



CLIMATE CHANGE²

SCIENCE AND TECHNOLOGY IN
MITIGATING ANTHROPOGENIC ACTIONS

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PROJECT

WHICH MICE DO THE BURROWING OWLS AT THE UFFS ERECHIM CAMPUS CONSUME?

Matheus Guzzi Rubini^{1*}, Ellen Cristina Bronstrup¹, Daniel Galiano²

¹ Biological Science Student, Federal University of Fronteira Sul, Erechim, contact: matheusgrubini20@gmail.com, bronstrupellen@gmail.com

² Postgraduate Program in Environmental Science and Technology, Federal University of Fronteira Sul, Erechim, contact: daniel.galiano@uffs.edu.br

The Burrowing Owl (*Athene cunicularia*) is a bird of prey belonging to the order Strigiformes, a widely distributed species throughout Brazil. It exhibits predominantly diurnal and crepuscular activity patterns and is commonly found in anthropogenic environments. Its diet is generalist, varying according to food availability in the region, and consists primarily of small vertebrates and arthropods. The owl's diet is often analyzed through the examination of pellets, which are masses of undigested material regurgitated by individuals. The analysis of these pellets has contributed not only to understanding the species' diet but also to obtaining data on the distribution of its prey, particularly small mammals. Furthermore, studies that focus on the feeding ecology of this species are essential for understanding energy dynamics within ecosystems. In this context, this project aims to identify the species of small mammals present in the diet of *A. cunicularia* individuals inhabiting the Erechim campus of the Federal University of Fronteira Sul, located in the Rio Grande do Sul state. Pellets from active burrows of the species across the campus will be sampled and analyzed over a consecutive one-year period to determine the diet and identify small mammal species consumed. The material will be sampled weekly on Monday mornings and stored in individual plastic containers containing 70% ethanol for subsequent processing. For analysis, the pellets will be measured and dissolved in distilled water for determination of undigested food items, including bones. Skulls and mandibles will be separated and classified based on crânio-mandibular morphology. By analyzing the bones and skulls found in the pellets, we aim to identify the species of small mammals in the region, and thus generate data to better understand the diet of *A. cunicularia* and the distribution of small mammal species.

Keywords: conservation, pellets, rodents,