

Project Update: September 2023

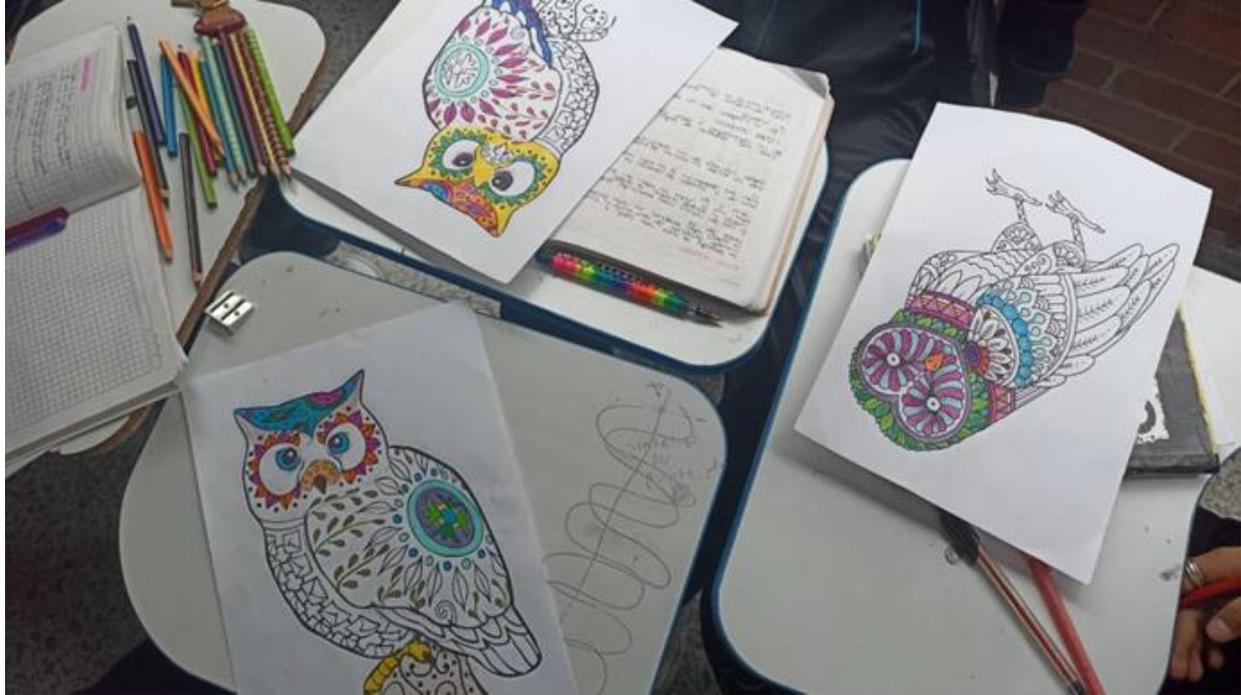
From February to September 2023, we conducted environmental education talks focusing on raising awareness about owls among school and university students, initiated a volunteer programme for sound filtering activities, actively participated in two congresses, and published an article. Furthermore, we established partnerships with professors of Spain and Colombia to augment our team's capabilities.

Education talks to school students:

We conducted educational workshops targeting two distinct age groups: students aged 10-11 and 13-15. The central theme of these workshops revolved around instilling awareness about the critical need to protect endemic owl species. During the sessions, we encouraged participants to take an active role in conservation by creating their own endemic owl species. This interactive activity allowed students to design their unique owl species, complete with colours and names of their choosing. By engaging them in this hands-on exercise, we aimed to foster a deeper understanding of biodiversity conservation and inspire a sense of personal responsibility for preserving these vital owl populations.









Education talks to university students:

We conducted talks for university students at the botanical garden campus, focusing on owl species, their protection, and conservation. These sessions also highlighted the recent project advancements



Participation in academic events:

- IV Brazilian congress of biological sciences
online July 5 to 8, 2023
Protected areas in the Atlantic Forest: effectiveness in the conservation of owls.
- II Ornithological Congress of the Americas
August 1 to 0, 2023
Early studies with the fluctuating asymmetry of the Burrowing Owl *Athene cunicularia* in Brazil.

Volunteer programme:

OPORTUNIDADE DE VOLUNTARIADO

COM CERTIFICADO!

Precisamos de ajuda na divulgação científica e na triagem de dados

**Tem interesse?
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de apresentação**



até 28/02

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Instagram Profile:

Instagram profile of the project for September 11, 2023 we have 2703 followers.

5:54 PM



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22
Publicacio...

2,703
Seguidores

1,532
Seguidos

Corujas da Mata Atlântica

Sitio web de educación

Pesquisa e conservação das corujas da Mata Atlântica



RS, Brasil 🇧🇷

#corujasdamataatlantica

mconf.ufrgs.br/webconf/bancas-de-defes...

Panel para profesionales

207 cuentas alcanzadas en los últimos 30 días.

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Historias destacadas ▾



Current and future effectiveness of protected areas for the conservation of endemic owls from the Atlantic Forest

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Protected areas are essential conservation tools for mitigating the rapid decline of biodiversity. However, climate change represents one of the main challenges to their long-term effectiveness, as it induces rapid changes in the geographical distribution of many species. We used ecological niche modelling to predict the impacts of climate change on the distribution of five endemic owls in the Atlantic Forest and evaluated the effectiveness of the protected areas network for their conservation. The results indicate that the protected areas network is currently effective in terms of representativeness for most species; however, there will be a decline for all species in the coming decades because of climate change. We found that the ecoregions in the northern part of the Atlantic Forest will experience a higher loss of species, whereas those ecoregions in the southern part will be important stable climatic refuges in the future. Therefore, we emphasize the need to complement the network of protected areas to increase their representativeness in the distribution of species that will be affected by climate change, reducing species loss and increasing connectivity between suitable areas. We hope the results presented herein will serve as a basis for decision-makers to re-evaluate and improve current conservation policies and decisions in order to address the challenges posed by climate change and secure the survival of these species.

Keywords: climate change, conservation gap, ecological niche modelling, Strigiformes..

Protected areas (PAs) represent the central axis of global biodiversity conservation strategies. They are essential to guarantee the management and protection of species and their ecosystems in the short and long term, particularly those under threat of extinction (Naughton-Treves *et al.* 2005, Watson *et al.* 2014). Although PAs are key conservation tools for mitigating the negative impacts of anthropogenic pressures and decreasing the rapid decline of biodiversity (Geldmann *et al.* 2013), there is serious concern regarding their long-term effectiveness (Cabeza 2013). Such concern is mainly related

to the capacity of the PAs to incorporate the future impacts of climate change and thus ensure species persistence (Araújo *et al.* 2004, Rodrigues *et al.* 2004a, Thomas & Gillingham 2015).

Climate change is one of the main pressures that cause species loss and ecological disequilibrium in ecosystems (Bellard *et al.* 2012) and it is becoming a severe threat to global biodiversity conservation. The vulnerability of species to climate change will depend on different factors associated with their capacity for persistence, colonization and adaptation (Chevin *et al.* 2010). For example, species with a wide range of climatic tolerance and plasticity may be more able to maintain populations in their current range even in the absence of ideal climatic conditions. In contrast,

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