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Restoring grasslands for pollinators in agricultural landscapes in southwestern France

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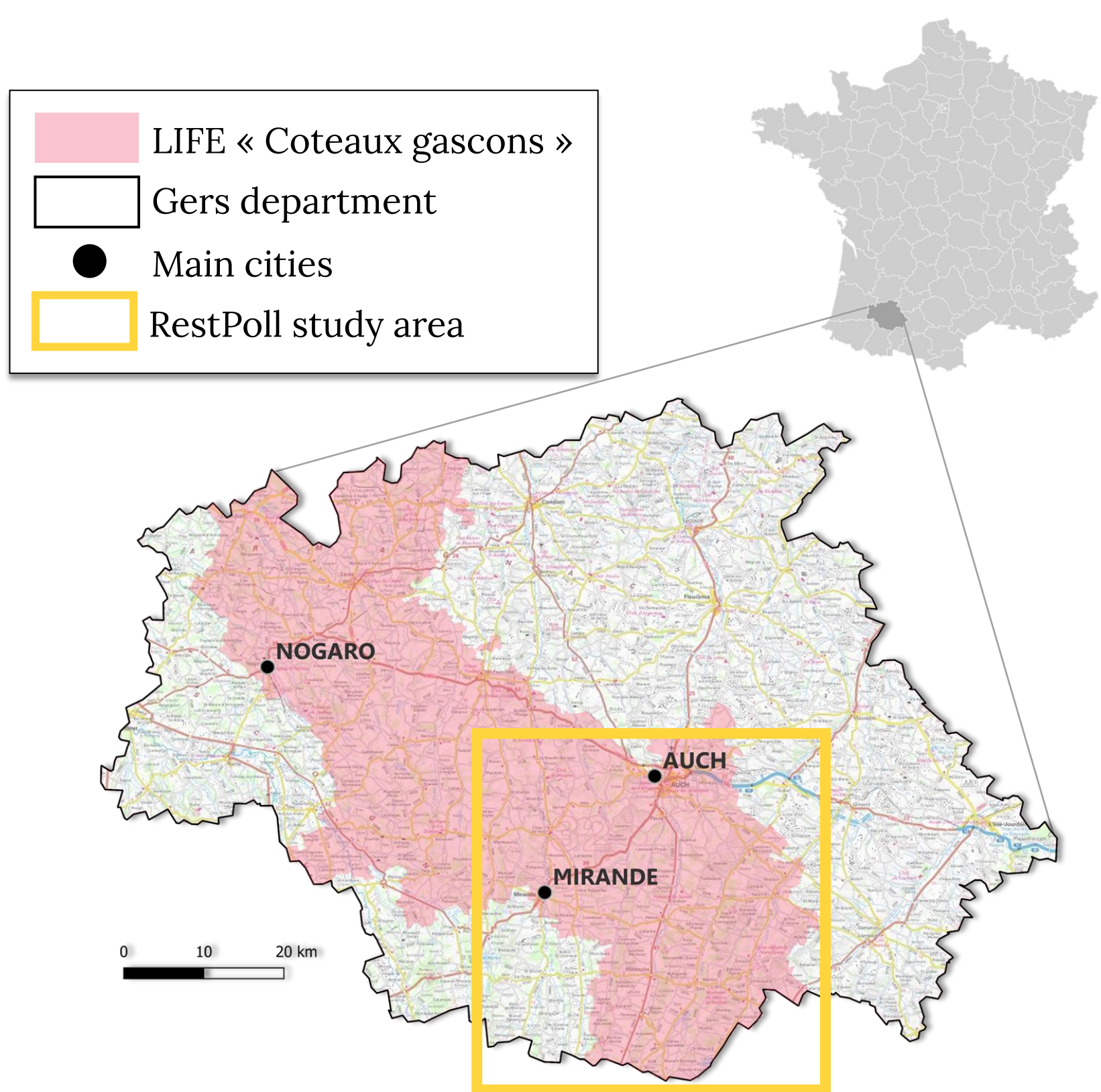


The RestPoll project and its application in Southwestern France



RestPoll is a European project aimed at restoring wild pollinator communities and their services by restoring their habitats in agricultural landscapes, while directly involving stakeholders in the co-design, evaluation, and refinement of restoration measures and approaches. Across the 16 EU countries involved, the project establishes a network of pollinator restoration case-study areas and Living Labs, which are hubs for experimentation, demonstration, and mutual learning.

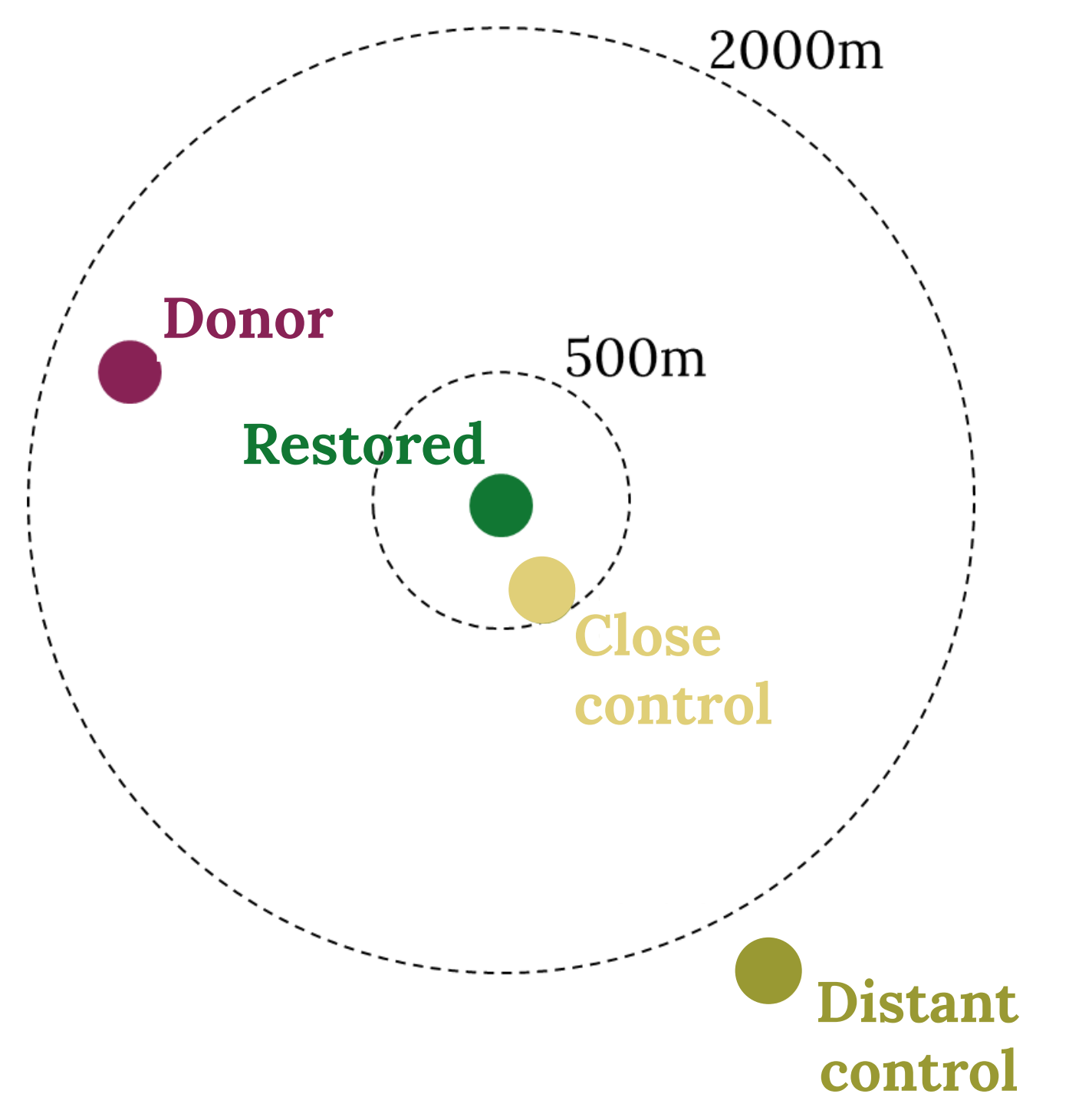
In southwestern France, the Living Lab « Gascogne » has grown out of the LIFE project « Coteaux Gascons », which focuses on the restoration of open agro-pastoral environments. Based on the restoration efforts conducted under the LIFE project, the French RestPoll team aims to study the effect of restoring herbaceous habitats on pollinator communities, by establishing or re-establishing grasslands from local seeds.



Material & Methods

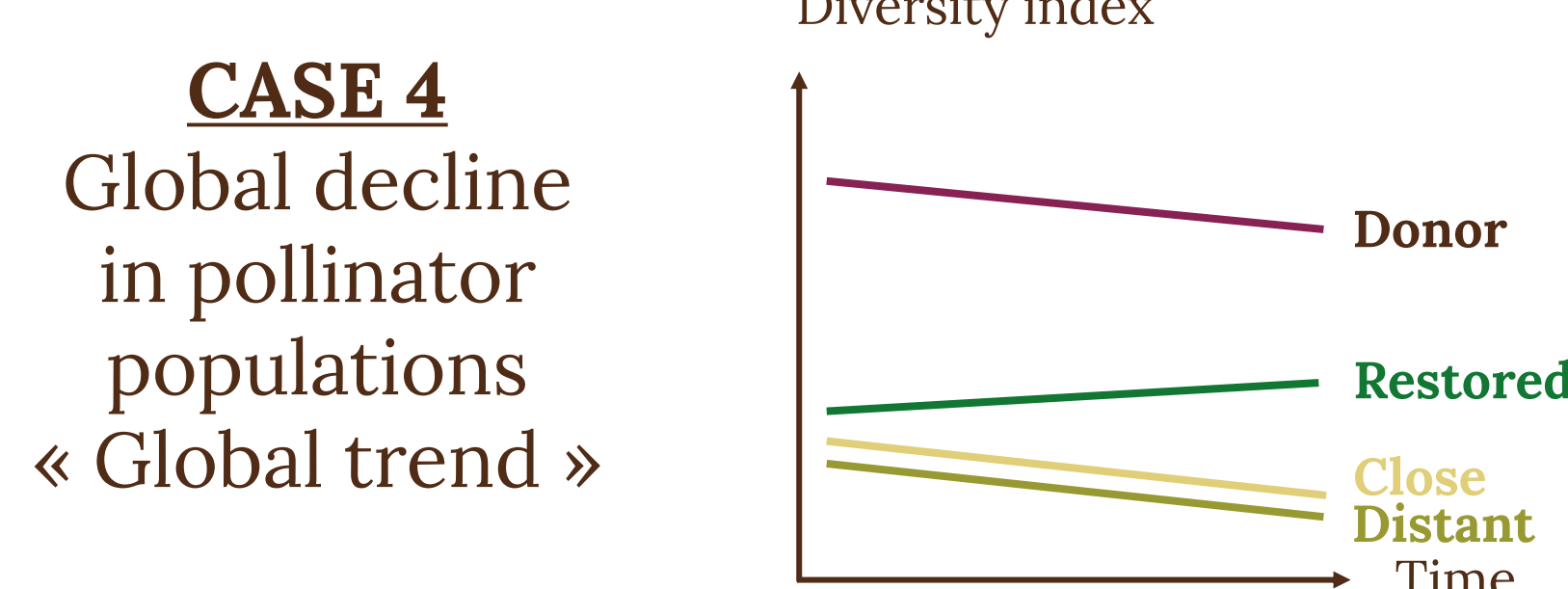
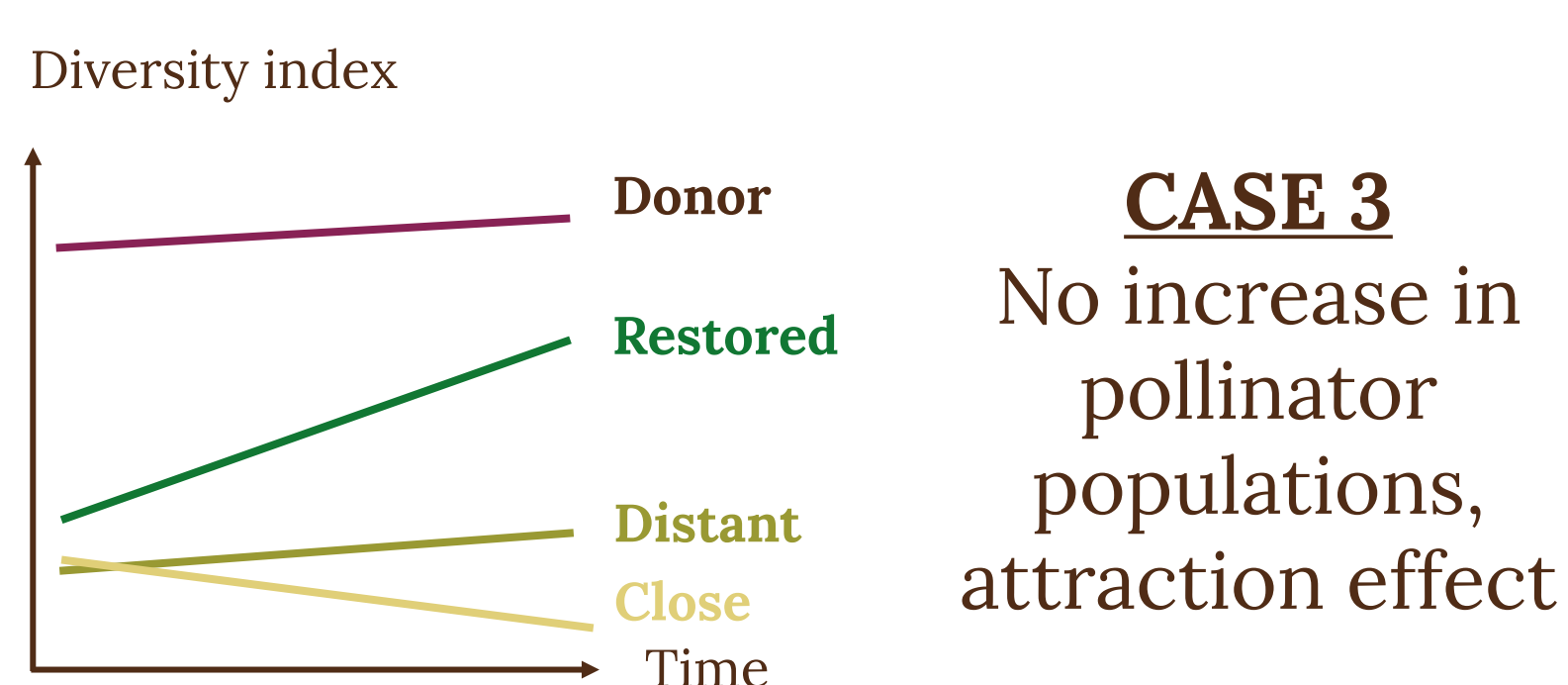
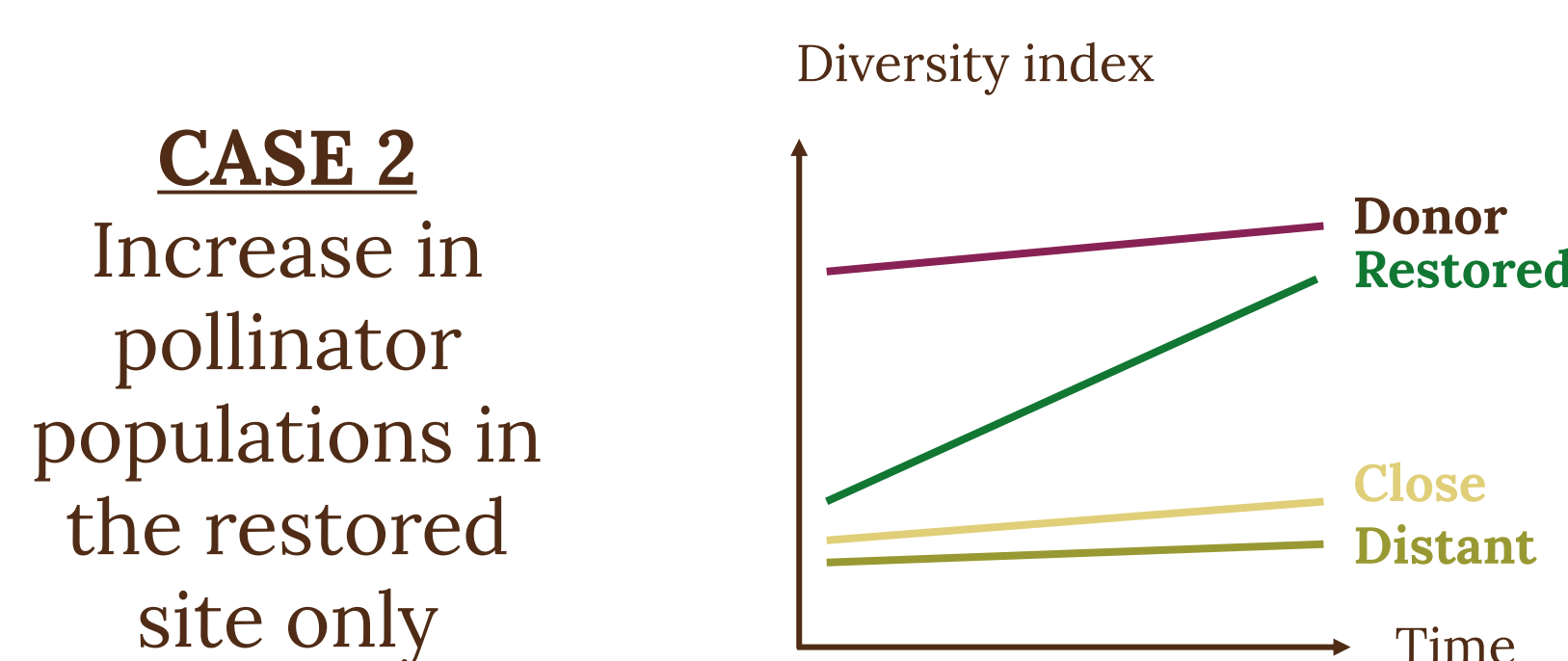
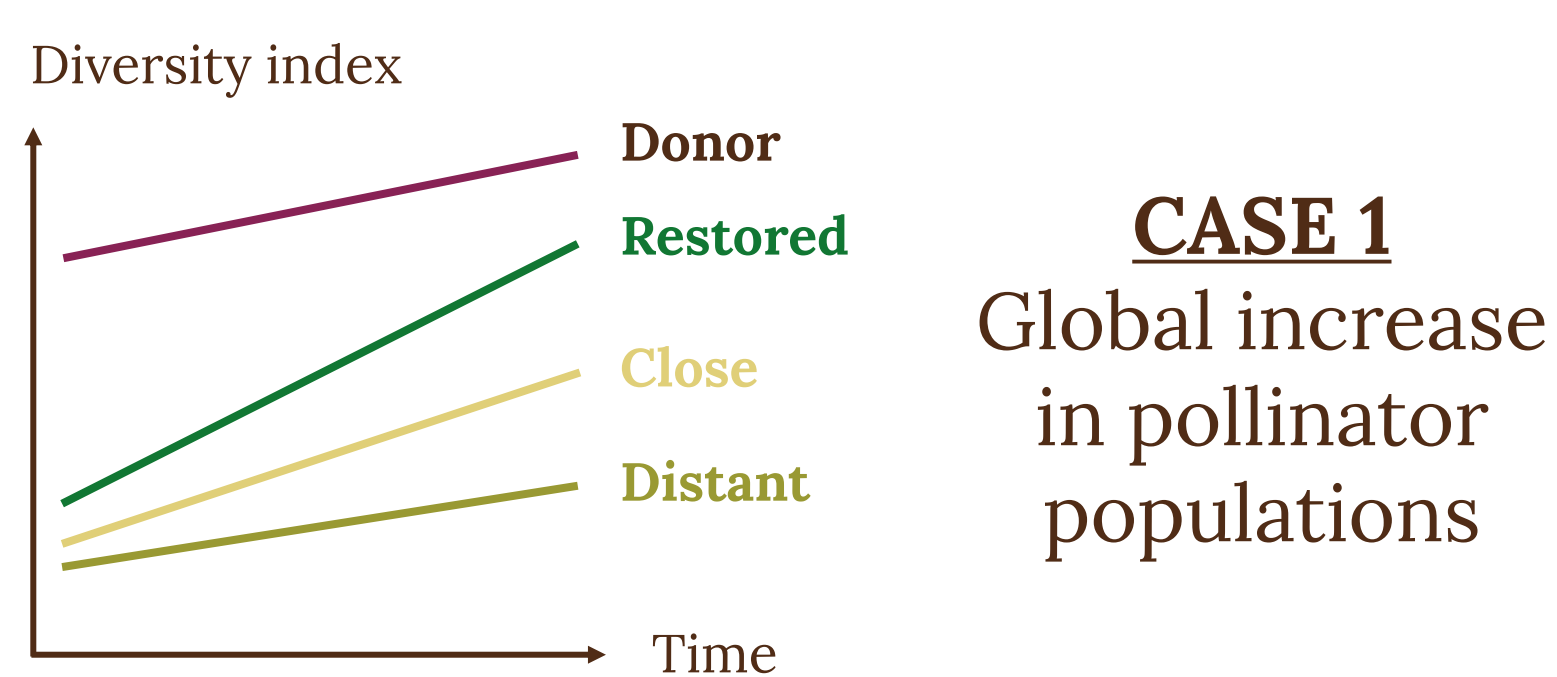
We studied recently restored grasslands (≥ 2 years). For each restored grassland, we defined two control plots representing the previous land use of the grassland: a close control site ($<500m$) and a distant control site ($>2000m$). We also studied the donor grasslands from which the seeds used for the restorations were sourced.

Across four sessions per year (2024-2025), we sampled and identified pollinators (wild bees, butterflies, syrphids) and registered their abundance and behaviour (flying, resting, flower visiting, nesting or ovipositing) on each plot with 150m-long transect walks using insect nets. Flower cover was also estimated on the transects at each survey and a full botanical record was performed once a year using quadrats.

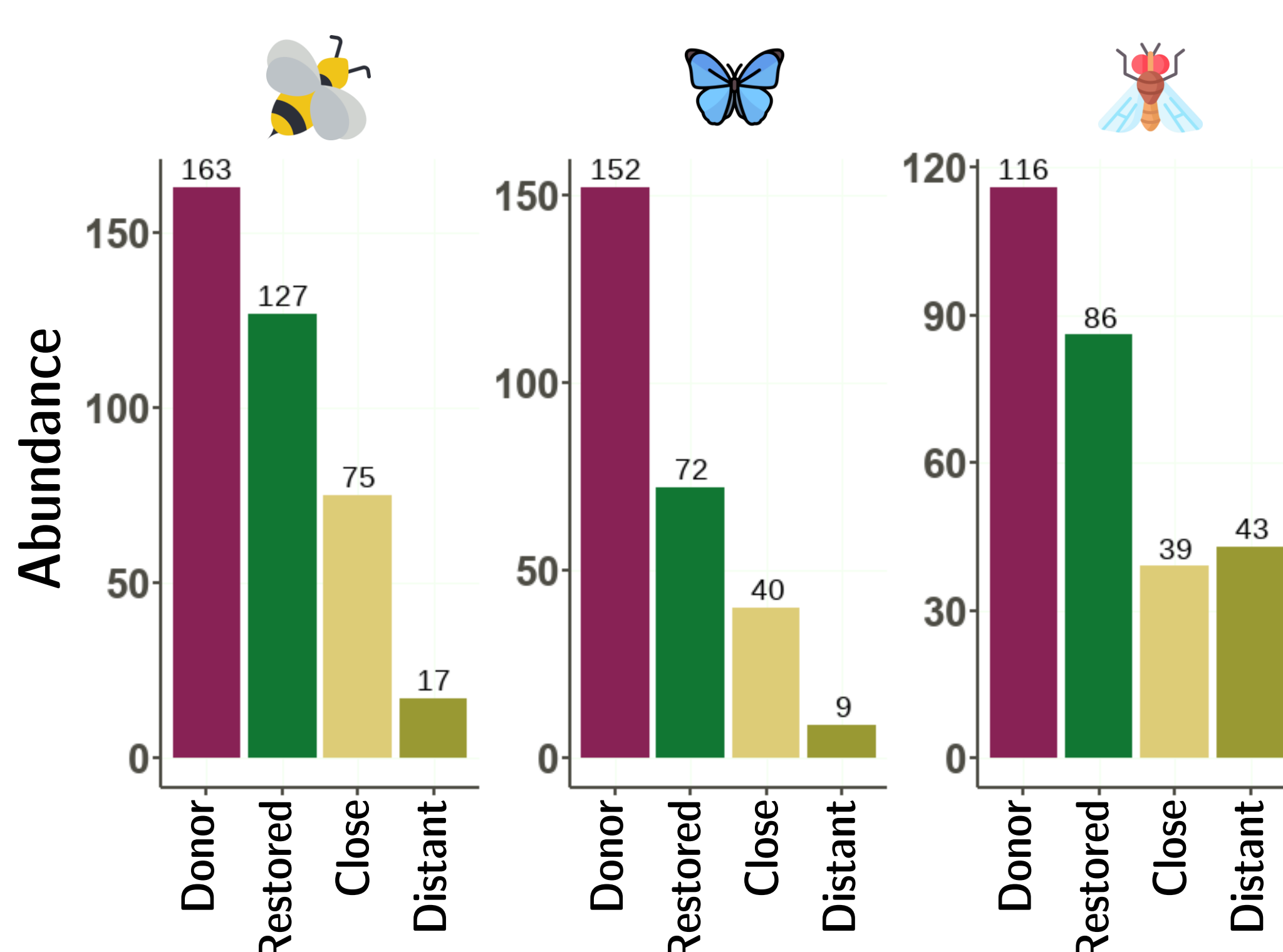


The four scenarios considered

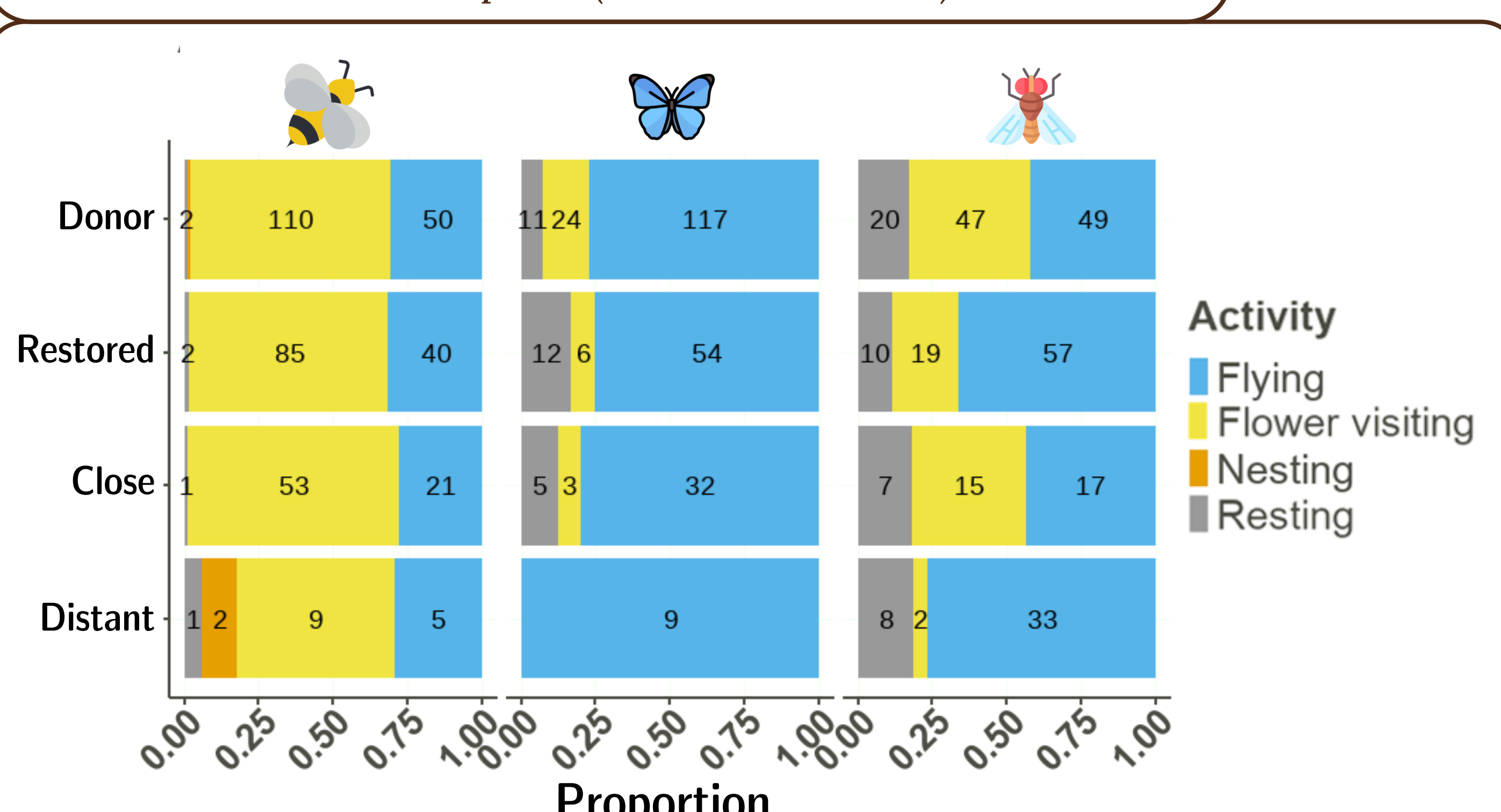
Long-term monitoring (minimum two years) of pollinators communities should enable us to evaluate the effectiveness of restoration efforts (Cases 1 to 3) or to observe the overall decline of insects currently being witnessed (Case 4).



Preliminary results of 2024 (three first sessions)



For the three pollinator groups, we observed the same pattern of decreasing abundance from donor grasslands to control plots (close and distant)



Bees and hoverflies : no significant differences in behaviour among plots
Butterflies : only flying behaviour in distant control sites



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