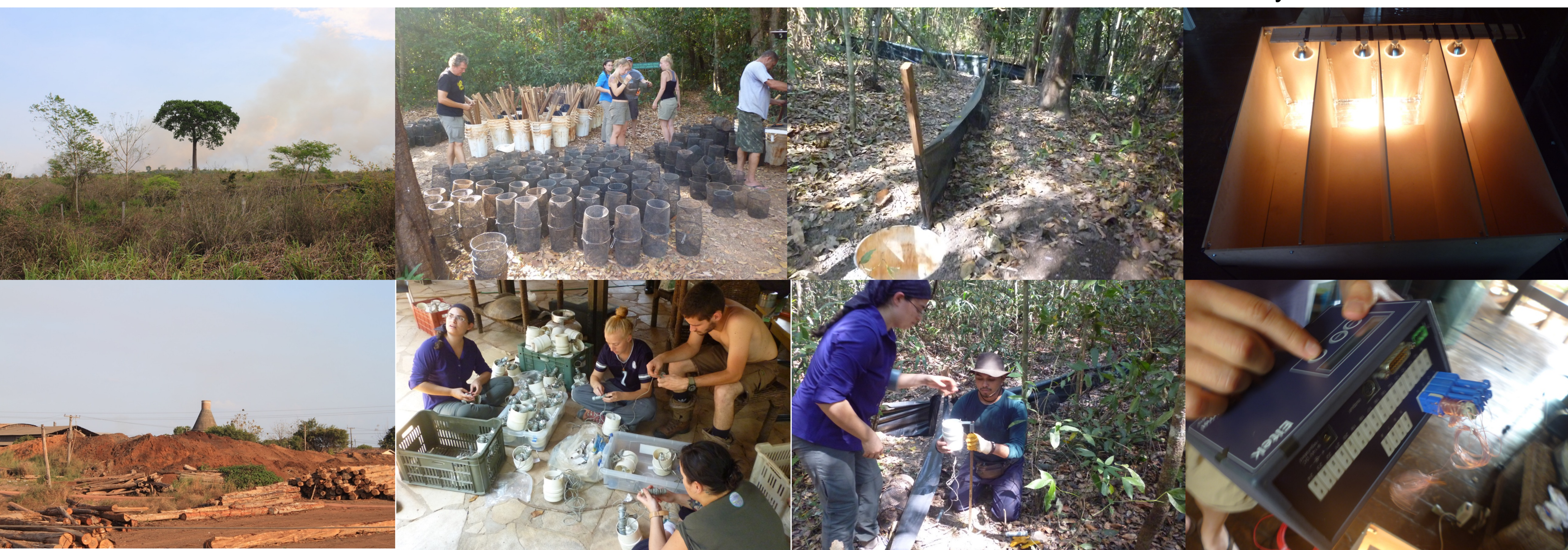
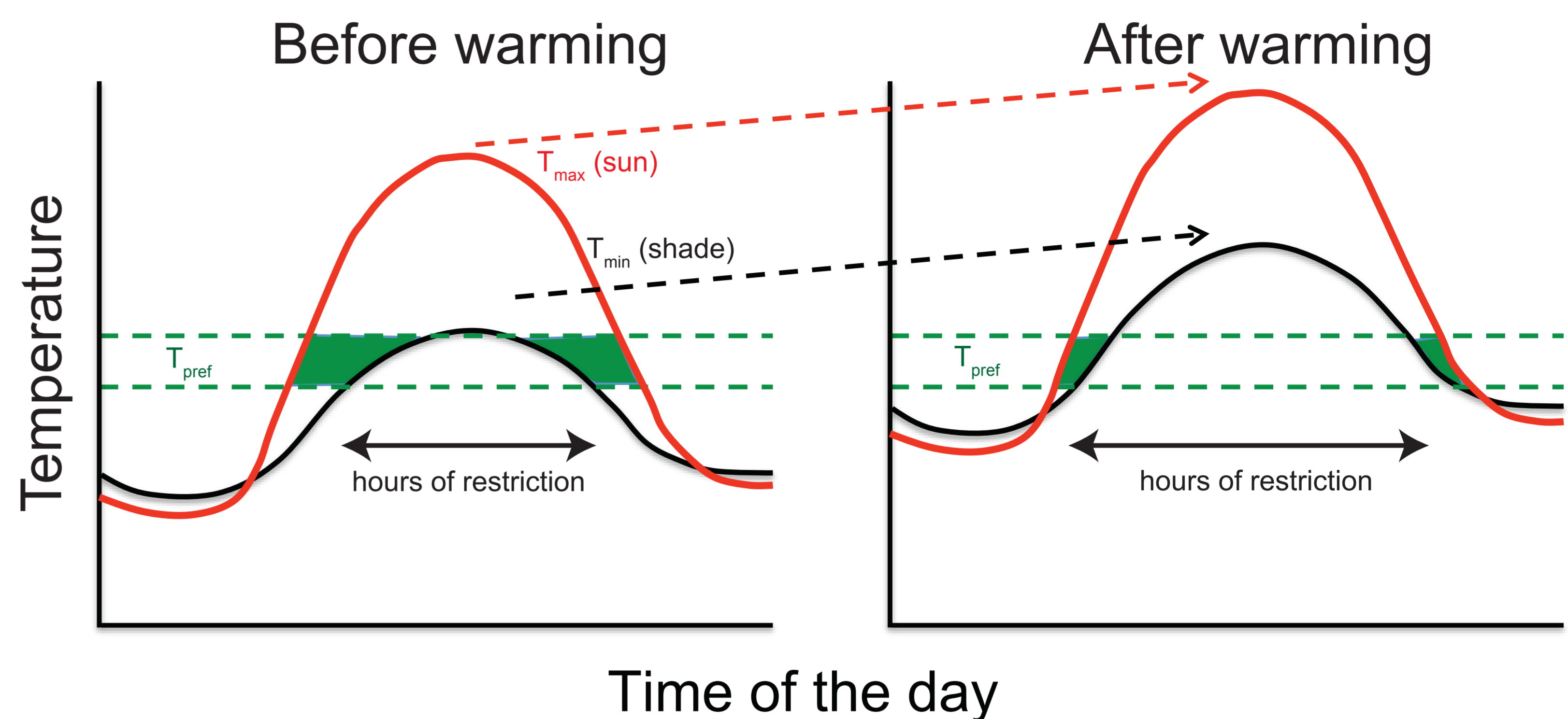


The Amazon forest is one of the most biodiversity-rich places on Earth. Clearance of the Amazon, primarily concentrated in the “**Arc of Deforestation**”, is a major drive of global and local environmental change. This region provides a unique model system to investigate the origins and maintenance of high Neotropical biodiversity and the combined effects of climate change and habitat loss on the biota



Biodiversity and climate change in the "Arc of Deforestation" of Brazilian Amazon

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We use an integrative approach to investigate the ecology, evolution, and conservation of the Amazon-Cerrado transition (ecotone) in Brazil, one of the most critical areas in the "Arc of Deforestation"

- Assess whether the biota of the Amazon-Cerrado ecotone is simply a filtered blend of species from the two neighbor biomes or if it also harbors unique (endemic) species
- Determine the importance of differentiation along this ecotone during evolutionary time and climatic cycles as a source of biodiversity
- Predict and test for contemporary extinctions arising from the combined impacts of habitat loss and climate change using ecophysiological models
- Identify evolved traits that enhance the extinction risk induced by habitat loss and climate change
- Assess the role of indigenous land management practices, which resulted in "black earth" (Terra Preta), upon biodiversity levels and extinction risk.