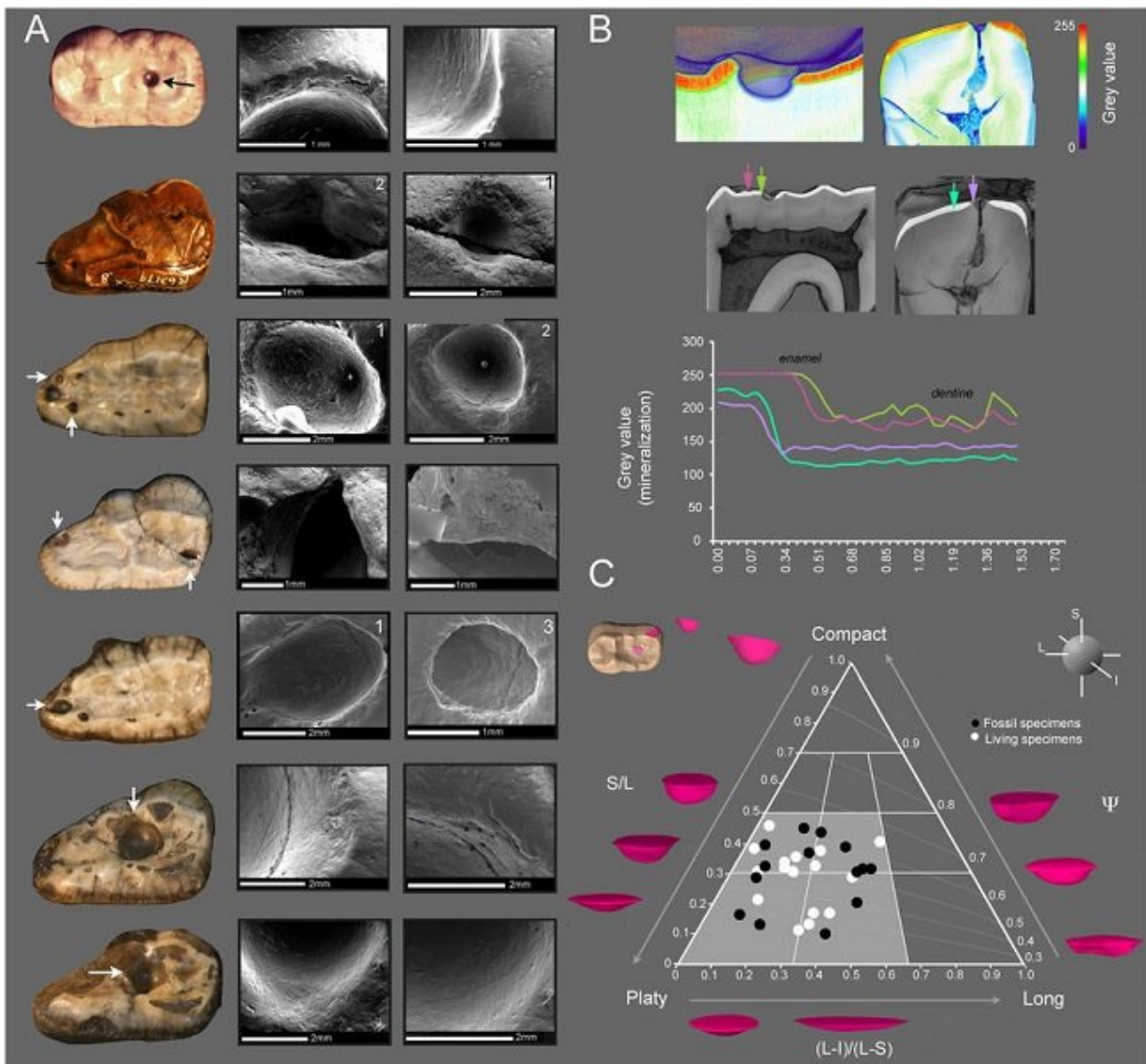


Short-faced bears, largest carnivores in the Ice Age, became omnivores to survive

March 22 2018



Microscopic and morphometric analyses conducted on teeth belonging to short-

faced bear fossils. Credit: *Scientific Reports*

Based on the analysis of fossil teeth conducted by Alejandro Romero from the University of Alicante's Department of Biotechnology, a study shows that short-faced bears (*Arctodus simus*), the largest carnivores in the Ice Age, became omnivores to survive. The study, led by the University of Málaga (UMA) researcher Borja Figueirido, was recently published in the journal *Scientific Reports*.

The scientific community previously thought that this extinct animal from North America was exclusively carnivorous, but Mr Figueirido says, "We dethroned the largest hypercarnivorous mammal ever to roam the Earth. Our results also suggest that the *Arctodus simus* population in southern North America was more omnivorous than the highly carnivorous populations in the northeast."

Specifically, after an analysis involving microscopic techniques and virtual models, carious lesions caused by carbohydrates present in plants were found in the dental remains discovered at the La Brea Tar Pits site in Los Angeles, California, described by Alejandro Romero as "one of the most paradigmatic sites to study fossil mammals from the Pleistocene in North America."

The UA researcher says, "This is an interesting study, as caries were found for the first time in the dental remains of *Arctodus simus*, which proves that they could adapt to plants present in their diet as a result of climate change or competition with other predators."

More information: Borja Figueirido et al. Dental caries in the fossil record: a window to the evolution of dietary plasticity in an extinct bear, *Scientific Reports* (2017). [DOI: 10.1038/s41598-017-18116-0](https://doi.org/10.1038/s41598-017-18116-0)

Provided by Asociacion RUVID

Citation: Short-faced bears, largest carnivores in the Ice Age, became omnivores to survive (2018, March 22) retrieved 16 June 2024 from <https://phys.org/news/2018-03-short-faced-largest-carnivores-ice-age.html>

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