

Fifty-seven birds returned to us from previous years. Oldest birds included a seven-year-old Gray Catbird, a six-year-old Song Sparrow; a Myrtle Warbler and a Gray Catbird at least six years old; a five-year-old Gray Catbird and three others at least five years old, and a Song Sparrow and Gray Catbird both four years old. All other birds were three years old or younger.

A Gray Catbird we banded as a SY in 2010 was found dead Aug 2013 in Brewster. A Blue Jay first banded as a SY in 2004 was found killed by a cat in Nov 2013. One of our Myrtle Warblers banded as a HY in Oct was found hit by a vehicle in Feb 2014 in Beaufort, NC, and an American Goldfinch first banded as HY in Nov was found killed by a cat in Feb 2014 in a nearby town.

Two new species for the station were added during the fall migration season: a Red-tailed Hawk and a Bobolink.

Pox was noted on eleven birds this fall: a Northern Cardinal, a Song Sparrow, four Gray Catbirds, and five Common Yellowthroats. All were HY birds except for one Common Yellowthroat and most of the pox was noted on the feet/legs with three on the mandible.

Two banding demonstrations were held this fall, one on 24 Aug and another one on 15 Sep.

As always, a big thank-you to all the dedicated banders and assistants mentioned above whom graciously volunteer their time. Thanks to the French Foundation and the Cape Cod Bird Club for monetary support. We appreciate the Cape Cod Museum of Natural History for allowing us to house our banding lab at their facility and the Town of Brewster for banding on their land.

Monomoy Refuge Banding Station 413-0699

Monomoy National Wildlife Refuge
Chatham, MA

Banders: *James Junda* (compiler),

Assistants: Kevin Mortensen, Melanie Mancuso, Michael Novak, Valerie Boudeau, Elizabeth Baldwin

Monomoy Refuge Banding Station (MRBS) located (41.559°N, 69.995° W) was founded in 2011 by James Junda with cooperation and assistance of staff at Monomoy National Wildlife Refuge (NWR). MRBS is operated by both volunteers and highly trained professional banders. It is a valuable addition to the collection of banding stations on Cape Cod, being the most easterly and only station located on a barrier island. The two closest stations are Wing Island Banding Station in Brewster (30 km to the NE) and Manomet Bird Observatory (70 km to the ENE). Operations are based upon the protocols of other constant-effort banding stations in the United States and Canada with an emphasis on standardized research protocols. In addition to collecting and analyzing scientific data to assist in management decisions, MRBS serves to increase public interest in Monomoy NWR.

Fall migration monitoring is a standardized study undertaken annually. It provides the basis for long-term trend analysis of migrating birds using the refuge. It is designed to be comparable with the methodology of other fall migration banding stations. The protocol involves regular monitoring including standardized census, banding, and incidental observations taken each day staff is present at the station. The fall migration season extends from 15 Aug - 15 Nov. This period encompasses the majority of fall passerine migration, giving a thorough view of the process.

The banding season started on 15 Aug and ended on 10 Nov. We operated a maximum of 13 nets on 49 days, for a total of 3087.02 hours. We conducted censuses a total of 58 times, 23 at Powder Hole, 20 at Lighthouse Beach and 15 at Big Station Pond. Coverage of MRBS in 2013 was very high until 29 Sep. Out of 44 days in this time period, we performed censuses on 38 (86%) and banded on 31 (70%). The 19-day shutdown of the federal government suspended operations from 20 Sep to 18 Oct; during this time no data was collected. From 19 Oct to 11 Nov, coverage was lower due to less-stable weather associated with late fall in coastal New England. Out of 24 days, we performed censuses on 21 (88%) and banded on 13 (54%).

The first two weeks of November were quite windy, limiting significant banding effort to four days, hindering quality of censuses and leading to a departure from the station on 10 Nov.

During fall 2013 operations, we captured 2,999 individuals of 85 species: 2,481 newly banded birds, 431 local recaptures, 86 unbanded and one foreign recap (a Myrtle Warbler banded in Manomet, MA). This represents a near 50% increase from the 2012 total of 1,787 captures, which was itself double the 2011 total of 934 individuals banded. This increase in captures is attributable to the increase in banding effort from 2011 to 2012 and 2013. We banded nine new species at MRBS in 2013, bringing the three-season total to 101 species captured.

Species richness was similar, but a bit higher in 2013 than it was in 2012 or 2011. There were 11 days (13% of total) in which we banded over 20 species, compared to five days in 2012 and four days in 2011. In 2013, we captured an average of 15.1 species per day, compared to 12.9 in 2012 and 13.5 in 2011. The most diverse day was 28 Sep with a record of 30 species captured. This occurred a month before the peak of migration volume (late Oct). The year 2013 was also an extremely good year for flycatcher diversity, with a total of 42 individuals captured representing all nine of the species breeding in Eastern North America, including three new to MRBS!

There were nine new species banded in 2013: Northern Rough-winged Swallow, Alder Flycatcher, Acadian Flycatcher, Great-crested Flycatcher, American Pipit, Chestnut-sided Warbler, Blue-winged Warbler, American Tree Sparrow and Sharp-shinned Hawk. Last year's explosion of pine nut specialists ended, and this fall there were zero captures of Pine Siskins or White-winged Crossbills. Red-breasted Nuthatch numbers also returned from the explosive levels of 2012, when 162 individuals were banded versus 2011 (0 banded) and 2013 (2 banded). These pine specialists seem to have been replaced with a boom in flycatchers this year. This is just another example of the valuable seasonal data that can be obtained from banding stations.

There were 16 returns (birds banded at MRBS prior to 2013) captured a total of 24 times. Fifteen of these were originally captured in 2012 and one in 2011. All of these returns were species that breed on site: five Savannah Sparrows, five Common Yellowthroats, three Gray Catbirds, two Song Sparrows and one Yellow Warbler. Our single (and first ever) foreign recap was a hatching-year male Myrtle Warbler captured on 5 Nov and obviously banded in 2013, probably during migration. There are a number of possible explanations for the lack of migratory returns to MRBS. Migratory returns are numerically rare at any station, but Monomoy's location out of the primary migration pathway leads to a predictably low number of migration returns. Birds end up on Monomoy when something unexpected happens during migration. While this brings in very interesting birds, South Monomoy does not appear to be a regular stopover location for non-coastal species.

Monomoy Refuge Banding Station continues to provide unique information about birds using a very specialized habitat not generally associated with migrating songbirds. This allows us to focus in on certain aspects of migration that may be drowned out by the volume of birds on the mainland. Additionally, the combination of landbirds, waterbirds, and seabirds present in the area allow for interesting comparisons of migration across groups, but on a very local scale.

MRBS is expanding operations in 2014 to reopen the historic Austin Field Station banding operations on the Mass Audubon Wellfleet Bay Wildlife Sanctuary. We are very excited about the outreach opportunities presented to us by this popular mainland destination. Finally, we have obtained historic banding records for both South Monomoy and Wellfleet stations spanning from the 1960s-1990s and offering some exciting prospects for research.

