

found in secondary forests and agroecosystems. Although the presence of birds, or even their density, is one indicator of habitat importance, it can be improved on.

To learn exactly what habitats are best for the thrush in Costa Rica, Samuel will be working with the Costa Rica Bird Observatories in radio-tagging thrushes to compare body condition, home range size, and preferences in habitat variables between remnant forest patches in pineapple farms. This information will be a tool to guide in the choice of best fragments to protect through a conservation easement program involving payments to landowners from the government to protect vestiges of Wood Thrush habitat. The Costa Rica Bird Observatories has already had successful experiences in migratory bird conservation via the easement program.

Contribute to this program of student grants, if you can, through the WBBA web site (<http://www.westernbirdbanding.org/>)

WBBA Webinar Series An overwhelming success

Since October 2020, the Western Bird Banding Association (WBBA) has been offering webinars to stay connected with many hundreds of our members and others and to share knowledge with both banders and non-banders alike. Because of the overwhelming success of these videos, offering webinars will continue into the future and will cover topics of interest to our members.

All of the webinars that WBBA is presenting are being recorded and are all hosted on the WBBA Facebook page in the "Videos" section. If you are interested in viewing any of the recordings, please visit the WBBA page at <https://www.facebook.com/Westernbirdbandng>.

The first webinar, held in October 2020, was given by Holly Garrod, WBBA's President and the Research Coordinator of the Costa Rica Bird Observatories. A few hundred watched as she covered the mission and goals of WBBA and a brief, entertaining introduction into bird banding. For people interested in finding out more about bird banding and how to become a part of WBBA, this is the webinar to start with.

The November webinar was given by Danielle Kaschube, WBBA's Membership Coordinator and the MAPS and Bander Training Coordinator at The Institute for Bird Populations. This webinar was very informative introductory talk, with a total viewing of about 1,700 folks, focusing on the basic concepts of passerine molt, covering how and why feathers are molted, how those molts can change individual's appearance/plumage, and on how to use plumage to age birds.

Jared Wolfe, a WBBA past President, Assistant Professor at Michigan Technological University, and one of the creators of the Wolfe-Ryder-Pyle (WRP) plumaged based ageing system was the speaker for the January webinar. This very popular webinar explained some underlying drivers of molt extent, the need for this biologically base, rather than calendar base, system of ageing for birds, and how to apply it to examples of several species. More than a thousand viewers watched it to rave reviews. Check it out yourself!

Upcoming webinars will include a presentations from: this year's WBBA grant winner Sam Oliveira on his thrush research; data management tips and solutions; a new on-line tool for exploration of providing thrilling insights into banding data; intricacies of woodpecker ageing; and much more! Webinars will be announced on the WBBA's social media sites, and emails sent to WBBA members. For more information, contact WBBA Membership Chair, Dani Kaschube at wbbadani@gmail.com.

Latin American Banders Need Bands!

It is winter. Do you know where your migratory birds are? They are in the tropics, of course, where many hard-working conservation professionals in Latin America are working to conserve their habitat and study their non-breeding season ecology. Bird banders in North America are lucky in that we have an established, centralized system of band distribution and tracking. Most smaller countries in the tropics are not so lucky. Many small conservation organizations struggle to make ends meet. One of the big items that are relatively expensive and hard to get are bird bands. You can make a difference. The Costa Rica Bird

Observatories, The Klamath Bird Observatory, and The Institute for Bird Populations are working to get bird bands into the hands of qualified professionals. We need your help.



Latin American banders deep into tanagers.

A donation of \$250 will supply a station with 1,000 bird bands – this is enough to last two years or more. Please consider donating by going online to KBO (www.klamathbird.org). Here, click on tab of “Donate/Memberships” and then on “Latin America band fund”, fill out through PayPal or your credit card any amount you can, \$10 to \$50, or more. For more information, contact C.J. Ralph (cjr2@humboldt.edu)

Developing an Electronic System to Automatically Detect Small Owl Net Captures

Rocky Point Bird Observatory's (RPBO) Nocturnal Owl Monitoring Project captures large numbers of Northern Saw-whet Owls (*Aegolius acadicus*) each year. Since establishing a second station seven years ago, we have banded an average of 1,010 saw-whets annually with one remarkable year with 1,850. To think that before we began this project they were considered rare in our area. Between our two stations, an average of 16 Barred Owls (*Strix varia*) are also banded each year (predominantly at our Rocky Point station).

Barred Owls are known predators of smaller owls such as screech owls (*Megascops* spp.) and saw-whets. To reduce predations during operations, RPBO has tried a number of methods, including increasing the frequency of net checks and attempting to capture Barred Owls before

and during monitoring. When predation risk was considered to be high, volunteers have been stationed in the net lanes to sit quietly at the nets to detect and quickly remove saw-whets and to keep an eye out for predators. This makes for a long, cold, lonely night.

It was while I was on such a stationary watch post that the idea for an owl net sensor came about. I was holding the pole for one of the nets when I felt it vibrate as a saw-whet hit the net. I thought that an electronic sensor should be able to detect the vibration. I prototyped a simple setup and had success in a mock trial. I contacted a local community college and a group of students built out the system including communications to a home base (with a range of almost 400 m). Unfortunately, we were not able to test it in the field.

This wireless, battery-operated system consists of one sensor unit per net and one remote hub to gather the messages from the sensors and transmit them to a receiver at the banding station. The hub and receiver are based on the Raspberry Pi computing platform. The sensor is based on a piezo vibration sensor with a small Arduino circuit board for communication. Communication between the net sensors and hub is WiFi (2.4GHz) and has a maximum range of around 32 m. The hub communicates with the banding station using a long range 900 Mhz RF link (maximum tested range 395 m).

This past year there was a predation incident at a station in the Eastern U.S. The bander was very disturbed by this and contacted the electrical department at his university. Together they put together a net sensor that detects when a saw-whet hits the net and turns on a spotlight alerting the banding team. I am hoping to get the plans for this sensor to see if we can adapt it to our use. If anyone wants to collaborate on this project, I will welcome his/her involvement.

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