
ATLANTIC FLYWAY REVIEW:

Region IV Piedmont (Coastal Plain) - Fall 2016

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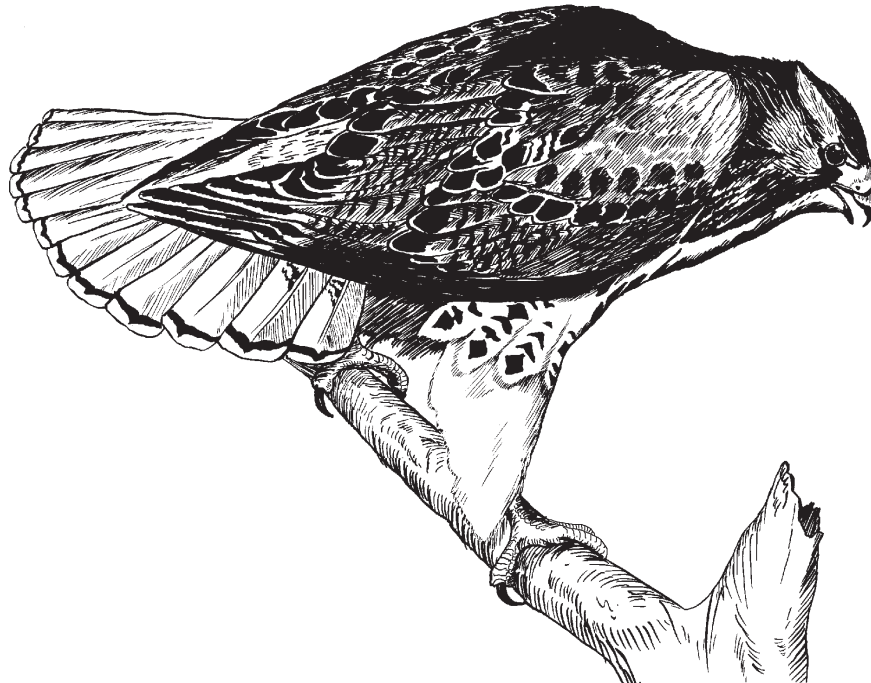
Banding stations operating in the Piedmont and Coastal Plain regions of the Atlantic Flyway during fall migration in 2016 who were able to provide season summaries, included below, generally reported a lower overall capture rate compared to 2015 (Table 1) and several other previous years. Summaries and Tables 1 and 2 are arranged by station location, from north to south.

Each station reported variation on the capture rates of individual species captured in 2016 compared to 2015 (Table 2) as well as most stations reporting new species. Foreman's Branch Bird Observatory had an unusually high catch of Purple Finches and added Lark Sparrow and Red-tailed Hawk to its species list, Patuxent Research Refuge captured its first Clay-colored Sparrow, the Kiawah Island banding stations in South Carolina reported their first captures of Yellow-crowned Night-Heron,

Warbling Vireo, and Yellow-green Vireo, Red-shouldered Hawk, Loggerhead Shrike, Mourning Warbler, and Red-winged Blackbird, and at Bill Baggs Cape Florida State Park, they captured its first Savannah Sparrow and Bobolink.

While most stations reported a reordering of capture rates for species compared to 2015, many species in the top 10 in 2015 remained so in 2016, with the more northern stations reporting highest capture rates for overwintering migrant and resident species.

The major weather event during the fall of 2016 appears to be Hurricane Matthew in early October, which caused the South Carolina stations to close for a period while threatening others with closure (Cape Florida), and continued to affect local weather for several days following.



Red-tailed Hawk
by George West

Table 1. AFR Region IV – Fall 2016 Summary.

	Eden Mill	Foreman's Branch	Patuxent Powerline	Kiawah Island Captain Sam's	Kiawah Island Little Bear	Cape Florida
First Day/Last Day	9/3-10/29	8/3-11/30	8/15-11/18	8/22-11/17	8/15 – 11/30	8/16-11/7
Days Operated	9	100	42	75	98	78
No. of Nets Used	13	10-91	26	20	26	26
Total Net Hours	364	27,224	3,530	6,011.8	12,582.5	10,630
Number of birds banded on best day	50	374	90	207	255	119
Date of best day	10/15	11/2	10/11	10/23	9/24	10/3
Largest number of species banded in one day	15	41	21	27	31	20
Date of largest number of species	10/29	10/6	10/11	10/22	10/23	10/4
Total birds banded in autumn of 2015	198	8,807	1,472	2,370	4,770	2324
Total birds banded in autumn of 2016	208	8,400	1,360	3,442	3,872	1932
Total species banded in autumn of 2015	31	115 plus 1 race and 1 hybrid	73	70	83	66
Total species banded in autumn of 2016	36	120 plus 2 races and 1 hybrid	75	74	84	62
Birds per 100 net-hours in autumn of 2015	53.1	26.9	42.5	78.2	48.7	21
Birds per 100 net-hours in autumn of 2016	57.1	30.8	38.5	74.4	40.1	20
% hatching year birds in autumn of 2015	82	84	72	84.6	83.6	51.6
% hatching year birds in autumn of 2016	79	81	70	79.6	78.1	48.9

Table 2. AFR IV. Ten Most Commonly Banded Species. Fall 2016.

	Eden Mill	% HY	Foreman's Branch	% HY	Patuxent Powerline	% HY	Kiawah Island Captain Sam's	% HY	Kiawah Island Little Bear	% HY	Cape Florida	% HY
1.	66 WTSP (1)	77	1315 WTSP (2)	72	171 WTSP (1)	66	659 MYWA (3)	67.5	984 COYE (1)	78.7	338 OVEN	45.0
2.	25 GRCA (2)	68	907 SOSP (1)	87	165 RCKI (2)	84	622 GRCA (1)	93.6	740 MYWA (3)	67.8	275 AMRE	28.7
3.	22 COYE (3)	68	487 HOFI (-)	92	109 GRCA (3)	79	620 COYE (2)	80.5	447 GRCA (2)	91.5	244 BTBW	49.6
4.	13 SOSP (4)	100	481 RCKI (4)	86	107 SCJU (5)	61	158 PABU (4)	85.4	175 AMRE (4)	74.9	162 WEWA	32.7
5.	8 CACH (5)	100	475 COYE (3)	72	92 COYE (4)	59	143 WPWA/YPWA (8)	72.7	148 REVI (5)	93.2	137 BAWW	45.3
6.	7 SWSP	85	326 SCJU (7)	72	64 EATO (6)	64	128 PRAW (-)	85.9	147 RCKI (8)	83.7	106 COYE	67.0
7.	7 NOCA	42	300 SWSP (6)	77	50 GCKI (12)	82	124 REVI (7)	93.5	124 PRAW (9)	75.8	97 NOWA	33.0
8.	6 TEWA	50	284 GRCA (5)	88	43 SOSP (7)	73	95 AMRE (5)	89.5	104 PABU (6)	92.3	92 GRCA	81.5
9.	5 TUTI	60	245 PUF1 (-)	72	40 REVI (8)	70	88 WEVI (-)	77.3	84 WPWA/YPWA (-)	88.1	54 SWTH	51.9
10	5 CARW	100	211 MYWA (-)	63	37 SWSP (15)	61	85 YEWA (-)	70.6	76 WEVI (-)	82.9	49 BGGN	91.8

(#) Indicates placement on list in 2015

Eden Mill**394-0762**

Pylesville, MD

Mark S. Johnson

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Habitat is rarely static, and such is the case at Eden Mill. Most banding lanes are in what was mixed 'old field' ecotone edge near a mixed deciduous forest bordered by freshwater streams to the south and east. This 'old field' is no longer and now consists of many red cedar, oak, maple, and hickory species. Although Prairie Warblers still breed there, Blue-winged Warblers, Yellow-breasted Chats, once numerous in the spring and summer, are no more. Many invasive species such as honeysuckle, tear thumb, and multiflora rose are common and appear to provide food for migrating fall songbirds.

Nothing remarkable occurred in the fall of 2016; the number of birds captured per net hour and number banded was fairly consistent with previous years. No unexpected captures though PUFIs were banded; an unreliable migrant.

Some species seem to be occurring later while winter migrants appear to be occurring earlier. Empidonax species were captured into October (YBFL) while WTSP were captured 8 October. Some sparrow species typically banded were elusive this year (e.g., LISP, FOSP).

We captured eleven warbler species which is higher than expected. We had higher numbers of TEWA and BPLW, the last banded on 29 October.

Best days tended to be later with the best in terms of diversity and number being 29 October. This suggests a benefit for banding later into the year.

We continue to benefit from new Science, Technology, Engineering, and Math students that show interest. Thanks to their enthusiasm, we continue to develop new research questions and strive to develop the next generation of prospective wildlife biologists as much as we can. This year, Cole Ettenhofer is our new student and Call McClellan-O'Brien has graduated to subpermittee status

As always, many thanks go out to our regular volunteers: Suzanne Procell, Jerry Strickroth, Callum McClellan-O'Brien, Drs. Bob Werrlein and Dennis Kirkwood and the staff at Eden Mill Nature Center.

**Foreman's Branch
Bird Observatory****391-0760**

Kingstown, Queen Anne's Co., MD

**J. G. Gruber*, M. E. Gimpel, A. C. Spears,
D.M. Small**

Foreman's Branch Bird Observatory has been a part of the Center for Environment and Society at Washington College since 2011. The year 2016 was FBBO's 19th fall banding season. The numbers of new birds banded and days of operation were down slightly from 2015, but overall production was up 13%. Weather fronts from the northwest were, for the most part, weak and did not produce many heavy migration days. We started collaborating with researchers, Dr. Jeff Buler and graduate student Sergio Cabrera, at the University of Delaware on the effects of light pollution and bird migration.

Notable catches for the season were Red-tailed Hawk on 13th Nov, highest ever Purple Finch catch of 245 and our first catch for the station of a Lark Sparrow on 3rd Nov.

We would like to thank the following people for their support and aid to FBBO: Dr. Harry Sears, Dr. John Seidel, Michael Hardesty, Patricia Gruber, Greg Cole, Hanson Robbins, Jeannine Fleagle, Dr. Jennie Carr, Janet Christensen, Anne and Brennan O'Connor, Daniel and Jonathan Irons, Carly and Vincent Fumo and Jessica Majors who volunteered many weeks in October and November to help us during our busiest time. We also extend special thanks to our two Washington College fall interns, Laura King and Mike Hudson.

Patuxent Powerline Right-of-Way 390-0764**Patuxent Research Refuge**

Laurel, Prince George's Co., MD

Danny Bystrak

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This station is in a power line right-of-way that bisects an upland deciduous forest. It has operated since 1980, except for 2004-2006. The habitat

is dominated by a dense six-to eight-foot high canopy of shrubs, and is an excellent source of shelter and food for breeding and migrating birds. Twenty-six nets are arrayed along a one-half mile east-west axis. Nets were opened by dawn and closed about 3.5 hours later. From 2007-2016, we have consistently operated seven days in August and November and 14 days in September and October for a total of 42 days, generally on a M/W/F schedule. In 2013, however, due to the government shutdown, we banded only 35 days. Any comparisons to previous levels of activity refers to the years 2007-2012, since our 2013 season was incomplete.

This was our 34th year, and was by far our worst since 2007 with 1,360 bandings however we were up two species from last year, at 75.

The only highlight was banding our first Clay-colored Sparrow since 1980. This is the 125th species on this station's Fall banding list. We had no days over 100 birds, our best day being only 80. Nine species set or tied high counts, with none being particularly noteworthy. By contrast, 15 species set or tied low counts.

Our 256 warbler bandings of 24 species accounted for 19% of all of our bandings, below their historical norm. Mimids (notably Gray Catbirds) were at 8.5%, down from a norm of 12%; sparrows at 35% up from their norm of 25.

The station continues to be a focal point for visitors from foreign banding programs as well as serving as a training and educational site for interested staff. We have two experienced volunteers as well as employees to help with set-up, data entry, bird extraction, etc. Because the station is located in an area of the refuge that is closed to the general public, we cannot encourage outside participation, however, researchers wishing to visit the site are encouraged to contact Danny Bystrak at dbystrak@usgs.gov.

Greatly assisting in this effort were: Jo Anna Lutmerding, Mike Quinlan, Claire Nemes, Ikumi Kayama and Bruce Peterjohn. Thanks to banders-in-training Matt Rogosky and Jennifer McKay and to other staff who lent assistance.

Kiawah Island Banding Station 326-0801 Captain Sam's Site

Kiawah Island, Charleston County, SC

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This was the 8th fall banding season on Kiawah Island at the Captain Sam's site and the 5th in which banding has occurred daily. Kiawah Island is an 8,000 acre barrier island and residential/resort community located approximately 20 miles southeast of Charleston, South Carolina. The banding site is situated at the extreme western end of the island in secondary dune scrub/shrub and high marsh with wax-myrtle, sea ox-eye, and marsh-elder being the dominant plant species. We operated 25 nets daily, weather permitting, from the 15 August through 30 November. Nets were generally opened 30 minutes before sunrise and closed approximately 5-6 hours later.

We operated for 98 days resulting in 12,582.5 net-hours (nh). A total of 3,872 new individuals were banded and 1,183 birds were recaptured of 84 different species. The capture rate for new birds was 30.8 birds/100 nh with an additional 9.4 birds/100 nh as recaptures. Our capture rate decreased by 8.6 birds/100 nh compared to last fall. Three species made up 56% of the season's catch: Common Yellowthroats (25.4%), Yellow-rumped Warblers (19.1%), and Gray Catbirds (11.5%). We banded 4 species never before captured at the station – Red-shouldered Hawk, Loggerhead Shrike, Mourning Warbler, and Red-winged Blackbird.

It was an active season for tropical weather. The station was closed from 2-3 September for Tropical Storm Hermine and 5-11 October for Hurricane Matthew. This is the first year that a hurricane has affected our banding and it couldn't have come at a worse time – right at the peak of migration for us. We had to remove all equipment from the banding site, and because of a mandatory evacuation, there were several good days of banding pre-and post-storm that we missed.

I would like to express gratitude to the Kiawah Conservancy and the Town of Kiawah Island for supporting our project by providing the funding to purchase banding supplies and to allow the hiring of seven bird banding technicians. Mattie VandenBoom, Blaine Carnes, Michael Gamble, Ryan Donnelly, Alison Nevins, Michael Rodgers, and Col Lauzau were a great addition to the team and their hard work was greatly appreciated! Additionally, we thank Kiawah Partners for permission to conduct research on their property. I would also like to thank all of the volunteers that participated during our banding season.

Please check out the KIBS blog in 2017. It is updated daily with the banding totals for each day, photos, interesting anecdotes, and occasionally information of ageing and sexing certain species. The blog can be viewed at www.kiawahislandbanding.blogspot.com.

Kiawah Island Banding Station Little Bear Banding Site (LBBS)

To complement the Captain Sam's Banding Site located at the west end of Kiawah Island, we initiated a new banding station on the east end of the island in 2015. The Little Bear Banding Site (LBBS) is situated at the extreme eastern end of the island about 14 km east of KIBS in secondary dune scrub/shrub and high marsh with wax-myrtle and baccharis being the dominant plant species. We operated 20 nets daily, weather permitting, from 22 August to 17 November. Nets were generally opened 30 minutes before sunrise and closed approximately 5-6 hours later.

We operated for 75 days resulting in 6,011.8 (nh). A total of 3,442 new individuals were banded and 1,035 birds were recaptured of 74 different species. The capture rate for new birds was 57.3 birds/100 nh with an additional 17.2 birds/100 nh as recaptures. Three species made up 55% of the season's catch: Yellow-rumped Warbler (19.1%), Gray Catbirds (18.1%), and Common Yellowthroats (18.1%). A few species were banded at LBBS that have never been banded before during the fall at KIBS. These included a Yellow-crowned Night-Heron, Warbling Vireo, and Yellow-green Vireo. The Yellow-green Vireo (a species that breeds in Mexico and Central

America and winter in South America) was a huge surprise! This species rarely makes it into the United States and represented the first state record for South Carolina.

I would like to express gratitude to the Kiawah Conservancy and the Town of Kiawah Island for supporting our project by providing the funding to purchase banding supplies and to allow the hiring of seven bird banding technicians. Mattie VandenBoom, Blaine Carnes, Michael Gamble, Ryan Donnelly, Alison Nevins, Michael Rodgers, and Col Lauzau were a great addition to the team and their hard work was greatly appreciated! Additionally, we thank Bear Island Holding Trust for permission to conduct research on its property. I would also like to thank all of the volunteers that participated during our banding season.

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Bill Baggs Cape Florida State Park 254-0800

Key Biscayne, Miami-Dade Co., Florida
Michelle Davis, Robin Diaz, Elizabeth Golden,
Miriam Avello, Mario Porcelli, Marc Kramer
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Cape Florida is in its fifteenth year as a fall migration banding station. The park is on the southern tip of a mostly developed barrier island just off the coast of Miami. We have 26 nets set in a restored tropical hardwood hammock that is part of a multi-million dollar effort to return native vegetation to the park following Hurricane Andrew in 1992.

We started banding on 16 Aug 2016 and the station was open on all but 6 days until we closed on 7 Nov. Nets were opened from first light until early afternoon on most days.

The 2016 fall season weather started out favorable for migration at our location. Unsettled weather and nighttime thundershowers were prevalent in Aug and the first part of Sept, causing birds to land at Cape Florida. A steady stream of birds were seen on radar moving through the area throughout Sept, but daily captures were dependent on the location

and timing of overnight convection. Hurricane Matthew threatened south Florida on 6 Oct, but the eye stayed offshore and the wind on the west side turned out to be inconsequential. A weak, dry front passed our latitude a few days after Matthew, and then persistent high pressure settled in for the remainder of the season. This high pressure caused strong northeast winds to develop on 12 Oct and they continued past 7 November, when we closed for the season. In fact, these winds were stronger on several days than the winds associated with Matthew, and the station was, as a consequence, closed for 4 days. This wind direction is not conducive to routing large numbers of migrants through Cape Florida.

The busiest day was on 4 Oct with 119 new captures, the only triple-digit day the whole season. Surprisingly, this day was right before Hurricane Matthew's closest pass to the banding station. The overall number of 1,932 birds captured during the 2016 season was the lowest since 2012, and 1,422 of these were captured prior to the hurricane. The overall capture rate of 20 birds/100 net hours was the lowest since 2002. However, capture rates have not been much higher for four of the last five seasons. Hurricane Matthew turned out to be a dividing line in the season, despite the lack of damage to our site. The capture rate before the storm was 23 birds/100 net hours while the capture rate afterwards was only 15 birds/100 net hours.

The total number of species captured in 2016 was 62; a respectable number but below the record-breaking 66 species captured in 2015. Among these were two species banded for the first time at Cape Florida: Savannah Sparrow and Bobolink. Both species are locally common in open grassy habitats, and it is possible that a hawk chased the Bobolink into a net located outside of the woods in a scrubby area. Our second Mangrove Cuckoo was banded this year, as was a Black-whiskered vireo, a rare fall capture. Both of these species are local breeders and their numbers may be increasing in BBCFSP as the hammock vegetation matures. The vireo was seen singing most days for the first several weeks of the season in the vicinity of the nets where he was eventually captured, suggesting that he held a territory here over the summer.

Other unusual captures included a Yellow-bellied flycatcher banded on 9 Oct and a Blue Grosbeak banded on 22 Oct. Individuals of both these species have only been captured two other times in 15 years of banding.

The overall number of individuals banded across the most abundant species was remarkably consistent with the last several seasons. Ovenbird was the top species banded in 2016, with 338 captures. American Redstart was the second most abundant species banded at the CFBS with 275 captures, and Black-throated blue warblers rounded out the top three species with 244 captured in 2016. Gray Catbirds had been increasing over the last several years and had broken into the top three in 2013 and 2015, but this fall proved different. Only 92 catbirds were captured in 2016, far below the 14-year average of 152.1. This appears to have been a regional phenomenon, as fewer catbirds were seen both in migration and in traditional overwintering sites across south Florida. On the other hand, site records were broken in 2016 for Worm-eating warbler and Swainson's warbler. Other common species such as Northern Waterthrush and Black-and-White warbler were banded in similar numbers to those recorded in other recent years.

Blue-gray Gnatcatchers (49 captures) and Swainson's Thrush (54 captures) were unusual additions to the top ten list. Weather patterns caused an entire season's worth of Catharus Thrushes to land at our site on 1 and 2 October. Late migrants included three Red-eyed Vireos banded on 1 and 3 November; the bulk of this species has already passed through south Florida by the end of September. A Louisiana Waterthrush banded on 1 Oct had a healed broken leg; this injury probably contributed to its very late passage.

We captured 16 returning birds of 7 species, with wintering Ovenbirds banded within the last four years making up half of these. The restored hammocks of BBCFSP have proven to be a consistently good wintering site for this species, with individuals returning for many seasons. Returns of the resident Northern cardinals were remarkably low this year, with only one individual banded in 2013 captured. No foreign recoveries were captured this fall.

This project would not be possible without the assistance of the dedicated volunteer extractors for the 2016 season: thanks go to Elsa Alvear, Eliana Ardila, Miriam Avello, Barb and Ted Center, Celeste de Palma, Noah Frade, Jim King, Mark Kramer, Elizabeth Lago, Mark Lopez, Dan O'Malley, Mario, Nico and Lucas Porcelli, David Schaffter, and Lorena Siqueira. Special thanks go to Art Yerian the Park manager, for continuing to support our project.