
Ecological functioning and Ecosystem evolution in mosaic forest-savanna and human presence context for 2000 BP at Lope National Park (Gabon)

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Abstract

Lope National Park (LNP) is within the Guineo-Congolian phytogeographical region. This region is today probably one of the least known of the African continent in term of floristic composition and biodiversity, as well as its environmental settings. Surface sampling within many marshes showed that if it is possible to distinguish from pollen rain closed canopy signal and opened canopy signal, it is difficult to distinguish all the vegetation types. Davis Index gives us the following groups: **Associated taxa**: Those taxa are common in both vegetation assemblages and pollen assemblages. They are predominantly pioneer taxa such as *Aucoumea*, *Anthocleista*, *Barteria*, etc. Those taxa grow at the margin of the marsh, where there is the maximum of light; **Over-represented taxa** They are most predominant in the pollen assemblages than the vegetation assemblages. Those taxa are often synonym of a perturbation/shift in the environment such as savannah (*Cnestis*, *Annonaceae*, *Asystasia*), an anthropogenic opening in the canopy such as a road (*Alchornea*, *pentachletra*, etc), or an human establishment such as a village (*Eleais guineensis*, *Pycnanthus angolensis*, etc.); **Weakly associated taxa** Those taxa are a mix of over-represented and under represented taxa. They are (*Asteraceae*, *Cassia-type*, *Cyperaceae* indéterminé, etc.). They correspond to taxa which grow together as a population, controversially to the other taxa mentioned above. Preliminary cores studies show a strong presence of taxa common in opened canopy landscapes.

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