

The botany of Tchabal Mbabo

A contribution towards the Nigerian / Cameroon Transboundary initiative

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Introduction

A project to protect the montane environment spanning the border between Cameroon and Nigeria began in 2003. BirdLife International ran the project in partnership with the Governments of both countries.

The geographic area incorporates Gashaka Gumti National Park (6,670 sq. km.) in Nigeria, and the far smaller (30,000 hectares) Tchabal-Mbabo in Cameroon, which has no formal protection.

The idea was to create a large transboundary protected area with the full participation of the local people.

The project began with a series of rapid biodiversity and socio-economic surveys of Tchabal Mbabo by BirdLife International.

The project was funded by UNGP-GEF1.

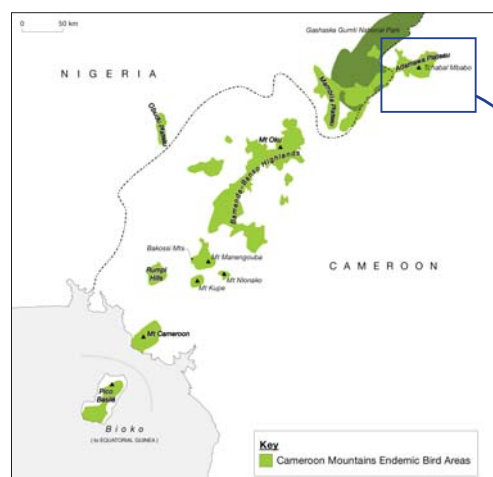


Figure 1. Cameroon mountains endemic bird areas

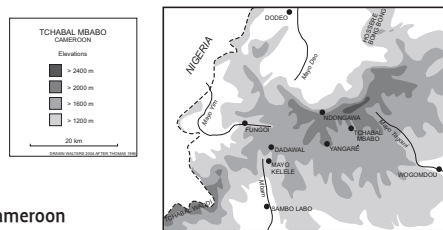


Figure 2. Tchabal Mbabo, Cameroon

Methods

- A 10 day trek of Tchabal Mbabo from Mayo Kelele, Yangaré, Ndongawa, Mayo Deo, and Fungoi (Figure 2).
- All vegetation types were documented, – but especially the montane forests and the transition towards wooded savannahs which contribute to the global importance of Tchabal Mbabo.
- The BirdLife International GIS Landsat land cover map was ground proofed.
- Specimens of unidentified plant species were collected for identification later at Kew. Copies are held at the National Herbarium Yaoundé.
- A photographic record of all vegetation types was compiled.

Results

- Elevation, fire and cattle grazing are all important in determining plant species composition.
- We recognized 16 vegetation units.
- 10 Red Data List species were recorded. *Chassalia laikomensis*, *Dombeya cf ledermannii*, *Helichrysum cameroonense*, *Khaya grandifoliola*, *Milletia conraui*, *Lobelia columnaris*, *Peucedanum angustisectum*, *Pouteria altissima*, *Prunus africana*.

Threats

- Burning, cattle grazing, wood cutting, and land clearance for farming by the local Fulbé.
- Non resident contractors are devastating populations of *Prunus africana* by bark stripping.
- The timber tree *Hallea stipulosa* is now rare.

References

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- 2 Thomas, DHL. & Thomas, J 1996. Tchabal Mbabo Botanical Survey, WWF
- 3 Chapman, JD & Chapman, HM 2001. The forests of Taraba and Adamawa States, Nigeria. An ecological account and plant species checklist. Christchurch, University of Canterbury.
- 4 Chapman, HM & Olson, S 2004. An assessment of changes in the montane forests of Taraba State Nigeria, over the past thirty years. Oryx 38(3): 282-290.
- 5 Tame, S & Asonganyi, J 1995. Vegetation survey of the Ijim Mountain Forests, Northwest Province, Cameroon. Report for BirdLife International.



Figure 3. Montane escarpment forest



Figure 4. Montane stream side fringing forest

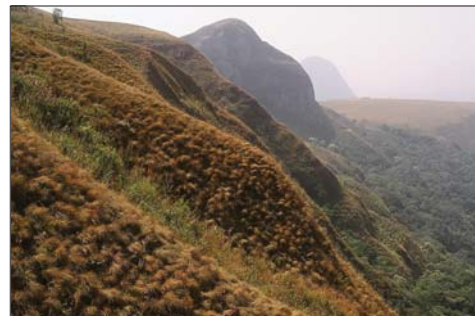


Figure 5. Montane Hyparrhenia grassland



Figure 6. Montane forest - grassland ecotone



Figure 7. Submontane escarpment and gallery forest



Figure 8. Woody savanna transition forest



Figure 9. Lowland gallery forest

Vegetation Units

In this poster we shall describe the 7 vegetation units of high botanical interest (of 16 units).

1A. Montane escarpment forests

The Tchabal Mbabo forests are of an especially rare, dry type.²

The escarpment forests > 1700 m on Tchabal Mbabo represent unspoilt examples of West African montane / submontane and transition forest. While they are not rich in terms of species numbers, the ecosystem is rich in biodiversity value. These forests complement their Nigerian equivalent³. Eg. Tchabal Mbabo has extensive stands of *Prunus africana*, and there is a more developed forest ecotone than in GGNP. Figure 3.

1B. Montane stream side fringing forests

The stream side fringing forests > 1800 m which dissect the *Sporobolus* grassland are much more extensive than those in GGNP. This ecosystem is probably very similar to what Mambilla Plateau (Figure 1) would have looked like 40-50 years ago⁴. The plateau fringing forests are essential for maintaining year round water supply and are habitat for many birds and other animals and insect. Figure 4.

2. Montane Hyparrhenia grassland

Montane grassland free from cattle grazing is rare in West Africa. It has almost become extinct within GGNP, Nigeria⁴ and is absent from the Ijim montane area of Cameroon⁵. Alt. >1700 m. Figure 5.

3. Montane forest - grassland ecotone

The *Gnidia glauca* dominated forest-grassland ecotone is very species rich; it is habitat for light demanding, trampling sensitive plants such as the IUCN Threatened *Peucedanum angustisectum*, which here reaches 1 m in height, and many species of fern. Alt. >1700 m. Figure 6.

4. Water seepages / bogs

Permanently wet water seepage areas are relatively uncommon on Tchabal Mbabo but are species rich, and therefore of high biodiversity interest. They need more study. Alt. >1500 m

5. Submontane escarpment and gallery forests and Hyparrhenia savanna

Both the escarpment and gallery forests are valuable as part of a continuum from lowland to montane ecosystems, and as a reservoir of rare species such as the IUCN Threatened *Dombeya cf ledermannii*. Alt. >1500 m. Figure 7.

6. Woody savanna transition forests

The transition between lowland and montane forest is a very rare situation in West Africa. Thomas & Thomas (1996) suggest that the Tchabal Mbabo transition forest is the best example in this area of Cameroon. A similar transition, differing in detail, occurs in GGNP. Alt. 1500 – 1000m. Figure 8.

7. Lowland gallery forests

Species composition of the gallery forest below +/- 1500 m is similar to the equivalent ecosystem in GGNP. However its extent and its relatively good condition make for a valuable conservation area. Figure 9.

Conclusion

- Despite the acknowledged global biodiversity importance of the Tchabal Mbabo - Gashaka Gumti transboundary area, it has not proved possible to secure the financial support for this important conservation work to proceed.
- Meanwhile, the pressure on the habitats and species in this area continues to increase.
- Funding and implementing the plans drawn up by the Governments of Nigeria and Cameroon in partnership with the BirdLife International Partnership therefore becomes increasingly urgent if the biodiversity of this important area is to be conserved, and the livelihoods of the local people improved.

Contacts

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