

# **Musankwa sanyatiensis, a new dinosaur from Zimbabwe discovered**

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Musankwa sanyatiensis leg bones as they were discovered in the ground on Spurwing Island, Lake Kariba, Zimbabwe. Credit: Paul Barrett

Fossils found on the shoreline of Lake Kariba in Zimbabwe represent a completely new dinosaur species. This remarkable find, named Musankwa sanyatiensis, marks only the fourth dinosaur species named from Zimbabwe. The research detailing this significant discovery is published in [\*Acta Palaeontologica Polonica\*](#).

The study was conducted by an international team of scientists from the University of the Witwatersrand (Wits) in South Africa, the Natural History Museum of Zimbabwe, Stony Brook University in New York and was led by Prof Paul Barrett from the Natural History Museum in London.

The discovery of Musankwa sanyatiensis is particularly significant as it is the first dinosaur to be named from the Mid-Zambezi Basin of northern Zimbabwe in over 50 years. Additionally, it is only the fourth dinosaur to be named from Zimbabwe, following the descriptions of "Syntarsus" rhodesiensis in 1969, Vulcanodon karibaensis in 1972, and, most recently, Mbiresaurus raathi in 2022.

The rocks yielding this new specimen date back to the Late Triassic period, approximately 210 million years ago. Musankwa sanyatiensis is represented by the remains of a single hind leg, including its thigh, shin, and ankle bones.

"Despite the limited fossil material, these bones possess unique features that distinguish them from those of other dinosaurs living at the same

time," says Dr. Kimberley "Kimi" Chapelle, assistant professor at Stony Brook University and an honorary associate at the Evolutionary Studies Institute at Wits.



Artist reconstruction of *Musankwa sanyatiensis*, walking in Triassic shallow waters past a metoposaur. Credit: Atashni Moopen

The discovery was named *Musankwa sanyatiensis* after the houseboat "Musankwa." In the Tonga dialect, "Musankwa" means "boy close to marriage." This vessel served as the research team's home and mobile laboratory during two field expeditions to Lake Kariba in 2017 and

2018. The vessel was made available to the research team through the generosity of David and Julie Glynn, and the crew—Coster Katupu, Godfrey Swalika, Simbarashe Mangoroma, and Never Mapira—who provided essential logistic support.

Evolutionary analysis reveals that *Musankwa sanyatiensis* was a member of the Sauropodomorpha, a group of bipedal, long-necked dinosaurs that were widespread during the Late Triassic. Interestingly, this dinosaur appears to be closely related to contemporaries in South Africa and Argentina. Weighing in at around 390 kg, the plant-eating *Musankwa sanyatiensis* was one of the larger dinosaurs of its era.

Africa has a long history of dinosaur discovery, with the first dinosaur in the southern hemisphere found in South Africa just three years after the term "dinosaur" was coined by Sir Richard Owen in 1842. However, most known [dinosaur fossils](#) have been found in just 10 countries, particularly in the northern hemisphere, leading to a sparse representation of African dinosaur diversity in the global fossil record.



Map showing the geographic setting of the Mid-Zambezi Basin and Spurwing Island in northwest Zimbabwe. Credit: Lara Sciscio

"The main reason for the underrepresentation of African dinosaur fossils is 'undersampling,'" says Barrett. "Put simply, there have been fewer people looking for and unearthing dinosaurs in comparison with other regions of the world."

Despite the fewer discoveries in Africa, many of these fossils are historically and scientifically significant. These include some of the oldest dinosaurs, like *Nyasasaurus parringtoni* from Tanzania and *Mbiresaurus raathi* from Zimbabwe, as well as rich dinosaur faunas from South Africa, Tanzania, Niger, and Morocco.



The Late Triassic-Early Jurassic sediments of Zimbabwe are crucial for understanding the End-Triassic extinction, a catastrophic event that dramatically reshaped Earth's biodiversity around 200 million years ago. These different layers provide insights into how different fossil-bearing sediments around the world correspond in age and help in piecing together the global picture of prehistoric life.



The international team composed of scientists from Zimbabwe, South Africa and the UK at the *Musankwa sanyatiensis* fossil locality on Spurwing Island, Lake Kariba, Zimbabwe. Credit: Lara Sciscio



The house-boat "Musankwa", the vessel that acted as the home and mobile laboratory during two field expeditions to Lake Kariba in 2017–2018, which was made available through the generosity of David and Julie Glynn, and whose crew, Coster Katupu, Godfrey Swalika, Simbarashe Mangoroma, and Never Mapira, provided essential logistic support. Credit: Jonah Choiniere

This new dinosaur species also highlights the untapped potential of the region for further paleontological discoveries. Barrett elaborates, "Over the last six years, many new fossil sites have been recorded in Zimbabwe, yielding a diverse array of prehistoric animals, including the first sub-Saharan mainland African phytosaurs (ancient crocodile-like reptiles), metoposaurid amphibians (giant armored amphibians), lungfish, and other reptile remains."

As more fossil sites are explored and excavated, there is hope for uncovering further significant finds that will shed light on the early



evolution of dinosaurs and the ecosystems they inhabited.

"Based on where it sits on the dinosaur family tree, *Musanwka sanyantiensis* is the first dinosaur of its kind from Zimbabwe," Dr. Kimi Chapelle explains. "It, therefore, highlights the potential of the region for further paleontological discoveries."

**More information:** A new Late Triassic sauropodomorph dinosaur from the Mid-Zambezi Basin, Zimbabwe, *Acta Palaeontologica Polonica* (2024). [DOI: 10.4202/app.01100.2023](https://doi.org/10.4202/app.01100.2023)

Provided by Wits University

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