



Photo: Mike Williams

Alta Verapaz Habitat Restoration

Project title: Alta Verapaz Habitat Restoration

Location: Guatemala

Coordinates: 15°22'35.404"N 90°21'2.577"W

Size: 55 acres

Grant Amount: \$15,200

Date: 2020

Partner: Community Cloud Forest Conservation

Summary and Background:

Community Cloud Forest Conservation (CCFC) requests \$15,200 from Tropical Forests Forever Fund (TFFF) to restore critical habitat for the Golden-cheeked Warbler (GCWA) in central Guatemala on a 55 acre parcel. Funds requested from TFFF will be matched 1:1 by a private donor to facilitate the registration of the parcel as a wildlife sanctuary specifically dedicated to GCWA.

Mission and Description of Community Cloud Forest Conservation (CCFC):

CCFC is a nongovernmental organization with 501(c)3 legal status as a not-for-profit corporation in the USA and as a non-lucrative association legally registered in Guatemala. CCFC works to protect tropical forests throughout central and northern Guatemala, through environmental education, reforestation, and agroecology projects to promote sustainable ecological wellbeing of birds and people. More than 12 years of grass-roots direct community engagement, expanded CCFC's work with local partners in over 150 villages located within Important Bird Areas (IBAs), of high conservation priority.

CCFC has partnered with the Cornell Lab of Ornithology and with eBird since CCFC began in 2008. CCFC Director, Rob Cahill, was the first eBird regional reviewer for Guatemala and today John Cahill leads the eBird team of five reviewers for Guatemala. CCFC partners with USFWS-NMBCA in Neotropical Migratory Bird conservation and habitat restoration in their non-breeding season ranges in Guatemala.

Description of Project:

This one year project will restore critical habitat for neotropical migratory birds of special concern, with specific regard to the endangered Golden-cheeked Warbler (GCWA). The majority of this work will take place on a 55 acre parcel leased in perpetuity to CCFC, for the purpose of habitat restoration and designation as a wildlife sanctuary. Currently, this parcel is a mix of degraded forest and illegally deforested land. The parcel links three larger forest fragments, making it key to a biological corridor (see map). The funds for this TFFF - CCFC project will qualify as matching funds for CCFC's multi-year project with US Fish and Wildlife under the Neotropical Migratory Bird Conservation Act. CCFC's current NMBCA project is specifically focused on GCWA, Golden-winged Warbler and Wood Thrush. (USFWS-NMBCA project #6931 "Birdscaping Guatemala's Q'eqchi' Maya Highlands II")

This project will provide funds for tree planting, habitat restoration, ecosystem enhancements specific to the needs of the GCWA and minor infrastructure improvements necessary for the long term protection of the 55 acre parcel and its designation as a wildlife sanctuary.

In the coming years, the accomplishments of this TFFF-CCFC project will become a cornerstone and a template for a larger initiative, working with local land owners and villages to protect the forests and forest fragments along a proposed 11 mile biological corridor (see map).

CCFC with Rob and Tara Cahill are in the process of registering the *Sanctuary for Flora and Fauna: Setonq* with the Guatemalan Consejo Nacional de Áreas Protegidas (CONAP). Setonq is already listed as an eBird Hotspot (SFF Setonq) and a good deal of data has already been collected for this site (see appendices). In Guatemala, registering a wildlife sanctuary as a national protected area is a lengthy process, but when completed, CONAP will provide an extra regime of protection for the site and ensure that it will be a wildlife sanctuary in perpetuity.

Setonq is a 55 acre parcel adjacent to Community Cloud Forest Conservation's campus. CCFC's long term goal is to include other adjacent properties in this protected area.

Focus Species:

The Golden-cheeked Warbler (*Setophaga chrysoparia*) was first described to science about 15 miles from SFF Setonq. On November 4, 1859, Osbert Salvin collected two Golden-cheeked Warbler specimens near Tactic, Alta Verapaz. At the time of Salvin's discovery, the life history and migration path of this warbler were still unknown. Texas had only recently become part of the United States some 14 years before Salvin's discovery and Golden-cheeked Warbler had not yet been described on its breeding grounds.

The GCWA range in Guatemala is a relatively narrow swath crossing central Guatemala from west to east. Since GCWAs migrate over land, having viable habitat in Guatemala is important both to GCWA moving through to Honduras and northern Nicaragua and those wintering in Guatemala. Geographically, SFF Setonq is squarely within this range.



CCFC will restore GCWA habitat in Setonq, planting a diversity of oak species favored by GCWA and other migratory birds, in a degraded and illegally deforested acreage. Funds from this project will also be used to rehabilitate a section of dilapidated fencing and vehicle access to SFF Setonq, to facilitate forest restoration and its long term protection.

CCFC will secure a private donation to match 1:1 the TFFF funds requested in this proposal. Match funds will support the eligibility study necessary for the registration of SFF Setonq as a national protected area. This will include: a thorough natural history study and report with exhaustive biological inventory of the flora and fauna; bio-physical data; cartographic maps; a conservation and land use plan; a protection and monitoring plan; and legal documentation for registration.

Why SFF Setonq?

Habitat critical to the GCWA is under daily threat in the region. Incursions of invasive agricultural practices, such as slash and burn, clear forested lands. Recently the explosive growth of commercial broccoli plantations converts quality GCWA habitat into land useless to the GCWA. To make matters worse, even within forested lands, unprotected GCWA habitat is degraded by wood cutters extracting oak and other hardwoods.

The restoration of the Setonq sanctuary will enhance GCWA habitat. Over the years, CCFC has harvested acorns from a variety of oak trees where GCWA have been observed foraging. CCFC's tree nurseries are grown from 100% locally sourced seed. GCWAs have been observed foraging in CCFC's reforestation parcels in oaks planted just 5 or 6 years ago. The restoration of Setonq

will connect three forest fragments and CCFC reforestation parcels. This will be the first phase in the creation of a biological corridor 9 miles long (Corridor Biológico Chichén).

BirdLife International's global mapping project of Important Bird Areas and Endemic Bird Areas helps illustrate the importance of CCFC's focus region and specifically the importance of restoring SFF Setonq. SFF Setonq is located at the heart of Endemic Bird Area EBA018. EBA 018 is a fairly narrow corridor stretching from northern Nicaragua, across the highlands of Honduras and Guatemala, to the highlands of Chiapas, Mexico. BirdLife International lists 22 species of endemic birds restricted in range within EBA018. Of these 22 species, 19 species are found within CCFC's work area and 17 have been recorded within a radius of 15 miles of SFF Setonq.

SFF Setonq is located within IBA GT010 (BirdLife International 2006). To be designated as an IBA, an area has to meet one of four criteria established by BirdLife International. GT010 meets all four criteria making it a super IBA. GT010 is home to 1) multiple globally threatened species, 2) multiple restricted-range species and 3) multiple biome-restricted species. GT010 is also the winter home of over 2% of the world's Wilson's Warbler population, exceeding the congregation's criteria (A4) by 1%.

The IUCN Red List of Threatened Species lists GCWA as an endangered species. According to studies as far back as the 1990s and into the present, the GCWA faces threats of habitat loss on its breeding grounds in central Texas and on its wintering grounds in Chiapas, Mexico, central Guatemala, Honduras, and northern Nicaragua. On its winter range, GCWA forages mainly in oak trees. Unfortunately, oak trees are the first to be removed as forest ecosystems are degraded by human impact.

Birding:

With its high rate of endemics, central Guatemala has huge potential as a birding destination. From time to time, CCFC hosts donor groups of birding enthusiasts at its agro-ecology center. For the last several years, CCFC has hosted tours from Virginia Society of Ornithology and Travis Audubon Society, Austin, TX. With proceeds from each tour, CCFC reforests 0.5 acres of deforested land in and around its center. To date, 1.5 acres have been reforested in the name of Travis Audubon. This 1.5 acre parcel is situated to maximize its benefit to GCWA. The VSO parcels were restored with special attention to GWWA and Wood Thrush. The SFF Setonq restoration project will enhance CCFC's birding activities.

Reforestation as an agent of social change:

CCFC's *WALC, Women in Agroecology Leadership for Conservation*, program helps young women fulfill their dreams of continuing in school beyond 6th grade, forming leaders actively engaged in improving agriculture and promoting forest conservation. Education for young women is perhaps the single most important vector in curbing a runaway population explosion and improving community health, nutrition, and socio-ecological wellbeing. CCFC's reforestation team is primarily drawn from past and present *WALC* participants.

Summary:

SFF Setonq's location within GCWA wintering range in Guatemala and within IBA GT010 and EBA 018 commends it for priority action. The restoration of Setonq will increase GCWA winter survival by providing excellent foraging as thousands of young seedlings are planted in 2020 and 2021. Not only will the restoration of Setonq benefit the GCWA, but it will also benefit other neotropical migratory birds of special concern such as the Golden-winged Warbler, Wood Thrush, and Olive-sided Flycatcher. More broadly, the long term stewardship of Setonq as a protected area will also help vulnerable endemic species such as the Highland Guan and Ocellated Quail, as well as other locally common endemics such as Blue-throated Motmot, Green-throated Mountain Gem, Bush-crested Jay, and Blue-and-white Mockingbird.

Budget:

This project will provide funds for tree planting, habitat restoration, ecosystem enhancements specific to the needs of the GCWA, and minor infrastructure improvements necessary for the long term protection of the 55 acre parcel and its designation as a wildlife sanctuary.

Budget:

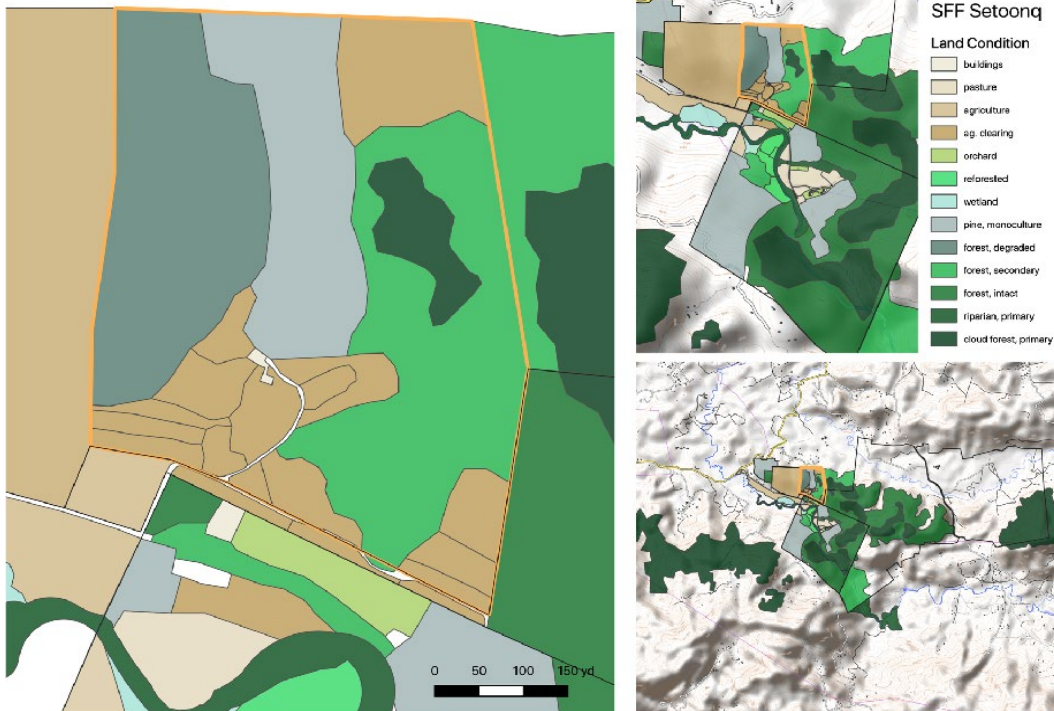
\$7,200	Trees, tree planting, habitat restoration, and protection
\$3,600	Night Guard and assistant tree planter
\$2,330	Road restoration for access
<u>\$2,070</u>	Fence restoration
\$15,200	

Matching Funds Budget:

\$15,200	Registration of Property as a Protected Area (with CONAP-Guatemala and the municipal government of Coban, AV) and Master Plan for a 9 mile Biological Corridor with SFF Setonq and CCFC
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Site Map, Current Land Condition:

SFF Setonq 55 acres outlined with a solid orange line, was once a mix of pine, oak, sweet gum, and low cloud forest. Today the parcel is severely degraded, having lost many of its oaks.



Restoration goals of site: Phase 1

With funding from this project, we will restore GCWA habitat throughout this 55 acre parcel. Phase 2 will include developing biological corridors that will connect natural forest fragments and bridge them with new reforestation and restoration parcels. This phase will create a nine mile corridor connecting thousands of acres of small and medium size forest fragments.

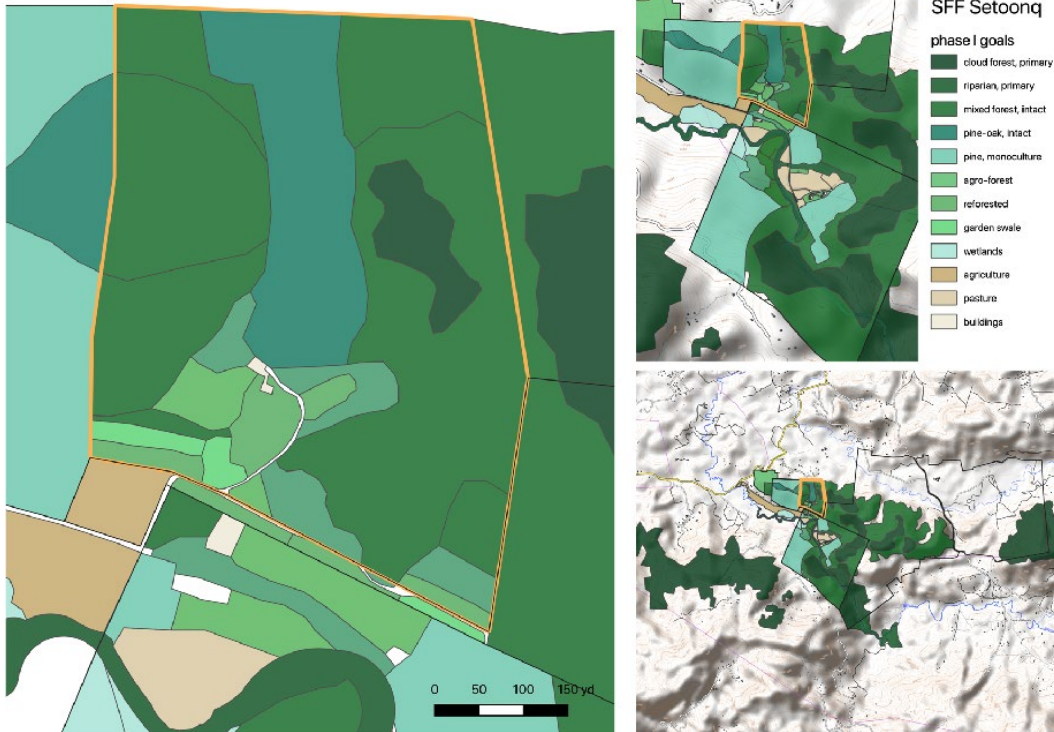


Photo October 2020. Tara Cahill standing by a young oak tree (*Quercus skinneri*) in a CCFC reforested parcel, planted in the fall of 2012. In the fall of 2011, this parcel was a cornfield between the riparian forest and an intact mixed forest fragment. In just eight years this tree, along with four other species of oaks, grew from seedlings to towering young trees. Today, mixed feeding flocks of migratory birds, including species of special conservation concern GCWA, GWWA, and Philadelphia Vireo, are regularly foraging in these trees in their restored non-breeding season habitat.



CCFC's reforestation team is drawn entirely from remote mountain villages within IBAs. All team members are alumna of CCFC's WALC program and each young woman is continuing to advance in her studies. By supporting CCFC's reforestation and restoration of Setong, TFFF will also support university education for these valiant young women.



Seeds and starts for CCFC's tree nurseries are 100% locally sourced. Our 2020 oak seedlings growing in the nursery were from acorns collected in the fall of 2019. CCFC has identified several species of oaks favored by the GCWAs. Year after year CCFC has collected acorns from these mature trees.

