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Aerial Monitoring Continues



The Chiquibul Aerial Surveillance Program (CASP) continues to provide critical information on the conditions of the Chiquibul National Park and other protected areas. CASP is the only program used in Belize by an NGO to monitor the expanse of the Chiquibul/Maya Mountains.

Led by the Park Manager, the April flight covered approximately 60 kilometers of the western border. FCD's Data Analyst and a

Belize Defence Force Officer joined on the flight. Photos taken through GoPro were processed and turned into an orthophoto. Information gathered shows that there have been fewer encroachments this year and less forest fires compared to April of last year

Specific observations; however, shows that South Cebada, in the Chiquibul National Park is active with agricultural production and cattle ranching. This area was cleared from encroachments in 2014 to 2016 through targeted operations, but now it appears that Guatemalan farmers are returning to use the land. The other area actively used by Guatemalan ranchers is Valentin located in the Caracol Archaeological Reserve. Cattle ranching last year was addressed considerably by removal of fences along the western flanks of the Chiquibul and Caracol region but this has not been the case for Vaca where cattle ranching is prominent. The Columbia River Forest Reserve which falls outside of the jurisdiction of FCD also requires urgent and immediate attention due to the high degree of Guatemalan encroachments.

Guinness Record Holder Visits

Viridiana Alvarez has an impressive record as a mountaineer. A review of her background reads that she is a person that never gives up. Motivation is the key factor to all of Viridiana's accomplishments, as it is the one tool she utilizes in all of her efforts to combat fear and maintain persistence. It was this exact skill set that allowed her to scale the world's highest mountain, Mount Everest at 8,848 m (29,029 ft), followed by the infamous second-tallest peak K2 (8,611 m; 28,251 ft), and finish with the third-highest mountain Kangchenjunga (8,856 m; 28,169 ft) in a record-breaking 1 year 364 days, just beating the two-year mark. This puts her as Guinness Record holder of fastest ascent of the top three highest mountains with supplementary oxygen (female).

Viridiana's mission in life is to utilize her adventures to teach young minds around the globe that anything is possible. And this she did with our staff at FCD during her visit to Belize in June. This visit was also an opportunity for her to climb Doyle's Delight in a matter of two days. With 1,112 meters Doyle's Delight is the tallest mountain in Belize located on the ridge of the Chiquibul-Maya Mountains. FCD's Ranger invited



Viridiana and her boyfriend Fernando to join on a recce that would put them at Doyle's Delight. This also helped Viridiana reach closer to her goal of climbing all the tallest mountains in the Americas.

Her inspirational talk given to staff at the Log Cabins inspired our staff in many ways, but one that resonated on the minds of those attending was that anything is possible but it takes sacrifice and commitment to achieve.

Goal:

FCD aims to conserve the natural and cultural resources of the western Chiquibul-Maya Mountains for the sustainable development of Belize.

Mission:

FCD pioneers
adaptive
management of
the Chiquibul
Forest to improve
the ecological and
cultural integrity
of the western
Chiquibul-Maya
Mountains.

FCD Meets Prime Minister



In 2007 Right Honorable Prime Minister John Briceno signed the co-management agreement for FCD's collaboration with Government to manage the Chiquibul National Park. This portion of land comprising of 285,937 acres representing 5.5% of the Belize's terrestrial mass is the largest terrestrial public protected area in the country. Within the limits of this park there

been contending with cross border incursions and encroachments but more recently with the development of a paved road across several of the protected areas, including the Chiquibul National Park, a marked new set of challenges are evolving.

With this in mind ECD was honored to meet with the Prime

are several challenges being faced. For the last 17 years FCD has

With this in mind, FCD was honored to meet with the Prime Minister on the 12th of May to inform him on the evolving challenges and to obtain his support as FCD enters into a new age of management. The meeting attended by the Minister responsible for protected areas, Hon. Orlando Habet and his Chief Executive Officer, as well as the Chief Forest Officer and FCD Board members was highly productive. FCD presented the subjects of access, the Ranger field station, gate management and continuation of Las Cuevas Research Station management and scarlet macaw research. A subsequent meeting was held on the 30th of June with other stakeholders.

FCD is grateful for the Prime Minister's support, and reiterated its commitment to continue providing the necessary service as an NGO for the protection and viability of the Chiquibul ecosystem. FCD has demonstrated its stern persistency despite the uphill battles and will continue to do so as it enters into a new management interphase.

Vaca Outpost Installed



of the reserve. The 20×30 feet Outpost is strategically located on a 25-acre plot provided by the Forest Department to promote demonstration plots on best farming practices and is to serve as a hub for launching patrols.

The Vaca Forest Reserve (VFR) is the northernmost protected area of the Maya Mountain Massif. The management goal of the reserve is to serve as a viable buffer area to the Chiquibul National Park. As a result, FCD has seen this area as an important location to maintain a presence. For over a decade, FCD has been operating in the reserve assisting the Forest Department in monitoring and working with local farmers located in the Vaca

With support from the Protected Areas Conservation Trust, a permanent Ranger Outpost has been instituted by FCD in the reserve, which will permit a steady and ongoing surveillance and monitoring system, built around a vibrant workplan and following the recommendations of the VFR management plan.

The Ranger Outpost will house the three person staff, while the lower flat is to serve as the field farm school space for reunions with local farmers who cultivate nearby the location. At least 12 farmers operate inside the limits of the reserve, while other farmers and cattle ranchers operate in the de-reserved portion

Bear Fossil Studied



On April 13th, a team composed of experts and FCD's Karst Management Unit embarked on a three-day expedition to document the ancient remains of a prehistoric bear found in the Cebada Caves. FCD's Cultural Heritage Coordinator describes the experience:

"Inside the cavern, the journey continued through eight water passages, some with deep pools and flowing currents. The terrain was slippery, caked in thick clay mud, and each step left behind traces of water from our boots and clothing. As we moved deeper, we encountered a grand chamber adorned with towering curtain formations, snowy-white flowstones, rimstone dams, and an immaculate pool that sparkled like a hidden blue hole nestled within the rim dams.

After five grueling hours, we arrived at our final destination—an awe-inspiring chamber that cradled the fossil of a prehistoric bear. The space was otherworldly, with miniature, crystallized formations resembling tiny Christmas trees lining the walls. The sight of the fossil left the team speechless. The specialists conducted two structured light scans of the fossil and completed a chamber scan using a high-resolution scanner. Two fragments—a premolar and a canine were collected, and comprehensive photogrammetry shots were taken.

After a productive day in the field, our team finalized the documentation of the prehistoric bear fossil nestled deep within the Chiquibul Cave System. We carefully retraced our steps along the passages that had led us into this extraordinary site. The journey back was filled with quiet reflection, each of us processing the significance of what we had encountered. The site represents an irreplaceable piece of prehistoric history, and it is imperative that it is protected accordingly."



Vision:

FCD envisions healthy terrestrial ecosystems that are sustainably managed for Belize and the region.

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Best Practices Promoted



 $\mathbf{F}^{\mathrm{armers}}$ in the Vaca plateau have been experimenting long droughts, increased pests and water shortage in more recent times. The effects of climate change is not unique to central Belize but a condition felt nationally. Many organizations have

ast year the forest fires in the Vaca were devastating. Although

losses were extreme. To prevent such calamity to reoccur FCD aimed to plan in advance by developing a Wildland Fire Plan and

established for the first time a Fire Incident Command System.

The plan outlines and highlights the importance of sensitizing farmers on methods to mitigate the risks of forest fires.

During the month of May, FCD's Environmental Educator along

with the Extension Technician conducted a second round of visits to farmers and residents in and around the Vaca Forest Reserve

with the aim of promoting and increasing awareness on suitable methods and practices to prevent forest fires; and to encourage inhabitants to report any unattended fires. Posters and other

educational materials were distributed among the targeted groups.

The results appear to have paid off, by the number of farmers

reaching out for their permits, and quantified by the number of

over 265-man days were used in combatting the fires, the

intended to reduce these realities through climate adaptation and resilience methodologies, with the inclusion of farmers as direct

In the Vaca plateau FCD with support from the Biodiversity Landscape Fund, FCD's Extension Technician have identified and engaged ten farmers, promoting climate smart best practices. These activities have included: coffee crop diversification, semicovered nurseries for seedling and crop production, vermicompost production, improved water storage and harvesting, improved livestock management through electric fences and bee-keeping to improve natural and agricultural ecosystems.

Farmers who benefitted from the financial support signed a collaborative agreement during the month of June, which commits them to use adequately the resources provided and be better stewards of the forest reserve, through their participation in tangible conservation efforts.

Fire Outreach Continues



unattended fires which were minimal. This year, the dry season appears to have been shorter with spasms of rains throughout the months which helped tremendously in preventing the intensity

Field Trips Underway



CD has made it customary to attach its Environmental Educator on school trips visiting the Chiquibul ecosystem. By doing this, the teachers and students get a first-hand

uring the month of April visits were made to Bermudian Landing and communities along the Belize River Valley where approximately 250 bamboo and Inga seedlings were distributed among community residents and leaders as part of

the UNDP GEF 6 project. Planting trees by community residents along the banks of the Belize River will surely help restore areas

that have been degraded.

At the same time discussions with the staff from the Community Baboon Sanctuary in Bermudian Landing was ensued which led to an agreement to move forward with the construction of a nursery and establishment of plants. FCD is grateful for the interpretation of the sights and locations being traversed, thereby making it an unforgettable, learning experience.

On April 9th, 10th and 11th, FCD's Environmental Educator guided a total of 120 students, 52 parents and 15 teachers from 3 primary schools, namely Buena Vista RC-Corozal, Progresso Zill's SDA-Corozal and St. Martin Government Primary from Belmopan. Students learnt about the Mayan civilization at Caracol, role and responsibilities of a Chiquibul National Park Ranger and the basic karstic features of a cave at Rio Frio Cave.

With the paved road reaching completion, the marvels of the western Maya Mountains are becoming more accessible. This opens a wonderful opportunity for Belizeans at large to understand the beauty of these jungles and the services and goods derived from these natural resources which include healthy water, fresh air and emblematic wildlife species. FCD encourages schools to contact us at fcd@btl.net while making plans for your next trip to the Chiquibul.

Seed Distribution Starts



warm reception provided by residents in the Belize River Lower Valley and feel confident that the GEF6 project will make a difference in promoting environmental benefits among the Cayo and Belize District rural communities.

FCD Programs

Protection & Enforcement

Community

Development

Bi-national Relations

Education & Public Awareness

Karst Management

Research & Monitoring

Landscape Management

Monitoring & Evaluation

Financial Sustainability

E-Bulletin Funded by:

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Macaw Awareness On The Go!!



 Γ CD's Community Outreach Technician continues to implement the Scarlet Macaw community outreach campaign in Southern Belize. During the month of April alone, a total of 231 students and 10 teachers were sensitized from Red Bank Christian Primary in Red Bank and Maya Mopan Primary School in the Stann Creek District. Children and teachers from among the targeted schools

learnt about the two benefits derived from scarlet macaws, namely forest regeneration and a tourism-based economy; two threats (deforestation and hunting) facing the macaw population in Southern Belize and two methods (reforestation and report offenders) to help conserve this emblematic species. Posters, pin badges and bumperstickers with the campaign title and slogan, sponsored by Turtle Inn were disseminated among children at the end of each presentation. By the end of April, an overall total of 850 children among the targeted communities have been sensitized.

Meanwile in the Cayo District, FCD's Environmental Educator conducted 3 primary school visits specifically focused on 'Scarlet Macaws in Danger'. This presentation was intended to increase awareness of the macaw species; threats they face and what can be done to conserve them. The presentations were conducted at Hills of Promise SDA Primary in Benque Viejo del Carmen, Santa Elena Primary School in Santa Elena and Immaculate Conception RC in Bullet Tree Falls. A total of 192 students and 14 teachers participated on these presentations.

Sinkhole Revisited

The Nohoch Chen sinkhole is one of the many magical features of the Chiquibul National Park. It is the largest of the 49 collapsed doline formations that are located mostly over the Chiquibul Cave System. The sinkhole approximately 1,000 feet wide and 600 feet deep, rivals in size the famous Blue Hole marine sinkhole.

In early 2015, a team of 22 people set out on a two-week expedition to discover and explore the Nohoch Chen Sinkhole. Within the sinkhole, team members found many species of reptiles and amphibians, rare ferns and orchids, and a possibly nesting pair of the incredibly rare Orange Breasted Falcon.

One of the most breathtaking discoveries was the remaining evidence of the significance of this sinkhole to the Ancient Maya. Within and surrounding the sinkhole, many structures, plazas, pottery, and other cultural features were documented. Inside the sinkhole itself, many artifacts were found including 4 unbroken pots high up the cliff face in a small cave.



On the 12th June another expedition was undertaken back to the Nohoch Chen sinkhole. This time, FCD's Executive Director joined the Karst Management Unit as part of a recce to document any human footprint in these remote areas of the Chiquibul National Park. Limited human footprint was recorded and the pristine environment appears to be well kept silently, except with the sounds of howler and spider monkeys and the chirping of melodious birds.

River Outreach Expands



During the month of June, FCD's Environmental Educator continued to implement the Belize River community outreach campaign, targeting the youths and teachers through high school presentations. A total of 70 high school students (32 boys & 34 girls) and 4 teachers from the Belmopan Baptist High School were sensitized and are now aware of the importance of the water resource within the Belize River; the three main threats

(garbage, grey water discharge and deforestation) affecting the Belize River and methods to protect this vital resource.

The 45-minute presentation: 'Healthy River, Healthy Environment, Healthy River' is part of an awareness program for protection of the Belize River Watershed and a component of the larger UNDP GEF6 Project titled, "Integrated Management of Production Landscapes to Deliver Multiple Global Environmental Benefits". The project is led by the Ministry of Sustainable Development, Climate Change and Solid Waste Management. Folders, pencils and nylon bags were disseminated among youths, and market bags and t-shirts for teachers. By the end of June an overall total of 1,649 children, 453 youths and over 308 adults were sensitized. These school visits were made possible with the endorsement and support from the Cayo District Education Center.

FCD's role in the UNDP funded project centers in working with 13 communities, raising awareness and promoting reforestation through community-built nurseries. The second half of the project will see FCD working with communities on engaging them as practical monitoring agents and building their capacity to participate in river conservation initiatives.

For more information contact:

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