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Habitat loss and frugivores defaunation in Réunion island (Indian Ocean)

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Whereas human settlement on Mascarene islands occurred only recently during the 17th century, the native insular biota experienced a drastic extinction of the vertebrate fauna mainly explained by rapid habitat transformation. At archipelago scale, La Réunion is the last of the Mascarene islands with large areas of untransformed habitats still covering 40% of the island area (2512 km2). Conversely, Mauritius native forests covers less than 1% of the initial area (1872 km2) but still retain several native frugivore species that went extinct in La Reunion during early human settlement (fruit bats, skinks, pigeons). In order to explain these patterns, we compare habitat transformation history between both islands using past and present vegetation maps, subfossil archives and reports of early travellers. We also question the consequences of native frugivores extinction at island scale. Preliminary results of forest dynamics studies confirm the lack of recovery of native plant communities after natural disturbance that can be explained by dispersal limitation of most native trees, new plant invasions and drastic changes in frugivores community composition.

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