

Cross-continental comparison of the functional composition and carbon allocation of two altitudinal forest transects in Ecuador and Rwanda.

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Tropical forests are key actors in the global carbon cycle. Predicting future responses of these forests to global change is challenging, but important for global climate models. However, our current understanding of such responses is limited, due to the complexity of forest ecosystems and the slow dynamics that inherently form these systems. Our understanding of ecosystem ecology and functioning could greatly benefit from experimental setups including strong environmental gradients in the tropics, as found on altitudinal transects. We setup two such transects in both South-America and Africa, focussing on shifts in carbon allocation, forest structure and functional composition. By a cross-continental comparison of both transects, we will gain insight in how different or alike both tropical forests biomes are in their responses, and how universal the observed adaption mechanisms are.