Primate Survey Raises Question: Are Uganda's Northernmost Chimpanzees Vanishing?

The magnificent Otzi Mountains of northern Uganda tower over the White Nile. No survey of the primates of the Otzi Mountains has ever been undertaken. In mid-February 2015—the end of Uganda's long dry season—we spent four days in the Otzi Mountains on a primate survey. Our main focus was the eastern robust (or common) chimpanzee (Pan troglodytes...

April 14, 2015

A boat on the White Nile carries passengers from Umi to Laropi in northern Uganda beneath the Otzi Mountains in the background. (Photograph by Yvonne de Jong & Tom Butynski)

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In mid-February 2015—the end of Uganda's long dry season—we spent four days in the Otzi Mountains on a primate survey. Our main focus was the eastern robust (or common) chimpanzee (*Pan troglodytes schweinfurthii*). We were particularly interested in obtaining information on the status of this population.

We drove and walked in the Otzi Mountains in search of primates and other animals while frequently stopping to look and listen. By talking to residents we learned which primates occur in the Otzi Mountains and its vicinity, and where the nearest groups of primates might be found.

The White Nile winds like a silver serpent below the Otzi Mountains in northern Uganda. (Photograph by Yvonne de Jong & Tom Butynski)

Chimpanzees of the Otzi Mountains Appear to Be in Trouble

Much of the Otzi Mountains lies within the Otzi East Central Forest Reserve. Otzi East covers an area of 188 km², ranges in altitude from 760 m to 1667 m above sea level, and is contiguous with South Sudan's Nimule National Park (410 km²). About half of the Otzi Mountains is covered by forest or woodland, while the remainder is comprised of tall grass, bush, and thicket.

In 1993, staff of the Uganda Forest Department discovered chimpanzees in the Otzi Mountains. Based on data obtained during three brief biodiversity surveys conducted in 1993, 1994, and 1995, this population was estimated at between 20 and 40 individuals. A five-week chimpanzee survey in 2009, led by Osman Anewa, did not see or hear chimpanzees but did find 14 old chimpanzee nests.

An adult eastern robust chimpanzee (*Pan troglodytes schweinfurthii*) looks out in Mahale Mountains National Park, western Tanzania. (Photograph by Yvonne de Jong & Tom Butynski)

Most residents of the Otzi Mountains that we spoke with were aware of the presence of chimpanzees. In the Gbar area in northwest Otzi East Central Forest Reserve, people said that they used to hear chimpanzee loud calls in the valleys and on the slopes of Mount Nyeri (a steep mountain which holds Otzi's highest peak at 1667 m) on the border with South Sudan. They claimed that chimpanzees use the valley at the base of Mount Nyeri from June to August and seasonally move up Mount Nyeri and into South Sudan's Nimule National Park.

None of the residents of Gbar with whom we spoke had, however, seen or heard chimpanzees there within the last three years. We found no direct evidence for chimpanzees in the Otzi Mountains during our brief survey. As such, we are left wondering whether this population has been reduced to a few individuals or—worst case scenario—extirpated!

People farming near Mount Nyeri in the Gbar area of the Otzi East Central Forest Reserve used to hear chimpanzee loud calls. (Photograph by Yvonne de Jong & Tom Butynski)

There are smaller creatures in the Otzi Mountains as well, such as this adult dancing jewel dragonfly (*Platycypha caligata*). (Photograph by Yvonne de Jong & Tom Butynski)

An adult graceful chameleon (*Chamaeleo gracilis*) in the Otzi Mountains gazes skeptically at the photographer. (Photograph by Yvonne de Jong & Tom Butynski)

An immature great spotted cuckoo (*Clamator glandarius*) peeks out from its perch in the Otzi Mountains. (Photograph by Yvonne de Jong & Tom Butynski)

Guereza Monkeys in the Otzi Mountains

One morning we were guided by a local farmer to a site where he said he often encountered guereza monkeys (*Colobus guereza*). After an interesting hike with spectacular views of a fog-covered Nile Valley, we came upon a group of guereza near a spring in degraded woodland on a steep rocky slope. Based on our field observation of live guereza and measurements taken from three skins, we conclude that the subspecies in the Otzi Mountains is the western guereza (*Colobus guereza occidentalis*). This subspecies is widespread across Central Africa. It appears that the Otzi Mountains support the northeastern-most population of this subspecies and that the White Nile is the geographic barrier that separates western guereza from the Dodinga Hills guereza (*Colobus guereza dodingae*) to the east (see our blog: Finding a New Monkey in East Africa).

A shy adult male western guereza (*Colobus guereza occidentalis*) in Otzi Mountains. (Photograph by Yvonne de Jong & Tom Butynski)

Six Primate Species Occur in the Otzi Mountains

The Otzi Mountains support no fewer than six primate species. Probably the most common is the tiny (200-gram), nocturnal, Senegal lesser galago (*Galago senegalensis senegalensis*). This is the same subspecies that we encountered at two other sites in extreme northern Uganda; Kidepo Valley National Park and Imatong Mountains (See blog Finding a New Monkey in East Africa).

An adult Senegal lesser galago (*Galago senegalensis senegalensis*) in the Otzi Mountains. The eyes of galagos catch lots of light to help them see in the dark, but they also create otherworldly reflections from a camera flash. (Photograph by Yvonne de Jong & Tom Butynski)

The Budgett's tantalus monkey (*Chlorocebus tantalus budgetti*) is fairly common, albeit shy, in the woodlands and riverine forests of the Otzi Mountains.

An adult male Budgett's tantalus monkey (*Chlorocebus tantalus budgetti*) calls out at Umi, south of the Otzi Mountains and east of the White Nile, north Uganda. (Photograph by Yvonne de Jong & Tom Butynski)

An adult Budgett's tantalus monkey (*Chlorocebus tantalus budgetti*) hides in dense foliage in the Otzi Mountains. (Photograph by Yvonne de Jong & Tom Butynski)

We encountered three groups of olive baboons (*Papio anubis*). Olive baboons are common in the Otzi Mountains but difficult to observe and photograph as they are crop-raiders and, therefore, persecuted by farmers.

An adult male olive baboon (*Papio anubis*), walks the forest floor in the Otzi Mountains. (Photograph by Yvonne de Jong & Tom Butynski)

We did not encounter eastern patas monkeys (*Erythrocebus patas pyrrhonotus*) during this survey. According to most of the residents that we questioned, however, this species is present in low numbers in the flatter, more open areas of Otzi East Central Forest Reserve and to the south of the Otzi Mountains.

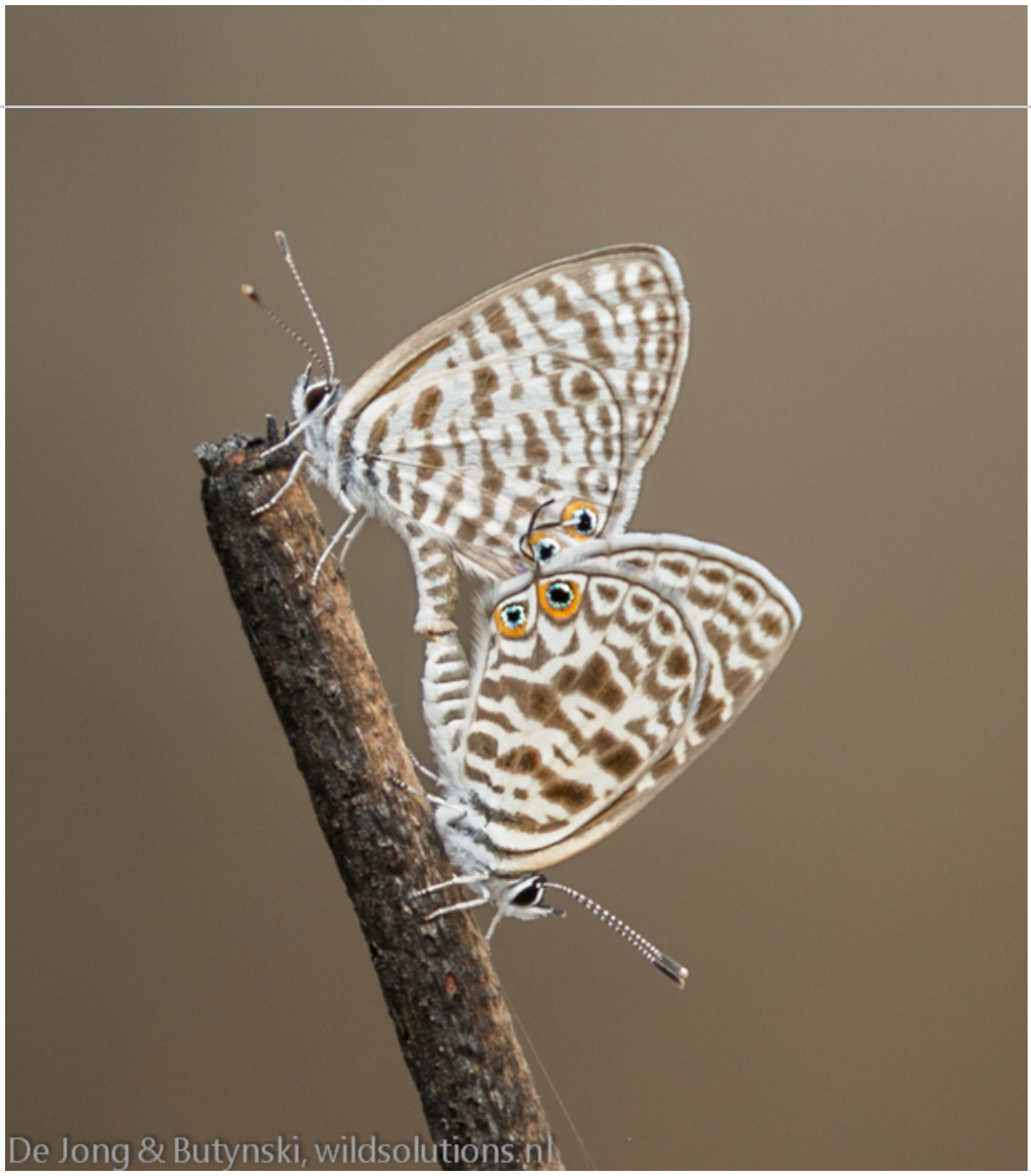
An adult female eastern patas monkey (*Erythrocebus patas pyrrhonotus)* in Kidepo Valley National Park, northeastern Uganda, stands up for a better view. (Photograph by Yvonne de Jong & Tom Butynski)

Other Species in the Otzi Mountains

Biodiversity surveys conducted by the Uganda Forest Department in the Otzi Mountains for about eight weeks during 1993, 1994, and 1995, recorded 261 species of trees and shrubs, 21 small mammals, 168 birds, 94 butterflies, and 44 large moths. The Otzi Mountains are the only site in Uganda for no fewer than seven tree species, three butterflies, and the reddish-grey shrew (*Crocidura cyanea*). The Otzi Mountains hold one of the richest avifaunas in northern Uganda and, as such, have been designated an “Important Bird Area.”

According to forest guards, there are still a small number of savanna elephants (*Loxodonta africana*) and African buffalo (*Syncerus caffer*) in the Otzi Mountains.

Uganda’s Mount Nyeri demarks both the northern limit of Otzi East Central Forest Reserve and the border with South Sudan. (Photograph by Yvonne de Jong & Tom Butynski)



Mating zebra blues (*Leptotes* sp.) create dizzying patterns within a pattern.
(Photograph by Yvonne de Jong & Tom Butynski)

Conservation in the Otzi Mountains

The Otzi Mountains serve as a vital water catchment in an area of rather low rainfall (*ca.* 110 cm/year) and an important source of forest products (particularly bamboo).

The lower ground adjacent to the Otzi Mountains is heavily occupied by people and, as such, most of the natural vegetation there has been removed. The human population in this region is growing rapidly. This is due in part to the influx of refugees from South Sudan. Of great concern are the permanent settlements and enclaves of agricultural encroachment within Otzi East Central Forest Reserve, particularly at the lower altitudes. In addition, there appears to be a high level of poaching. This encroachment and poaching are the main threats to the long-term survival of the forests of the Otzi Mountains and their biodiversity.

All of Uganda´s Central Forest Reserves provide forest products such as this charcoal and bamboo near Adjumani, northern Uganda. Unfortunately, not all of this exploitation is legal or sustainable. (Photograph by Yvonne de Jong & Tom Butynski)

Another concern is the frequent and widespread setting of fires in the Otzi Mountains and adjacent Nimule National Park. Extensive areas of northern Uganda burn during the annual long dry season. Based on observation made during our drive through northern Uganda in February 2015, we estimate that no less than 70 percent of the area through which we passed had already been burnt, with the long rains not expected for another several weeks.

Large fires swept through the Otzi Mountains during our February 2015 survey. (Photograph by Yvonne de Jong & Tom Butynski)

Fire is a major vegetation management tool for the farmers and poachers of northern Uganda. (Photograph by Yvonne de Jong & Tom Butynski)

Much of the Otzi East Central Forest Reserve is remote, steep, rugged, rocky, and without road access. This is particularly true for the central, northern, and eastern parts of the Reserve. As such these are probably the sectors of the Reserve least impacted by human activities, and where larger mammals, such as chimpanzee, elephant, and buffalo, might still occur.

The current status of the larger mammals in the Otzi East Central Forest Reserve is not known, and the threats to this reserve have not been documented in detail. Extensive field surveys are urgently required to further document the biodiversity; determine the status of chimpanzee, elephant, and buffalo, and provide a detailed assessment of the threats to them; and make recommendations

for conservation actions.

Investment by the Uganda National Forest Authority in the management, protection, and conservation of the Otzi East Central Forest Reserve is obviously low. This reserve needs far more attention from the Government of Uganda, and from international aid and conservation bodies, if its natural habitats, biodiversity, and ecological services are to be sustained over the long-term.

An adult male rainbow agama (*Agama agama*) in the Otzi Mountains delicately grips a near vertical mud wall. (Photograph by Yvonne de Jong & Tom Butynski)

An adult grasshopper buzzard (*Butastur rufipennis*) forages for insects near a bushfire at Kilak, northern Uganda. (Photograph by Yvonne de Jong & Tom Butynski)

As noted above, the Otzi Mountains are contiguous with the Nimule National Park of South Sudan. As such, the Uganda National Forestry Authority and the Uganda Wildlife Authority may want to consider working with South Sudan to establish Otzi and Nimule as a “transboundary protected area” or “international peace park.” This would provide improved protection and management to the Otzi Mountains, diversify the present system of national parks in Uganda, enable the Uganda National Forestry Authority to put its limited resources into other forest reserves, and improve political and security relations with South Sudan.

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