

Threatened Habitats of Guinea Conakry- A preliminary checklist

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The checklist presented here is the outcome of research by RBG Kew and consultation with partners of the Darwin project Important Plant Areas of the Republic of Guinea at the project launch workshop in June 2016. The IPA methodology is an evidence based, scientifically robust technique for identifying areas of botanical significance (Darbyshire et al, 2017).

The three criteria for IPA designation are:

- A. Threatened species
- B. Botanical richness
 - I. Species rich habitats
 - II. Naturally rare species
 - III. Useful plants
- C. Threatened habitats

Here we address criterion C. The habitat types presented below are considered rare and/ or threatened at a global level. However, many are also under increased threat in Guinea due to expansion of mining activities, hydroelectric dams, slash and burn agricultural practises, charcoal production and a growing human population.

We have identified nine threatened global vegetation/habitat types that are present in Guinea, some are a subset of one particular type.

This information is based on evidence from field surveys and satellite imagery analysis.

1. Lowland evergreen forest (up to 500m altitude) including gallery forest.
2. Sub montane forest (500m+ altitude)
3. Sub montane grassland (1000m+ altitude) with a high species diversity
4. Bowal:
 - a. Ferralitic bowal: i) low altitude (below 500m), ii) high altitude (above 500m)
 - b. Sandstone based (including bauxitic) bowal: i) low altitude (below 500m), ii) high altitude (above 500m)
5. Waterfalls and rapids with endemic Podostemaceae
6. Inselbergs (granite)
7. Sandstone cliffs

Vegetation types such as mangroves would likely not qualify as a TIPA since there is a low diversity within the Atlantic mangroves in comparison with the Indo-Pacific mangroves and there are significant areas of intact Atlantic mangrove worldwide. This vegetation type should be covered by other types of protection that take into account ecosystem services. There is little doubt that mangroves are being severely impacted in Guinea as many areas are cut down for rice cultivation and the wood used for providing wooden poles for scaffolding, fencing and firewood especially around Conakry, but the quantity that remains will still exclude it from the TIPAs category C. This low diversity in Atlantic mangrove also extends to the littoral region, which include species common across the tropics.

Woodland and wooded grassland vegetation have commonalities across the Sudano-Guinean region (from Mauritania to South Sudan) and are comprised of species with broad ranges, though some localised variations occur in different climatic regions. Grassland on deeper soils, different to the bowal grassland and high altitude species diverse grassland, are again mainly composed of common species across the sub Saharan region often dominated by high grasses such as *Andropogon tectorum* and *Rottboellia cochinchinensis* among other species.