



Photo by Tony Rath

Promoting Core Conservation

In This Issue

Illegal Logging footprint expands slowly

Page 2

Karst Unit Explore sunk Natural Arch

Page 2

Bi-national Watershed Action Plan Launched

Page 3

2015 Scarlet Macaw Season Ends

Page 3

Long term management of Cuevas begins

Page 4

Chiquibul issues highlighted in the UK

Page 4

Covering the Range

Page 5

Xate Stocks Still Vibrant in Chiquibul



“Xate” and “xateros” have been a part of the Belizean lexicon for some years now, due to the persistent reports on the media of Guatemalan locals extracting this non timber forest product from the Chiquibul Forest.

Operations to contain illegal xateros started in 2002 through to 2006, but xateros had been in the Chiquibul long before that. Prior to these operations xateros roamed freely in the Chiquibul. Since the inception of FCD in the area, more rigorous patrols were conducted with Governmental agencies to address this problem. By the end of 2008, 179 points had been recorded by FCD rangers in the Chiquibul Forest. All these points represented illegal camps and

in many cases several huts, and up to 30 men living in them.

In 2012 a first assessment was conducted by FCD’s research team to estimate the ecological and economic impacts of this illegal activity. Subsequently three years later another assessment has been undertaken. The results of the 2015 diagnostic shows that from 2012 to 2015, a decrease change of 50.5% was recorded in the density of illegally harvested xaté leaves in the Chiquibul Forest. The decrease may be attributed to one or more of the following factors: increase in law enforcement patrols in the Chiquibul Forest; changes in market price and demand for the product; an increase in the density of leaves with herbivory and/or the engagement of xateros in other illicit activities.

The results also show that the productive capacity of *C. ernesti-augustii* had a positive change of 9%, also supporting the statement that illegal xaté harvesting has decreased. Illegally extracted xate had an economical value of USD \$482,249.00 while present stocks of harvested sustainable xate will yield a monetary value of USD \$577,503.00 for *C. ernesti-augustii*, and an additional USD \$210,657.00 from *C. oblongata*.

Photographer in Action

Photographer Tony Rath documenting the magic features of the Chiquibul Forest with his Canon 5D Mark 3 camera. Tony is a member of the **Chiquibul Sentinels** whose aim is to raise visibility and support for the protection of this area.



FCD Mission

FCD is a non-profit, non-governmental organization whose primary goal is to protect and manage the natural environment through adaptive resource management, conservation awareness and development of the human resource.

Illegal Logging Footprint Expands Slowly

In the Chiquibul Forest, illegal logging was first detected in 2006. By March 2008, a joint forces patrol documented that illegal logging was escalating and a logging trail network was evident. In late 2009, aerial flights conducted by FCD observed numerous illegal logging clusters. By 2010, joint patrols reported frequent and persistent illegal logging activities.

With financial assistance from the FAO FLEGT Programme, an FCD assessment in 2012 demonstrated that an estimated 5,803,538 board feet of lumber with an aggregated value of USD\$9,448,144.00 had been extracted illegally within a perimeter of 34,188.74 hectares. The study proved that illegal logging, together with the advancement of the agricultural frontier, was one of two primary sources of deforestation in Belize's largest protected area.

Two years later FCD undertook another assessment with the financial assistance of the EU FAO FLEGT Programme and Protected Areas Conservation Trust (PACT). The study, released this August, shows that a total of 8,725,833 board feet of lumber have been illegally extracted from the Chiquibul Forest, having an estimated monetary value of USD \$18,830,387.00. Illegal harvesting intensity was 121 board feet of mahogany and 70.46 board feet of cedar



per hectare. This data clearly indicates that illegal loggers have severely impacted the mahogany and cedar populations in the Chiquibul Forest, coupled with the fact that 69% of logged trees fall below the minimum cutting diameter (62 cm) established by law. This occurrence has ecological implications on the targeted populations, such as loss of potential seed trees, necessary for the continued process of natural regeneration.

The only good news at this point is the fact that since November 2014, there has been no record of illegal logging activity in the Chiquibul Forest. FCD, however, remains vigilant, since a spike can occur rather rapidly.

Karst Unit Explore Sunk Natural Arch

The karst management unit has received a boost from a team of local explorers, namely Jim Bevis, Arran Bevis and Tony Rath. Jim also leads the Chiquibul Cave System Working Group; a body of technical people that provides recommendations and advise for best management of the Chiquibul Cave System and surrounding area. During the month of August the team travelled to an unknown area of the Chiquibul River. The account of their adventure is described below:

“On day three, just as the river was becoming more navigable, we came upon a group of massive rocks



in the middle of the river, just in front of a great limestone wall, several hundred feet high which was wedged across the canyon blocking the entire river from side to side. At this point we stopped as the river continued flowing between the big rocks and seemed to disappear under the great wall. After a recce by Arran and the FCD Rangers to follow the course of the river into the dark passage beneath the wall, it was determined that this was a huge fallen limestone arch, which had collapsed straight down at some point in time leaving a very low passage between the old limestone ceiling of the arch and the surface of the river. This was the only route and was barely passable for the kayakers and us to get through to the other side. Once on the other side of the wall, it would take several more hours to portage our kayakers and gear around and over even more large boulders that were strewn for about a quarter mile downstream side of the wall. It was in this area, before going through the wall, that we saw a Spider Monkey troop hanging out in a tree beside the river. ”This expedition was highlighted on Tony Rath’s TED talk held in October.

Bi-national Watershed Action Plan Launched

The bi-national Chiquibul-Mopan-Macal-Belize (CMMB) Watershed is vital to the ecology, economy, food security and public health of central eastern Peten, Guatemala and central Belize. It is the largest catchment within Belize and home to nearly 130,000 Belizeans. A third of the watershed lies within the eastern Peten and is home to about 100,000 Guatemalans.

Over the past couple of decades, the quality of water within the Mopan-Macal-Belize Watershed has deteriorated. We often fail to notice these changes or to fully appreciate the importance of our streams and rivers as long as water is available in optimum quantities. Principal point-source pollution include domestic sewage and small industrial discharge from Melchor, Benque Viejo, San Ignacio and Spanish Lookout, the Belmopan sewage treatment plant, the water treatment plant at Double Run, and food industry plants located in Ladyville. Large pastures, orchards, plowed fields, urban areas and road surfaces also contribute pollutants to rivers and streams during and shortly after rainstorms.

To address the problem of water contamination, in 2010 FCD started the Bi-national Watershed Alliance. Since then the 19 communities comprised of town and villages from both Belize and Guatemala

have been active in areas of clean-up campaigns, reforestation and public education.

Coordination, planning and evaluation is an annual activity that brings together community leaders from the 19 communities. This October the Bi-national Action Plan for the period 2015 -2017 was launched outlining the commitment from the participating members for another phase of river conservation. With support from the British Embassy in Belize, educational materials were also produced, community outreach initiated and clean up campaigns undertaken. A nursery is also being constructed in the village of El Cruzadero in Peten, Guatemala that will help in providing the seedlings for the communities involved in reforestation.



2015 Scarlet Macaw Season Ends



September marked the conclusion of another year of scarlet macaw conservation and management for FCD. The seven month breeding span takes great effort from our research team to constantly be monitoring the nesting areas of scarlet macaws in the Chiquibul with the primary aim of preventing poaching of parrots. Last year 5 chicks were stolen from the nests representing 38.4% of chicks poached and in 2013, four were stolen.

Although the scarlet macaw breeding season started late this year compared to previous years, a total of 15 chicks were able to fly wild and free this year. Seven of these chicks were raised by their parents in the wild, while 8 were raised by the research field staff in an in-situ laboratory and finally soft released. For the first time in 5 years, no chick was poached from the nests being monitored, although there were 6 poaching attempts. Poaching was reduced to zero due to an increase in law enforcement patrols and constant human presence to deter poachers, and due to the extraction of at risk chicks and raised in a field laboratory.

With assistance from UKAid and the Department for Environment, Food and Rural Affairs (DEFRA) we were able to focus attention on a bi-national illegal wildlife trafficking effort that led to a reinforced monitoring program in Belize and tracking traffickers in Guatemala. This resulted in the capture of two individuals in Peten, Guatemala with scarlet macaws. Both are imprisoned awaiting their court case.

FCD Programs

Protection & Enforcement

Community Development

Bi-national Relations

Education & Public Awareness

Karst Management

Research & Monitoring

Landscape Management

Monitoring & Evaluation

Financial Sustainability

Long Term Management of Cuevas Begins



Las Cuevas, nestled within Belize's Maya Mountains and in the heart of the Chiquibul Forest has a long history of use. In the 70's it was the home of a character, Little John, that was known to lead trophy hunting expeditions of jaguars in the Chiquibul. In 1994 the area was developed into the Las Cuevas Research Station (LCRS), and thus began an era of research. The LCRS has promoted, since then, biological, botanical, wildlife, climatic, and archaeological research and education.

FCD took administration responsibilities of the station in 2012 but it was until September 15 of

this year that the Ministry of Forestry, Fisheries and Sustainable Development formally signed an MoU with FCD for a ten year long term management and administration of the station. The agreement states: "The FCD shall operate, manage and oversee the development of the LCRS as a research station that facilitates the conduct of natural science and cultural research as well as educational, training and specialty tourism relating to the Chiquibul forest, efficiently and in keeping with the provisions of this MOU and in accordance with the Laws of Belize." To enable this to happen, FCD is working closer with Universities and developing a University Consortium in order to harness further support outside from Belize.

In October, FCD's Executive Director met with Dr. Malcolm Penn from the Natural History Museum in London to repatriate research and documents concerning LCRS. We are off to a new chapter for LCRS and we are thankful to all the pioneers including Earl Green, John Howell, Chris Minty, and the late Nicodemus "Chapal" Bol that kept the mission alive.

Chiquibul Issues Highlighted in the UK

In 2013 FCD's Executive Director had the privilege to travel with Honourable Senator Lisel Alamilla and Belize's late Ambassador to Guatemala, Alfredo Martinez to present Belize's environmental issues in England and Belgium. The purpose of that visit was to highlight Belize's problems of Guatemalan incursions. This October, another visit was made to England where Field Marshal The Lord Guthrie, of Craigiebank GCB, LVO, OBE hosted a dinner in the Attlee Room, House of Lords. The invitation sent to a selected number of philanthropists and organizations was to set out a new interest and effort to enhance FCD's struggles in forestry protection.

The presentation, this time, was conducted together with a set of supporters, friends of FCD, whose aim is to help us halt the ongoing deforestation of the Chiquibul. The team comprised of Chris Minty, Richard Pyshorn, Christian Moore, Jonathan Pollen and Alexander Shakespeare, all British nationals, helped make the case for a more robust monitoring and surveillance program to counteract the environmental crisis along Belize's border.



To date, the agricultural frontier expansion into the Chiquibul by Guatemalan farmers is the most critical threat to the integrity of this forest. With illegal logging having taken a toll of destruction, our attention is now focusing in halting agricultural farming inside the Chiquibul. With US Fish and Wildlife Service support, illegal farming inside the Chiquibul will be better documented and targeted, however, it is clear that we will require a coordinated, multi-year campaign to halt the deforestation.

Covering The Range

FCD's Park Rangers make the bulk of the field personnel. This was made possible through the support of the Telethon supporters. The work of the FCD Park Ranger is primarily to conduct patrols and monitor human presence. Over the years FCD has identified main routes across the Chiquibul landscape. Routes emanate from five main entrances located along the western border. These entrances also coincide with routes located in the Chiquibul Montanas Mayas Biosphere Reserve in Peten, where Guatemalan communities are located. Over the years, a sort of a fish bone effect has occurred, where the main route then dissects into many other small trails and tracks that meander across Belize's Chiquibul landscape.

From July to mid October, a total of 24 patrols were targeted at addressing illicit activities in the Chiquibul Forest. As a result eight persons were intercepted. Three were detained and processed with assistance from the regulatory agencies. The others were able to elude and escape. Using SMART protocols, we are now better at documenting the patrol efforts, define hotspot areas more efficiently and estimate the level of effort and resources used.



E-Bulletin Funded by



PACT
Protected Areas Conservation Trust

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