

## International perspective on vegetation dynamics and rewilding

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Trophic rewilding is defined as an ecological restoration strategy that uses species introductions to restore top-down trophic interactions and associated trophic cascades to promote self-regulating biodiverse ecosystems. In order to measure success by these criteria, it is thus important to establish how we should quantify e.g. self-regulation or biodiversity. I will present early results from working toward quantifying effects of megafauna in the tropical savannas of South America and East Africa.

In the Iberá wetlands of northern Argentina, we study effects of megafauna in one of the most ambitious rewilding projects in South America, a continent heavily defaunated during the late Pleistocene. In the Maasai Mara of Kenya, a region that has retained diverse megafauna assemblages throughout the Holocene, we are confronted with the opposite trend. Here, the density of all mammalian megafauna has decreased substantially over recent decades.

Although these tropical savannas are biogeographically very different from Danish ecosystems, they share the interesting trait that, climatically, they can all support closed-canopy forest. That is, if all disturbance from large herbivores, fire and humans were to be removed, open grassy ecosystems would be replaced by closed-canopy forests.

I will discuss some potential implications for managing flammable ecosystems where feedbacks between megafauna and fire cannot be ignored. Finally, I will briefly explore potential links to managing northern (semi-)open landscapes.