Initiation of a New Chimpanzee Study Site at Semliki-Toro Wildlife Reserve, Uganda

Kevin D. Hunt
Department of Anthropology, Indiana University

Gazetted in 1932 as the Toro Game Reserve, the Semliki-Toro Wildlife Reserve has also been referred to at various times as the Semuliki Game Reserve and the Semliki Wildlife Reserve. Semliki-Toro is frequently confused with the Semliki National Park, but the two conservation areas are not only different, they are not even contiguous \their closest approximation is 10 km\ and their habitats contrast markedly. The 548 km2 reserve (Fig. 1) is located in the Albertine Rift, to the east of the Semliki National Park, and northwest of regional center Fort Portal. It is bounded to the north by Lake Albert, to the south by the Ruwenzori Mountains, to the east by the Western Great Rift escarpment, and to the west by the contiguous Semliki Controlled Hunting area (504 km2).

Much of Semliki-Toro is dry Combretum savanna and Borassus palm savanna (Verner and Jenik, 1984). Common woody species in this habitat are Acacia, Albizia, Piliostigma, and Combretum. Uganda kob dominate the grasslands; buffalo, reedbuck, and waterbuck are present also. Large predators include lion, leopard, and spotted hyena. Forests are limited to 50 to 300 m wide strips on the banks of watercourses, the two most important of which are the Wasa and the Mugiri and their tributaries. Four unit groups of chimpanzees are found in these gallery forests. Seven primates are roughly sympatric with chimpanzees, redtails, black and white colobus, blue monkeys, galagos, vervets and baboons.

Semliki-Toro is dry. Rainfall was 1,439 mm the first year we measured it, and 973 mm the second, to average 1206 mm, less than any other active chimpanzee research sites with the exception of Mt. Assirik (Fig. 2), which averaged 974 mm. The rainy season might be said to be from August to December, with short rains in March, April and May. Semliki is hot and humid. The mean daily maximum was 34 oC, or 94 oF. Only Mount Assirik was hotter.

Study of chimpanzees began in July, 1996. The principal study population lives@alongwAÀ EwÕ€e Mugiri RivrÄ°nd its tributaries flowing down off the escarpment. Dominant tree species in this riverine habitat are Celtis africana, C. intergrifolia, C. mildbraedii, C. brownii, Albizia grandibracteata, A. coriaria, Chrysophyllum spp., Cynometra alexandri, Phoenix reclinata, Beilschmiedia ugandensis, Polyscias fulva, and Cola gigantea. Between escarpment tributaries woodland habitats are ubiquitous. These woodlands are less utilized by chimps, but are still interesting in that they support Grewia trees, from which we have seen chimpanzees eat fruit bipedally.

The area that encloses our first-sighting-of-day records is 24 km2. The Budongo density of 4/km2 would yield a population estimate of 96 individuals at Mugiri. We counted 26 individuals on one occasion. A preliminary estimate of 50 is deemed best. This would yield an estimate for the entire reserve of 200.

Semliki chimpanzees are apparently rarely snared; we have observed no chimpanzees with snare injuries. Indeed, all injuries, ear bites, facial scars, missing digits and other healed wounds are inexplicably rare at Mugiri. One recognized old male, Bahati, has whole ears and all 20 digits. We can only positively identify 3 individuals to date, Bahati and two unnamed females; none have scarred ears. The lack of scars and wounds makes identifying killing features for individual chimps difficult.

Habituation is proceeding regularly, if slowly. As of October, 1999 our team has approached chimpanzees closely 600 of the 904 days we searched for chimpanzees. This measure has increased from an average of seventeen days per month our first six months to nearly 27 days per month recently. We have sighted chimpanzees 385 days, a datum that rose from 6 days per month our first six months to over 15 recently. The percentage of days we see chimpanzees of all our search days has increased as well, from 37% our first six months to 56% recently.

On February 9, 1998 I followed a chimpanzee to her night nest for the first time. We have gone on to nest chimpanzees a total of 31 times, mostly in Cynometra or Cola trees. Semliki-Toro chimpanzees are late risers and late nesters, often feeding until it is quite dark in the forest. The average time entering the nest was 19:09 (N=31), and average time to leave the nest 7:20 (N=11). The active period for chimps at Semliki, therefore, is quite similar to that at the other sites, about 712 minutes per day.

Mugiri chimps have a rather restricted diet. Their principal foods are Cynometra pods various piths, and the fruits of Saba florida, Phoenix, Cola, Tamarindus and two figs. Semliki-Toro chimpanzees hunt black and white colobus, but there is not direct or indirect evidence they consume ants or termites. Undoubtedly many new food items are yet to be observed, but it seems suggestive that in more than 3 years of study, during which time we have seen at least 1 feeding bout on 199 different days, and during which time we have analyzed 72 dungs, only 36 food items have been observed. This may mean that Semliki will have an unusually short food item list, compared to populations in wetter habitats; the next smallest list has over 130 items.

We have found one unusual and interesting behavior among the Semliki chimpanzees. On August 12, 1997 I observed a female chimpanzee digging a hole in the sandy riverbank near the Mugiri (Hunt et al., 1999). She turned away and plucked a leaf and used the leaf to dip water out of this newly dug hole. Curiously, the hole was only 2 feet from the edge of the gently flowing Mugiri River. Since then we have found 132 of these "wells" at 43 different sites. In 6 cases, we saw the wells dug and used. Unlike Mahale (Nishida et al., 1999), many of these wells were dug near identifiable water sources, often quite close, suggesting that these wells may function to filter water (Hunt, 1998).

Semliki-Toro chimps are unusual in their depauperate food-list and their habit of digging for water. Given their unique habitat, we expect more surprises in the future.

References

(1) Allan C, Sivell D, Lee T 1996. Semuliki (Toro) Game Reserve, Uganda: Results of the Frontier-Uganda Biological Assessment. Report No. 7: Society for Environmental Exploration: U.K.

(2) Hunt KD, Cleminson AJM, Latham J, Weiss RI, Grimmond S 1999. A partly habituated community of dry-habitat chimpanzees in the Semliki Valley Wildlife Reserve, Uganda. Am. J. Phys. Anthropol. Suppl. 28: 157.

(3) Nishida T, Kano T, Goodall J, McGrew WC, Nakamura M 1999. Ethogram and ethnography of Mahale chimpanzees. Anthropol. Sci., 107: 141-188.

(4) Verner PH, Jenik J (eds.) 1984. Ecological Study of Toro Game Reserve (Uganda) with Special References to Uganda Kob. Praha: Czechoslovakia.

Back to Contents