor who stood no more than 3 feet 2 inches tall.

They're the closest cousins in the evolutionary tree of life resembling fictional hobbits of "Lord of the Rings" yore. She posits the creature represents a new species in humanity's chain of evolution and is not a group of modern humans who were merely small.

"These hobbits - hominids - appear to have survived when modern humans were all over the Earth at this time," Baab said, referring to the evolutionary dating that places the population on the planet at the same time as taller, stronger - and apparently smarter - modern humans.

Modern humans are known as *Homo sapiens*. The tiny ancestor, she said, has been dubbed *Homo floresiensis*, or "man of Flores," after the Indonesian island where they were discovered in 2003.

Baab said the creature would have had a striking appearance, notable for its tiny head, a condition known medically as microcephaly.

Using 3-D modeling techniques, Baab and colleague Kieran McNulty of the University of Minnesota compared the cranial features to those of a simulated fossil human to determine how they differed.

McNulty calls advances in knowledge about *Homo floresiensis* some of the most exciting in the last 50 years.

But as alluring as the notion of real-life hobbits seems, it is also steeped in controversy and persists as one of the hottest debates in science. Scientists with countervailing opinions say Baab and her colleague have gotten it all wrong.

Robert Eckhardt, an evolutionary biologist at Penn State University, has conducted studies on the same fossil, which was found in a cave with six to 12 other tiny individuals. He has concluded the fossils are not only modern humans, they are very similar to a population of short Indonesians who live in that area now.

He says the tiny skull probably means the person was sick and was microcephalic for a medical reason. "We are working very hard to find out what it was," Eckhardt said. "When you search the developmental genetic literature there are about 400 conditions that have microcephaly as a symptom," he said, "so we are tracking down which one it is, and it won't be easy."

Baab is undaunted by naysayers of her hobbit theory. "The shape of the skull does not look like modern humans," she said "It looks humanlike. Other people here at Stony Brook have looked at the arms and legs and say they don't look like modern humans at all."

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