Mount Hombori, an *ex*-unexplored part of west Africa

Biodiversity hotspot ? Refuge for endangered species ? A botanical and ethnobotanical survey.

T. Renaud[1], J. Kissling[2]

J.-R. Ioset, S. Dembelé, A. Dougnon, M. Zein, E. Gawronski, S. Nusslé, F. Kissling, S. Arnaud, A. Panchaud, R. Vega, Y. Togola, O. Sangare, S. Diallo, A. Streiff, C. Peverelli, A. Diallo, P. Hainard and D. Diallo

[1]Département d'écologie et d'évolution, Université de Lausanne, CH-1015 Lausanne, Switzerland. [2]Institut de botanique, Université de Neuchâtel, CH-2007 Neuchâtel, Switzerland

Introduction

Mount Hombori, south of Timbuktu, is an inaccessible tableland. The high cliffs surrounding its summit plateau preserved it from pasture and agriculture for centuries. This ecological heaven which was yesterday preserved is coming today under rock climbing tourism pressure. A multidisciplinary study was conducted in order to evaluate its biodiversity and its potential for endangered species conservation.

Are rare species, useful species?

Mount Hombori Mountain permits the safeguard of some plants that have disappeared from the plain. Our study focuses on three questions:

- Are species from the plateau rare or absent in plain?
- Were these species more abundant in the past?
- Are those species useful?

The key to these questions resides in an ethnobotanical survey.

Boscia salicifolia

An interview with a healer

All the woody species from the plateau are rare or have disappeared in the plain and are/were widely used. The bark, roots and leaves of these species are largely used for craft, medicinal, food and veterinary purpose. Our study shows that useful species becomes rare or disappeared, due to human and animal pressure. Local population should now be associated to our results in a common planning for reintroduction of useful species

A Refuge ?

Mount Hombori vegetation shows a very high diversity (119 species). The plateau mosaic of shrubby and meadow vegetation is different from the anthropogenous savanna of the plain. The lack of thorny species illustrates the absence of grazing pressure and uncommon associations are present (e.g. meadows of *Vernonia galamensis* Less.; chaotic rocky slope of *Ficus abutifolia (Miq.) Miq.* and *Tacca* sp).

The summit plateau is an important refuge for species requiring higher rainfall (the rare *Gloriosa superba* L., *Amorphophallus aphyllus* (Hook.) Hutch., *Bombax costatum* Pellegr. et Vuillet), or occurring only on rocky areas (*Enteropogon rupestris* (J.A. Schmidt) A. Cheval., *Kalanchoe lanceolata* Pers., *Lannea humilis* (Oliv.) Engl.) scattered throughout the Sahel.

Is Mount Hombori biodiversity threatened ?

Tourism in Hombori region has seen an increasing importance these last ten years. Last year a via-ferrata which permits access to the plateau for inexperienced climbers was installed. If tourism represents an important income for the local population, it could be fatal for the fragile relictual vegetation of the plateau. An evaluation of the impact of climbers and base jumpers on the plateau ecosystem is urgently needed.

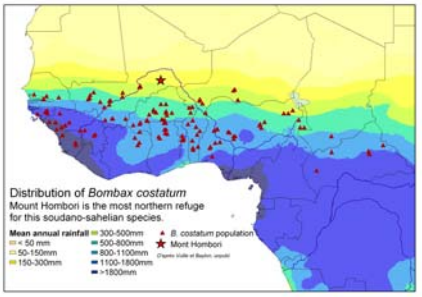
The development of an eco-tourism that permits more income for local inhabitants and protection of Mount Hombori is the most realistic solution for the conservation of this ecosystem.

Conclusion and perspectives

Mount Hombori presents virgin vegetation, which is now threatened by a developing tourism. Protection of this ecosystem depends on implication of the local population and canalization of tourism in an adapted eco-tourism frame.

In the same time, more scientific data have to be collected. A second mission, focusing on vegetation, small mammals, reptiles and insects but also hydrology and ethnology is being prepared.

The vegetation survey of the present study allows its monitoring for the future. Evaluation of vegetation changes due to climate changes will be possible in some years.



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