

# Dinosaur tail found in Chile stuns scientists

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Miniature models of the *Stegouros elengassen*, a species of dinosaur discovered in Patagonia in 2018, is seen on display December 1, 2021 in Santiago.

Chilean paleontologists on Wednesday presented their findings on a dinosaur discovered three years ago in Patagonia which they said had a highly unusual tail that has stumped researchers

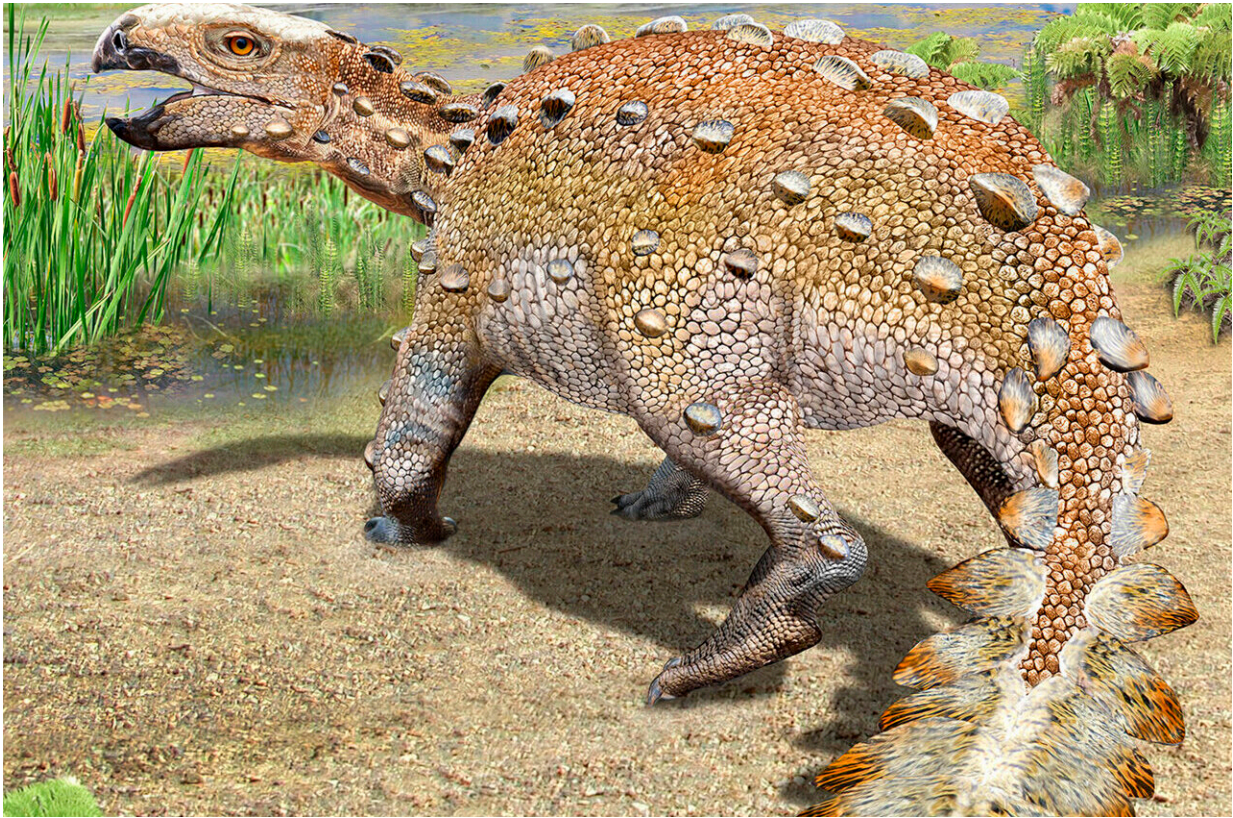
The remains of the *Stegouros elengassen* were discovered during excavations in 2018 at Cerro Guido, a site known to harbor numerous fossils, by a team who believed they were dealing with an already known species of dinosaur until they examined its [tail](#).

"That was the main surprise," said Alexander Vargas, one of the paleontologists. "This structure is absolutely amazing."

"The tail was covered with seven pairs of osteoderms ... producing a weapon absolutely different from anything we know in any dinosaur," added the researcher during a presentation of the discovery at the University of Chile.

The osteoderms—structures of bony plaques located in the dermal layers of the skin - were aligned on either side of the tail, making it resemble a large fern.

Paleontologists have discovered 80 percent of the dinosaur's skeleton and estimate that the animal lived in the area 71 to 74.9 million years ago. It was about two meters (almost seven feet) long, weighed 150 kilograms (330 pounds) and was a herbivore.



This illustration provided by Mauricio Alvarez shows a Stegouros. Fossils found in Chile are from the bizarre dog-sized dinosaur species that had a unique slashing tail weapon, scientists reported Wednesday, Dec. 1, 2021. Credit: Mauricio Alvarez via AP

According to the scientists, who published their research in the journal *Nature*, the animal could represent a hitherto unknown lineage of armored dinosaur never seen in the [southern hemisphere](#) but already identified in the northern part of the continent.

"We don't know why (the tail) evolved. We do know that within armored dinosaur groups there seems to be a tendency to independently develop different osteoderm-based defense mechanisms," said Sergio Soto, another member of the team.

The Cerro Guido area, in the Las Chinas valley 3,000 km (1,800 miles) south of Santiago, stretches for 15 kilometers. Various rock outcrops contain numerous fossils.



The remains of a *Stegouros elengassen*, a new species of dinosaur discovered in Patagonia, is seen on display in Santiago December 1, 2021.

The finds there allowed the scientists to surmise that present-day America and Antarctica were close to each other millions of years ago.

"There is strong evidence that there is a biogeographic link with other parts of the planet, in this case Antarctica and Australia, because we have two armored [dinosaurs](#) there closely related" to the *Stegouros*, said

Soto.

**More information:** Alexander Vargas, Bizarre tail weaponry in a transitional ankylosaur from subantarctic Chile, *Nature* (2021). [DOI: 10.1038/s41586-021-04147-1](https://doi.org/10.1038/s41586-021-04147-1).  
[www.nature.com/articles/s41586-021-04147-1](https://www.nature.com/articles/s41586-021-04147-1)

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