



Status of Insects: An International Research Coordination Network



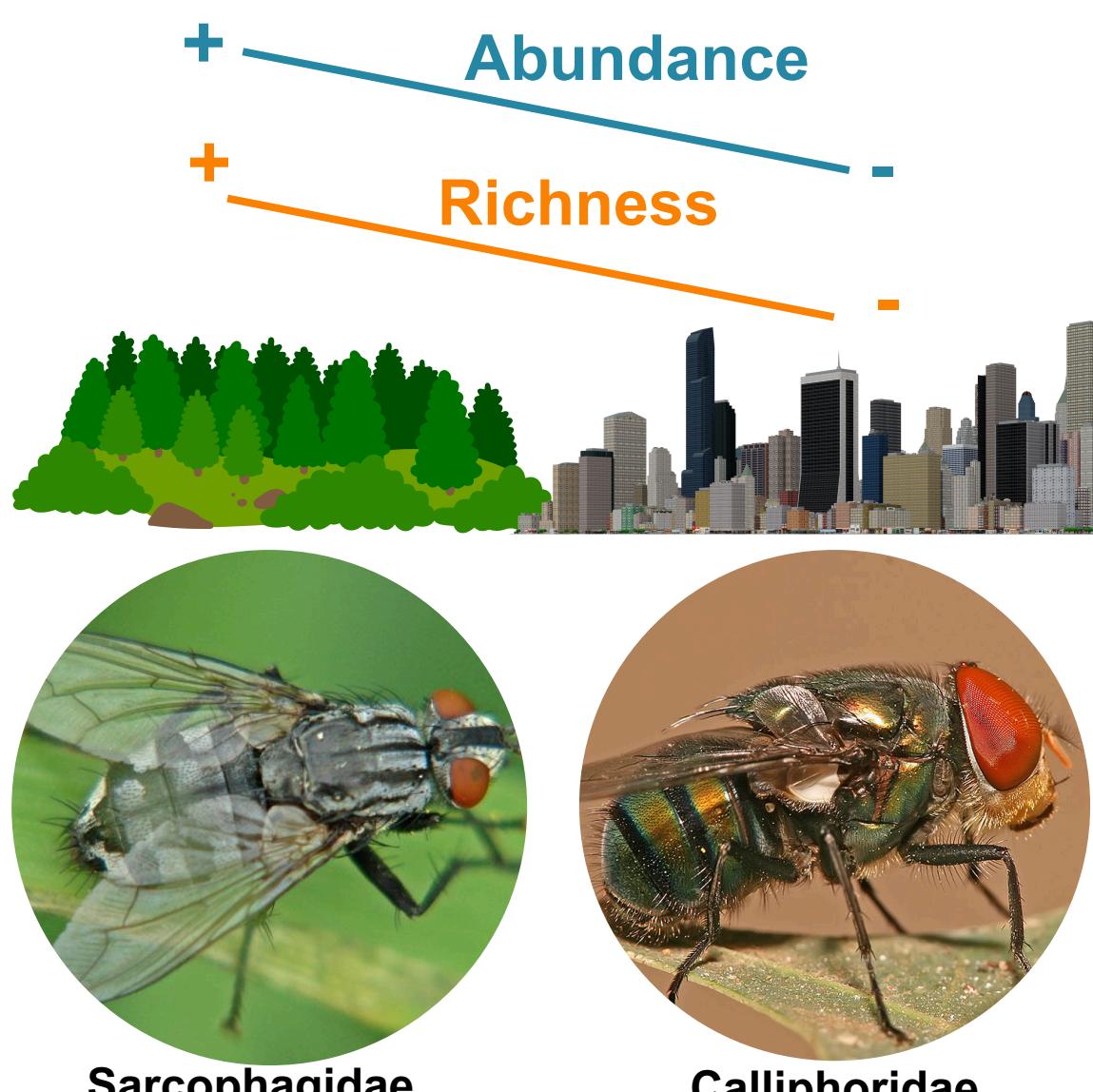
Funded by the National Science Foundation

DYNAMICS OF SARCOPHAGIDAE IN THE ATLANTIC FOREST: IMPACTS OF FRAGMENTATION, EXOTIC SPECIES, AND THE IMPORTANCE OF CONSERVATION STRATEGIES

Henrique Rafael Pontes Ferreira
Universidade Federal de Pernambuco
E-mail: henrique.pontes@ufpe.br

INTRODUCTION

Flies, perform crucial functions as recyclers of organic matter and ecological indicators, with the Sarcophagidae family standing out due to its rich diversity in the Neotropical region. And This issue is exacerbated by loss of biodiversity in the Atlantic Forest, driven by deforestation and human occupation, which reduces natural habitats and favors the dominance of exotic species (e.g. *Chrysomya*, Calliphoridae).



Sarcophagidae

Calliphoridae

Figures: Google

OBJECTIVE

To present information on the dominance of Sarcophagidae species in the Atlantic Forest, exploring their interactions with invasive species, the primary resources used for their capture, and fostering reflections on the role of these species as bioindicators in environmental preservation assessments

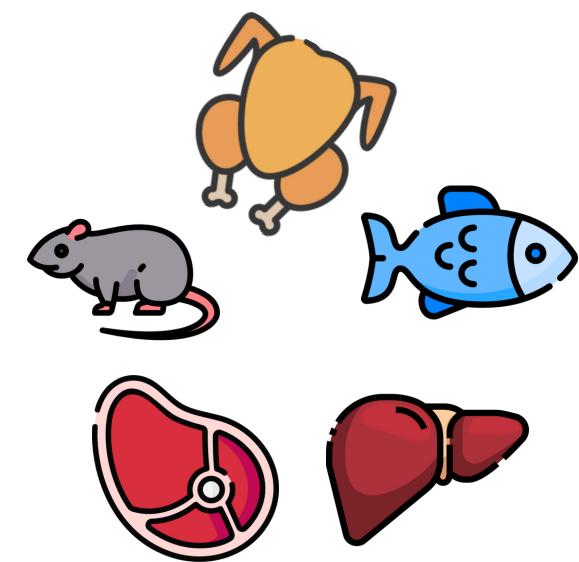
METHODOLOGY

- A literature review was conducted.
- Scientific articles published in the past 10 years that included faunal surveys of Sarcophagidae in the Atlantic Forest, using animal baits as attractants.
- Keywords "Sarcophagidae" AND "Atlantic Forest" were used to gather data on species richness and abundance, occurrence sites, and bait types.

RESULTS

- These studies revealed an average richness of 24 species across 7 genera
- Were conducted in states such as Pernambuco, Rio de Janeiro, Rio Grande do Norte, and Bahia

Attractive baits



Most abundant genera

- *Oxysarcodexia*
- *Peckia*
- *Ravinia*
- *Tricharaea*
- *Tytanogrypa*

Some findings suggest significant competition with Calliphoridae species, which demonstrated greater abundance and dominance. The surveys underscore how habitat loss and fragmentation in the Atlantic Forest have directly impacted variables such as species richness and abundance.

CONCLUSIONS

The findings highlight the importance of monitoring the biodiversity of this group in the Atlantic Forest, considering the impacts of habitat fragmentation and biological invasions. Competition for food resources between native and exotic species, likely facilitated by the greater ecological plasticity and environmental tolerance of exotic species, may contribute to the decline of local populations, compromising essential ecological functions.

REFERENCES

- Barbosa, T. M., Jales, J. T., Medeiros, J. R., & Gama, R. A. (2023). Sarcosaprophagous dipterans associated with differentially-decomposed substrates in Atlantic Forest environments. *Acta Brasiliensis*, 7(1), 14-21.
- Gomes, M. M., & de Mello-Patiu, C. A. (2021). Diversity of flesh flies (Diptera: Sarcophagidae) in an Atlantic forest fragment in Rio das Ostras, RJ, Southeastern Brazil. *EntomoBrasilis*, 14, e940-e940.
- Lopes, D. S., de Oliveira, F. F., de Mello-Patiu, C. A., & Pamponet, F. M. (2018). Espécies de *Oxysarcodexia* (Diptera: Sarcophagidae) associadas a carcaças de suíños (*Sus scrofa* Linnaeus) expostas em um fragmento de Mata Atlântica no município de Salvador, Bahia. *EntomoBrasilis*, 11(2), 103-106.
- Santos, A. B. C., Couri, M. S., & Mello-Patiu, C. A. (2024). Diversity of Calliphoridae and Sarcophagidae (Diptera Oestroidea) in a forested area in the municipality of Macaé, RJ, Brazil. *EntomoBrasilis*, 17, 1084.