The role of the observatories also has to do with the creation of regional capacity in the training of the new generations of biologists and ecosystem managers. The Costa Rica Bird Observatories (CRBO) has many accomplishments. It has: trained over 500 biologists in advanced scientific bird monitoring techniques; authored more than 50 scientific papers; implemented various species conservation programs, including the first payment for ecosystem services based on birds in the region; and maintains a strong initiative for environmental education with different audiences at the local, regional, and national level.

CRBO currently operates 15 stations, countrywide and year-round, supporting specific research, education and conservation initiatives, that have a strong focus on declining species.

We think we have shown that the use of relevant and rigorously collected scientific information, in combination with strong community involvement, communication and market based incentives, has led to successful experiences in bird conservation through bird observatories. The CRBO model has an interesting history and our experiences may well be applicable to other countries and regions.

POSTER SESSION

Using Upper Mandible Lining Color to Age Black-Capped Chickadees *(Poecile atricappilus):* Is It Reliable?

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Black-capped Chickadees (*Poecile atricapillus*) are occasionally difficult to age and as suggested in Pyle (1997), the degree of color in the upper mandible mouth lining can be used to help determine age in chickadees. We tested whether mouth lining color can be used in the absence of a reliable skull or other diagnostic age characteristic. We scored color of mouth lining of 145 known-age Black-capped Chickadees during fall migration seasons of 2015-2017 in the Bitterroot Valley in western Montana. We detected a significant difference in mouth lining color between adults and juvenile birds ($p = 0.01$), but variation within these age groups is relatively high. Our recommendation is to use mouth color as an aging criterion for chickadees with great caution or strictly as a complementary confirmation of age.

A New Measurement to Separate Male and Female Anna's Hummingbirds *(Calypte anna).*

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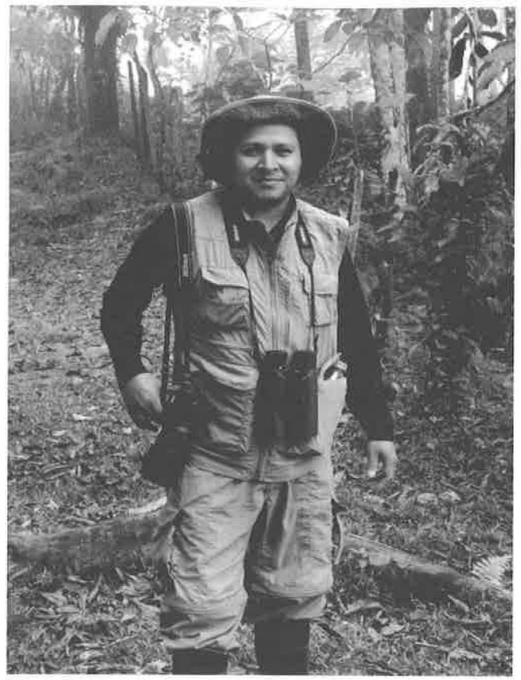
While adult male and female Anna's Hummingbirds (*Calypte anna*) are not hard to differentiate, juveniles of either sex closely resemble each other until they begin molting for the first time. Measurements of wing, tail, and bill overlap widely, while plumage features are subtle and can be variable. Here we propose a new measurement that differs between male and female Anna's Hummingbirds;

WESTERN BIRD BANDING ASSOCIATION GRANTS

The WBBA has offered two Research Grants for 2017. The first grant award winner was awarded to **Orlando Jarquín at the Licenciado en biologia,** Quetzalli Nicaragua S.A. Orlando's project is entitled **RED DE MONITOREO DE BOSQUE SECO DE NICARAGUA.** His research proposal and photograph of the award winner are below:

Crearemos una red de monitoreo de aves en el pacífico de Nicaragua, tomando en consideración dos sitios representativos del bosque seco tropical los cuales son, el Parque Nacional Volcán Masaya y la Reserva Natural Volcán El Chonco, ambos sitios representan bosques conservados de los pocos que aún quedan en el pacífico que sirven de corredor para muchas aves migratorias por lo tanto estableceremos una estación de anillamiento siguiendo el protocolo de MoSi (Monitoring Overwinter Survival) de The Institute for Bird Populations, donde anillaremos principalmente aves migratorias, y además colocaremos puntos de conteos utilizando la metodología Distance Sampling para estimar la densidad o abundancia de las aves tanto residentes como migratorias, de esta manera evaluaremos la importancia y el estado de conservación de estos sitios para las aves y promover la protección y conservación.



We will create a bird monitoring network on the Pacific coast of Nicaragua, Using two representative sites of the tropical dry forest: the Masaya Volcano National Park and the El Chonco Volcano Natural Reserve, both sites are conserved forests representative of the few remaining in the Pacific that serve as a corridor for many migratory birds. We will establish a banding station following MoSi (Monitoring Overwinter Survival) protocol. We will primarily band migratory birds, and also create point count locations to estimate the density or abundance of both resident and migratory birds, in this way we will evaluate the importance and conservation status of these sites for birds and promote their protection and conservation.

The second grant was awarded to **Lia Nahomi Kajiki**. Lia is in the Animal Behavior Laboratory, where she is a PhD student in Ecology at Universidade de Brasília.

Her project is entitled : **NATURAL HISTORY AND CONSERVATION OF THE HELMETED MANAKIN (*Antilophia galeata*) (*AVES: PIPRIDAE*) IN A CERRADO BIODIVERSITY HOTSPOT**

Her research proposal and photograph our award winner are below:

The Helmeted Manakin (*Antilophia galeata*) is a Neotropical bird endemic to the Cerrado biome that belongs to the Pipridae family, with species known for their unique mating strategies. Contrary to most polygamous dichromatic manakins, the Helmeted Manakin does not perform lekking courtship displays. This would be a rare instance of loss of lekking behavior, resulting in the misleading idea of monogamy in the species. Male ornamentation suggests the species is under strong sexual selection favoring certain phenotypic characters. Thus, the evolutionary context of the mating system and its adaptive value for the Helmeted Manakin are questions that remain unanswered. The species represents singular circumstances that may characterize a link between polygamous mating systems (lek) and monogamy. Therefore, this project's objective is to investigate the breeding biology of the Helmeted Manakin, not only for conservation purposes, but also to provide further understanding about the evolution of social and genetic mating systems in birds.