

## **Biodiversity's dirty secret**

Recent research has shown that the secret to the high biodiversity in tropical forests lies in the soil. A study<sup>1</sup> published in June in the journal *Nature* found that tree seedlings have a better chance of survival if they are grown farther away from adult trees of the same species, including their own mothers. Scott Mangan, postdoctoral fellow at the University of Wisconsin-Milwaukee and the Smithsonian Tropical Research Institute in Panama, explained that the adult trees harbor pests and diseases in the soil surrounding them that are more detrimental to their own seedlings than those of other species. The research showed through a series of controlled experiments on five tree species that such underground organisms are the key to maintaining species diversity and that they also contribute to the abundance of tree species. These results were backed by another recent study<sup>2</sup> by Smithsonian researchers presented in the journal *Science*, based on a survey of the survival of 30 000 seedlings of 180 different tree species on Panama's Barro Colorado Island, showing that the rarer tree species were most adversely affected by adult trees of the same species. The studies, which show that tree species (and thus forest) diversity is not random but controlled by traits and organisms specific to individual species, will contribute to efforts to conserve tree species faced with extinction.

## **New global initiative to take on illegal logging**

The Environment News Service reported that a new global initiative known as the Forest Legality Alliance has been established to bring together conservation groups, government agencies, corporations and business associations involved in the promotion of legal forest supply chains and to work against illegal logging. The group, launched in late May in Washington D.C., aims to promote better forest governance and biodiversity conservation by cutting the demand for illegally harvested forest products while increasing the capacity of suppliers to deliver legal wood and paper products. Some of members of the alliance include the World Resources Institute, the Environmental Investigation Agency, us Agency for International Development, American Forest and Paper Association, the Hardwood Federation, IKEA, the International Wood Products Association, the Retail Industry Leaders' Association, and Staples Inc.

1 Mangan, S.A., Schnitzer, S.A., Herre, E.A., Mack, K.M.L., Valencia, M.C., Sanchez E.I. and Bever J.D. 2010. Negative plant-soil feedbacks predict relative species abundance in a tropical forest. *Nature*. <http://www.nature.com/nature/journal/vnfv/ncurrent/full/nature09273.html>

2 Comita, L.S., Muller-Landau, H.C., Salomón, A. and Hubbell, S.P. 2010. Asymmetric density dependence shapes species abundances in a tropical tree community. *Science*. <http://www.sciencemag.org/cgi/content/abstract/science.1190772>

## **US Lacey Act grinds an axe with Gibson guitars**

With about \$40 billion worth of imported timber making its way into the us market, the legality and sustainability of wood products have become important issues especially since the Lacey Act, a century-old environmental law, was amended by the us Congress in 2008. The amended law bans the import of wood products from illegal logging operations and will hold us companies that violate the law responsible. Penalties under the act include stiff fines, jail time, and confiscation of wood and products deemed illegal. Last November, Federal Agents from the us Fish and Wildlife Service raided Gibson Guitar's factory in Nashville, Tennessee and seized wood and guitars in one of the first enforcement actions under the Lacey Act. The company was under suspicion of using illegally harvested wood from Madagascar. Gibson Guitar (whose CEO sits on the board of NGO Rainforest Alliance) stated that it takes the issue of responsible wood sourcing seriously and was cooperating with investigating officials.

## **US groups pushing to improve business by ending deforestation**

us farm and forest products groups have issued a new report on the economic effects of deforestation to pressure Congress to protect tropical rain forests. According to the report, "Farms Here, Forests There: Tropical Deforestation and us Competitiveness in Agriculture and Timber"<sup>3</sup>, overseas agriculture and logging industries are flooding the market with cheap forest products by cutting down the world's rainforests. Ending tropical deforestation would significantly increase revenue for us producers by up to \$267 billion by 2030 – approximately the amount projected to be spent by farmers on energy during that time. The report also stated that including affordable tropical forest offsets in us climate legislation would save U.S. agriculture and related industries about \$49 billion in compliance costs due to lower energy and fertilizer costs while increasing revenue for us timber producers up to \$60 billion by 2030.

## **Gorilla tactics**

The first mobile phone application ("app") for iPhones and iPads dedicated to supporting the plight of Africa's endangered mountain gorilla was released in February. The app is called iGorilla and was released by the Virunga fund, an organization run by Virunga National Park rangers which manages funds for conservation programs in the park. It allows users, through the efforts of park rangers, to follow a gorilla family in their habitat via written reports and videos directly from Virunga National Park in the Democratic Republic of Congo (DRC). The park, a UNESCO World

3 <http://www.adpartners.org/agriculture/>



**Ape app:** New mobile phone software follows gorillas in their natural habitat. *Photo: K. Sato*

Heritage Site, covers 7800 km<sup>2</sup> in DRC, Rwanda and Uganda. The conservation efforts are to secure the safety of the great apes inhabiting the park region, whose population has been reduced by poaching, civil conflict, and deforestation. This app and others like it may open new opportunities for funding the park's conservation efforts while offering the possibility for users to take an active role in witnessing the difficulties in implementing such efforts.

## **Technology shows ancient Mayans practiced sustainability**

CNET reported in May that an archaeological team has uncovered a complete ancient Mayan city that used a system of green urban architecture. The team, who have been on the ground manually excavating the Mayan city of Caracol from the thick jungle undergrowth for over 25 years, used LIDAR (Light Detection and Ranging) and NASA technology to make their recent discovery of thousands of new structures, as well as causeways, agricultural terraces and hidden caves. The system of agricultural terraced roofs is a sign that the Mayans implemented sustainable practices in their city of some 140 000 inhabitants. The LIDAR technology has allowed the archaeologists to incredibly speed their research. Using traditional manual excavation methods to map the city took 25 years to map out 9 miles, whereas using LIDAR they were able to map about 77 miles of the city in a span of 4 weeks.

## **Illegal logging declining**

A new report published by Chatham House (see *Recent Editions*) found that illegal logging is declining. Improved enforcement and stricter rules are being cited as the cause for what is considered a dramatic drop in illegal logging in areas of Cameroon, Indonesia and the Amazon, with up to 17 million hectares of forest protected from illegal logging activities over the past few years. The report found that illegal logging in the Amazon, Indonesia and Cameroon has been cut by 50-75 percent and the production of illegal timber has fallen by approximately 25 percent since 2002.

## **Indonesia not ready for REDD?**

The Jakarta Post reported that in early July, Indonesia and Norway signed a partnership agreement on Reducing Emissions from Deforestation and Forest Degradation (REDD) at the Oslo Climate and Forest Conference. The US\$1 billion deal, including an immediate two-year moratorium on natural forest conversion aimed at mitigating greenhouse gas emissions, may have a flaw. According to a statement by Indonesian President Susilo Bambang Yudhoyono, the deal excludes current concessions, which means that the palm oil industry will continue converting forest and peat swamps in already approved areas, and that the pulp and paper industry will maintain production from existing forest or land concessions, including in natural forests. Indonesia's weak legal framework, with limited protection of customary/indigenous rights combined with national and regional governments' need for the revenue provided by oil and timber, have led many environmental and social NGOs to be skeptical of a successful implementation of the moratorium commitment. They are calling for more effective involvement of local communities in implementation of the moratorium and in allocating the funds resulting from it.

## **EU eschews illegal timber**

In early July the European Parliament voted to bar the import and sales of illegal timber and wood products. The new rule could impact as much as one fifth of all timber imports into the EU. This legislation follows a similar law passed in the US two years ago, and is an internationally important breakthrough. Under the new EU rules, importers will have to seek sufficient guarantees that the timber they are bringing in is legally harvested. Traders such as furniture sellers must then make sure that the origin of the wood used to make their products is traceable. Dealers of illegal wood will face punishments that are to be decided individually by the 27 EU member states. The European Council must now formally approve the legislation which will be implemented starting in 2012 to give national governments time to draft their own sets of sanctions and fines.