

Hoist the colours: silviculture impacts butterfly assemblage colours in the Atlantic Forest

Biodiversity and Conservation

André Nogueira Thomas¹, Aline Richter², Ricardo Luís Spaniol³, Milton de Souza Mendonça Jr.^{1*}, Cristiano Agra Iserhard⁴

¹ Laboratório de Ecologia de Interações, Instituto de Biociências, Departamento de Ecologia, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

² Centro Nacional de Pesquisa e Conservação de Répteis e Anfíbios (RAN/ICMBio), Goiânia, Brazil

³ Consórcio Intermunicipal de Desenvolvimento Regional - CONDER, Santa Catarina, Brazil

⁴ Laboratório de Ecologia de Lepidoptera, Instituto de Biologia, Departamento de Ecologia, Zoologia e Genética, Universidade Federal de Pelotas, Pelotas, Brazil

*** Correspondence:**

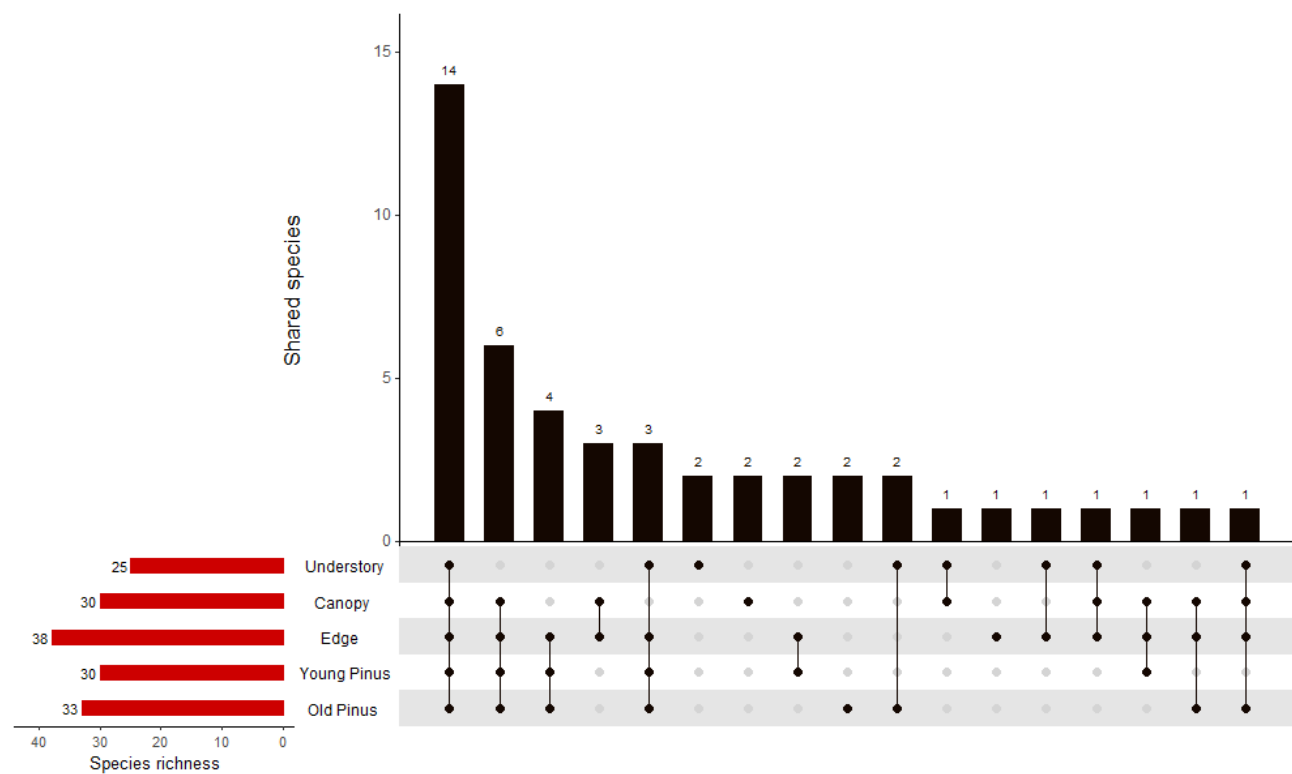
Corresponding Author

milton.mendonca@ufrgs.br

Supplementary Material

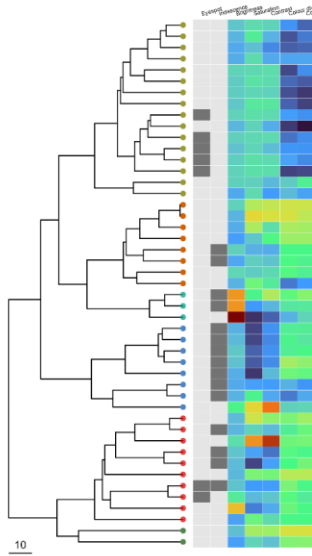
Supplementary Fig. 1 Matrix comparing fruit-feeding butterfly species shared between the habitats. Filled dots connected by lines indicate habitats (clusters) within the same intersection, while vertical bars represent the number of species shared between the clusters. Intersections with a value of zero have not been included. Horizontal bars (in red) represent the total species richness found in each habitat.

Supplementary Fig. 2 Phylogenetic hypothesis for the fruit-feeding butterfly species assemblage of the FLONA-SFP, containing the colour traits (binary and continuous) evaluated for the dorsal and ventral wing surfaces.

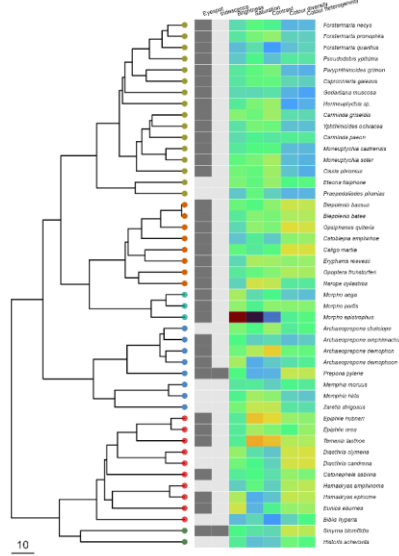


Supplementary Fig. 1

Dorsal



Ventral



Continuous traits

4
2
0
-2

Subfamily

- Nymphalinae
- Biblidinae
- Charaxinae
- Morphini
- Brassolini
- Satyrini

Binary traits

Absent
Present

Supplementary Fig. 2

Supplementary Table 1 Abiotic characteristics (mean temperature, mean humidity and canopy openness) found along FLONA-SFP sampled environments (Modified from Gawlinski 2019; Casas-Pinilla et al. 2022; Richter et al. 2023).

	Environment				
	Understory	Canopy	Edge	Young <i>Pinus</i>	Old <i>Pinus</i>
Mean Temperature	18.53°C	23.6°C	20°C	21.1°C	21.43°C
Mean Humidity	92.04%	86.90%	83.40%	72.60%	73.00%
Canopy openness	13.80%	-	-	34.00%	34.00%

Supplementary Table 2 Number of species and percentage of specimens sampled for each butterfly taxonomic subfamily (tribes for Satyrinae).

	Species richness	Representativeness (abundance)
Satyrinae		
Satyrini	16	69.68%
Brassolini	8	6.90%
Morphini	3	9.12%
Biblidinae	10	3.07%
Charaxinae	8	11.03%
Nymphalinae	2	0.19%