



# CONGO NETWORK

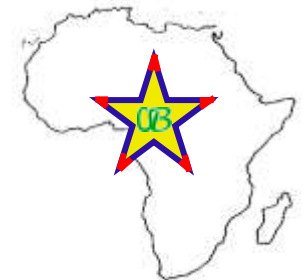
Workshop Kisangani  
**12-14 May 2011**  
CSB-UNIKIS

*Biodiversity of Cercopithecidae primates  
of the Congo basin :  
taxonomic status and Ecology of  
conservation*

BY

**Bertin MURHABALE**

Université Officielle de Bukavu  
Laboratoire de Primatologie CRSN-Lwiro



# Problematic

## Cercopithecidae of the Congo basin

---

### Biodiversity assessment

#### Possible two levels of perception

- 1) Endemic species, principally semi- terrestrials, monotypic
- 2) Important variety (> 40 sub-species) among arboreal species.  
Polytypic taxons with a large distribution.

### Loss and maintaining of biodiversity

- 1) Bush meat and anthropogenic pressure
- 2) Conservation ecology

# Biodiversity assessment : taxonomic status

## 1) The 4 endemic species



- Semi terrestrials, monotypic
- Restricted distribution area
- Specific type of habitat
- Extinction risk (UICN)
- Few or no ecological data
- Taxonomic status revision:  
case of du *C. dryas* et *C. h. kahuziensis*.



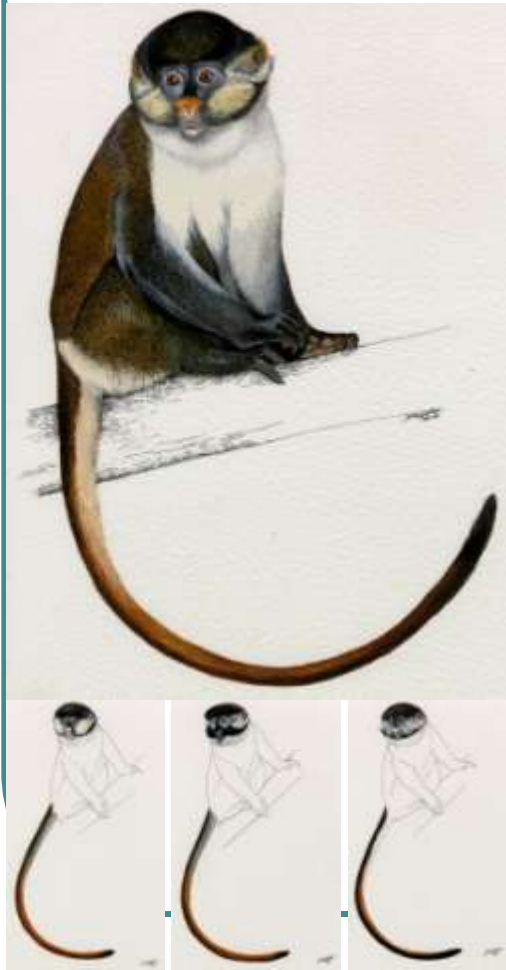
Left bank of Congo Riv.



Right bank of Congo Riv.

# Biodiversity assessment : taxonomic status

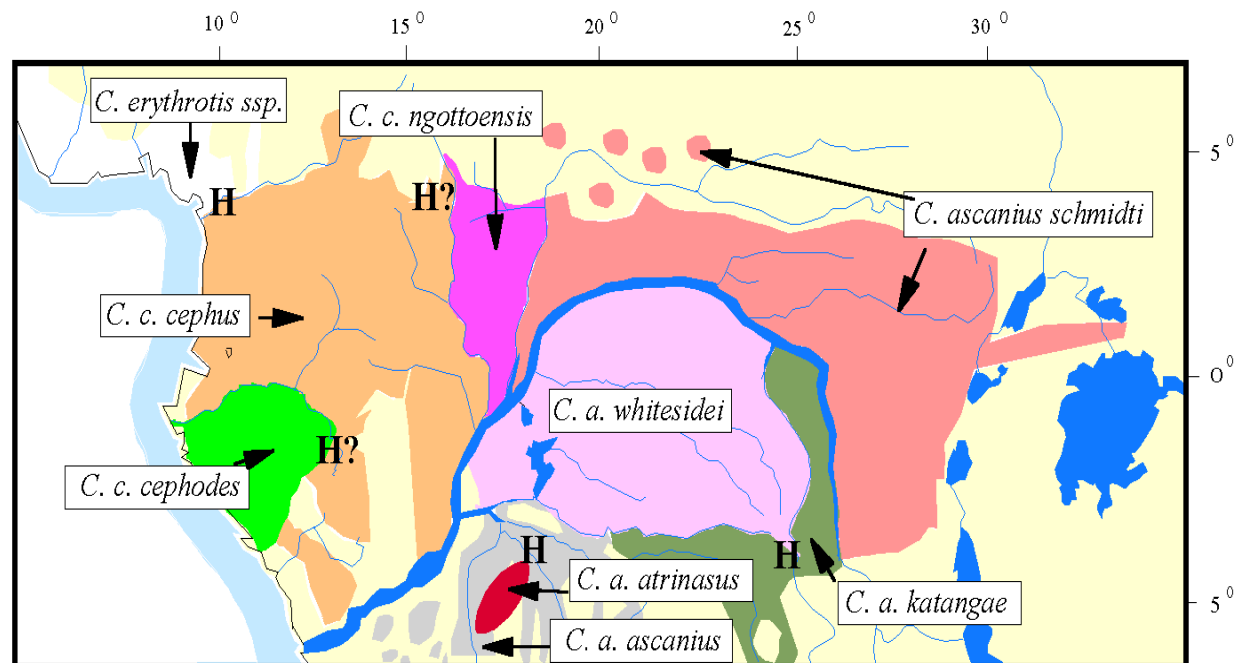
## 2) subspecific variety



Arboreal species, polytypic

Spectacular diversity (>40 subspecies described for the Congo basin)

Important distribution area



## Biodiversity assessment: Taxonomic status

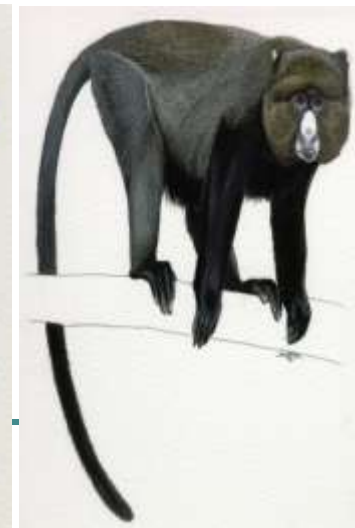
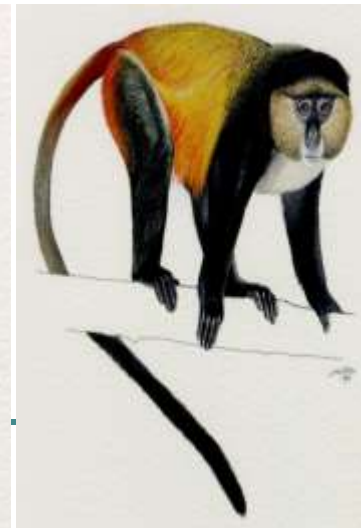
### 2) The polytypic species

taxonomic descriptions based on external morphological characteristics (phenetics)

**What is the importance of these taxons in terms of biodiversity ?**

Low Forest

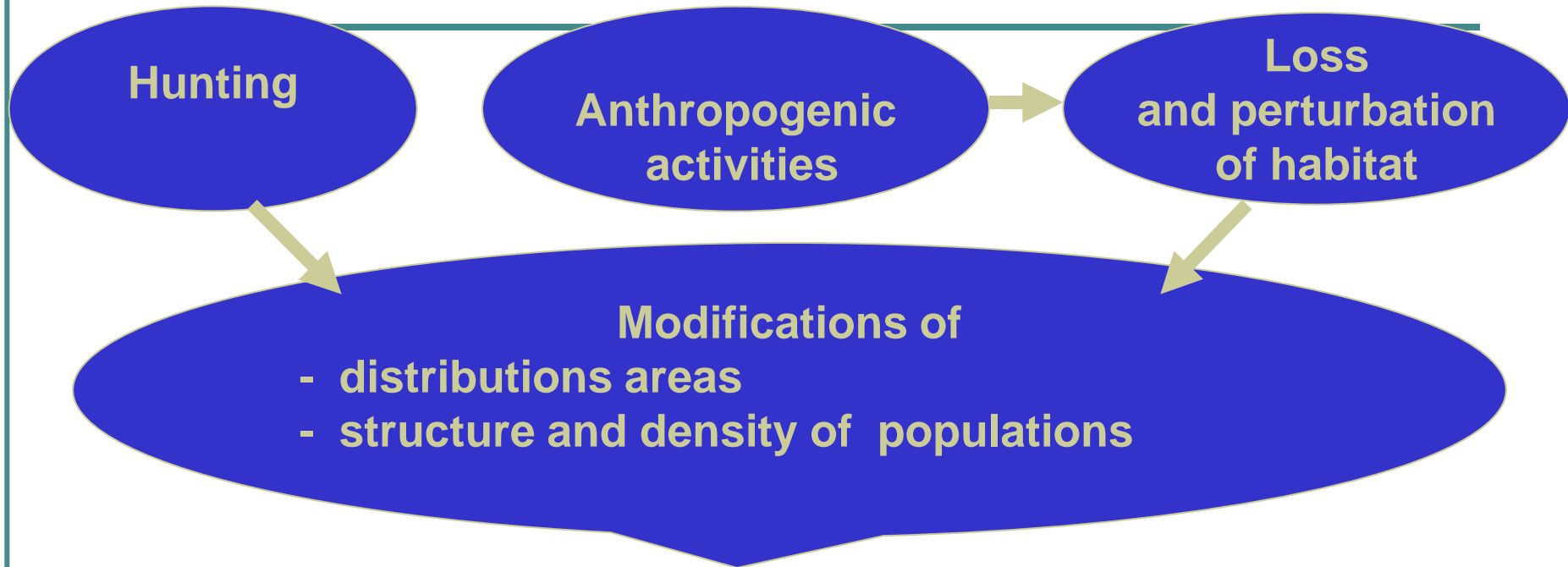
Transition and mountain forest



# Loss and maintaining of biodiversity

(4 key endemic species)

## Bush meat and anthropogenic pressure



Conduct taxonomic and ecological research simultaneously to value the importance and actualize the conservation status of the species.

# Objectifs

Global objectif

Specific objectifs

Knowledge  
and valorisation  
of Congo basin  
Primates  
biodiversity

## 1° - Biodiversity evaluation

- To test the variability (phenetic & genetic) among the polytypic complex taxa *cephus/ascanius* and *C.mitis*
- Revise the taxonomic status of *C. dryas* and *C.h. Kahuziensis*

## 2° Loss and maintaining of biodiversity

- Assess the conservation status ( 4 endemic species )

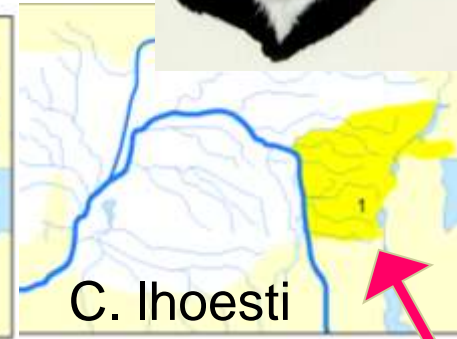
## 3° Recommendations

- Reports and publication of the results

# Two research sites

right bank of the Congo,  
River in KBNP

*C. hamlyni*, *C. lhoesti*  
sympatics



left bank of the Congo  
near Wamba,  
*C. dryas* and  
*A. nigroviridis*  
presence is confirmed



# Methodology

## 1) Taxonomic status

---



- confirm the presence of rest populations
- improve the knowledge of the distribution area
- define the status of *C.dryas*
- analyse the polymorphism (external morphological characteristics and genetics)
- find again the cryptics species
- phylogeny

# Methodology

## 2) Loss and maintaining of biodiversity

---

The 4 endemic species

density and structure (population level)

relative abundance (population level)

posters for hunters and peasants

**Surveys of bush meat on markets**

# Expected results

---

## Taxonomy

Evaluation of Cercopithecidae biodiversity

New data for the cryptic species

Evaluation of the genetic diversity of the subspecies

## Ecology of conservation

Analysis of the present status of endemic species:  
density, structure and relative abundance

Consequences of hunting, anthropogenic activities

## Tools and communication

Availability of an actualized data bank

Reports and scientific publications

**Thank you for your attention**



# Acknowledgements

---

**UNESCO : Samy MANKOTO, Souad ROUABAH**

**Coordination Congo 2010 Consortium committee :  
Hilde KEUNEN, Erik VERHEYEN**

**Marc COLYN ; UMR 6553, ECOBIO, Université de  
Rennes 1, CNRS**

**The staff of the Paimpont Biological Station**