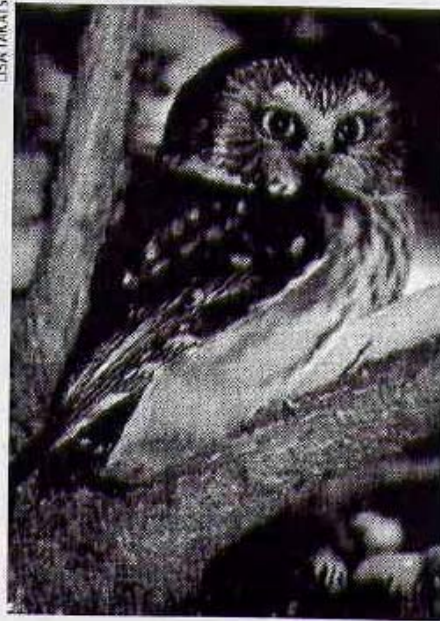


Northern Saw-whet Owls



Aegolius acadicus IN EDMONTON

A Beaverhill Bird Observatory Project

By Charles Priestley, Beaverhill Bird Observatory

It's dark, the temperature is below freezing, the moon is out, and there is little wind. A perfect night for mist netting! This time, however, our goal is not to catch and band songbirds. We are in pursuit of something quite different.

In October 2000, Lisa Takats, Bryn Spence, Tyler Flockhart, Richard Krikun and I initiated an urban Northern Saw-whet Owl, *Aegolius acadicus*, study in Edmonton which is working cooperatively with Barb and Jim Beck's Saw-whet project. This project is being conducted under the auspices of the Beaverhill Bird Observatory.

Our project has been designed to investigate three main things. Firstly, we would like to ascertain wintering population densities at four different Edmonton sites. Secondly, we want to determine whether or not Saw-whets maintain territories from the winter into the breeding season (Barb and Jim's initiative). Thirdly, we are marking the underwing side of the primary, secondary and tertiary feathers to get a better understanding of molt patterns (Barb and Jim's initiative).

Population Density

We have tried to choose sites from different parts of the city with as near to equal spacing from each other as possible. Our site in the northwest is near Collingwood, our northeast site is along Anthony Henday Drive, our southwest site is near the community of Twin Brooks and our southeast site is in Hermitage Park.

Ideally, we visit each of our sites once a month. Each weekend we band at a different site, which cycles us through a four-week schedule. Even though we would prefer to stay on schedule, it can sometimes be quite difficult to do so. Banding is not conducted when weather conditions could harm the owls. This means that we do not band when it is raining or snowing heavily, is too windy (above 3 on the Beaufort scale), or too cold (below -20 degrees Celsius). Sometimes two of the above conditions can combine which could also prevent banding. For example, if the temperature is -17 degrees Celsius and the wind is moderate (2 on the Beaufort scale) we could make the decision to not band that night. The most important thing to us is maintaining the safety of the owls, collecting our data comes second.

We continued trapping at our four sites until April and then we will resume again in September. I often get strange looks from people when I tell them what I'll be doing on Saturday night. 'I'm going to sit in the snow for three hours with some friends so that we can catch owls'. Perhaps we're a strange group but we all love what we're doing.



Lisa Takats holds a Northern Saw-whet Owl

Thus far we have caught and banded six Saw-whets. Three owls have been banded at Collingwood, two have been caught at our Anthony Henday site and we caught one in Hermitage Park. The site at Twin Brooks has yet to produce any owls although one was heard there.

In addition to banding at these sites we are doing call surveys to get an idea about population densities in other parts of the city. Christmas Bird Count data will also be used when we formulate our final conclusions.

Territory Maintenance

The second aspect of our project involves trapping owls once during the winter and then trapping again in the spring. Barb and Jim have chosen a few sites where we will catch and band owls during the winter. When we return to these sites in the spring we will try to recapture them. If we are able to recapture these owls we will be able to hypothesize that they had overwintered at the study site and that their territories were maintained from the winter into the breeding season. In addition, we might also be able to determine whether or

not there is only one distinct group that exhibits this behavior. For example, we might find that only adult males stay on their territories and that the females and the young from last year disperse or migrate. To determine the sex of the owls, we take and record measurements when the owls are in hand. Measurements such as wing and tail length can sometimes reveal the sex of birds.



I had the fortune of meeting these young Saw-whets one evening with volunteer bander Ray Cromie

By looking at the feathers we can sometimes determine a Saw-whet's age.

Molt Component

Lastly, we are marking the underwings of all the owls that we catch. When these owls are recaptured we will be able to see which flight feathers have been replaced because the replaced feathers will lack the pen markings that we had previously made. Determining the age of nocturnal birds can be quite difficult because unlike diurnal birds their feathers do not have a large amount of sun-bleaching. Normally sun-bleached feathers are easily detected and demonstrate the different age of the feathers and thus can give us an idea about the age of a bird.

The river valley, wood lots, and treed ravines that are found in Edmonton are all extremely important. Our data to date demonstrates their importance. Not only are these places important for the owls that we are banding but they are also important for a whole host of other animals. Because we are banding raptors, animals that are high on the food chain, their presence reflects the health of other animal populations in the ecosystem such as rodents.

This is a very exciting project because we are learning about the birds that essentially, live in our backyards. Our urban 'green areas' need to be maintained because they provide habitat for animals such as the Northern Saw-whet Owl, arguably one of the cutest of all creatures! If you know of a good place for Saw-whets or hear them calling (a sound much like that of the 'beep, beep, beep' when a truck backs up repeated continuously), please send me an email at charles@ualberta.ca so that we can use that important information in our data set.

Acknowledgements:

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