How pristine is the Congo Basin rainforest? Some answers from *Erythrophleum suaveolens* (Caesalpiniaceae) and *Pericopsis elata* (Fabaceae) natural and burned forest stands in southeastern Cameroon

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**Context and objective**

In Central Africa, data collected during large scale management inventories show that several timber species suffer from a lack of regeneration. Among them, both tali (*Erythrophleum suaveolens*) and assamela (*Pericopsis elata*) are long-lived light demanding tall trees of high commercial value. Nomadic human populations, mainly through slash and burn cultivation, could have played an important role in their settlement. Our study aims at verifying this assumption in southeastern Cameroon.

**Materials and methods**

Anthracological pits (squares of 50 x 50 cm; 100 cm depth) and botanical inventories were made on transects opened alongside the toposequence in patches where those taxa occur as well as the surrounding vegetation (6 sites). The soil was excavated from each pit for charcoal investigation purposes.

**Results**

Several charcoal elements and some pottery fragments and burnt seeds were found in excavated soils in all studied sites (2 and 4 sites rich in tali and assamela, respectively).

Charcoals and pieces of pottery/seeds were collected within the first 100 and 50 cm of soil, respectively. According to radiocarbon dating conducted on charcoals and burnt seeds, fires occurred between 2,150 to 195 years BP. The probability to discover charcoals was higher inside *P. elata*’s patches than outside ($F_{1,35} = 7.74; P = 0.010$). Soil depth had a significant impact on charcoal abundance ($F_{5,36} = 2.79; P = 0.037$), this last parameter decreasing with depth.

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**Conclusion**

Charcoal/seeds dating results were consistent with the analysis of archaeological materials decoration techniques. Our findings revealed intense past anthropological activities in this part of southeastern Cameroon, seriously questioning the assumption of a pristine Congo Basin forest. Past drier periods could have favored human settlements in the forest, cultivation inducing large openings. Then light demanding trees, presently threatened by smaller canopy disturbances (logging), could have taken advantage of those openings.