

Does biodiversity really matter to benefit from the ecosystem services provided by Central African forests?

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TERRA
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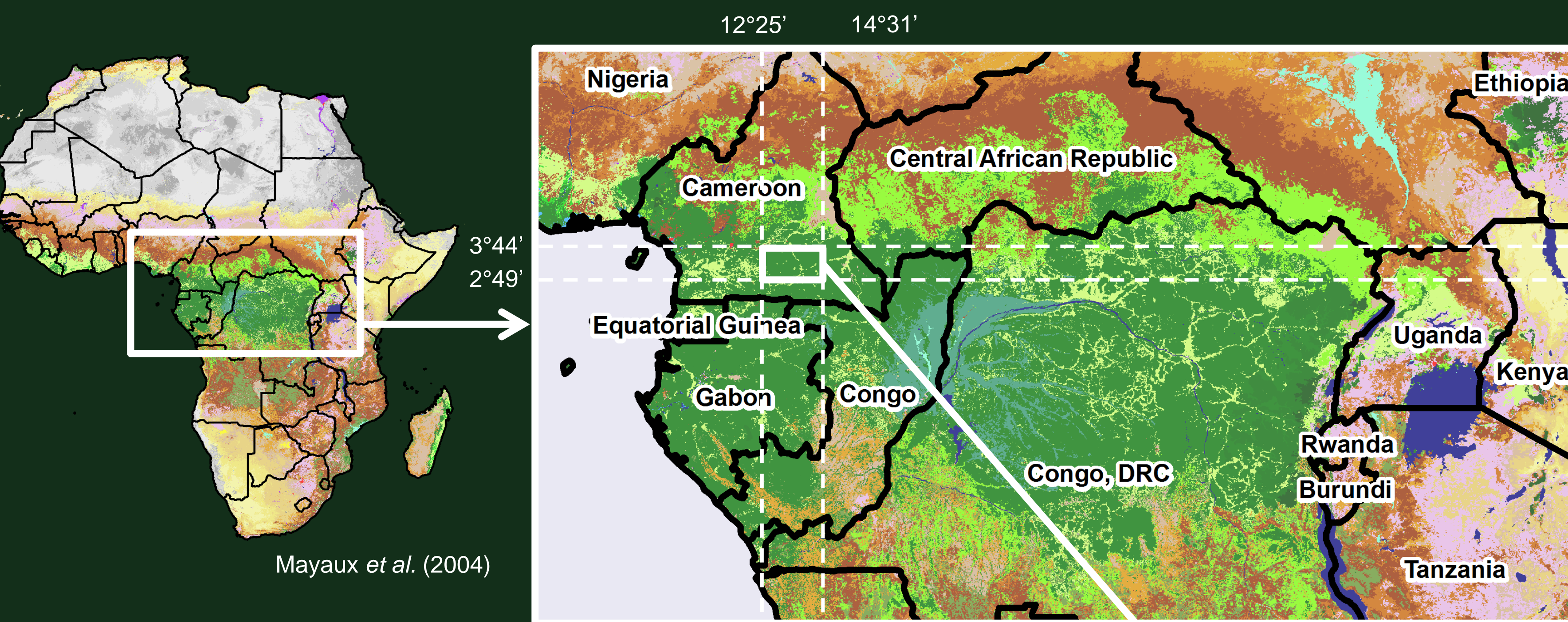


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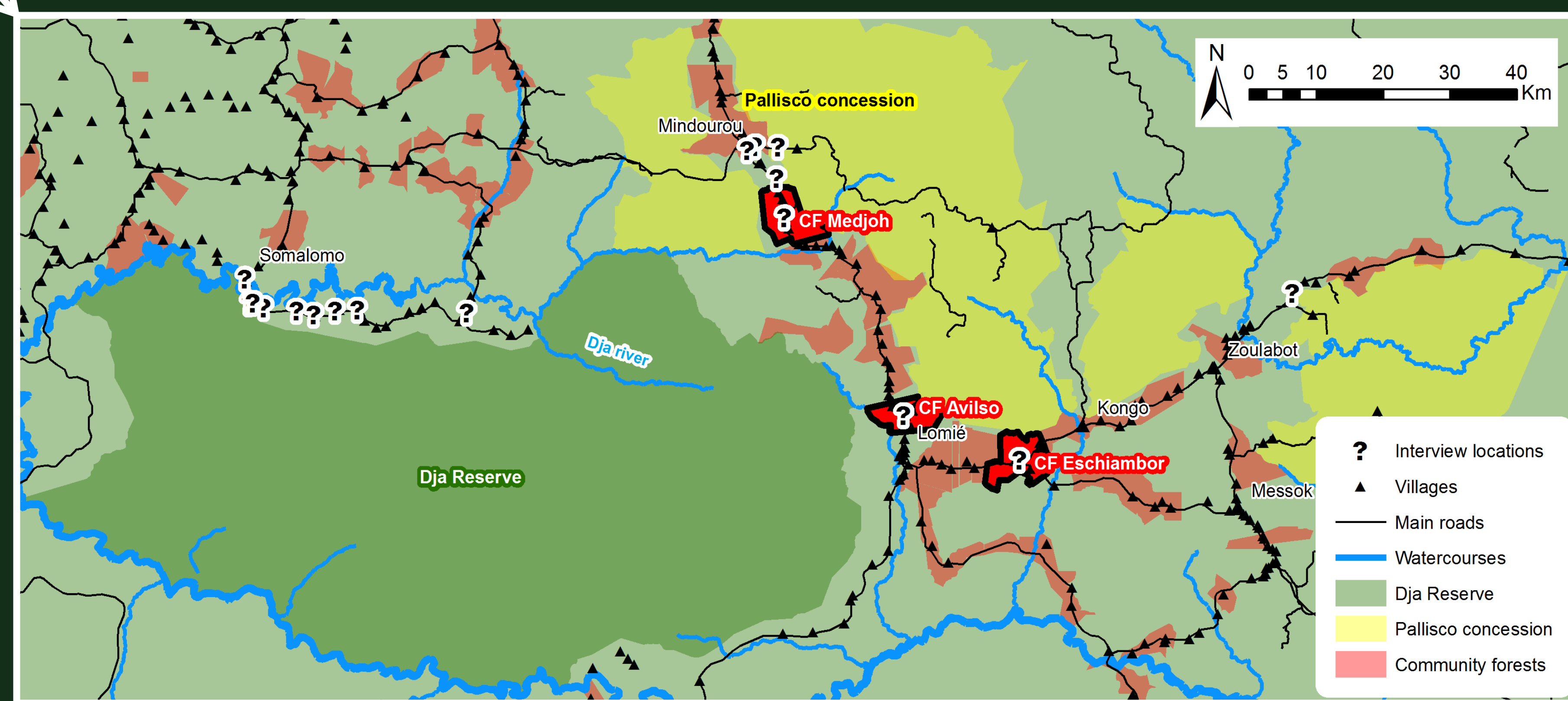


Study area

- Southeastern Cameroon
- Moist semi-deciduous forests (Fayolle *et al.*, 2014)
- High biodiversity levels
- Emblematic animal species (elephant, Western lowland gorilla, chimpanzee, panther)
- Long history of human disturbances (Morin-Rivat *et al.*, 2014)
- Local populations: Bantu and Baka Pygmies, widely dependent on the forest for their daily activities (hunting, fishing, gathering of forest products, extensive agriculture)

Focus on 3 forest land allocation types

- **A protected area (Dja Biosphere Reserve)**
 - ➔ “Man and Biosphere Reserve”, IUCN category VI
 - ➔ Agriculture and commercial hunting are forbidden
- **A FSC-certified logging concession (Pallisco company)**
 - ➔ Selective logging (1 tree/ha, 30-years cycle)
 - ➔ FSC certification: ecological, social, economic criteria
- **Three community forests (Medjoh, Avilso, Eschiambor)**
 - ➔ Participatory & decentralized forest management
 - ➔ Max. 5,000 hectares managed by village communities



Biodiversity



Trees

41 x 1-ha plots
DBH > 10 cm
Height (min. 50 trees/plot)
Species identification



Mammals

6 grids of 11-16 camera traps
2-3 months/grid
Species identification



Dung beetles

75 baited pitfall traps
48 hours/trap
Species identification

Ecosystem services

Provisioning



Timber



Firewood



Meat



Fish

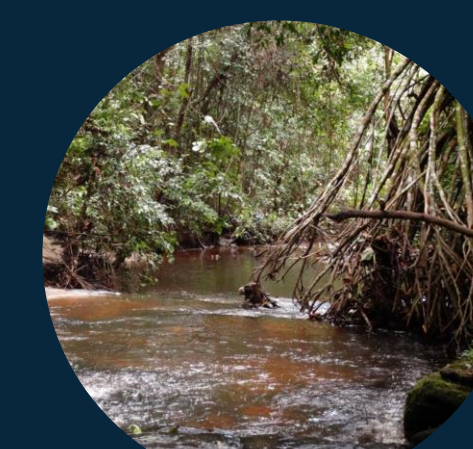


NTFP

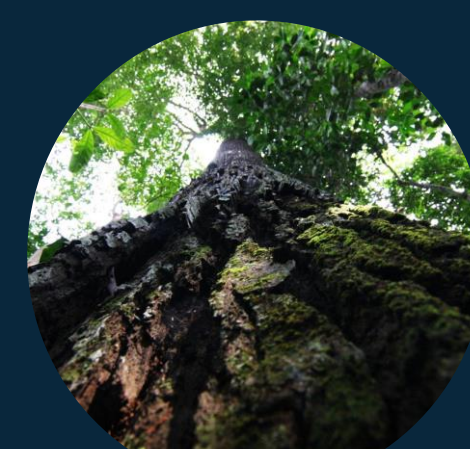


Medicines

Regulating



Water
quality



Climate &
air quality
regulation



Soil
quality

Cultural



Heritage,
rites &
traditions



Education,
science &
tourism



Relaxation

Assessment with
biophysical & social
approaches

Forest stakeholders

Local populations

Forest managers

Administration



Forest land allocation

A protected area (Dja Biosphere Reserve)

A FSC-certified logging concession (Pallisco company)

Three community forests (Medjoh, Avilso, Eschiambor)