Restoration Outcomes: Decades Later

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Luquillo Forest Dynamics Plot (LFDP)

Canopy cover in 1936

- **0-20%**
- **20-50%**
- **50-80%**
- **80-100%**

- Casearia arborea
- Dacryodes excelsa
Importance Value in percent

Tree Species > 5 cm dbh per 380 m²

Elevation (m)

Importance Value of Introduced Species

- Tree Species
- Importance Value of Introduced Species
Tyrannus Mimus

Pasture - forest crossovers per hour

- Tyrannus
- Mimus
- All other frugivores

Tyrannus > Mimus > All other frugivores
Cumulative seed rain under perching sites during May–July 2009 (50 seed traps in 3 pasture sites)
Different Levels of Soil Organic Matter

Dry Forest Life Zone

Soil Carbon (percent)

Mature Forest

Novel Forest

Wet Forest Life Zone

Soil Carbon (percent)

Mature Forest

Tabebuia Forest
Different Levels of Soil Nitrogen

**Dry Forest Life Zone**

- Nitrogen Concentration (percent)
- Soil Depth (cm)
- Mature... Novel Forest

**Wet Forest Life Zone**

- Nitrogen Concentration (percent)
- Soil Depth (cm)
- Mature Forest Tabebuia Forest
Restoration Highlights

- Planting monocultures to achieve diversity.
- Canopy closure is a key moment in the restoration (environmentally and biologically).
- Soil degradation determines species composition.
- Introduced species colonization without intervention.
- Stoichiometry appears critical for the long-term reversal of degradation (from storage to fluxes).