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Grande salle + visio

BIODIVERSITY RESPONSES TO ENVIRONMENTAL AND SPATIAL CONTRASTS: LESSONS FROM THE GREAT GREEN WALL AND FRENCH GUYANA TROPICAL FRESHWATERS

par

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- 📍 Understanding how biodiversity responds to spatial and anthropogenic gradients is key to predicting ecosystem resilience. This presentation compares patterns of taxonomic and functional β -diversity in two contrasting tropical systems: the semi-arid Sahelian ecosystems of the Ferlo region in Senegal, influenced by Great Green Wall (GGW) restoration areas, and the tropical freshwater oxbows of French Guiana, characterized by varying land-use gradients. Despite their ecological and biogeographical differences, both systems share a common question: Are patterns of taxonomic β -diversity consistent with those of functional β -diversity across spatial gradients?
- 📍 In Senegal, we explore how insect assemblages visiting *Balanites aegyptiaca* flowers vary geographically and across restored areas. In French Guiana, we examine how geographical and land-use conditions shape aquatic macroinvertebrate communities. Across both contexts, using diversity indices, dissimilarity analyses, and variation partitioning, we evaluate how spatial distance, environmental heterogeneity, and habitat management influence community assembly. Preliminary results suggest that stronger spatial turnover indicates dispersal-driven differences in taxonomic diversity, whereas environmental dissimilarity reflects trait-based filtering processes.