



Asociación Ambiental
Finca Cántaros



Interim Report to Cape Cod Bird Club from Finca Cántaros Environmental Association: Connecting Costa Rican and Canadian kids through the Motus Wildlife Tracking System and our shared migratory birds

Background:

Finca Cántaros Environmental Association (FCEA), a Canadian-Costa Rican non-profit organization dedicated to environmental education, proposed to use its on-site Motus Receiver (part of the Motus Wildlife Tracking System, described below), in combination with Spanish-language environmental education (EE) activities developed for the Costa Rica context, to create a pilot educational program connecting kids in Costa Rica with those in Canada through our shared migratory birds. Thanks to the generous support of Cape Cod Bird Club (CCBC), FCEA achieved great success in developing and field-testing Motus-focused EE activities, as well as engaging the local community in other hands-on activities that sought to increase appreciation for, understanding of, and action on behalf of migratory birds through its III Annual Welcome Back Migratory Bird Festival. Further, over the course of 2022, FCEA secured the partnerships and funding necessary to work toward the additional goals of this project outlined below.



Photo: Members of the community and FCEA staff at the end of the “Morning of Motus,” an event held during our III Welcome Back Migratory Birds Festival.

Motus Wildlife Tracking System and Finca Cántaros:

The Motus Wildlife Tracking System (WTS), led by the organization [Birds Canada](#), is an international collaborative initiative representing researchers, educators, organizations, and individual citizens who set up receiver stations all over the world in the name of science, conservation and education. Motus receiver stations use “automated radio telemetry” to track the movements of hundreds of individuals of birds, bats, and insects (that are outfitted with radiotags) to better understand their migration ecology as well as their conservation needs throughout their life cycles. In 2020 Finca Cántaros partnered with the [Costa Rica Motus Coordinators](#), Ernesto Carman and Paz Irola, to install the second Motus receiver in all of Costa Rica.



Photo: *Finca Cántaros resident biologist David Rodríguez explains how the Motus Receiver works during the “Morning of Motus” as part of our III Annual Welcome Back Migratory Bird Festival.*

III Annual Welcome Back Migratory Bird Festival

In 2020 FCEA organized its I Annual Welcome Back Migratory Bird Festival. Due to the pandemic, the festival was entirely online presentations and roundtable discussions. In 2021, it was a one-day event that engaged a variety of local and national partners. This year, the Festival transformed into a series of events that took place throughout the month of October, and the theme of Motus and how it helps us better understand bird migration tied in perfectly. As such, FCEA decided that the Festival was the logical forum for developing and field-testing Motus-focused activities with 26 members of the community, including children of all ages and their families, with an eye to expanding these activities and engaging more children in learning about Motus, both in Costa Rica and Canada, in 2023.

Graphics below: *On the Finca Cántaros social media feeds we shared graphics about the schedule of activities for our Welcome Back Migratory Bird Festival, including a drawing contest, a workshop on the use of eBird and Merlin of the Cornell Lab of Ornithology, an online talk about Motus monitoring in Costa Rica with a specific focus on the species detected at Finca Cántaros, and the Morning of Motus, as well as restoration activities that contribute to migratory bird habitat.*

FESTIVAL DE BIENVENIDA A LAS AVES MIGRATORIAS

CRONOGRAMA DE ACTIVIDADES

21 sep. Apertura de concurso de dibujo
 3 oct 6:00 am. Taller: Uso de eBird y Merlin
 8 oct 6:00 am. October Big Day Finca Cántaros
 9 oct 7:30 am. Reconocimiento al Club de Aves de San Vito, en Estación Biológica las Cruces
 14 oct 6:00 pm. Charla en línea: Monitoreo Motus
 15 oct 7:00 am. Mañana de Motus
 19 oct 3:00 pm. Charla en línea: Restauración
 20 oct. Cierre de concurso dibujo
 21 oct 7:30 am. Actividad de restauración

@FINCACANTAROS

FESTIVAL DE BIENVENIDA A LAS AVES MIGRATORIAS

CHARLA EN LÍNEA
 DETECCIONES DE LA ESTACIÓN MOTUS EN FINCA CÁNTAROS
 ¿QUÉ AVES MIGRATORIAS HAN PASADO POR NUESTRA ESTACIÓN?



Catherpes ustulatus
Foto: Pat A. Inels

14 OCTUBRE | 2022
6:00 PM FACEBOOK LIVE

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FESTIVAL DE BIENVENIDA A LAS AVES MIGRATORIAS

Mañana de Motus



FINCA CÁNTAROS
15 OCTUBRE 2022
7:00 AM

@FINCACANTAROS

FESTIVAL DE BIENVENIDA A LAS AVES MIGRATORIAS

October Big Day



Spatula discors x Anas crecca
Foto: Randall Brown

FINCA CÁNTAROS
08 OCTUBRE 2022
6:00 AM

@FINCACANTAROS

A Morning of Motus ~ “Una Mañana de Motus”

As part of the Festival, we organized a “Morning of Motus,” which involved:

- **Bird walk throughout the property**, highlighting migratory species such as the Chestnut-sided Warbler (the emblematic species of Finca Cántaros) as well as the unique hybrid duck (Blue-winged x Green-winged Teal) that comes to our lagoon (highlighted on the October Big Day graphic for the festival, above).

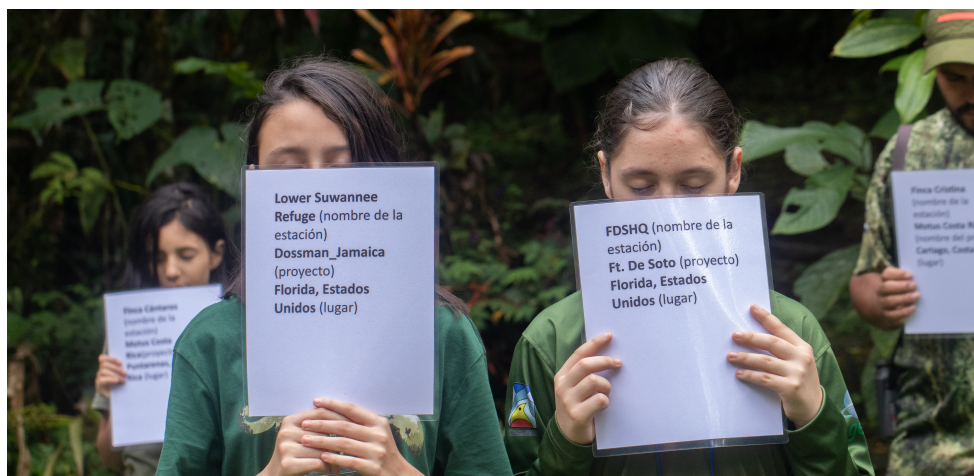
Photo: Children birding at Finca Cántaros as part of the “Morning of Motus.”



- **Activity called “Migration Obstacles,”** part of the Cornell Lab of Ornithology’s BirdSleuth International curriculum that aims to help children understand the concept of migration and why certain species migrate. **(See photo below)**



- Talk about **Motus** in front of our **Receiver**. **(See photo above)**
- **Question & Answer Activity** about Motus developed and field-tested by FCEA, in which the children had to hunt for questions related to migratory birds, Motus and citizen science, and answer them in a game show format.
- **Migration & Motus Activity** developed and field-tested by FCEA, in which participants had to “be” Motus receivers, and three participants representing species detected by the Finca Cántaros Receiver (Swainson’s Thrush, Red-eyed Vireo and Lesser Yellowlegs), had to be “detected” secretly by the receivers spaced out geographically on the playing field. **(See photo below)**



- Presentation about the Motus WTS **using the Motus website of Birds Canada.**

Next Steps for Motus-focused Environmental Education at Finca Cántaros:

The proposed goals of this project, and the status of each, are as follows:

1. To develop, as well as adapt and translate, then pilot, hands-on environmental education and science resources in Spanish to teach Costa Rican youth about: why we should appreciate migratory bird species and take responsibility for their protection, and how Motus contributes to our understanding of them.
 - **It was strategic for FCEA to use its III Annual Welcome Back Migratory Bird Festival as the forum for the development and field-testing of Motus-focused environmental education activities. We were able to leverage the support of Cape Cod Bird Club and local partner San Vito Bird Club into attracting additional sponsors for our Festival, such as Swarovski Optics, the Municipality of Coto Brus and SINAC (Costa Rica's System of National Parks), in order to involve more participants and raise the profile of these activities.**
2. To arrange field trips for local youth in San Vito, Costa Rica to visit FCEA's Motus Receiver in order to learn in-person how one works and why it is important.
 - **We field-tested these activities during the Festival, which allowed us to reflect on what works and does not work with respect to educating youth and their families about Motus using the Receiver on our property.**
3. To arrange virtual exchanges via Zoom for youth in Costa Rica and Canada to discuss their shared experiences with Motus activities and migratory birds.
 - **During 2022 FCEA solidified a partnership with Dr. Kira Delmore of Texas A&M University (TAMU), who studies the migration ecology of Swainson's Thrushes using Motus technology. Along with Dr. Delmore and her TAMU collaborators, we have created a more robust plan for further Motus environmental education curriculum development and field-testing in 2023 at Finca Cántaros and a partner organization in Chile. Once those materials are developed by TAMU PhD student Daniel de Jesús and his advisor Dr. Benjamin Herman, we will plan the logistics of field-testing those activities here in the San Vito community of Costa Rica, and simultaneously working with our partners at Birds Canada to organize a rich exchange experience with Canadian and Chilean youth.**
4. To implement pre- and post-test surveys to evaluate the above activities.
 - **These surveys will be developed in collaboration with TAMU.**
5. To organize educator trainings to build capacity for others beyond those involved in this pilot to implement the resources we develop/adapt, and thus extend our reach and impact.
 - **We have secured funding through our TAMU collaborators to hold a training for FCEA staff as well as local educators in 2023.**