

## Newly discovered fossil of giant turtle is named after Stephen King novel character

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Visualization of the new discovered giant turtle Peltocephalus maturin. Credit: Júlia d'Oliveira

An international research team led by Dr. Gabriel S. Ferreira from the Senckenberg Center for Human Evolution and Paleoenvironment at the University of Tübingen has described a new species of giant turtle from the late Pleistocene.

Peltocephalus maturin is between 40,000 and 9,000 years old and comes



from the Brazilian Amazon. With a shell length of about 180 centimeters, the species is one of the largest known freshwater turtles in the world. The armored reptile was named after the giant turtle "Maturin," a fictional character created by best-selling author Stephen King.

With a maximum shell length of 140 centimeters, the Asian narrowheaded softshell turtle (Chitra chitra) together with the approximately 110-centimeter-long South American river turtle (Podocnemis expansa) is one of the largest freshwater turtles alive today.

"In the past, we only know of a few turtles living in fresh waters that had a shell length of more than 150 centimeters," explains Dr. Ferreira. "Such large animals are most recently known primarily from the Miocene, the period around 23 to 5 million years ago."

Ferreira and an international team have now discovered a giant representative of this order of reptiles from the end of the Pleistocene period, around 40,000 to 9,000 years ago, and described it as a new species. The fossil remains—part of the turtle's <u>lower jaw</u>—were collected by gold miners at the "Taquaras" quarry in Porto Velho, Brazil.

Based on various characteristics, the research team assumes a close relationship with the modern big-headed Amazon turtle (Peltocephalus dumerilianus) and an omnivorous diet. "We named the new species after the giant turtle Maturin, an overarching protagonist in the Stephen King multiverse. Maturin is responsible for the creation of the universe in King's novels and films," explains Dr. Ferreira.

The paper is **<u>published</u>** in the journal *Biology Letters*.





The holotype of the newly discovered giant tortoise: a massive partial lower jaw. Credit: Senckenberg Research Institute and Natural History Museum

Referencing the turtle's extremely large size, Dr. Ferreira says, "This is very surprising because freshwater turtles—in contrast to their terrestrial and marine relatives—rarely have such gigantic forms and the youngest giant fossils known to date come from Miocene deposits."

The new find is the youngest known occurrence of giant freshwater turtles and suggests a coexistence of Peltocephalus maturin with early human inhabitants in the Amazon region.



"People settled in the Amazon region around 12,600 years ago. We also know that large tortoises have been on the diet of hominins since the Paleolithic. Whether freshwater turtles, which are much more difficult to catch due to their agility, were also eaten by early humans and whether Peltocephalus maturin—together with the South American megafauna—fell victim to human expansion is still unclear.

"Here we need more data from the Late Pleistocene and Early Holocene deposits of the Amazon Basin," says Ferreira, giving an outlook on future work.

**More information:** G. S. Ferreira et al, The latest freshwater giants: a new Peltocephalus (Pleurodira: Podocnemididae) turtle from the Late Pleistocene of the Brazilian Amazon, *Biology Letters* (2024). DOI: 10.1098/rsbl.2024.0010

Provided by Senckenberg Research Institute and Natural History Museum

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