

Forelimb Bones Give Away Predation Style of Carnivorous Mammals

0 Comments [Like](#) 0 [Share](#) 0 [Tweet](#) [G+1](#) 0 [E-mail](#) [Print](#) Text Size [-](#) [+](#)

By Jenna Iacurci

Jun 30, 2014 05:18 PM EDT



Forelimb bone data obtained by two paleobiologists help predict the predation style of a wide variety of carnivorous [mammals](#), particularly the extinct marsupial thylacine, as [described](#) in a study published in the *Journal of Morphology*. (Photo : Flickr)

Forelimb bone data obtained by two paleobiologists help predict the predation style of a wide variety of carnivorous mammals, particularly the extinct marsupial thylacine, as described in a study published in the *Journal of Morphology*.

SHARE THIS STORY

- These scientists wanted to determine the hunting style of the marsupial called thylacine - also referred to as the "marsupial wolf" or the "Tasmanian tiger." Their research showed that this Australian dog- and cat-like animal was uniquely unspecialized, and led to the
- development of a predator classification system simply based off of forelimb bones.

"We realized what we are also doing was providing a dataset or a framework whereby people could look at extinct animals because it provides a good [categorization](#) of extant forms," lead author Christine Janis explained in a [news release](#).

For instance, after comparing the scapulas, or shoulder blades, of leopards versus cheetahs, the scientists

found that cheetahs are more closely related to predators that evolved for chasing their prey, whereas leopards are more closely related to other cats that evolved for grappling (usually other big cats).

"The main differences in the forelimbs really reflect adaptations for strength versus adaptations for speed," Janis added.

In all, Janis and her co-author Borja Figueirido of the Universidad de Malaga in [Spain](#) made 44 measurements on five forelimb bones of 37 species ranging from the

Arctic fox to the thylacine. The results allowed them to accurately discern ambush predators from pursuit predators to pouncing predators. Even if they only had one bone available to draw conclusions from, 70 percent of the time their classification was correct.

As for the thylacine, Janis and Figueirido still could not reach a [consensus](#). Some data indicated they were pursuers while others suggested ambushers. However, Janis notes that given their lack of competition there wasn't a real need to be specialized as a certain type of predator.

But for other [distinct](#) predators, this new technique can provide a framework for other paleobiologists trying to classify different species