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Lui Kotal - A New Site for Field Research on Bonobos in the Salonga National Park

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The Salonga National Park is the only reserve within the known range of bonobo (*bilua*) distribution that protects both the species and its natural environment. Surprisingly little is known about the largest protected site within the *Cuvette Centrale* and, compared to other reserves of the Democratic Republic of Congo, the park never gained much attention as a site for research, tourism, or nature conservation. Until recently, the status of the park was largely unknown, available maps concerning the park boundary varied considerably, and it was suspected that logging and mining was going on within the park (1). As the first attempt to collect objective information on the status of Salonga, an analysis on land cover and land use based on recent satellite images (2002) was used to map the large area of 36,000 km² (2). These remote sensing analyses as well as an extensive verification from the air and on the ground revealed no significant signs of human encroachment. Moreover, the maps show that natural vegetation cover does not vanish at the boundary of the park. Finally, reports from sporadic excursions to different areas suggest that the park is home for a substantial bonobo population (3-5). Taken together, Salonga has a large potential for field research on bonobos and remains a stronghold for the conservation of many endangered species and their natural environment.

Following our activities at Lomako (1990-1998), explorations in Salonga started in 2000 (5). In February 2002, a research site was established at the fringe of the park, just south of the Lokoro river (Figure 1). The camp-site, Lui

Kotal (South 02° 45.610', East 20° 22.723'), is 25 km away from the nearest village. A network of natural paths and standardized transects (>50km) gives access to a study area of about 50km². Located close to a 225 km² large, circular patch of a forest-savanna-mosaic, the study site offers a variety of habitats. Using geographic and botanic criteria, six habitat types were identified (6). While the botanical survey is still ongoing current data suggest that the diversity of plants is likely to be higher than in other natural habitats like the Lomako forest that is completely covered by a relatively dense and homogenous forest vegetation. Correspondingly, the fauna also appears to be more divers. For example, the primate fauna comprises two species of mangabeys (*Lophocebus aterrimus*, *Cercocebus crysogaster*), two of colobus (*Procolobus badius*, *Colobus angolensis*), and four of guenons (*Cercopithecus ascanius*, *C. wolffi*, *C. neglectus*, *Allenopithecus*). Signs of elephants, river hogs, leopards, and five species of duiker are encountered regularly and indicate relatively high population densities.

Following the onset of fieldwork in February 2002, a team of Congolese research assistants, foreign students, and local field assistants are engaged in two long-term projects at Lui-Kotal. One is funded mainly by the Max-Planck Institute, and addresses various issues of bonobo socio-ecology. The other project focuses on the bio-diversity of plants and is funded by the Federal Ministry of Education and Research. Both projects are linked to a number of Congolese institutions: Université de Kinshasa, Institut Congolais pour la Conservation de la Nature, Institut National de la Recherche Bio-Médical, Institut Pédagogic National, Institut National des Etudes et des Recherches Agronomiques.

From May 2002 until April 2003, a comparative study on feeding ecology of the two *Pan* species was conducted. With funding from The Leakey Foundation, data collection was carried out simultaneously on bonobos at Salonga and on chimpanzees at Gashaka (Nigeria). The aim of the first phase of this project is to quantify the availability and use of plant foods by *Pan* on the one hand and to investigate the effects of seasonal variation of food availability on grouping patterns on the other. During this time, bonobos

were occasionally seen when research teams monitored phenology transects or bed sites. In most cases, bonobos avoided visual contact with humans simply by moving out of sight. Sometimes, parties stayed at food patches or bed sites and could be observed for short periods. From May 2003 onwards efforts were made to follow bonobos on the ground. Although habituation is still incomplete, follows for several hours are now possible and the overall tendency is that bonobos are more tolerant towards humans following in closer proximity.

Research at Lui Kotal is still in an early stage and it will take more time until behavioural studies that require close range observations of focal individuals will be possible. However, because of the habitat's mixed vegetation and a number of other environmental features that are rare or absent elsewhere, the site has a large potential to explore unknown dimensions of the behavioural diversity of bonobos. The protected

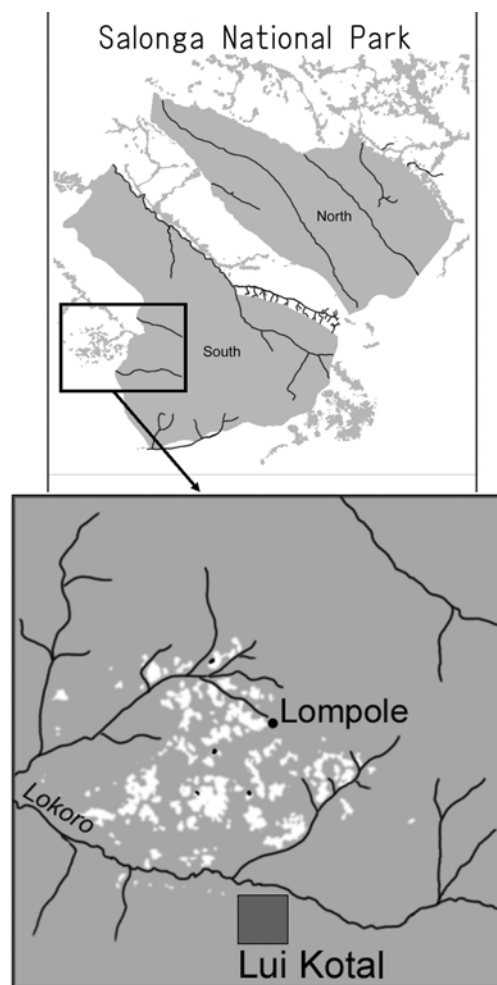


Figure 1 The study site. White patches on the lower part of the figure indicate open savanna.

status of the site makes us hope that the bonobo population will be relatively safe from certain types of encroachment such as timber exploitation, road construction, and agriculture. However, for the following reason, there is an urgent need for constant vigilance: In terms of its conservation status, bonobos are exceptional because no other Great Ape species is protected by a single reserve only. Accordingly, the Salonga Park serves a unique purpose and the protection and maintenance of its bio-diversity deserves highest priority.

References

- (1) Thompson-Handler N, Malenky R, Reinartz G 1995. *Action plan for Pan paniscus*. Zoological Society of Milwaukee: Milwaukee.
- (2) Huang S, Siegert F, Fruth B, Hohmann G 2003. Assessment of land cover and land use in the Salonga NP based on satellite imagery. Presented at the *International Symposium on Sustainable Use and Conservation of Biological Diversity*, 01-04.Dec.2003 Berlin: Germany.
- (3) Kortlandt A 1995. A survey of the geographical range, habitats, and conservation of the pygmy chimpanzee (*Pan paniscus*): an ecological perspective. *Primate Conservation* 16: 21-36.
- (4) van Krunkelsven E 2001. Density estimation of bonobos (*Pan paniscus*) in Salonga National Park, Congo. *Biological Conservation* 99: 387-391.
- (5) Hohmann G, Eriksson J 2001. Rapport de recherche d'une étude-pilote sur les bonobos (*Pan paniscus*) dans la région de Bolongo. Technical report to the Institut Congolais pour la Conservation de la Nature (ICCN): Kinshasa.
- (6) Fruth B, Ilumbe G, Lejoly J 2003. Phytosociology for habitat assessment in the southwestern part of Salonga National Park, DRC. Presented at the workshop on *Behaviour, Ecology and Conservation of Wild Bonobos*, 22-25.Jul.2003 Kyoto University Primate Research Institute: Inuyama.