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Introduction

Land-use change is the primary driver of amphibian decline worldwide. In the Atlantic Forest, the expansion of *Eucalyptus* is responsible for the substitution of megadiverse native forest by a species-poor monoculture. Changes in community composition and species abundances lead to shifts in species interactions, driven by altered probabilities of interaction and changes in optimal foraging strategies.

Our main question is:

How *Eucalyptus* silviculture impact anuran dietary patterns?

Hypotheses

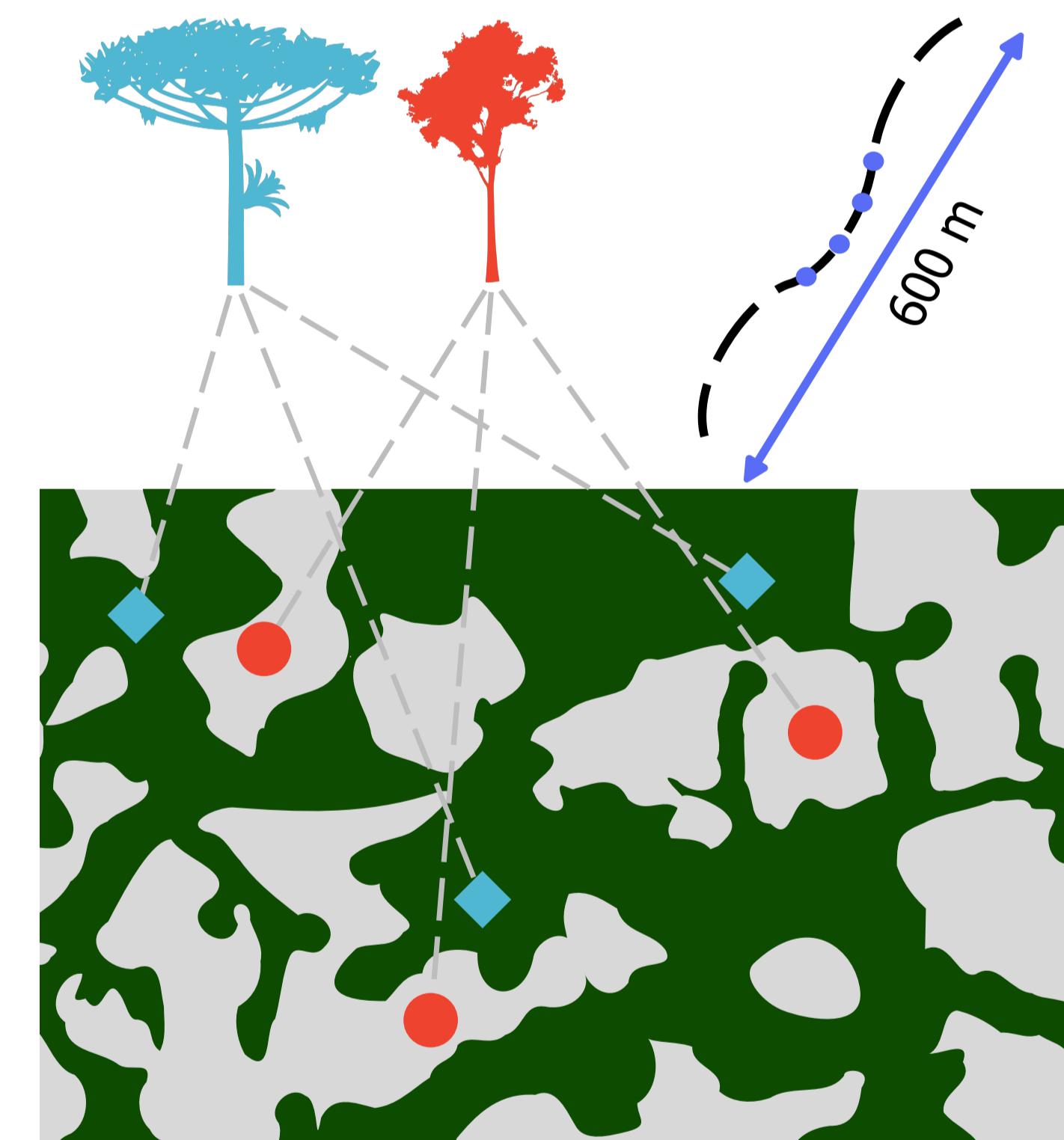
- I. Anuran & prey richness will be lower in *Eucalyptus* silviculture;
- II. The anuran silviculture community will exhibit lower niche partitioning among species, therefore leading to a more connected and non-modular network structure;
- III. Anurans should behave as trophic generalists with broader diets that are more similar to environmental availability.

Based upon: Gardner et al., 2007; Luedtke et al., 2023; Leal-Santos et al., 2024

Methodology

1st

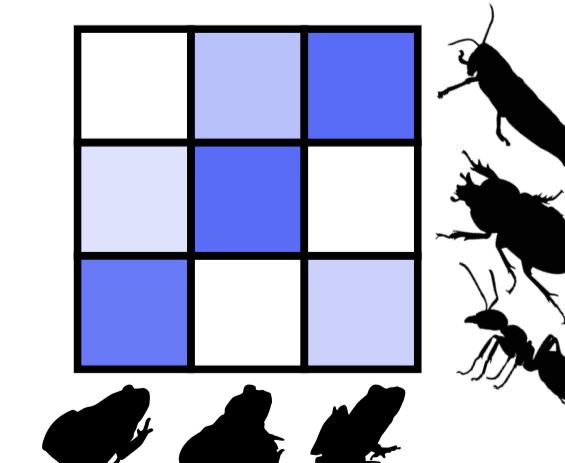
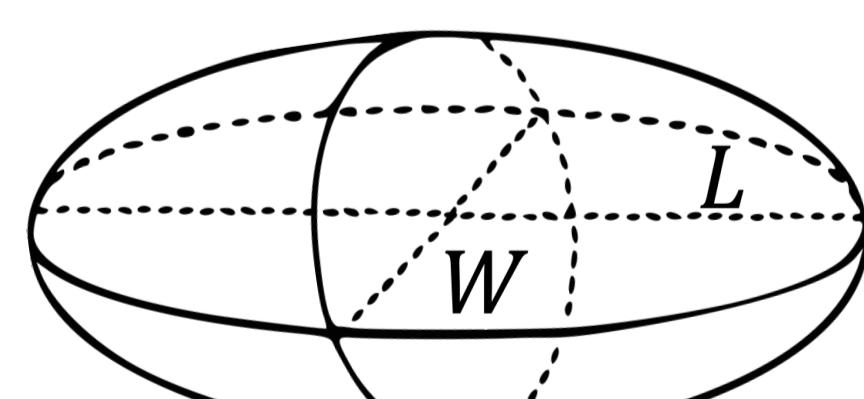
28 transects in an Atlantic Forest Silviculture mosaic



2nd

We approximated prey biomass as the volume of an ellipsoid

$$V = \frac{4\pi LW^2}{3}$$



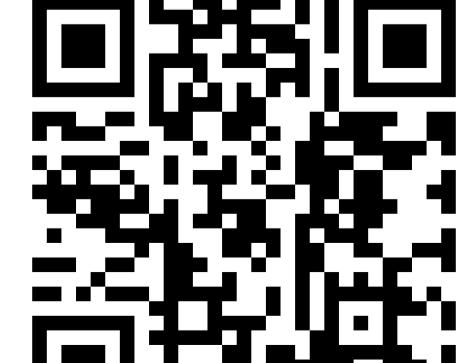
Based upon: Liu & Murata, 2010; Beckett, 2016; Hutchinson et al., 2022

Acknowledgments



Paulo R. Guimarães Jr. and Daniela Pinto-Coelho for continuous advise and to the company Melhoramentos Ltda for supporting this project

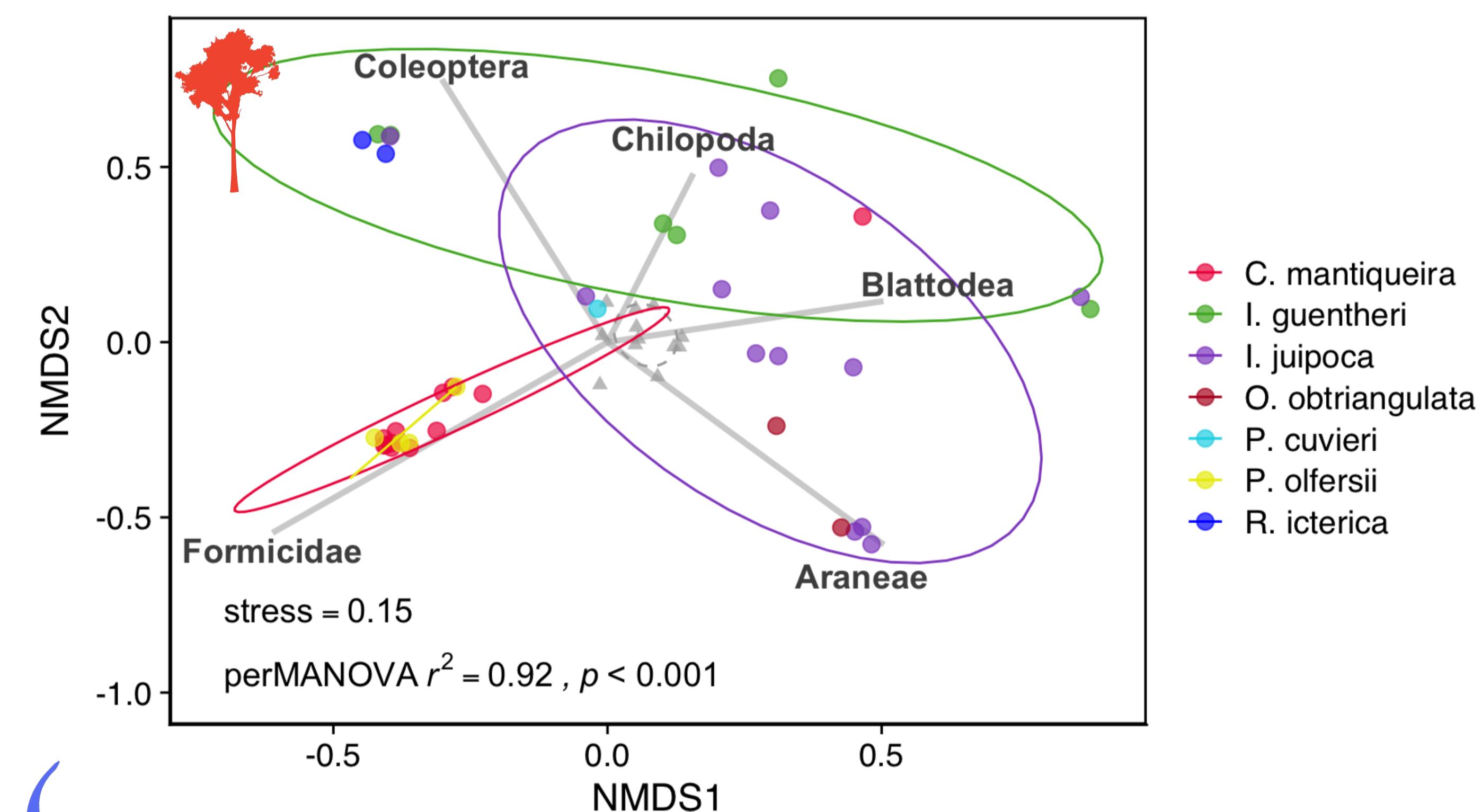
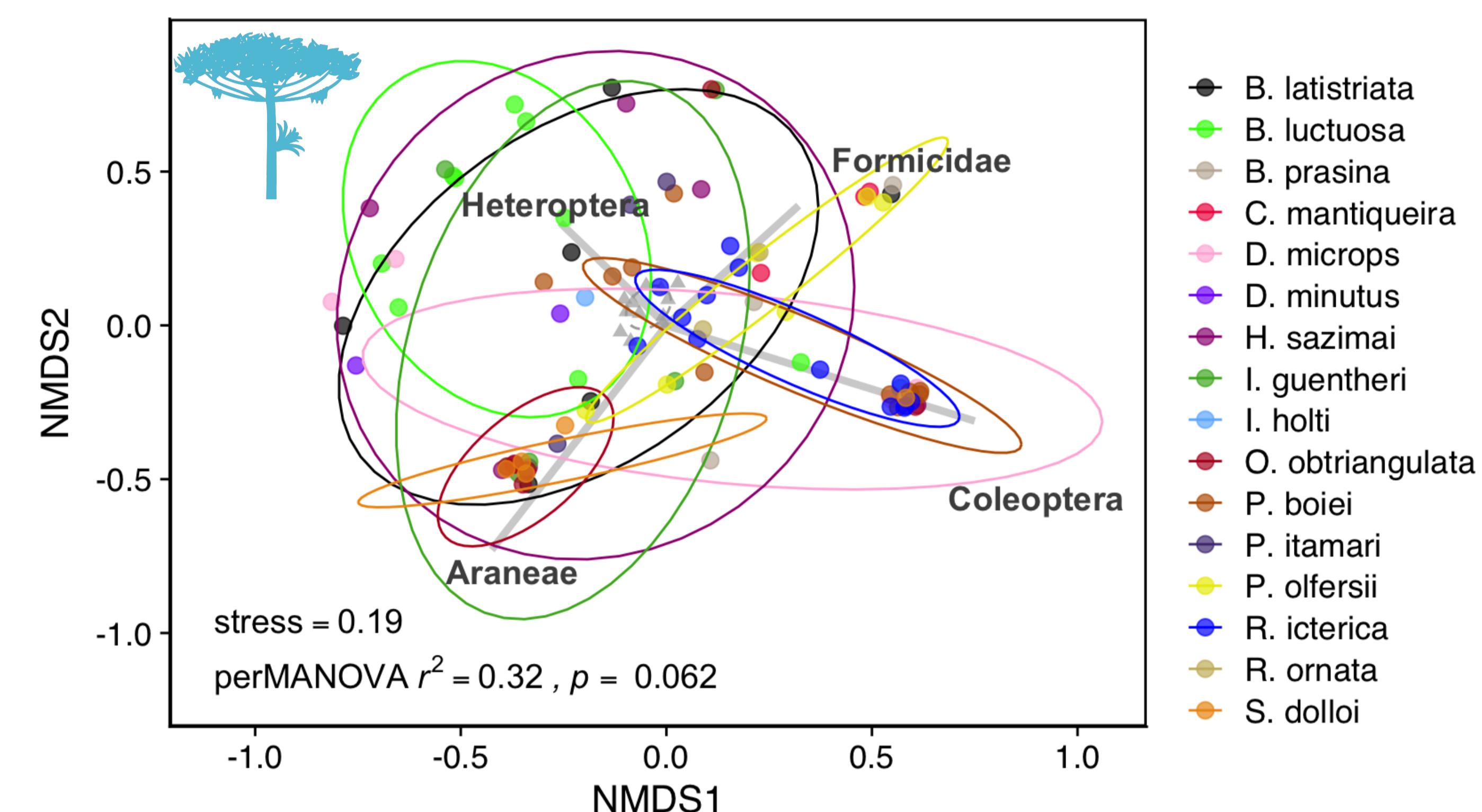
For more:



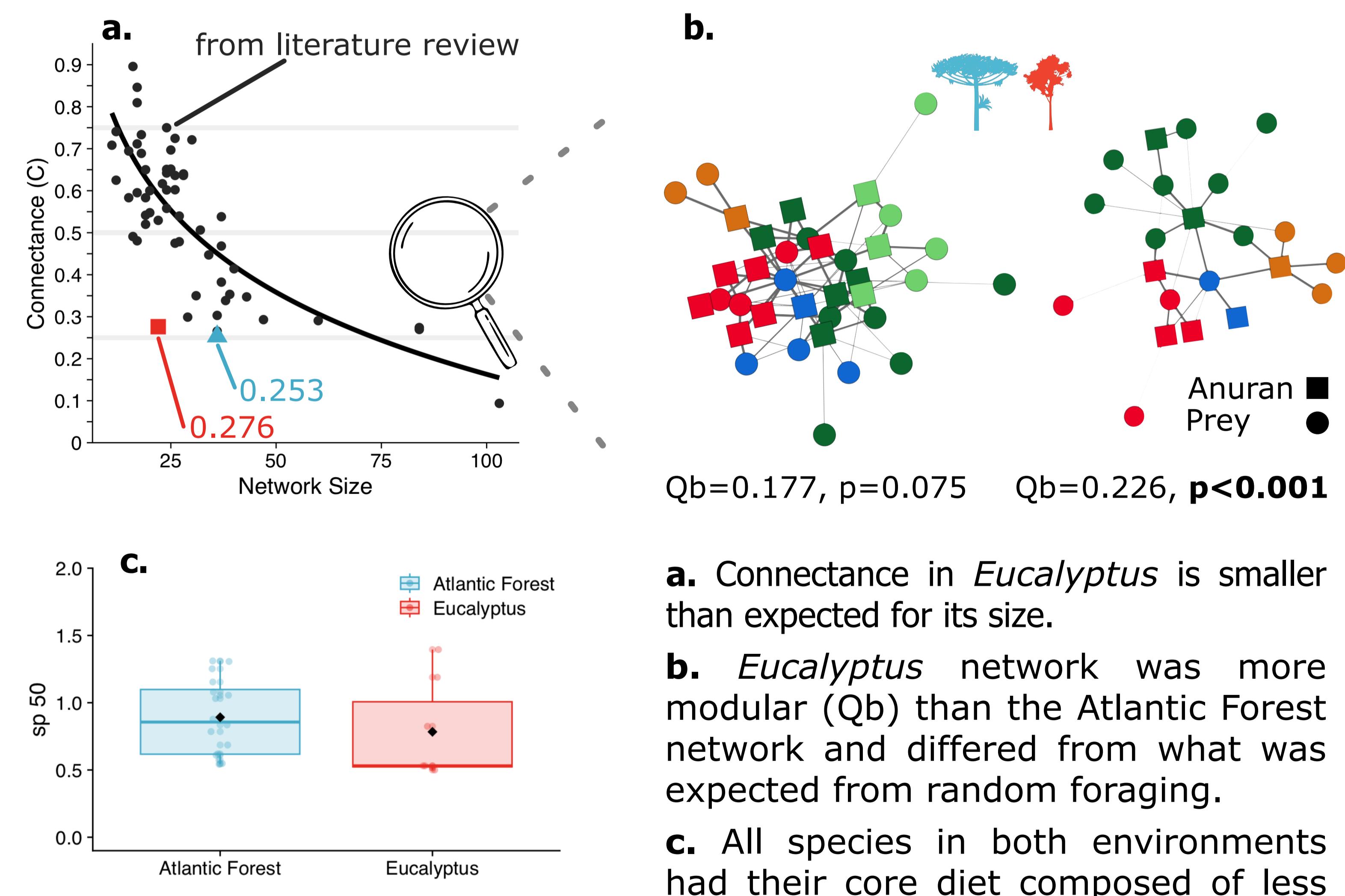
Results



Niche partitioning between species was only significant in the Silviculture community



Codified as anuran-prey networks:



- a. Connectance in *Eucalyptus* is smaller than expected for its size.
- b. *Eucalyptus* network was more modular (Qb) than the Atlantic Forest network and differed from what was expected from random foraging.
- c. All species in both environments had their core diet composed of less than two food categories.

Conclusions

There are significant differences in the diversity, abundance and interaction networks of anurans and their prey between remnants of the Atlantic Forest and *Eucalyptus* monocultures. While the community is more specialized and compartmentalized, species feeding behaviour is not altered across environments.