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 foothills of 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 °C, or 94 °F. Only Mount Assirik was hotter.

Study of chimpanzees began in July, 1996. The principal study population lives along the banks of the Mugiri River and its tributaries flowing down off the escarpment. Dominant tree species in this riverine habitat are Celtis africana, C. intergrifolia, C. mildbraedii, C. brownii, 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.

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Figure 1. The Semliki-Toro Wildlife Reserve. The reserve is bordered to the south by the foothills of the Ruwenzori Mountains, to the north by Lake Albert, and to the east by the rift escarpment. Four communities of chimpanzees (stippled areas) are believed to live in the reserve, at the Muzizzi River, the Mugiri River (the study group; lighter stippling), the forested stretch of the Wasa, and the Nyabaroga Valley. The Uganda Wildlife Authority has proposed to Parliament adding the remainder of the Nyabaroga community range to the reserve. This addition is the area to the east of the new proposed boundary (dotted line) and the current reserve boundary (solid line).
by 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