The Washington Post

Speaking of Science

Scientists DNA tested nine 'yeti' samples. They didn't find Bigfoot.

By Ben Guarino November 28

The yeti, or abominable snowman, is one of the most sought-after animals that does not exist. A long line of explorers, including mountaineers Sir Edmund Hillary and Reinhold Messner, reported seeing strange figures and footprints in the Himalayas. Said to walk on two legs through the Tibetan Plateau, the yeti is described as a hairy and humanoid primate, partway between gorilla and David Letterman's beard.

If you wish to hunt a yeti, there are just three rules to follow. If you find one, no talking to the press, not without permission from Nepali government officials. You can take the animal alive but you cannot harm it: Shooting is to be done with cameras only, per a 1959 State Department memo (an exception is carved out for self-defense). And you must pay Nepal 5,000 rupees ($48.50) for a yeti permit.

We would encourage you to spend those 5,000 rupees elsewhere. You won't find a yeti in yeti habitat. But, if you're lucky, you might stumble upon a bear.

In a new genetic analysis, yeti bones, fur and other biological material turned out to be bear parts. "All the samples that were supposed to be yetis matched brown and black bears that are living in the region," said Charlotte Lindqvist, who studies bear evolution at the University at Buffalo in New York and Singapore's Nanyang Technological University.

(There was just one exception. A yeti tooth kept at the Reinhold Messner Mountain Museum was a dog's.)

Lindqvist and her colleagues, the authors of a report published Tuesday in Proceedings of the Royal Society B, extracted DNA from nine yeti samples and more than a dozen known bear specimens, collected in zoos and a national park in Pakistan.

The connection between yeti and bear is an old one. Messner and Hillary eventually concluded what they had seen were bears. Biologists have made the link, too. In 2013, Oxford University issued a worldwide call for yeti samples. Oxford geneticist Bryan Sykes said that DNA from hairs revealed the yeti was similar to an ancient, extinct polar bear. For a moment, this biological curiosity revived hopes that an undiscovered animal loped through Tibetan snow.

“I think this bear, which nobody has seen alive . . . may still be there and may have quite a lot of polar bear in it,” Skyes told the BBC in 2013.

But other genetics experts, notably Ross Barnett at the University of Copenhagen, contested that finding. Sykes had made an error, partly due to degraded DNA, according to a re-analysis of the research by Barnett and University of Huddersfield biomolecular archaeologist Ceiridwen Edwards.

It was as if “Sykes had the letters Y-E-T and, searching for matches, he thought he found YETI,” Barnett said. Sykes acknowledged the error but maintained that the yeti hair could have come from a polar bear or ursine hybrid.

The new work is more robust, Barnett said, probably “the most rigorous in terms of samples and sequence lengths.” Where snippets of DNA revealed YET, Lindqvist's deep genetic dive produced “ALL THE SAMPLES ARE BROWN BEARS YET PEOPLE STILL BELIEVE,” Barnett said. “Very little chance of matching that string to something else by chance.”

Though Himalayan brown bears are neither abominable nor snowmen, they are still pretty unusual animals, the DNA analysis revealed.

Brown bears have conquered the Northern Hemisphere's forests, in Canada, Russia, the United States — grizzlies are a brown bear subspecies — and 42 other countries. (In the United States, sightings of bears on two legs have left observers wondering about the true nature of Bigfoot and Sasquatch, too.) Despite their wide spread across the globe, many brown bears have run into danger. “There has been a lot of extinction of brown bears around the world,” Lindqvist said.

Himalayan brown bears are not exempt from bad news. The International Union for the Conservation of Nature lists the subspecies as critically endangered.

That loss of life makes it tough for experts to unravel a tangled bear ancestry. But the DNA sequences produced by Lindqvist and her colleagues were sufficient to create a family tree for the Himalayan and Tibetan brown bears. Though it is unclear where brown bears first evolved, Lindqvist said, their evolutionary history “certainly does suggest that they may come from an area in Asia.”

The new genetics research indicates that the isolated bears are a “relict population.” Put another way, these were the first brown bears, Lindqvist said, to split off from all the other subspecies, 600,000 years ago.

Both researchers predicted that the yeti myth will survive this latest study. The yeti “is very important to the local culture and folklore,” Lindqvist said. “Perhaps the Western hype about the yeti, we can put that to rest.”

Read more:

Bigfoot: still imaginary, probably not an undiscovered species of bear

The fanged, faceless sea creature that washed ashore during Harvey has been identified

Disgusting ‘Alien’ movie monster not as horrible as real things in nature

Did ‘unicorns’ co-exist with humans? Yes, but they were just rhinos.

5 Comments

Ben Guarino is a reporter for Speaking of Science. Follow @bbguari