



# Photosynthesis, high temperatures and tree species acclimation

From 2019-2022 | Total budget € 100,000

## In the Cerrado (neotropical savanna)

Global climate change coupled with anthropogenic changes in land use has been modifying local and regional environmental conditions. In the tropics, understanding how these environmental conditions will interfere with plant function plays a key role in understanding how highly structured plant communities will be affected by ongoing climatic change. This project is a collaboration between the University of Sao Paulo (Prof. Tomas Domingues) and Wageningen University. This project studies how leaf-level photosynthesis of woody species across neotropical savanna (Cerrado) deals with increases in temperature. We will be testing approaches that can optimize the photosynthetic model parameters and assess the degree of plasticity of these parameters in both field and greenhouse, thus providing a solid base for eco-physiological information of tropical plant functioning as well as across biome transitions in Ecotone areas in South America. Better insight in how tropical trees deal with high leaf temperatures and how to measure this may have a direct spin-off in horticulture and provide a novel methodology for the selection of climate-proof tropical tree crop varieties.

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