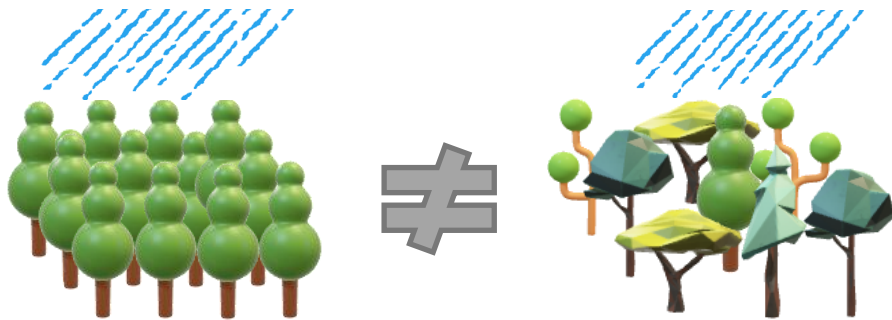


EGU21-3614 - Tree species from Andean forest are complementary in their effect on ecohydrological processes

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Introduction and methods



Andean forests are not just a mere collection of homogeneous trees but rather a diverse collection of **functional traits** that modulate and determine ecosystem functions such as those related to water and energy exchanges.

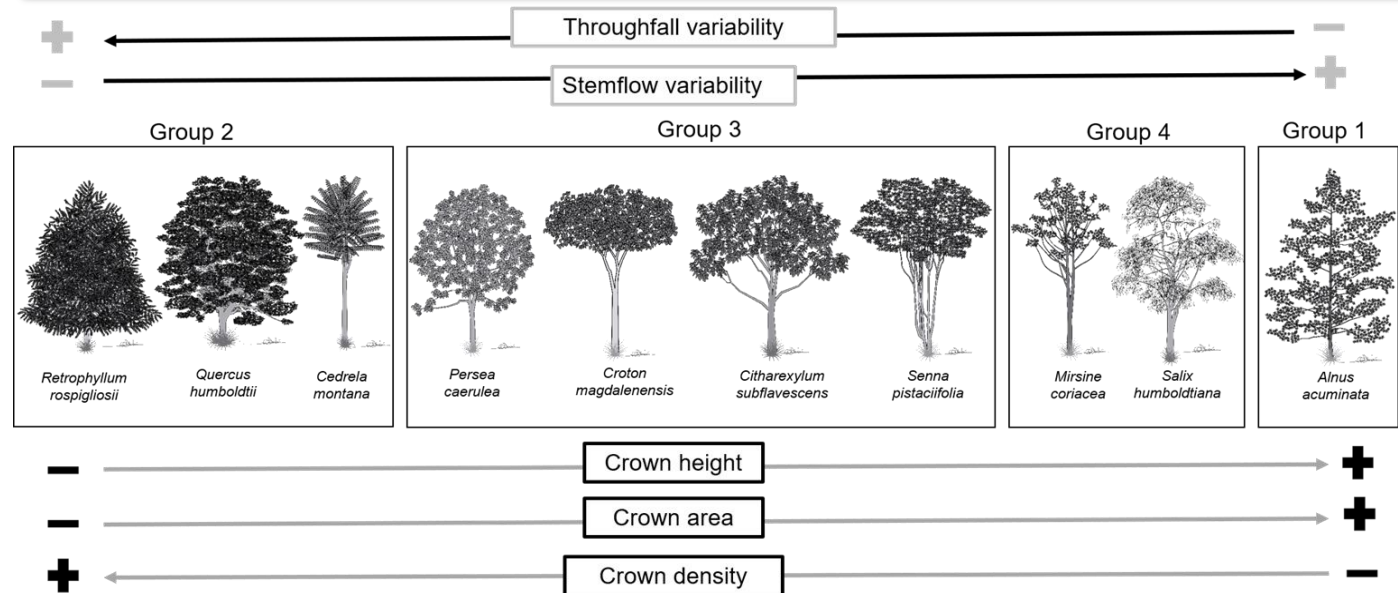


Criteria for **species selection** in forest restoration projects commonly do not include functional traits related to **ecohydrological functions**.



We measured the association between structural plant functional traits and rainfall partitioning into **stemflow** and **throughfall** for 10 commonly-used species in Andean forest restoration.

Results and conclusions



Highlights

- Tree crowns with contrasting functional traits have different effects on regulation of stemflow and throughfall, and those effects can be **complementary** between species. This highlights the importance of species diversity on ecosystem functioning.
- Measuring **functional traits** is a useful tool for understanding the role of species on ecohydrological processes.
- Ecosystem restoration can be enhanced through the prioritization of functional diversity that enhances **ecosystem functioning recovery**.