

Songbird Banding Project  
Hogback Mountain, Spring 2020  
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Thanks to the generous support and with the permission of the Town of Marlboro and the HMCA, this past May I conducted a successful pilot field season mist-netting and banding a sample of both migratory (neotropical and nearctic) songbirds and non-migratory residents around the base lodge of the old Hogback Ski Area. The project's goal was to explore the logistics of operations and establish a functioning banding station, in the hope that future scientific, educational and outreach projects would evolve as word of this project spread among researchers and the general public. This effort was similar to one conducted at this location in 2015 by a research group from UMASS, but that study looked only at the autumn migration, there is no reference to an equivalent effort during the spring.

Vermont and the greater New England bio-region is rich with opportunities for migrating birds to rest and feed after their evening flight north bound so sample size was anticipated to be modest and sure enough the total data set for amount of effort reflected that anticipation. Though the effort in many ways was absolutely valuable.

The sampling was conducted on 23 mornings in May. With help from local birder Cory Ross and a graduate student Susy Mateos from Antioch University New England, we set up 9 mist nets within an area approximately 2 acres in size. Each mist net is 12 meters long and 2.6 meters tall and is made of a fine nylon mesh designed to safely catch this specific group of birds. The nets were placed where they would be most effective catching a sample of birds stopping over during their northbound movement. Upon removal from the net, each bird was identified as to species, age and sex, and a few biometric stats such as wing cord, weight (grams), and fat score were recorded. The bird was then tagged with a unique 9 digit serial number band on its tarsus and released. The entire process was completed in a few minutes. A couple of more minutes if any pictures by some of the folks that came to assist me wanted to take..

Both have that potential as I will detail later on... But first for this seasons numbers and highlights..

May is well into the spring migratory window, and birds down by the Connecticut River were arriving as predicted. At our elevation at over 2,000 ft. with morning temperatures in the low 40's and no vegetation on the trees, there were few insects to feed on, the likelihood of migrating birds was less likely. The project was to begin on May 1, but the arrival of a spring storm delayed opening day until 6:30 a.m. on May 3. After having the nets open for 3.5 hours, with net checks every 30 minutes or less, we had banded a total of just 5 birds. Nothing great compared to a historically established coastal field station, but a start for us at this elevation. The first bird banded was a second year male Dark-eyed Junco *Junco hyemalis* (#2540-53401), which was also recaptured on the 19th and 29th, so a definite Marlboro resident (the term "second year" in this context means the bird is in its second calendar year, i.e., hatched in 2019).

Weeks would pass before the foliage resembled anything like in the valley, but birds did begin to show up. Other hardy winter residents that were already in the area included a male Black-capped Chickadee *Poecile atricapillus* (#2780-14248) that was first banded by the UMASS group in 2015. On May 4th our first true migrant was banded: a SY male Ovenbird *Seiurus aurocapillus* (#1601-13696), a wonderful target species for a location like this one. Eleven *S. aurocapillus* were banded in total and three (2 male, 1 female) had multiple recaptures during this time, so a good guess they were stacking out a nesting territory.

Another interesting point to add were the frequency of recaptures. Of the 105 birds banded, 20 of them were recaptured at least once (some multiple times) indicating either long periods of stopover or this was the end of their migration and were establishing a nesting site. In addition there were plenty of banded singing male warblers that could be spotted bouncing around the station area days after initial banding. With good eyes and the aid of binoculars one could spot the recently attached band.

As the birds began to show themselves, word of the project got around, and people came out to assist and learn a bit more about the exciting world of birds. In all, 26 people (21 adults, 5 children) came to take part, a number worth noting. All were pleasant to have visit and participate, and I believe everyone who attended one or more sessions left with a grander appreciation for the diversity of native species

and a keener interest in birds. A full hearted thank you to all of those who did lend a hand.

Among the highlights of the project was the capture of a pair of Grey-cheeked Thrushes *Catharus minimus* that had body measurements which placed them into a category know as a "complex" for another species called a Bicknell's Thrush *Catharus bicknelli*. Such a designation due to the overlaps in measurements makes it difficult to identify the species with 100% certainty. BUT thrush #2341-18402 actually is being entered in the data base as a *C. bicknelli* because the measurements were outside the measurement overlaps. Other than the fact that the Bicknell's Thrush is a bit smaller (literally millimeters) with their own beautiful melodic thrush song (which they understandably do not provide to you while you are holding them in your hand) these two thrush species look practically identical. As a result of quality field investigation and study conducted by individuals with the Vermont Center for Ecosystem Studies, the Bicknell's Thrush has been recognized as a separate species for almost 25 years. Here is a link here to work conducted on this species.

<https://vtecostudies.org/wildlife/birds/mountain-birds/bicknells-thrush-2/>

If you look in an older field guide you won't see a listing for this species only a notation next to the Grey-cheeked Thrush. The BITH (Alpha Code) have a more specific limited breeding range than the GCTH using the montane forests dominated by balsam fir of New England and parts of Canada so having 2 banded at this location just before they arrive at their final summer destination is a valued information contribution. Since they will not likely sing until they arrive in their nesting habitat of conifer forests above 900m they would slip by un-detected, or identified incorrectly as a *C. minimus*. This species which migrates to only four islands in the Greater Antilles (Hispaniola, Cuba, Jamaica, Puerto Rico) is difficult to sample it's population size so is considered vulnerable to extinction and is on the Red List of Threatened Species by the World Conservation Union since 2000. Future field seasons on Hogback Mountain has the potential to contribute valued stopover information on the study of this species migratory movements. Small transmitters can be affixed to this target species and tracked during their migrations using a collaborative network of ground based automated radio telemetry arrays know as The Motus Wildlife Tracking System. Motus is latin for movement by the way. Information on this network can be gleaned at their site.

<https://motus.org>. This would be the same array that the UMASS team deployed during their project 5 years ago. Discussions with New Hampshire Audubon, which is spearheading a project called New England Motus to install a network of these very small antennas, is under way and Hogback is a perfect placement for one of these.

To wrap it up here are the numbers. After 23 days of operation (there would have been a few more but snow and below freezing temperatures kept the birds away and me home by the wood stove) averaging 3 hours a day with the earliest start at 6:30 and the latest closing of nets at 10:15 a total of 449 net/hours (number of hours x number of nets open = net/hours) had been logged, and 105 birds had been banded and released unharmed. All data will be electronically submitted via a software called *Bandit* and collected at the Bird Banding Lab, which is a department within the US Geological Survey. Anyone finding or recapturing a bird is asked to report their encounter with serial number to the Lab, which will provide proof of submission for record keeping purposes.

The plan for this autumn season is to increase the net lanes to twelve which will improve capture rates a bit, but, as stated earlier, this bioregion is rich in habitat options so it favors birds being well dispersed with many quality options to use during their migration. For the journey south in the autumn population sizes are considerably larger with the addition of newly fledged offspring mixed in with the seasoned adults. As a result, autumn capture rates are always higher. Set up will start in September and operate the site until mid October, and an organized support group to assist is needed and desired. So anyone interested in participating may contact me to discuss the various opportunities. No experience is necessary, only a strong curiosity. There are even opportunities for educational programing and more concentrated technique demonstrations for current grad students or the young budding field ornithologists out there. And the participation in the MOTUS network will put Hogback in a group with other conservation organizations doing their part in keeping track of living things that migrate, bats too.

Hope to see you all in the fall!

#### SPECIES LIST BY BAND SIZE WITH ALPHA CODE

Size 0A, ave. weight 9 grams

- Myrtle Warbler, MYWA

- Black-throated blue Warbler, BTBW
- Chestnut-sided Warbler, CSWA
- Blackburnian Warbler, BLWA
- American Redstart, AMRE
- Magnolia Warbler, MAWA

Size 0, ave. weight 12 grams

- Slate-colored Junco, SCJU
- Black-capped Chickadee, BCCH
- Eastern Phoebe, EAPH
- Black and White Warbler, BAWW
- Common Yellowthroat, COYE

Size 1, ave. weight 18 grams

- Ovenbird, OVEN
- Blue-headed Vireo, SOVI
- Red eyed Vireo, REVI

Size 1B, ave. weight 28 grams

- Hermit Thrush, HETH
- Yellow-bellied Sapsucker, YBSA
- White-throated Sparrow, WTSP
- Veery, VEER
- Swainson's Thrush, SWTH
- Bicknell's Thrush, BITH
- Grey-cheeked Thrush, Bicknell's complex, GCBI

Size 1A, ave. weight 45 grams

- Red-breasted Grosbeak, RBGR
- Red-winged Blackbird, RWBL
- Wood Thrush, WOTH
- Gray Catbird, GRCA

Size 2, ave. weight 74 grams

- American Robin, AMRO
- Blue Jay, BLJA
- Hairy Woodpecker, HAWO