**Charcoal reveals disturbance history of *Pericopsis elata* patches**

**in the Yoko rainforest (D.R.Congo)**

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**Keywords:** Central Africa, charcoal identification, fire, *Pericopsis elata,* vegetation history

Past natural and anthropogenic perturbations are thought to be at the origin of present-day Central-African forest mosaics. One particular forest type draws the attention of environmentalists, timber companies and policy makers: the famous *Pericopsis elata* stands, known for the world’s best timber (afrormosia) but also critically endangered.

The patchy distribution of *P. elata* in small forest pockets within more regular forest types has caused debates about the regeneration ecology of the species. Current odds are that *P. elata* is a light-demanding long-lived pioneer taking advantage of slash-and-burn clearings.

To evaluate this hypothesis, we analyzed charcoal fragments sampled in soil profiles under *P. elata* stands. Charcoal is a sign of former disturbance and identifications give insights in former forest compositions. We compared our findings with those from 3 regular Central African forest types: forests dominated by *Gilbertiodendron dewevrei*, Maranthaceae forests and old-growth rainforests.

Mean specific anthracomass reveals disturbance history under all forest types. More than 3000 charcoal fragments were identified and classified in >70 charcoal types. 22 radiocarbon dates and first identification results indicate that disturbance under *P. elata* and *G. dewevrei* stands is more recent than under Maranthaceae and old-growth forests. The absence of *P. elata* in most charcoal assemblages indicates that *P. elata* indeed needs disturbance prior to regeneration. Furthermore, the absence of pottery sherds in almost all charcoal assemblages does not point at a clear human origin of disturbance. Comparison of charcoal records with existing palaeclimate records will reveal possible linkages between forest disturbance and known Holocene droughts.