

Birds of a Feather - Banded Together (Part I)

by Tracey Dean HMSC Public Education

As HMSC's resident bird bander, I am often asked questions like "Why were there so few birds at my feeder this year?" or "Why did I not have any Woodpeckers at the suet this winter?" These are not simple questions to answer. An explanation for these and other similarly puzzling observations can only be obtained through accurate, long term, base-line data collection.

Since birds are at or near the top of many food chains they are good indicators of the overall health of our environment. It is in our own best interests to help maintain healthy and diverse bird populations. Staff at the HMSC are making valuable contributions to long term monitoring through a bird-banding project that began in 1989.

Under license from the Canadian Wildlife Service, the St. Andrews' Banding Station has been catching, banding and releasing songbirds since 1989. Fine-mesh nets called mist-nets are used to catch the birds. These nets are opened at dawn, when birds are most active, and carefully monitored every 15 minutes until they are closed at approximately noon. The mist-nets are almost invisible and birds flying through the woods hit with the mesh and fall into a "pocket". Here the bird is held until the bander comes to remove it. The nets are effective at catching small sparrow-sized birds but large birds such as robins often bounce out and escape.

Once a bird has been extracted from the net it is taken to a central station where data is recorded. Every bird gets an individually numbered band which is placed around the tarsus, lower leg. The age and sex of the bird are determined, mainly by using variations in plumage, and the birds are weighed and measured before being released. A total of 6443 birds representing 82 different species have been banded at HMSC since 1989. The five most commonly caught species are White-throated Sparrow; Magnolia, Myrtle, Black-&-White Warblers and Common Yellowthroat. Chickadees, which people are more familiar with, rank 6th with 313 banded.

Tagging projects, like bird-banding, allow us to track an individual's movements. This data leads to information about migration patterns for a species and lets us trace life histories. Once a bird has been banded it may be recaptured. When this occurs the individual band number is recorded and the bird released unharmed. Sometimes a bird is recaptured a few days later, sometimes it may be a year or two before that bird is seen again. A total of 348 birds have been recaptured at the HMSC more than a year after they were banded. The most commonly recaptured species is the Black-capped Chickadee, some of whom seem to be "trap-happy" and appear in the nets almost every time they are opened.

Recapturing "old friends" is one of the most fascinating parts of banding. Most of the birds banded at the St. Andrews' Station are migrants which travel back and forth to the tropics every winter. This is a tremendous feat of navigation and survival skills. There are still many mysteries in exactly how a warbler can find its way back to the same area each year. At the Banding Station, birds are often recaptured in the same net from which they were extracted the year before when they were originally banded. A female Black-&-White Warbler banded at the HMSC in 1991 was recaptured in 1992, not seen in 1993, captured again in 1994, again in 1995 and was last seen in 1998. There is a lot of mileage on those little wings considering Black & White Warblers winter in Florida and the Caribbean.

Birds lead a short but intense life. Everything happens very quickly to them. For small songbirds infancy, childhood and adolescent are crammed into less than a year. Therefore living for more than 7 years like, the before-mentioned Black & White Warbler, is quite a feat as most birds don't survive their first year. A Black-capped Chickadee shares the age record at the HMSC along with a Blackburnian Warbler and American Goldfinch, each of which was well into its 8th year of life when last captured. If you find a banded bird, note the exact location, the date, how the bird was found or killed, and all the numbers on the band. It is not critical that you identify the species. Send the information and the band if possible, to Bird Banding Office, Canadian Wildlife Service, Ottawa, Ontario, K1A 0E7. In return you will be sent a Certificate of Appreciation telling you who banded the bird, where and other information that was gathered at the time. The data will then be added to the permanent files of the Bird Banding Laboratory. The farthest known recovery location for a bird banded at St. Andrews is Honduras, Central America.

BIRDS OF A FEATHER - go where together? (Part II) **by Tracey Dean HMSC Public Education**

Where many of the migrant songbirds that breed in Charlotte County actually spend their winter holidays is still a mystery! Range maps in any bird book broadly outline where species are expected to be at a specific time of year but where the birds from Charlotte County actually go within these regions is not exactly known. Even for some of the most abundant species.

The St. Andrews Banding Station provides evidence of birds returning to the same summer area year after year and banding studies in the southern wintering area have described the same fidelity. But connections between the north and south are few and far between. This is not surprising! Trying to relocate a mobile 10 gram bundle of feathers has its challenges.

The period of parental care is very short for most songbirds. Once a juvenile can fly and fend for itself, it is basically on its own. Young warblers, sparrows, thrushes, vireos etc, instinctively find their way south on their own. This first

migration south takes a heavy toll on these inexperienced birds; but if they do survive the first trip, their chances of surviving the next few years are good.

Once familiarity has been established at both ends of the migration route, a bird will return to the same summering and wintering areas year after year. Previous knowledge of where to find food, shelter, nesting material and what types of predators may be lurking about must help increase a bird's chances of survival. Here one can draw comparisons with us going off on holiday to a strange place. We often book somewhere to stay in advance so we are not stuck out in the cold. Yet once we are familiar with the different lifestyle - food, water, climate, culture, bank machines - we relax and feel more comfortable. Why should birds be any different?

Banding Stations in New Brunswick and Canada as a whole are few and far between. St. Andrews is but a pin prick on the map of North America. In order to understand the patterns of migration and fluctuations in populations in species which move around as much as birds do it is often necessary to combine data from sites within broad ecology regions in order to make generalizations. For the moment, specifics are out of our reach. In Europe where many more people band in a much smaller area, their knowledge is more precise.

In 1989, The Institute for Bird Populations began a program to combine the data from stations which followed a set procedure. A small banding station like St. Andrews catches between 80 - 85 different species a year, many in small numbers. While the colourful variety of birds provides much of the enjoyment of banding, drawing conclusions about what is happening to populations is more important. By using the data from a combination of Stations, the Institute's Monitoring Avian Productivity and Survivorship Program (MAPS) has begun to see patterns in population increases and decreases throughout North America. The St. Andrews Banding Station has been contributing summer data to the nationwide MAPS program since 1991.

This is a time consuming way of gathering data and relies heavily on volunteers but results are starting to be compiled. By pooling data and working together, we will hopefully be able to quickly identify species or areas which might be in trouble as populations change, then we start to understand where birds from Charlotte County spend their winters!

For more information, visit Bird Studies Canada www.bsc-eoc.org or contact Tracey Dean at 506 529-1220, huntsman@huntsmanmarine.ca