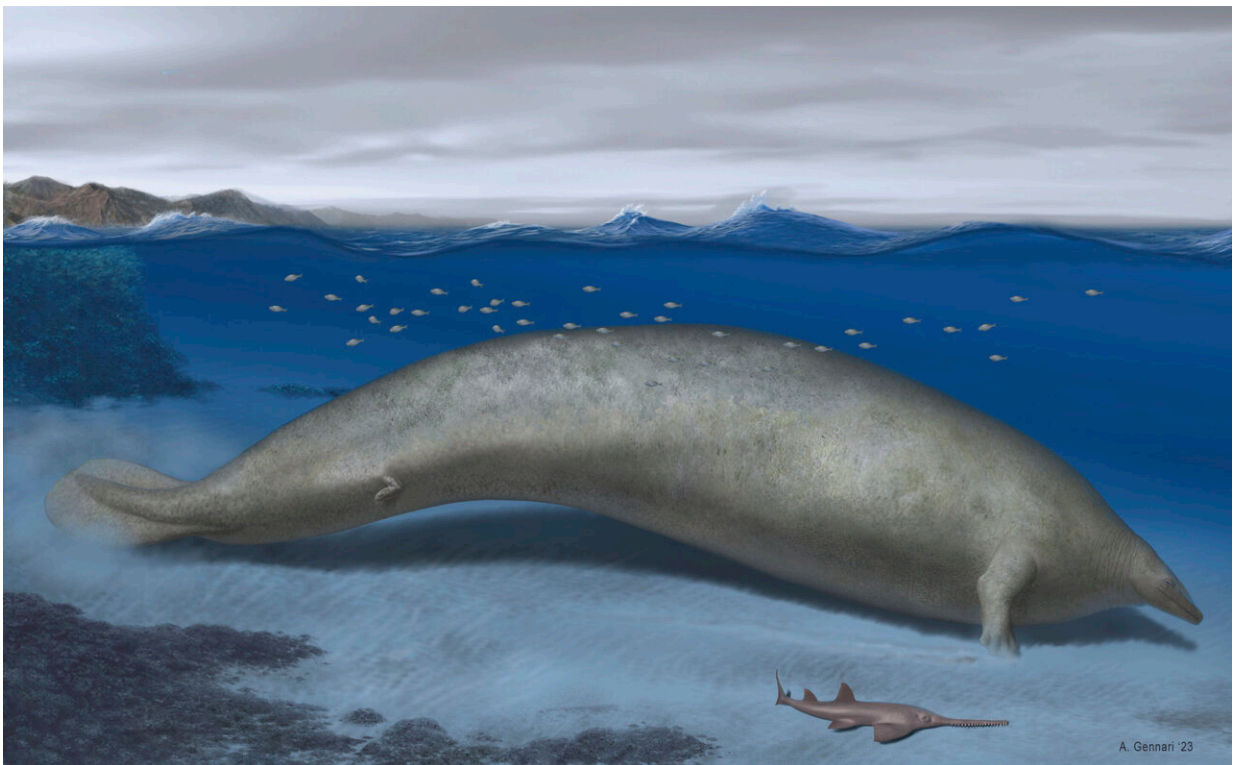


The heaviest animal ever may be this ancient whale found in the Peruvian desert

August 2 2023, by Maddie Burakoff



In this 2023 artist illustration by Alberto Gennari, *Perucetus colossus* is reconstructed in its coastal habitat, with an estimated body length: ~20 meters. A new species of ancient whale might be the heaviest animal ever found. Researchers describe the new species named *Perucetus colossus*, or “the colossal whale from Peru,” in the journal *Nature* on Wednesday, Aug. 2, 2023. Credit: Alberto Gennari/Nature via AP

There could be a new contender for heaviest animal to ever live. While today's blue whale has long held the title, scientists have dug up fossils from an ancient giant that could tip the scales.

Researchers described the species—named *Perucetus colossus*, or "the colossal whale from Peru"—[in the journal *Nature*](#) on Wednesday. Each vertebra weighs over 220 pounds (100 kilograms) and its ribs measure nearly 5 feet (1.4 meters) long.

"It's just exciting to see such a giant animal that's so different from anything we know," said Hans Thewissen, a paleontologist at Northeast Ohio Medical University who had no role in the research.

The bones were discovered more than a decade ago by Mario Urbina from the University of San Marcos' Natural History Museum in Lima. An international team spent years digging them out from the side of a steep, rocky slope in the Ica desert, a region in Peru that was once underwater and is known for its rich marine fossils. The results: 13 vertebrae from the whale's backbone, four ribs and a hip bone.

The massive fossils, which are 39 million years old, "are unlike anything I've ever seen," said study author Alberto Collareta, a paleontologist at Italy's University of Pisa.

After the excavations, the researchers used 3D scanners to study the surface of the bones and drilled into them to peek inside. They used the huge—but incomplete—skeleton to estimate the whale's size and weight, using modern marine mammals for comparison, said study author Eli Amson, a paleontologist at the State Museum of Natural History in Stuttgart, Germany.



Paleontologist Mario Urbina poses for a photo next to the vertebrae of a newly found species named *Perucetus colossus*, or “the colossal whale from Peru”, during a presentation in Lima, Peru, Wednesday, Aug. 2, 2023. The bones were first discovered more than a decade ago by Urbina from the University of San Marcos’ Natural History Museum. An international team spent years digging them out from the side of a steep, rocky slope in the Ica desert, a region in Peru that was once underwater and is known for its rich marine fossils. Credit: AP Photo/Martin Mejia

They calculated that the ancient giant weighed somewhere between 94 and 375 tons (85 and 340 metric tons). The biggest blue whales found have been within that range—at around 200 tons (180 metric tons).

Its body stretched to around 66 feet (20 meters) long. Blue whales can be

longer—with some growing to more than 100 feet (30 meters) in length.

This means the newly discovered whale was "possibly the heaviest animal ever," Collareta said, but "it was most likely not the longest animal ever."

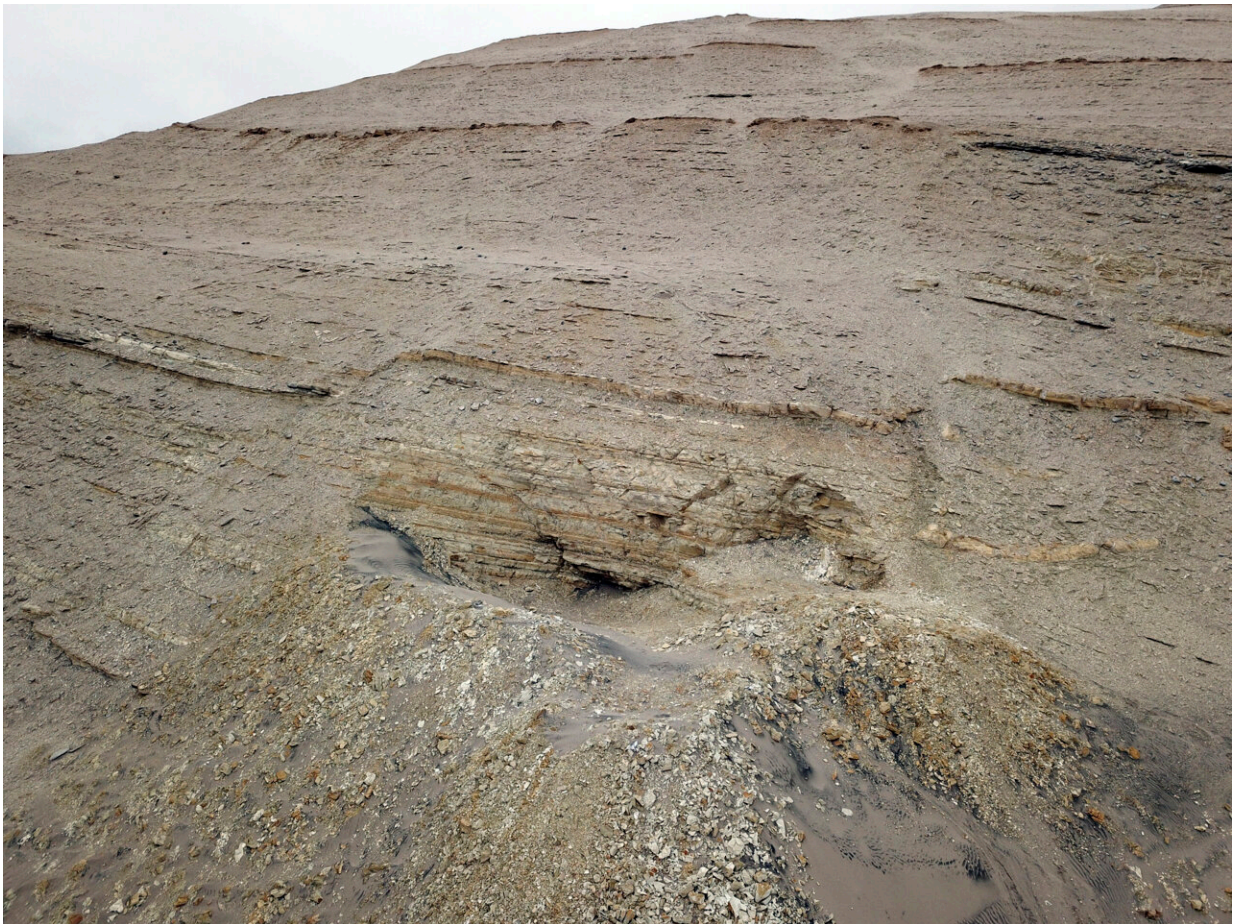


In this June 2017, photo provided by Department of Earth Sciences, University of Pisa, a single vertebra collected within a plaster jacked of *Perucetus colossus* is transported from the site of origin in the Ica desert in Ica Province, southern Peru, to the Museo de Historia Natural, Universidad Nacional Mayor San Marcos, in Lima. Scientists reported in the journal *Nature*, Wednesday, Aug. 2, 2023, that the creature could challenge the blue whale's title as the heaviest animal that lived on Earth. They've been digging up massive fossils from the

creature in the Peruvian desert over the past decade. Credit: Giovanni Bianucci/Department of Earth Sciences, University of Pisa, via AP

It weighs more in part because its bones are much denser and heavier than a blue whale's, Amson explained.

Those super-dense bones suggest that the whale may have spent its time in shallow, coastal waters, the authors said. Other coastal dwellers, like manatees, have heavy bones to help them stay close to the seafloor.



In this June, 2018 photo provided by Department of Earth Sciences, University

of Pisa, is the site of origin of Perucetus colossus field excavation in the Ica desert, in Ica Province, southern Peru. A new species of ancient whale might be the heaviest animal ever found. Scientists reported Wednesday, Aug. 2, 2023, that the creature could challenge the blue whale's title as the heaviest animal that lived on Earth. They've been digging up massive fossils from the creature in the Peruvian desert over the past decade. Credit: Giovanni Bianucci/Department of Earth Sciences, University of Pisa, via AP



In this May 2022, photo provided by Museo de Historia Natural, Universidad Nacional Mayor San Marcos (Lima), disarticulated vertebrae of the skeleton of *Perucetus colossus* were surface-scanned to assess their volume by Walter Aguirre, from left, Alberto Collareta, Marco Merella, in Lima, Peru. A new species of ancient whale might be the heaviest animal ever found. Scientists reported Wednesday, Aug. 2, 2023, that the creature could challenge the blue whale's title as the heaviest animal that lived on Earth. They've been digging up massive fossils from the creature in the Peruvian desert over the past decade. Credit: Giovanni Bianucci/Museo de Historia Natural, Universidad Nacional Mayor San Marcos, Lima via AP



In this June 2017, photo provided by Department of Earth Sciences, University of Pisa, disarticulated vertebrae of the skeleton of *Perucetus colossus* is

excavated by Eusebio Diaz, from left, Alfredo Martinez and Walter Aguirre, in the Ica Province, southern Peru. Scientists reported Wednesday, Aug. 2, 2023, that the creature could challenge the blue whale's title as the heaviest animal that lived on Earth. They've been digging up massive fossils from the creature in the Peruvian desert over the past decade. Credit: Giovanni Bianucci/Department of Earth Sciences, University of Pisa, via AP



Visitors and journalists attend a presentation introducing a newly found species named *Perucetus colossus*, or “the colossal whale from Peru”, in Lima, Peru, Wednesday, Aug. 2, 2023. The bones were first discovered more than a decade ago by Mario Urbina from the University of San Marcos’ Natural History Museum. An international team spent years digging them out from the side of a steep, rocky slope in the Ica desert, a region in Peru that was once underwater and is known for its rich marine fossils. Credit: AP Photo/Martin Mejia

Without the skull, it's hard to know what the whale was eating to sustain such a huge body, Amson said.

It's possible that *P. colossus* was scavenging for food along the seafloor, researchers said, or eating up tons of krill and other tiny sea creatures in the water.

But "I wouldn't be surprised if this thing actually fed in a totally different way that we would never imagine," Thewissen added.

More information: Eli Amson, A heavyweight early whale pushes the boundaries of vertebrate morphology, *Nature* (2023). [DOI: 10.1038/s41586-023-06381-1](https://doi.org/10.1038/s41586-023-06381-1).
www.nature.com/articles/s41586-023-06381-1

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