

Scientists discover new 'spectacular' bat from West Africa

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Myotis nimbaensis, shown here, is a new species of bat named for the mountain range in which it is found, the Nimba Mountains in West Africa. Credit: © Bat Conservation International

A group of scientists led by the American Museum of Natural History and Bat Conservation International have discovered a new species of a striking orange and black bat in a mountain range in West Africa. The species, which the researchers expect is likely critically endangered, underscores the importance of sub-Saharan "sky islands" to bat diversity. The species is described today in the journal *American Museum Novitates*.

"In an age of extinction, a discovery like this offers a glimmer of hope," said Winifred Frick, chief scientist at Bat Conservation International and an associate research professor at the University of California, Santa Cruz. "It's a spectacular animal. It has this bright-orange fur, and because it was so distinct, that led us to realize it was not described before. Discovering a new mammal is rare. It has been a dream of mine since I was a child."

In 2018, Frick and her colleagues at Bat Conservation International and the University of Maroua in Cameroon were in the Nimba Mountains in Guinea conducting field surveys in natural caves and mining tunnels, known as adits, that were built in the 1970s and 1980s and have since been colonized by bats. In collaboration with the local mining company, Société des Mines de Fer de Guinée (SMFG), the scientists are trying to understand which bat [species](#) use which adits and at what times of the year. Of particular interest is Lamotte's roundleaf bat, *Hipposideros lamottei*, which is listed by the International Union for Conservation of Nature (IUCN) as critically endangered and has only ever been recorded in the Nimba Mountains.



This illustration shows *Myotis nimbaensis*, a new species of bat found in the Nimba Mountains of West Africa. Credit: Patricia Wynne

Much of its known population lives in the adits, which are in different states of collapse and will disappear in time. While surveying for this bat, the researchers found something peculiar—a bat that looked nothing like Lamotte's roundleaf bat and did not match the descriptions of any other species that they knew occurred in the area. Later that night, they called on American Museum of Natural History Curator Nancy Simmons, a bat expert and chair of the Museum's Department of Mammalogy, for help.

"As soon as I looked at it, I agreed that it was something new," said Simmons, the lead author of the paper and Bat Conservation International Board member. "Then began the long path of documentation and gathering all the data needed to show that it's indeed unlike any other known species."

Through morphological, morphometric, echolocation, and [genetic data](#), including comparative data from collections at the Museum, the Smithsonian National Museum of Natural History, and the British Museum, the scientists described the new species, which they named *Myotis nimbaensis* ("from Nimba") in recognition of the [mountain](#) range in which it is found. A chain of "African sky islands," the Nimba Mountains have peaks rising between 1,600-1,750 meters (about 1 mile) above sea level and are surrounded by drastically different lowland habitats. As such, they are home to exceptional biodiversity, including bats.



A chain of "African sky islands," the Nimba Mountains in Guinea have peaks rising between 1,600-1,750 meters (about 1 mile) above sea level and are surrounded by drastically different lowland habitats. They are home to exceptional biodiversity, including bats. Credit: © Bat Conservation International

"In addition to the Lamotte's roundleaf bat, it's possible *Myotis nimbaensis* could be the second bat species found only in this particular [mountain range](#)," said Jon Flanders, Bat Conservation International's director of endangered species interventions.

This study is part of an ongoing effort critical in helping the Nimba Mountain bats survive. Bat Conservation International and SMFG have

already started working together to build new tunnels, reinforced to last for centuries and in habitat away from the mining project, for the Lamotte's roundleaf bat. And although little is known yet about the population and range of *Myotis nimbaensis*, efforts like this will likely help it as well.

More information: A new dichromatic species of *Myotis* (Chiroptera: Vespertilionidae) from the Nimba Mountains, Guinea (American Museum novitates, no. 3963) digitallibrary.amnh.org/handle/2246/7249

Provided by American Museum of Natural History

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