

Monitoring the Magnificent Scarlet Macaw



Photo by: Roni Martinez

Chiquibul National Park. *EcoQuest Expeditions* offers exclusive day trips to their nesting areas, where you can catch rare views of these glorious yet endangered birds. Monitoring is an essential step in the effort to save the Scarlet Macaw from extinction, due to poaching and the illegal pet trade. Expedition fees support FCD's conservation programs.

The adventure begins with a 2 hour drive across Mayan villages and the Mountain Pine Ridge Forest Reserve, to Chalillo Lake. Climb aboard a motorized skiff, for a 20 km guided trip along the Raspaculo and Upper Macal

ivers. View macaws perching on Quamwood trees and peeking out from nests. On a recent trip, a visiting group spotted over 30 macaws.

Along the way, observe other bird species including the Ornate Hawk Eagle, Kingfishers and the Exotic Great Blue Heron. Glimpse the rare Morelet's crocodile basking on the river bank, surrounded by the towering rainforest. Tapirs are often seen cooling off in the river. After lunch enjoy a jungle walk with optional swim before returning home. Contact us for rates and details at ecoquestexpeditions@yahoo.com or call 501-823-2657.

April -June is prime time for viewing nesting Scarlet Macaws in their natural habitat, along the upper Macal River in the

Reap the Benefits of FCD Membership: Join or Renew this May

FCD members share a love for conservation and understand their membership is helping to build a strong network of conservation advocates. If you are not currently a member, please consider joining this month. Membership benefits include a free copy of "FCD Tracks", invitation to FCD networking events, discounts and recognition at the Annual General Meeting (AGM). Learn what FCD has meant to longtime member and current board member, Thom Moran: "I became a member several years ago while volunteering

to edit a newsletter being distributed amongst the primary schools in Belize. In the course of editing I saw the many important, interesting and challenging projects undertaken by FCD. By attending annual meetings I realized that FCD is managed in a highly sophisticated manner and I came to believe that FCD is probably one of the best managed operations in Belize." Thom is currently a Board member of FCD.

To join FCD, simply complete the form on the back of the newsletter and send it in to FCD with



your check. If you are currently a member and are unsure of when you need to renew, contact us at fcd@btl.net or phone us at 823-2657.



Friends for Conservation and Development Membership Form (Please Print)

Name: _____ Tel: _____ E-mail: _____

Address: _____

Enclosed is my fee in the amount of: Student \$5 Individual \$10 Family \$25 Corporate \$100

Additional Optional Donation: \$ _____

Date: _____ Signature: _____

Membership is valid for one year from the date of the signature. Mail this form to FCD, General Delivery, San Jose Succotz, Cayo District, Belize, C.A, or drop it off at our office in Succotz, across from the Mormon Church.

For more information contact:

Friends for Conservation and Development, San José Succotz, Cayo District, Tel: 823-2657, Email: fcd@fcdbelize.org, website: www.fcdbelize.org



FCD Tracks

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Promoting Core Conservation

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Funding Partners Evaluate FCD's Efforts

Efforts to combat illegal logging in the Chiquibul forest are made possible through the financial assistance of the European Union FAO/FLEGT program and PACT. To evaluate the results of the efforts during the month of March a field visit was conducted with Mr. Claus Eckelmann, representative of the FAO/FLEGT program and Ms. Joyce Tun from PACT. The Chiquibul field visit consisted of visiting the illegal logging activity in the Caracol area, and the xate plots by the Cuevas road. Mr. Claus felt that the illegal activity is complex given that the source of the problem is from a Guatemalan origin and that limited support is presently obtained from Guatemalan authorities. Both institutions considered that it will be important to continue the effort beyond the short term since a multi-faceted and robust approach will be necessary.



Assistance from Tennessee

In 2009, Tennessee cave and karst system experts Alex Wyss and Cory Holliday from

for the next five years. FCD since then has been conducting monitoring visits to the cave with the aim of understanding more about the system and reporting to the Institute of Archaeology about the conditions of the cave.

The Nature Conservancy (TNC) traveled to Belize to visit the Chiquibul Cave System and participate in conservation planning workshops for Central America's largest cave system. Their visit to the labyrinth of caves and the majestic Chiquibul forest absorbed them and helped create a linkage between Belize and Tennessee in the area of karst management and conservation.

Thanks to TNC a management plan was developed a few months later which would take us to another level for management and protection of this impressive system

Early this year FCD received a donation from the Wallace Research Foundation through the Tennessee Chapter of The Nature Conservancy for the management of the Chiquibul Cave System. The funds are helping our monitoring and enforcement teams to conduct more systematic studies of the area and putting rangers on the ground to conduct patrols and prevent any illegal activities in the region. FCD hopes to continue forging this partnership since caves are a common denominator for both. With America's highest number of known caves—some 10,000—



found in Tennessee, the Tennessee Chapter has made the preservation of cave ecosystems one of its highest priorities and directs the state's leading cave protection program.



Xaté research in the Chiquibul Forest

Illegal Xaté extraction in the Chiquibul Forest dates back from the mid 1970's and has been identified as an activity having profound impacts on targeted species because of unsustainable

harvesting. With the financial assistance from Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) through the MesoAmerican Agroenvironmental Program (MAP), FCD is actively engaged in a Xaté stock assessment in the Chiquibul Forest. The objectives of this study are i) to determine the xaté population and density within the Chiquibul forest, ii) determine the degree of impact caused by xaté leaf extraction on the same populations, iii) calculate the productive capacity of xaté populations (by species) within the Chiquibul Forest, iv) determine

how habitat complexity affects Xaté densities and production and v.) provide a baseline data on the status of xaté populations to compare with later studies the impact of xaté extraction has on population mortality and reproductive success.

With all activities going as scheduled it is expected that the final research document will be completed by September of this year. The research forms part of FCD's Biodiversity Research, Inventory and Monitoring framework whose aim is to generate vital information that can guide down to earth management and conservation interventions.

Employee of the Quarter

Richard Harris, who is part of a four man research team, joined the staff at FCD in January of this year. His father Sir Winston Harris – who received the title award from the Queen of England for his more than 20 years of service to the British Army, had been his mentor since an early age. Richard had tracked and hiked the Chiquibul for many

years and because of his bushcraft knowledge and commitment to conservation he was selected to join FCD's research team. Richard, who comes from the village of Cristo Rey, is awarded the *Employee of the Quarter* for his enthusiasm, initiative, leadership and discipline on the job. Keep up the good work Richard!!!



Photo by: Boris Arevalo

Wildlife Bits - The Orange-breasted Falcon



©Eduardo Iñigo-Elias and Córdova Álvarez

The Orange-breasted Falcon (*Falco deiroleucus*) has never been common anywhere but a nest has been sighted in the Chiquibul Forest! This raptor of the Neotropics had a range that historically stretched from southern Mexico to northern Argentina. This species is highly specialized ecologically and they are found in small isolated populations which are prone to declines. They are unique in hunting primarily above the canopy, which is a very challenging environment for bird eating specialists (they are also known to eat bats). A study conducted by BioOne attributes the primary causes for the species historic scarcity to low reproductive rates, predation by numerous natural predators, and specialized habitat requirements. The habitat of this non-migratory bird is primarily mature forest (tropical lowland evergreen forest), along cliffs and near rivers. This predator

has strong talons that enable it to catch its prey while in flight. This species likely has the largest feet of any falcon relative to its body size. The Orange-breasted Falcon is non-migratory as well as monogamous. It is frequently confused with the smaller Bat Falcon.

It is common for these birds to reside near the

sink holes found in the Chiquibul. The nest that was spotted on March 22nd of this year on a trip to the Chiquibul Cave System was near the main entrance of the Tunkul Cave. In Guatemala they have even been reported to nest on Mayan ruins found at Tikal.

The Peregrine Fund has been working in Belize to band the chicks of the Orange-Breasted Falcon. The information gathered from the sometimes perilous work of banding the chicks can give insight into survival and population size as well as the dispersion of the juveniles. The information that comes from these studies is important when working to conserve habitat. The Orange -breasted Falcon is one of the numerous examples of why preserving the Chiquibul Forest is of utmost necessity.

Partner's Spotlight - Municipality of Melchor



Protecting the Chiquibul/Maya Mountains has taken us into several areas of work and exploration. The development of strategic alliances has been at the center of our efforts and in the zeal of generating support systems we have even built partnerships across borders. For this quarter, we are pleased and excited to name the Municipality of Melchor de Mencos of Peten, Guatemala and their alcalde, Mr. Ricardo Avila Garcia as the *Partner of the Quarter*. Mr. Avila leads one of the most dynamic, forward thinking institutions in trying to resolve the issues of illegal activities inside Belize's border.

Multiple meetings with local leaders from the hotspot communities; coordinating actions

with other alcaldes in Peten and promoting confidence among several sectors in Peten has been possible with the support systems that the municipality has given us. The alcalde understands the problems and has visited the area of impact in the Chiquibul to see firsthand the environmental damage. Our belief is that working hand in hand with authorities in Guatemala will ultimately lead to a good understanding and support for the mission that FCD has in the Chiquibul forest.

The Chiquibul/Maya Mountains ecosystem provides multiple goods and services for both countries and our hopes are that in the future a peace park between Belize and Guatemala can be instituted where efforts from both



sides help sustain this forest ecosystem. It is through partnerships like this and with the able leadership of Mr. Avila that a feeling of optimism prevails at FCD.

Lighthawk Soars Over Illegal Farms



Photo by: Subrata Basu

This year has been a particular dramatic year for forest fires along the western border. FCD has been following the trend of milpa farming inside Belize's Chiquibul forest for more than 5 years and the problem of incursions continue. With the assistance of Lighthawk, during this dry season, we determined the scale of the impact. FCD's Park Manager, Derric Chan, has described the impacts as 'alarming' and we recommend an urgent need to get high level support to address the slash and burning of the virgin tropical forest of the Chiquibul.

For years no concise, effective and systematic effort has been undertaken, and if we do not address it comprehensively we see a continuous spike of agricultural activities taking place. By last year we accounted a total loss of 12,185 acres of the Chiquibul forest due to this illegal activity taking place since the 1980's. During this dry season we consider that more than 300 acres went up in smoke although we are yet to determine the exact figure.

Farmers Develop Nursery

Over the years the Vaca Forest Reserve has been transformed due to the ongoing logging activities, and infiltration of illegal farmers grabbing land everywhere in the periphery and clearing land for agricultural purposes. Inside the reserve there are more than twenty farmers presently using the land. These diverse activities triggered the Forest Department and FCD to develop a Landscape Management Strategy that would help improve the functionality of the ecosystem.

The strategy recommends the restoration of human-induced areas by reforesting particularly in those areas altered near the river and streams.

With this in mind FCD has established two nurseries that will provide mahogany seedlings to farmers. The first of its kind was established inside the Vaca Forest Reserve by members of the Friends of the Vaca Forest Reserve – a group of concerned stakeholders whose intention is to help protect the reserve. This nursery contains 2,500 mahogany and 500 cacao plants. The second nursery is found in Water Hole and contains 1,800 mahogany plants and 200 Cacao plants. Once the seedlings are ready for transplanting, a site visit with Forest Department personnel is recommended in order to assess the specific areas regarded as critical zones for restoration and recovery.



The development of the nurseries has been possible through the generous financial contribution of CATIE-Mesoterra and with in-kind support from the FCD Succotz Youth Environmental Group.

FCD Youth Group Celebrate Anniversary

Following the footsteps of its 23 year old predecessor, Youth Environmental Action Group, the FCD Environmental Youth Group continues to take care of the environment through various conservation efforts. The ultimate goal of the FCD youth arm is to promote environmental consciousness among young people. For more than a year these courageous outdoors and conservation enthusiasts have been carrying out outstanding work in the community. The youth group is engaged in activities such as: clean-up activities in the village and along the riverside; reforestation activities; participation in environmental awareness within the community; assisting the



Friends of the Vaca Forest Reserve in finalizing their nursery; and are presently involved in a recycling project where they produce chains

and bracelets out of bottle stoppers. They are also currently fundraising to work on an Eco-garbage Can project. All the funds that the environmental youth group generates are to be used for conservation activities that promote the protection of the Mopan and Macal Rivers. We congratulate them for their outstanding work. Keep it up!

All young and enthusiastic people are invited to become a member of the youth group by simply filling a membership form. To learn more on this program just send us an e-mail to fcd@btl.net or visit our website at www.fcdbelize.org

Frog Deformities in the Chiquibul Forest



Photo by: Boris Arevalo

Scientists working around the world have noted a recent increase in the occurrence of deformities among wild frog populations and have raised concerns about the health of the

environment and possible impacts on other wildlife and even to the human population. During a wildlife survey conducted by FCD's research team during April in the Upper Raspaculo River, an astonishing observation was made. The team managed to record a frog, of the species *Rana vaillanti*, with deformities. The species is relatively common, growing up to 12.7 cm in length and is of no national or regional conservation concern.

The individual was completely lacking one eye; instead, it had a small vestige, indicating that it had not lost its eye due to an accident but was born that way. Most interesting was the fact that the individual was lacking an eye but had

managed to survive in a natural environment where survival is only possible for the fittest.

This is the first official documentation of a frog deformity in the Chiquibul Forest. Research indicates that frog deformities may be caused by changes in predation species, endoparasitic infestation and disease, ultraviolet radiation, the depletion of mineral such as calcium and magnesium and by the occurrence of high levels of natural or man-made chemical in the environment. With the documentation of this case, it is important to continue monitoring frog species in order to determine the abundance of such cases and its impact on wild populations.

Guatemalan Leaders visit Chiquibul



On the 25th and 26th of February a visit was conducted by alcaldes from Melchor de Mencos, Poptun, Dolores and San Luis to the Chiquibul forest. Each one of the alcaldes were accompanied by 2-3 other councilors. The visitors visited Caracol, an illegal logging site, and a xate trail used by Guatemalan nationals. The visit was coordinated by FCD as part of building awareness of the challenges faced.

The overnight was spent at Las Cuevas. Prior to returning a special session was held with the leaders where it was agreed for FCD to arrange a

working session with OAS in order to learn more about the Adjacency Zone and the confidence building measures. The leaders also agreed to arrange meetings with other local leaders and expose them more to the trans-boundary problems with the purpose for them to be able to dissuade community members from further destruction of the Chiquibul forest. Overall the leaders were extremely open to collaboration and agreed that protecting Chiquibul is important to their communities as they directly benefit from its conservation due to the water resources being used.