Fauna & Flora International (FFI) sees these developments as heralding a significant new era of opportunity in efforts to reduce deforestation, conserve biodiversity and improve community livelihoods. The organization is supporting a number of community-based REDD+ pilot projects in countries such as Indonesia, Vietnam and Liberia, which are working to safeguard biodiversity and community well-being at the local level and drive sustainable natural resource management at the wider landscape level.

These pilot REDD+ projects are designed to provide access to a range of benefits that, combined, will create a resilient and sustainable model to finance climate, conservation and community development outcomes in a landscape. Conservation goals remain at the core of project design, and benefits derived from reducing carbon emissions are performance-based, contingent upon meeting agreed conservation objectives.

A key example of FFI's work in this context is the Wonegizi REDD+ pilot project in Zorzor District, Lofa County, Liberia. Here FFI is facilitating development of a participatory land-use plan, which covers Wonegizi Proposed Protected Area and the eleven communities that live within or just outside the forest. Local people and the government will act as co-managers of the soon to be gazetted 37,000 ha protected area. The REDD+ project is working to reduce agricultural drivers of deforestation by supporting the transition to more sustainable agricultural practices, as well as conserving the habitat of threatened species such as the western chimpanzee *Pan troglodytes verus*, forest elephant *Loxodonta africana cyclotis*, pygmy hippo *Hexaprotodon liberiensis*, sooty mangabey *Cercocebus atys* and white-necked rockfowl *Picathartes gymnocephalus*.

The importance of the Wonegizi REDD+ pilot has been recently recognized in the form of a NOK 40 million (c. USD 5 million) grant from the Norwegian Agency for Development Cooperation. Fauna & Flora International, with government counterparts from the Forest Development Authority, and local NGO partners Skills and Agricultural Development Services will continue efforts to secure benefit rights for local communities, operationalize forest management and protection through REDD+, and begin a programme to develop and diversify local, sustainable livelihoods over the next 5 years.

Samantha Citroen, Josh Kempinski and Zoë Cullen Fauna & Flora International, Cambridge, UK E-mail zoe.cullen@fauna-flora.org

## New Ramsar Site designation secures future of Myanmar's largest lake

In February 2016 the Myanmar Government and the Ramsar Secretariat announced the designation of Indawgyi Lake as a Ramsar Site, marking the government's commitment to conserving this special area. Located in northern Myanmar, Indawgyi Lake and its surrounding wetlands regularly support at least 20,000 migratory and resident water birds. These include > 5,000 purple swamphen *Porphyrio porphyrio*; > 3,000 tufted *Aythya fuligula* and ferruginous *Aythya nyroca* ducks; > 2,000 lesser whistling ducks *Dendrocygna javanica*; and many other storks, geese, ducks, waders and gulls. A resident flagship species is the sarus crane *Grus antigone*, which provides a highlight for bird watchers.

The wetlands also provide habitat for other globally important freshwater species, including five species of globally threatened turtles and tortoises: the Myanmar peacock softshell turtle *Nilssonia formosa*, yellow tortoise *Indotestudo elongata* and Asian brown tortoise *Manouria emys*, all of which are categorized as Endangered, and the South Asian box turtle *Cuora amboinensis* and Asiatic softshell turtle *Amyda cartilaginea*, both of which are categorized as Vulnerable. Indawgyi also has high fish diversity, with 93 recorded species, including seven that were described only recently. Alongside its wildlife, c. 30,000 people live in the Indawgyi basin, most of whom depend on the lake to earn a living through fishing, rice farming, livestock grazing, and extracting products from the surrounding forest.

The addition of Indawgyi Lake to the Ramsar List of Wetlands of International Importance not only showcases how critical this site is for biodiversity and ecosystem services, but also highlights the need to ensure that the lake is managed carefully by the people who depend on it. Since 2010 Fauna & Flora International (FFI) has been working in partnership with local communities, the Forest Department and the Department of Fisheries to address unsustainable practices such as overfishing in the lake and fuelwood extraction in the surrounding forests. Fuelwood extraction and consumption have been reduced through fuel-efficient stoves and community forestry.

To improve fisheries management, local communities have participated in the designation of fish conservation zones to protect fish breeding and nursery grounds. The Department of Fisheries has recently approved nine community-managed fish conservation zones, including a no-take zone around Shwe Myint Zu Pagoda, an iconic cultural building on the western side of the lake. Indawgyi's outstanding cultural and natural heritage is also attracting an increasing number of tourists. To ensure tourism is sustainable and benefits local people, FFI has launched a community-based ecotourism initiative that offers new adventures such as kayaking, cycling and trekking, all of which provide jobs for local youth.

Designation of Indawgyi Lake as a Ramsar Site will ensure the long-term conservation and wise use of what is Myanmar's most important wetland and only second Ramsar Site. The government is also committed to designating additional Ramsar Sites to create a national network of

protected wetlands. But despite the progress for conservation highlighted by the designation, major challenges lie ahead—in particular, illegal artisanal gold mining on streams in the watershed, which is causing sedimentation and pollution in the southern part of the lake.

Frank Momberg Fauna & Flora International–Myanmar Programme, Yangon, Myanmar E-mail frank.momberg@fauna-flora.org

## New survey reveals dramatic decline of Grauer's gorilla

The largest ape, Grauer's gorilla Gorilla beringei graueri, is only found in the east of the Democratic Republic of Congo (DRC). The civil war in DRC that started in 1996 and ended in 2003 led to political destabilization in the east and the creation of many militia. These armed groups engaged in artisanal mining to fund their operations, extorted money from the local population, and hunted bushmeat at remote mining camps, leading to declines in large mammal species around these camps. In 1994, prior to the civil war, Grauer's gorilla was estimated to number c. 17,000 individuals. In joint work the Wildlife Conservation Society, Fauna & Flora International and Institut Congolais pour la Conservation de la Nature surveyed this ape across its range during 2011-2015. The results demonstrate that where there is comparative census data to the surveys made in 1994, the number of gorillas has declined by 87%. Encounter rate data of gorilla nests at 11 sites across the subspecies' range also indicate declines of 85-96% at seven of the 11 sites; at the other sites declines have been less marked (5-10% at three sites and an increase of 40% at one site where protection is good). Spatial occupancy analysis identified the Kahuzi-Biega National Park and adjacent Reserve des Gorilles de Punia, together with the remote and previously undocumented Usala Forest, as the most critical sites for the remaining populations of this ape. An estimated 2,585 (95% CI 1,802-4,528) Grauer's gorillas remain across their range. These results indicate that Grauer's gorilla should be recategorized from Endangered to Critically Endangered on the IUCN Red List. For further details, see www.albertinerift.org.

Andrew Plumptre Albertine Rift Programme, Wildlife Conservation Society Uganda Office, P.O. Box 7487, Kampala, Uganda. E-mail aplumptre@wcs.org

STUART NIXON Chester Zoo, Chester, UK

## New National Geographic Society study on ivory demand in five key consumption countries

Although the international commercial trade in ivory was banned in 1989 through CITES, moving the African elephant from Appendix II to Appendix I, ivory continues to be traded at an alarming scale. Illegal international ivory trade has tripled since 1998.

In 2013, to help prevent further elephant poaching, the Clinton Global Initiative gathered key conservation and scientific organizations to develop the Partnership to Save Africa's Elephants. As part of this effort, the National Geographic Society partnered with GlobeScan to carry out qualitative and quantitative research in five key ivory markets—the USA, China, the Philippines, Thailand and Vietnam—to understand better what drives ivory consumption so as to inform approaches to reduce demand. The results of the study, Reducing Demand for Ivory: An International Study, were published in August 2015 and are available at http://press.nationalgeographic.com/files/2015/09/NGS2015\_Final-August-11-RGB.pdf.

The primary objective of the research was to understand ivory consumption within the deeper social norms, cultures, traditions and dynamics of influence of the five countries. Over a 7-month period in 2014, 5,212 people were interviewed in person and online. Statistical analyses included: driver analyses to identify the most influential predictors of intent to purchase ivory; path analysis to uncover the interaction of perception of ivory and social values; and segmentation analyses to find attitudinal, demographic and behavioural indicators, to identify the variations between subgroups.

Ivory consumers in each country were grouped according to their stated interest in purchasing ivory and their self-reported financial ability to do so. Five groups were then identified according to the following criteria: (1) likely buyers, (2) at risk, (3) unlikely buyers, (4) constrained rejecters, and (5) firm rejecters. Likely buyers represented 22% of the consumers surveyed across the five countries. In China and the Philippines this group encompassed just over one-third of those surveyed, and in the USA, Vietnam and Thailand, almost 15% of survey respondents were likely buyers.

Likely buyers described themselves as fashionable, social and religious. Their purchase decisions are motivated by a desire for products that convey financial and social status. As a result, they are often drawn to ivory because of what ivory ownership suggests to others about them. The most powerful source of intent to buy ivory is its perceived suitability for gifting. Related to this is the feeling of happiness that ivory imparts on both the giver and the receiver as well as the status that ivory projects on both, amplified by gift giving.

The study shows that support for government action to ban or limit the trade in ivory is widespread in all five countries, even among ivory owners and those who express interest in buying ivory. Yet, their desire for personal consumption of ivory may conflict with their support for regulation. Increasing support for regulation does not, therefore, appear to directly result in reduced demand for ivory.