Extinct New Zealand eagle may have eaten humans

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(AP) -- Sophisticated computer scans of fossils have helped solve a mystery over the nature of a giant, ancient raptor known as the Haast's eagle which became extinct about 500 years ago, researchers said Friday.

The researchers say they have determined that the eagle - which lived in the mountains of New Zealand and weighed about 40 pounds (18 kilograms) - was a predator and not a mere scavenger as many thought.

Much larger than modern eagles, Haast's eagle would have swooped to prey on flightless birds - and possibly even the rare unlucky human.

Ken Ashwell of the University of New South Wales in Australia and Paul Scofield of the Canterbury Museum in New Zealand wrote their conclusions in the peer-reviewed Journal of Vertebrate Paleontology.

Using computed axial tomography, or CAT, the researchers scanned several skulls, a pelvis and a beak in an effort to reconstruct the size of the bird's brain, eyes, ears and spinal cord.

They compared their data on the Haast's eagle to characteristics of modern predator birds and scavenger birds to determine that the bird was a fearsome predator that ate the flightless moa birds and even humans.

The researchers also determined the eagle quickly evolved from a much smaller ancestor, with the body growing much more quickly than the

brain. They believe its body grew 10 times bigger during the early to middle Pleistocene period, 700,000 to 1.8 million years ago.

"This work is a great example of how rapidly evolving medical techniques and equipment can be used to solve ancient medical mysteries," Ashwell said.

Because fossils are so fragile and most of the species were never seen by humans, CAT scans allow researchers to closely examine body parts of the long-extinct animals to learn about their behavior, Scofield said.

"The fossils are very valuable and you can't just cut into the skull to look at the brain," he said. "So by using nondestructive techniques, you can get a much better idea of the neurobiology of these animals."

Scientists believe the Haast's eagle became extinct about 500 years ago, most likely due to habitat destruction and the extinction of its prey species at the hands of early Polynesian settlers. Before the humans colonized New Zealand about 750 years ago, the largest inhabitants were birds like the Haast's eagle and the moa.

Scofield said the findings are similar to what he found in Maori folk tales. "The science supports Maori mythology of the legendary pouakai or hokioi, a huge bird that could swoop down on people in the mountains and was capable of killing a small child," he said.

New Zealand paleontologist Trevor Worthy said the study did a good job of proving the eagle was a killer.

"They provide a convincing case that the body of this eagle has rapidly enlarged, presumably adapting to the very much larger prey it had access to in New Zealand, but that the brain size had lagged behind this increase," he said in an e-mail interview. "Convincing data shows beyond

doubt that this bird was an active predator, no mere scavenger. It is a nice use of modern technology and the same old bones as yesteryear to advance knowledge."

Jamie R. Wood, a researcher from New Zealand who has done extensive research on the moa, said the analysis strengthens the case that the eagle evolved quickly from a much smaller ancestor, "in what must be one of the most dramatic examples anywhere of how rapidly evolution can occur on islands."