

Final Evaluation Report

Your Details	
Full Name	Eduardo Hoffmam de Barros
Project Title	Influence of habitat on the impact of exotic species on native ichthyofauna in a group of lakes of the lower Doce River, Espírito Santo, southeastern Brazil.
Application ID	30960-1
Date of this Report	24/04/2024

1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Produce and test a biotic integrity index for the lakes and streams of the region using fish as indicators.	X			That was the main objective in the original project, which could not be achieved due to the lack of preserved environments in the region and the necessary variability among study sites.
To determine which habitat characteristics influence the impact of exotic fish species on native ones and to indicate how these characteristics can be useful in conservation actions.			X	That was the main objective in the new project.
GPT To conduct an on-site survey of the fish species occurring in the region of the lakes of the lower Doce River and a survey of the fish species collected throughout the basin that are deposited in scientific collections			X	This was a common objective between the original and new versions of the project.

2. Describe the three most important outcomes of your project.

a). It was demonstrated how native and exotic fish are distributed in the lakes and streams of the region, and how the characteristics of the streams influence the proportion of native and exotic species.

b). Conservation measures applicable to the local reality were indicated, including their use in ongoing actions aimed at the recovery of the Doce River.

c). A survey of the fish species known to the Doce River basin, including an in-situ survey of a previously little-known subregion, the lake complex in the lower course of the Doce River.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

Our initial objective was to produce a biotic integrity fish-based index for lakes and streams in the region. For this, we needed preserved areas, or, at least, some variability capable of distinguishing between conserved and degraded areas. This variability was not found due to the high degree of degradation of the water bodies and associated environments in the region.

4. Describe the involvement of local communities and how they have benefited from the project.

Some members of the local community were involved in the fish collection process. Residents of the study sites were approached to explain the research, and these occasions were used to share information about the impact of exotic species in the region.

5. Are there any plans to continue this work?

Yes. A possible continuation could be carried out through a postdoctoral project or a doctoral project by another team member. An interesting aspect would be to sample the lakebed environments, as some of the studied lakes are among the deepest in the country. In this environment, a rare and critically endangered species was rediscovered, which had not been recorded for decades. The authors of this study suggested that this could be a refuge environment from the damage caused by exotic species. The same approaches used in our project, testing streams as refuges for native ichthyofauna, could be applied to testing the lakebed environments.

6. How do you plan to share the results of your work with others?

I intend to offer free lectures to schools and local communities.

7. Looking ahead, what do you feel are the important next steps?

Publish the content generated by the research in scientific journals.

8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?

I used the Rufford logo in the presentations of my projects and my thesis within the university and on two other occasions: at the Brazilian Conference on Biodiversity Conservation Projects supported by Rufford, held in Recife-PE in April 2022; and at the Doce River Research Symposium, held in April 2024 in Viçosa, MG.

9. Provide a full list of all the members of your team and their role in the project.

Eduardo Hoffmam de Barros – PhD candidate, researcher
Luisa Maria Sarmento Soares – PhD advisor, researcher
Renan Luxinger Betzel – Data collection and fish identification
Leydiane Rodrigues – Fish identification
Tatyana Gomes Silva Prates – Fish identification
Mateus Torezani – Data collection
Anderson Durão Viana – Data collection
Henrique Zancheta e Gava – Data collection
Lucas Correa – Data Collection
Alex dos Santos Felix – Data collection
Claudio Marcio Pianka – Data collection
Marcos Vinícius Teixeira – Data collection
Reginaldo Gusmão – Data analysis
Karina Ferreira – Data analysis
Fernanda Silva – Mapping and landscape analysis

10. Any other comments?