

Annual Report by the US for Belize Foundation for Research and Environmental Education (BFREE) on the Belize Cacao-based Agroforestry Restoration Program (BCARP) March 17, 2018

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Project Description:

BCARP is a six-year project spear-headed by the U.S. non-profit, US for Belize Foundation for Research and Environmental Education (BFREE), to convert degraded land to cacao-based agroforestry for the purpose of expanding migratory bird habitat in farming communities throughout the Toledo and Stann Creek Districts of southern Belize, Central America. This program was initiated in October 2012 with funding from the U.S. Department of the Interior, Fish and Wildlife Service, on behalf of the Nyanza Natural Resource Damage Trustee Council – comprised of the Service, Commonwealth of Massachusetts and National Oceanic and Atmospheric Administration.

Project Activities:

Monitoring

Annual monitoring activities took place on two farm plots and three comparison plots in Trio Village during November 2016 and 2017. Point counts and mist-netting/mark-recapture were implemented on each site to determine resident and migratory species utilizing the plots. The comparison plots included a citrus farm, a pineapple farm and a cattle farm.

Full analysis of the data is in progress and will be submitted with the final BCARP report.

Farm Visits and Soil Sampling

On 26 May 2017, BFREE staff, Elmer Tzalam and Sipriano Canti met with with BCARP farmers, William Garcia and Anacleto Garcia to review farms. Elmer Tzalam made recommendations for the farms at that time. Current progress shows continued stress on farms from early issues with disease – plants continue to grow at a very slow rate and many have been lost. Both farms remain forested and continue to be minimally managed by the BCARP farmers.

During this May visit, Parr McQueen, a student researcher from University of Richmond, implemented a soil sampling project to understand the nematode communities in these agricultural sites versus the unmanaged forests. Under the supervision of his advisor, Dr. Amy Treonis, Mr. McQueen sampled sites within the BFREE demonstration farm, BFREE unmanaged rainforest, and the BCARP project farms. After receiving compelling preliminary results leading him to believe that agroforests are not damaging to nematode communities, he has determined that he will return to BFREE during the 2018 rainy season for further analysis.

Distribution Events for the Belize Cacao Agroforestry Handbook

Recently produced by BFREE and UNC Wilmington, *The Belize Cacao Agroforestry Handbook*, a short manual filled with illustrations and simple descriptions intended to guide farmers through the basics of cacao agroforestry, was distributed throughout 2017.

Five-hundred copies were given to farmers, government agencies, colleges and NGOs in southern Belize during events like the Belize Cacao Festival held in Punta Gorda in May and the

Belize Cacao and Agroforestry Forum held in San Pedro Columbia in July. Additionally, copies were distributed during meetings and trainings throughout the year. Community organizations like Na'Lu'um Cacao Institute distributed 150 copies to farmers in remote villages in southern Belize.

Handbooks were spread to as many villages as possible, so that we could gauge interest and receive feedback from community leaders and farmers. For this reason, when possible, we documented the recipient communities and asked that anyone receiving a copy take additional copies to deliver to members of their community who would benefit from the information.

Through these distribution efforts, the book reached the following communities in the Toledo and Stann Creek Districts of southern Belize: Monkey River, Machaca Forest Station, Eldrigeville, Blue Creek, San Pedro Columbia, Big Falls, Punta Gorda, Cattle Landing, Walfredi, Indian Creek, Golden Stream, Crique Jute, Bladen, San Antonio, Mafredi, Laguna, San Miguel, San Jose, Trio, Silver Creek, Independence, San Felipe, Medina Bank, Bella Vista, Santa Cruz, Santa Elena, Na'Lu'um kah, Santa Ana, Red Bank. Natural Resource Students and government officials from the Belize District and Cayo District also received copies of the handbook during educational events at the BFREE Field Station.

Feedback has been positive as there are no other similar resources in the country and we are therefore considering an additional printing in 2018.

Belize Cacao and Agroforestry Forum

BFREE spearheaded and co-hosted a one-day event "The Future of the Cacao Industry in Belize," focused on various issues surrounding the cacao industry and agroforestry in the country. Participants included members of the NGO community working in cacao and agroforestry, cacao farmers, community leaders, government representatives, as well as a representative from the Cocoa Research Centre at the University of the West Indies.

The goals of the meeting were: 1) to bring together stakeholders in order to share information, discuss challenges and successes, and to explore opportunities for successful collaboration, and; 2) to compile information regarding the cacao industry in Belize for inclusion in a regional cocoa website to be launched in 2018 by the Cocoa Research Centre.

An unanticipated and positive outcome of the meeting was that the Belize National Cacao Committee was formed during a follow-up Forum in September 2017. Elmer Tzalam, BFREE Cacao Farm Manager, was selected to represent BFREE on that committee. Meetings have occurred on a monthly basis since that time continuing much-needed national conversations on cacao-related issues.

Developing Relationships in the Cacao Industry

Mr. Jacob Marlin, BFREE Executive Director, continued to develop market relationships for Belizean cacao growers through international networking events. His participation as Board Member and Chair of the Environmental Committee on the Heirloom Cacao Preservation Initiative, an arm of the Fine Chocolate Industry Association, allowed him to act as a voice for small farmers and for environmental issues impacting the industry. To this end, he attended and presented at international meetings during January and July and August 2017.

- Participation in the joint Fine Chocolate Industry Association and Heirloom Cacao Preservation Initiative Annual Meeting, San Francisco, California, January 21, 2017.
- Designation of BFREE cacao as Heirloom and Fine Flavor variety number 11: Heirloom Cacao Preservation Initiative mid-year meeting, New York, June 23, 2017.
- Presentation: 21st Congress of the Mesoamerican Society of Biology and Conservation (SMBC) and 6th International Meeting of Partners in Flight (PIF), San Jose, Costa Rica, “Cacao-based Agroforestry as an Economic Incentive for Conserving and Restoring Migratory Bird Habitat in Belize.” Session: Bird Conservation through Green Investments - Creating effective BirdScapes for Migratory Birds. November 3, 2017.