
Atlantic Flyway Review: Region II (North Central) Fall 2003

John A. Gregoire, Coordinator
Kestrel Haven Avian Migration Observatory
5373 Fitzgerald Road
Burdett, NY, 14818-9626
khmo@att.net

The effects of weather systems on migration were demonstrated very clearly this season. Many blocking or stationary frontal systems settled either across the New York-Pennsylvania border or a bit farther south. The result was much longer stopovers and higher species counts in our central/southern station (Kestrel Haven). This same pattern created southerly winds over the Lake Ontario littoral causing unfavorable banding conditions for the normally prolific concentration point areas (Brad-dock Bay). Several low-pressure areas re-formed off the east coast and tracked up that coast as "Nor'Easters." Those storms produced wrap-around winds that also added to the abundance at interior stations. The rain shield was so close and limited that it adversely affected banding just to the southeast of Kestrel Haven (Northview), while our stations south of Binghamton (Powderhouse Road) and just east of the Catskill Mountains (Ellenville) had normal seasons. Several stations were not in operation during the October bonanza.

While we get a decent picture of the effects on migration across central New York, it would be extremely helpful if those living and banding elsewhere within our region would join us by contributing to this cooperative research. Specifically, banders operating in eastern Pennsylvania, New York, east of Rochester and into the Adirondacks, and our Canadian friends in eastern Ontario need to contribute. Like the TV commercial says, "I know where you live." Seriously, it is a shame to be banding in those areas and not contributing your data and knowledge to this joint effort. Please contact us for information and join us in 2004. You observe and know so much that never makes it to the "official" database. Think of this as an opportunity to contribute your knowledge and data to the

community at large. What good is it if you keep that important information to yourselves?

Spring, summer, and fall were all fairly wet this year. One would have expected a rise in parasites, but reports indicate low-to-normal incidence. Of great concern is the appearance of large numbers of scaly leg and pox infestations as well as tumors and bill deformities found on a large variety of species this fall.

Tumors were reported on many body areas. Bill and tarsal erosions, where pox lesions fell off, active pox, which is caused by a virus, and scaly leg or "tasselfoot" which presents as skin protrusions and large scales, the end result of mite infestation, were all reported in significant numbers. While we are not qualified to propose a cause, it is pretty obvious that we, as banders, are on the front line and the first to notice and document the frequency and distribution of such problems. Several researchers have pointed to environmental concerns after dismissing other possible causes. They cite the mutagenic, carcinogenic and teratogenic effects of chemical pollutants such as pesticides. This entire area is greatly understudied.

So, what can we do? First, more of us need to report to the AFR regions; second, become familiar with the diseases and how they present; and third, keep detailed records and take photos if you do not already. Also, we need to establish a focal point for data collection or perhaps several.

Julie Craves wrote an informative article on bill deformities in *NABB* 19:14-18 (1994). If you do not have that copy, you can read it on her website at http://www.umd.umich.edu/dept/rouge_river/bills.html. Julie has taken the lead on documenting bill de-formities and is using this site to list the ever-growing incidence. This fall she greatly added to that data set with contributions from stations in several AFR regions.

We need others to step forward and assume the lead on pox and the others. Perhaps a university scientist with an interest in this area could be so induced? Until our white knight appears, the best vehicle is to document in AFR reports. The Birdband listserv may serve as a discussion forum. You can subscribe by sending an email to: listserv@listserv.arizona.edu and place "subscribe" (without the quote marks) in the subject line and as your message; no other text required. This is at best an ephemeral means of documentation but it does get the international banding community talking about the issue. If this fall is an example, very few people had active research or stated interest in these areas. There is a wide open study area for you, your subs, or grad students!

So many AFR stations have been in operation for decades, many in this area. When Kestrel Haven encountered two Gray Catbirds that exceeded the published age record, we uncovered an even greater age for the species. Listed on the BBL site is a remarkable 17-year-old catbird. Even more interesting, this bird was banded in Maryland by our friend, the late Gladys Cole. Her catbird was banded as an SY-U on 13 May 1984 and unseen until retrapped and released by Nick Pulcinella at Island Beach, NJ, on 4 May 2001. Barbara Ross maintains Gladys' records which is a double reminder to all of us that this work will live beyond our years and we should all have a designated repository/caretaker for our field records as so little of what we know is placed in a computer file.

Braddock Bay Bird Observatory 431-0774
Kaiser-Manitou Beach Station
Monroe County, NY.
Elizabeth W. Brooks, Compiler
(brookser@infoblvd.net)

The eighteenth consecutive year of fall banding at the Kaiser-Manitou Beach Banding Station began on 8 Jul 2003 and ended on 13 Nov. Licensed banders David Bonter, Elizabeth Brooks, Jon Dombrowski, Kristina Hannam, Erin Karnatz, Cindy Marino, Robert McKinney, and John Waud did the banding. Banding assistants were Chara Batchelder, Kelly Dockery, Virginia Duffy, Charley Eiseman, Ryan Kayhart, Coby Klein, Pat Lovallo, Anna Ludi, Doug Smith, and Chris Villone.

Banding was carried out for at least six hours beginning at dawn every day between 24 Aug and 12 Oct. Banding was also done on seven days prior to and six days after the intensive banding period, for a total of 12,742 net-hours on 63 days. There were 4678 birds banded of 89 forms. Nine Ruby-throated Hummingbirds were released unbanded. The season's capture rate was 36.7 b/100nh. Cooper's Hawk and Red-bellied Woodpecker were new species for the cumulative fall list that now stands at 122 forms.

The best day was 6 Oct, when 532 birds (30% White-throated Sparrows and 20% Hermit Thrush) of 26 species were banded. Other 200+ days were 10 Oct (410), 7 Oct (303), and 9 Oct (285). The greatest species diversity occurred on 10 Oct when 28 species were banded.

Up to 45 12-m nets and four 6-m nets were used, most in the same locations as in previous years. Included in the 44 12-m nets were six double-high net assemblies. Nets were numbered and identified as to their habitat site and the capture time (hour after sunrise to the nearest 0.5 hour) and net number was recorded for each bird handled.

There were over 861 birds recaptured during fall 2003, and they were all measured, fat-scored, and re-weighed. Twenty-two percent of the same-season recaptures were White-throated Sparrows. Of 22 birds returning from previous years, the eldest was a seven-year-old Northern Cardinal. A Song Sparrow returned at five years of age, while a Black-capped Chickadee, a Yellow Warbler, and a Northern Cardinal were four. All others were younger.

There was a significant outbreak of avian pox with obvious lesions found on 112 birds of 12 species: Black-capped Chickadee (3), Veery (3), Gray-cheeked Thrush (2), Swainson's Thrush (15), Hermit Thrush (27), Gray Catbird (3), Ovenbird (2), American Redstart (2), Common Yellowthroat (5), Northern Cardinal (9), Swamp Sparrow (1), and White-throated Sparrow (41). Most lesions were observed on the toes and feet but some individuals (especially cardinals) also had lesions around the mandible and eyes. Hypoboscids were found on a Cooper's Hawk, 2 Veery, 2 Hermit Thrush, 2 Ruby-crowned Kinglet, 6 White-throated Sparrow, 1 White-crowned Sparrow, and 2 juncos. Feather

lice were found on a White-throated Sparrow. Ticks were removed from two Swainson's Thrush and a White-throated Sparrow. Tumors were found on a Black-throated Blue Warbler's foot, and a junco had a tumor at the base of its skull. Two individuals, a Hermit Thrush and a Lincoln's Sparrow, had air sacs in their furcular cavity. Healed old fractures were noted on a Common Yellowthroat and a Hermit Thrush. A junco appeared to have an everted inner ear.

It was a frustrating fall with day after day of winds from the SE—fine spring banding conditions! Nets had to be closed early on many days because of the heat and humidity. Finally, on 5 Oct the winds shifted to the N and the dam broke. During the period from 6-12 Oct, we banded a total of 2058 birds, more than the combined total of the previous six weeks!

Total net hours (12,742) was the third highest in 17 years (range 714 in 1988 to 14,518 in 1999). The b/100nh capture ratio in fall 2003 was 36.7, the second lowest ever (15-year average = 64.6; range 30.1 in 2002 - 98.0 in 1988). The hatching-year percentage of all birds banded was 85.0% (11-year average = 82.6, range 74.5 - 92). Thirteen species were banded in record-high numbers. They included Traill's Flycatcher, Brown Creeper, Hermit Thrush, Gray Catbird, Cedar Waxwing, Blue-winged Warbler, Eastern Towhee, Fox Sparrow, Swamp Sparrow, White-throated Sparrow, Eastern White-crowned Sparrow, Common Redpoll, and House Sparrow.

Dr. Kristi Hannam, Assistant Professor of Biology at SUNY Geneseo, and SUNY Brockport graduate student Brendan McCabe conducted blood research projects at the banding station this fall. Meena Haribal from Cornell took preen gland samples from several thrush species. We collected ticks for Lyme disease research being conducted by Dr. Janet Huie at Carthage College in Wisconsin. We also sent tail feathers of Connecticut Warblers for DNA analysis to Dr. Irby Lovette at Cornell University.

We were indeed fortunate to have Professor David Norman, a ringer from Cheshire, UK, in residence

for five days. His teaching skills are amazing and his wonder and sense of humor marvelous.

On 3-5 Oct, the observatory hosted a North American Banding Council Bander Certification Evaluation Session for the Eastern Bird Banding Association. Students from John Waud's RIT "Great Lakes" course and Sara Morris' Vertebrate Zoology Course at Canisius College visited the banding station. Many individuals visited the banding station on an informal basis. Pat Lovallo presented a program on bird banding as part of the Preserving the Earth Through Education (PETE) workshop at Brighton's French Road School. RIT Senior Jennifer Treuting spent several days at the banding station videotaping for the video she is producing for BBBO. Our fall research assistant was Charley Eiseman, and Ryan Kayhart was our intern.

Thanks to Tom Muller for mowing paths, to Jim Gillette for mowing the field; and to Doug Smith for all his habitat management and housing visiting banders. Special thanks to Jeff Holley of Hanson Aggregates in Pavilion, NY, for donation of the truckload of crushed stone for our trails; to Steve Army of the NYSDEC Mined Land Reclamation Division, and David Woodruff, Sr. Wildlife Biologist of Region 8 DEC, who helped make the arrangements for the donation. Thanks to Paul Fehringer for first aid advice.

Appreciation to the following individuals who helped scribe, tended net lanes, or assisted with other aspects of our educational or banding operation: Ann Adams, Jessie Barry, Bryan Correa-Berger, Sharon Dehn, Virginia Duffy, Judy Engerman, Marilyn Guenther, Judy Gurley, Donna Hilborn, Cindy Kayhart, Joanna Klima, Tom LeBlanc, John Lehr, Carolyn Marrocco, Janice Marsden, Ed McCrea, Chita McKinney, Shirley Meston, Dan Niven, Rebecca Peak, Paula Peng, Debbie Reed, Jeanne Skelly, Ruth Stork, Barb Wagner, Dan Webb, and Michael Wickens.

Special thanks to David Frosini, Bob and Charlene Reed for housing, and to Bill Kaiser and Genesee Land Trust for permission to band on their land.

Alfred Station 421-0774
Allegany County, NY
Elizabeth W. Brooks (brookser@infoblvd.net)

The 27th year of fall banding at Alfred Station (1435 Waterwells Road in the Town of Alfred) began on 10 Jul 2003 and ended on 23 Nov. From one to four nets were used on 60 days, for a total of 466.5 net hours. A total of 200 birds of 27 species were banded. The peak day was 28 Oct when 17 birds were banded. There were 121 repeats and 15 returns of birds banded in Alfred during previous seasons. There were two Blue Jays, one in its seventh year and one in its twelfth year! Eleven Black-capped Chickadees returned, two of which were in their fourth year. All others were younger than four.

Feather lice were found on two chickadees. Three White-throated Sparrows, all HY, had orange lores.

As in the previous six years, no banding was done at this location from 8 Sep to 10 Oct when I was banding at Braddock Bay. This makes meaningful analysis difficult. The number of birds banded has remained steady for the past four years, but the number of species (27) was nearly half the 25-year average (47.8). B/100nh (42.9) was double the 27-year average (21.8).

The highest total ever was recorded for White-crowned Sparrow (11). Both Magnolia and Myrtle warblers were missing after being recorded in 16 of the past 17 years. American Robin was missing after being banded in 15 of the past 17 years and, White-breasted Nuthatch was missing after being recorded in 13 of the past 17 years.

Several slide presentations on bird banding were given to local clubs and a banding demonstration was held at Foster Lake on 6 Sep.

Spring Hill Wildlife Sanctuary 423-0772
Steuben County, NY
Robert and Chita McKinney

The year 2003 was the tenth year for this AFR station with operation from 14 Aug through 18 Sep. For personal reasons we were unfortunately unable to continue the season past this point. We

experienced a severe winter that would not quit followed by a wet spring that started very late. Most of the summer was also very wet here. Because of the shortened season, we banded only 75 birds of 22 species.

Kestrel Haven Avian 422-0764
Migration Observatory
Burdett, Schuyler County, NY
John and Sue Gregoire (khmo@att.net)

It was a spectacular season of superlatives in all respects! We broke all station records but one by a very large margin, added five new species and enjoyed superb returns.

Numbers in parenthesis equal previous records. This season we banded 5,760 new birds (3,629) of 107 species (95) in 120 days (113) of operation. We also had 1,421 repeats, 136 returns (115), one foreign retrap, and 400 Ruby-throated Hummingbirds (208). The hummingbirds were not banded nor were six other birds of various species that presented with severe pox which greatly increased the diameters of their tarsi. The total birds netted was 7,724, making our measure of efficiency 117 b/100nh for newly banded birds and 157 b/100nh overall. Hatching-year birds were on the 18-year norm of 87%.

We added Belted Kingfisher, American Crow, Blue-gray Gnatcatcher, Louisiana Waterthrush, and Clay-colored Sparrow to bring the station total to 129 species and five forms.

We had 39 days with more than 50 birds banded of which 13 days were over 100 banded and two were over 200! Our ten most frequently banded birds in aggregate exceeded previous season records. To top that off, we had a total of 14 species banded in numbers exceeding 100. Monthly totals were: July 642 (658), August 815 (789), September 1,682 (1,095) and November 890 (315). The period 16 Sep through 16 Oct was particularly bountiful with many 100 plus days strung together.

The primary reason for this abundance is best answered by the superb weather conditions for banding, which we encountered every month. There were many frontal systems that persisted either just to our south or directly overhead which caused

extended stopovers here. Additionally, the wrap-around winds from coastal systems added to the bird flow and species abundance. We did have one very powerful and traditional Northwest front that brought our sixth Gamble's White-crowned Sparrow. Thanks to the blocking systems, many of the species that normally overfly this station, such as thrushes, were banded in record numbers.

Once again we had strong indicators of global warming. This season's abundance of American Goldfinch continues an increasing population trend. We banded 2,235 this year. From 1986 through 1997 we had banded 1,745, while the period 1998 through 2003 total increased to 6,036! A similar, though less spectacular, rise has been observed with Baltimore Orioles. From 1986 through 1997 we had banded 146 while the period 1998 through 2003 total is 300. This year we accounted for 74. A few other species are beginning to demonstrate similar trends, but we have insufficient data to comment.

We trapped a color-banded House Finch that had been banded earlier this year in Ithaca, NY. The BBL reported five encounters: an American Tree Sparrow was found 90 miles NNE and was in its 4th year; an American Goldfinch was recovered in central Florida, a distance of 900 miles to the south, two months after its banding; another goldfinch was found 20 miles to our east; a Slate-colored Junco was recovered in North Carolina, which is 450 miles to our south; and an American Robin was found in southwestern Louisiana four years after it was banded here. The latter represents a distance of over 1,200 miles.

Of the 136 returns, 40 individuals of 13 species were recaptured at ages of four years or more, the eldest of which was an eleven-year-old Gray Catbird. A second catbird was ten. Others were: a Downy Woodpecker at 7+ years; an Eastern Kingbird at 5+; a Blue Jay at 4; a Purple Finch at 4; 14 American Goldfinch at 4 (7), 4+ (3), 5, 5+ and 6 years of age; a Song Sparrow at 4; two Yellow Warblers at 4 and 6+; a Chestnut-sided Warbler at 4+; seven Common Yellowthroats at 4+(2), 5+(3) and 6 (2) years; five Gray Catbirds at 5, 6, 6+, 10 and 11 years; an Eastern Tufted Titmouse at 4; three Black-capped Chickadees at 4, 5 and 9; and two American Robins at 4 and 4+ years of age.

We thought we had a record in the catbird but later found that a Gray Catbird banded as a SY-U by the late Gladys Cole in Maryland on 13 May 1984, was retrapped by Nick Pulcinella at Island Beach, NJ, on 4 May 2001, which made the bird over 17 years old!

So many species were banded at numbers greater than two standard deviations (SDs) over the 18-year norm that we will only touch the highlights here. We banded two Red-tailed Hawks, our first since 1988. Thrush numbers were much greater than normal, with Gray-cheeked banded at five times its norm and a single Bicknell's Thrush. We missed Philadelphia Vireo for the first time. We enjoyed a remarkable 30 species of warbler, eight at SDs of 2, and Nashville, Western Palm and Hooded at 3 SDs above the norm. Orioles, cardinals, and grosbeaks were all here at twice their usual numbers, while White-throated Sparrows made their largest appearance ever. We had several small flocks of Pine Siskins and, of course, all those goldfinches! One adult flicker intergrade was banded this year, which continues a growing trend in this region.

On a sad note, as intensive agriculture supportive of dairy farms continues to expand in this overall region, we are losing more and more grassland nesting species. The concomitant loss of hedgerows is also causing a noticeable loss of species and numbers. At times we think we would prefer "farmette" subdivision to these super large mono-cropped dairy fields. The area has gone from picturesque hedgerowed farms to something resembling the tundra or huge mid-western cornfields and all are frequently harvested with greater precision than ever before, leaving neither room nor time for nesting and no food for survivors.

Most disturbing were the many bill deformities and cases of avian pox and scaly leg we encountered this season. Nine birds presented with some form of bill problem with crossed bills in Cedar Waxwing, Common Yellowthroat, Northern Cardinal, Mourning Warbler, and House Finch. Rose-breasted Grosbeaks presented with bill tumors and excessive keratinization of the upper mandible. Pox was present on seven species. Despite the overall wet spring and summer, hypoboscid flies were light as were feather mites. Towards the end of the

season we had a large influx of dispersing House Finches, with many of them displaying symptoms (conjunctivitis) of *Mycoplasma* infection. We also captured one goldfinch that presented with conjunctivitis.

Our third year of identifying and marking dragonflies resulted in the netting of 104 individuals of 14 species. The station total of odonates is now at 56 species. Incidental to banding, we netted *Anax junius*, *Aeshna constricta*, *canadensis* and *umbrosa*, *Epiaeshna heros*, *Boyeria vinosa*, *Cordulegaster maculata*, *Libellula lydia*, *L. pulchella* and *L. luctuosa*, *Sympetrum internum* and *S. vicinum*, and *Lestes congener* and *L. unguiculatus*.

We thank Don and Doris Cohrs, A.L. Donahue, Bob and Judy Cosgriff, Jay Schissell, Joe, Denise, Angela and Laura McEnerney, Jeff Holbrook, the Chemung Valley Audubon Society, David Guaspari, Robin Tuttle, Rich and Judy Hurley, Sandra Polakow, Jean Tierney and Ruth Young for their generous support and several others who contributed equipment, advice and assistance. These include Stillman's Greenhouse, Gary Herzig, Fred Sibley, *Natural New England*, Pine Tree Farms, Spidertech, Pat Fitzgerald, Susann Argetsinger and Barlow Rhodes. A special thanks is due our new webmaster, Victoria Bond, who has lent her considerable talents to the design, implementation, and maintenance of our new web site.

Northview Sanctuary **421-0762**
Candor, Tioga County, NY
Robert J. Pantle (bpbird@pronetisp.net)

Varying weather conditions over the 45 days this station was active and a lack of birds contributed to my very modest banding report.

A number of low-pressure systems just to the south of this station had a "damming" effect and usually produce excellent banding conditions. However, this season with the low pressure came the rain forcing the closure of nets. In addition, northwest fronts were lacking. Records of the precipitation totals for this banding season show a very wet spring, summer, and fall. Temperature was below normal for the period, producing a cool, very wet banding season.

We banded 303 individuals of 44 species during 45 days of operation. Also, there were 17 repeats and 12 returns, with one Gray Catbird at five years of age.

Our top species again this year was the Gray Catbird. The local habitat has changed from farmland meadows and hedgerows to overgrown fields and brushlots, which seems to appeal to catbirds. Also, Common Yellowthroat numbers (#3 on our list) are increasing. I suspect this is also due to habitat change.

Eastern Bluebirds are not the common breeding species they once were and more Tree Swallows are finding this habitat unappealing.

Perhaps the highlight of this season were the two Brewster's Warblers (my first ever); both hatching year and another indication of the change of habitat at this station.

Powderhouse Road Station **420-0775**
Vestal, Broome County, NY
Gail Kirch (gkirch1234@aol.com)

This was the 15th year of AFR banding at this site. Once again the weather had an impact on the banding. Our cool and rainy spring and early summer apparently caused successful nesting to be later than normal. MAPS banding numbers were 25% lower than average. Fledglings of Gray Catbirds, my most common nesting species, did not appear until the end of July.

The cooler and wetter weather has caused a fungus to attack the native dogwoods. This fungus is weakening them and may kill them if we have another damp summer. As my thickets are crowded, natural thinning may prove to be positive.

August banding was truly slow - only 195 birds in 540 net hours or 36 b/100nh. The best day of the month was on the 21st with 19 new birds banded. September, in contrast, was excellent and second only to September of 1995. This September yielded 76 b/100nh, as compared to September 1995 that was 85 b/100nh. Both years had approximately the same number of net hours and new birds banded.

Red-eyed Vireos led the list of species banded. A total of 124 came steadily throughout September. Magnolia Warblers also were strong at 66, which is the most ever banded. The previous 14 years averaged only 17! Gray Catbird numbers were also good at 87, as the average is 73. There were no big days in September.

I was not available to band from 10-15 Oct and from 18-25 Oct. The weather during periods when I was banding was either windy or foggy. Missing were large flocks of Cedar Waxwings and American Goldfinches. Juncos never came in any number. My "big" day was 30 Oct with 51 birds of 13 species banded. Juncos made up 24% of the total; White-throated Sparrows, 20%; and the remaining 11 species consisted of five birds or less.

Last year we had the first (2) Rusty Blackbirds seen on this hillside in 40 years. This year produced the third record. There were no new species. However, I caught two Sharp-shinned Hawks. Harriet Marsi, who is no longer actively banding, came over to help with banding these accipiters. One was a hatching-year bird and the entire area inside the mouth was a bright royal blue that contrasted with a chartreuse cere. The second bird was a second year. The blue and chartreuse were not as bright. These birds were the highlight for me. Thanks to Harriet we could really study the birds.

Ellenville Station

414-0742

Ellenville, Ulster County, NY

Valerie M. Freer

My 2003 banding results were not far from the averages of the previous 33 years. When the successes of each fall season were ranked, 2003 was 11th (out of 34) in numbers of birds banded and 13th in birds per 100 net hours. However, the season was excellent in one regard: 61 species were banded, which was exceeded only by 1970 (with 65 species) and 2001 (62 species).

During ten fall seasons of the 1970s, I averaged 57 species per season; that decreased to 56 in the 1980s and to 52 in the 1990s while banding effort changed little. Four very low years in the 1990s (about 45 species each) made me think that I might be seeing a trend toward a decline in species diversity. However, the number of species has come

back up to an average of 58 per season during the most recent four years, for unknown reasons.

Temperatures were about average but it was unusually wet, as evidenced by open water on the ground surface near several nets throughout the season. Precipitation was three inches above normal in August and five inches above normal in September. There were 12 days of rain in September! October was also wet, with very high winds on several days. Fruit was abundant on the shrubs surrounding the net lanes.

There were no really big days and only five days of over 20 birds caught. The number of juncos banded dropped dramatically from 19% of the catch in 2002, and no other species dominated so strongly. The top five species made up only 40% of the catch. The number of warblers banded (99) made up 19% of the total and 124 sparrows comprised another 23%.

Seventeen Hermit Thrushes were banded (the most since 1982), and 11 Swainson's Thrushes (the most since 1985). The number of Red-eyed Vireos (44) was twice the average and exceeded only in 1991. (All three of these species were feeding on arrowwood, *Viburnum dentatum*, or silky dogwood, *Cornus amomum*, fruits.) Fifteen Black-throated Blue Warblers was exceeded only once, in 1998

While it may be impossible to observe population trends in fall banding because of the large roles of weather patterns, vegetation changes, and chance, my data show broad changes in patterns for a few species over the years. In the early years I usually recorded double-digit numbers of Least Flycatchers, Swainson's and Wood thrushes, Cedar Waxwings, Blue-headed Vireos, Rose-breasted Grosbeaks, and Eastern Towhees; in later years, each of these species has been recorded in single digits or was absent. Conversely, a few species have been caught in generally higher numbers in recent years: Ruby-crowned Kinglet, Magnolia Warbler, Purple Finch, American Goldfinch, and Slate-colored Junco. (The patterns for the latter group are not as strong as for the declining group.) Species that are more consistent over the 34 years, varying by as much as a factor of four to seven times but never in single digits or absent, include Black-capped Chickadee, Gray Catbird, Common Yellowthroat, and White-throated Sparrow.