

Update from the Atlantic Forest *By André Rochelle*



The plant sampling in the Atlantic Forest of Serra do Mar is almost finished. Fourteen fragments have already been sampled and we have identified more than 200 species. This is quite a surprising result, because it is still preliminary (Myrtaceas have not been sent to the specialist yet and will further enhance the species list) – as we are working on regenerated forests we didn't expect such great richness but a more homogeneous vegetation. Also, one of the students managed to collect a very rare *Passiflora* in one of the fragments. There was only one record of this species in a city about 80 km from our study area!

Throughout the duration of our works, two properties were sold and we were not able to obtain the permission to carry out the works from the new owners. The team is now working on the selection of 2 remaining fragments to replace these areas.

Left above: André Rochelle and the technician Tiago Glória

Left below: André Rochelle (with the compass) and the Ph.D. student Rafael Ramos installing a plot during the concentrated fieldwork in January



Left: the Atlantic Forest: Tillandsia usneoides (barba-de-bode) hanging from the trees. Photo by André Rochelle

Traits campaign – Amazon

By Erika Berenguer

After sampling over 2500 branches from 1075 individuals of 283 species, we are now in the analysis phase. The leaves are being ground for nutrients and C:N analyses at Beto's lab, while in Marcos' lab the leaves are being ground for lab analyses of phenols and lignin. We have also started analyzing the 10,000 images of herbivored leaves and 14,000 images of leaf area. There is a long way to go!

Josiane and Jamyle scanning the leaves and analyzing the images. Photo by E. Berenguer



Member profile – Heloísa Bortolin Bruno

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“I am a biologist (2014), Master student in Biodiversity and Environment at the Institute of Botany, São Paulo State. I have joined the ECOFOR project to work on plant ecophysiology, more specifically on lignin investment in leaves.

My research focus is to analyze the lignin content in the leaves of the dominant tree species in the Atlantic and Amazon Forests, Brazil. The analysis has already started and is taking place at the Cell Biology Laboratory of the Botany Department of the University of the State of São Paulo under the joint supervision of Dr Igor Cesarino and Dr Marcos Pereira Marinho Aidar. The methodology for lignin content analysis consists of extraction and disposal of water, alcohol and organic soluble compounds and analysis of the lignin content in the precipitate material by bromide acetyl digestion.

Through my participation on the ECOFOR project I hope to contribute to the understanding of ecological strategies of the plant communities and of the functioning of the ecosystem through plants leaf traits.”



Left: Heloísa and the leaf traits field team in the Serra do Mar park (São Paulo state). From the left: Pedro Texeira Pimont, Fábio Fernandes Carvalho, Gabriela Souza and Heloísa Bortolin Bruno. Photo by Mauro Alexandre Marabesi

Above: lignin content analysis in the Cell Biology Laboratory of the Department of Botany - University of the State of São Paulo. Photo by Heloísa Bortolin Bruno

Publications

Amazônia em cinzas

by Jos Barlow and Erika Berenguer

The magazine Amazônia Viva has published an extensive article on the recent fires, based on an interview with Jos and Erika.

https://issuu.com/amazoniaviva/docs/54_av_fev_web

Will we soon see another wave of bird extinctions in the Americas?

by Alexander Lees and Jacob B. Socolar

The new blog post in the Conservation by Alex Lees compares bird extinction in temperate and tropical forests.

<https://theconversation.com/will-we-soon-see-another-wave-of-bird-extinctions-in-the-americas-56795>

Thank you for reading and for your ongoing support - more news in 2 months' time!

I would also like to take this opportunity to thank the project members who have recently sent me their details for the 'Who We Are' section of the website, helping to keep this space up-to-date!

Best wishes,
Jolana (j.hanusova@lancaster.ac.uk)