



CONGO NETWORK

Workshop Kisangani

12-13 May 2011

CSB-UNIKIS

**Preliminary results on shrews
collected during the two Congo River
Expeditions (2009, 2010)**

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The two Congo River Expeditions (2009, 2010)

I. General information

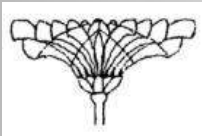
(a) The two scientific expeditions (2009, 2010) were prepared by the **Congo-2010-Belgium Consortium composed of four scientific institutions.**



Royal Museum of Central
Africa (Tervuren, Belgium)



Royal Belgian Institute of
Natural Sciences (Brussels)



National Botanic Garden
of Belgium (Meise)



University of Kisangani
Kisangani, DR Congo



Congo-2010-Belgium
Consortium

The Congo-2010-Belgium Consortium is a three-phased project

(b) Financial supports

1) Pilot Expedition (14/06 – 07/07/2009, Lisala-Kis) (30,000€)

Framework agreement between RBINS and Belgian Development Cooperation; Travel Awards of the Research Foundation - Flanders granted to individual participants.

2) Biodiversity Training Component (2008-2010) (\$165,000)

Medium Scale Project Grant Proposal within the context of the Flanders-UNESCO Science Trust Fund (FUST), Headed by the Division of Ecological and Earth Sciences 'Man and Biosphere Program (MAB)'.



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The Congo-2010-Belgium Consortium a three-phased project

3) Expedition '*Boyekoli Ebale Congo 2010*'

Expedition 'Study of the Congo stream' (26 April-12 June 2010)

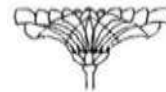
Belgian Ministry for Development Cooperation:
800,000 €

Congo Network (workshops and networking activities)

Belgian Science Policy Office: 200,000 €

Congo Rives (cartography, preparation expedition)

Belgian Science Policy Office: 200,000€ (split between RMCA & UCLouvain)



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The Congo-2010-Belgium Consortium is a three-phased project

(c) The establishment of the "CSB/Unikis & the rehabilitation of the Herbarium in Yangambi

Construction & rehabilitation: 700,000 € (Belgian Ministry for Development Cooperation);

Data management of expedition data: financial support from the Belgian Science Policy Office (3 staff months with ICT expertise).



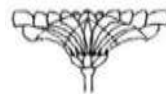
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The participants



- **At least 125 persons per day**
- **13 nationalities**
- **22 scientific disciplines**

- **30 DRC researchers / lab-technicians** (UNIKIS, UNIKIN, Isea-Bgsa, ISP-Kis, CRNS-Lwiro)
- **38 EU, USA researchers** (Be., Dutch, UK., FR., GER, It, S.Afr. & USA)
- **1 Logistic Coordinator**
- **2 Scientific Coordinators**
- **15 Media Staff** (Vrt, Rtbf, Rtnc, daily info, photos, field work)
- **11 ladies for cooking, Boat crew**



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II. Preserving biodiversity is facing major problems every day ! - Solutions are not ready to come !!!!

Biodiversity is our life. In different ways, we contribute to biodiversity degradation (agriculture, industries, tourism, overexploitation, etc.)



<< Is Science looking for solutions ?



<< We are building >>



< Agriculture >

<<< People are looking for their food each time >>>



Solutions through:

- **International conference?**
- **Sciences?**
- **Administration?**
- **Local people?**

What do we need?] Man for only eating forest resources?
Man for preserving forest resources??



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Goals of collecting shrews during the two Expeditions (2009,2010)



To build local expertise

- Collaboration among researchers (Congoese, Belgian, international community): **common scientific projects**;
- Collecting shrews as biological material to support the creation of the "**Centre de Surveillance de la Biodiversité de Kisangani, CSB**" (DRC, Africa, International Community);

Labo & field works
The team of Mammalogy,
University of Kisangani &
University of Antwerp

Contribution to the International Year of Biodiversity

Celebration of the Golden anniversary of the DRC independence.



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Collecting shrews during the Expeditions (2009, 2010)

Methods used to collect shrews



<< Fig. (1) – Pitfall transect with 10L buckets



<< Fig. (3) Sherman trap set.



<< Fig. (5) In village, people contributed in collecting small mammals.



<< Fig. (2) – Shrews captured in a Pitfall bucket.

Fig. (4). >> *C. olivieri* captured with a Victor trap.



Fig. (6) - Pr Dudu is setting a Victor trap at Eleko.



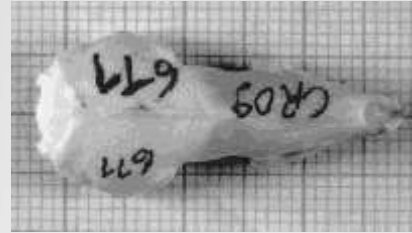
Fig. (7) – Pr Dudu and Dr Erik, supervised the mission.

Activities in laboratories (2009, 2010)

Works in labo

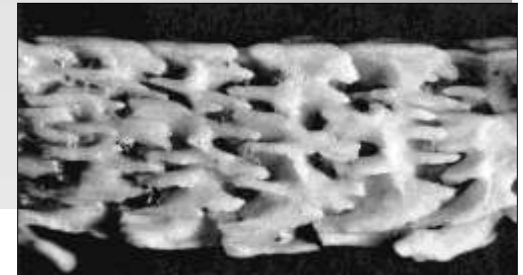


<< Measuring
Registration
Identification

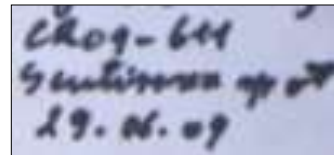


<< Skull of *Scutisorex nov_sp*
[CR09-611 , Bonn Museum]

Vertebrae skeleton >>
of *Scutisorex nov_sp*
[CR09-611 , Bonn
Museum]



<< Tissue
Preservation
DNA analysis



Preserving bodies >>



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Results: all shrews collected (1/3)

A quick look at the shrews collected during the two Congo River Expeditions (2009 & 2010)

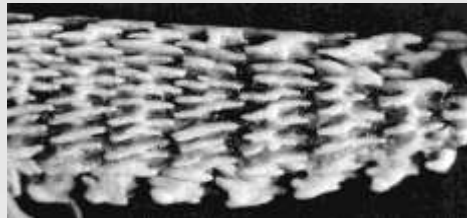
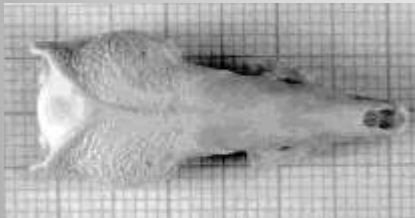
Genus / Species	Nb	%	Observations
<i>Crocidura</i> Wagler, 1832	121	50,8	All small shrews waiting identification
<i>C. Olivieri</i> (Lesson, 1827)	59	24,8	Short and big tail
<i>C. cf. olivieri</i> (Lesson, 1827)	22	9,2	Very black, small tail
<i>Scutisorex congicus</i> Thomas, 1915	25	10,5	Typical for forest area
<i>Scutisorex</i> nov_sp	11	4,6	See skull & vertebrates
Total	238	99,9	



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Results (2/3)

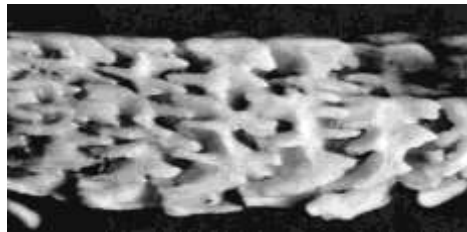
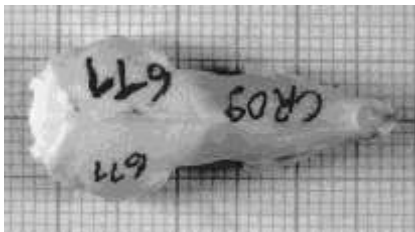
The genus *Scutisorex* which was supposed to be monotypic, will be revised. Then in DRC three species (*S. somereni*, *S. congicus*, *Scutisorex nov_sp*) might be represented.



<< Skull and vertebrate skeleton of *Scutisorex somereni* (Bonn Museum)



<< Skull of *Scutisorex congicus* Thomas, 1915 (Bonn Museum), and skeleton photo from *Bull. Amer. Mus. Nat. Hist.* in Walker et al. (1968, p. 164)



<< Skull and vertebrate skeleton of *Scutisorex nov_sp* [CR09-611 , Bonn Museum]

Results (3/3)

A quick look

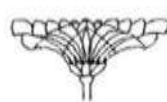
The identification of shrews collected is not yet achieved. Comparisons of shrews collected suggest to revise the genus *Scutisorex*, and the so named *Crocidura olivieri* complex species.

Problem to identify small shrews remain entire.

Genera as *Sylvisorex*, *Paracrocidura*, and *Suncus* are absent.

The habitat preference of some species will be precised: *S. congicus* might be a forest dependent species, while *C. olivieri* might be a forest non-dependent.

The Congo River with its tributary streams constitute a natural barrier for some shrew species.



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Acknowledgements

**THE BELGIAN
DEVELOPMENT COOPERATION**



Belgian Science Policy Office



**All public administration authorities for
their facilities;
Colleagues researchers;
Leaderships and local people in villages
where we worked.**



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Many thanks for your attention



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