



8<sup>TH</sup> EUROPEAN CONFERENCE OF TROPICAL ECOLOGY  
36<sup>TH</sup> ANNUAL MEETING OF THE SOCIETY FOR TROPICAL ECOLOGY  
(Gesellschaft für Tropenökologie, gtö)

# TIME FOR TROPICAL ECOLOGY



24<sup>th</sup> – 28<sup>th</sup> February 2025, Amsterdam





## EUROPEAN CONFERENCE OF TROPICAL ECOLOGY 2025

## CREDITS

## LOCAL ORGANISING COMMITTEE

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- **Sancia van der Meij** Marine & Freshwater Biology, University of Groningen
- **Renska Onstein** Tropical Botany, Naturalis Biodiversity Centre
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- **University of Amsterdam** Faculty of Science
- **The New Phytologist Foundation** *Plants, People, Planet* journal
- **Pensoft Publishing**



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**“TIME FOR TROPICAL ECOLOGY”**

24<sup>th</sup> – 28<sup>th</sup> February 2025  
Hotel Casa, Eerste Ringdijkstraat 4, 1097 BC, Amsterdam

**WELCOME**

On behalf of all those involved in the organisation of the “Time for tropical ecology” meeting in Amsterdam, we would like to welcome you to the 8<sup>th</sup> European Conference of Tropical Ecology. It is a great pleasure, and privilege, to be invited by the Society for Tropical Ecology to host this event in the Netherlands for the first time. We believe that we have assembled a wide ranging and cutting-edge scientific program for your interest and entertainment. The meeting is truly international with delegates coming from institutions based in 35 different countries. We are also delighted for the opportunity to showcase the diversity of tropical research conducted by scientists based in the Netherlands. For this we thank the Dutch scientific community for so enthusiastically engaging with the event, especially: the Institute for Biodiversity & Ecosystem Dynamics (University of Amsterdam) for agreeing to officially host the event, the Dutch Science Foundation (NWO) for sponsorship, and the Faculty of Science (University of Amsterdam) for providing funding to bring in keynote speakers. We also thank the experts of our Scientific Advisory Committee who are drawn from research institutions across the country, namely: Katrin Fleischer (VU Amsterdam), Sancia van der Meij (University of Groningen), Renska Onstein (Naturalis Biodiversity Centre), Masha van der Sande (Wageningen University & Research), Michiel Veldhuis (Leiden University), and Joeri Zwerts (Utrecht University). We hope that you have a wonderful time at the conference and take the opportunity to enjoy some time in this historic city and country with many connections to the tropics.

**William D. Gosling & Crystal N.H. McMichael**

*Institute for Biodiversity & Ecosystem Dynamics, University of Amsterdam, The Netherlands*





## EUROPEAN CONFERENCE OF TROPICAL ECOLOGY 2025

## Session 17 – Oral 5: Drivers of recovery in restored tropical forests

**Matching of restoration strategy to soil and other environmental conditions matters for forest landscape restoration: evidence from Ethiopia**

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Matching restoration strategies to environmental conditions is crucial for forest landscape restoration success. This study evaluates the performance of restoration strategies in Ethiopia under various environmental conditions, including soil, elevation, and climate. We hypothesized that fertile sites with favorable climates would yield better results. Using soil samples (0-10 cm depth) from 279 points across southern and central Ethiopia, along with precipitation and temperature data from WorldClim, we conducted cluster analyses and identified four unique environmental clusters. We compared stand-level performance within each cluster to find the best-performing strategies. Cluster 1 represented high clay and precipitation, cluster 2: sandy and bulky soils, cluster 3: fertile soils with high cation concentrations, and cluster 4: high organic matter soils. Comparative results show that active strategies outperform exclosures across all clusters, with fertile clusters being particularly favorable for young stands. Carbon sequestration consistently increased with age in plantations. These findings have important implications for restoration planning, and monitoring as we show that strategies vary in performance depending on the environmental cluster under which they are implemented. They also have policy implications, emphasizing the need to include non-forest restoration strategies like boundary plantings in forest policy and management due to their role in productivity-related goals.

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