

Project Update: November 2022

The potential distribution map.

We are compiling all the occurrence coordinates of the subspecies from published scientific articles, the Brazilian Biodiversity Information System (SiBBr), the herpetological scientific collections, museums, *speciesLink* and the database of the National Center for Reptile and Amphibian Research and Conservation (RAN/ICMBio). With this information and the climatic and environmental variables, we will build a map and identify the five study areas.

Monitoring the population of bushmaster snake in the Baturité Massif, Ceará, Brazil.

In July, September and October 2022, we conducted field campaigns to monitor the population of the subspecies in the Baturité Massif, state of Ceará, Brazil. We will have another campaign at the beginning of December 2022. These campaigns are part of my master's project for data collection and monitoring of the already known population of the species in the state. We already obtained 24 records, 16 individuals were captured alive, and eight were received dead. The local community has been actively contributing to the project's actions from the contact made available in our dissemination folders. (Photo 1 Alert system for the local community to call us when finding a venomous snake and Photo 2 Project team and local community partners after capturing a bushmaster snake).

We collected ecological and biological data from the animals (animal temperature, characterisation of the environment, breast height diameter of three nearby trees and height of burlap) (Photo 3 Individual found resting in natural environment). The animals were taken to the laboratory at the Museu de História Natural do Ceará Prof. Dias da Rocha (MHNCE) located in the city of Pacoti, at the present study site. There, we carried out the containment of bushmaster snakes to collect biological data: size, weight, possible ticks and ectoparasites, abrasions, blood and tissue for molecular analysis. All living individuals had their health status assessed by a project partner veterinarian. These were marked and released in a protected area with a natural environment in the region. (Photo 4 Animal contained for the collection of biological material, Photo 5 Biological data collection from a young bushmaster found by the community and rescued by us and Photo 6 Veterinary analysis of a bushmaster by a partner professional).

In addition to collecting ecological and biological data of the bushmasters, we had conversations and conducted interviews with members of the local community to understand their relationship with snakes, in particular with the bushmasters. Thus, we will be able to develop education and environmental awareness activities (Photo 7 Talking to a farm owner in the region about the bushmaster snakes and Photo 8 Talking with the local community about their relationship with the region's snake species).

News on project activities and the bushmaster.

The news was published online and in print formation in one of the most read newspapers in the state of Ceará, Brazil (Photo 9 Printed new in *O Povo* newspaper 1 and 2, and PDF Online version in *O Povo* newspaper). The news is available in <https://mais.opovo.com.br/jornal/reportagem/2022/01/04/a-serpente-invisivel-do-ceara.html>.

Participation in the Environment Week at the Natural History Museum of Ceará Prof. Dias da Rocha (MHNCE) (June 2022).

We participated in the environment week at the Museu de História Natural do Ceará Prof. Dias da Rocha (MHNCE), located in the city of Pacoti, Ceará, Brazil. MHNCE is located in our study area. We participated in the environmental education actions, with talks to the visitors of the reptile's exhibition (Photo 10 Reptiles exhibition at the MHNCE and Photo 11 Visitors at the reptile exhibition at the MHNCE). We gave a talk at the event titled "The bushmaster of Ceará: Biology and conservation of the largest venomous snake of the Americas" (Photo 12 Lecture in the environment week at the MHNCE).

Participation in the Mulungu Fauna Week (October 2022).

We carried out an environmental education action and lectures for young people from the Hermenegildo Rocha Pontes Elementary School, in the city of Mulungu, at the study area. About 110 students participated in the action (Photo 13 Lecture on bushmaster for young people at Hermenegildo Rocha Pontes Elementary School, Photo 14 Participation in Mulungu Fauna Week and Photo 15 Bushmaster talk at Mulungu Fauna Week).

Lecture for the Managing Council of the APA (Environmental Protection Area) of Baturité Massif (October 2022)

We held a talk about the project's objectives and the target species for the management council of Integral Protection Area in Baturité Massif (APA the Baturité Massif) (Photo 16 Lecture for the Managing Council of the APA and Photo 17 APA board members and project staff).

Participation in the workshops for the Management Plan for the Baturité Massif Environmental Protection Area.

The creation of the management plans for the Baturité Massif Protected Area are underway through the state government of Ceará. We were invited to be part of the team that produces the management plan together with residents, entrepreneurs, farm owners and other local players. Monthly activities are being held in which important points for the preservation and conservation of the region's biodiversity are discussed. Thus, we are able to expose our observations about the local snakes, focusing on the *Lachesis muta rhombata* (Photo 18 APA Council debating areas to be protected and Photo 19 APA Council on field visit for inspection).

Weekly posts about our activities and information about bushmaster snakes on Instagram and WhatsApp (most used networks in the region). Follow-up through @projetomalhadefogo - <https://www.instagram.com/projetomalhadefogo/?hl=en>.





