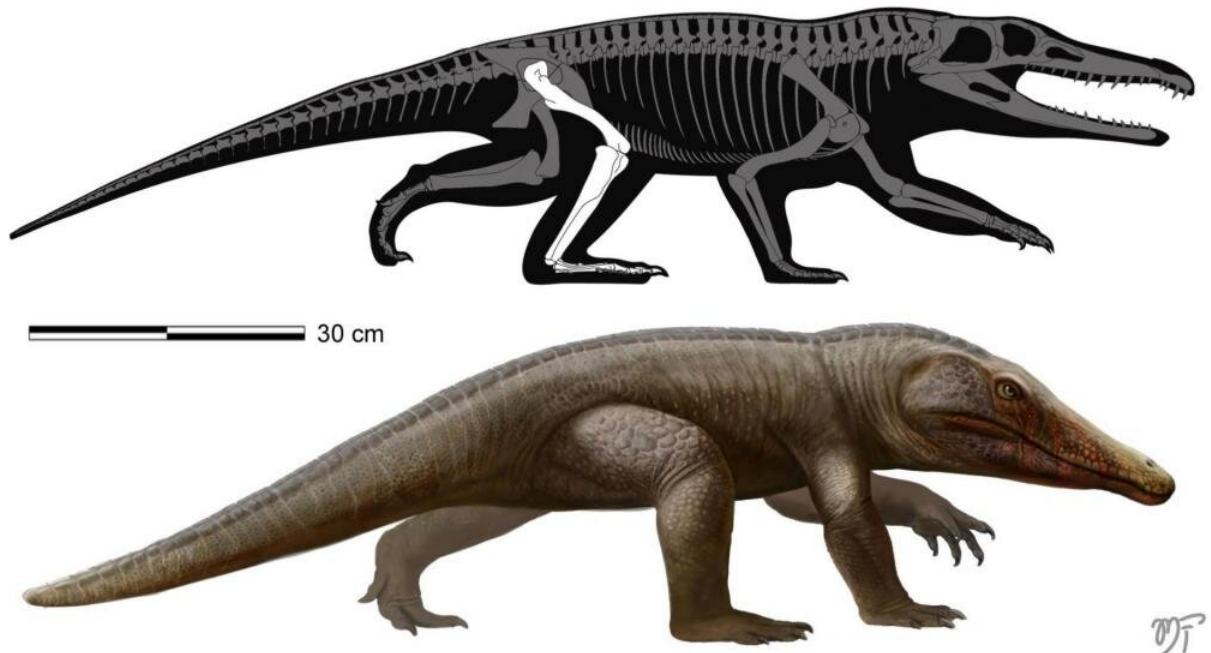


# New species of Triassic-era crocodile-like reptile unearthed in Brazil

November 16 2022, by Bob Yirka

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*Stenoscelida aurantiacus*. Credit: skeleton by Maurício S. Garcia; reconstruction by Matheus Fernandes

A pair of researchers from the Federal University of Santa Maria working with a colleague from the Federal University of Juiz de Fora, have identified a new species of Triassic-era reptile that was unearthed recently at a dig site in Brazil.

In their paper published in *Journal of Systematic Palaeontology*, Rodrigo Temp Müller, Mauricio Silva Garcia and André de Oliveira Fonseca, describe the fossil they found and where the new species fits in the historical record.

Paleontologists have been working for some time at the Rio Grande do Sul dig site in Brazil, and in so doing have found a large number of dinosaur bones. During that time, few [reptile](#) remains have been found, however.

Thus, the researchers were surprised when they found a complete leg fossil from an unknown ancient reptile, along with configurations of the foot that was once attached to it. The researchers knew the fossils were ancient; the rock around them has been dated to 230 million years ago—during a time when the dinosaurs were still roaming the earth.

Subsequent analysis of the fossil showed that it belonged to an ancient class of reptiles called proterochampsids—a group that had only ever been found in Argentina and Brazil. Prior research has shown that despite having [physical characteristics](#) similar to modern crocodiles and alligators, no strong degree of kinship has been found.

The researchers also found that the fossil represented a species that had not been seen before, which meant that they got to name it. They chose *Tenoscelida aurantiacus*, a nod to the slenderness of the leg and the orange color of the rocky bed in which it was found.

Based on the size of the fossil, the researchers estimated the creature would have been approximately 1.40 meters long, and would have walked on all-fours. They also suspect, based on similar [species](#) of the time, that the reptile was a meat eater. They opine that its build lent itself to a life near the water, similar to modern alligators.



*Stenoscelida aurantiacus* fossil. Credit: Rodrigo Temp Müller

The researchers note that the [fossil](#) was in very good condition, which allowed for identifying leg structures that were similar to many of those seen in dinosaurs. The muscle fixation points, they point out, suggest the creature had been very strong.

**More information:** Rodrigo Temp Müller et al, A new proterochampsid (Archosauriformes: Proterochampsia) from the Late

Triassic of southern Brazil and the emergence of archosaurian hind limb traits, *Journal of Systematic Palaeontology* (2022). [DOI: 10.1080/14772019.2022.2128913](https://doi.org/10.1080/14772019.2022.2128913)

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