

Media release

Remote cameras offer glimpse into the ‘forgotten forests’ of South Sudan

Camera trapping survey captures newest country’s first photographic records of forest elephants, African golden cat and more...

8 December 2015 — Remote sensing cameras (‘camera traps’) have given scientists an unprecedented insight into the wildlife of South Sudan — a battle-scarred nation still grappling with civil conflict following its declaration of independence four years ago.

The cameras were deployed as part of ongoing surveys under a partnership between conservation charity Fauna & Flora International (FFI), Bucknell University, and South Sudan’s Wildlife Service to survey the wildlife of Western Equatoria State — an area that encompasses some 8,000 km² of relatively unexplored terrain thought to be of high ecological importance.

The camera trapping survey was made possible thanks to a grant from the U.S. Fish and Wildlife Service’s Great Ape Conservation Fund, with additional funding from the Woodtiger Fund, Bucknell University and FFI.

During a span of six months, the camera traps captured more than 20,000 wildlife images, including the first pictures of forest elephants¹ (*Loxodonta cyclotis*) ever taken in South Sudan.

“This is an extremely important finding,” explains DeeAnn Reeder, Professor of Biology at Bucknell University. “Forest elephants are Critically Endangered, and have declined dramatically over the last two decades. Finding them in South Sudan expands their known range — something that urgently needs further study because forest elephants, like their savannah cousins, are facing intense poaching pressure.”

Forest elephants are ecologically and behaviourally quite distinct² from savannah elephants and play an important role in forest ecosystems by dispersing seeds across a wide area, thanks to their frugivorous diet.

The cameras also found a number of other species never before recorded in South Sudan (or in pre-independence records) including the African golden cat, water chevrotain, red river hog and giant pangolin.

Chimpanzees, leopards, four species of mongoose, spotted hyenas, yellow-backed duiker, honey badgers, monitor lizards and a healthy population of western bongo are just a few among 37 species caught on camera during the survey, proving the ecological importance of these West Equatorial forests.

“Camera trap surveys play a fundamental role in biodiversity conservation,” says FFI’s Adrian Garside. “First, they provide information about the distribution, movements and behaviour of

wildlife found within an area, giving us a baseline upon which we can measure changes and success. Second, and just as important, they offer clues as to where we need to focus our efforts, and they can even identify potential threats.”

Conservation in times of conflict

FFI has been working in South Sudan since 2010 (in the run up to the country’s formal declaration of independence) and first partnered with Reeder, an African mammal biodiversity specialist, in Western Equatoria in 2012. With substantial experience of operating in fragile and conflict States, FFI’s focus has been on ensuring that South Sudan’s remarkable natural ecosystems and wildlife could be effectively conserved from the outset of the country’s independence.

To do this, FFI is helping to find pragmatic, community-focused solutions to environmental threats, while also ensuring that local authorities and stakeholders have the skills and equipment they need to manage their natural resources sustainably.

As part of this mission to develop local capacity, Garside and Reeder ran a camera trap training exercise for rangers from the Ministry for Wildlife Conservation and Tourism and local Community Wildlife Ambassadors. During the last four years, local knowledge provided by people living in the area has helped the team find evidence of significant wildlife, and this local expertise also proved critical in the successful situating of the cameras. Joint patrols by the wildlife and community rangers continue to monitor the cameras and conduct data analysis.

But despite the successes of the survey, great challenges remain says Garside.

“The violence in South Sudan and the spectre of economic collapse is a challenging situation for conservationists, but we had established strong partnerships here before the current conflict and we are all determined to continue working together through this difficult period. To date, this support has included ranger training and biodiversity monitoring as well as numerous foot patrols to monitor wildlife and deter illegal activity.

“Experience has shown that wildlife and ecosystems often suffer enormously during and after conflict, and in periods of political instability, and this depletion of natural resources affects some of the poorest and most vulnerable sectors of society,” says Garside.

“By maintaining our presence in-country, building good relationships with local communities and supporting our partners, we will find ourselves in a far better position to help people manage their resources sustainably, both now and in the future.”

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High-resolution images are [available to download from here](#). For more information or to request an interview with a member of the survey team, please contact:

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Notes to editors:

1. The elephants photographed by the South Sudan camera trap survey have been identified as *Loxodonta cyclotis* based on examination of ear shape, tusk shape, head shape and overall size, as well as habitat location. While confident in their species assessment, the team plans to analyse the DNA of dung samples to help elephant experts who are assessing the phylogenetic and conservation status of African elephants.
2. Recent molecular evidence (Rohland et al. 2010; Ishida et al. 2011), in support of earlier morphological analyses, has conclusively demonstrated that forest elephants (*Loxodonta cyclotis*) and savanna elephants (*Loxodonta africana*) are two distinct species, even though hybridisation is documented. However, the IUCN African Elephant Specialist Group has not yet formally recognised them as distinct at the species level, in part because it may leave hybrids with uncertain conservation status (an issue that needs to be resolved).

About Fauna & Flora International (FFI) www.fauna-flora.org

FFI protects threatened species and ecosystems worldwide, choosing solutions that are sustainable, based on sound science and take account of human needs. Operating in more than 40 countries worldwide – mainly in the developing world – FFI saves species from extinction and habitats from destruction, while improving the livelihoods of local people. Founded in 1903, FFI is the world's longest established international conservation body and a registered charity.

About Bucknell University www.bucknell.edu/

Founded in 1846 in historic Lewisburg, Pa., Bucknell University is a selective, highly ranked national university where liberal arts and professional programs complement each other. Students choose from more than 50 majors and 60 minors in the liberal arts, engineering and management, and participate in extensive undergraduate research, global study and service-learning programs. Bucknell's 3,600 undergraduate and 100 graduate students from around the world enjoy a low 9-to-1 student-faculty ratio and more than 150 co-curricular activities, plus 27 Division I athletic teams. The University consistently ranks among the top institutions in the country for alumni earning power and enjoys an outstanding career placement rate. Within nine months of graduating, 95 percent of the Class of 2014 was either employed, in graduate school, both employed and in graduate school, or volunteering.

About Adrian Garside

Adrian Garside has worked on the region since 2003. He established FFI's programme in Western Equatoria in 2011 and is now leading its work in-country.

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About DeeAnn Reeder

DeeAnn Reeder has been conducting scientific research in South Sudan since 2008 and began working in the game reserves of Western Equatoria State in 2012. Her work includes studies of mammal biodiversity, ecology and emerging infectious diseases, the human-wildlife interface, and conservation.

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