

Larger-than-expected prehistoric mammal species uncovered in Patagonia

February 23 2024, by Bob Yirka



Images of Patagomaia chainko holotype remains, MPM-PV-23365 References: (a) fragments of the left pelvis; (b) silhouette and skeletal scheme with details of the preserved bones; (c) distal end of the left ulna; (d) proximal end of the right femur and distal end of the left femur; e, proximal half of the left tibia. Scale bar: 20 mm. Credit: *Scientific Reports* (2024). DOI: 10.1038/s41598-024-53156-3



A multi-institutional team of archaeologists and paleontologists has unearthed and identified a new species of mammal from the Maastrichtian age. In <u>their paper</u> published in the journal *Scientific Reports*, the researchers note that the mammal was much larger than any other known examples of its kind.

The <u>fossil</u> consists of a femur, tibia, hip and <u>hip socket</u>—enough for the team to identify it as belonging to a group known as Theria, which comprises non-egg-laying mammals. It also was enough to show that the animal was large compared to other mammals of its time. The team named the new creature, Patagomaia chainko. It was excavated in southern Patagonia.

They describe it as a medium-sized mammal compared to today's standards, likely about the size of an Andean fox. They suggest the size of the species on average could have varied from 2 to 25 kilograms and that it likely grew to be about a meter long; it lived approximately 70 million years ago.

The researchers note that prior research has shown that most mammals of the time had a <u>body mass</u> of below 100 grams, and that only a fraction of them reached 1 kilogram. Their smallest estimates for P. chainko place it among the largest mammals of the Mesozoic Era. The research teams theorize, based on the fossils, that the shape of the animal was likely similar to that of a platypus, or perhaps a porcupine or badger.

Mammals during the Mesozoic tended to be very small, about the size of modern mice or shrews, and body size for mammals during the Mesozoic was on average larger for those living in the <u>southern</u> <u>hemisphere</u>, than in the northern, until the asteroid arrived that wiped out the dinosaurs. The researchers suggest the new find will help us better understand the evolution of mammals in the southern hemisphere during the Mesozoic Era.



More information: Nicolás R. Chimento et al, A large therian mammal from the Late Cretaceous of South America, *Scientific Reports* (2024). DOI: 10.1038/s41598-024-53156-3

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