

Pan Africa News

The Newsletter of the Committee for the Care and Conservation of Chimpanzees, and the Mahale Wildlife Conservation Society

DECEMBER 2003

VOL. 10, NO. 2

P.A.N. EDITORIAL STAFF

Chief Editor:

Toshisada Nishida, *Kyoto University, Japan*

Associate Editors:

Christophe Boesch, *Max-Planck Institute, Germany*

Jane Goodall, *Jane Goodall Institute, USA*

Takayoshi Kano, *Kyoto Sangyo University, Japan*

Tetsuro Matsuzawa, *Kyoto University, Japan*

William C. McGrew, *Miami University, USA*

John C. Mitani, *University of Michigan, USA*

Vernon Reynolds, *Oxford University, UK*

Yukimaru Sugiyama, *Tokai-Gakuen University, Japan*

Shigeo Uehara, *Kyoto University, Japan*

Richard W. Wrangham, *Harvard University, USA*

Editorial Secretaries:

Koichiro Zamma, *Kyoto University, Japan*

Noriko Itoh, *Kyoto University, Japan*

Michio Nakamura, *Japan Monkey Centre, Japan*

Kazuhiko Hosaka, *Kamakura Women's University, Japan*

Michael A. Huffman, *Kyoto University, Japan*

Instructions to Authors:

Pan Africa News publishes articles, notes, reviews, forums, news, essays, book reviews, letters to editor, and classified ads (restricted to non-profit organizations) on any aspect of conservation and research regarding chimpanzees and bilias. Contributors are requested to write in English and the papers except forums, reviews and essays should usually be 1,000 words or less. Manuscripts should be submitted by e-mail to: PAN@jinrui.zool.kyoto-u.ac.jp

Photos and figures, however, should be sent by air mail to: T. Nishida, Dept. of Zoology, Graduate School of Science, Kyoto University, Kitashirakawa-Oiwakecho, Sakyo, Kyoto, Japan.

Publication of the next issue will be June 2004. Deadline for manuscripts is the end of April.

Contents

<ESSAY>

Losing ten pounds to gain knowledge.

By Frans B. M. de Waal 17

Papers from the bonobo workshop 2003

<NOTE>

Introduction: Toward the resumption of bonobo study and conservation.

By Takeshi Furuichi 20

<NOTE>

Field research at Lukuru, Democratic Republic of Congo.

By Jo Thompson & Mvula Lomba Tshina-tshina 21

<NOTE>

Conserving *Pan paniscus* in the Salonga National Park, Democratic Republic of Congo.

By Gay E. Reinartz 23

<NOTE>

Lui Kotal - A new site for field research on bonobos in the Salonga National Park.

By Gottfried Hohmann & Barbara Fruth 25

<NOTE>

Field research at Parc National de la Salonga, Democratic Republic of Congo.

By Jo Thompson, Tshobo Masunda, Ilonga Djema Willy, & Mvula Lomba Tshina-tshina 27

<NOTE>

Confirmation of bonobo population around Lac Tumba.

By Ndunda Mwanza, Mbangi Mulavwa, Ihomei Mola, & Kumugo Yangozene 29

<NOTE>

Resumption of bonobo studies at Wamba, the Luo Reserve for Scientific Research.

By Takeshi Furuichi & Ndunda Mwanza 31

<ESSAY>

Losing Ten Pounds to Gain Knowledge

Frans B. M. de Waal

*Living Links, Yerkes Primate Center
Emory University, Atlanta, USA*

Last summer, I spent ten days in the Mahale Mountains National Park. I had been warned that the chimpanzees are often up in the mountains in

August, far away from Kansyana, the base camp, and that sometimes they are not seen at all during this time. But upon arrival in the camp with Dr. Toshisada Nishida, while we were still unpacking our bags, it was my luck to hear them hooting in the distance. Most of the M-group chimpanzees were coming down the mountain, making their appearance the very same afternoon, banging the life out of some poor metal sheds near the camp. This was my very first sight of wild chimpanzees, because even though I have visited field sites of other primates (such as orangutans, muriquis,

various macaques, olive baboons, and gibbons), chimpanzees somehow had escaped me. This is rather embarrassing for someone considered an expert on the species. So, when Dr. Nishida mentioned that he was close to retirement, and that 2003 would be the perfect year to stop by in Tanzania, I did not think twice.

I saw chimps every day, often groups of them, and ran after them up and down the mountain, losing about 1 pound per day. I am not used to expend so much energy simply to see my animals. I observe them in captivity, often in zoos, or conduct behavioral experiments, such as at the Yerkes Primate Center. There my chimpanzees live in outdoor enclosures that obviously prevent much of the behavior seen in the field. I have no trouble explaining why captive work is and will always remain essential for a full understanding of ape behavior, yet at the same time it is obvious that only studies in their natural habitat can tell us what their behavior is *for*. Questions about social and cognitive evolution require field data, and here



Figure 1 The hand-clasp grooming of M-group is not really characterized a clasp, but rather by two leaning hands. Photograph by Frans de Waal.

I was at one of the premier sites with one of the true pioneers, who had started out about forty years ago on this very same spot. My visit taught me nothing but respect for the persistence and hard work that goes into collecting scientific information on wild apes.

I will not go into details of life in the camp, which I soon began to call the Mahale Sheraton owing to its exorbitant luxury, nor of the food we ate and warm beer we drank. The main thing was to get up at 6 AM, eat a quick breakfast, and get going as soon as it was light. The chimpanzees needed to be found, and the camp had several young scientists and many trackers to help with this. If chimps were silent, retiring types, finding them in the morning in such a vast stretch of forest might be impossible, but fortunately these animals are about the noisiest in the world. Their reliance on vocalizations was in fact what struck me most. I am familiar with all of the varied calls of the species, but had never realized how much the life of wild chimpanzees is totally built around these. When you follow an individual such as Alofu, a prime adult male, you see him stand still and listen to chimpanzees in the distance all the time. You can see him decide between different courses of action: reply with his own calls; move towards the source of the sounds (sometimes in a great hurry leaving me struggling through tangled vines), or act as if what he heard is of no importance. The forest is alive with calls, some nearby some faint in the distance, and social life is lived to a large degree in a world of vocalizations. This is not true in captivity, or only to a limited degree, because there the apes can almost always see each other, and are never far away.

Several fights broke out. I am used to follow these scenes in the greatest possible detail noting who supports whom, the exact aggression intensity in every dyad, and of course follow-up behavior, such as reconciliation. Forget about this in Mahale: a fight means that you are surrounded by the screams of invisible chimpanzees, lots of shaking bushes and trees, and an occasional brief appearance of a participant out of the undergrowth. Obviously, field workers become very good at gaining a fuller picture from bits and pieces of information, but it undeniably is a process of reconstruction.

I was excited to recognize and photograph many of the known cultural patterns of the Mahale chimpanzees, such as hand-clasp grooming, leaf-clipping, and the riverbed display. The latter was first described for Ntologi (the legendary previous alpha male of M-group), who used to dislodge large boulders from a dry riverbed during displays. Alofu, who in his younger years may have

watched Ntologi, gave similar displays full of strength and rhythm. Of special interest to me was the well-documented hand-clasp grooming (1), since we know this pattern also from one of our captive groups (2). McGrew *et al.* (3) were right to stress that cultural primatologists should not only look for group-specific customs, but also for variation within each custom. The hand-clasp of M-group is different than ours. When our chimpanzees lift their arms above their heads during grooming, their hands firmly clasp, whereas in M-group one sees no clasping at all, only two “hanging” hands resulting from a mutual leaning of wrists (Figure 1).

Even though the scientists and trackers scrupulously avoided any direct interaction with the chimpanzees, which seems a wise strategy, I could see how the apes reacted differently to people they knew compared with the occasional tourists crossing our path with their guides. Relationships of mutual trust develop. I remember walking an entire day behind Pinky, a female carrying a three-year-old daughter. The daughter could not sit still, sometimes rolling on her back on her mother's back, and kept staring at me. She ended up playing a game where she would sit in the path until I got within a few steps, then race to catch up with mom, jumping onto her, only to drop to the ground again and wait for the next encounter with the bipedal ape following her. She must have sensed that I am a chimp friend.

Chimpanzee politics were also to be seen, even though I must say that I would never have understood much of it without the background information provided by Dr. Nishida. The alpha male, Fanana, had been on safari for two weeks with an attractive female. During his protracted absence, the beta male, Alofu, impressed everybody with his displays. He often had Kalunde by his side. Kalunde is the oldest male, only about half the size of the prime adult males: at the age of about forty, he has shrunk (Figure 2). As usual in chimpanzees, these over-the-hill characters are real political schemers. Kalunde often groomed Alofu, and displayed along with him. Until Fanana returned, that is. This was the day on which I followed Alofu. I didn't know what was the matter with him, but he traveled up, then down, then up, the mountain, and did this so many times that our follow became the most protracted physical exercise I have ever engaged in. Alofu often touched his own nipples, a behavior I know as self-reassurance in bonobo males. He must have been totally nervous about Fanana's return, and indeed in the days thereafter there existed obvious tensions due to the fact that Alofu failed to pant-grunt to Fanana. I don't know how this worked itself out, but it was fascinating to



Figure 2: Kalunde reminded me of Yeroen at the Arnhem Zoo, and another old male we now have at the Yerkes Primate Center, who are astute at exploiting the competitive tendencies among younger, stronger males, carving out very powerful key positions for themselves. Kalunde is one of the few individuals who was already alive when chimpanzee research in the Mahale Mountains started. Photograph by Frans de Waal.

see how Kalunde switched camps. One moment the old male would be grooming Fanana, the next moment he would be hanging out with Alofu, as if he was trying to guess which side it would be best for him to be on.

I was literally baptized as a field worker while watching a hunt, standing under a tree in which several adult males and swollen females were dividing the carcass of a red Colobus monkey. We learned about the hunt through hooting and screams of chimpanzees mixed with the shrieks of monkeys. Following the laws of gravity, the diarrhea of one of the males during the commotion caused me to enter a rather smelly phase of my career. I am not complaining. It was a thrill for me to see all of this, having read countless descriptions. Nothing beats the real experience. All I had to do afterwards was take a “shower” in the Sheraton.

References

- (1) Nakamura M 2002. Grooming hand-clasp in Mahale M group chimpanzees: Implications for culture in social behaviours. In: *Behavioural Diversity in Chimpanzees and Bonobos*. Boesch C, Hohmann G, Marchant LF (eds), Cambridge University Press: Cambridge. pp 71-83.
- (2) de Waal FBM, Seres M 1997. Propagation of handclasp grooming among captive chimpanzees. *Am J Primatol* 43: 339-346.
- (3) McGrew WC, Marchant LF, Scott SE, Tutin CEG 2001. Intergroup differences in social custom of wild chimpanzees: The grooming hand-clasp of the Mahale Mountains, Tanzania. *Curr Anthropol* 42: 148-153.

Papers from the
BONOBO WORKSHOP
 2003

<NOTE>

Introduction: Toward the Resumption of Bonobo Study and Conservation

Takeshi Furuichi

*Wamba Committee for Bonobo Research
 Faculty of International Studies, Meiji-Gakuin University*

Because the civil war moved toward ceasefire in Democratic Republic of Congo, the long awaited field study on bonobos was resumed in many sites. Some researchers returned to their study sites where they had been carrying out research and conservation activities until the war broke out, and other researchers established new study sites (Figure 1).

At this new start line for bonobo (bilua) studies, we are faced with two major issues. One is the conservation issue. During the war, the number of bonobos in the wild seemed to have greatly decreased. Soldiers killed and ate them for survival, and village people, who fled into the forest to avoid the fighting, had to open new fields in the primary forest and to hunt bonobos.

Because the war mobilized people between areas, people who have the custom of eating bonobos moved to areas where people had been coexisting with bonobos while following their traditional taboo against killing them. Now we need to make a survey on the current distribution of bonobos and undertake effective activities to prevent their decrease. We also have to be conscious of the danger of commercial logging in the Congo Basin. Many companies or

organizations have acquired concessions for logging in large areas of the bonobo habitat. Though their activities have also been interrupted by the war, now they may resume logging activities, much earlier than the researchers or conservationists reestablish activities for conservation.

The other major issue is the necessity to coordinate the research. During the war when bonobo research was not undertaken, enormous progress was made in the ecological and behavioral studies of chimpanzees and other great apes. Those studies posed new, crucial questions in relation to bonobos, which have never been answered. Because bonobos inhabit the central part of the rain forest in Africa, we cannot neglect bonobos in the global studies on the evolution of the great apes. As do chimpanzees or gorillas, bonobos inhabit a variety of habitat: from the dense rain forest to the patchy vegetation of forest and grassland savanna. Therefore, we need to make comparative studies between different study sites to acquire better knowledge of the ecology and social behaviors of bonobos and to make comparisons between bonobos and other great apes. Now that many researchers are to resume study using new methods, it is a great opportunity to develop methods that can be commonly used at different study sites.

On July 21-23, 2003, we had a workshop in

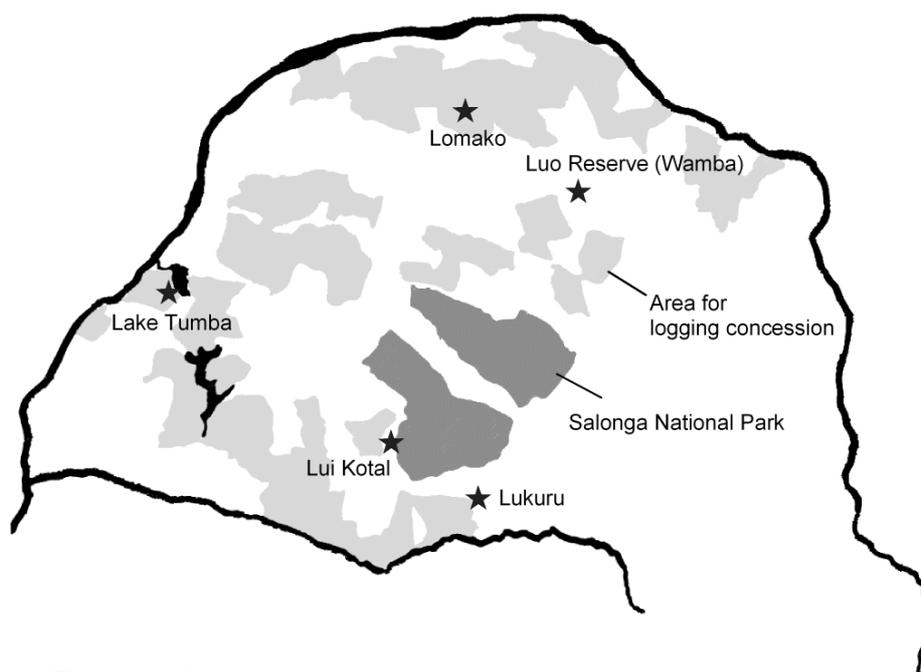


Figure 1 Study sites of bonobos.

Inuyama, Japan, entitled "2003 Bonobo Workshop: Behavior, Ecology and Conservation of Wild Bonobos." Researchers working at all of the active study sites, including Salonga National Park, Luo Reserve (Wamba), Lomako, Lukuru, and Lake Tumba, came together and had enthusiastic discussions on 1) comparative methods for ecological studies, 2) behavioral diversity and local traditions of bonobos, and 3) current situation of bonobos and action plan for conservation. A detailed report on this workshop is available at <http://homepage3.nifty.com/bonobo/workshop>. At this website, we carry brief updates on the current situation of bonobos and the research/conservation activities being conducted at each study site.

and distribution of ground-level plant foods used by the local bonobos, and regional population estimates based on repeated night bed censuses within a defined sample area and encounters with bonobos (1). Findings to date extend our knowledge of the adaptability of the bonobo. In addition, in 1997 the Lukuru Project began to focus their efforts on the Bososandja bonobo community. This bonobo community frequents a series of perennial pools and an observation blind was erected at the side of the pools to conduct detailed observations.

In order to improve existing local levels and create additional avenues of protection for the local wildlife community, especially the bonobo and its habitat in 1997-1998, the Lukuru Project purchased land rights (2) through traditional adjudicated law. This conservation concession corresponds to the range of the Bososandja bonobo community (2). This conservation concession is called the Bososandja Faunal Reserve and is managed under civil authority. In 2003 steps began to expand this locally protected area and upgrade its protected status to Community Forest under the auspices of the Institut Congolais pour la Conservation de la Nature.

In 1997, the Lukuru Project became involved with the issue of timber concessions when a Malaysian prospecting team came to the Lukuru Project area (3). To encourage responsible land-use management for the social and environmental good of the local community and its' wildlife, Lukuru Project personnel met with the logging company evaluation team. In 1998, the logging company abandoned their initiative for timber harvest in the Lukuru (3). The intervening years of conflict, insecurity, human density fluxes, and internal strife interrupted managed activities between 1998-2002 across the nation (4). In 2002, the DRC government reactivated the forestry sector, reformed forestry policies, and introduced a new forestry code. In order to proceed in an era of responsible management, the government forestry sector put a prohibition on new concession allocations and canceled previous contracts covering millions of hectares. Important government efforts began to institute legal reforms in the forestry and wildlife

<NOTE> Field Research at Lukuru, Democratic Republic of Congo

Jo Thompson¹ and Mvula Lomba Tshina-tshina²

¹*Lukuru Wildlife Research Project, USA.*

²*Lukuru Wildlife Research Project,
Democratic Republic of Congo.*

In 1992, Jo Thompson initiated fieldwork studying the bonobos (*bilias*) of the Lukuru research site. The Lukuru Project area delineates the most southern limit, at latitude 4 degrees South, of bonobo occupation within the species geographic distribution. The hilly terrain within the Lukuru consists of irregular forest and grassland mosaic habitat increasing in elevation out of the southern periphery of the topographic Congo Basin. Although it is clear that bonobos require access to forest, field data from the Lukuru conclude that bonobos also occupy and utilize a drier and more open habitat (1).

Assisted by her team of local Congolese field staff and research assistants, observations confirm that grassland fruits are consumed by resident bonobos. Other completed work includes initial studies of the vegetation cover, bonobo food choices, estimates of the presence, abundance

(nature conservation) management sectors, as well as take steps toward elaboration of a land-use plan for the forestry sector.

In 2003 the Lukuru Project was invited to launch a sensitization campaign to inform and educate logging companies about the biodiversity within concessions south of the Congo River (5). In this way biodiversity concerns will be introduced preceding allocation of a concession. The forestry sector is concerned about granting timber concessions in areas environmentally important for: the location of protected areas and community forests; the location of wildlife field-research sites; bonobo (*bilia*) distribution and sensitive habitats; the maintenance of important wildlife corridors; special assemblages of biodiversity; and the location of critical bonobo populations.

Along with the local staff, the Lukuru Project continues to build on our prior work throughout the greater Lukuru area. To date, most of our research has focused on ecology, distribution, human issues, and conservation (6,7,8). Our future work continues to focus on establishing the conservation capacity to protect bonobos; continuing our research, conservation, and education efforts in the region; and strengthening our relationship with the local people. Lukuru Project activities will continue with emphasis on habituating resident bonobos, conducting regional expeditions to survey for the presence and abundance of bonobo concentrations, meeting with local officials to involve them in Lukuru work, and conducting educational campaign meetings locally and throughout distant villages within the Project area. The Lukuru Project will reestablish initiatives to institute an annual poultry (chickens, ducks, guineas, etc.) inoculation project in association with the villages and settlements in proximity with the Bososandja Faunal Reserve, sink a tube-well in the villages of Yasa and Bokomo where we experience seasonal water shortage and the women spend considerable time and effort transporting daily water supplies for their family usage, explore ways to improve the diet of villagers outside the national park (including introducing beans and peanuts) (8), and investigate a tree planting experiment. Beyond responding to critical needs, the Lukuru Project

has expanded its mission to include sustainable strategies for livelihoods, community needs, improved quality of life through appropriate technology projects, and community development outside Protected Areas but in response to human needs for those local people living alongside bonobos.

References

- (1) Thompson JAM 1997. *The history, taxonomy and ecology of the bonobo (Pan paniscus) with a first description of a wild population living in a forest/savanna mosaic habitat*. Doctoral dissertation. University of Oxford: England. 358 p.
- (2) Thompson JAM 1998. Conservation of Pan paniscus at the Southern most Research Site. *Pan Africa News* 5: 22-24.
- (3) Thompson J 1999. Logging the Lukuru: Update on the Conservation of Pan paniscus. *Pan Africa News* 6:13-15.
- (4) Thompson J 2000. Challenges to Conserving the Bonobo. In: *The Apes: Challenges for the 21st Century*. Brookfield Zoo: Chicago. p 375.
- (5) Thompson J, Mvula LT 2003. The local commitment: a conservation concession success story. In: *Bonobo Workshop: Behaviour, Ecology and Conservation of Wild Bonobos*. Thompson J, Hohmann G, Furuichi T (eds), Inuyama: Japan.
- (6) Thompson JAM 2002. Bonobos of the Lukuru Wildlife Research Project. In: *Behavioural Diversity in Chimpanzees and Bonobos*. Boesch C, Hohmann G, Marchant L (eds), Cambridge University Press: Cambridge. pp 61-70.
- (7) Thompson JAM 2001. The status of bonobos in their southernmost geographic range. In: *All Apes Great and Small Volume One: African Apes*. Galdikas BMF, Briggs N, Sheeran LK, Shapiro GL, Goodall J (eds), Kluwer Academic/Plenum Publishers: New York. pp 75-81.
- (8) Thompson J 2000. Grassroots Conservation in Democratic Republic of Congo. In: *The Apes: Challenges for the 21st Century*. Brookfield Zoo: Chicago. p 376.

<NOTE>
**Conserving *Pan paniscus* in the
 Salonga National Park,
 Democratic Republic of Congo**

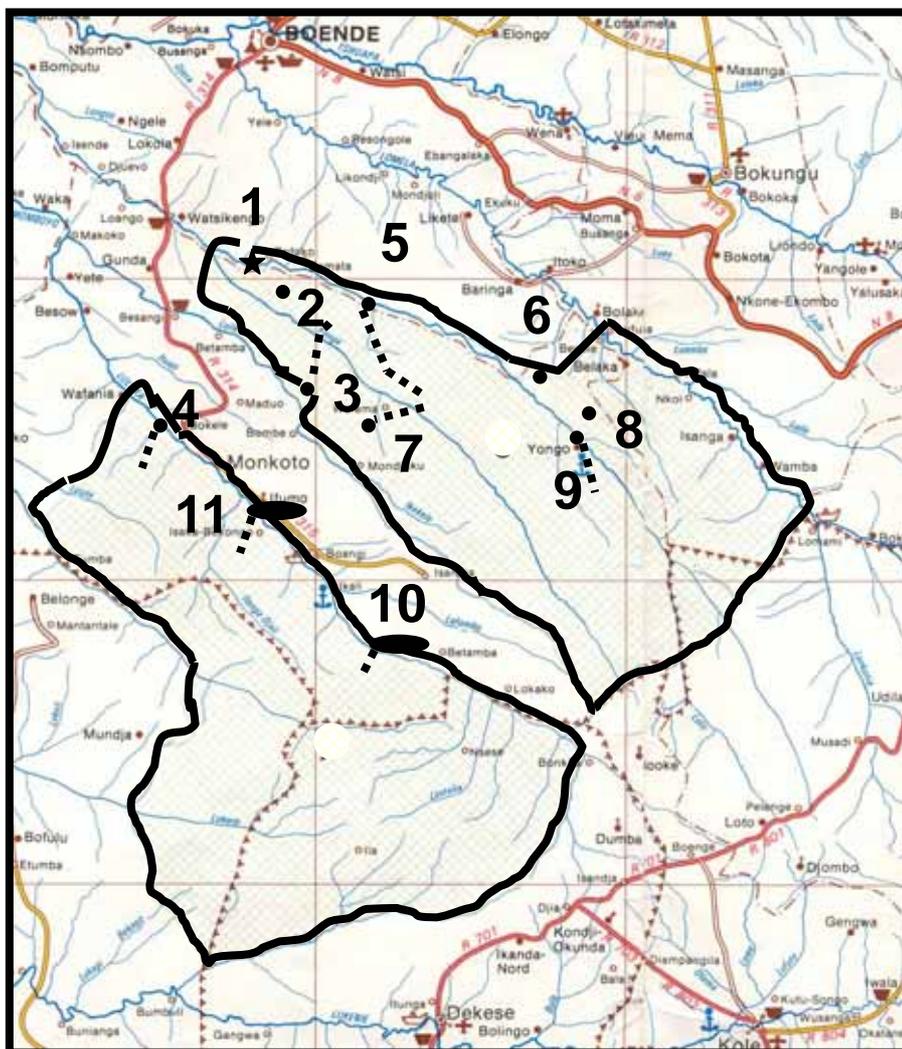
Gay E. Reinartz

Zoological Society of Milwaukee, gayr@zoosociety.org

Among the highest conservation priorities for the bonobo (*Pan paniscus*) are to determine the extent of the species' present range, locate major surviving populations, assess habitat and degree of population fragmentation, and quantify the level of threat. Thus, regional surveys are urgently needed (1, 2), as well as quantitation of habitat characteristics. *The Action Plan for Pan paniscus* (1) identified important potential survey

regions. Among these sites is the Salonga National Park (SNP), Democratic Republic of Congo. Designated as a World Heritage Site in 1984, and covering an area over 36,000 km² (3), the SNP potentially harbors the largest, relatively undisturbed, and legally protected bonobo habitat. At present it is the only federally protected area for *Pan paniscus* (1). The park was created in 1970 to protect the bonobo, but early reports indicate that the bonobo's occurrence may be rare to non-existent (3). In order to fully establish a countrywide conservation strategy for the bonobo, it is critical to understand the population status of the bonobo in the SNP, i.e., whether they exist and to what extent the population may be self-sustaining.

In October 1997, following recommendations made by the *Action Plan*, the Zoological Society of



- 1 = Etate:
 01°03.259S; 020°48.295E
- 2 = Lotulo:
 01°08.815S; 020°48.006E
- 3 = Ikolo:
 01°17.336S; 020°49.221E
- 4 = Lokofa:
 01°41.500S; 020°34.454E
- 5 = Isanga:
 01°13.351S; 021°16.051E
- 6 = Biondo-Biondo
 01°22.915S; 021°38.445E
- 7 = Bonima:
 01°24.210S; 021°07.180E
- 8 = Kinki:
 01°29.728S; 021°46.446E
- 9 = Yongo:
 01°32.104S; 021°48.270E
- 10 = Beminyo:
 02°24.658S; 021°13.607E
- 11 = Isaka- Bekongo
 01°54.790S; 020°51.183E

--- = route
 — = park border

Figure 1 Salonga National Park: ZSM survey sites.

Milwaukee (ZSM), formed a partnership with Institut Congolais pour la Conservation de la Nature (ICCN: Ministry of the Environment, Water, and Forest) and in collaboration with the Royal Zoological Society of Antwerp, launched an exploratory mission to the SNP. A research team, led by Ellen Van Krunklesven and Inogwabini Bila Isia, traveled to the northern sector of Salonga. The team scouted a small portion of the northeastern tip of the northern sector and sampled four sites in this region of the park. They found consistent evidence of bonobos at each site (4). This was the first scientific mission to document bonobos living in this section of the park (although guards had reported sightings) (5). In addition, the team encountered a high frequency of poaching; e.g., they found 43 hunting camps in a portion of their small survey. They witnessed that Salonga existed primarily as a park on paper.

Shortly afterwards, civil war broke out (August 1998) before a larger survey could get underway. ZSM could not return until October 2000 when a second mission took place, this time to assess the wartime conditions of the park and to continue site evaluations of the bonobo population (6). The study found that the war had not ravaged the Salonga as it had in the eastern parks of Congo, but conditions for the local inhabitants had become extreme as river traffic was halted and commerce was completely disabled. Bushmeat hunting and fishing had become the only source of income. Moreover, the park was understaffed. The existing guards were poorly paid, unequipped, and untrained, and most were near or exceeding retirement age. With fewer than 40 arms for 130 men, the guards were powerless to deter well-equipped elephant poachers armed with automatic weapons. The many river systems that border and traverse the Salonga allowed easy access to hunters.

Continuing immediately after the war, the research and conservation objectives of ZSM were to (a) assess the population status of bonobos in the Salonga; (b) study the ecological and human factors related to bonobo distribution and abundance; and (c) link research to emergency park support. To date, ZSM-ICCN teams have surveyed 11 sites (Figure 1) and have systematically sampled nine of the sites using

line transects to estimate relative bonobo density. The proportion of forest types and the intensity of hunting were also analyzed. In addition, we measured the forest structure characteristics and the encounter rates of signs (no. signs/km of transect) of other large mammal species (e.g., foot prints, dung, food remains) including human signs (e.g., snares, paths, camps). ICCN field staff and park guards were trained and engaged in all aspects of the work. Bonobo signs were observed in all but two sites explored but at varying frequencies, and bed site occurrence was not uniform across all geographic locations studied. In brief, the bonobo population studied (as indicated solely by the presence of bed sites) had a patchy distribution determined largely by the proportion of mixed mature semi-deciduous forests with a Marantaceae understory. The density estimated for this forest type was approximately 1.5 bed builders/km², and this was the most commonly encountered forest type in our sample (36.8%). Our findings indicated that bonobo distribution and abundance in Salonga was negatively affected by human hunting (present and historical). Snares were the most frequent human signs encountered. In one location (with low bonobo density) there were 71 metallic snares over 9 km of transects. We observed locations close to large human settlements and/or pathways connecting settlements that were nearly devoid of most mammal species. To estimate the total bonobo population size for all of SNP further studies must refine estimates of the proportion of park covered by preferred forest types and determine the current and past levels of hunting activity.

From 2000 to the present, the ZSM has supplemented park guard salaries and delivered motivational salary increases awarded to the SNP by the United Nations Foundation and UNESCO (7). In areas where higher densities of bonobos have been found, ZSM financially supports additional guard patrols and 17 supplementary guards to protect these areas. In December 2003, ZSM provided the financing for guard training in paramilitary law enforcement. At a site called Etate (in the northeastern tip of the northern sector), ICCN took over a large poaching camp, and ZSM aided the park conservateur to convert this camp into a research

and patrol station. Etate is notable for its resident bonobo population and the frequency of ground beds observed at this site (in contrast to other locations). Etate has been equipped with buildings, a radio, an outboard motor, and research/forestry supplies, and plans are underway for ZSM to increase infrastructure support to this site.

References

- (1) Thompson-Handler N, Malenky R, Reinartz G 1995. *Action plan for Pan paniscus: a report on free ranging populations and proposals for their preservation*. Zoological Society of Milwaukee: Milwaukee.
- (2) Coxe S, Rosen N, Miller Ps, Seal US 2000. *Bonobo conservation assessment workshop final report*. Conservation Breeding Specialist Group, SSC/IUCN, Apple Valley: Minnesota.
- (3) IUCN/UNEP 1987. *The IUCN directory of Afrotropical protected areas*. IUCN, Gland, Switzerland and Cambridge: UK. pp 918-919.
- (4) Van Krunklesven E, Inogwabini BI, Draulans, D 2000. A survey of bonobos and other large mammals in the Salonga National park, Democratic Republic of Congo. *Oryx* 34: 180-187.
- (5) D'Huart JP 1988. *Parc National de la Salonga (Equateur, Zaire): conservation et gestion. Development des collectivites locales*. IUCN, Gland.
- (6) Inogwabini BI, Lisalama WW, Mafuta N 2000. *Rapport synthese de la mission du projet ICCN/ZSM au Parc National de la Salonga, 2000*. Zoological Society of Milwaukee: Kinshasa.
- (7) Internet 2003. *Biodiveristy conservation in regions of armed conflict: conserving World Heritage Sites in the Democratic Republic of Congo*. www.UNESCO.org <http://portal.unesco.org/culture/en/ev.php?URL_ID=12097&URL_DO=DO_TOPIC&URL_SECTION=201.html>

<NOTE>

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

Gottfried Hohmann^{1, 2} and Barbara Fruth^{1, 3}

¹MPI c/o Coopération Technique Allemande, 21 Rue Ituri, BP 7555, Kinshasa-Gombe, République Démocratique du Congo

²Max-Planck-Institute for Evolutionary Anthropology, D-04103 Leipzig, Germany

³Max-Planck-Institute for Behavioural Physiology, D-82319 Seewiesen, Germany

The Salonga National Park is the only reserve within the known range of bonobo (*bilia*) 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. wolfi*, *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

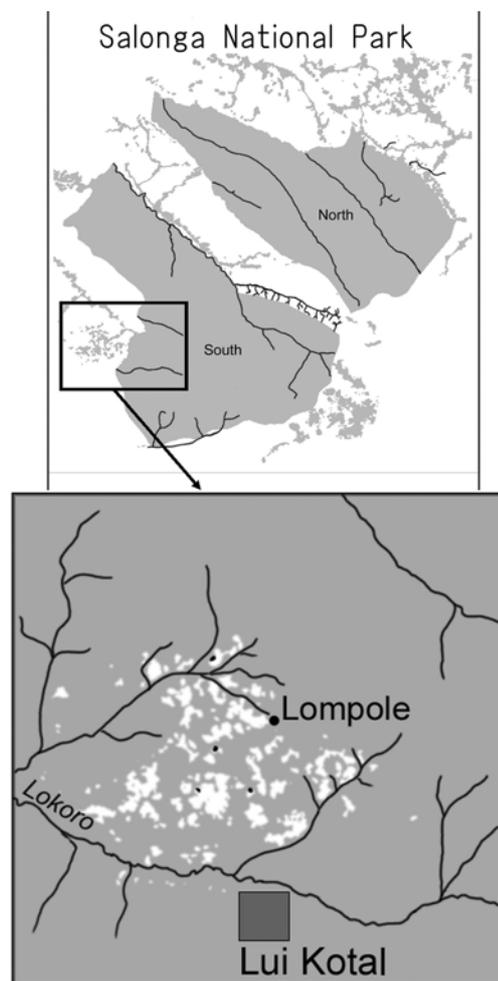


Figure 1 The study site. White patches on the lower part of the figure indicate open savanna.

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.

<NOTE>

Field Research at Parc National de la Salonga, Democratic Republic of Congo

Jo Thompson¹, Tshobo Masunda², Ilonga Djema Willy³,

and Mvula Lomba Tshina-tshina³

¹Lukuru Wildlife Research Project, USA.

²Conservateur Principal, Parc National de la Salonga, Institut Congolais pour la Conservation de la Nature, Democratic Republic of Congo.

³Lukuru Wildlife Research Project, Democratic Republic of Congo.

In the interest of protecting and studying bonobos (bilia), the Lukuru Project team has coordinated conservation efforts with the Anga Headquarters Post park guards of Parc National de la Salonga (PNS) since 1994 and collaborated on joint fieldwork research within the southern sector of the park territory since 1997. Prior to the alliance of the Lukuru Project and personnel of the Institut Congolais pour la Conservation de la Nature (ICCN), no field work had been conducted within the southern sector of the park since a 15-day prospecting mission in October 1969, prior to establishing this national protected area.

In 1997 the Lukuru Project organized and delivered the first shipment of basic household materials and supplies to the Anga Headquarters Post. A mixed Lukuru Project/ICCN team conducted the first-ever reconnaissance and bonobo/large mammal distribution survey in PNS-SS during March/April 1998 and collected data on human activities in PNS-Secteur Sud (SS).

In 2001 ICCN contracted with the Lukuru Project to restore the administrative library and develop a reading, resource, and media room with multi-system equipment in Kinshasa.

The Lukuru Project has continued to work in the South Sector of the Park throughout the war (1). This effort required meeting and gaining official authorization from authorities in both Kinshasa (government) and Goma (rebel) in 2002. In 2002 the Lukuru Project distributed two tons of critical household materials, medicines, supplies, equipment, government paid salaries, and conservation education resources to PNS-SS

(1).

In 1994-1995 the Iyalima people, traditional people living within PNS-SS, invited the Lukuru Project to work with them in their own lands for conservation and wildlife management. They hold a special place on the land, a place they have occupied since the Bantu first migrated into this region. As original forest people, they reside in the area defined between the eight villages from Bokumo (the northwestern limit of the Lukuru Project area) east to Luapa village. Since the 1970 gazetting of PNS, they are living their lives illegally by occupying their ancestral homelands. In recent years they have experienced attrition as their youth move to urban areas for jobs and material goods. They currently number about 800. They have maintained their culture intact with little impact from outside influences. They remain separate even from their closest related ethnic groups, the Isolu and Ikolmbe. Working with the Iyalima as partners in conservation, the Lukuru Project is sponsoring the integration of the Iyalima into the park conservation plan. Since 2002 the Lukuru Project has actively been involved in a community attitudes assessment initiative.

In 2002 the Lukuru Project succeeded in clearing the Anga airstrip. This ensures direct access to Kinshasa for park management. The Lukuru Project continues to support this work.

In 2003 a Lukuru Project team traveled over land by foot and along the Luilaka River by pirogue, exploring and mapping the south and east limits of the PNS-SS park frontier (2). This effort was the first attempt to traverse this region. We recorded 759 waypoints and 3,247 track logs (a total of 4,006 locations mapped) (2). This information was integrated into the ICCN database, including habitat description, animal sign, human activity, topography, geography, and photographs. This is the first time such an effort has been conducted and is critical for management planning at the local and national levels. This work revealed that the existing illustrated borders of the park are incorrect according to the legal description. In some cases villages thought to fall within the park boundaries are actually outside. This has implications in conflict resolution issues. The Lukuru team also used the opportunity to

conduct informational meetings and exchanges at every village, clan settlement, and human habitation (2).

In 2003 the Lukuru Project sponsored 11 local nationals for a training workshop based from the Lokofa camp in PNS (1). The training was organized by ICCN in cooperation with the IUCN- MIKE (Monitoring the Illegal Killing of Elephants) program and Wildlife Conservation Society (WCS). The Lukuru team was trained in standardized field inventory techniques (observation, data collection, taking notes, identifying and reading animal and human sign, describing habitat and vegetation, and collecting plant samples), survey sampling methodologies (reconnaissance walks, line transect distance sampling counts), survey design, basic statistical analysis, law enforcement monitoring, how to use a Global Positioning System (GPS), and first aid emergency wilderness medicine. Jo Thompson taught classes on: Primate Natural History, Primate of PNS, and Other Wildlife Species of Scientific and Conservation Interest (2).

Jointly with ICCN, IUCN-MIKE program, and WCS, the Lukuru Project collaborated to clear the airstrip at Monkoto in 2003, the most central park post for both sectors of PNS and the site whose access is critical to manage the vast park terrain. Further, the Lukuru Project provided Global Positioning System (GPS) units for the personnel of Anga Post to collect data and monitor wildlife in the southern park. These data will also be incorporated into the broader ICCN database.

There are no longer research facilities at the Anga Post. The last structure collapsed in 1999. The Lukuru Project is currently working to reconstruct the accommodations for future use by scientists and tourists. In PNS, the Lukuru Project is actively engaged on the ground in wildlife monitoring (biodiversity surveys and inventory for abundance, distribution, and threats), capacity building, infrastructure rehabilitation, contribution to the ICCN management plan, contribution to surveillance capacity and ability to secure the park, community integration and relations building between the people and ICCN throughout the region, and continued exploration of Parc National de la Salonga.

References

- (1) Thompson J, Ilonga DW, Tshobo M 2003. The human needs approach to bonobo conservation. In: *Bonobo Workshop: Behaviour, Ecology and Conservation of Wild Bonobos*. Thompson J, Hohmann G, and Furuichi T (eds), Inuyama: Japan.
- (2) Thompson J 2003. Lukuru Wildlife Research Project. *Rhino Fantôme 2*.

<NOTE> Confirmation of Bonobo Population around Lac Tumba

*Ndunda Mwanza, Mbangi Mulavwa, Ihomi Mola,
and Kumugo Yangozene*

Introduction

Bonobos (*Pan paniscus*) are reported from several isolated sites, e.g., Lomako, Ikela, Yalosidi, Salonga, Lukuru, Lilungu, Lui-Kotali, Koko Lopori, Wamba, and the west side of Lake Tumba. Among these, the bonobo population living between Lake Maindombe and Lake Tumba is most vulnerable.

Though bonobos were found in this area in the past (1, 2), the current situation of this population is unknown. Therefore, we, as researchers of the Research Center for Ecology and Forestry (CREF), carried out expeditions to confirm their presence. We also wanted to verify the existence of taboos against killing and eating bonobos since we were exploring the possibility of establishing a research site in this area and trying to encourage people in this area to conserve bonobos.

Two expeditions were organized: one in March and another in August-September 2002 with financial and materiel support from the Bonobo Conservation Initiative and the Wamba Committee for Bonobo Research.

On the first expedition, seven persons, including researchers and research assistants,

formed two teams. We interviewed local people, mainly chiefs of villages, hunters, intellectuals and women, and collected materials or information that showed that bonobos were still surviving or had recently been killed around the village. When we obtained credible information, we entered the forest with local guides and collected information that showed the presence of bonobos.

On the second expedition, four persons formed two teams. We carried out surveys on the bed site, footprint, and bonobo trails in the savanna. For bed sites two days old or newer, feces were collected and analyzed to determine the fruits species eaten. We also tried to observe bonobos directly. We tried to find them when we heard their vocalization. When we found bonobos, we counted the number of animals within the group and recorded the age/sex composition as far as possible. We also recorded species name and part eaten of the plants that bonobos fed on. The survey was made for 9 forest blocks, including Malinda/Mantuna, Eboya/Lwaka, Lokole/Bokupa, Bobele, Lokele, Itota, Molungola/Moholo, Nkamba, and Bosango (Figure 1).

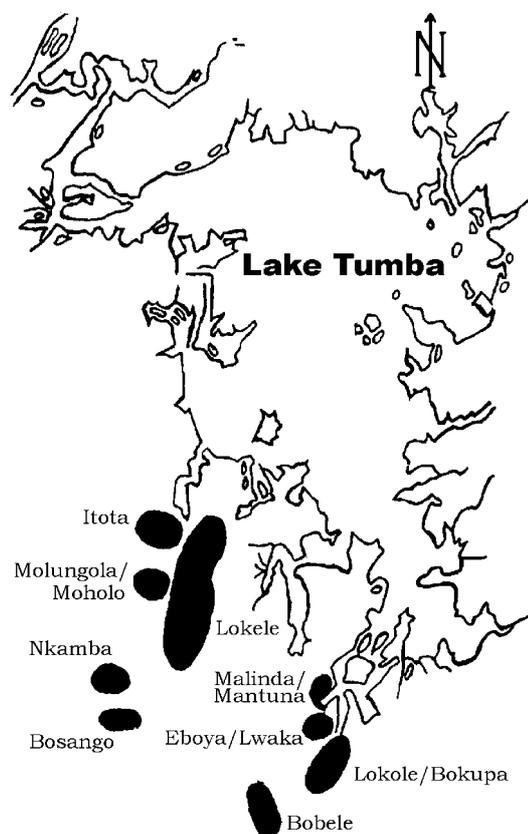


Figure 1 Survey area.

Attitudes of Local People

During two expeditions, we interviewed 26 local people. All of them were very familiar with the species, but the name "bonobo" was new to 22 persons. The popular name was "elia" (plural forms were "bilialia"), or "mokomboso." The name "mokomboso" meant both *Pan troglodytes* and *Pan paniscus*, while "elia" specifically meant *Pan paniscus*. This was probably because the distribution of *Pan paniscus* is mostly limited in the area of Mongo ethnic groups and "elia" is a term of Mongo language, while "mokomboso" is a term of Lingala, which is a common language of D.R. Congo. The term "bonobo" has no ethnic root.

Twenty-four persons admitted that they had been eating bonobo meat two times a year on average, and they liked it very much. The tribe Mpama of Bosango learned about eating bonobo meat from other ethnic groups like Ntomba, but they conserved the myth that the bonobo is not an ordinary animal but a relative of human beings. In Bosango, there were several histories telling that bonobos are like humans in their mind and behavior. Two persons in Botwali and Gondola said that bonobos were harmful to the cultivation of sugar cane. This meant that bonobos were sometimes coming close to villages. Fresh bones and skin with bonobo hair were found in Miale, Bosango I, Bosango II and Mokeli villages, which had been conserved as traditional medicines.

Thus the human pressure on bonobos was considerably high in the surveyed area, but after our campaign, local people promised to abandon this habit.

Current Status of Bonobos and their Habitat

Three biotopes were remarkably distinct in the area: swamp forests, terra firma forests, and savannas. Fauna was not abundant. In spite of hunting activities by traps and shotguns, large mammals, including wild pigs (*Potamochoerus porcus*), sitatungas (*Tragelaphus spekei*), several antelopes, rodents and small carnivores, were still present. However, some species recorded previously, including elephants (*Loxodonta africana cyclotis*), buffalos (*Syncerus cafer nanus*) and leopards (*Panthera pardus*), had completely

disappeared.

We found beds of bonobos in 8 of 9 forest blocks. We counted 294 beds, including 129 new and 165 old ones. Eboya/Lwaka forest block seemed to have more bonobos than other forests. Though we could not decide on the site for future study, this forest seemed to be most promising.

We directly observed bonobos in 4 of the 9 forest blocks. In spite of human pressure, these bonobos did not flee but observed us. We made direct observation during 383 minutes and we counted 54 animals in total. These included: 11 animals in Malinda/Mantuna for 56 and 156 min; 13 animals in Eboya/Lwaka for 80 min; 10 animals in Bobele for 73 min; and 20 animals in Nkamba for 8 min. The bonobos observed in Nkamba forest might be a fusion of two groups.

In the survey made in 1981, Mbangi and other researchers observed one group of 10 bonobos in Bobele. Twenty years later the same number of bonobos was observed in the same forest block. We suppose that human pressure on bonobos in this area might be lower than we had predicted. This might be because local people killed bonobos for their own use but sold meat very rarely.

Conclusions

We confirmed that bonobos were still surviving on the west side of Lake Tumba, but there remained various kinds of threats from humans. Immediate and effective actions were required to protect this vulnerable population of bonobos from poachers and commercial wood exploitation by SCIBOIS, an enterprise that was negotiating for concessions in this area.

Bonobos were usually ranging far from human villages, but in Bosango we had information that they sometimes visited fields to eat sugar cane. The fact that a similar number of bonobos were observed in the same forest as 20 years ago showed the existence of equilibrium between people and bonobos. However, this equilibrium is very shaky. It is time to start intensive studies in this area and to conduct conservation programs before the situation gets worse.

References

- (1) Nishida T 1972. Preliminary information of the pygmy chimpanzees (*Pan paniscus*) of the

Congo Basin. *Primates* 13: 415-425.

- (2) Horn AD 1980. Some observations on the Ecology of the Bonobo Chimpanzee (*Pan paniscus*, Schwarz 1929) near Lake Tumba, Zaïre. *Folia primatol* 34: 145-169.

<NOTE>

Resumption of Bonobo Studies at Wamba, the Luo Reserve for Scientific Research

Takeshi Furuichi¹ and Ndunda Mwanza²

¹Wamba Committee for Bonobo Research
Faculty of International Studies, Meiji-Gakuin University

²Research Center for Ecology and Forestry

Introduction

Due to the civil war, a long-term study on bonobos (*bilias*) at Wamba, in the northern section of the Luo Reserve for Scientific Research, was interrupted in 1996. Since that time, we have made various attempts to resume the study, but the second civil war of 1998 made it even more difficult. This was the first long absence of researchers since Dr. Takayoshi Kano started the research work at Wamba in 1973.

In March 2002, the civil war moved toward ceasefire, and we asked our local assistants to start observation of bonobos. They began following bonobos on an everyday basis and subsequently reported that the bonobos of our study groups still survived. We made short visits to Wamba in August 2002 and then successfully observed bonobos in August 2003. This is a brief report from this latest expedition.

Our base camp in Wamba was looted during the 1st civil war in 1996. However, there had been no fighting during the second civil war from 1998, and the current security situation around Wamba was much better than we expected. This was probably because Wamba was located deep in the territory of the government forces, and there was nothing to fight for around Wamba, except for the bonobos in the forest.

During the 2nd civil war, soldiers engaged in

poaching. One of our local assistants was forced by soldiers to guide them to the sleeping site of bonobos, and they shot and ate a sub-adult male called Shijimi. Though there was no other confirmed poaching, similar poaching by the soldiers or local people might have occurred during the war. Bonobos were attractive hunting prey for soldiers and people coming from other areas because, unlike people living at Wamba, many of those people had no taboo against killing bonobos.

Observation of bonobos who survived the war

We made our first observation of bonobos of the E1 group on August 14, and we could follow them until August 21, when we concluded the expedition of this time (Figure 1). Though we had been giving bonobos artificial food in the provisioning sites until 1996, we decided to stop provisioning from the resumption of the study. Therefore, we had to follow their ranging in the natural forest. In spite of our long absence, the bonobos of the E1 group did not flee from the observers, and we could follow them from their bed site in the morning until they made beds in the evening. Being very well habituated, they fed, groomed, played, and slept in front of observers. We could sometimes approach them as close as 5 meters on the ground.

Though our stay at Wamba was very short, we could confirm the presence of 12 individuals in the E1 group. These included 2 adult males, 2 sub-adult males, 4 adult females, 1 juvenile female, and 3 infants. These 12 members were ranging together by forming a mixed party throughout our stay. The local assistants reported that 2 other identified adult females with infants had been observed until recently, so they might have been ranging separately during our observation. Thus we concluded that the number of E1 group members was between 12 and 16. Because the group size was 19 when we finally left Wamba in 1996, it may have decreased by 3 to 7 individuals (15 to 35%) during the war. This brought us hope, however, that an adult female immigrated into the E1 group, and 3 infants were born, during our absence. At any rate, we need to confirm the members of the E1 group that



Figure 1 Bonobos of the E1 group.

survived the war by further observation. Also, we need to confirm the situation of 6 other study groups. Because those groups were living in the marginal area of the Luo Reserve, there might have been a greater loss of members during the war.

Programs for study and conservation

With the support of the National Geographic Committee for Research and Exploration, we are now carrying out continuous research on the ecology of bonobos. We are recording fruit production by monthly census on the line transect and recording ranging route, feeding activities, 1-hour party size, and bed group size. The Congolese researchers of the Research Center are carrying out continuous research on Ecology and Forestry (CREF): at least 2 researchers are staying at Wamba for the next 2 years. We also began support of the reconstruction of infrastructure in the local communities. We are repairing bridges on the main road and providing materials for construction of local schools. We hope that these activities will

be helpful for local people to acknowledge the importance of the conservation of bonobos and that they will continue or reinforce their own tradition of coexistence with bonobos.

Pan Africa News, Vol. 10, No.2
Published in December, 2003

Address:

Editorial Office, Pan Africa News
Department of Zoology
Graduate School of Science
Kyoto University
Sakyo, Kyoto 606-8502
JAPAN

TEL: (+81)75-753-4085

FAX: (+81)75-753-4098

E-mail: PAN@jinrui.zool.kyoto-u.ac.jp