FOLLOWING OUR SAW-WHETS

By Geoff Holroyd, Chair, BBO

Our new project to follow saw-whet owls using the MOTUS network is producing amazing results.

First thank you for sponsoring a nanotag. With 49 tags sponsored we were able to undertake a major project to learn more about this iconic small and mighty owl. After researching other projects to track saw-whets with nanotags, I concluded that the attachment method, leg harness with the tag sitting on the rump of the owl, was not adequate. All the projects that I reviewed on the MOTUS website appeared to show that many owls were not detected after they were released. The leg harness comprises two pieces of elastic fabric holding the tag over the owl's rump. I suspect that with a strong raptor beak which is designed for cutting, the owls were able to cut through the elastic and loose the tag. I have no proof, but didn't want to use our tags with low chance of results.

Jana with her first tagged saw-whet

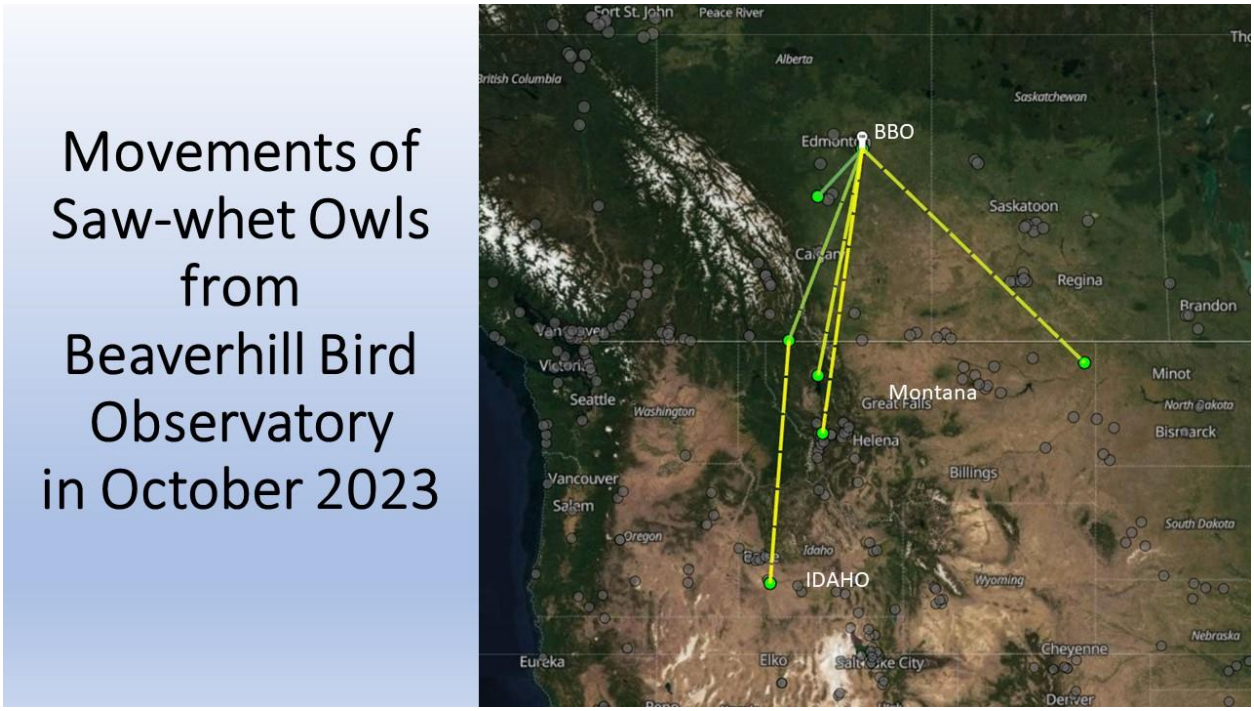
With my background attaching satellite transmitters as a backpack on bigger raptors, I set out to design a backpack for saw-whets. Satellite transmitters have attachment hoops that are used to hold the transmitter on the back of peregrine falcons, burrowing owls and several other species that I have studied. After three weeks of trials and searches for materials, we were able to deploy the first nanotag on a saw-whet at BBO on September 16. With help from Jana, Helen, Nicolette and Jerry we made improvements that made the attachment process faster. A US colleague recommended a new fabric tape called Spectra. Nicolette offered surgical needle drivers. Jerry brought a dental floss threader. An old receiver could be turned to confirm that the nanotags were turned on. After I had attached 15 tags, Jana did one and what a difference. Her 18 years of experience as a veterinarian technician showed. She knew what a needle driver was and how to use it. She reduced the attachment time from 15 minutes to 10 and the sewing was much neater.

We are now at the end of October and have only a couple of nanotags left to deploy. Since some were deployed over a month ago, we have exciting results to share.

First, we assumed that owls that we caught were passing through and would be gone from the natural area within a day or two. The nanotags tell a different story. Two tags hold the records for staying within 15 km of BBO's MOTUS tower (our detection radius) for almost a month. Other owls remained for a week or so before heading further on their migration. During this time the owls are completing their body moult. After the nesting season, adults moult some wing feathers, and both adults and young moult their body feathers. In September, most owls are still moulting body feathers. The occasional adult is still regrowing wing feathers. In October, the body moults are complete. The owls are fatter, presumably ready for migration. And some have migrated!

Migration is the exciting part of the story! Bird banding tell us that most owls migrate east and south, across the prairies into eastern US and Canada. BUT, and it is a big but, most owl banding stations are located to the east. Very few banding stations are south and west of us. And that is where the first owls

went. Two traveled south-west to Sylvan Lake and were detected on the same night by a personal station installed by Myrna Pearman, retired director of the Ellis Bird Farm. The next owl was detected on the shore of Koocanusa Lake, 500 km southWEST of BBO on the BC-Montana border. This owl went further south and was detected by a tower just south of Missoula, MT a few days later. Two others were detected in Montana: one south of Waterton Lake National Park and the second in north-east Montana. Thus, five owls have been detected away from BBO in the first month of the project. And none have flown east as predicted by bird band recoveries.



We can hardly wait for the 'rest of the story'. The nanotags emit a signal every 31.7 seconds. Each pulse has the tags serial number encoded in the signal. The relatively large pause between signals should extend the battery life for two years. Where will these owls travel and be detected by MOTUS towers? Two years of travel and records will tell us a great deal about their migrations and habitats across North America.

One highlight of the project was a visit by Jerry Till, a biologist at the Hitchcock Nature Center in Iowa. Jerry flew to BBO specifically to learn how to attach nanotags in a backpack on the owls. Apparently, no one else has done this and he wanted to see our project firsthand. With this experience he can qualify for a US permit to attach nanotags next year.

And a second highlight was the interest shown by owl researchers and conservationists at the Global Owl Conference in La Crosse, Wisconsin. I attended the conference from October 23-26 and gave a demonstration of our attachment technique to many attendees who were keen to learn. We will publish our technique this winter so that others can learn what we have done.

Watch for the next update when our owls have more to tell us.

Thank you again for sponsoring nanotag(s) and allowing this project to be initiated. Your contribution to BBO is the key to our many programs. THANKS.