

Study on mysterious Amazon porcupine can help its protection

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Credit: Menezes et al.

Porcupines of the genus *Coendou* are arboreal, herbivorous, nocturnal rodents distributed in tropical and subtropical regions of the Americas. Most of what we currently know on them is restricted to species that

occur near urban areas, and we still have a lot to learn about these fascinating animals.

Recently, a new study shed light on a very unknown neotropical [porcupine](#) species. Roosmalens' dwarf porcupine (*Coendou roosmalenorum*) is the smallest porcupine species we know, with blackish monocolored bristles on the tail which confers a blackish color to it, but apart from its appearance, we didn't know much about it until recently.

"This species was described in 2001 and our [paper](#) is the first scientific report after this date, which means nothing was discovered about Roosmalen's porcupine in a 22-year period," says Fernando Heberon Menezes, the lead author of a study that was just published in the open-access journal *ZooKeys*.

"Before our research, we had only a morphological description of the species, with a little information about its distribution and [natural history](#), and nothing about population ecology or conservation threats."

Using DNA sequencing and exploring data on its occurrences, Fernando and his team were able to uncover new facts about the enigmatic animal.

Thanks to their study, we now know more about its distribution in the Madeira biogeographical province in the Amazon Forest. "With this information, we raised the hypothesis this species is endemic to Madeira Province, which is important for predicting where we can find this species and the possible threats affecting its population or its distribution," says Fernando.

At the same time, they found Roosmalens' dwarf porcupine at new locations in the Amazon rainforest, which suggests that its distribution in southern Amazonia is wider than suspected.

Their [phylogenetic analysis](#)—the study of the species' [evolutionary history](#) and relationships with other species—confirmed that the species is a member of the subgenus *Caaporamys*. This is important, the researchers say, because the classification of the genus *Coendou* had been "historically chaotic" until the last few years.

The information in this study opens up numerous opportunities for further researching this [species](#). "We can think of ways to answer very basic scientific questions such as 'how does Roosmalen's porcupine use space?' or 'what does it eat?', some more advanced questions such as 'how did it evolve?,' or applied questions such as 'what are the major threats for its conservation?,' or 'how can we use it as a model to know more about the health of the Amazon forest?'," says Fernando in conclusion.

More information: Fernando Heberon Menezes et al, Phylogenetic relationships, distribution, and conservation of Roosmalen's dwarf porcupine, *Coendou roosmalenorum* Voss & da Silva, 2001 (Rodentia, Erethizontidae), *ZooKeys* (2023). [DOI: 10.3897/zookeys.1179.108766](https://doi.org/10.3897/zookeys.1179.108766)

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