



McGill Bird Observatory Annual Program Report 2016

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Cover photo:

Purple Finch was the species of the year at MBO, with record numbers observed and banded in all four seasons (photo by Simon Duval)

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1. Executive Summary

McGill Bird Observatory (MBO) is the flagship project of the Migration Research Foundation (MRF), focused on monitoring bird populations throughout the year at McGill University's Stoneycroft Wildlife Area, in Ste-Anne-de-Bellevue, Quebec. The primary objective is to collect data that can be used to contribute to the understanding of bird movements and population trends, in collaboration with the Canadian Migration Monitoring Network / Réseau Canadien de Surveillance des Migrations (CMMN-RCSM). MBO also pursues a variety of other research projects and delivers educational programs, ranging from banding workshops and ongoing training of volunteers to public presentations and development of identification resources.

This report summarizes all MBO activities for the 2016 project cycle, which spans from November 7, 2015 through November 6, 2016. It focuses primarily on the Spring and Fall Migration Monitoring Programs, but also summarizes the winter and summer programs, and other MBO efforts throughout the year.

The winter program (November 7, 2015 – March 27, 2016) benefited from unusually mild weather and lower than normal snowfall. This allowed for an above-average frequency of observations throughout the season, and a record-high 20 days of banding. The total of 716 birds banded was the second-highest ever for a winter season, while the 18 species banded and 49 species observed were both average. The season was dominated by American Goldfinches, which accounted for over 60% of birds banded, but the substantial influx of Purple Finches was also noteworthy, with 48 banded, compared to a total of only 12 across all previous winters.

The Spring Migration Monitoring Program (March 28 – June 5) yielded considerably above-average banding results for the third year in a row, with 67 species banded and 1093 birds banded. The total of 139 species observed was slightly below average for spring, but the 110 species observed in week 8 (May 16-22) was a new record high for a single week, and included a new single-day record of 83 species on May 18, and matched on May 22. White-throated Sparrow was the top species banded this spring (138 individuals), followed by Tennessee Warbler (101) and Ruby-crowned Kinglet (97).

The summer program (June 6 – July 31) was for a tenth year operated as part of the international MAPS (Monitoring Avian Productivity and Survivorship) network. The 138 birds banded equals the average since MBO started MAPS, but the 32 species banded was just one short of the record set in 2014. The 66 species observed was the highest count since 2005. Yellow-bellied Sapsucker and Swainson's Thrush were banded in summer for the first time, the latter species almost certainly an early fall migrant.

The Fall Migration Monitoring Program (August 1 – November 6) was for the second year in a row extended to 14 weeks by adding an extra week at the end. Despite the additional effort, the 3417 individuals banded was slightly below the long-term average, but the 82 species banded was the third-highest fall total in MBO's history. The 150 species observed is only one less than the season record set in 2005 and matched in 2015. White-throated Sparrow was the top species banded this fall (566 individuals), followed by Ruby-crowned Kinglet (341) and Dark-eyed Junco (209). Other highlights included two species banded at MBO for the first time (Yellow-throated Vireo and Connecticut Warbler) and a new single-day fall record of 72 species observed, on August 17.

The Northern Saw-whet Owl Monitoring Program (26 September – 6 November) had full coverage for an eighth consecutive year, and yielded 196 owls banded (including one Eastern Screech-Owl and one Barred Owl), plus one foreign-banded Northern Saw-whet Owl. The main peak was early this year, occurring in the second week of the season (October 3-9), but there was a strong secondary movement in the fifth week (October 24-30), later than usual. Hatch-year birds accounted for 64% of birds banded, while another 20% were second-year birds. Ten Northern Saw-whet Owls banded at MBO were reported elsewhere this year, as were three other birds (one American Robin, one Purple Finch, and one Common Grackle).

MBO also remained active in training and education in 2016. Most notably, MBO continued to expand on the photo library content in the *Piranga* module of Environment and Climate Change Canada's *NatureInstruct* program, which is now a fully bilingual resource for banders. MBO also continued its public education program centered on the fall owl-banding program. In addition, dozens of students and other volunteers received further hands-on training in bird banding techniques throughout the year.

2. Introduction

McGill Bird Observatory (MBO) was founded in 2004 by graduate students in McGill University's Natural Resource Sciences department. It is operated by the Migration Research Foundation (MRF), and is a member of the Canadian Migration Monitoring Network / Réseau Canadien de Surveillance des Migrations (CMMN-RCSM). Located at 45.43°N, 73.94°W, near the western tip of the island of Montreal, MBO is the only active migration monitoring station in southwestern Quebec. The nearest sites with standardized migration research programs are Innis Point Bird Observatory in Ottawa (175 km to the west), Prince Edward Point Bird Observatory in Quinte (300 km to the southwest), and l'Observatoire d'Oiseaux de Tadoussac (450 km to the northeast). Operations at MBO are patterned after those at other Canadian bird observatories, with an emphasis on standardized migration monitoring protocols. In addition to collecting and analyzing valuable scientific data, MBO serves as a training facility for students and other individuals interested in developing practical skills in field ornithology.

This report summarizes all research activities at MBO during the 2016 project cycle, which began with the winter 2015-2016 season and concluded with the 2016 fall season. The Spring and Fall Migration Monitoring Programs are the most standardized and intensive surveys conducted at MBO, and are summarized in greatest detail in this report. The Migration Monitoring Programs follow a consistent protocol, most recently updated in 2014, but with only minimal changes since 2005 (Gahbauer et al. 2014). The Northern Saw-whet Owl fall monitoring project is summarized separately. Annual summaries of the winter and summer programs were published only on the MBO website from 2005 through 2010, but in recognition of the growing value of these programs, they have been incorporated in the annual reports since 2011.



Two highlights of the year were the first Connecticut Warbler ever banded at MBO (top), and the first Bohemian Waxwing banded in spring (bottom). (Photos by Gay Gruner)



3. Winter population monitoring program

The winter season at MBO spans the 20-week period from November 7 through March 27. Although relatively few species overwinter regularly at MBO, several of them are uncommon to absent in other seasons, and therefore winter provides the best opportunity to monitor them. Additionally, observations in early and late winter provide an opportunity to document lingering late fall migrants or early spring arrivals. Except at the beginning and end of the season, winter visits rarely occur more than twice per week, and scheduling of activities is much more weather-dependent than at other times of year. This winter, banding effort focused on a trio of nets adjacent to a set of feeders (usually stocked with black oil sunflower, millet, and nyjer seed). An audiolure was played, comprising primarily a mix of Bohemian Waxwing, House Finch, Pine Grosbeak, Common Redpoll, White-winged Crossbill, Pine Siskin and American Goldfinch calls, interspersed with a few seconds of Black-capped Chickadee and White-breasted Nuthatch mobbing calls. Banding was usually limited to three hours per day, although sometimes extended when weather was suitable. Timing was variable, but often from late morning to early afternoon, when temperatures were warmest.

3.1. Effort

Observations were recorded on 53 (37%) of the 142 days during the winter season, the most since 2009-2010. There were at least 8 visits per month, also the most consistent coverage since 2009-10. There were 20 days with banding effort, two more than the previous high in 2005-06; this included a record-high seven days in December, and a record-tying five days in March. The only month without any banding effort this winter was February.

3.2. Site conditions

Table 3.1 summarizes the official weather records at the Montreal International Airport; the microclimate at MBO is often slightly colder than that in winter. It was an unusually mild winter at MBO, warmer than any other except 2011-2012; similar to that winter, the five monthly mean temperatures were all above long-term averages. The deviation from the norm was particularly evident in December, with a mean daily high temperature more than 6°C above the long-term average, and more than 2°C warmer than the previous record in December 2006. Rainfall was normal (182 mm, compared to a long-term average of 184 mm), but the 155 cm of snow was the second-lowest total in MBO's history, and well below the long-term average of 202 cm. For the second year in a row, February was the snowiest month.

Table 3.1: Weather conditions during the 2015-2016 winter population monitoring program, by month.

	Nov 7-30	Dec 1-31	Jan 1-31	Feb 1-29	Mar 1-27	Season
Mean daily high (°C)	7.1	4.6	-2.2	-1.4	3.3	2.3
Mean daily low (°C)	-1.1	-1.3	-10.4	-10.7	-5.2	-5.7
Mean daily temp (°C)	2.9	1.7	-6.4	-5.8	-0.9	-1.7
Highest temp (°C)	15 (Nov 27)	17 (Dec 24)	8 (Jan 10)	9 (Feb 1)	14 (Mar 27)	17 (Dec 24)
Lowest temp (°C)	-10 (Nov 30)	-12 (Dec 29)	-21 (Jan 5)	-28 (Feb 14)	-19 (Mar 3)	-28 (Feb 14)
# days with rainfall	7	1	6	8	8	30
Total rain (mm)	5	77	17	60	23	182
# days with snowfall	2	5	14	17	7	45
Total snow (cm)	2	50	27	51	25	155
Mean snow depth (cm)	0	1.5	6.5	3.1	2.9	2.8
Max. snow depth (cm)	2 (Nov 24)	19 (Dec 29)	18 (Jan 1)	10 (Feb 20)	8 (Mar 2)	19 (Dec 29)

3.3. Results

The 716 birds banded this winter (Table 3.2) was the second highest ever, behind the total of 800 in 2012-13, and just slightly more than the 710 birds banded last winter (2014-15); the 18 species banded was fairly average, but the 11 species banded in December and 14 in March were both record highs for those months. Unlike last winter, the results were not inflated by using the fall banding protocol during the first week of November. However, the 195 birds banded in December was the most ever for the month, and triple the long-term average. The 49 species observed this winter perfectly matched the long-term average for the season, although the monthly totals were above average in every month other than November.

Table 3.2: Summary results of the 2015-2016 winter population monitoring program, by month.

	Nov 7-30	Dec 1-31	Jan 1-31	Feb 1-29	Mar 1-27	Season
# individuals (species) banded	328 (14)	195 (11)	54 (3)	n/a	139 (14)	716 (18)
# individuals (species) return	25 (6)	14 (6)	1 (1)	n/a	36 (12)	76 (10)
# individuals (species) repeat	130 (9)	126 (10)	33 (3)	n/a	71 (9)	360 (14)
# species observed	35	29	27	22	40	49
# net hours	82.5	69.0	12.0	n/a	60.8	224.3
# birds banded / 100 net hours	397.6	282.6	450.0	n/a	228.8	319.3
# days operating	8	8	12	12	13	53
# days banding	7	7	1	n/a	5	20

3.3.1. Birds banded

No 'new' species were banded this winter, leaving the cumulative total for the season at 35 species. However, Pine Siskin was banded in winter for only the second time since 2008-09, and record high numbers were banded for six species: American Goldfinch (434, compared to 228 in 2012-13), American Tree Sparrow (65, vs. 56 in 2011-12), Purple Finch (48, vs. 6 in 2011-12), Pine Siskin (11, vs. 7 in 2005-06), White-breasted Nuthatch (6, vs. 3 in 2013-14), and Song Sparrow (6, vs. 3 in 2009-10).

For the sixth time, American Goldfinch was banded in greater numbers than any other species in winter, while the record count of American Tree Sparrows was enough to rise to second place for the first time (Table 3.3). Dark-eyed Junco was the third most numerous species for the third winter in a row, although less abundant than last year. The biggest surprise of the season was Purple Finch in fourth place, with 48 individuals banded, compared to a cumulative total of only 12 over 10 previous winter seasons. Conversely, only 19 House Finches were banded, by far the smallest number in any full winter season since 2005-06.

Table 3.3: Top 12 species banded at MBO during the 2015-2016 winter population monitoring program, with comparison to the numbers banded in previous winters (rank in other years in parentheses). Dashes represent species not banded during a particular winter season; there was no banding in winter 2007-08.

	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10	2008-09	2006-07	2005-06	2004-05
1. American Goldfinch	434	65(5)	70(1)	228(2)	87(2)	93(2)	80(1)	2(4)	21(1)	111(1)	113(1)
2. American Tree Sparrow	65	33(6)	4(6)	24(6)	56(4)	25(6)	38(4)	2(4)	7(5)	11(5)	9(5)
3. Dark-eyed Junco	55	97(3)	28(3)	42(4)	90(1)	150(1)	50(3)	--	20(3)	54(2)	20(4)
4. Purple Finch	48	3(13)	--	1(15)	6(9)	1(11)	1(13)	--	--	--	--
5. Black-capped Chickadee	26	19(8)	6(5)	28(5)	12(6)	33(5)	54(2)	3(2)	17(4)	51(3)	26(3)
6. House Finch	19	68(4)	32(2)	95(3)	69(3)	61(3)	32(5)	--	21(1)	5(9)	58(2)
7. Northern Cardinal	18	19(8)	9(4)	9(8)	11(7)	5(9)	4(11)	1(6)	2(8)	4(10)	7(6)
8. Pine Siskin	11	2(16)	--	--	--	--	--	3(2)	--	7(8)	--
9. Red-winged Blackbird	10	7(11)	--	10(7)	25(5)	1(11)	15(7)	--	--	--	--
10. Mourning Dove	6	--	1(11)	1(15)	5(10)	2(10)	17(6)	--	6(6)	11(5)	2(10)
10. White-breasted Nuthatch	6	2(16)	3(7)	--	--	--	--	--	--	--	--
10. Song Sparrow	6	1(21)	--	2(11)	2(11)	1(11)	3(12)	--	1(9)	--	--

3.3.2. Birds recaptured

The 360 repeats (birds last captured within the previous 90 days) was a 60% increase over the previous record high set just last winter. Over 70% of the repeats were in November and December, and in some cases reflected multiple recaptures of the same lingering individuals. However, the 71 repeats in March was a record high for the month, and indicated that a large number of birds overwintered at MBO. Just over half (56%) of individuals occurred as repeats only once, whereas 21 birds were captured between 5 and 8 times each, all of them Black-capped Chickadees except one Downy Woodpecker and one Red-breasted Nuthatch. Overall, Black-capped

Chickadees accounted for 53% of repeats this winter, slightly below the long-term average for the season of 59%. American Goldfinch (20%), American Tree Sparrow (9%), and Dark-eyed Junco (8%) were the next most frequent repeats. However, almost 80% of Black-capped Chickadees were recaptured at least twice, and the 56 individuals involved represented only 31% of the season total, whereas only 35% of American Goldfinches were recaptured more than once, and overall the 51 individuals (29%) were close behind Black-capped Chickadee.

The 76 returns (birds not captured in at least 90 days) this winter (Table 3.4) was well above the previous record of 54 in 2012-13, and more than triple the long-term average for the season of 23. As usual, Black-capped Chickadees had more returns than any other species, although this year they only comprised 25% of the total, compared to 48% across all years. All but one of the 19 chickadee returns had last been recorded within the previous year. The 16 American Goldfinch returns was far more than usual (the previous record was 7, and the mean number per winter is 3); half of them were last captured between 1 and 4 years earlier. Record high numbers of returns were also noted for Downy Woodpecker (8, vs. 5 in 2014-15), Red-winged Blackbird (7, vs. 2 in 2009-10), Hairy Woodpecker (3, vs. 2 in 2012-13), and Northern Cardinal (3, vs. 2 in 2014-15).

The oldest return this winter was a Dark-eyed Junco banded on November 29, 2009 as an after-hatch-year male, and not recaptured again until 2200 days later on December 8, 2015. Five other birds were recaptured for the first time in over 3 years, including three male Red-winged Blackbirds all banded as second-year individuals in spring 2012. In total, there were five American Tree Sparrows and five Dark-eyed Juncos banded in previous winter or spring seasons that were recaptured at MBO this winter, including two Dark-eyed Juncos that were back for at least a third winter.

Table 3.4: List of returns captured during the 2015-2016 winter population monitoring program, sorted by time elapsed.

Band number	Species	Age/sex at return	Age/sex at banding	Banding date	Previous capture	2015-16 return		Time elapsed	
2600-15719	SCJU	AHY-M	AHY-M	29 Nov 2009	29 Nov 2009	8 Dec	6 years		9 days
1342-36264	RWBL	ASY-M	SY-M	30 Apr 2012	6 May 2012	23 Mar	3 years	10 months	17 days
1342-36243	RWBL	ASY-M	SY-M	24 Apr 2012	6 May 2012	12 Mar	3 years	10 months	6 days
1342-36312	RWBL	ASY-M	SY-M	19 May 2012	23 May 2012	8 Mar	3 years	9 months	14 days
2650-41094	SCJU	AHY-M	SY-M	23 Feb 2012	23 Feb 2012	11 Nov	3 years	8 months	19 days
2690-79653	BCCH	AHY-U	AHY-U	7 Dec 2012	7 Dec 2012	13 Dec	3 years		6 days
2690-79765	AMGO	AHY-M	HY-M	16 Nov 2012	16 Nov 2012	11 Nov	2 years	11 months	26 days
1342-36493	RWBL	ASY-M	SY-M	18 May 2013	18 May 2013	17 Mar	2 years	9 months	28 days
1342-36498	RWBL	ASY-M	SY-M	25 May 2013	25 May 2013	17 Mar	2 years	9 months	21 days
2650-42307	AMGO	AHY-F	AHY-F	3 Nov 2013	3 Nov 2013	18 Nov	2 years		15 days
2650-42321	AMGO	AHY-F	HY-F	3 Nov 2013	3 Nov 2013	11 Nov	2 years		8 days
2650-42229	ATSP	AHY-U	HY-U	6 Nov 2013	6 Nov 2013	10 Nov	2 years		4 days
1342-36467	RWBL	ASY-M	SY-M	4 May 2013	23 Apr 2014	12 Mar	1 year	10 months	18 days
1342-36454	RWBL	ASY-M	SY-M	28 Apr 2013	11 May 2014	23 Mar	1 year	10 months	12 days
2650-42366	AMGO	AHY-F	ASY-F	18 Apr 2014	18 Apr 2014	25 Nov	1 year	7 months	7 days
2650-44065	AMGO	ASY-M	HY-M	8 Sep 2014	8 Sep 2014	8 Mar	1 year	6 months	
2730-80130	AMGO	AHY-M	HY-U	18 Aug 2013	6 Jun 2014	10 Nov	1 year	5 months	4 days
2650-41087	SCJU	ASY-M	SY-U	23 Feb 2012	4 Nov 2014	23 Mar	1 year	4 months	19 days
2650-42386	AMGO	AHY-F	SY-F	14 May 2014	1 Aug 2014	8 Dec	1 year	4 months	7 days
2650-42695	ATSP	ASY-U	AHY-U	23 Nov 2014	26 Nov 2014	17 Mar	1 year	3 months	20 days
2650-42710	ATSP	ASY-U	AHY-U	23 Nov 2014	23 Nov 2014	12 Mar	1 year	3 months	18 days
2650-41097	ATSP	AHY-U	SY-U	18 Mar 2012	23 Nov 2014	18 Dec	1 year		25 days
2730-49541	AMGO	AHY-M	HY-M	23 Nov 2014	23 Nov 2014	5 Dec	1 year		12 days
2581-69198	DOWO	ASY-F	TY-F	22 Mar 2013	6 Dec 2014	18 Dec	1 year		12 days
2571-23034	DOWO	ASY-M	HY-M	8 Aug 2012	30 Nov 2014	26 Nov		11 months	27 days
2730-49517	AMGO	AHY-M	HY-M	8 Nov 2014	30 Nov 2014	25 Nov		11 months	26 days
2501-44952	HAWO	TY-F	SY-F	21 Mar 2015	27 Mar 2015	23 Mar		11 months	25 days

Band number	Species	Age/sex at return	Age/sex at banding	Banding date	Previous capture	2015-16 return	Time elapsed
2600-15948	BCCH	AHY-U	HY-U	9 Sep 2010	26 Nov 2014	16 Nov	11 months 21 days
2650-45728	BCCH	AHY-U	HY-U	3 Dec 2013	30 Nov 2014	18 Nov	11 months 19 days
2501-10204	HAWO	ATY-M	SY-M	3 May 2011	6 May 2015	8 Mar	10 months 2 days
2730-49925	BCCH	AHY-U	SY-U	10 Mar 2015	10 Mar 2015	13 Dec	9 months 3 days
2650-45712	BCCH	AHY-U	HY-U	21 Sep 2013	21 Mar 2015	5 Dec	8 months 14 days
2650-43018	BCCH	AHY-U	HY-U	16 Aug 2011	10 Mar 2015	18 Nov	8 months 8 days
2730-49924	BCCH	AHY-U	SY-U	10 Mar 2015	20 Mar 2015	25 Nov	8 months 5 days
2581-69766	DOWO	ASY-M	HY-M	19 Aug 2013	27 Mar 2015	18 Nov	7 months 22 days
2650-45703	BCCH	AHY-U	HY-U	31 Aug 2013	27 Mar 2015	18 Nov	7 months 22 days
2650-42782	SCJU	AHY-M	SY-M	20 Mar 2015	20 Mar 2015	11 Nov	7 months 22 days
2561-32284	NOCA	U-M	AHY-M	21 Mar 2015	21 Mar 2015	10 Nov	7 months 20 days
2730-49932	BCCH	AHY-U	SY-U	18 Apr 2015	18 Apr 2015	8 Dec	7 months 20 days
2650-45770	BCCH	AHY-U	HY-U	20 Sep 2014	18 Apr 2015	5 Dec	7 months 17 days
2541-73902	DOWO	ASY-F	SY-F	23 Feb 2012	27 Mar 2015	11 Nov	7 months 15 days
2501-44954	HAWO	SY-M	HY-U	3 Aug 2015	3 Aug 2015	8 Mar	7 months 5 days
2730-49927	BCCH	AHY-U	SY-U	21 Mar 2015	23 Apr 2015	26 Nov	7 months 3 days
2650-43072	BCCH	AHY-U	HY-U	4 Aug 2012	19 Apr 2015	16 Nov	6 months 28 days
2650-44403	AMGO	AHY-M	SY-M	21 May 2015	21 May 2015	16 Dec	6 months 25 days
2650-42966	SCJU	AHY-M	ASY-M	19 Apr 2015	19 Apr 2015	11 Nov	6 months 23 days
2650-45278	ATSP	AHY-U	SY-U	27 Mar 2013	29 Apr 2015	21 Nov	6 months 23 days
2730-49577	AMGO	AHY-M	SY-M	4 May 2015	13 May 2015	26 Nov	6 months 13 days
2730-49973	BCCH	SY-U	HY-U	19 Sep 2015	25 Sep 2015	17 Mar	5 months 21 days
2650-45644	BCCH	HY-U	HY-U	12 Jul 2015	12 Jul 2015	13 Dec	5 months 1 day
2691-54062	DOWO	TY-M	HY-M	1 Aug 2014	22 Oct 2015	10 Mar	4 months 17 days
2730-49969	BCCH	SY-U	HY-U	14 Sep 2015	16 Sep 2015	31 Jan	4 months 15 days
2740-76799	ATSP	SY-U	HY-U	10 Nov 2015	11 Nov 2015	23 Mar	4 months 12 days
2641-17897	NOCA	AHY-M	HY-M	31 Oct 2015	31 Oct 2015	10 Mar	4 months 8 days
2501-44958	NOCA	SY-F	HY-F	5 Nov 2015	5 Nov 2015	10 Mar	4 months 5 days
2650-42272	SCJU	SY-F	HY-F	18 Nov 2015	21 Nov 2015	23 Mar	4 months 2 days
2650-42263	SCJU	SY-M	HY-M	16 Nov 2015	21 Nov 2015	23 Mar	4 months 2 days
2650-45646	BCCH	HY-U	HY-U	12 Jul 2015	12 Jul 2015	10 Nov	3 months 29 days
2741-64492	WBNU	U-M	U-M	13 Oct 2015	11 Nov 2015	10 Mar	3 months 28 days
2650-42256	ATSP	SY-U	HY-U	16 Nov 2015	21 Nov 2015	17 Mar	3 months 25 days
2650-45745	BCCH	ASY-U	HY-U	1 Aug 2014	25 Nov 2015	17 Mar	3 months 21 days
2431-74164	DOWO	ASY-M	HY-U	25 Jul 2011	26 Aug 2015	16 Dec	3 months 20 days
2740-76903	ATSP	SY-U	HY-U	8 Dec 2015	8 Dec 2015	23 Mar	3 months 15 days
1433-37780	BLJA	HY-U	HY-U	1 Sep 2015	1 Sep 2015	13 Dec	3 months 12 days
2740-76820	AMGO	SY-F	HY-F	26 Nov 2015	26 Nov 2015	8 Mar	3 months 11 days
2740-76815	AMGO	SY-F	HY-F	26 Nov 2015	13 Dec 2015	23 Mar	3 months 10 days
2431-74164	DOWO	ATY-M	HY-U	25 Jul 2011	16 Dec 2015	23 Mar	3 months 7 days
2740-76911	SCJU	SY-M	HY-M	13 Dec 2015	16 Dec 2015	23 Mar	3 months 7 days
2581-69198	DOWO	ATY-F	TY-F	22 Mar 2013	18 Dec 2015	23 Mar	3 months 5 days
2730-49995	BCCH	ASY-U	AHY-U	25 Nov 2015	5 Dec 2015	10 Mar	3 months 5 days
2740-76905	SCJU	SY-M	HY-M	13 Dec 2015	18 Dec 2015	23 Mar	3 months 5 days
2740-76854	AMGO	SY-M	HY-M	8 Dec 2015	8 Dec 2015	12 Mar	3 months 4 days
2740-76840	AMGO	SY-M	HY-M	5 Dec 2015	5 Dec 2015	8 Mar	3 months 3 days
2730-49932	BCCH	ASY-U	SY-U	18 Apr 2015	8 Dec 2015	10 Mar	3 months 2 days
2650-42293	ATSP	SY-U	HY-U	5 Dec 2015	23 Dec 2015	23 Mar	3 months
2650-44442	AMGO	HY-F	HY-U	27 Aug 2015	27 Aug 2015	26 Nov	2 months 30 days

The only foreign recovery reported during winter was an American Robin banded at MBO in October 2013, and found killed by a cat nearby in Dollard-des-Ormeaux in March 2016.

3.3.3. Daily estimated totals (DET)

The number of species observed daily ranged from a low of 4 on February 4 to a high of 32 on March 23. Unlike last year, no species were observed for the first time ever in winter, leaving the cumulative list for the season at 97 species. However, record high total counts were set for 13 species, including three that surpassed 1000 individuals for the season (European Starling 1570, Snow Goose 1489, and American Goldfinch 1125). When adjusted for effort, 12 species recorded new mean daily high counts for winter: Snow Goose (28.1, compared to 3.1 in 2013-14), American Goldfinch (21.2, vs. 10.7 in 2004-05), Mourning Dove (13.0, vs., 8.8 in 2009-10), Cedar Waxwing (6.9, vs. 5.9 in 2010-11), American Tree Sparrow (6.0, vs. 4.5 in 2009-10), Northern Cardinal (5.6, vs. 4.2 in 2014-15), Purple Finch (2.7, vs. 0.4 in 2011-12), White-breasted Nuthatch (1.8, vs. 1.3 in 2014-15), Northern Pintail (0.28, vs. 0.17 in 2013-14), Red-breasted Nuthatch (0.23, vs. 0.21 in 2012-13), Sharp-shinned Hawk (0.17, vs. 0.13 in 2014-15), and Ruffed Grouse (0.09, vs. 0.05 in 2008-09 and 2010-11). Notably, Northern Cardinal set a new record for the fourth consecutive winter, and in tandem with results from other seasons reflects a steadily increasing local population.



*One of the record-setting 434 American Goldfinches banded during winter 2015-2016.
(Photo by Simon Duval)*

4. Spring Migration Monitoring Program (SMMP)

The Spring Migration Monitoring Program has been operated at MBO annually since 2005. It covers the 10-week period from March 28 through June 5. Since 2007, the protocol has been to focus banding on a 45-day window from April 18 through June 1, recognizing that during the first three weeks of the season it is often too cold to permit a consistent effort, and that by the last four days of the season, migrants are becoming scarce relative to local breeders; these periods are instead covered through census and supplementary observations.

4.1. Effort

Census was conducted every morning throughout the season, while banding took place on 44 (98%) of the 45 scheduled days; banding was cancelled on one day (April 22) due to rain. On just four additional days, rain and/or strong winds resulted in reduced net hours (less than 75 out of a normal 80), leaving a record-high 40 days (89%) of full banding effort according to the protocol. However, most of those days only involved a partial reduction in effort, and as such the total of 3343 net hours this spring was a record high by a substantial margin over the 3115 hours in 2010.

All captures this spring were through the standard set of 16 mist nets used for migration monitoring, arranged as in previous years (net locations A1, A2, B2, N1, N3, B3, C1, C2, D1, D2, D3, D4, E1, E2, H1, and H2; see Gahbauer et al. 2016 for a map). Flooding was lower than average this spring, preventing the use of H1 only from April 18 to April 25. All nets were 12 m long with 30 mm mesh, from Manomet, previously used in 2015.

4.2. Site conditions

Weather can have a significant influence on migration, especially in spring; conditions throughout the season are summarized in Table 4.1. Overall, the season was $\sim 0.5^{\circ}\text{C}$ colder than usual, although this was primarily due to record low temperatures in weeks 2 and 5; conversely, the final two weeks of the season were each the second-warmest in MBO's history. The cold front in week 5 may have stalled migration to some extent, whereas the sustained spike in temperatures in late May might have accelerated the passage of late-season migrants. The 14 cm of snow this spring tied 2013 for the second-highest total for the season, but the snow was gone by the time that the banding program began in week 4. The amount of rainfall for the season was only marginally above the long-term average of 205 mm, but nearly half of it fell in the first two weeks, almost triple the usual amount for that period. On the contrary, rainfall was consistently far below typical levels from week 5 through week 9 (i.e., most of May).

Table 4.1: Weather conditions during the 2016 SMMP, by week.

	1	2	3	4	5	6	7	8	9	10	Season
Mean daily high ($^{\circ}\text{C}$)	9.1	1.8	11.7	14.3	9.9	15.8	18.5	19.5	27.8	24.9	15.3
Mean daily low ($^{\circ}\text{C}$)	-0.6	-5.8	-0.3	2.5	0.3	5.2	6.3	7.2	13.3	16.0	4.4
Mean daily temp ($^{\circ}\text{C}$)	4.2	-2.0	5.7	8.4	5.1	10.5	12.4	13.3	20.6	20.5	9.9
Highest temp ($^{\circ}\text{C}$)	17	4	22	22	15	22	25	27	32	29	32
Lowest temp ($^{\circ}\text{C}$)	-9	-10	-2	-1	-2	2	1	4	11	13	-10
# days with rainfall	6	2	2	3	1	3	3	2	2	2	26
Total rain (mm)	55	45	15	21	10	11	10	1	3	38	209
# days with snowfall	0	3	1	-	-	-	-	-	-	-	4
Total snow (cm)	0	12	2	-	-	-	-	-	-	-	14

4.3. Results and discussion

4.3.1. Birds banded

Table 4.2 summarizes the spring 2016 banding results throughout the season. The 1093 birds banded this spring was lower than the past two years, but still far more than any other previous spring; the 67 species banded was slightly short of the season high of 69 recorded the past two years. The busiest day of the season was May 22 (Figure 4.1), perfectly matching the long-term average. Banding totals were fairly steady from week 4 through week 6, then roughly doubled in week 7 and again remained at a similar level for another two weeks. The count

of birds banded exceeded 40 on 9 days; one of these was the first day of the season (April 18), while the others were all between May 9 and May 27. For SMMP 2016 the mean count of birds banded per day was 24.3 (or 24.8 during the 44 days with nets open).

Table 4.2: Summary results of the 2016 SMMP, by week.

	S1	S2	S3	S4	S5	S6
# individuals (species) banded	n/a	n/a	n/a	126 (20)	127 (21)	101 (16)
# individuals (species) return	n/a	n/a	n/a	13 (8)	15 (8)	10 (6)
# individuals (species) repeat	n/a	n/a	n/a	32 (7)	54 (13)	32 (9)
# species observed	42	39	44	59	70	71
# net hours	n/a	n/a	n/a	450.0	555.0	484.0
# birds banded / 100 net hours	n/a	n/a	n/a	28.0	22.9	20.9
# days operating	7	7	7	7	7	7
# days banding	n/a	n/a	n/a	6	7	7
# days with full net coverage	n/a	n/a	n/a	6	7	6
	S7	S8	S9	S10	Average	Season
# individuals (species) banded	244 (34)	235 (43)	225 (33)	35 (16)	156 (26)	1093 (67)
# individuals (species) return	15 (7)	22 (10)	14 (10)	5 (5)	13 (8)	94 (24)
# individuals (species) repeat	31 (14)	60 (24)	41 (18)	8 (5)	37 (13)	258 (36)
# species observed	103	110	99	84	72	139
# net hours	558.0	520.0	544.0	232.0	477.6	3343.0
# birds banded / 100 net hours	43.7	45.2	41.4	15.1	31.0	32.7
# days operating	7	7	7	7	7.0	70
# days banding	7	7	7	3	6.3	44
# days with full net coverage	7	6	6	2	5.7	40

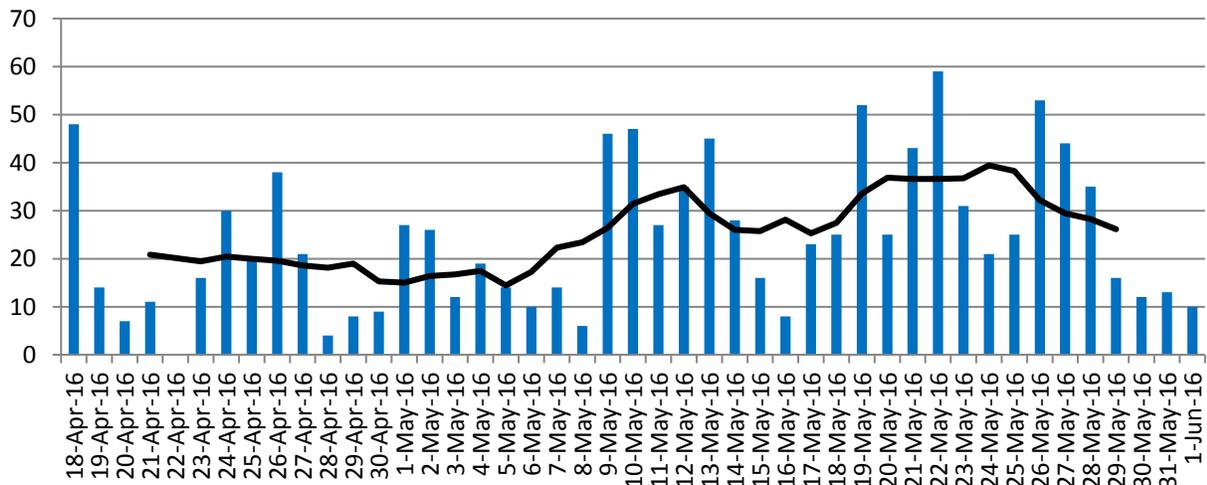


Figure 4.1: Daily and running 7-day mean of individuals banded per day throughout spring 2016.

Similar to most years, species richness among banded birds peaked a bit past mid-May this year (Figure 4.2), with five consecutive days of at least 16 species banded. The greatest variety banded in a single day was 22 species on May 19, an unusually high count for spring. The mean number of species banded per day was 10.7, the same as last year.

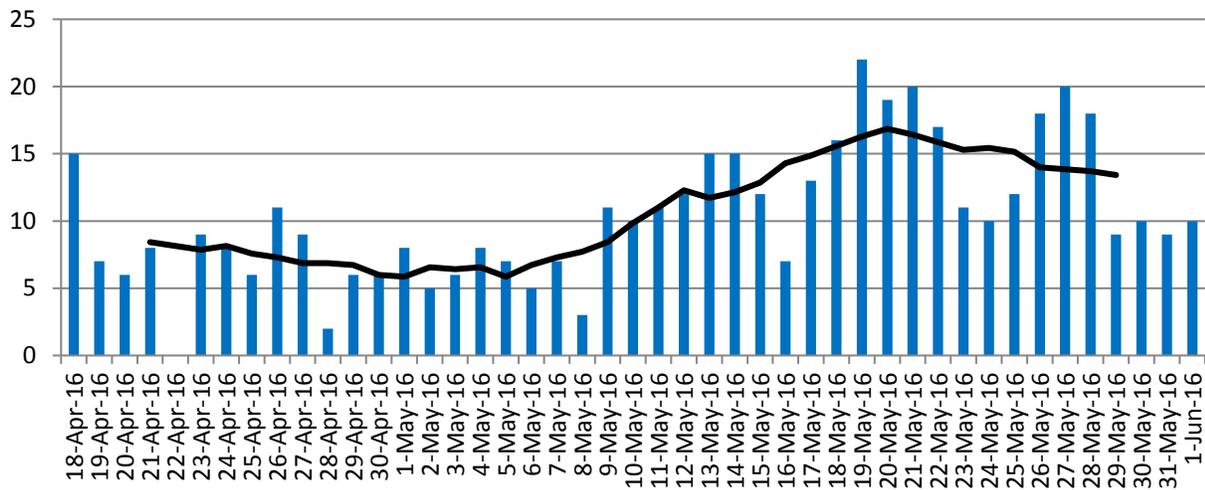


Figure 4.2: Daily and running 7-day mean of species banded per day throughout spring 2016.

Bohemian Waxwing was banded for the first time ever in spring this year. Record high totals were recorded for another nine species: White-throated Sparrow (138, compared to 79 in 2008), Ruby-crowned Kinglet (97, vs. 92 in 2008), Purple Finch (27, vs. 8 in 2012), Swamp Sparrow (27, vs. 26 in 2013), Lincoln’s Sparrow (13, vs. 12 in 2015), Northern Cardinal (6, vs. 5 in 2005), Ovenbird (5, vs. 4 in 2010), Hermit Thrush (3, vs. 2 in 2012), and White-breasted Nuthatch (2, vs. 1 in three previous years).

Nine species were banded just once this spring: Yellow-bellied Sapsucker, Hairy Woodpecker, Great Crested Flycatcher, Eastern Kingbird, Blue Jay, Wood Thrush, Orange-crowned Warbler, Mourning Warbler, and Northern Parula. At the other extreme, Table 4.3 lists the 10 most frequently banded species, which account for 59.6% of all birds banded during SMMP 2016. Three of these (Ruby-crowned Kinglet, Yellow-rumped Warbler, and Red-winged Blackbird) have been in the top 10 for spring annually since 2005, while the three species with the highest cumulative spring banding totals (Red-winged Blackbird 1090, Ruby-crowned Kinglet 703, Tennessee Warbler 685) were all among the top five this year.

Table 4.3: Top 10 species banded at MBO during the 2016 SMMP, with comparison to the numbers banded in 2005-2015 (rank in other years in parentheses).

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
1. White-throated Sparrow	138	39(11)	40(10)	40(7)	57(4)	51(4)	22(8)	34(9)	79(3)	13(16)	42(5)	29(6)
2. Tennessee Warbler	101	111(1)	142(2)	49(3)	94(2)	71(2)	7(22)	82(1)	6(27)	16(11)	2(40)	4(28)
3. Ruby-crowned Kinglet	97	68(4)	71(4)	39(8)	54(5)	43(7)	36(4)	73(2)	92(2)	52(2)	58(3)	20(9)
4. American Goldfinch	64	40(10)	60(6)	9(24)	51(6)	17(16)	45(3)	47(4)	41(5)	51(3)	32(6)	111(1)
5. Red-winged Blackbird	55	57(6)	63(5)	83(1)	116(1)	70(3)	85(1)	50(3)	114(1)	155(1)	169(1)	73(2)
6. Yellow-rumped Warbler	45	69(3)	56(7)	23(10)	46(7)	102(1)	30(5)	37(8)	47(4)	32(5)	22(8)	25(7)
7. Magnolia Warbler	42	87(2)	82(3)	66(2)	39(8)	27(13)	11(19)	41(6)	18(14)	17(9)	22(8)	5(21)
8. Northern Waterthrush	37	42(8)	48(8)	43(4)	28(10)	28(12)	12(18)	26(12)	12(18)	15(12)	5(29)	4(28)
9. American Robin	36	19(17)	44(9)	7(29)	21(15)	30(9)	17(10)	5(29)	8(24)	12(17)	18(12)	16(12)
9. Yellow Warbler	36	34(13)	36(12)	43(4)	37(9)	30(9)	26(7)	43(5)	36(6)	29(6)	21(10)	47(4)

White-throated Sparrow was the most frequently banded species at MBO this spring, for the first time ever. Tennessee Warbler slipped back to second place, but remained in the top three for a sixth consecutive year, by far the longest such streak of any species. Just behind in third place was Ruby-crowned Kinglet. The 64 American Goldfinches banded was the highest total since the first spring season at MBO in 2005, whereas the 55 Red-winged Blackbirds banded was the second-fewest ever. Four other warblers, along with American Robin, rounded out this year’s top ten.

4.3.2. Birds recaptured

There were 258 repeats this spring, well above the long-term average of 204, but short of the record of 298 set in 2012. The 175 individuals involved were just short of the high of 181 in 2014, and 120 of them (69%) were recaptured just once. However, 20 individuals were recorded as repeats at least three times each this spring, most notably a Baltimore Oriole on five occasions. Several of the species with multiple repeats were local breeders, most notably Black-capped Chickadee, Song Sparrow, Baltimore Oriole, Yellow Warbler, and Red-winged Blackbird. But more so than in most years, some entirely transient species also ranked high on the list, especially Ruby-crowned Kinglet and American Tree Sparrow; most of the White-throated Sparrows and Northern Waterthrushes were likely passing through as well.

Table 4.4: Top 10 species recaptured most often during the 2016 SMMP (species with local breeding populations marked with an asterisk).

Species	# Repeats	# Individuals
1. Black-capped Chickadee*	31	14
2. Song Sparrow*	26	13
3. Ruby-crowned Kinglet	25	23
4. American Tree Sparrow	21	12
5. Baltimore Oriole*	17	7
6. White-throated Sparrow	13	11
6. American Goldfinch*	13	10
6. Yellow Warbler*	13	9
9. Northern Waterthrush	11	9
9. Red-winged Blackbird*	11	10

This spring there were 94 returns (Table 4.5), around the long-term average, although the lowest total since 2011. The 24 species involved was slightly down from last year's record high of 26. Four of the returns had last been captured in 2013 or earlier, the longest gap being a male White-breasted Nuthatch that was banded as an after-hatch-year bird in October 2012 and not recorded again until this spring. In total there were 26 returns that were last recorded at MBO one year ago or longer, up slightly from 24 in 2015. The oldest bird was likely a male Red-winged Blackbird banded as a second-year bird in May 2009, and last recaptured in May 2014.

Table 4.5: List of returns captured during the 2016 SMMP, sorted by time elapsed.

Band number	Species	Age/sex in 2016	Age/sex at banding	Banding date	Previous capture	2016 return	Time elapsed		
2571-23402	WBNU	ASY-M	AHY-M	4 Oct 2012	4 Oct 2012	3 May	3 years	6 months	29 days
1342-36448	RWBL	ASY-M	ASY-M	23 Apr 2013	23 Apr 2013	22 May	3 years		29 days
1891-91513	RWBL	ASY-F	SY-F	1 May 2010	25 May 2013	20 May	2 years	11 months	25 days
2561-09236	BAOR	ASY-M	HY-M	26 Aug 2013	26 Aug 2013	21 May	2 years	8 months	25 days
2561-32049	RWBL	ASY-F	ASY-F	11 May 2014	11 May 2014	13 May	2 years		2 days
1352-42325	RWBL	ASY-M	ASY-M	5 May 2014	5 May 2014	27 Apr	1 year	11 months	22 days
1713-34587	COGR	AHY-F	AHY-F	23 May 2014	23 May 2014	13 May	1 year	11 months	20 days
1292-00593	RWBL	ASY-M	SY-M	15 May 2009	31 May 2014	6 May	1 year	11 months	5 days
2581-69960	SOSP	AHY-M	HY-U	3 Oct 2013	5 Jul 2014	21 May	1 year	10 months	16 days
2401-97286	PUFI	ASY-M	SY-M	24 Apr 2012	23 Aug 2014	5 May	1 year	8 months	12 days
2650-44001	AMGO	ASY-F	SY-F	20 May 2014	11 Sep 2014	21 May	1 year	8 months	10 days
2650-41147	WAVI	ASY-U	SY-U	9 May 2012	21 Sep 2014	24 May	1 year	8 months	3 days
2691-51920	SOSP	AHY-U	AHY-U	12 May 2014	1 Oct 2014	26 Apr	1 year	6 months	25 days
2421-93989	NOCA	AHY-M	HY-M	20 Sep 2012	3 Nov 2014	27 Apr	1 year	5 months	24 days
1352-85329	RWBL	ASY-M	SY-M	28 Apr 2015	28 Apr 2015	24 May	1 year		26 days
1352-01689	RWBL	ASY-M	ASY-M	18 Apr 2014	18 Apr 2015	11 May	1 year		23 days
2531-23644	RWBL	ASY-F	AHY-F	14 May 2013	17 May 2015	29 May	1 year		12 days
2730-49586	AMGO	ASY-F	SY-F	17 May 2015	17 May 2015	27 May	1 year		10 days

Band number	Species	Age/sex in 2016	Age/sex at banding	Banding date	Previous capture	2016 return	Time elapsed	
2561-32100	RWBL	ASY-F	SY-F	23 May 2014	23 May 2015	1 Jun	1 year	9 days
2730-49591	AMGO	ASY-F	SY-F	18 May 2015	18 May 2015	26 May	1 year	8 days
2650-44015	AMGO	ASY-M	ASY-M	30 May 2014	19 May 2015	26 May	1 year	7 days
2730-49080	YEWA	ASY-F	AHY-F	22 May 2014	25 May 2015	31 May	1 year	6 days
2730-49590	AMGO	ASY-M	ASY-M	18 May 2015	18 May 2015	22 May	1 year	4 days
2561-32052	RWBL	ASY-F	ASY-F	11 May 2014	14 May 2015	17 May	1 year	3 days
2650-41455	YEWA	ASY-M	AHY-M	2 Aug 2012	24 May 2015	26 May	1 year	2 days
1433-37754	COGR	AHY-M	SY-M	12 May 2015	12 May 2015	12 May	1 year	
2541-73958	DOWO	ATY-F	SY-F	27 May 2012	27 Apr 2015	26 Apr		11 months 30 days
2650-44270	WAVI	ASY-U	SY-U	14 May 2015	14 May 2015	13 May		11 months 29 days
2561-32212	BAOR	ASY-F	ASY-F	5 Jul 2014	24 May 2015	22 May		11 months 28 days
2641-09055	BAOR	ASY-F	ASY-F	13 May 2015	18 May 2015	14 May		11 months 26 days
1891-91604	BAOR	ASY-M	SY-M	27 Jun 2010	25 May 2015	20 May		11 months 25 days
2430-45012	YEWA	ASY-M	SY-M	15 Jun 2014	22 May 2015	13 May		11 months 21 days
2421-70682	BAOR	ASY-M	ASY-M	18 May 2011	22 May 2015	12 May		11 months 20 days
2641-09095	RWBL	ASY-F	SY-F	25 May 2015	25 May 2015	14 May		11 months 19 days
2531-23642	RWBL	ASY-F	SY-F	14 May 2013	12 May 2015	1 May		11 months 19 days
2421-93801	RWBL	ASY-F	ASY-F	21 May 2012	14 May 2015	3 May		11 months 19 days
2531-23680	BAOR	ASY-M	SY-M	1 Jun 2013	27 May 2015	12 May		11 months 15 days
2641-09047	RWBL	ASY-F	SY-F	10 May 2015	10 May 2015	23 Apr		11 months 13 days
2561-32109	RWBL	ASY-F	SY-F	25 May 2014	28 May 2015	3 May		11 months 5 days
2691-51964	SOSP	AHY-M	HY-U	10 Aug 2014	26 May 2015	20 Apr		10 months 25 days
2561-09385	GRCA	AHY-U	SY-U	27 Jun 2015	27 Jun 2015	21 May		10 months 24 days
2641-09084	GRCA	ASY-U	SY-U	22 May 2015	4 Jul 2015	20 May		10 months 16 days
2650-45365	COYE	ASY-M	SY-M	17 May 2013	20 Jul 2015	25 May		10 months 5 days
2760-84166	AMRE	SY-U	HY-U	4 Aug 2015	4 Aug 2015	30 May		9 months 26 days
2571-20513	SOSP	AHY-M	SY-M	6 Jun 2013	1 Aug 2015	25 May		9 months 24 days
2521-91070	INBU	ASY-F	AHY-F	7 Aug 2015	8 Aug 2015	30 May		9 months 22 days
2650-45636	HOWR	AHY-U	SY-F	27 Jun 2015	31 Jul 2015	17 May		9 months 16 days
2650-44581	YEWA	ASY-F	AHY-F	6 Aug 2015	6 Aug 2015	22 May		9 months 16 days
2650-42420	HOWR	AHY-U	SY-U	9 May 2014	7 Aug 2015	20 May		9 months 13 days
2641-09076	RBGR	ASY-M	SY-M	18 May 2015	3 Aug 2015	15 May		9 months 12 days
2760-84159	AMRE	ASY-M	AHY-M	3 Aug 2015	15 Aug 2015	27 May		9 months 12 days
2650-44549	YEWA	ASY-F	AHY-U	1 Aug 2015	1 Aug 2015	13 May		9 months 12 days
2521-91074	PUFI	SY-M	HY-U	9 Aug 2015	9 Aug 2015	21 May		9 months 12 days
2650-44379	HOWR	AHY-U	AHY-M	22 May 2015	20 Jul 2015	29 Apr		9 months 9 days
2650-44620	YEWA	ASY-F	AHY-F	13 Aug 2015	13 Aug 2015	21 May		9 months 8 days
2521-74162	INBU	ASY-F	SY-F	17 Aug 2014	16 Aug 2015	24 May		9 months 8 days
2650-44680	COYE	ASY-M	AHY-M	19 Aug 2015	22 Aug 2015	28 May		9 months 6 days
2641-17671	NOCA	AHY-M	HY-M	17 Aug 2015	17 Aug 2015	21 May		9 months 4 days
2730-49124	COYE	ASY-F	HY-U	11 Aug 2014	18 Aug 2015	22 May		9 months 4 days
2730-49025	YEWA	ASY-F	SY-F	16 May 2014	14 Aug 2015	15 May		9 months 1 day
2741-64101	SOSP	AHY-M	HY-U	2 Aug 2015	15 Aug 2015	15 May		9 months
1352-85558	AMRO	SY-F	HY-U	7 Aug 2015	7 Aug 2015	4 May		8 months 27 days
2650-44761	HOWR	AHY-U	AHY-U	30 Aug 2015	30 Aug 2015	17 May		8 months 17 days
2650-42400	AMGO	ASY-F	SY-F	19 May 2014	16 Aug 2015	2 May		8 months 16 days
2741-64107	SOSP	AHY-U	HY-U	3 Aug 2015	27 Aug 2015	12 May		8 months 15 days
2650-44793	COYE	SY-M	HY-U	5 Sep 2015	5 Sep 2015	18 May		8 months 13 days
2741-64151	SOSP	AHY-U	HY-U	22 Aug 2015	22 Aug 2015	3 May		8 months 11 days
2561-09394	GRCA	SY-U	HY-U	20 Jul 2015	10 Sep 2015	20 May		8 months 10 days
2561-09387	GRCA	SY-U	HY-U	12 Jul 2015	18 Sep 2015	27 May		8 months 9 days
2741-64139	SOSP	AHY-U	HY-U	17 Aug 2015	17 Aug 2015	18 Apr		8 months 1 day

Band number	Species	Age/sex in 2016	Age/sex at banding	Banding date	Previous capture	2016 return	Time elapsed	
2521-94743	PUFI	SY-U	HY-U	30 Aug 2015	30 Aug 2015	26 Apr	7 months	27 days
2521-74018	SWSP	SY-U	HY-U	20 Jul 2015	30 Aug 2015	18 Apr	7 months	19 days
2730-49971	BCCH	SY-U	HY-U	15 Sep 2015	15 Sep 2015	28 Apr	7 months	13 days
2741-64184	SOSP	AHY-U	HY-U	19 Sep 2015	19 Sep 2015	24 Apr	7 months	5 days
2741-64351	WTSP	SY-U	HY-U	26 Sep 2015	26 Sep 2015	1 May	7 months	5 days
2691-45727	SOSP	AHY-M	HY-U	29 Sep 2014	12 Oct 2015	26 Apr	6 months	14 days
2711-23280	WTSP	SY-U	HY-U	22 Oct 2015	22 Oct 2015	25 Apr	6 months	3 days
2641-17915	NOCA	SY-M	HY-M	21 Nov 2015	21 Nov 2015	22 May	6 months	1 day
1352-95134	BLJA	SY-U	HY-U	26 Oct 2015	26 Oct 2015	19 Apr	5 months	24 days
2730-49926	BCCH	ASY-U	SY-U	21 Mar 2015	10 Nov 2015	26 Apr	5 months	16 days
2600-15727	ATSP	ASY-U	SY-U	21 Jan 2010	5 Nov 2015	20 Apr	5 months	15 days
2711-23408	WTSP	SY-U	HY-U	6 Nov 2015	6 Nov 2015	19 Apr	5 months	13 days
2650-43009	BCCH	ASY-F	HY-U	1 Aug 2011	23 Dec 2015	30 May	5 months	7 days
2711-23261	WTSP	SY-U	HY-U	16 Oct 2015	25 Nov 2015	20 Apr	4 months	26 days
2730-49961	BCCH	SY-U	HY-U	1 Sep 2015	25 Nov 2015	19 Apr	4 months	25 days
2711-23411	WTSP	SY-F	HY-U	18 Nov 2015	25 Nov 2015	19 Apr	4 months	25 days
2650-42286	SCJU	SY-F	HY-F	25 Nov 2015	25 Nov 2015	18 Apr	4 months	24 days
2720-00811	AMGO	SY-M	HY-M	16 Dec 2015	16 Dec 2015	4 May	4 months	18 days
2720-00831	AMGO	SY-F	HY-F	23 Dec 2015	23 Dec 2015	4 May	4 months	11 days
2730-49949	BCCH	SY-U	HY-U	10 Aug 2015	16 Dec 2015	26 Apr	4 months	10 days
2650-42284	ATSP	SY-U	HY-U	25 Nov 2015	8 Dec 2015	18 Apr	4 months	10 days
2730-49960	BCCH	SY-U	HY-U	29 Aug 2015	23 Dec 2015	28 Apr	4 months	5 days
2691-45623	DOWO	SY-M	HY-M	4 Jul 2015	26 Dec 2015	26 Apr	4 months	
2730-49944	BCCH	SY-U	HY-U	3 Aug 2015	31 Jan 2016	24 May	3 months	23 days

No foreign-banded birds were captured at MBO during SMMP 2014. However, two birds banded at MBO were recovered elsewhere this spring. A Purple Finch banded as a hatch-year bird on the first day of the 2013 fall program was found dead just to the west, in Vaudreuil-Dorion on May 26, 2016. A Northern Saw-whet Owl banded as a hatch-year bird in October 2014 was recaptured by Long Point Bird Observatory in southern Ontario on May 3, 2016.

4.3.3. Census

One or more experienced observers walked the standardized census route daily during SMMP. Over the course of the season, 119 species were observed on census, including 4 that were not otherwise detected: Ring-necked Duck, Northern Shrike, Common Redpoll, and Vesper Sparrow.

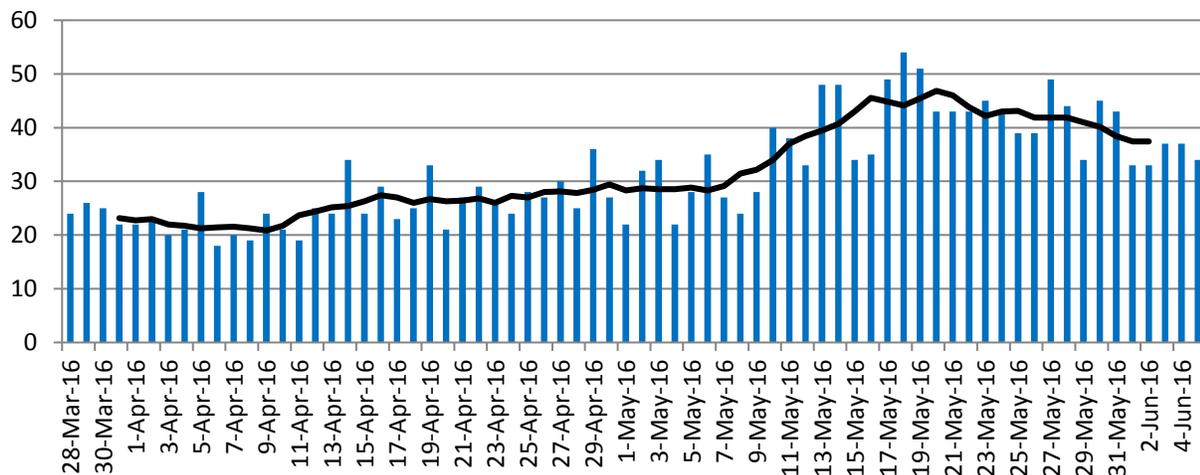


Figure 4.3: Daily species count and running 7-day mean of species recorded on census throughout spring 2016.

As shown in Figure 4.3, there was some daily variation in the number of species, although overall the count remained relatively steady until it began climbing in the second week of May, and then started tapering off again toward the end of the month. The lowest census for the season was 18 species on April 6, while the highest was 54 species on May 18. The seven-day running mean peaked at 47 species on May 20, close to the long-term average for spring.

4.3.4. Daily estimated totals (DET)

The DET reflects not only banding and census data, but also all supplemental observations made by participants throughout each morning. It is particularly important for waterfowl and raptors, which are not targeted by the banding program, and are only marginally sampled by the census, since many are more active later in the morning. The DET is also valuable for passerines, both to monitor infrequently captured species, and to evaluate the percentage of individuals of each species that are caught and banded. During SMMP 2016, 139 species were recorded, slightly below average for the season, and the lowest total since 2010. There were 10 species seen just once (Gadwall, Ring-necked Duck, Hooded Merganser, Wilson’s Snipe, American Kestrel, Peregrine Falcon, Willow Flycatcher, Bank Swallow, Vesper Sparrow, and Orchard Oriole), highlighting the importance of daily coverage by experienced observers throughout the season. Orchard Oriole was observed for the first time ever, increasing the MBO site total to 212 species.

The highest single day DET of 83 species on May 18 was a new all-time record – and then was matched again four days later on May 22! Both of these dates fell within week 8, during which a record-high 110 species were observed; the previous best week for spring was also week 8, in 2014 (107 species). Also of note, the 103 species observed in week 7 was the most ever for that week, well above the long-term average of 90. Numbers remained above average for the rest of the season, most notably in the final week of spring with a record high of 84. The lowest count of 18 species was on April 6, a cold and snowy morning. The seven-day running average (Figure 4.4) shows a pattern largely similar to that generated by census (Figure 4.3), but with a more definite plateau from late April to early May, and a sharper decline in numbers over the final two weeks of the season. It remained above 60 species for a record-long 19-day stretch from May 11 through May 29, including 11 days (May 14 through May 24) above 70 species.

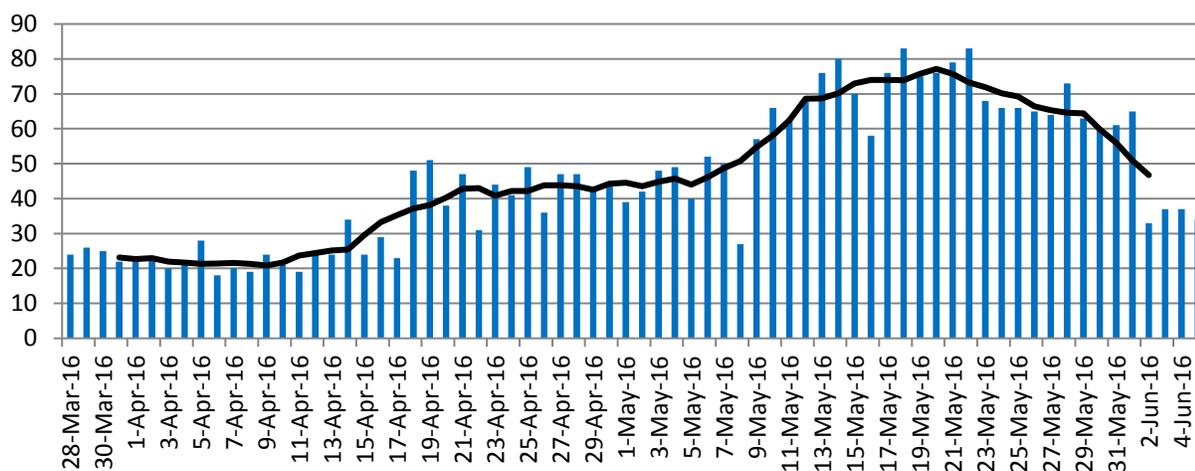


Figure 4.4: Daily species count and running 7-day mean of species observed throughout spring 2016.

This year an above average 25 species were observed during all 10 weeks of the spring season (those not detected in all weeks in 2015 marked with an asterisk): Canada Goose, Wood Duck*, Mallard, Mourning Dove*, Ring-billed Gull, Downy Woodpecker*, Hairy Woodpecker, Yellow-shafted Flicker*, Pileated Woodpecker, Blue Jay, American Crow, Common Raven, Black-capped Chickadee, White-breasted Nuthatch, American Robin, European Starling, Cedar Waxwing, Purple Finch*, American Goldfinch, Song Sparrow*, White-throated Sparrow*, Red-winged Blackbird, Brown-headed Cowbird, Common Grackle, and Northern Cardinal. The only species observed weekly last spring but not this year was Red-tailed Hawk.

4.3.5. Coverage of priority species

MBO has produced a list of 62 target species for priority monitoring (Gahbauer et al. 2014). The list is based on priority rankings proposed by Bird Studies Canada, with an emphasis on species poorly studied by the Breeding Bird Survey due to their northern breeding distribution, and on neotropical migrants, recognized as being at elevated conservation risk due to threats to their wintering grounds. The MBO list has been modified to eliminate western species not expected to occur at the site.

All but two of the species on the MBO priority list were observed during SMMP 2016, and 74% were banded (Table 4.6). Nearly 84% of individuals banded were priority species. Of the top 10 species banded at MBO during SMMP 2016, all except American Goldfinch are designated as priority species, including 6 that are priority A or B (i.e., of particular importance for migration monitoring), indicating the program is effective at documenting these otherwise poorly monitored birds.

Table 4.6: Summary of priority species observed and banded during the 2016 SMMP. Detailed category definitions are provided in Gahbauer et al. (2014).

	Priority A	Priority B	Priority C	Priority D
Number of species in category	15	10	18	19
Number of species observed	14	9	18	19
Number of species banded	10	9	14	13
Number of individuals banded	220	354	121	222

4.3.6. Net productivity

The nets used for MBO's migration monitoring programs are clustered into three main groups. The C and D nets (six in total) are along the east and north edges of Stoneycroft Pond, the A and E nets (four in total) sample the shrubby areas east of Stoneycroft Pond, while H and B/N nets (six in total) are along the back ponds. Under normal conditions, all nets were operated for five hours daily, although on windy days, some nets were selectively closed earlier than usual, as warranted by conditions. The only more substantial exception was H1, which remained flooded until April 25. Table 4.7 summarizes the usage and productivity of all nets during the 2016 Spring Migration Monitoring Program.

Table 4.7: Net usage and capture rates during the 2016 SMMP.

Net	Hours open	New Captures	Returns + Repeats	Total Captures ¹	Birds / 100 net hours	
					New	Total
A1	211.5	74	14	88	35.0	41.6
A2	211.5	114	33	147	53.9	69.5
A - TOTAL	423.0	188	47	235	44.4	55.6
B2	210.5	37	20	57	17.6	27.1
N1	210.5	49	26	75	23.3	35.6
N3	210.5	66	22	88	31.4	41.8
B3	210.5	93	20	114	44.2	54.2
B/N - TOTAL	842.0	245	88	334	29.1	39.7
C1	211.5	63	24	87	29.8	41.1
C2	211.5	58	20	78	27.4	36.9
C - TOTAL	423.0	121	44	165	28.6	39.0
D1	211.0	60	18	78	28.4	37.0
D2	211.0	39	11	50	18.5	23.7
D3	211.0	38	16	54	18.0	25.6
D4	211.0	60	16	76	28.4	36.0
D - TOTAL	844.0	197	61	258	23.3	30.6

Net	Hours open	New Captures	Returns + Repeats	Total Captures ¹	Birds / 100 net hours	
					New	Total
E1	211.5	73	24	97	34.5	45.9
E2	211.5	116	43	159	54.8	75.2
E - TOTAL	423.0	189	67	256	44.7	60.5
H1	176.5	71	23	94	40.2	53.3
H2	211.5	82	22	104	38.8	49.2
H - TOTAL	388.0	153	45	198	39.4	51.0
GRAND TOTAL	3343.0	1093	352	1446	32.7	43.3

¹ – Total captures include new captures, returns, repeats, and foreign recaptures.

The overall capture rate for SMMP 2016 was 32.7 new birds per 100 net hours, lower than the previous two years, but still slightly above the long-term average of 32.0. An additional 10.5 birds per 100 net hours were recaptured, which is average. The relative effectiveness of nets varies from year to year, although typically the A and H nets along with E2 have been the most productive in spring. This year E2 and A2 had by far the highest capture rates, but A1 and the two H nets were only slightly above average for the site, and it was B3 which was ranked third instead, marking the third consecutive year that it has been particularly productive. At the other extreme, B2 and D2 were among the three least productive nets for the second year in a row, joined this spring by D3.

4.4. Summary and analysis

The banding effort of 3343 hours this spring was more than in any previous year, largely due to the unusually low amount of rain during the core of the banding season. Spring was slightly colder than average overall, but this was weighted to the first half of the season and contrasted with the record high temperatures over the final two weeks. The peak of migration in week 8 was accompanied by average weather. This was the third spring in a row with more than 1000 birds banded, after failing to reach that threshold in the previous nine years. While the higher totals have coincided with a dramatic increase in Tennessee Warbler numbers (correlated with the Spruce Budworm outbreak in Quebec), this alone does not explain the overall counts. There is also no obvious explanation for the number of species banded being consistently above average in recent years.

Unlike last spring when warblers were particularly abundant, many of them dropped back closer to average levels this year. The most noteworthy high counts this spring were White-throated Sparrow, Ruby-crowned Kinglet, and Purple Finch, all of which were also at above-average to record levels in fall (and in the case of Purple Finch, winter and summer as well).



*One of the record-high four Rusty Blackbirds banded this spring, all in the second week of May.
(Photo by Gay Gruner)*

5. Summer (MAPS) program

Summer at MBO spans an 8-week period between migration periods, from June 6 through July 31. In earlier years, observations during this period were on a casual basis, but since 2009 data have been collected in a more standardized manner through the Monitoring Avian Productivity and Survivorship (MAPS) program. Banding takes place at 9 nets, reserved only for MAPS, around the southern half of Stoneycroft Pond.

5.1. Effort

Seven MAPS visits were conducted between June 6 and July 31; on each occasion there were six hours of banding. Incidental observations of all species were also recorded during each visit. Additionally, Tree Swallow nestlings were banded on four occasions.

5.2. Site conditions

Temperatures in summer 2016 were average overall, although unusually cool in the first week, and particularly hot in the two middle weeks of July (Table 5.1). More notable was the record low amount of rain, with the total for the season comparable to the long-term average for July alone.

Table 5.1: Weather conditions during the 2016 MAPS program, by week.

	1 Jun 6-12	2 Jun 13-19	3 Jun 20-26	4 Jun 27- Jul 3	5 Jul 4-10	6 Jul 11-17	7 Jul 18-24	8 Jul 25-31	Season
Mean daily high (°C)	18.1	27.3	27.5	26.0	25.4	28.6	28.0	27.7	26.1
Mean daily low (°C)	10.8	12.6	15.5	15.6	16.1	17.7	16.7	17.9	15.4
Mean daily temp (°C)	14.5	20.0	21.5	20.8	20.8	23.1	22.4	22.8	20.7
Highest temp (°C)	23	32	33	28	31	34	33	30	34
Lowest temp (°C)	8	9	12	13	12	12	13	16	8
# days with rainfall	4	1	2	5	3	2	5	1	23
Total rain (mm)	3	5	8	20	17	8	37	6	104

5.3. Results

5.3.1. Birds banded

The 138 birds banded this summer was down from last year's total, but perfectly matches the average for the season since the MAPS program was kicked off in 2009 (Table 5.2). The 32 species banded was far above average, just one short of the record of 33 in 2014. Additionally, 14 Tree Swallows were banded, the most since 2012.

Table 5.2: Summary results of the 2016 MAPS Monitoring Program, by month.

	Jun	Jul	Season
# individuals (species) banded	29 (11)	109 (29)	138 (32)
# individuals (species) return	3 (3)	12 (5)	15 (8)
# individuals (species) repeat	15 (10)	16 (8)	31 (15)
# species observed	54	51	66
# net hours	148.5	216.0	364.5
# birds banded / 100 net hours	19.5	50.5	37.9
# days operating	4	4	8
# days banding	3	4	7

As in all previous years of the MAPS program, Red-eyed Vireo, American Robin, and Song Sparrow were among the top ten species banded this year. Red-eyed Vireo set a new record high for number banded for the second year in a row, and was the top species overall this summer. Black-capped Chickadee and Gray Catbird rounded out the top three for the season, both also with above average totals. The three-way tie for fourth place included a record count of Swamp Sparrows (double the previous high), offsetting a record low number of American Robins and a below average total for Song Sparrow. White-throated Sparrow and House Wren are noteworthy for record high numbers banded this summer, while Yellow Warbler rebounded after falling outside the top ten in 2014 and 2015. Yellow-bellied Sapsucker and Swainson's Thrush were banded in summer for the first time

ever, increasing the cumulative summer total to 50 species. On the other hand, Traill’s Flycatcher was not banded in summer for the first time since 2011, and Common Grackle was missed for the first time since 2010.

Table 5.3: Top 11 species banded at MBO during the 2016 MAPS program, with comparison to the numbers banded in 2005-2015 (rank in other years in parentheses). Dashes represent species not banded during a particular year.

	2016	2015	2014	2013	2012	2011	2010	2009	2007	2006	2005
1. Red-eyed Vireo	18	15(3)	8(4)	4(9)	6(7)	12(3)	9(5)	4(10)	--	--	--
2. Black-capped Chickadee	13	7(9)	3(15)	1(22)	13(4)	8(6)	14(2)	11(2)	--	--	--
3. Gray Catbird	11	17(2)	18(2)	14(2)	3(11)	7(7)	3(13)	4(10)	--	--	2(5)
4. Swamp Sparrow	10	5(12)	3(15)	2(15)	5(8)	3(9)	5(10)	2(13)	--	4(2)	2(5)
4. Song Sparrow	10	9(5)	7(6)	29(1)	26(2)	18(1)	20(1)	10(3)	3(1)	10(1)	4(1)
4. American Robin	10	20(1)	20(1)	11(3)	18(3)	14(2)	13(3)	13(1)	--	--	--
7. Common Yellowthroat	6	7(9)	2(18)	1(22)	8(5)	3(9)	--	5(8)	--	--	--
8. Yellow Warbler	5	3(14)	4(11)	8(5)	61(1)	11(4)	8(6)	10(3)	--	3(3)	4(1)
8. White-throated Sparrow	5	2(17)	1(24)	--	2(12)	2(13)	2(14)	--	--	--	--
8. House Wren	5	2(17)	1(24)	2(15)	1(19)	3(9)	1(18)	2(13)	--	1(5)	--
8. Ovenbird	5	7(9)	5(9)	1(22)	1(19)	2(13)	--	1(18)	--	1(5)	--

5.3.2. Birds recaptured

There were 31 repeats of 15 species and 15 returns of 8 species during MAPS (Table 5.4). For the second year in a row, Red-eyed Vireo had the most returns; this year they accounted for 40% of the total. The oldest return in summer 2016 was a female Black-capped Chickadee banded shortly after fledging in June 2011, and therefore 5 years old this year. The only foreign recovery reported this summer was a Common Grackle banded as a hatch-year female in October 2012, found dead in Saint-Charles-Borromée on June 17, 2016, 80 km northeast of MBO.

Table 5.4: List of returns captured during the 2016 MAPS program, sorted by time elapsed.

Band number	Species	Age/sex in 2016	Age/sex at banding	Banding date	Previous capture	2016 return	Time elapsed		
2600-16133	BCCH	ASY-F	HY-U	26 Jun 2011	10 Dec 2011	3 Jul	4 years	6 months	23 days
2351-48536	REVI	ASY-F	ASY-U	16 Jun 2012	16 Jun 2012	30 Jul	4 years	1 month	14 days
2521-74124	REVI	AHY-U	AHY-U	6 Aug 2014	22 Aug 2014	30 Jul	1 year	11 months	8 days
2351-48533	REVI	ASY-F	AHY-U	31 Jul 2011	27 May 2015	24 Jul	1 year	1 month	27 days
2730-49288	WAVI	ASY-U	HY-U	8 Sep 2014	9 May 2015	3 Jul	1 year	1 month	24 days
1352-85328	RWBL	ASY-M	ASY-M	26 Apr 2015	26 Apr 2015	6 Jun	1 year	1 month	11 days
2650-41477	COYE	ASY-M	HY-U	5 Aug 2012	26 May 2015	3 Jul	1 year	1 month	7 days
2641-09065	GRCA	ASY-U	SY-U	16 May 2015	30 May 2015	24 Jun	1 year		25 days
2521-74012	REVI	ASY-F	SY-F	12 Jul 2015	12 Jul 2015	24 Jul	1 year		12 days
2351-48555	REVI	AHY-F	ASY-U	21 Jul 2013	20 Jul 2015	30 Jul	1 year		10 days
2650-44163	COYE	ASY-F	ASY-F	31 May 2014	27 Jun 2015	3 Jul	1 year		6 days
2691-45608	VEER	AHY-M	SY-M	20 Jul 2014	12 Jul 2015	17 Jul	1 year		5 days
2521-91060	REVI	ASY-M	AHY-U	6 Aug 2015	6 Aug 2015	24 Jul		11 months	18 days
2011-90240	SWSP	ASY-M	SY-M	8 May 2013	12 Jul 2015	6 Jun		10 months	25 days
2650-44545	COYE	SY-M	HY-M	1 Aug 2015	18 Aug 2015	3 Jul		10 months	15 days

5.3.3. Daily estimated totals (DET)

The number of species observed daily ranged from a low of 32 on July 17 to a high of 42 on July 3. Over the course of the season, 66 species were observed, the most since 2005. Four species were observed in summer for the first time: Double-crested Cormorant, Common Tern, Common Nighthawk, and Swainson’s Thrush; the latter was almost certainly an early fall migrant. The cumulative total for summer observations is now 107 species. Traill’s Flycatcher was missed for the first time since 2008, and Turkey Vulture since 2010, while Eastern Kingbird was missed in summer for only the second time ever.

6. Fall Migration Monitoring Program (FMMP)

The Fall Migration Monitoring Program has been operated at MBO annually since 2004, with standardized operations since 2005. It previously covered 13 weeks from 1 August to 30 October, but based on a pilot study in 2014, a 14th week was added starting in 2015, extending the season to November 6. Census, observations, and a five-hour banding period occur daily throughout FMMP (weather permitting).

6.1. Effort

Census was conducted on all 98 days of the season, and banding occurred on 91 days (93%), with an unusually many seven days entirely lost to rain (August 13, September 11, October 8, October 21-23, and October 28). On 18 additional days, rain and/or strong winds resulted in reduced net hours (less than 75 out of a normal 80), leaving 73 days (74%) of full banding effort according to the site protocol. As such, the total of 6762 net hours this fall was considerably lower than last year's record high of 7093, and the 6294 hours over the first 13 weeks of the season was the lowest since 2010. All captures this fall were through the standard set of 16 mist nets used for migration monitoring, as described in Section 4.1. All nets were from Manomet, 12 m long with 30 mm mesh, and had been used for migration monitoring since spring 2015.

6.2. Site conditions

Overall, fall 2016 was slightly warmer than usual, although that was driven largely by a record high mean daily temperature in week 1, and above average temperatures throughout August and September. In contrast, week 13 was the coldest ever, and marked a very sharp contrast from the previous week. However, it was rainfall that was the most noteworthy aspect of the weather this fall. After the driest summer on record, it was the wettest fall since 2011, with 351 mm of rain, including a new single-week record for rain of 97 mm in week 12.

Table 6.1: Weather conditions during the 2016 FMMP, by week.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Season
Mean daily high (°C)	29.8	28.0	27.3	26.6	24.0	26.7	22.7	22.0	18.8	19.9	15.4	14.0	6.2	9.3	20.8
Mean daily low (°C)	18.9	17.6	17.2	17.6	14.3	15.8	11.6	10.4	9.6	7.9	5.0	6.7	1.7	2.1	11.2
Mean daily temp (°C)	24.4	22.8	22.2	22.1	19.2	21.3	17.2	16.2	14.2	13.9	10.2	10.4	3.9	5.7	16.0
Highest temp (°C)	34	33	30	29	26	30	27	27	21	25	20	24	8	15	34
Lowest temp (°C)	17	16	15	13	11	10	7	6	4	5	1	3	-1	-2	-2
# days with rainfall	0	3	3	2	2	4	3	2	3	1	2	5	3	5	38
Total rain (mm)	0	52	82	3	9	20	3	4	5	18	20	97	26	12	351

6.3. Results

6.3.1. Birds banded

Table 6.2 summarizes the fall 2016 banding results throughout the season. The 3417 birds banded this fall was slightly below the long-term average, although fairly typical of the past four years. The 82 species banded ranks as the third-highest total across all years, and is 4 more than the long-term average (though for comparison with earlier years, it is important to note that two species were only banded in week 14). The busiest day of the season was October 1, with 136 birds banded (Figure 6.1); there were only five days with over 100 individuals banded, and they were all consecutive (September 30 – October 4), reflecting an unusually concentrated peak of migration. There were only three other days with more than 70 individuals banded, scattered through the season (August 1, September 22, October 19). For FMMP 2016 the mean count of birds banded per day was 34.9 (37.6 for the 91 days with banding effort).

Table 6.2: Summary results of the 2016 FMMP, by week.

	F1	F2	F3	F4	F5	F6	F7	F8
# individuals (species) banded	263 (35)	144 (35)	200 (42)	219 (40)	165 (36)	87 (25)	194 (33)	307 (40)
# individuals (species) return	14 (10)	9 (8)	6 (4)	8 (6)	5 (2)	5 (3)	4 (3)	1 (1)
# individuals (species) repeat	62 (18)	41 (14)	62 (17)	42 (21)	39 (15)	29 (15)	40 (20)	62 (21)
# species observed	84	84	92	93	96	81	93	90
# net hours	560.0	387.9	560.0	552.0	560.0	480.0	536.0	522.6
# birds banded / 100 net hours	47.0	37.1	35.7	39.7	29.5	18.1	36.2	58.8
# days operating	7	7	7	7	7	7	7	7
# days banding	7	6	7	7	7	6	7	7
# days with full net coverage	7	4	7	6	7	6	6	6

	F9	F10	F11	F12	F13	F14	Average	Season
# individuals (species) banded	568 (40)	399 (33)	248 (24)	204 (19)	205 (22)	214 (18)	244 (32)	3417 (82)
# individuals (species) return	2 (2)	3 (3)	10 (7)	1 (1)	3 (2)	7 (4)	6 (4)	78 (22)
# individuals (species) repeat	69 (14)	62 (10)	80 (13)	52 (11)	83 (13)	48 (9)	55 (15)	771 (49)
# species observed	87	78	60	52	60	59	79	150
# net hours	544.0	480.0	472.0	259.0	380.0	468.0	483.0	6761.5
# birds banded / 100 net hours	104.4	83.1	52.5	78.8	54.0	45.7	51.5	50.5
# days operating	7	7	7	7	7	7	7.0	98
# days banding	7	6	7	4	6	7	6.5	91
# days with full net coverage	5	6	5	1	3	4	5.2	73

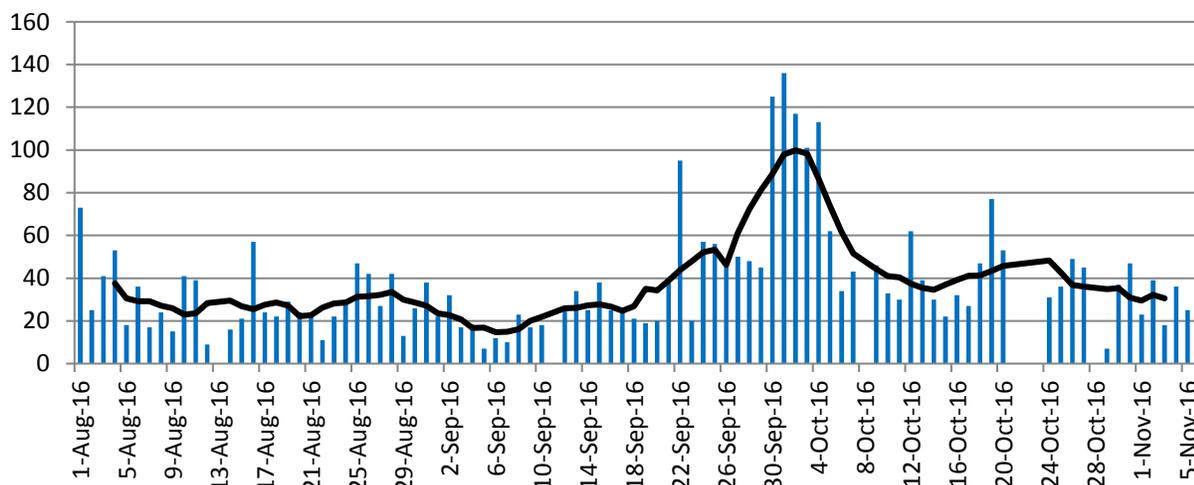


Figure 6.1: Daily and running 7-day mean of individuals banded per day throughout fall 2016.

Species richness among banded birds fluctuated throughout August before declining for much of September and building to a peak in the first few days of October coinciding with the biggest volume of migration this season (Figure 6.2). The greatest variety banded in a single day was 28 on September 22, close to the single-day record of 30. The mean number of species banded per day was 13.2.

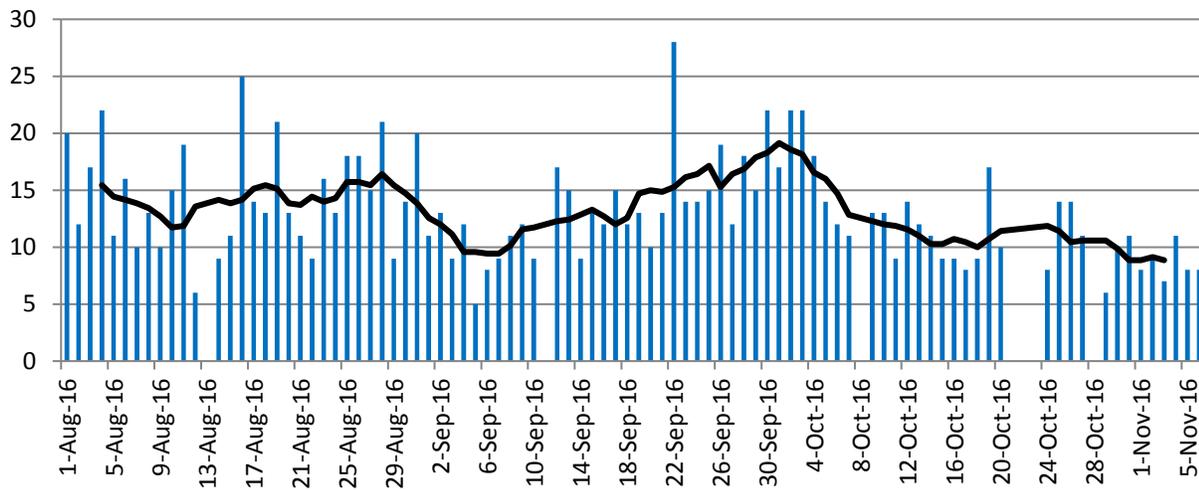


Figure 6.2: Daily and running 7-day mean of species banded per day throughout fall 2016.

Yellow-throated Vireo and Connecticut Warbler were both banded for the first time at MBO during the fall season, increasing the cumulative season total to 107 species and the overall site total to 122 species. Record high banding totals were also reached by eight other species: White-throated Sparrow (566, compared to 506 in 2012), American Redstart (176, vs. 165 in 2015), Golden-crowned Kinglet (138, vs. 101 in 2013), Rose-breasted Grosbeak (47, vs. 45 in 2006), Northern Cardinal (39, vs. 36 in 2015), Gray-cheeked Thrush (29, vs. 17 in 2012), Black-billed Cuckoo (3, vs. 2 in 2008 and 2015), and American Woodcock (2, vs. 1 in 2015).

In addition to Yellow-throated Vireo, four other species were banded just once this fall: Cooper’s Hawk, Red-bellied Woodpecker, Rusty Blackbird, and Bay-breasted Warbler. At the other extreme, Table 6.3 lists the 10 most frequently banded species, which account for 62.1% of all birds banded during FMMP 2016. Four of these (Ruby-crowned Kinglet, Magnolia Warbler, Song Sparrow, and White-throated Sparrow) have been in the top 10 for fall annually since 2005; American Robin was also in the top 10 in all previous years, but with 108 banded this fall ended up just missing it for the first time. Overall it was a poor fall for warblers, with only two species among the top 10, and the 22 species banded comprising only 22% of all birds, far fewer than the previous low of 30% in 2012 and 2015. Conversely, sparrows were more dominant than usual, with 10 species accounting for 30% of all birds banded this fall.

Table 6.3: Top 10 species banded at MBO during the 2016 FMMP, with comparison to the numbers banded in 2005-2015 (rank in other years in parentheses).

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
1. White-throated Sparrow	566	326(1)	484(1)	263(4)	506(1)	216(2)	351(5)	428(1)	317(4)	318(2)	187(5)	354(1)
2. Ruby-crowned Kinglet	341	257(3)	327(2)	347(1)	353(2)	180(4)	271(6)	257(4)	319(3)	376(1)	444(2)	245(2)
3. Dark-eyed Junco	209	74(12)	242(4)	60(14)	198(6)	58(13)	509(2)	361(2)	236(6)	127(6)	33(23)	191(6)
4. American Redstart	176	165(6)	138(8)	146(7)	139(9)	150(6)	149(10)	104(8)	99(9)	77(9)	48(13)	66(13)
5. Swainson's Thrush	170	171(5)	46(21)	25(27)	176(7)	21(31)	27(34)	14(40)	15(40)	15(35)	7(46)	36(21)
6. Black-capped Chickadee	145	50(17)	73(17)	47(17)	171(8)	48(14)	440(3)	135(6)	49(15)	172(5)	27(27)	222(3)
7. Golden-crowned Kinglet	138	63(15)	82(16)	101(9)	91(13)	70(12)	90(14)	25(29)	36(23)	22(25)	73(9)	54(15)
8. Song Sparrow	136	146(7)	136(9)	267(3)	217(4)	170(5)	219(8)	322(3)	199(7)	198(4)	302(3)	215(4)
9. Magnolia Warbler	133	173(4)	279(3)	284(2)	203(5)	252(1)	260(7)	103(9)	264(5)	74(10)	157(6)	192(5)
10. Red-eyed Vireo	109	85(11)	126(10)	78(12)	75(14)	41(20)	96(13)	56(16)	70(12)	62(12)	42(18)	117(10)

For the third consecutive year, and fourth time in the past five years, White-throated Sparrow was the most frequently banded species of fall, this time accounting for nearly one out of every six birds overall! Ruby-crowned

Kinglet was in second place, marking the fifth year in a row that it has been among the top three in fall. Dark-eyed Junco reached the top three for the first time since 2010, though over that time it has consistently been much more numerous in the even-numbered years. American Redstart reached its highest rank to date, in fourth place, and set a new record high for the seventh time in the past ten years, reflecting a steady increase in numbers. There also appears to be a positive trend for Swainson’s Thrush, which ranked in fifth place for the second year in a row, and has had similarly high totals (170, 171, 176) in three of the past five years. Three of the species in the bottom half of the top ten had better than average results this fall: Black-capped Chickadee, Golden-crowned Kinglet, and Red-eyed Vireo. Conversely, the 136 Song Sparrows banded tied the record low for the species set in 2014 and continues a three-year pattern of low numbers, while the 133 Magnolia Warblers was the fewest banded in fall since 2009.

6.3.2. Birds recaptured

There were 771 repeats of 49 species during FMMP 2015, both a bit above the long-term averages for fall. Just over 21% of the White-throated Sparrows banded this fall were recaptured at least once, contributing to a record high number of repeats in a season for that species. Among the ten species with the most repeats (Table 6.4), half of them have substantial local breeding populations (Black-capped Chickadee, Gray Catbird, Song Sparrow, Swamp Sparrow, and Northern Cardinal), although some of the individuals of these species banded and recaptured were also likely migrants from farther north. A number of birds were recaptured on multiple occasions, most notably a Downy Woodpecker, a Northern Cardinal, and ten Black-capped Chickadees which were each recaptured five or more times during the season.

Table 6.4: Top 10 species recaptured most often during the 2016 FMMP (species with local breeding populations marked with an asterisk).

	Species	# Repeats	# Individuals
1.	White-throated Sparrow	162	123
2.	Black-capped Chickadee*	119	42
3.	Gray Catbird*	58	37
4.	Swainson's Thrush	43	34
5.	Ruby-crowned Kinglet	42	34
6.	Song Sparrow*	38	27
7.	American Redstart	31	24
8.	Northern Cardinal*	21	15
8.	Dark-eyed Junco	21	18
10.	Swamp Sparrow*	19	12

Aside from birds likely to be local breeders, or their offspring, only 6 individuals of 5 species stopped over for at least two weeks, far fewer than in other recent years. The stopovers were a Ruby-crowned Kinglet (14 days), two Swainson’s Thrushes (15 and 36 days), a Black-and-white Warbler (29 days), a Tennessee Warbler (18 days), and a Nashville Warbler (15 days).

There were 78 returns of 22 species during FMMP 2016 (Table 6.5). Both results are above average for the season, with the number of individuals involved the second-highest, behind 87 in 2012. Nine individuals had not been encountered since two years or more, with the longest interval belonging to a female American Goldfinch last captured in May 2011 and now at least 7 years old.

No foreign-banded birds were captured at MBO during FMMP 2016, nor were any birds banded at MBO recaptured elsewhere during this period, other than owls (addressed in section 7.3).

Table 6.5: List of returns captured during the 2016 FMMP, sorted by time elapsed.

Band number	Species	Age/sex in 2016	Age/sex at banding	Banding date	Previous capture	2016 return	Time elapsed		
2600-15891	AMGO	AHY-F	AHY-F	8 Aug 2010	25 May 2011	9 Aug	5 years	2 months	15 days
2351-48524	REVI	AHY-U	AHY-U	25 Jul 2011	23 Jun 2012	21 Aug	4 years	1 month	29 days
2351-48529	REVI	AHY-U	AHY-F	31 Jul 2011	13 Aug 2013	10 Aug	2 years	11 months	28 days
2650-45314	YEWA	AHY-F	ASY-F	8 May 2013	19 May 2014	11 Aug	2 years	2 months	23 days
2571-23128	SOSP	AHY-U	HY-U	9 Aug 2012	15 Jun 2014	7 Sep	2 years	2 months	23 days
2591-98599	REVI	AHY-U	AHY-F	14 Jul 2014	14 Jul 2014	16 Aug	2 years	1 month	2 days
2691-54348	WTSP	AHY-U	HY-F	5 Oct 2014	5 Oct 2014	16 Oct	2 years		11 days
2600-15714	SCJU	AHY-M	HY-M	29 Nov 2009	30 Oct 2014	5 Nov	2 years		6 days
2521-74146	REVI	AHY-U	AHY-U	12 Aug 2014	12 Aug 2014	14 Aug	2 years		2 days
2521-74113	REVI	AHY-U	AHY-F	4 Aug 2014	4 Aug 2014	2 Aug	1 year	11 months	29 days
2730-49154	HOWR	AHY-U	HY-U	22 Aug 2014	22 Aug 2014	1 Aug	1 year	11 months	10 days
2691-51949	SOSP	AHY-U	AHY-M	5 Aug 2014	3 Oct 2014	18 Aug	1 year	10 months	15 days
2581-69871	SOSP	AHY-U	HY-U	17 Aug 2013	18 Oct 2014	23 Aug	1 year	10 months	5 days
2730-49916	BCCH	AHY-U	AHY-U	8 Nov 2014	26 Nov 2014	29 Sep	1 year	10 months	3 days
1352-50434	AMRO	AHY-M	AHY-U	22 Oct 2014	22 Oct 2014	10 Aug	1 year	9 months	19 days
1713-34568	BLJA	AHY-U	HY-U	15 Oct 2013	26 Apr 2015	1 Nov	1 year	6 months	6 days
2650-42777	ATSP	AHY-U	SY-U	10 Mar 2015	18 Apr 2015	20 Oct	1 year	6 months	2 days
1383-62342	BLJA	AHY-U	HY-U	29 Sep 2011	21 May 2015	12 Oct	1 year	4 months	21 days
2650-44414	AMGO	ASY-M	SY-M	24 May 2015	24 May 2015	28 Aug	1 year	3 months	4 days
2730-49578	AMGO	AHY-F	SY-F	7 May 2015	7 May 2015	1 Aug	1 year	2 months	25 days
2641-09080	GRCA	AHY-U	SY-M	20 May 2015	20 May 2015	3 Aug	1 year	2 months	14 days
2741-64116	SOSP	U-U	HY-U	5 Aug 2015	9 Aug 2015	5 Oct	1 year	1 month	26 days
2741-64072	SWTH	AHY-U	AHY-U	23 Aug 2015	23 Aug 2015	7 Oct	1 year	1 month	14 days
2691-45637	SOSP	AHY-U	HY-U	20 Jul 2015	20 Jul 2015	15 Aug	1 year		26 days
2641-17683	GRCA	AHY-U	HY-U	22 Aug 2015	22 Aug 2015	9 Sep	1 year		18 days
2650-44586	COYE	AHY-M	HY-U	7 Aug 2015	30 Aug 2015	9 Sep	1 year		10 days
2421-93996	NOCA	AHY-M	HY-M	26 Sep 2012	1 Aug 2015	10 Aug	1 year		9 days
2741-64008	DOWO	SY-M	HY-U	3 Aug 2015	6 Aug 2015	14 Aug	1 year		8 days
2741-64178	SOSP	AHY-U	AHY-U	10 Sep 2015	10 Sep 2015	18 Sep	1 year		8 days
2741-64034	SWTH	AHY-U	AHY-U	10 Aug 2015	10 Aug 2015	15 Aug	1 year		5 days
2561-32091	NOCA	AHY-F	SY-F	22 May 2014	27 Aug 2015	28 Aug	1 year		1 day
2650-45654	HOWR	AHY-U	HY-U	31 Jul 2015	31 Jul 2015	1 Aug	1 year		1 day
2650-44197	BAWW	AHY-F	AHY-F	7 Aug 2014	5 Aug 2015	5 Aug	1 year		
2760-84282	AMRE	AHY-F	HY-U	26 Aug 2015	26 Aug 2015	25 Aug		11 months	30 days
2760-84188	AMRE	SY-M	HY-U	9 Aug 2015	9 Aug 2015	3 Aug		11 months	25 days
2650-42966	SCJU	AHY-M	ASY-M	19 Apr 2015	11 Nov 2015	2 Nov		11 months	22 days
2521-74239	REVI	AHY-F	HY-U	31 Aug 2014	20 Aug 2015	6 Aug		11 months	17 days
2561-09249	GRCA	AHY-F	HY-U	1 Sep 2013	23 Aug 2015	9 Aug		11 months	17 days
2650-44461	AMGO	AHY-M	HY-M	3 Sep 2015	3 Sep 2015	15 Aug		11 months	12 days
2521-94706	REVI	AHY-U	AHY-U	20 Aug 2015	20 Aug 2015	1 Aug		11 months	12 days
2650-44730	COYE	AHY-F	HY-U	25 Aug 2015	25 Aug 2015	4 Aug		11 months	10 days
2650-44407	AMGO	AHY-M	SY-M	23 May 2015	22 Aug 2015	1 Aug		11 months	10 days
2650-42289	ATSP	AHY-U	HY-U	26 Nov 2015	26 Nov 2015	4 Nov		11 months	9 days
2740-76681	AMGO	AHY-M	AHY-M	25 Nov 2015	25 Nov 2015	30 Oct		11 months	5 days
2730-49958	BCCH	AHY-U	HY-U	24 Aug 2015	8 Dec 2015	1 Nov		10 months	24 days
2521-94942	PUFI	AHY-M	AHY-M	5 Nov 2015	5 Nov 2015	18 Sep		10 months	13 days
2641-17900	NOCA	AHY-F	HY-F	4 Nov 2015	4 Nov 2015	7 Aug		9 months	3 days
2650-45728	BCCH	AHY-U	HY-U	3 Dec 2013	26 Nov 2015	24 Aug		8 months	29 days
2730-49943	BCCH	AHY-U	HY-U	3 Aug 2015	31 Jan 2016	9 Oct		8 months	8 days
2740-76966	SCJU	AHY-M	SY-M	23 Mar 2016	23 Mar 2016	4 Nov		7 months	12 days

Band number	Species	Age/sex in 2016	Age/sex at banding	Banding date	Previous capture	2016 return	Time elapsed	
2650-41087	SCJU	AHY-M	SY-U	23 Feb 2012	23 Mar 2016	1 Nov	7 months	9 days
2730-49999	BCCH	AHY-U	AHY-U	5 Dec 2015	31 Jan 2016	3 Aug	6 months	3 days
2650-45748	BCCH	AHY-U	HY-U	4 Aug 2014	28 Apr 2016	25 Oct	5 months	27 days
2741-64554	SOSP	U-U	AHY-U	25 Apr 2016	25 Apr 2016	15 Oct	5 months	20 days
2431-74164	DOWO	ASY-M	HY-U	25 Jul 2011	26 Apr 2016	13 Oct	5 months	17 days
2650-45745	BCCH	AHY-U	HY-U	1 Aug 2014	17 Mar 2016	30 Aug	5 months	13 days
2730-49960	BCCH	AHY-U	HY-U	29 Aug 2015	2 May 2016	14 Oct	5 months	12 days
2501-44959	HAWO	ASY-M	ASY-M	8 Mar 2016	14 May 2016	15 Oct	5 months	1 day
2600-16140	BCCH	AHY-U	HY-U	21 Jul 2011	15 May 2016	14 Oct	4 months	29 days
2711-23381	WBNU	U-F	SY-F	17 May 2016	17 May 2016	16 Oct	4 months	29 days
2741-64551	SOSP	AHY-U	AHY-U	24 Apr 2016	24 Apr 2016	20 Sep	4 months	27 days
2730-49961	BCCH	AHY-U	HY-U	1 Sep 2015	6 Jun 2016	30 Oct	4 months	24 days
2501-44952	HAWO	ASY-F	SY-F	21 Mar 2015	23 May 2016	15 Oct	4 months	22 days
2730-49945	BCCH	AHY-U	HY-U	3 Aug 2015	2 May 2016	16 Sep	4 months	14 days
2650-43009	BCCH	AHY-U	HY-U	1 Aug 2011	30 May 2016	10 Oct	4 months	10 days
2650-45648	BCCH	AHY-U	HY-U	20 Jul 2015	28 Apr 2016	3 Sep	4 months	6 days
2741-64492	WBNU	AHY-M	U-M	13 Oct 2015	25 May 2016	30 Sep	4 months	5 days
2650-45647	BCCH	AHY-U	HY-U	20 Jul 2015	7 May 2016	30 Aug	3 months	23 days
2741-64139	SOSP	AHY-U	HY-U	17 Aug 2015	18 Apr 2016	10 Aug	3 months	23 days
2730-49953	BCCH	AHY-U	HY-U	13 Aug 2015	6 May 2016	24 Aug	3 months	18 days
2650-44793	COYE	AHY-M	HY-U	5 Sep 2015	21 May 2016	8 Sep	3 months	18 days
2691-45727	SOSP	AHY-U	HY-U	29 Sep 2014	28 May 2016	14 Sep	3 months	17 days
2650-44680	COYE	AHY-M	AHY-M	19 Aug 2015	29 May 2016	9 Sep	3 months	11 days
2691-45623	DOWO	SY-M	HY-M	4 Jul 2015	26 Apr 2016	6 Aug	3 months	11 days
2650-44001	AMGO	AHY-F	SY-F	20 May 2014	21 May 2016	29 Aug	3 months	8 days
2730-49978	BCCH	AHY-U	HY-U	3 Oct 2015	25 May 2016	30 Aug	3 months	5 days
2730-49944	BCCH	AHY-U	HY-U	3 Aug 2015	24 May 2016	27 Aug	3 months	3 days
1803-09901	COGR	AHY-U	SY-F	25 May 2016	25 May 2016	27 Aug	3 months	2 days

6.3.3. Census

One or more experienced observers walked the standardized census route daily during FMMP. Over the course of the season, 119 species were observed on census, including 2 that were not otherwise detected: Greater Yellowlegs and Blackburnian Warbler.

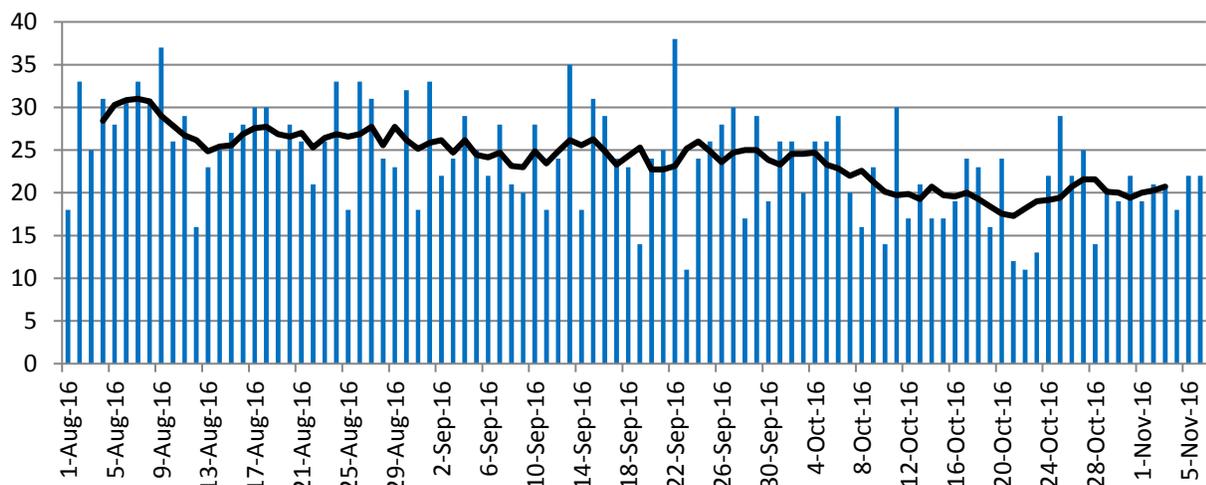


Figure 6.3: Daily species count and running 7-day mean of species recorded on census throughout fall 2016.

As shown in Figure 6.3, there was daily variation in the number of species observed during the census, ranging from a high of 38 on September 22 to a low of 11 the following day. This reflects not only actual changes in the bird population from day to day, but also variation due to weather and among observers. To account for this, a 7-day running mean was plotted. This fall it was highest over the first week of the season, but then declined very gradually from around mid-August to early October before dropping to a slightly lower plateau for the remainder of the season.

6.3.4. Daily estimated totals (DET)

The DET, as described in Section 4.3.4, includes all observations made by participants at MBO. During FMMP 2016, 150 species were recorded, just short of the record set in 2005 and matched in 2015, and well above the long-term average of 145. There were 11 species seen just once (Cackling Goose, Common Nighthawk, Virginia Rail, Spotted Sandpiper, Greater Yellowlegs, Great Egret, Alder Flycatcher, Yellow-throated Vireo, Northern Mockingbird, Bobolink, and Pine Warbler), highlighting the importance of daily coverage by experienced observers throughout the season. Yellow-throated Vireo was observed for the first time, becoming the 213th species added to the MBO checklist, and the 195th species recorded in fall.

The highest single day DET, 72 species, was recorded on August 17 – for the second year in a row a new all-time single-day high for fall, and again earlier than all previous peak dates. At the weekly scale, the highest number of species was 96, in week 5. New single-week highs were set for species observed in six of the first eight weeks of fall, as well as in week 14, and the weekly totals were above average in all weeks except 6, 11, and 12. The lowest count of 12 species occurred on October 21, a morning with heavy rain.

The seven-day running mean shown in Figure 6.4 smooths out the day-to-day variation resulting from differences in weather and among observers. It peaked near 60 species for four days in the third week of August, then declined steadily to below 50 by early September before rebounding to just above 50 for a two-week period September 20 to October 4. After that it declined sharply to an average of around 32 over the final three weeks of the season, with a low from October 20-24 corresponding to three consecutive cool and rainy days.

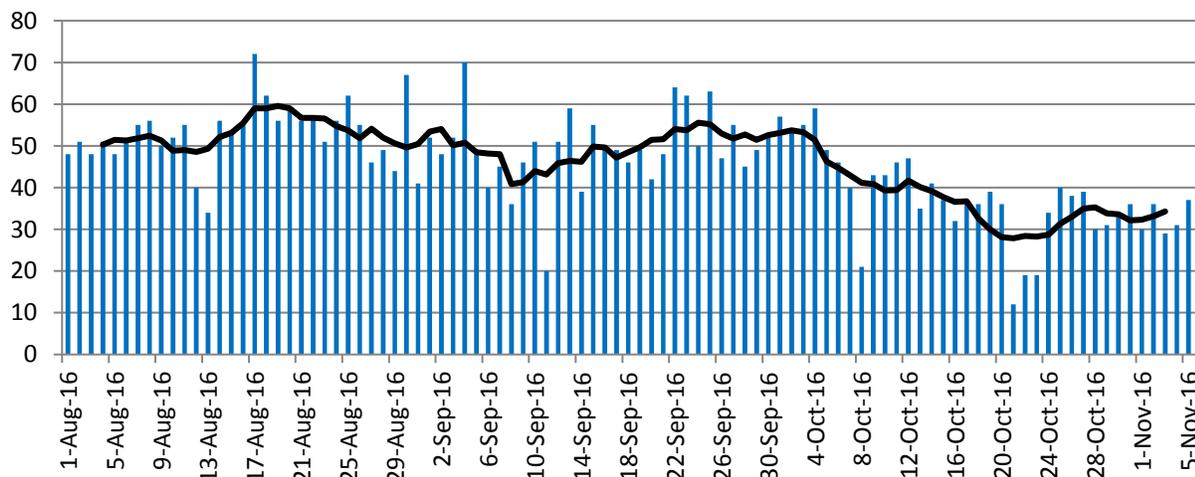


Figure 6.4: Daily species count and running 7-day mean of species observed throughout fall 2016.

This year a record-high 29 species were observed each week throughout fall, despite the season being extended one week further into November, compared to 2005-2014 (those not detected in all weeks in 2015 marked with an asterisk): Canada Goose, Wood Duck*, Mallard, Mourning Dove, Ring-billed Gull, Cooper’s Hawk*, Red-tailed Hawk*, Downy Woodpecker, Hairy Woodpecker, Yellow-shafted Flicker*, Pileated Woodpecker, Blue Jay, American Crow, Common Raven*, Black-capped Chickadee, Red-breasted Nuthatch*, White-breasted Nuthatch, Swainson’s Thrush*, American Robin, European Starling, Cedar Waxwing, Purple Finch, American Goldfinch, Song Sparrow, Swamp Sparrow, White-throated Sparrow, Red-winged Blackbird, Common Grackle, and Northern Cardinal. Only Great Horned Owl was observed weekly throughout last fall, but not this year.

6.3.5. Coverage of priority species

MBO has produced a list of 62 target species for priority monitoring, as described in Section 4.3.5. All species on the MBO priority list were observed during FMMP 2016, and 85% were banded (Table 6.6). Over 86% of individuals banded were priority species, well within the range of 83% to 91% in previous years. Of the top 10 species banded at MBO during FMMP 2016, all are designated as priority species, including the top three that were all priority B species, and another two that are priority A, indicating the program is effective at documenting these otherwise poorly monitored birds.

Table 6.6: Summary of priority species observed and banded during the 2016 FMMP. Detailed category definitions are provided in Gahbauer et al. (2014).

	Priority A	Priority B	Priority C	Priority D
Number of species in category	15	10	18	19
Number of species observed	15	10	18	19
Number of species banded	14	10	14	15
Number of individuals banded	460	1301	512	681

6.3.6. Net productivity

The nets used for FMMP are the same as described for SMMP (see Section 4.3.6). Under normal weather and personnel conditions, all nets were operated for five hours daily. Only on a few occasions were the B/N nets closed early due to wind. Table 6.7 summarizes the usage and productivity of all nets during FMMP 2016.

Table 6.7: Net usage and capture rates during the 2016 FMMP.

Net	Hours open	New Captures	Returns + Repeats	Total captures	Birds / 100 net hours	
					New	Total
A1	424.8	160	25	185	37.7	43.5
A2	424.8	316	76	392	74.4	92.3
A - TOTAL	849.6	476	101	577	56.0	67.9
B2	416.4	175	48	223	42.0	53.6
N1	416.4	261	77	338	62.7	81.2
N3	416.4	223	73	296	53.6	71.1
B3	416.4	212	66	278	50.9	66.8
B/N - TOTAL	1665.6	871	264	1135	52.3	68.1
C1	424.8	311	53	364	73.2	85.7
C2	423.8	235	63	298	55.4	70.3
C - TOTAL	848.6	546	116	662	64.3	78.0
D1	424.8	124	39	163	29.2	38.4
D2	424.8	77	20	97	18.1	22.8
D3	424.8	117	20	137	27.5	32.2
D4	424.8	103	36	139	24.2	32.7
D - TOTAL	1699.3	421	115	536	24.8	31.5
E1	423.8	168	42	210	39.6	49.5
E2	424.8	285	79	364	67.1	85.7
E - TOTAL	848.6	453	121	574	53.4	67.6
H1	424.8	305	67	372	71.8	87.6
H2	424.8	344	64	408	81.0	96.0
H - TOTAL	849.6	649	131	780	76.4	91.8
GRAND TOTAL	6761.5	3416	848¹	4264	50.5	63.1

¹ – The total differs from Table 6.2 because the net was not recorded for one recapture

The overall capture rate of new birds for FMMP 2016 was 50.5, an improvement from last year, but still below average for fall; the additional 12.6 birds per net hour for recaptures was closer to average. The relative effectiveness of nets varies from year to year, although typically the A, C, and H nets along with E2 have been the most productive in fall, and this was largely the case this year, aside from A1. N1 also yielded substantially above-average numbers this fall. Conversely, D2 was by far the least effective net for the seventh time in the past eight years, and the other nets in the D group rounded out the bottom four.

Although efforts have been made annually to maintain habitat consistency, especially near the nets, it is impossible to keep conditions identical from year to year, especially given annual variability in growing conditions for species like goldenrod, and growth/senescence of shrubs. Maintenance this year was concentrated mostly on thinning the buckthorns and hawthorns around all the nets, including the winter and MAPS nets. This year's annual habitat review took place in early October, as always involving visual inspection of all net lanes and surrounding areas and comparison with photos from each previous year dating back to 2005. Based on this assessment and the effectiveness of nets in spring and fall 2016, further maintenance will be undertaken prior to spring 2017.

6.4. Results of supplementary week

For a second year, FMMP was extended into November by adding one week to the end of the traditional fall season. Last year, 146 birds of 17 species were banded in week 14, and 57 species were observed. This year, numbers were somewhat higher, with 214 birds of 18 species banded, and 59 species observed. This compared favourably with the 204 birds banded in week 12 and 205 banded in week 13 this fall, and the 52 and 60 species observed in those two weeks, respectively. We therefore have documented further evidence that fall migration at MBO continues into early November, and that operating week 14 appears to be important for adequately documenting the passage of late-season migrants.

6.5. Summary and analysis

Banding effort was lower than normal this fall, mostly due to unusually many days being washed out by rain, especially in the second half of October. Despite that, the 3417 birds banded represented a rebound from the below average total of 3151 last year, and there was a strong peak of migration around the beginning of October, with five consecutive days of > 100 individuals banded. For the second year in a row, and third time in five years, over 80 species were banded in fall, a notable departure from the range of 74-78 in all other years; the 150 species observed was also just short of the record high of 151. While the latter total may be influenced to some extent by the quantity and quality of observer effort, which has on average increased over time, the trend toward a higher number of species banded is more difficult to explain, and parallels a similar pattern observed in spring.

Yellow-throated Vireo was finally observed at MBO for the first time this fall, and we also recorded the first fall sightings of American Wigeon. An additional 14 species were observed in greater numbers than in any previous year: Black-billed Cuckoo, Bald Eagle, Red-bellied Woodpecker, Pileated Woodpecker, Warbling Vireo, Red-eyed Vireo, Tree Swallow, White-breasted Nuthatch, Eastern Bluebird, Gray-cheeked Thrush, Bohemian Waxwing, Connecticut Warbler, American Redstart, and Northern Cardinal. Notably though, all of these except Red-eyed Vireo, White-breasted Nuthatch, American Redstart, and Northern Cardinal remained uncommon to rare (mean daily count <2 individuals) despite setting new records. Conversely, mean daily totals were lower than in any previous year for 7 species: Least Flycatcher, American Crow, Song Sparrow, White-crowned Sparrow, Nashville Warbler, Mourning Warbler, Blackpoll Warbler. Notably, this was the second consecutive year of record lows for all of these species except Least Flycatcher and Mourning Warbler. We also continue to see changes in timing of migration, with the most dramatic examples being American Redstart that peaked in week 1 for the first time (compared to weeks 4 and 5 in 2005-2007 and 2009, week 3 in 2008 and 2010-2013, and week 2 in 2014-2015), and conversely Magnolia Warbler that peaked in week 8 for the first time (compared to weeks 4-6 in 2005-2011, and week 7 in 2012-2015). The larger numbers of birds in fall and more prolonged period of migration make it easier to detect changes in abundance and timing than other seasons, and underscore the importance of FMMP at MBO.

7. Northern Saw-whet Owl Migration Monitoring Program

Nocturnal banding of Northern Saw-whet Owls has been undertaken at MBO during fall migration annually since 2004, except in 2006 and 2008. For the first four years, surveying was sporadic, primarily limited by availability of banders. Since 2010, effort has been largely standardized, with nightly coverage (weather permitting) over six weeks from September 26 to November 6. Owl banding since 2010 has primarily used a roughly elliptical array of seven nets surrounding a FoxPro broadcaster playing a standard Northern Saw-whet Owl audiolure from Project OwlNet (2016). In 2016, an additional seven nets were operated at a second location, targeting Long-eared Owls with a broadcast of a male hooting. The program operates a standard banding period of 4 hours, beginning 30 minutes after sunset, but when conditions are favourable, non-standard banding continues later into the night, up to within 3.5 hours of sunrise.

7.1. Effort

Banding was possible on 35 (83%) of 42 nights during the season, with rain or strong winds preventing efforts on the remaining occasions, including five of seven nights within week 12. This year there was again no banding outside of the standard season.

7.2. Site conditions

Temperatures were at or slightly above normal for the first four weeks of the season before a sharp cold front in week 13 dropped to record low levels before rebounding to near average for the final week of the season. The first half of the season had considerably less rain than usual, but this was offset by the 97 mm of rain in week 12, a single-week record for fall; the final two weeks were close to average.



*The Barred Owl banded at MBO this fall
(Photo by Nicolas Bernier)*

Table 7.1: Weather conditions during the 2016 Northern Saw-whet Owl Monitoring Program, by week.

	9 Sep 26-Oct 2	10 Oct 3-9	11 Oct 10-16	12 Oct 17-23	13 Oct 24-30	14 Oct 31- Nov 6	Season
Mean daily high (°C)	18.8	19.9	15.4	14.0	6.2	9.3	13.9
Mean daily low (°C)	9.6	7.9	5.0	6.7	1.7	2.1	5.5
Mean daily temp (°C)	14.2	13.9	10.2	10.4	3.9	5.7	9.7
Highest temp (°C)	21	25	20	24	8	15	25
Lowest temp (°C)	4	5	1	3	-1	-2	-2
# days with rainfall	3	1	2	5	3	5	19
Total rain (mm)	5	18	20	97	26	12	178

7.3. Results

The 194 Northern Saw-whet Owls banded during the standard season (weeks 9-14) was down from last year's record, and slightly lower than the average of 210 over the past five years. Like last year, a single Eastern Screech-Owl was banded, and this year there was also one Barred Owl. Both of those species were also heard occasionally during the banding season, and the local pair of Great Horned Owls was detected regularly.

Table 7.2: Summary results of the 2016 Northern Saw-whet Owl Monitoring Program, by week.

	9	10	11	12	13	14	Average	Season
# owls banded	12	79	25	8	46	26	32.7	196
# owls return	1	0	0	0	0	0	0.2	1
# owls repeat	0	0	3	0	4	3	1.7	10
# owls foreign	0	1	0	0	0	0	0.2	1
# net hours	717.5	808.5	623.0	252.0	777.0	606.5	630.7	3784.5
# owls banded / 100 net hours	1.7	9.8	4.0	3.2	5.9	4.3	4.8	5.2
# nights banding	7	7	7	2	6	6	6.0	35

7.3.1. Birds banded

As usual, the first week of the season was relatively quiet, with 12 individuals banded roughly average for the period. However, the 79 banded in the second week was the second-highest single-week total ever, behind the 107 banded in the fourth week (week 12) last year. It included the record-early peak of 19 owls on October 6, but at least 10 individuals were banded on four other nights as well. Only 8 owls were banded during the record-wet week 12 this year, over just two nights. However, the second and third nights of the following week yielded 17 and 15 owls respectively, with movement presumably stimulated by the arrival of a cold front combined with the owls not moving during the three consecutive days of heavy rain October 20-22. Overall, 46 owls were banded that week, the most ever for the period, and it was the latest ever that we banded 15 in a night. After that, however, numbers tapered off toward the end of the season, aside from a surprisingly high count of 6 on the final night, November 6. On six of the 34 nights of banding effort, no owls were banded. Despite a dedicated net array targeting Long-eared Owls, no individuals of this species were banded.

This year, hatch-year birds accounted for 125 of 194 (64%) Northern Saw-whet Owls banded; while second-year birds were less abundant than usual with 39 (20%), compared to 31% last year. As usual, females dominated (65%); males were uncommon but more numerous than usual (14%), and 21% were intermediates that could not be sexed.

7.3.2. Birds recaptured

There was one return this year, an Eastern Screech-Owl originally banded in October 2015. The 10 repeats was the lowest total since 2011, suggesting that fewer Northern Saw-whet Owls were stopping over at MBO this fall. All were different individuals. Stopovers were also briefer, with six owls recorded within two nights of their initial capture, and only one lingering for more than one week (nine days), compared to seven individuals last year, for as long as 22 days.

Only one foreign owl was recaptured at MBO this fall (Table 7.3), fewer than in any previous year, and far below the long-term average of 6. It was banded in Hedgesville, West Virginia in 2014, 730 km south of MBO. Nine owls banded at MBO were recaptured elsewhere this fall (Table 7.4). Remarkably, three of these were recaptured by a single bander in New Paltz, New York, including two that were banded on the same night at MBO, but recaptured by him six days apart. The greatest displacement was an owl that was recaptured in Finland, Minnesota, over 1300 km northwest of MBO.

Table 7.3: Foreign-banded Northern Saw-whet Owls captured at MBO during 2016, sorted by time elapsed.

Band number	Age/sex in 2016	Age/sex at banding	Banding date	2016 capture	Time elapsed	Banding Location	Distance (km)
1014-88429	ASY-U	HY-M	12 Nov 14	10 Oct	1 yr 10 mon 28 days	Hedgesville WV	730

Table 7.4: MBO Northern Saw-whet Owls banded captured elsewhere in fall 2016, sorted by time elapsed.

Band number	Age/sex in 2016	Age/sex at banding	Banding date	2016 capture	Time elapsed	Recapture location	Distance (km)
1014-90336	ATY-F	AHY-F	6 Oct 13	18 Oct	3 years 12 days	Nogies Creek ON	370
1014-64574	4Y-F	HY-F	4 Oct 13	14 Oct	3 years 10 days	New Paltz NY	410
1014-95102	SY-F	HY-F	5 Oct 15	26 Oct	1 year 21 days	West Cape May NJ	720
1104-03163	ATY-F	ASY-F	20 Oct 15	2 Nov	1 year 13 days	Tannersville PA	500
1014-95106	TY-F	SY-F	6 Oct 15	1 Oct	11 months 25 days	Finland MN	1340
1104-03280	HY-M	HY-M	3 Oct 16	5 Nov	1 month 2 days	Java Center NY	470
1104-03289	HY-F	HY-F	4 Oct 16	29 Oct	25 days	Elizabethville PA	590
1104-24658	HY-U	HY-U	10 Oct 16	31 Oct	21 days	New Paltz NY	410
1104-24660	HY-F	HY-F	10 Oct 16	25 Oct	15 days	New Paltz NY	410

7.3.3. Net productivity

The primary net array used for owl banding this fall comprised five 60-mm nets (O1-O4, O6) exclusive to the owl program, and two 30-mm nets (E1-E2) that are shared with the Fall Migration Monitoring Program. O1-O4 and

E1 are all within 10-15 m of an audiolure broadcasting a Northern Saw-whet Owl call, while E2 is nearly 30 m away. O4 is entirely within a conifer grove, while O1-O3 and E1 are along its periphery, and E2 is within a cluster of hawthorns; all of these have been in use since 2010. O6 is perpendicular to and on the far side of O4, within the conifer stand, and has been in use since 2013, replacing net O5 on the northern edge of the conifers. Additionally this fall, seven nets (X1-X7) were installed to run a pilot project for Long-eared Owl monitoring. They were located near the northeast end of the property, in the same area used for the Boreal Owl pilot project (nets T1-T4) in 2012 (see Gahbauer et al. 2016). Three nets (X1, X4, X7) were placed along the census trail, interspersed with two pairs of perpendicular nets (X2/X3 and X5/X6). The three nets closest to the centre of the array (X2, X4, X5) were 90-mm nets, while the others were 60-mm nets.

Table 7.5 shows that O4 was the most productive net this fall, as in most previous years. E1 had the next highest capture rate. Surprisingly, the next best nets were O2 and O3, which traditionally have had below-average capture rates. Capture rates at the O and E nets were roughly six times higher than at the X nets, where only X2 had even a modest level of success.

Table 7.5: Net usage and capture rates during the 2016 Northern Saw-whet Owl Monitoring Program.

Net	Hours Open	New Captures	Returns + Repeats	Total Captures ¹	Birds / 100 net hours	
					New	Total
O1	270.3	21	1	23	7.8	8.5
O2	270.3	25	1	26	9.2	9.6
O3	270.3	27	0	27	10.0	10.0
O4	270.3	34	0	34	12.6	12.6
O6	270.3	17	0	17	6.3	6.3
O - TOTAL	1351.6	124	2	127	9.2	9.4
E1	270.3	27	3	30	10.0	11.1
E2	270.3	19	1	20	7.0	7.4
E - TOTAL	540.6	46	4	50	8.5	9.2
X1	270.3	5	0	5	1.8	1.8
X2	270.3	8	4	12	3.0	4.4
X3	270.3	2	0	2	0.7	0.7
X4	270.3	0	0	0	0.0	0.0
X5	270.3	4	0	4	1.5	1.5
X6	270.3	4	1	5	1.5	1.8
X7	270.3	3	0	3	1.1	1.1
X - TOTAL	1892.2	26	5	31	1.4	1.6
GRAND TOTAL	3784.5	196	11	208	5.2	5.5

¹ – Total captures include new captures, returns, repeats, and foreign recaptures.

7.4. Summary and analysis

For the first time since 2010, there were two distinct peaks to Northern Saw-whet Owl migration this fall, with the main push coming through in week 10, and a secondary wave in week 13 and continuing into week 14. Both the number banded and the percentage of hatch-year individuals were above average, but well below record levels. The majority of owls were captured at the traditional net array, but 13% were caught at the secondary site targeting Long-eared Owls. The capture rate was much lower there, but it is unclear whether Northern Saw-whet Owls were still somewhat attracted by the Long-eared Owl lure, or the capture rates there represented their background level of movement through the area (although likely still influenced to some extent by the Northern Saw-whet Owl lure playing ~350 m to the south). Omitting the X nets, the capture rate of 8.9 new owls per 100 net hours matched the long-term average for the site. While the pilot project was unsuccessful this year, it was also a poor year for Long-eared Owls elsewhere, so we will evaluate it further in 2017.

8. Other MBO programs

Although the seasonal monitoring programs are the primary focus at MBO, they also provide opportunities to pursue a number of secondary objectives, including education and training, improvement identification techniques, and more detailed research on particular species.

8.1. Education and training

MBO provides ongoing training in avian research techniques to McGill University students and other interested individuals. This is implemented through seasonal internships and training of other volunteers throughout the spring and fall programs in all aspects of migration monitoring from field identification skills and data recording to practice in extraction and banding. To keep learning opportunities accessible, we generally limit the number of volunteers per day to one experienced extractor/bander-in-training, two extractors-in-training and up to three additional assistants, who could get one-on-one training from either the extractors or the bander-in-charge. Experienced extractors able to work independently are a limiting factor for banding operations, and thus helping volunteers improve their skills at extraction is a priority at MBO. Observers with good identification skills are also critical to effective migration monitoring, and again in 2016 we were fortunate to have many experienced observers contributing their sightings and helping to train newer volunteers.

There is also an ongoing effort to share results with the local, national, and international communities, to illustrate how migration monitoring data can contribute to understanding and conservation of boreal birds. This year we provided tours of MBO to members of the Club d'Ornithologie de Vaudreuil-Soulanges, as well as McGill classes. In addition, we maintain the fully bilingual MBO website at www.oommbo.org, and routinely share current news through MBO's popular Facebook page, at <https://www.facebook.com/oommbo/>.

This year also marked the second year of our education initiative centered around our owl banding program. With funding support again from Bird Protection Quebec, Chris Cloutier and Shawna Sevigny led twelve interpretive programs at the Morgan Arboretum in October 2016, half in English and half in French, with 174 people attending in total. Each presentation provided an overview of the owls of Quebec, the biology and behaviour of the Northern Saw-whet Owl, and highlights from MBO research, and on all but two nights also featured a demonstration of owl banding. The program again received favourable reviews, and will be continued in 2017. Additionally, Simon Duval gave 12 presentations over the course of 2016 on the MBO 10-year report and the contributions of the MBO banding team at sites around Montreal to the Canadian Snow Bunting Network. Marcel Gahbauer and Simon Duval also attended a summit of Quebec bird researchers hosted by Université du Québec à Montréal aimed at developing partnerships for collaborative studies.

8.2. Photo documentation

MBO continues to photo document all rarities captured, as well as any individuals showing abnormalities, such as aberrant pigmentation or moult, deformities, or healed injuries. From 2005 through 2014, representative photos of regularly banded species were also posted (with associated descriptive text) in MBO's online Photo ID Library. In early 2015, this resource was migrated to the *Piranga* module of Environment Canada's NatureInstruct website (www.natureinstruct.org), which is designed to be a dynamic and interactive resource for identification of North American birds. *Piranga* is fully bilingual, and designed for easy comparison of photos of different ages, sexes, or even species. The first phase included 60 species accounts and over 1400 photos, with an emphasis on selection of images that are representative, or highlight particularly notable variations. Another 20 species and over 400 more photos were added in 2016.

8.3. Research projects

The seasonal monitoring programs are the core of research at MBO, but other projects are always underway as well. There were three studies by McGill undergraduate students in 2016: Emma Nip examined temporal variation in mass and fat for Black-capped Chickadees, Catherine Jarjour analyzed migration phenology of several passerine species, and Casey Leung collected and analyzed blood samples to measure cholesterol and triglycerides to related them to various morphological and environmental variables. We also started planning for participation in the Motus Wildlife Tracking System – more details to follow in 2017.

9. Acknowledgments

The operation of MBO is possible only through the support of many dedicated people volunteering their time throughout the year. More than 4900 hours of service on site were contributed by over 70 participants in our migration monitoring, MAPS, and winter monitoring programs. While many volunteers fulfilled multiple roles, they are listed below only under the first heading that applies to them.

Executive Director: The licensed master permit holder, responsible for overseeing research activities.

Marcel Gahbauer

Director: Sub-permit holder and bander-in-charge (see below for details), responsible for developing policies, updating protocols, overseeing finances, and long-term planning

Barbara Frei

Coordinator: Sub-permit holder and bander-in-charge (see below for details), responsible for coordinating and managing volunteers, data entry and reporting, site maintenance, and implementation of research projects

Simon Duval

Database manager: Responsible for quality control, archiving, and management of data for the website, annual reports, and research projects

David Davey

Webmaster: Responsible for design and maintenance of the website

Richard Gregson

Banders-in-charge: Sub-permit holders, responsible for directing the activities of volunteers, ensuring adherence to protocols, prioritizing the safety of birds at all times, banding birds, and directly supervising other trainees who are banding birds.

Nicolas Bernier, Gay Gruner, Lisa Keelty

Banders-in-training: Experienced volunteers trained specifically in extraction, capable of safely removing birds from nets with minimal or no supervision. These volunteers are also seasoned observers able to conduct the census and are being trained as banders.

Christine Barrie, Cindy Bouchard, Luke Currin, Alison Hackney, Phillip Mercier, Rodger Titman

Extractors: Experienced volunteers trained specifically in extraction, capable of safely removing birds from nets with minimal or no supervision.

David Davey, Steve Dumont, Christiane Tremblay

Census / observation leaders: Experienced birders able to recognize the majority of local species by sight and sound, responsible for conducting the daily census and playing a leadership role in observing birds throughout the morning, and assisting less experienced volunteers with identification.

Marc Boisvert, Jean Demers, Kyle Elliott, Vincent Giroux, Wayne Grubert, Melanie Guigueno, Frédéric Hareau, Patrick Laniel, Barbara and Don MacDuff, Betsy McFarlane, Catherine Russell, Clémence Soulard, Elise Titman

Assistants: Volunteers and visitors of all levels, responsible for recording data, transporting birds, providing direct assistance to extractors and banders as requested, learning to become extractors, banders, or censusers, and helping with any other observation/monitoring/maintenance tasks that arise.

Angelika Aleksieva, Pascal Berthelot, Zoe Bonerbo, Marc-Henri Bouchard, Marie-France Boudreault, Manon Bourdon, Alexander Boyer, Émile Brisson, Martha Bromby, Claude Cloutier, Katelyn Depot, Stéfany Desroches, Catherine Dion, Shannon Galbraith, Nathalie Gendron, François-Xavier Grandmont, Michel Greaves, Richard Gregson, Joanne Hayes, Neil Henden, Catherine Jarjour, Tom Kingsbury, Lorenzo Kleine, Helen Kohler, Kristen

Lalla, Evelyne Lapointe, Marcel Lebeau, Casey Leung, Francine Marcoux, Connie Morgenstern, Benoît Piquette, Geneviève Potvin, Linda Pérez, Loïc Sauvé, Paule Schetagne, Jillian Slater, Laurie St-Onge, Patricia Stotland, Laura Tabbakh, , François Villeneuve, Marshall Vokey, Jesse White

Maintenance: Last but certainly not least – responsible for maintaining the facilities and trails in good and safe working condition

Malcolm Johnson

Special thanks also to:

- Simon Duval, Barbara Frei, Alison Hackney, and Francine Marcoux for important leadership on our fundraising efforts.
- The leadership team (directors, coordinator, banders-in-charge), who collectively contributed many additional hours off-site to coordinate volunteers, manage data, generate website updates, and advance MBO's research programs
- All of our dedicated volunteers who put in extra time fundraising, planning, and assisting with site maintenance

In addition, we extend our sincere thanks to all who donated materials or funds to MBO in 2016, especially:

- Bird Protection Quebec, for financial support of the Fall Migration Monitoring Program and owl education program, as well as the start of a new research project based on the MOTUS wildlife tracking system, ongoing publicity, and continuing to encourage members to become MBO volunteers
- The John Hackney Foundation for the Noosphere, for funding in support of migration monitoring
- Environment and Climate Change Canada for financial support of migration monitoring programs
- This year's three Great Canadian Birdathon Teams, and one independent participant (Marcel Gahbauer) who collectively raised nearly \$7,000 in support of MBO's operations in 2016:
 - MBO Green Team (on foot in and around MBO): Simon Duval, Barbara MacDuff, Phillip Mercier, Francine Marcoux
 - Red-eyed Wearios (in southern Quebec and eastern Ontario): Gay Gruner, Diana McDougall Deakin, Betsy McFarlane
 - The Bike Shrikes (West Island of Montreal): Michel Beaupré, Alison Hackney, Catherine Russell
- All the many individual donors who adopted owls or gave generously in support of other MBO programs



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*One of only three Common Redpolls banded at MBO this year.
(Photo by Gay Gruner)*

11. Appendix A. Seasonal occurrence of species

The charts below summarize the pattern of occurrence of each of the 163 species (including 102 passerines) observed during the 2016 Spring and/or Fall Migration Monitoring Programs, which had daily coverage for 10 and 14 weeks, respectively. Where applicable, these are supplemented by observations from winter 2015-16, and summer 2016. This year two additional species were observed outside of the migration monitoring programs, one just in winter and one during owling; a brief text-only summary is provided for them. Species are listed according to taxonomic revisions by the American Ornithologists' Union as of 2017 (AOU 2017), which included some substantial reorganization of species sequence. The # processed includes individuals banded, returns, and repeats, in that order (or banded only, if no returns or repeats occurred). Summary notes accompany each species overview, describing patterns of occurrence throughout the period covered in this report (November 7, 2015 to November 6, 2016), and often comparing them to data presented in the MBO Ten-year Report: 2005-2014 (Gahbauer et al. 2016) and the 2015 Annual Report (Gahbauer et al. 2017).

SNGO: Snow Goose / Oie des neiges (*Anser caerulescens*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	29.43			24.43	0.14	132.14					18.61				
# DAYS OBSERVED	2			2	1	2					7				
FIRST OBSERVED: March 28			LAST OBSERVED: May 6			PEAK DATE: May 6			PEAK NUMBER OF INDIVIDUALS: 800						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY										0.29	0.14				0.03
# DAYS OBSERVED										1	1				2
FIRST OBSERVED: October 3				LAST OBSERVED: October 10				PEAK DATE: October 3				PEAK NUMBER OF INDIVIDUALS: 2			

Snow Goose was the third-most abundant bird in winter by mean daily count (28.1), due primarily to an unusually early and large flock of 1300 passing over on March 20. Actual spring numbers were below average, especially in the first half of the season. The large movement in week 6 marked the first time since 2008 that significant numbers have been seen at MBO in May. The fall count was the lowest ever, aside from 2007 when none at all were seen.

CACG: Cackling Goose / Bernache de Hutchins (*Branta hutchinsii*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY													0.14		0.01
# DAYS OBSERVED													1		1
FIRST OBSERVED: October 26				LAST OBSERVED: October 26				PEAK DATE: October 26				PEAK NUMBER OF INDIVIDUALS: 1			

Cackling Goose is always rare at MBO; only one was seen this year among a flock of Canada Geese on October 26.

CANG: Canada Goose / Bernache du Canada (*Branta canadensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	166.57	88.29	51.71	155.14	122.14	205.86	59.14	6.57	5.71	8.71	86.99				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	5	68				
FIRST OBSERVED: March 28			LAST OBSERVED: June 3			PEAK DATE: March 28			PEAK NUMBER OF INDIVIDUALS: 661						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	1.71	1.86	3.86	1.14	12.57	5.14	23.86	242.57	227.29	403.57	139.71	175.29	186.14	227.57	118.02
# DAYS OBSERVED	1	2	4	3	4	4	7	7	7	7	7	7	7	7	74
FIRST OBSERVED: August 7				LAST OBSERVED: November 6				PEAK DATE: October 3				PEAK NUMBER OF INDIVIDUALS: 1500			

As usual, Canada Goose was the most numerous bird overall in winter, with a mean daily count of 142, peaking at 1145 on December 18, then absent in January and February, but with high numbers again in March, including 800 on March 10. Numbers were far below normal in both spring and fall. The mean daily count in spring was less than 100 for only the third time, while in fall it was lower only in 2006. As usual, there were two waves of spring migration, one in the first week, and another spanning late April to early May. There were more sightings in summer than ever before, although the mean daily count was still just 2.1. Fall counts were typically low for the first half of the season but peaked earlier than usual and tapered off more substantially than in most years.

WODU: Wood Duck / Canard branchu (*Aix sponsa*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	6.29	4.43	6.29	9.43	8.57	8.43	6.71	5.00	3.14	0.71	5.90				
# DAYS OBSERVED	7	5	7	7	7	7	7	7	7	4	65				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 3			PEAK NUMBER OF INDIVIDUALS: 14						
	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	1.43	0.57	2.29	1.14	2.00	0.14	0.43	0.29	1.43	1.29	0.57	0.71	0.86	0.95
# DAYS OBSERVED	1	6	2	4	4	4	1	2	2	3	5	2	2	3	41
FIRST OBSERVED: August 7				LAST OBSERVED: November 4				PEAK DATE: August 26				PEAK NUMBER OF INDIVIDUALS: 9			

The mean daily count of Wood Ducks in winter was 0.15, comparable to the long-term average; sightings were limited to November 21 and March 17. Like in 2006, 2007, and 2012, Wood Duck was observed in all weeks of both spring and fall. Despite this, the mean daily count in spring was slightly below the long-term average of 6.2, although higher than the past two years. Only one was seen during summer, far less than usual. The fall count also rebounded slightly from last year's low, though it was only half of the long-term mean of 1.9.

NSHO: Northern Shoveler / Canard souchet (*Spatula clypeata*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY								0.29			0.03	
# DAYS OBSERVED								1			1	
FIRST OBSERVED: May 11			LAST OBSERVED: May 11			PEAK DATE: May 11			PEAK NUMBER OF INDIVIDUALS: 2			

A pair was seen flying over on May 11, the first sighting at MBO in any season since 2009.

GADW: Gadwall / Canard chipecu (*Mareca strepera*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY								0.14			0.01	
# DAYS OBSERVED								1			1	
FIRST OBSERVED: May 9			LAST OBSERVED: May 9			PEAK DATE: May 9			PEAK NUMBER OF INDIVIDUALS: 1			

A single Gadwall was observed on May 9, the first record at MBO since late spring 2014.

AMWI: American Wigeon / Canard d'Amérique (*Mareca americana*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.43					0.29							0.05
# DAYS OBSERVED			1					1							2
FIRST OBSERVED: August 17				LAST OBSERVED: September 25				PEAK DATE: August 17				PEAK NUMBER OF INDIVIDUALS: 3			

American Wigeons were observed on the back ponds during census once in mid-August and on another date in late September. These were the first fall records of the species at MBO, after having been seen in 6 of 12 spring seasons.

MALL: Mallard / Canard colvert (*Anas platyrhynchos*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	2.71	1.43	2.00	3.43	4.86	3.14	4.43	4.14	3.14	3.14	3.24				
# DAYS OBSERVED	7	2	6	7	7	6	7	7	7	5	61				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 30			PEAK NUMBER OF INDIVIDUALS: 9						
	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.29	0.43	0.71	0.86	3.71	2.57	0.71	0.57	2.43	0.14	0.29	0.14	1.86	0.86	1.11
# DAYS OBSERVED	2	2	3	2	3	3	3	2	4	1	1	1	2	2	31
FIRST OBSERVED: August 1				LAST OBSERVED: November 5				PEAK DATE: September 4				PEAK NUMBER OF INDIVIDUALS: 15			

The mean daily count of 0.9 Mallards in winter was only 20% of the long-term average. Both in spring and fall, mean daily counts of Mallard were the lowest ever. In spring there was only a slight peak in migration in late April, and numbers declined for the fourth year in a row. The mean daily count of 0.8 in summer was average. In fall, for the first time ever, there was no influx of individuals in the last week of October and into November.

ABDU: American Black Duck / Canard noir (*Anas rubripes*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					0.29						0.03				
# DAYS OBSERVED					2						2				
FIRST OBSERVED: April 28			LAST OBSERVED: April 30			PEAK DATE: Apr 28, Apr 30			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY													0.86		0.06
# DAYS OBSERVED													1		1
FIRST OBSERVED: October 27				LAST OBSERVED: October 27				PEAK DATE: October 27				PEAK NUMBER OF INDIVIDUALS: 6			

American Black Duck was typically rare at MBO this year, with a lone individual observed on two dates in the final week of April, and fall observations limited to a flock of 6 in the last week of October.

NOPI: Northern Pintail / Canard pilet (*Anas acuta*)

The only Northern Pintail sightings this year were on March 10, when a flock of 15 flew over MBO.

GWTE (AGWT): (American) Green-winged Teal / Sarcelle d'hiver (*Anas crecca carolinensis*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY				2.71	5.71	2.71	0.86	1.43			1.34	
# DAYS OBSERVED				3	7	6	4	3			23	
FIRST OBSERVED: April 21			LAST OBSERVED: May 21			PEAK DATE: April 28			PEAK NUMBER OF INDIVIDUALS: 16			

For the fifth consecutive spring, Green-winged Teal were observed regularly over several weeks before moving on again. This was only the second time that any lingered into week 7, and the first time that any stayed as late as week 8; the overall mean daily count was only behind the record set in 2012.

RNDU: Ring-necked Duck / Fuligule à collier (*Aythya collaris*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY			0.14								0.01	
# DAYS OBSERVED			1								1	
FIRST OBSERVED: April 16			LAST OBSERVED: April 16			PEAK DATE: April 16			PEAK NUMBER OF INDIVIDUALS: 1			

A single Ring-necked Duck was observed in mid-April, marking the fourth spring in 12 years with a record of this species. The past three occurrences (2010, 2015, 2016) have all been between April 14 and 17.

HOME: Hooded Merganser / Harle couronné (*Lophodytes cucullatus*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY					0.14						0.01	
# DAYS OBSERVED					1						1	
FIRST OBSERVED: April 30			LAST OBSERVED: April 30			PEAK DATE: April 30			PEAK NUMBER OF INDIVIDUALS: 1			

Although Hooded Merganser were regular in spring 2015, there was only one sighting in 2016, on the final day of April.

COME: Common Merganser / Grand Harle (*Mergus merganser*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							0.14							0.43	0.04
# DAYS OBSERVED							1							1	2
FIRST OBSERVED: September 18				LAST OBSERVED: November 5				PEAK DATE: November 5				PEAK NUMBER OF INDIVIDUALS: 3			

Three Common Mergansers were observed in winter, flying overhead on March 17. Common Merganser was missed in spring for the first time since 2011. The lone individual that flew overhead in week 7 was MBO's first mid-fall sighting; a small flock of three on the second-last day of the season was the only other record for the year.

RUGR: Ruffed Grouse / Gélinotte huppée (*Bonasa umbellus*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY						0.14						0.14	0.14	0.29	0.05
# DAYS OBSERVED						1						1	1	2	5
FIRST OBSERVED: September 7				LAST OBSERVED: November 3				PEAK DATE: 5 dates				PEAK NUMBER OF INDIVIDUALS: 1			



With four sightings in November, Ruffed Grouse was observed more often than in any previous winter. After that, none were detected again until a single sighting in early September – just the third time that the species has been reported at MBO outside of late fall to early spring. As usual though, most of the fall sightings were toward the end of the season. Notably, they included the first ever capture of a Ruffed Grouse at MBO, on November 2. However, federal regulations do not permit game birds to be banded, so we released it after taking a couple of quick photos to commemorate the unusual encounter.

*The Ruffed Grouse that entered one of our nets in November.
(Photo by Simon Duval)*

ROPI: Rock Pigeon / Pigeon biset (*Columba livia*)

	MARCH		APRIL					MAY					JUNE		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY				2.71	0.43			0.71	2.00	0.43			1.00	0.73	
# DAYS OBSERVED				5	2			2	2	2			2	15	
FIRST OBSERVED: April 18			LAST OBSERVED: June 4			PEAK DATE: May 21			PEAK NUMBER OF INDIVIDUALS: 11						

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY	1.43	2.71	1.00	4.14	0.57		0.14	1.00	0.29	0.14	0.57			1.57	0.97
# DAYS OBSERVED	2	5	3	3	2		1	1	1	1	2			2	23
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 23				PEAK NUMBER OF INDIVIDUALS: 20			

A few Rock Pigeons were observed in winter for the first time in three years. As usual, small numbers were seen periodically throughout much of spring and fall; the fall counts were above average for the second year in a row.

MODO: Mourning Dove / Tourterelle triste (*Zenaida macroura*)

	MARCH		APRIL					MAY					JUNE		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY	0.86	0.14	0.43	1.57	0.86	0.57	0.57	0.57	0.57	1.14			0.14	0.69	
# DAYS OBSERVED	4	1	3	5	4	3	3	3	3	5			1	32	
FIRST OBSERVED: March 28			LAST OBSERVED: June 1			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 5						

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY	1.86	0.57	1.29	1.86	1.14	0.71	0.71	0.57	1.43	0.86	1.57	0.71	0.71	6.71	1.48
# DAYS OBSERVED	5	3	5	5	5	4	4	4	5	5	6	4	3	7	65
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: November 4				PEAK NUMBER OF INDIVIDUALS: 12			

As usual, the only Mourning Doves banded this year were in winter, when 6 were processed. While that number was close to average, the mean daily count of 13.0 was a record high, as was the peak of 116 on December 18. However, numbers reverted to typically low throughout spring, and just one was observed in summer. For the third time in the past four years, the fall mean daily count was roughly half of the long-term average for the season.

BBCU: Black-billed Cuckoo / Coulicou à bec noir (*Coccyzus erythrophthalmus*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY									0.43	0.14	0.06				
# DAYS OBSERVED									2	1	3				
FIRST OBSERVED: May 28			LAST OBSERVED: June 1			PEAK DATE: May 28			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	1.86	0.86	0.57	0.43	0.29	0.14									0.30
# DAYS OBSERVED	6	5	4	2	2	1									20
# PROCESSED	2		1												3
FIRST OBSERVED: August 2			LAST OBSERVED: September 5			PEAK DATE: August 4			PEAK NUMBER OF INDIVIDUALS: 3						

The four Black-billed Cuckoos observed in late spring were well above average for the season. A record-high 4 individuals were observed in summer, one on each of the MAPS sessions in July, with the mean daily count of 0.5 nearly doubling the previous record. In fall, the species was observed weekly through week 6 for the second year in a row, but on 20 days compared to 11 in 2015, more than doubling the record high mean daily count. The three individuals banded was also a new high.



One of the three Black-billed Cuckoos banded in fall.

(Photo by Simon Duval)

CONI: Common Nighthawk / Engoulevent d'Amérique (*Chordeiles minor*)

AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14													0.01
# DAYS OBSERVED		1													1
FIRST OBSERVED: August 14			LAST OBSERVED: August 14			PEAK DATE: August 14			PEAK NUMBER OF INDIVIDUALS: 1						

A Common Nighthawk was observed in summer for the first time, on June 24. After being missed in 2015 for the first time in fall since 2009, there was also a single observation this year on August 14. Both were observed flying over the field adjacent to MBO just prior to dawn.

CHSW: Chimney Swift / Martinet ramoneur (*Chaetura pelagica*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.14		0.29		0.04				
# DAYS OBSERVED							1		2		3				
FIRST OBSERVED: May 13			LAST OBSERVED: May 28			PEAK DATE: May 13, 27, 28			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.71	0.43	0.57	1.29											0.21
# DAYS OBSERVED	1	2	3	3											9
FIRST OBSERVED: August 7			LAST OBSERVED: August 26			PEAK DATE: August 24			PEAK NUMBER OF INDIVIDUALS: 7						

Chimney Swift numbers were typically low in both spring and fall. For the second year in a row, there was a distinct peak in week 4 of fall, after which no additional individuals were observed.

RTHU: Ruby-throated Hummingbird / Colibri à gorge rubis (*Archilochus colubris*)

MARCH	APRIL					MAY					JUNE				
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL					
# BIRDS / DAY						0.43	2.00	2.43	1.29	0.61					
# DAYS OBSERVED						3	6	7	5	21					
FIRST OBSERVED: May 12			LAST OBSERVED: June 4			PEAK DATE: May 27			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL	
# BIRDS / DAY	3.29	2.43	3.43	4.00	4.57	1.86	0.57	0.14						1.45	
# DAYS OBSERVED	7	7	7	7	7	6	3	1						45	
FIRST OBSERVED: August 1				LAST OBSERVED: September 20				PEAK DATE: August 29				PEAK NUMBER OF INDIVIDUALS: 8			

Spring’s mean daily count was below last year’s record high, but still well above average. Eight individuals were captured (6 females, 1 male, 1 unknown). The mean daily count in summer was 2.0, remaining far above average for a third consecutive year. However, the mean daily count for fall was the lowest since 2010. The peak in numbers in week 5 was later than in any previous year. There were 33 captures, comprising 1 after-hatch-year male, 6 after-hatch-year females, 3 hatch-year males, 19 hatch-year unknowns, and 4 unknown-age/unknown-sex individuals.

VIRA: Virginia Rail / Râle de Virginie (*Rallus limicola*)

MARCH	APRIL					MAY					JUNE				
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL					
# BIRDS / DAY				0.86	0.29	0.43	0.57	0.43	0.43	0.14	0.31				
# DAYS OBSERVED				6	2	3	4	3	3	1	22				
FIRST OBSERVED: April 18			LAST OBSERVED: May 30			PEAK DATE: 22 dates			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL	
# BIRDS / DAY		0.14												0.01	
# DAYS OBSERVED		1												1	
FIRST OBSERVED: August 18				LAST OBSERVED: August 18				PEAK DATE: August 18				PEAK NUMBER OF INDIVIDUALS: 1			

For the first time ever, Virginia Rail was observed over seven consecutive weeks in spring, starting with a record early arrival on April 18. On all 22 dates, only a single individual was detected. There was also one observation in summer, on June 11, while the sighting on August 18 was only the third fall record since 2009.

SORA: Sora / Marouette de Caroline (*Porzana carolina*)

MARCH	APRIL					MAY					JUNE	
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL		
# BIRDS / DAY					0.86	0.43	1.57	0.57	0.29	0.37		
# DAYS OBSERVED					4	3	7	3	2	19		
FIRST OBSERVED: May 3			LAST OBSERVED: May 31			PEAK DATE: 7 dates			PEAK NUMBER OF INDIVIDUALS: 2			

Similar to Virginia Rail, Sora sightings were much more frequent in spring 2016 than they were last year. The first date of observation was nearly one week earlier than the previous record of May 9, and this was the first year with detections over five consecutive weeks, leading to a mean daily observation rate nearly double the previous high.

KILL: Killdeer / Pluvier kildir (*Charadrius vociferus*)

MARCH	APRIL					MAY					JUNE				
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL					
# BIRDS / DAY	0.14		0.14	0.29	0.29	0.71	1.71	1.71	1.57	0.57	0.71				
# DAYS OBSERVED	1		1	2	1	4	7	7	7	2	32				
FIRST OBSERVED: April 2			LAST OBSERVED: June 1			PEAK DATE: May 14, May 23			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL	
# BIRDS / DAY	0.29	0.29	0.29	0.14										0.07	
# DAYS OBSERVED	2	2	2	1										7	
FIRST OBSERVED: August 2				LAST OBSERVED: August 22				PEAK DATE: 7 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Killdeer numbers this spring were the highest since 2011, largely a function of the frequency of observation, with detection on 32 days (only in 2006 was the species observed more often). Observations peaked in mid-late May, with daily records over three full weeks. There were also two observations in summer (both on July 3), the first since 2013. Fall observations were typically scarce, and all within August.

AMWO: American Woodcock / Bécasse d'Amérique (*Scolopax minor*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.14								0.14		0.03				
# DAYS OBSERVED	1								1		2				
FIRST OBSERVED: April 1			LAST OBSERVED: May 25			PEAK DATE: Apr 1, May 25			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43	0.29	0.71						0.14				0.14		0.12
# DAYS OBSERVED	3	1	3						1				1		9
# PROCESSED			2												2
FIRST OBSERVED: August 2				LAST OBSERVED: October 24				PEAK DATE: Aug 14, Aug 17, Aug 19				PEAK NUMBER OF INDIVIDUALS: 2			

For the second spring in a row, the number of spring sightings of American Woodcock was below average. The one on April 1 matched the earliest date on record for MBO. One was banded in summer for the second year in a row, and the three observations was a record high for the season. The number observed in fall was double the long-term average, and included another two banded, plus the latest ever observed on October 24.

WISN: Wilson's Snipe / Bécassine de Wilson (*Gallinago delicata*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY					0.14						0.01	
# DAYS OBSERVED					1						1	
FIRST OBSERVED: April 25			LAST OBSERVED: April 25			PEAK DATE: April 25			PEAK NUMBER OF INDIVIDUALS: 1			

Wilson's Snipe was observed in spring for the third time in the past four years, and sixth time overall. The lone sighting was on April 25, somewhat earlier than average.

SPSA: Spotted Sandpiper / Chevalier grivelé (*Actitis macularius*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.14	0.14	0.71	0.29	0.13				
# DAYS OBSERVED							1	1	3	2	7				
FIRST OBSERVED: May 14			LAST OBSERVED: June 1			PEAK DATE: May 26, May 27			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY					0.14										0.01
# DAYS OBSERVED					1										1
FIRST OBSERVED: September 4				LAST OBSERVED: September 4				PEAK DATE: September 4				PEAK NUMBER OF INDIVIDUALS: 1			

Spotted Sandpiper was observed weekly in spring over the past four weeks of the season, resulting in a record high number of observations for spring. One was observed in summer (June 15), for only the second time ever. Only one individual was observed in fall, similar to four previous years, but lower than the average of two.

SOSA: Solitary Sandpiper / Chevalier solitaire (*Tringa solitaria*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							2.43	1.14	1.00	0.29	0.49				
# DAYS OBSERVED							7	6	6	2	21				
FIRST OBSERVED: May 9			LAST OBSERVED: June 2			PEAK DATE: May 11, May 14, May 15			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14		0.14	0.43	0.57	0.86	0.57	0.29							0.21
# DAYS OBSERVED	1		1	3	4	6	4	2							21
FIRST OBSERVED: August 4				LAST OBSERVED: September 25				PEAK DATE: 21 dates				PEAK NUMBER OF INDIVIDUALS: 1			

The mean daily count of Solitary Sandpipers in spring was above average, largely thanks to a strong movement in week 7 that marked the highest count in a single week since 2008. The number of days with observations was higher than in any previous year. The mean daily count in fall was average, and migration peaked as usual in early-mid-September.

GRYE: Greater Yellowlegs / Grand Chevalier (*Tringa melanoleuca*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY									0.14						0.01
# DAYS OBSERVED									1						1
FIRST OBSERVED: September 27				LAST OBSERVED: September 27				PEAK DATE: September 27				PEAK NUMBER OF INDIVIDUALS: 1			

A single Greater Yellowlegs was observed in fall for the second year in a row, somewhat below the long-term average of three individuals.

RBGU: Ring-billed Gull / Goéland à bec cerclé (*Larus delawarensis*)

	MARCH		APRIL					MAY					JUNE		TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14		
# BIRDS / DAY	13.57	1.43	12.57	32.43	18.43	47.29	165.43	218.86	173.00	41.86					72.49	
# DAYS OBSERVED	7	5	7	7	7	7	7	7	7	7	7	7	7	7	68	
FIRST OBSERVED: March 28			LAST OBSERVED: June 5					PEAK DATE: May 15					PEAK NUMBER OF INDIVIDUALS: 375			

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY	4.71	8.71	1.71	1.43	3.29	4.71	3.71	1.00	11.29	4.86	9.14	0.57	1.00	1.43	4.11
# DAYS OBSERVED	6	7	5	5	2	2	6	4	7	6	7	2	4	4	67
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 15				PEAK NUMBER OF INDIVIDUALS: 48			

Ring-billed Gull numbers in winter were slightly below normal, at 1.4 per day of observation. After being unusually scarce at MBO in spring 2015, Ring-billed Gull rebounded this year to a record high mean daily count more than triple the long-term average. This was due to three consecutive weeks of exceptionally high numbers in May, all of which exceeded the previous single-week record for spring. Conversely, numbers dropped to slightly below average in summer with a mean daily count of just 2.1, with all sightings coming before mid-June. The mean daily count in fall was only slightly higher than last year, but remained well below the long-term average.

HERG: Herring Gull / Goéland argenté (*Larus argentatus*)

	MARCH		APRIL					MAY					JUNE		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY						0.14			0.29	0.14					0.06
# DAYS OBSERVED						1			2	1					4
FIRST OBSERVED: April 25			LAST OBSERVED: May 20					PEAK DATE: 4 dates					PEAK NUMBER OF INDIVIDUALS: 1		

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY				0.14		0.14							1.29		0.11
# DAYS OBSERVED				1		1							1		3
FIRST OBSERVED: August 24				LAST OBSERVED: October 30				PEAK DATE: October 30				PEAK NUMBER OF INDIVIDUALS: 9			

Just one Herring Gull was observed in winter, on the final day of observations (March 23). Only four solitary Herring Gulls were observed in spring, over a span of four weeks; this was below the long-term average, but an improvement over last year when the species was missed entirely in spring for the first time. The mean daily count in fall was average, but only thanks to a relatively large group of 9 that flew over MBO on October 30.

GBBG: Great Black-backed Gull / Goéland marin (*Larus marinus*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY			0.14		0.14				0.14				0.14		0.04
# DAYS OBSERVED			1		1				1				1		4
FIRST OBSERVED: August 21				LAST OBSERVED: October 27				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 1			

The mean daily count of 0.25 Great Black-backed Gulls in winter was twice the long-term average, but the species was missed in spring for the second year in a row. The number of observations in fall was just below average, but included an unusually early sighting on August 21, only the second ever in August.

COTE: Common Tern / Sterne pierregarin (*Sterna hirundo*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.57			0.06				
# DAYS OBSERVED								2			2				
FIRST OBSERVED: May 20			LAST OBSERVED: May 22			PEAK DATE: May 20, May 22			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	0.57	0.29	0.14											0.08
# DAYS OBSERVED	1	3	1	1											6
FIRST OBSERVED: August 7				LAST OBSERVED: August 22				PEAK DATE: Aug 14, Aug 17				PEAK NUMBER OF INDIVIDUALS: 2			

Common Tern was observed fourth year in a row in spring, and sixth time in the past seven years in fall; numbers in both seasons were close to average over these periods.

COLO: Common Loon / Plongeon huard (*Gavia immer*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY			0.14	1.00	0.71	0.57	2.29	2.14	0.29	0.29	0.74				
# DAYS OBSERVED			1	4	4	3	7	6	2	2	29				
FIRST OBSERVED: April 17			LAST OBSERVED: May 31			PEAK DATE: May 12, May 16			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.14	0.14				0.29						0.04
# DAYS OBSERVED				1	1				1						3
FIRST OBSERVED: August 25				LAST OBSERVED: September 27				PEAK DATE: September 27				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Common Loons in spring was down from last year's record high, but again well above average. The peak of migration was roughly one week later than usual, spanning weeks 7 and 8 in mid-May. The species was observed on more days in spring than in any previous year. A single loon was observed in summer on June 24, the first for the season since 2005. Only four individuals were observed in fall, the same as last year, but slightly below the long-term average.

DCCO: Double-crested Cormorant / Cormoran à aigrettes (*Phalacrocorax auritus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				1.29	0.29	1.14		1.57	0.43	0.29	0.50				
# DAYS OBSERVED				2	1	2		4	1	1	11				
FIRST OBSERVED: April 18			LAST OBSERVED: June 5			PEAK DATE: Apr 18, May 7			PEAK NUMBER OF INDIVIDUALS: 6						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY						1.00		1.29	0.71	0.29	0.14	0.29			0.27
# DAYS OBSERVED						1		1	1	1	1	1			6
FIRST OBSERVED: September 10				LAST OBSERVED: October 23				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 9			

Double-crested Cormorant numbers in spring were close to average, and fluctuated slightly from their arrival in week 4 through to late May. Three cormorants were seen in summer on June 11 and 15, the first ever for the season. In fall, they were more common than usual, although down from the record set last year.

AMBI: American Bittern / Butor d'Amérique (*Botaurus lentiginosus*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	0.14													0.02
# DAYS OBSERVED	1	1													2
FIRST OBSERVED: August 4				LAST OBSERVED: August 14				PEAK DATE: Aug 4, Aug 14				PEAK NUMBER OF INDIVIDUALS: 1			

American Bittern was missed in spring for the first time ever. There was one sighting in each of the first two weeks of fall, the first time since 2005 that the species has been observed more than once in fall.

GBHE: Great Blue Heron / Grand Héron (*Ardea herodias*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY		0.14		0.86		0.14	0.71	0.71	0.57	0.29	0.34				
# DAYS OBSERVED		1		4		1	5	5	3	2	21				
FIRST OBSERVED: April 8			LAST OBSERVED: May 31			PEAK DATE: Apr 19, Apr 21, May 25			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	1.14	0.71	1.00	0.43	0.29		0.14	0.29		0.14					0.30
# DAYS OBSERVED	5	3	3	2	2		1	2		1					19
FIRST OBSERVED: August 1				LAST OBSERVED: October 6				PEAK DATE: August 1				PEAK NUMBER OF INDIVIDUALS: 4			

Slightly more Great Blue Herons were seen this spring than last year, but the mean daily count was still below all previous years, and the number of days with observations was 50% below normal. After being missed last summer, one individual was observed this year, on July 30. Fall numbers also remained slightly below normal, with observations in October particularly scarce.

GREG: Great Egret / Grande Aigrette (*Ardea alba*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							0.14								0.01
# DAYS OBSERVED							1								1
FIRST OBSERVED: September 16				LAST OBSERVED: September 16				PEAK DATE: September 16				PEAK NUMBER OF INDIVIDUALS: 1			

A single Great Egret was observed this year, the fewest since 2010, when the species was first recorded at MBO.

GRHE: Green Heron / Héron vert (*Butorides virescens*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.86	0.57	0.71	0.86	0.30				
# DAYS OBSERVED							5	4	3	4	16				
FIRST OBSERVED: May 10			LAST OBSERVED: June 3			PEAK DATE: May 29			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.57	0.57	0.57	0.43	0.29										0.17
# DAYS OBSERVED	3	4	2	2	2										13
FIRST OBSERVED: August 1				LAST OBSERVED: September 4				PEAK DATE: August 18				PEAK NUMBER OF INDIVIDUALS: 3			

The timing and abundance of Green Herons was average in spring. Three observations in summer was close to normal. The mean daily count in fall was below average for the third time in the past four years.

TUVU: Turkey Vulture / Urubu à tête rouge (*Cathartes aura*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.14		0.14	2.71	1.57	0.86	2.43	1.14	2.14	0.57	1.17				
# DAYS OBSERVED	1		1	6	3	5	5	4	6	1	32				
FIRST OBSERVED: March 28			LAST OBSERVED: May 31			PEAK DATE: May 10			PEAK NUMBER OF INDIVIDUALS: 6						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.29	0.71	1.43	0.43	0.29	0.57	0.43	2.14	1.29	1.86	0.71	0.43		0.14	0.77
# DAYS OBSERVED	1	2	5	2	1	3	1	2	5	4	4	2		1	33
FIRST OBSERVED: August 7				LAST OBSERVED: November 6				PEAK DATE: September 23				PEAK NUMBER OF INDIVIDUALS: 14			

The mean daily count of Turkey Vultures in spring was just above average. The individual observed on March 28 was the earliest ever for spring, although the species has been seen in late winter in three previous years. The peak of migration in week 4 was typical, but the secondary spikes in numbers in weeks 7 and 9 were unusual. The species was missed in summer for the first time since 2010. Fall counts were down substantially from last year, but still above average.

OSPR: Osprey / Balbuzard pêcheur (*Pandion haliaetus*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				0.29		0.14		0.14		0.14	0.07				
# DAYS OBSERVED				2		1		1		1	5				
FIRST OBSERVED: April 19			LAST OBSERVED: June 1			PEAK DATE: 5 dates			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.14		0.14	0.14	0.14	0.29	0.14						0.07
# DAYS OBSERVED			1		1	1	1	2	1						7
FIRST OBSERVED: August 17			LAST OBSERVED: September 30			PEAK DATE: 7 dates			PEAK NUMBER OF INDIVIDUALS: 1						

There were five Osprey sightings scattered across a seven-week period in spring, somewhat fewer than usual despite the record on June 1 being the latest ever. The August 17 sighting was also unusual, the second earliest ever, and only the third ever before mid-September. The remaining observations were all between weeks 5 and 9, slightly earlier than average; the overall count was a bit above the long-term mean.

BAEA: Bald Eagle / Pygargue à tête blanche (*Haliaeetus leucocephalus*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.29	0.14	0.14	0.06				
# DAYS OBSERVED								1	1	1	3				
FIRST OBSERVED: May 10			LAST OBSERVED: May 28			PEAK DATE: May 10			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY					0.71			0.29	0.14				0.14	0.43	0.12
# DAYS OBSERVED					1			1	1				1	2	6
FIRST OBSERVED: September 1			LAST OBSERVED: November 6			PEAK DATE: September 1			PEAK NUMBER OF INDIVIDUALS: 5						

There were only four Bald Eagles observed this spring, roughly half the long-term average, but one more than last year. Conversely, the 12 individuals counted in fall was a new record high for the season, and included a record-typing single-day high of 5 on September 1, two weeks earlier than the previous occasion.

NOHA: Northern Harrier / Busard des marais (*Circus hudsonius*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				0.43	0.14	0.43	0.43	0.14	0.43		0.20				
# DAYS OBSERVED				3	1	3	2	1	3		13				
FIRST OBSERVED: April 19			LAST OBSERVED: May 26			PEAK DATE: May 9			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.29	0.29	0.43	0.14	0.14	0.29	0.57	0.57	0.14		0.14		0.21
# DAYS OBSERVED			2	1	2	1	1	1	3	3	1		1		16
FIRST OBSERVED: August 16			LAST OBSERVED: October 25			PEAK DATE: 5 dates			PEAK NUMBER OF INDIVIDUALS: 2						

The 14 Northern Harriers observed this spring was one more than the previous high count of 13 in 2009 and 2014. All observations were over a six-week span from mid-April to late May, consistent with typical timing of migration. The mean daily count in fall was average, although observations were shifted compared to normal, with more sightings in August and fewer in October.

SSHA: Sharp-shinned Hawk / Épervier brun (*Accipiter striatus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				0.14	0.29	0.29	0.71	0.43	0.14		0.20				
# DAYS OBSERVED				1	1	2	5	2	1		12				
FIRST OBSERVED: April 19			LAST OBSERVED: May 25			PEAK DATE: Apr 27, May 22			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14		1.00	0.57	1.57	0.86	1.43	3.00	2.43	1.57	1.14		0.43	0.57	1.05
# DAYS OBSERVED	1		5	4	6	5	4	7	6	5	5		2	3	53
# PROCESSED				2	1			1	1	1	1			1	8
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: September 23				PEAK NUMBER OF INDIVIDUALS: 8			

The mean daily count of 0.17 Sharp-shinned Hawks in winter was a new record high for the season for a third consecutive year, and included sightings in all five months. The number of Sharp-shinned Hawks observed in spring was above average, similar to the highs recorded in 2008 and 2009; however, as in most years none were banded. The mean daily count and number of birds banded in fall were average, although there were sightings on more days than usual. The peak of migration was in late September as usual. Despite sightings until late spring and again in early fall, there were as usual no observations during summer.

COHA: Cooper's Hawk / Épervier de Cooper (*Accipiter cooperii*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				0.29	0.86	1.14	0.71	0.14	1.00	0.57	0.47				
# DAYS OBSERVED				1	3	6	5	1	4	3	23				
FIRST OBSERVED: April 18			LAST OBSERVED: June 1			PEAK DATE: Apr 29, May 23			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43	0.86	1.00	0.57	0.86	0.86	1.71	1.86	1.57	1.29	0.57	0.29	0.43	0.86	0.94
# DAYS OBSERVED	3	5	4	4	3	6	6	7	5	6	3	2	3	4	61
# PROCESSED														1	1
FIRST OBSERVED: August 5				LAST OBSERVED: November 6				PEAK DATE: Sep 15, Sep 29				PEAK NUMBER OF INDIVIDUALS: 4			

There were five Cooper's Hawk sightings this winter, for a mean daily count of 0.09, close to the long-term average for the season. The mean daily count in spring was nearly 50% above the previous high set in 2009, and the species was also observed on many more days than ever before. A single sighting in summer on July 24 was the first for the season since 2009. The mean daily count and number of days of observation were also above average in fall, though not at record levels. The individual banded in the last week of fall was the fifth in MBO's history.

NOGO: Northern Goshawk / Autour des palombes (*Accipiter gentilis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.29			0.03				
# DAYS OBSERVED								1			1				
FIRST OBSERVED: May 17			LAST OBSERVED: May 17			PEAK DATE: May 17			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							0.14		0.14	0.14					0.03
# DAYS OBSERVED							1		1	1					3
FIRST OBSERVED: September 16				LAST OBSERVED: October 6				PEAK DATE: Sep 16, Sep 29, Oct 6				PEAK NUMBER OF INDIVIDUALS: 1			

There was one Northern Goshawk sighting in winter, on November 25. The two Northern Goshawks observed on May 17 marked the first time ever that more than one was detected on a single day in spring, and the first sighting for spring since 2012; it was also the second-latest date of all spring observations over the years. The three individuals observed in fall was less than half as many as the long-term average; all sightings were within a four-week span between mid-September and early October.

RSHA: Red-shouldered Hawk / Buse à épaulettes (*Buteo lineatus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.14			0.43	0.14	0.43	1.00	0.57	0.43	0.57	0.37				
# DAYS OBSERVED	1			1	1	2	5	3	3	2	18				
FIRST OBSERVED: April 2			LAST OBSERVED: June 1			PEAK DATE: Apr 19, May 11, May 31			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	0.71	0.71	0.86	0.86	0.43	0.29	0.43	0.43	0.43					0.38
# DAYS OBSERVED	1	2	3	4	5	2	2	2	2	2					25
FIRST OBSERVED: August 7				LAST OBSERVED: October 9				PEAK DATE: August 8				PEAK NUMBER OF INDIVIDUALS: 3			

One Red-shouldered Hawk was observed in winter, on November 10. Fewer than average Red-shouldered Hawks were observed in spring, although there were almost twice as many sightings as in 2015. The species was missed in summer for only the third time in 12 years. Fall numbers were also below average, and the last date of observation on October 9 was the earliest ever by nearly a full week.

BWHA: Broad-winged Hawk / Petite Buse (*Buteo platypterus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					0.14	0.29	0.43	0.14	0.14	0.29	0.14				
# DAYS OBSERVED					1	2	3	1	1	1	9				
FIRST OBSERVED: April 28			LAST OBSERVED: June 1			PEAK DATE: June 1			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14	0.71	0.29	6.00	0.14	15.57	0.57	0.43						1.70
# DAYS OBSERVED		1	3	2	4	1	4	3	2						20
FIRST OBSERVED: August 8				LAST OBSERVED: October 1				PEAK DATE: September 13				PEAK NUMBER OF INDIVIDUALS: 87			

Spring numbers were below average for a fourth consecutive year, although the highest they have been over this span. The fall count was close to average, but for the first time ever there were two distinct peaks of movement, one in week 5, and another larger one in week 7, which is traditionally when the heaviest fall flights occur at MBO.

RTHA: Red-tailed Hawk / Buse à queue rousse (*Buteo jamaicensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY		0.14		1.29	0.71	0.86	1.43	1.00	1.00	0.86	0.73				
# DAYS OBSERVED		1		5	5	3	7	6	5	4	36				
FIRST OBSERVED: April 10			LAST OBSERVED: June 3			PEAK DATE: April 24			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.71	1.00	1.29	1.43	3.00	0.29	1.57	2.00	2.29	1.29	1.14	0.43	0.71	0.86	1.29
# DAYS OBSERVED	5	4	6	6	6	2	6	5	5	4	6	2	4	4	65
FIRST OBSERVED: August 2				LAST OBSERVED: November 6				PEAK DATE: September 3				PEAK NUMBER OF INDIVIDUALS: 12			

The mean daily count of Red-tailed Hawks in winter was 0.3, matching the long-term mean. In spring, it was well above average, only slightly below the record level set in 2014. Red-tailed Hawk is only occasionally observed at MBO this summer, and the two sightings this year were therefore well above average. The mean daily count in fall was average, although this was largely a function of being observed on more days than in any previous year; the peak count of 12 was the smallest since 2009.

EASO: Eastern Screech-Owl / Petit-duc maculé (*Megascops asio*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY					0.14						0.14				0.02
# DAYS OBSERVED					1						1				2
FIRST OBSERVED: September 3				LAST OBSERVED: October 10				PEAK DATE: Sep 3, Oct 10				PEAK NUMBER OF INDIVIDUALS: 1			

There were two Eastern Screech-Owl observations this fall, as in 2013 and 2015. For the fourth consecutive year, a single Eastern Screech-Owl was banded during the Owl Monitoring Program, on September 27.

GHOW: Great Horned Owl / Grand-duc d'Amérique (*Bubo virginianus*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					0.14	0.14		0.14	0.14		0.06				
# DAYS OBSERVED					1	1		1	1		4				
FIRST OBSERVED: April 30			LAST OBSERVED: May 23			PEAK DATE: 4 dates			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14		0.43	0.14	0.14		0.71	0.86	0.29	1.29	0.71	0.57	0.86	1.14	0.52
# DAYS OBSERVED	1		3	1	1		4	6	2	6	4	3	5	7	43
FIRST OBSERVED: August 7				LAST OBSERVED: November 6				PEAK DATE: 8 dates				PEAK NUMBER OF INDIVIDUALS: 2			

For the first time since 2009-10, no Great Horned Owls were detected during winter. The four observations this spring were slightly more than usual; all occurred in different weeks from late April to late May. One observation in summer (July 24) was only the second ever. Fall numbers were above average for the fourth consecutive year, and were relatively steady throughout the season although notably more frequent over the final two weeks.

BDOW: Barred Owl / Chouette rayée (*Strix varia*)

The only observation of Barred Owl this year was one banded on October 13, only the second ever, and the first since 2012.

NSWO: Northern Saw-whet Owl / Petite Nyctale (*Aegolius acadicus*)

AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY									0.14	0.29	0.14			0.14	0.05
# DAYS OBSERVED									1	2	1			1	5
# PROCESSED									1	2	0-0-1			1	4-0-1
FIRST OBSERVED: September 30				LAST OBSERVED: October 31				PEAK DATE: 5 dates				PEAK NUMBER OF INDIVIDUALS: 1			

For the sixth consecutive year, Northern Saw-whet Owls were observed during the course of our daytime Fall Migration Monitoring Program, and for the fourth year over that period, some were also banded. Not surprisingly, the peak in week 10 corresponded with the biggest push of migrants as detected through the nightly Owl Monitoring Program. There were 79 owls banded in week 10, accounting for 40% of the season total of 194; a secondary peak of 46 owls in week 13 was unusually late, and the highest count ever for that week. The busiest night this year was October 6, earlier than in any previous year, with 19 banded. The season total was slightly lower than the average of 210 over the past five years.

BEKI: Belted Kingfisher / Martin-pêcheur d'Amérique (*Megasceryle alcyon*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.43					0.14			0.14			0.07
# DAYS OBSERVED				3					1			1			5
FIRST OBSERVED: April 20			LAST OBSERVED: May 25			PEAK DATE: 5 dates			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.86	0.14			0.43			0.14		0.14			0.12
# DAYS OBSERVED			6	1			3			1		1			12
FIRST OBSERVED: August 15				LAST OBSERVED: October 17				PEAK DATE: 12 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Lone Belted Kingfishers were observed on five days this spring, somewhat fewer than average. Fall sightings were slightly above average, mostly due to nearly daily observations during week 3. The observation on October 17 was the second latest ever.

RBWO: Red-bellied Woodpecker / Pic à ventre roux (*Melanerpes carolinus*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY	0.29		0.14		0.29								0.29	0.14	0.08
# DAYS OBSERVED	2		1		2								2	1	8
# PROCESSED	1														1
FIRST OBSERVED: August 4				LAST OBSERVED: November 5				PEAK DATE: 8 dates				PEAK NUMBER OF INDIVIDUALS: 1			

As in most years, Red-bellied Woodpecker was not observed during spring. However, there were more records in fall than in any previous year, and the juvenile banded in the first week of the season (photo below) was only the second ever. Sightings were scattered throughout the season, and likely involved the resident individuals that are based in the adjacent Morgan Arboretum.



*The juvenile Red-bellied Woodpecker banded in the first week of fall.
(Photo by Simon Duval)*

YBSA: Yellow-bellied Sapsucker / Pic maculé (*Sphyrapicus varius*)

	MARCH		APRIL				MAY				JUNE		TOTAL		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11				
# BIRDS / DAY		0.29	0.14	0.57	3.29	0.86	1.43	1.29	0.57	0.43		0.89			
# DAYS OBSERVED		1	1	4	6	4	6	6	3	3		34			
# PROCESSED							1	0-0-1				1-0-1			
FIRST OBSERVED: April 9			LAST OBSERVED: June 4			PEAK DATE: Apr 25, Apr 28			PEAK NUMBER OF INDIVIDUALS: 7						
	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY	0.57			0.14	0.29	0.86	0.71	0.43							0.21
# DAYS OBSERVED	4			1	2	4	3	3							17
# PROCESSED	1					1		1							3
FIRST OBSERVED: August 2				LAST OBSERVED: September 25				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Yellow-bellied Sapsuckers increased for a third year in a row, reaching the highest level since 2009; the peak in week 5 was the highest ever, and included one of the two days with 7 individuals counted, breaking the old record of 5 in a day. However, only one was banded this spring, half of the long-term average. The two sapsucker observations in summer matched the long-term average, but one was banded, a first for the season. As usual, the fall mean daily count was lower than in spring, though also above average, as was the number banded.

DOWO: Downy Woodpecker / Pic mineur (*Picoides pubescens*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	1.14	2.57	2.00	4.00	3.14	3.71	2.57	2.29	2.00	1.00	2.44				
# DAYS OBSERVED	5	6	6	7	7	7	7	7	7	6	65				
# PROCESSED				1-0-2	1-2-2			0-0-1			2-2-5				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: Apr 5, May 3			PEAK NUMBER OF INDIVIDUALS: 8						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	3.57	2.71	3.14	3.43	3.00	2.14	2.57	2.86	3.29	2.57	3.14	2.00	2.86	2.29	2.83
# DAYS OBSERVED	7	7	7	7	7	7	6	7	7	7	7	6	7	7	96
# PROCESSED	3-1-6	2-1-2	2	0-0-2	1-0-1		0-0-1	1	2-0-1		2-1-0	0-0-1			13-3-14
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 9				PEAK NUMBER OF INDIVIDUALS: 6			

Only one Downy Woodpecker was banded this winter, but there were a record high 8 returns during the season, and the mean daily count of 1.8 was around 50% above the long-term average. The mean daily count in spring was a record high, and the peak of 4.0 per day in week 4 was also a new high for any week in spring. The number banded was below average, though many others were recaptured, so this is in part a function of banding effort in previous seasons. Four juveniles were banded in summer, and the mean daily count of 3.1 was well above average. The mean daily count and number banded were both slightly above average in fall, with numbers slightly higher in August but overall quite steady throughout the season, as usual.

HAWO: Hairy Woodpecker / Pic chevelu (*Picoides villosus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.14	0.57	0.14	1.43	0.57	0.71	1.57	1.29	0.43	0.43	0.73				
# DAYS OBSERVED	1	3	1	6	3	5	6	6	3	3	37				
# PROCESSED				1	3		0-0-1		0-0-1		1-0-2				
FIRST OBSERVED: April 3			LAST OBSERVED: June 3			PEAK DATE: Apr 23, May 14			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.29	1.00	1.71	0.86	1.00	2.00	1.57	1.29	0.71	1.29	1.71	1.00	1.86	1.71	1.29
# DAYS OBSERVED	2	5	7	4	5	5	6	7	4	5	6	5	6	6	73
# PROCESSED									2	0-2-1		1			3-2-1
FIRST OBSERVED: August 2				LAST OBSERVED: November 6				PEAK DATE: September 5				PEAK NUMBER OF INDIVIDUALS: 5			

One Hairy Woodpecker was banded in winter, but the mean daily count of 0.3 was the lowest for the season since 2005-06. The mean daily count and number banded in spring matched both last year's results and the long-term averages for the season. None were banded in summer, but the mean daily count of 0.8 was a record high. In fall, both the mean daily count and number banded were slightly below average.

YSFL: Yellow-shafted Flicker / Pic flamboyant (*Colaptes auratus auratus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.14	0.14	0.43	2.43	2.43	2.71	2.43	1.43	1.29	0.43	1.39				
# DAYS OBSERVED	1	1	2	7	7	7	7	6	7	2	47				
# PROCESSED				1	1				1		3				
FIRST OBSERVED: March 29			LAST OBSERVED: June 4			PEAK DATE: Apr 29, May 4, May 9			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	1.86	1.86	2.29	2.71	1.86	2.57	3.43	4.14	3.14	2.29	1.29	1.00	0.57	0.71	2.12
# DAYS OBSERVED	7	6	7	7	6	6	7	7	7	6	7	4	4	3	84
# PROCESSED		1	1	1	1										4
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 8			

The mean daily count in spring was between 1.1 and 1.7 for 10 of the first 11 years of the program, and this year was again right in the middle of that range. As usual, numbers increased in weeks 4 and 5, but atypically they remained high through as late as week 7. The three individuals banded matched the high set in 2011. One was banded in summer, and the mean daily count of 1.6 was the highest since 2008. Conversely, for fall it was the

lowest since 2008, even though there were sightings throughout the season, and there was a peak in mid-late September as usual. The number banded was slightly above average.

PIWO: Pileated Woodpecker / Grand Pic (*Dryocopus pileatus*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.86	1.14	0.29	1.71	1.14	1.71	2.14	1.86	1.29	0.71	1.29				
# DAYS OBSERVED	4	4	2	7	6	7	7	7	6	4	54				
FIRST OBSERVED: March 29			LAST OBSERVED: June 3			PEAK DATE: April 5			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	2.00	1.57	2.00	1.86	2.14	1.57	2.43	2.29	1.86	2.43	1.71	1.43	2.14	2.00	1.96
# DAYS OBSERVED	7	7	7	7	7	6	7	7	6	7	7	6	7	7	95
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: Sep 15, Oct 1				PEAK NUMBER OF INDIVIDUALS: 4			

The mean daily count of Pileated Woodpecker in winter was 0.5, which is above average, but lower than last year. For the second year in a row, the mean daily count in spring reached a new record, and the 54 days with observations was also a new high. Observations remained unusually frequent in summer, resulting in a record high mean daily count of 1.1. The mean daily count in fall was just barely short of the record set in 2012, but the 95 days with observations shattered the previous high of 82 from last year. Despite the increase in observations this year, none were banded in any season.

AMKE: American Kestrel / Crécerelle d'Amérique (*Falco sparverius*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				0.14							0.01				
# DAYS OBSERVED				1							1				
FIRST OBSERVED: April 18			LAST OBSERVED: April 18			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14			0.57		0.14	0.29	0.14						0.09
# DAYS OBSERVED		1			2		1	2	1						7
FIRST OBSERVED: August 8				LAST OBSERVED: September 30				PEAK DATE: September 1				PEAK NUMBER OF INDIVIDUALS: 3			

There was a single American Kestrel observed in spring, similar to 2006, 2009, 2011, and 2012. The 9 sightings in fall were somewhat above average, and as is often the case were scattered across the first two months of the season.

MERL: Merlin / Faucon émerillon (*Falco columbarius*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					0.57		0.14		0.14	0.14	0.10				
# DAYS OBSERVED					4		1		1	1	7				
FIRST OBSERVED: April 27			LAST OBSERVED: June 3			PEAK DATE: 7 dates			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	0.14	0.14	0.43	0.57	0.43	0.29	1.14	0.29	0.29			0.29	0.14	0.31
# DAYS OBSERVED	1	1	1	3	4	3	2	5	2	2			2	1	27
FIRST OBSERVED: August 5				LAST OBSERVED: November 1				PEAK DATE: September 24				PEAK NUMBER OF INDIVIDUALS: 3			

Although still scarce, the 7 Merlin sightings this spring marked a new record high for the season. The last one of spring was the first ever observation at MBO in June. Small numbers were observed in most weeks throughout fall, and the overall mean daily count was slightly above average.

PEFA: Peregrine Falcon / Faucon pèlerin (*Falco peregrinus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.14					0.01				
# DAYS OBSERVED						1					1				
FIRST OBSERVED: May 3			LAST OBSERVED: May 3			PEAK DATE: May 3			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.14	0.14	0.14	0.14			0.14					0.05
# DAYS OBSERVED				1	1	1	1			1					5
FIRST OBSERVED: August 25				LAST OBSERVED: October 4				PEAK DATE: 5 dates				PEAK NUMBER OF INDIVIDUALS: 1			

A single Peregrine Falcon was observed in spring on May 3, close to the long-term average. The five sightings in fall were nearly double the long-term average; observations were skewed earlier than in most years.

OSFL: Olive-sided Flycatcher / Moucherolle à côtés olive (*Contopus cooperi*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.29											0.02
# DAYS OBSERVED				2											2
FIRST OBSERVED: August 23				LAST OBSERVED: August 26				PEAK DATE: Aug 23, Aug 26				PEAK NUMBER OF INDIVIDUALS: 1			

Although the long-term average dates for Olive-sided Flycatcher at MBO are August 20-24, this is the first time the species has actually been observed in week 4 (August 22-28)! For this species it was a good year, given a long-term average of only one sighting per year.

EAWP: Eastern Wood-Pewee / Pioui de l'Est (*Contopus virens*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY												0.43	0.86		0.13
# DAYS OBSERVED												3	4		7
FIRST OBSERVED: May 23			LAST OBSERVED: June 4			PEAK DATE: May 30, May 31			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.71	0.57	0.57	0.86	0.57		0.43		0.14	0.29					0.30
# DAYS OBSERVED	4	4	3	5	4		3		1	2					26
# PROCESSED		1	1	1						1					4
FIRST OBSERVED: August 1				LAST OBSERVED: October 4				PEAK DATE: Aug 6, Aug 20, Aug 28				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Eastern Wood-Pewees in spring was above average, but as always, none were banded. For the third consecutive year, one pewee was observed in summer. The mean daily count in fall was down from last year's record high, but still more than double the long-term mean; the two banded matched the high set in 2005.

YBFL: Yellow-bellied Flycatcher / Moucherolle à ventre jaune (*Empidonax flaviventris*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.14	0.14		0.03				
# DAYS OBSERVED								1	1		2				
# PROCESSED								1	1		2				
FIRST OBSERVED: May 21			LAST OBSERVED: May 28			PEAK DATE: May 21, May 28			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43	0.14	1.00	1.43	0.29	0.14		0.14		0.14					0.27
# DAYS OBSERVED	2	1	5	5	2	1		1		1					18
# PROCESSED	3	1	4	6	1	1		1		1					18
FIRST OBSERVED: August 1				LAST OBSERVED: October 3				PEAK DATE: August 26				PEAK NUMBER OF INDIVIDUALS: 3			

The two Yellow-bellied Flycatchers observed this spring, both of which were banded, represented a rather typical result for this rare migrant at MBO. The mean daily count and number banded in fall were both slightly above average, and the individual recorded on October 3 was only one day short of the latest fall observation, from 2008, but well beyond the average fall departure date of September 16.

TRFL: Traill's Flycatcher / Moucherolle des saules ou M. des aulnes (*Empidonax traillii* or *alnorum*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.14	0.29	3.43	1.43	0.53				
# DAYS OBSERVED							1	2	6	4	13				
# PROCESSED									9	3	12				
FIRST OBSERVED: May 15			LAST OBSERVED: June 2			PEAK DATE: May 28			PEAK NUMBER OF INDIVIDUALS: 8						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.29	0.57	1.29	0.86	0.14	0.14									0.23
# DAYS OBSERVED	2	3	5	4	1	1									16
# PROCESSED	1	4	2	5		1									13
FIRST OBSERVED: August 6				LAST OBSERVED: September 9				PEAK DATE: August 16				PEAK NUMBER OF INDIVIDUALS: 4			

The mean daily count of Traill's Flycatcher in spring was slightly above average, while the number banded was marginally below average. None were observed in summer, for the first time since 2008. Both the mean daily count and number banded were below average in fall, with less of a mid-August peak in migration than usual.

ALFL: Alder Flycatcher / Moucherolle des aulnes (*Empidonax alnorum*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY									0.29	1.86	1.00	0.31			
# DAYS OBSERVED									2	6	4	12			
FIRST OBSERVED: May 21			LAST OBSERVED: June 2			PEAK DATE: May 28			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.14												0.01
# DAYS OBSERVED			1												1
FIRST OBSERVED: August 21				LAST OBSERVED: August 21				PEAK DATE: August 21				PEAK NUMBER OF INDIVIDUALS: 1			

Slightly over half of the Traill's Flycatchers observed this spring were recognized as Alder Flycatchers by their vocalizations; the mean daily count was slightly above average. As usual, far fewer were vocal during fall, allowing for only one individual to be conclusively identified in August.

WIFL: Willow Flycatcher / Moucherolle des saules (*Empidonax traillii*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY									0.14		0.01	
# DAYS OBSERVED									1		1	
FIRST OBSERVED: May 24			LAST OBSERVED: May 24			PEAK DATE: May 24			PEAK NUMBER OF INDIVIDUALS: 1			

Only one Willow Flycatcher was detected by call this spring, matching the long-term average.

LEFL: Least Flycatcher / Moucherolle tchébec (*Empidonax minimus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.29	2.29	1.86	1.00	0.14	0.56				
# DAYS OBSERVED						2	6	7	3	1	19				
# PROCESSED							5	2-0-1		1	8-0-1				
FIRST OBSERVED: May 6			LAST OBSERVED: May 31			PEAK DATE: May 13			PEAK NUMBER OF INDIVIDUALS: 7						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			1.14	0.29	0.57	0.14									0.15
# DAYS OBSERVED			5	2	4	1									12
# PROCESSED			3	1	2										6
FIRST OBSERVED: August 16				LAST OBSERVED: September 7				PEAK DATE: August 17				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count in spring was above average for a fourth year in a row, although the number banded dropped to the lowest level since 2010 and was marginally below the long-term average. One individual was observed in summer, which is typical; it was observed on June 6 and may have been a late spring migrant. Fall results were not as good, with the fewest observed and banded since 2013, with both numbers well below long-term averages.

EAPH: Eastern Phoebe / Moucherolle phébi (*Sayornis phoebe*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.14	0.29	0.43	2.29	1.43	1.14	0.71	0.29	0.57		0.73				
# DAYS OBSERVED	1	2	3	7	7	6	5	2	4		37				
# PROCESSED				3	1	0-0-1					4-0-1				
FIRST OBSERVED: March 30			LAST OBSERVED: May 29			PEAK DATE: Apr 21, Apr 22			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.57	0.71	0.57	0.14	0.14	0.29	1.00	1.00	2.00	0.57	0.14	0.14			0.52
# DAYS OBSERVED	4	5	4	1	1	2	4	5	7	3	1	1			38
# PROCESSED		1							6			1			8
FIRST OBSERVED: August 1				LAST OBSERVED: October 19				PEAK DATE: Sep 29, Sep 30, Oct 1			PEAK NUMBER OF INDIVIDUALS: 3				

The mean daily count of Eastern Phoebes in spring rebounded from last year's low point, but remained slightly below average, although more individuals were banded than usual. The peak in week 4 matched the long-term pattern. For the second time in the past three years, none were observed in summer. The mean daily count in fall was slightly above average, and the 8 individuals banded tied the high established in 2008 and matched in 2013. The peak of migration in week 9 was unusually late, and the 6 birds banded that week matched the total banded in that week in all previous years combined.

GCFL: Great Crested Flycatcher / Tyran huppé (*Myiarchus crinitus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.86	3.43	3.71	2.86	1.09				
# DAYS OBSERVED							4	7	7	7	25				
# PROCESSED								1			1				
FIRST OBSERVED: May 12			LAST OBSERVED: June 5			PEAK DATE: May 21, 24, 25			PEAK NUMBER OF INDIVIDUALS: 5						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	2.00	1.71	1.86	2.43	1.14	0.71									0.70
# DAYS OBSERVED	7	7	7	7	6	4									38
# PROCESSED			1	1											2
FIRST OBSERVED: August 1				LAST OBSERVED: September 10				PEAK DATE: August 23			PEAK NUMBER OF INDIVIDUALS: 5				

The mean daily count of Great Crested Flycatchers in spring was slightly above average, but the single individual banded was typical. One was banded in summer, and the mean daily count of 2.1 was nearly double the long-term mean, and included sightings during all eight summer visits. Both the mean daily count and number banded in fall were average, but for the second year in a row numbers peaked in week 4, versus weeks 1-3 in previous years.

EAKI: Eastern Kingbird / Tyran tritri (*Tyrannus tyrannus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.14	0.86	2.14	1.14	0.57	0.49				
# DAYS OBSERVED						1	5	7	5	3	21				
# PROCESSED								1			1				
FIRST OBSERVED: May 3			LAST OBSERVED: June 1			PEAK DATE: May 16, 22, 29			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.57	2.14	2.43	1.00	0.14	0.14									0.46
# DAYS OBSERVED	3	7	7	5	1	1									24
FIRST OBSERVED: August 1				LAST OBSERVED: September 10				PEAK DATE: August 19			PEAK NUMBER OF INDIVIDUALS: 7				

The mean daily count of Eastern Kingbirds in spring was roughly half of the long-term average, and the lowest that it has been since 2006; the one individual banded was also below average. The timing and intensity of the peak in week 8 was typical, but it was numbers before and after that were much lower than usual. The species was missed in summer for only the second time in 12 years. Twice as many Eastern Kingbirds were observed this fall than last year, but the overall mean daily count remained below average for the fifth year in a row, suggesting an overall declining trend. No Eastern Kingbirds have been banded in fall since 2009.

NSHR: Northern Shrike / Pie-grièche boréale (*Lanius borealis*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.43										0.04				
# DAYS OBSERVED	3										3				
FIRST OBSERVED: March 28			LAST OBSERVED: April 3			PEAK DATE: Mar 28, Apr 2, Apr 3			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY													0.57	0.29	0.06
# DAYS OBSERVED													3	2	5
# PROCESSED													2-0-1		2-0-1
FIRST OBSERVED: October 26				LAST OBSERVED: November 6				PEAK DATE: October 27				PEAK NUMBER OF INDIVIDUALS: 2			

Two Northern Shrikes were banded in winter, matching the high from 2013-14, but there were only four sightings in total, below the long-term average of six. Spring observations were limited to the first week of the season, as in 2007, 2010, and 2012, and were typically scarce. Similarly, the first sighting of fall was in week 13 as in 6 previous years, and the overall count was average, although the two birds banded this year doubled the norm for the season.

YTVI: Yellow-throated Vireo / Viréo à gorge jaune (*Vireo flavifrons*)

AUGUST		SEPTEMBER					OCTOBER					NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.14												0.01
# DAYS OBSERVED			1												1
# PROCESSED			1												1
FIRST OBSERVED: August 16			LAST OBSERVED: August 16				PEAK DATE: August 16				PEAK NUMBER OF INDIVIDUALS: 1				

The Yellow-throated Vireo banded on August 16 was the first record of the species for MBO, although it has long been anticipated to eventually occur here. It became the 120th species banded and 213th species observed on site.



*MBO's first ever Yellow-throated Vireo.
(Photo by Simon Duval)*

BHVI: Blue-headed Vireo / Viréo à tête bleue (*Vireo solitarius*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.57	1.71	0.14			0.24				
# DAYS OBSERVED						3	5	1			9				
# PROCESSED							2-0-1				2-0-1				
FIRST OBSERVED: May 4			LAST OBSERVED: May 22			PEAK DATE: May 10			PEAK NUMBER OF INDIVIDUALS: 5						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.14			0.14	1.00	2.14	2.00	1.29	0.29			0.50
# DAYS OBSERVED				1			1	4	5	5	6	2			24
# PROCESSED							1	2	7	3	0-0-1				13-0-1
FIRST OBSERVED: August 26				LAST OBSERVED: October 20				PEAK DATE: October 2				PEAK NUMBER OF INDIVIDUALS: 6			

Blue-headed Vireo numbers were somewhat above average in spring for the second year in a row, and again the peak was in week 7; only one individual was observed in week 8, which was the peak of spring migration most years from 2010 to 2014. The mean daily count in fall was average, but for the fifth time in the past six years the number banded was below the long-term average, suggesting an overall declining trend. The peak of migration was in late September and early October, as usual.

PHVI: Philadelphia Vireo / Viréo de Philadelphie (*Vireo philadelphicus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.43	0.14	0.14	0.07				
# DAYS OBSERVED								3	1	1	5				
FIRST OBSERVED: May 17			LAST OBSERVED: May 30			PEAK DATE: 5 dates			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.14	0.43	0.29	2.00	0.43	0.14						0.24
# DAYS OBSERVED				1	3	2	5	2	1						14
# PROCESSED					1		7-0-1	0-0-1	1						9-0-2
FIRST OBSERVED: August 26				LAST OBSERVED: October 2				PEAK DATE: September 14				PEAK NUMBER OF INDIVIDUALS: 6			

Although still a small number, the five Philadelphia Vireos observed this spring tied the record high for the season set in 2009. As usual, it was a late spring migrant. The mean daily count and number banded in fall were both marginally above the long-term averages for the season; the peak was in week 7 for the seventh year in a row, after consistently being earlier in fall in previous years.

WAVI: Warbling Vireo / Viréo mélodieux (*Vireo gilvus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							3.57	6.43	7.57	3.86	2.14				
# DAYS OBSERVED							6	7	7	7	27				
# PROCESSED							2-1-0	1-0-1	0-1-0		3-2-1				
FIRST OBSERVED: May 10			LAST OBSERVED: June 5			PEAK DATE: May 20			PEAK NUMBER OF INDIVIDUALS: 12						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	2.71	1.29	1.86	1.86	2.71	2.71	2.43	0.71							1.16
# DAYS OBSERVED	7	4	6	7	7	7	6	3							47
# PROCESSED			1	2-0-1	1										4-0-1
FIRST OBSERVED: August 1				LAST OBSERVED: September 24				PEAK DATE: September 4				PEAK NUMBER OF INDIVIDUALS: 6			

The mean daily count in spring was identical to 2015, and nearly double the long-term average. However, the 3 birds banded was just below average for the season. Numbers remained above average in summer, with two banded and a mean daily count of 2.6, just below last year's record high. Warbling Vireo is one of the relatively few species that consistently has a lower mean daily count in fall than spring, and 2016 was no exception. However, the fall count was the highest ever, thanks to nearly daily observations throughout the first half of the season; the final observation of the season on September 24 was just one day short of the record late date for Warbling Vireo, but this species is remarkably consistent, with the last observation coming between September 21 and 25 in 9 of 12 years. Despite the high number observed, the total banded was below average.

REVI: Red-eyed Vireo / Viréo aux yeux rouges (*Vireo olivaceus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.29	1.43	4.71	5.71	1.21				
# DAYS OBSERVED							2	5	7	7	21				
# PROCESSED									3	4	7				
FIRST OBSERVED: May 14			LAST OBSERVED: June 5			PEAK DATE: May 31			PEAK NUMBER OF INDIVIDUALS: 10						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	13.57	10.71	9.43	10.86	12.71	6.29	5.29	2.29	0.57	0.14					5.13
# DAYS OBSERVED	7	7	7	7	7	7	7	6	3	1					59
# PROCESSED	13-3-1	10-2-1	16-2-0	26-0-4	14-0-5	14-0-2	13-0-1	1-0-1	1	1					109-7-15
FIRST OBSERVED: August 1				LAST OBSERVED: October 3				PEAK DATE: August 9				PEAK NUMBER OF INDIVIDUALS: 23			

Red-eyed Vireo results in spring were slightly lower than the record highs set last year, and peaked in the final week of the season as usual. The 18 banded in summer beat the record from 2015; the mean daily count of 7.3 was 63% higher than the previous record set last year, mostly due to a remarkable count of 30 on July 30. Results remained unusually strong in fall, with a mean daily count slightly higher than the previous record of 5.0 set in 2014, and 109 individuals banded, second only to the high of 126 in 2014. Whereas numbers have on average peaked between weeks 5 and 7, this year they were high through most of August, and rapidly declining by week 6.

BLJA: Blue Jay / Geai bleu (*Cyanocitta cristata*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	5.00	6.29	5.71	6.57	7.14	6.86	7.57	9.14	7.00	2.43	6.37				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	5	68				
# PROCESSED				0-1-0	1						1-1-0				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 20			PEAK NUMBER OF INDIVIDUALS: 24						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	6.71	6.14	7.71	10.57	11.29	14.57	25.14	37.29	36.57	20.14	22.43	14.14	13.43	12.00	17.01
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	98
# PROCESSED	1					1	3	6-0-1	16	4	3-1-0	1-0-1	1	0-1-0	36-2-2
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: September 25				PEAK NUMBER OF INDIVIDUALS: 50			

Two Blue Jays were banded in winter, which is average; the mean daily count of 4.5 was also typical. As usual, Blue Jays were observed almost daily throughout spring, yet hardly ever captured. The mean daily count was slightly above average, like last year, and was steady through most of the season until a drop-off in week 10, although rebounding to a mean daily high of 4.1 in summer, double the average. Sightings were daily in fall, with numbers close to long-term averages. There was a distinct peak in weeks 8 and 9, which is typical for Blue Jay.

AMCR: American Crow / Corneille d'Amérique (*Corvus brachyrhynchos*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	6.43	4.29	4.57	18.43	14.14	8.00	13.29	11.86	18.57	4.14	10.37				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	70				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 26			PEAK NUMBER OF INDIVIDUALS: 45						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	11.29	22.29	28.29	26.43	37.86	19.57	23.57	39.57	41.14	41.00	38.57	23.57	39.57	28.57	30.09
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	98
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 26				PEAK NUMBER OF INDIVIDUALS: 130			

The mean daily count of American Crows in winter was 8.9, exactly half of the long-term mean. In spring, the mean daily count was the lowest ever, and continued a four-year streak of results well below the long-term average. In summer, the 3.9 crows per day continued a five-year pattern of low counts. As in spring, American Crow was observed daily throughout fall, but again in unusually low numbers. The mean daily count set a new record low for a fifth year in a row; numbers over the first month of the season have remained relatively consistent, but the flocks that previously built up over the course of fall no longer seem to be observed.

CORA: Common Raven / Grand Corbeau (*Corvus corax*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.14	0.43	0.43	1.43	1.86	1.57	1.43	1.57	0.86	0.14	0.99				
# DAYS OBSERVED	1	3	3	6	7	6	7	7	5	1	46				
FIRST OBSERVED: March 30			LAST OBSERVED: June 1			PEAK DATE: May 2			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.71	0.86	0.86	0.57	0.86	1.00	1.29	1.71	1.71	1.71	1.29	1.14	2.00	1.14	1.20
# DAYS OBSERVED	4	5	4	4	4	5	4	7	6	6	5	5	7	5	71
FIRST OBSERVED: August 3				LAST OBSERVED: November 6				PEAK DATE: September 15				PEAK NUMBER OF INDIVIDUALS: 6			

The mean daily count of 0.5 Common Ravens in winter was roughly 50% above average. Both in spring and fall, Common Ravens were observed on more days than in any previous year, although the mean daily counts were in each case marginally short of the records established for both seasons in 2014. Summer numbers were also above average with a mean daily count of 0.5, representing a single individual observed on half of the summer visits.

HOLA: Horned Lark / Alouette hausse-col (*Eremophila alpestris*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY													0.14	0.14	0.02
# DAYS OBSERVED													1	1	2
FIRST OBSERVED: October 26				LAST OBSERVED: November 3				PEAK DATE: Oct 26, Nov 3				PEAK NUMBER OF INDIVIDUALS: 1			

Three Horned Larks were observed in winter, all on November 10. Single Horned Larks were observed in each of the final two weeks of fall. This marked the fifth time in 12 years that the species has been observed during the fall program, almost always in late October or early November.

PUMA: Purple Martin / Hirondelle noire (*Progne subis*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.29	0.14	1.00												0.10
# DAYS OBSERVED	2	1	3												6
FIRST OBSERVED: August 3				LAST OBSERVED: August 19				PEAK DATE: August 17				PEAK NUMBER OF INDIVIDUALS: 5			

For the first time since 2012, no Purple Martins were observed in spring. Counts were also below average in fall.

TRES: Tree Swallow / Hirondelle bicolor (*Tachycineta bicolor*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.29		3.14	8.57	9.43	8.57	11.00	10.29	12.00	7.57	7.09				
# DAYS OBSERVED	1		5	7	7	7	7	7	7	7	55				
# PROCESSED							1-0-1	3			4-0-1				
FIRST OBSERVED: April 2			LAST OBSERVED: June 5			PEAK DATE: May 15			PEAK NUMBER OF INDIVIDUALS: 15						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	6.00	3.71	11.29	3.57	1.00		0.14								1.84
# DAYS OBSERVED	4	2	5	4	2		1								18
FIRST OBSERVED: August 3				LAST OBSERVED: September 13				PEAK DATE: August 7				PEAK NUMBER OF INDIVIDUALS: 32			

The mean daily count of Tree Swallows in spring increased for the third year in a row, but remains below the long-term average. Numbers increased sharply in week 4 as usual, but then rose only modestly in mid-May, where larger peaks historically occurred. The number of individuals banded was roughly half of the long-term average. The mean daily count of 3.4 in summer was the highest since 2011, although still below the long-term average; 14 were banded at nest boxes between June 21 and June 30, the most since 2009. The fall results were also a pleasant surprise, with the mean daily count setting a new record high, thanks largely to a strong spike in numbers in week 3, similar to what was observed in 2014. The fall observations presumably involved Tree Swallows from elsewhere, as none were observed during the final three MAPS sessions (July 17-30).

NRWS: Northern Rough-winged Swallow / Hironde à ailes hérissées (*Stelgidopteryx serripennis*)

MARCH	APRIL					MAY					JUNE
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL
# BIRDS / DAY					0.29		0.14				0.04
# DAYS OBSERVED					1		1				2
FIRST OBSERVED: May 1			LAST OBSERVED: May 13			PEAK DATE: May 1			PEAK NUMBER OF INDIVIDUALS: 2		

Northern Rough-winged Swallow was observed on two dates in the first half of May, including a new all-time early record on May 1; the total count was well below the long-term average. One individual was observed on June 24, the first in summer since 2007. For the second year in a row and sixth time overall, there were no sightings in fall.

BANS: Bank Swallow / Hironde de rivage (*Riparia riparia*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.14			0.01				
# DAYS OBSERVED								1			1				
FIRST OBSERVED: May 18			LAST OBSERVED: May 18			PEAK DATE: May 18			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14		0.14												0.02
# DAYS OBSERVED	1		1												2
FIRST OBSERVED: August 5				LAST OBSERVED: August 17				PEAK DATE: Aug 5, Aug 17				PEAK NUMBER OF INDIVIDUALS: 1			

There was a single Bank Swallow sighting in spring, on May 18. The species was observed in fall for the third time in the past four years, and sixth time overall, but as usual it was rare and sightings were limited to the early part of the season.

CLSW: Cliff Swallow / Hironde à front blanc (*Petrochelidon pyrrhonota*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					4.43	7.29	15.29	16.00	20.86	8.86	7.27				
# DAYS OBSERVED					4	6	7	6	7	5	35				
FIRST OBSERVED: April 25			LAST OBSERVED: June 4			PEAK DATE: May 23			PEAK NUMBER OF INDIVIDUALS: 40						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.71												0.05
# DAYS OBSERVED			2												2
FIRST OBSERVED: August 17				LAST OBSERVED: August 18				PEAK DATE: August 17				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count this spring was slightly down from last year, but still above the long-term average. Cliff Swallows were first seen on April 25, the earliest spring return date since 2011; the peak in week 9 was the latest since 2012, but for the fifth consecutive year, none were observed in summer. The species was typically scarce in fall, limited to sightings over two consecutive days in mid-August.

BARS: Barn Swallow / Hironde rustique (*Hirundo rustica*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				0.14			0.86	0.86	0.43	0.14	0.24				
# DAYS OBSERVED				1			5	5	3	1	15				
FIRST OBSERVED: April 19			LAST OBSERVED: May 30			PEAK DATE: May 10, May 20			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	2.43	1.43	4.00	2.00	0.57		0.14								0.76
# DAYS OBSERVED	5	4	3	1	2		1								16
FIRST OBSERVED: August 2				LAST OBSERVED: September 13				PEAK DATE: August 17				PEAK NUMBER OF INDIVIDUALS: 19			

The Barn Swallow observed on April 19 was the earliest spring arrival since 2009, but otherwise observations were skewed later than usual, and overall the mean daily count was the lowest since 2009. Conversely, the mean daily count in fall was only marginally short of the record high set in 2007, and the species was observed on more days than ever before. The observation on September 13 was the second latest on record for MBO.

BCCH: Black-capped Chickadee / Mésange à tête noire (*Poecile atricapillus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	9.00	9.29	8.29	11.14	12.14	12.43	11.57	11.14	9.86	6.43	10.13				
# DAYS OBSERVED	7	6	7	7	7	7	7	7	7	7	69				
# PROCESSED				0-1-9	0-4-10	0-0-9	0-0-1	0-0-1	0-1-1	0-1-0	0-7-31				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 2			PEAK NUMBER OF INDIVIDUALS: 22						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	13.86	10.14	14.29	14.57	15.57	15.86	17.00	16.71	18.29	16.43	23.14	20.14	19.29	20.29	16.83
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	98
# PROCESSED	3-1-5	4-0-2	0-0-3	6-3-4	4-4-4	1-0-2	8-1-4	3-0-12	16-1-9	18-1-8	18-3-16	35-0-7	16-2-27	13-1-16	145-17-119
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 19				PEAK NUMBER OF INDIVIDUALS: 50			

The 26 Black-capped Chickadees banded this winter was average, but the 189 repeats shattered the previous record of 128 from winter 2005-06. The mean daily count of 14.3 was slightly above average. The mean daily count in spring was average, but for only the second time ever none were banded during the season (although this is largely a function of the residents already being banded, as reflected by the 38 recaptures). For the second year in a row there was a modest peak in week 6, later than in most years. The mean daily count of 9.8 in summer was a record high, and 13 were banded, also above average. The mean daily count in fall was slightly below average, while the number banded was slightly above average. Numbers built slightly over the course of the season, with the somewhat elevated numbers in October reflecting a moderate migration through the area.

RBNU: Red-breasted Nuthatch / Sittelle à poitrine rousse (*Sitta canadensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY			0.14	0.43	0.14						0.07				
# DAYS OBSERVED			1	2	1						4				
FIRST OBSERVED: April 14			LAST OBSERVED: April 25			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43	0.29	0.57	0.57	1.00	0.43	0.57	1.29	0.71	0.14	0.29	0.29	0.29	0.43	0.52
# DAYS OBSERVED	3	2	4	3	6	2	3	5	5	1	1	1	1	3	40
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 3			

Although still low, the mean daily count of 0.23 Red-breasted Nuthatches was a new record for winter; most were observed in December and January. Spring observations were typically scarce, and like in all previous years, no Red-breasted Nuthatches were banded. One was banded in summer, only the second year that has occurred, and the first time the species has even been observed during the season since 2012. For the first time ever, the species was observed in every week of fall, and the mean daily count was well above average, although less than half of last year's record high. As in most years, none were banded during fall.

WBNU: White-breasted Nuthatch / Sittelle à poitrine blanche (*Sitta carolinensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.43	1.00	1.29	2.43	2.86	1.29	2.00	1.57	1.29	0.71	1.49				
# DAYS OBSERVED	3	4	4	6	7	6	7	6	7	4	54				
# PROCESSED				1	0-0-1	0-1-0		1-0-1	0-0-1		2-1-3				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 21			PEAK NUMBER OF INDIVIDUALS: 5						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	3.71	2.43	3.86	4.57	4.00	2.57	2.43	2.14	2.29	2.14	2.29	1.14	2.43	2.86	2.78
# DAYS OBSERVED	7	6	7	7	7	6	7	7	7	6	7	4	7	7	92
# PROCESSED	2		1		1				0-1-0		1-1-0		0-0-1		5-2-1
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 24				PEAK NUMBER OF INDIVIDUALS: 8			

Both the number of White-breasted Nuthatches banded and observed were 50% above previous record highs for winter. The mean daily count in spring was triple the long-term average, and a new record high by a substantial margin. Two individuals were banded, compared to a total of only three across all previous spring programs. The

pattern continued in summer, with a new record high mean daily count for a third year in a row (1.6), although none were banded. The mean daily count in fall was a new record high for the fourth time in five years, and the five individuals banded matched the record set in 2012. As has often been the case, there was a modest peak in the second half of August, but otherwise observations were fairly stable throughout the rest of the season.

BRCR: Brown Creeper / Grimpereau brun (*Certhia americana*)

MARCH	APRIL					MAY					JUNE		TOTAL	
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.57	0.29	0.29	0.57	0.86	0.14								0.27
# DAYS OBSERVED	3	2	1	4	4	1								15
# PROCESSED				3	1									4
FIRST OBSERVED: March 28			LAST OBSERVED: May 2			PEAK DATE: 4 dates			PEAK NUMBER OF INDIVIDUALS: 2					
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.29			0.14	0.86	0.71	0.14	0.86	0.43	0.57	0.29
# DAYS OBSERVED				2			1	2	5	1	3	1	2	17
# PROCESSED							1	3	3		2	2	2	13
FIRST OBSERVED: September 1				LAST OBSERVED: November 3				PEAK DATE: October 2				PEAK NUMBER OF INDIVIDUALS: 5		

Five Brown Creepers were observed in winter – one in mid-January, and the others around mid-March. The mean daily count of Brown Creepers in spring was above average for the third year in a row; similarly, the four individuals banded matched the record high in both 2014 and 2015. Fall numbers were also similar to 2015, and slightly above the long-term averages for the season; as is often the case with this species, there was no distinct peak to migration.

HOWR: House Wren / Troglodyte familier (*Troglodytes aedon*)

MARCH	APRIL					MAY					JUNE		TOTAL	
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY					0.29	2.57	4.57	4.86	4.14	3.14				1.96
# DAYS OBSERVED					2	7	7	7	7	7				37
# PROCESSED					0-1-0			2-3-2	2-0-5					4-4-7
FIRST OBSERVED: April 29			LAST OBSERVED: June 5			PEAK DATE: May 17			PEAK NUMBER OF INDIVIDUALS: 8					
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	6.71	5.29	5.43	3.00	1.57	0.71	1.71	1.14	1.00	0.29				1.92
# DAYS OBSERVED	7	7	7	6	7	3	7	4	5	2				55
# PROCESSED	6-2-1	4	4-0-2	3-0-1	1-0-1		0-0-2	0-0-1		0-0-1				18-2-9
FIRST OBSERVED: August 1				LAST OBSERVED: October 4				PEAK DATE: August 7				PEAK NUMBER OF INDIVIDUALS: 11		

The mean daily count of House Wrens this spring was almost identical to that in 2015, and slightly above the long-term average; the number banded was typical. A record high 5 House Wrens were banded in summer, and the mean daily count of 3.5 was the highest since 2008. Numbers for fall were quite typical, although observations this year were particularly heavily weighted to the first three weeks, accounting for 65% of the season total.

WIWR: Winter Wren / Troglodyte des forêts (*Troglodytes hiemalis*)

MARCH	APRIL					MAY					JUNE		TOTAL	
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	0.43	0.43		0.14			0.14	0.14					0.14
# DAYS OBSERVED	1	3	3		1			1	1					10
FIRST OBSERVED: April 1			LAST OBSERVED: May 21			PEAK DATE: 10 dates			PEAK NUMBER OF INDIVIDUALS: 1					
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY						0.14	0.14		0.57	1.29	0.29	0.57	1.00	0.29
# DAYS OBSERVED						1	1		4	4	2	3	5	20
# PROCESSED									3	4		1	1	9
FIRST OBSERVED: September 18				LAST OBSERVED: November 6				PEAK DATE: October 12				PEAK NUMBER OF INDIVIDUALS: 4		

Winter Wren rebounded from last year’s unusually poor spring, with the mean daily count for the season this year roughly double the long-term average; as usual though, none were banded. The mean daily count in fall also increased, to near normal levels, while the number banded was above average for the season.

MAWR: Marsh Wren / Troglodyte des marais (*Cistothorus palustris*)

MARCH	APRIL					MAY					JUNE
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL
# BIRDS / DAY							0.14	0.14			0.03
# DAYS OBSERVED							1	1			2
FIRST OBSERVED: May 11			LAST OBSERVED: May 21			PEAK DATE: May 11, May 21			PEAK NUMBER OF INDIVIDUALS: 1		

There were two sightings of Marsh Wren this spring, 10 days apart in mid-May. This was the sixth spring in which a Marsh Wren was observed, and the first time that observations occurred on more than a single day.

GCKI: Golden-crowned Kinglet / Roitelet à couronne dorée (*Regulus satrapa*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	2.86	8.00	2.29	2.43	0.86						1.64				
# DAYS OBSERVED	5	6	3	5	2						21				
# PROCESSED				6							6				
FIRST OBSERVED: March 29			LAST OBSERVED: April 27			PEAK DATE: April 5			PEAK NUMBER OF INDIVIDUALS: 36						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							0.57	7.57	22.14	9.71	3.86	5.86	5.43	6.71	4.42
# DAYS OBSERVED							2	6	7	7	7	5	7	5	46
# PROCESSED							2	18	63-0-1	14	4	8	11	18	138-0-1
FIRST OBSERVED: September 15				LAST OBSERVED: November 6				PEAK DATE: October 1				PEAK NUMBER OF INDIVIDUALS: 55			

For the second time in three years it was a very good spring for Golden-crowned Kinglet, although numbers were not quite up to the record levels set in 2014. For the first time since 2009, the peak was in week 2; for the previous four years it has consistently been week 4, and in the two years before that, in week 3. For the second year in a row, the last individual of the season was detected before the end of April. The mean daily count in fall was well above average, and the number banded was far greater than the previous record of 101 in 2013. The peak of migration was in week 9 for the third year in a row, compared to weeks 10 or 11 in all previous years. The 63 individuals banded in week 9 was nearly double the previous single-week record of 33 in week 10 of 2010.

RCKI: Ruby-crowned Kinglet / Roitelet à couronne rubis (*Regulus calendula*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				7.57	26.43	11.43	8.71	2.43	0.29		5.69				
# DAYS OBSERVED				6	7	7	6	6	1		33				
# PROCESSED				14	38-0-15	12-0-6	25-0-2	8-0-2			97-0-25				
FIRST OBSERVED: April 18			LAST OBSERVED: May 26			PEAK DATE: April 27			PEAK NUMBER OF INDIVIDUALS: 37						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							0.86	6.86	52.71	19.71	10.86	8.00	3.71	2.00	7.48
# DAYS OBSERVED							2	5	7	7	7	6	7	6	47
# PROCESSED							1	12	187-0-16	65-0-14	32-0-3	28-0-7	11-0-1	5-0-1	341-0-42
FIRST OBSERVED: September 14				LAST OBSERVED: November 6				PEAK DATE: October 1				PEAK NUMBER OF INDIVIDUALS: 135			

The mean daily count and number of Ruby-crowned Kinglets banded in spring were both higher than ever before, largely driven by an unusually strong push of migration in the last week of April. Conversely, the mean daily count in fall was around 20% below average, although the number banded was ~10% greater than the long-term average for the season. Fall migration was particularly concentrated this year, with the 187 individuals banded in week 9 (a single-week record) accounting for 55% of the season total. This was only the third time in 12 years that the peak was as early as week 9, matching 2005 and 2011.

EABL: Eastern Bluebird / Merlebleu de l'Est (*Sialia sialis*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY	0.57	0.29		0.86	0.29		0.14	0.71	0.14	4.57	6.86	1.29	3.86	0.57	1.44
# DAYS OBSERVED	3	2		1	2		1	2	1	5	5	3	5	2	32
FIRST OBSERVED: August 2				LAST OBSERVED: November 6				PEAK DATE: October 7				PEAK NUMBER OF INDIVIDUALS: 27			

For the first time since 2007 there were no Eastern Bluebird sightings in spring. Conversely, they were observed on far more days in fall than in any previous year (32, compared to a previous record of 18 in 2007 and 2014). The fall peak in week 11 was slightly earlier than the typical timing in late October, and August sightings were unusual.

VEER: Veery / Grive fauve (*Catharus fuscescens*)

	MARCH		APRIL				MAY				JUNE		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11		
# BIRDS / DAY							0.43	1.43		1.29		1.29	0.44
# DAYS OBSERVED							2	6		6		6	20
# PROCESSED							2	1-0-2		2			5-0-2
FIRST OBSERVED: May 12			LAST OBSERVED: June 5				PEAK DATE: May 20, May 30				PEAK NUMBER OF INDIVIDUALS: 3		

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY	1.29	1.14	1.57	3.86	1.71	1.00	0.71	0.43						0.84	
# DAYS OBSERVED	6	5	7	7	7	4	2	3						41	
# PROCESSED	5-0-2	1-0-1	3	15-0-1	1-0-1	2-0-1	3	1-0-1						31-0-7	
FIRST OBSERVED: August 1				LAST OBSERVED: September 25				PEAK DATE: August 28				PEAK NUMBER OF INDIVIDUALS: 8			

The mean daily count of Veery this spring was well above average, and the 5 birds banded tied the record set in 2014. Two were banded in summer, the fewest since 2012; the three observations were the fewest ever for the season. The fall numbers were down slightly from last year's record highs, but both the mean daily count and number banded were still higher than in any other previous year. This fall there was a distinct peak of movement in week 4, which accounted for nearly half of the birds banded during the season.

GCTH: Gray-cheeked Thrush / Grive à joues grises (*Catharus minimus*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY							0.57	3.29	2.43	0.29				0.47	
# DAYS OBSERVED							2	7	7	2				18	
# PROCESSED							3	16-0-5	9-0-8	1-0-1				29-0-14	
FIRST OBSERVED: September 17				LAST OBSERVED: October 7				PEAK DATE: September 24				PEAK NUMBER OF INDIVIDUALS: 9			

For the second time in the past three years, no Gray-cheeked Thrushes were observed in spring. However, fall results shattered previous records, with the mean daily count and banding total each five times their long-term average, and more individuals banded in week 8 than in any other previous entire year except 2012.

SWTH: Swainson's Thrush / Grive à dos olive (*Catharus ustulatus*)

	MARCH		APRIL				MAY				JUNE		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11		
# BIRDS / DAY							0.14	0.29		0.43		0.43	0.13
# DAYS OBSERVED							1	2		3		1	7
# PROCESSED							1	1		1			3
FIRST OBSERVED: May 14			LAST OBSERVED: June 4				PEAK DATE: June 4				PEAK NUMBER OF INDIVIDUALS: 3		

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY	1.14	0.43	2.71	1.14	2.14	3.86	6.29	11.71	8.14	4.71	1.00	0.14	0.43	0.14	3.14
# DAYS OBSERVED	4	2	7	5	6	6	7	7	7	6	4	1	3	1	66
# PROCESSED	6		12-1-0	4	9	10-0-2	31-0-3	48-0-10	30-0-16	16-1-8	3-0-2		1-0-1	0-0-1	170-2-43
FIRST OBSERVED: August 1				LAST OBSERVED: November 5				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 20			

Although still quite rare compared to most species, Swainson's Thrush numbers this spring were only marginally below last year's record highs. One was observed and banded in summer, for the first time ever – an early fall migrant on July 30. As usual, migration was much greater in fall, and this year's mean daily count and banding total were both only slightly short of the exceptional totals recorded in 2012 and 2015.

HETH: Hermit Thrush / Grive solitaire (*Catharus guttatus*)

	MARCH		APRIL					MAY					JUNE		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY			0.29		1.14	0.57	0.29				0.14	0.24			
# DAYS OBSERVED			2		6	3	2				1	14			
# PROCESSED					2-0-1	1						3-0-1			
FIRST OBSERVED: April 12			LAST OBSERVED: June 3			PEAK DATE: Apr 26, May 1, May 3			PEAK NUMBER OF INDIVIDUALS: 2						
	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY					0.14	0.29	0.29	0.29	1.00	2.71	3.86	3.29	2.43	1.00	1.09
# DAYS OBSERVED					1	2	2	2	5	7	7	5	6	5	42
# PROCESSED					1	1-0-1	0-0-1	1	6	9	10-0-4	12-0-3	5-0-6		45-0-15
FIRST OBSERVED: September 3				LAST OBSERVED: November 6				PEAK DATE: October 19				PEAK NUMBER OF INDIVIDUALS: 8			

Two Hermit Thrushes were observed unusually late on December 10. Similar to other *Catharus* species, it had a good spring, with a record high number banded, and a mean daily count just short of the record set in 2014. The first bird on April 12 was the earliest ever arrival, while one on June 3 was the latest spring date in any year. The mean daily count and number banded in fall were both slightly below average, but an increase from last year.

WOTH: Wood Thrush / Grive des bois (*Hylocichla mustelina*)

	MARCH		APRIL					MAY					JUNE		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY								0.29	0.86	1.14	0.43				0.27
# DAYS OBSERVED								2	5	6	3				16
# PROCESSED									1						1
FIRST OBSERVED: May 11			LAST OBSERVED: June 1			PEAK DATE: May 20, 27, 28			PEAK NUMBER OF INDIVIDUALS: 2						
	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.57	0.14			0.14	0.14									0.07
# DAYS OBSERVED	4	1			1	1									7
# PROCESSED		1			0-0-1	1									2-0-1
FIRST OBSERVED: August 1				LAST OBSERVED: September 7				PEAK DATE: 7 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Although small, the mean daily count and number of Wood Thrushes banded this spring were both well above average, but down slightly from the records set in 2015. The 2 banded and 0.9 mean daily count in summer were lower than the past couple of years, but overall still above average. Fall records were typically sparse.

AMRO: American Robin / Merle d'Amérique (*Turdus migratorius*)

	MARCH		APRIL					MAY					JUNE		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	44.14	28.29	27.00	28.86	24.00	25.14	8.86	9.14	9.57	5.57					21.06
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	70
# PROCESSED				11	14	8-1-0	2	0-0-1	1						36-1-1
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 1			PEAK NUMBER OF INDIVIDUALS: 100						
	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	14.86	14.00	16.14	8.86	15.00	13.00	16.00	23.29	29.43	52.57	140.00	131.86	390.00	258.14	80.22
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	98
# PROCESSED	2	4-1-0	6	1	1	1		3	3		21	22	22	22	108-1-0
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 26				PEAK NUMBER OF INDIVIDUALS: 1530			

For the first time since 2010-11, no American Robins were banded in winter; the mean daily count of 9.9 was also well below average. Conversely, the mean daily count in spring was nearly 50% more than the previous high recorded in 2015. Unlike most years, it peaked in week 1 and declined steadily over the first half of the season before dropping off sharply in the second week of May. Perhaps because the peak numbers moved through before banding began, the number banded was not a record high, although still more than double the long-term average. Ten were banded in summer, the fewest since MAPS began in 2009, though the mean daily count of 7.1 was slightly above average for the season. The mean daily count for fall was marginally below average, but the number banded was the second-lowest ever. Numbers peaked toward the end of the season as usual, and there was a remarkable consistency in the number banded over the final four weeks.

GRCA: Gray Catbird / Moqueur chat (*Dumetella carolinensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							1.43	4.57	5.14	2.14	1.33				
# DAYS OBSERVED							6	7	7	6	26				
# PROCESSED							1-0-1	6-3-3	9-1-2	1	17-4-6				
FIRST OBSERVED: May 10			LAST OBSERVED: June 5			PEAK DATE: May 22, May 28			PEAK NUMBER OF INDIVIDUALS: 9						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	6.43	5.43	7.00	5.86	8.43	6.86	8.29	7.86	5.29	3.29	0.43				4.65
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	6	3				72
# PROCESSED	14-1-5	5-1-7	6-0-6	4-0-6	5-0-6	9-1-7	12-0-7	7-0-6	5-0-5	4-0-3					71-3-58
FIRST OBSERVED: August 1				LAST OBSERVED: October 13				PEAK DATE: September 18				PEAK NUMBER OF INDIVIDUALS: 12			

The mean daily count and number of Gray Catbirds banded were both slightly above average this spring; as usual, numbers peaked in weeks 8 and 9. The mean daily count of 5.3 in summer was a new record high for a fourth consecutive year, and the 11 individuals banded was also above average, although short of the range of 14-18 in each of the past three years. Fall numbers were slightly slower than the past two years, but still a bit above long-term averages. As usual, Gray Catbird remained quite common throughout August and September, then tapered off rapidly by mid-October.

BRTH: Brown Thrasher / Moqueur roux (*Toxostoma rufum*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					0.29	0.14	1.00	2.00	1.00	1.14	0.56				
# DAYS OBSERVED					2	1	6	7	6	6	28				
# PROCESSED								3			3				
FIRST OBSERVED: April 26			LAST OBSERVED: June 5			PEAK DATE: May 17			PEAK NUMBER OF INDIVIDUALS: 5						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.57	0.57	0.86	0.57	0.86	0.29	1.14	1.00	0.29						0.44
# DAYS OBSERVED	3	3	4	4	6	2	6	5	1						34
# PROCESSED	0-0-1	1-0-1			0-0-1		1	1							3-0-3
FIRST OBSERVED: August 2				LAST OBSERVED: October 3				PEAK DATE: August 19				PEAK NUMBER OF INDIVIDUALS: 3			

Brown Thrasher results for spring were fairly average in terms of timing and number banded, although the mean daily count overall was a bit higher than usual. Two were banded in summer, matching the high set in 2013 and 2014; the mean daily count of 1.1 was double the previous record set in 2014, and more than four times the long-term average. Fall numbers returned to normal levels after two consecutive years of record highs.

NOMO: Northern Mockingbird / Moqueur polyglotte (*Mimus polyglottos*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY								0.14							0.01
# DAYS OBSERVED								1							1
FIRST OBSERVED: September 22				LAST OBSERVED: September 22				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 1			

There was a single sighting of a Northern Mockingbird in fall for the third year in a row, all between September 18 and October 12. It was the seventh observation of the species at MBO overall.

EUST: European Starling / Étourneau sansonnet (*Sturnus vulgaris*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	1.43	2.43	0.57	2.14	1.14	9.00	2.29	2.43	4.29	2.00	2.77				
# DAYS OBSERVED	5	2	2	5	4	6	5	5	6	2	42				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 2			PEAK NUMBER OF INDIVIDUALS: 19						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	11.00	10.14	6.29	3.43	0.43	0.57	9.86	111.29	62.43	34.57	42.43	108.29	44.00	77.71	37.32
# DAYS OBSERVED	2	5	2	2	1	1	4	7	6	7	7	7	7	7	65
FIRST OBSERVED: August 5				LAST OBSERVED: November 6				PEAK DATE: September 23				PEAK NUMBER OF INDIVIDUALS: 300			

The mean daily count of European Starlings was 29.6 in winter, roughly 50% above average, but reverted to typically modest throughout spring, aside from a sharp peak in week 6. One was banded in summer, and the mean daily count of 3.1 was above average, mostly due to a high of 18 on June 11. The mean daily count in fall was just above average, but the lowest since 2011. There was an unusually early peak in week 8, and a second one in week 12.

BOWA: Bohemian Waxwing / Jaseur boréal (*Bombycilla garrulus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				8.57	2.14	0.14					1.09				
# DAYS OBSERVED				4	1	1					6				
# PROCESSED				14							14				
FIRST OBSERVED: April 18			LAST OBSERVED: May 6			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 50						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY													1.14	7.43	0.61
# DAYS OBSERVED													2	4	6
FIRST OBSERVED: October 26				LAST OBSERVED: November 6				PEAK DATE: November 5				PEAK NUMBER OF INDIVIDUALS: 36			

Bohemian Waxwings were relatively scarce in winter. Another wave came through in spring, later than usual, and were banded at MBO for only the second time. There were fall observations in the fall for the sixth time in 12 years.

CEDW: Cedar Waxwing / Jaseur d'Amérique (*Bombycilla cedrorum*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	2.43	0.43	3.71	2.00	13.00	12.86	14.57	11.43	27.86	11.43	9.97				
# DAYS OBSERVED	2	1	3	3	6	6	7	7	7	6	48				
# PROCESSED					1	5			17-0-1	3	26-0-1				
FIRST OBSERVED: March 30			LAST OBSERVED: June 5			PEAK DATE: May 15			PEAK NUMBER OF INDIVIDUALS: 46						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	18.43	16.71	24.71	28.57	16.43	25.14	25.71	11.86	13.71	4.57	4.29	0.57	4.14	1.57	14.03
# DAYS OBSERVED	7	7	7	7	7	7	7	6	7	4	6	2	3	4	81
# PROCESSED	5	9	12	5											31
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 24				PEAK NUMBER OF INDIVIDUALS: 46			

Cedar Waxwing observations were record high (6.9 per day) in winter, though none were banded. Spring results were far below average, but well within the wide range of variation for this species across years. The peak of migration was not until week 9, as in 2006, 2007, 2009, and 2012. Summer numbers (4 banded, mean daily count 6.5) were average. Fall numbers almost perfectly matched long-term averages for both observations and banding; despite large numbers being observed through to late September, all birds banded were in August.

HOSP: House Sparrow / Moineau domestique (*Passer domesticus*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14							0.14						0.02
# DAYS OBSERVED		1							1						2
FIRST OBSERVED: August 11				LAST OBSERVED: October 2				PEAK DATE: Aug 11, Oct 2				PEAK NUMBER OF INDIVIDUALS: 1			

Lone House Sparrows were observed on two dates this fall; these were the first at MBO since October 2012.

AMPI: American Pipit / Pipit d'Amérique (*Anthus rubescens*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							5.57	4.57			1.01				
# DAYS OBSERVED							4	3			7				
FIRST OBSERVED: May 10			LAST OBSERVED: May 19			PEAK DATE: May 16			PEAK NUMBER OF INDIVIDUALS: 30						
AUGUST		SEPTEMBER					OCTOBER				NOVEMBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY								0.29	1.43	1.14	0.86	1.00	3.14		0.56
# DAYS OBSERVED								1	3	3	3	2	1		13
FIRST OBSERVED: September 23				LAST OBSERVED: October 26			PEAK DATE: October 26			PEAK NUMBER OF INDIVIDUALS: 22					

American Pipit observations were more than five times as numerous in spring than in any previous year; all observations were within a 10-day span in mid-May, slightly later than most sightings in the past. The mean daily count for fall was also above average, although the lowest since 2011.

EVGR: Evening Grosbeak / Gros-bec errant (*Coccothraustes vespertinus*)

AUGUST		SEPTEMBER					OCTOBER				NOVEMBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY													0.43	0.29	0.05
# DAYS OBSERVED													1	1	2
FIRST OBSERVED: October 27				LAST OBSERVED: October 31			PEAK DATE: October 27			PEAK NUMBER OF INDIVIDUALS: 3					

Small numbers of Evening Grosbeaks were observed in the final two weeks of fall, the sixth time in 12 years that the species has been observed during the season.

HOFI: House Finch / Roselin familier (*Haemorhous mexicanus*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	0.14	0.29	0.86	0.29	0.29	0.29								0.23
# DAYS OBSERVED	1	1	2	2	1	1	1								9
FIRST OBSERVED: April 1			LAST OBSERVED: May 15			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 5						
AUGUST		SEPTEMBER					OCTOBER				NOVEMBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	2.86	2.43	1.71	1.86	2.43	0.57		0.43	1.57	1.43	3.00	1.57	1.71	2.71	1.73
# DAYS OBSERVED	2	4	5	6	7	2		1	4	3	5	4	5	3	51
# PROCESSED			1	2											3
FIRST OBSERVED: August 2				LAST OBSERVED: November 6			PEAK DATE: August 7			PEAK NUMBER OF INDIVIDUALS: 17					

Only 19 House Finches were banded in winter, the fewest since 2005-06; the mean daily count of 1.5 was the lowest ever. Spring House Finch observations were typically scarce, and weighted toward the first two-thirds of the season. House Finches were observed throughout most of fall for the third year in a row, and correspondingly, the mean daily count remained above average again too; the number of birds banded was average. Numbers fluctuated slightly over the season, with a notable low point around mid-September.

PUFI: Purple Finch / Roselin pourpré (*Haemorhous purpureus*)

MARCH		APRIL					MAY					JUNE			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	1.43	1.14	2.29	4.43	5.71	5.71	2.43	2.29	1.71	0.43					2.76
# DAYS OBSERVED	4	5	6	7	7	7	7	7	6	2					58
# PROCESSED				3	10-1-1	12-1-3			2-1-1	0-0-1					27-3-6
FIRST OBSERVED: March 29			LAST OBSERVED: June 1			PEAK DATE: April 26			PEAK NUMBER OF INDIVIDUALS: 15						
AUGUST		SEPTEMBER					OCTOBER				NOVEMBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	4.00	1.57	1.43	0.29	0.86	0.43	0.86	1.86	2.14	2.71	2.00	1.14	0.86	0.14	1.45
# DAYS OBSERVED	6	6	6	2	4	2	3	6	6	6	6	4	3	1	61
# PROCESSED	3		1		1	2	0-1-1		4	4		1			16-1-1
FIRST OBSERVED: August 2				LAST OBSERVED: November 2			PEAK DATE: August 3			PEAK NUMBER OF INDIVIDUALS: 7					

Purple Finch was surprisingly abundant at MBO this winter, with 48 banded, and a mean daily count of 2.7, fifteen times greater than the long-term average for the season. The majority of records were in March, with a peak of 25

observed on March 23. It also shattered previous spring records of 0.7 for mean daily count and 8 birds banded, with a strong movement from mid-April to early May. One was banded in summer, and the mean daily count of 0.6 was above average. Fall results were also high, although down somewhat from the near-record levels in 2015.

CORE: Common Redpoll / Sizerin flammé (*Acanthis flammea*)

MARCH	APRIL					MAY					JUNE
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL
# BIRDS / DAY	0.29	2.14	23.14								2.56
# DAYS OBSERVED	2	2	5								9
FIRST OBSERVED: March 28			LAST OBSERVED: April 15			PEAK DATE: April 12			PEAK NUMBER OF INDIVIDUALS: 110		

Only three Common Redpolls were banded this winter, but even that was a surprise considering the strong two-year cycle of this species; the last time any were banded in a winter ending in an ‘even’ year was 2005-06. Similarly, the mean daily count of 0.09 was low, but the first record of the species in a low cycle since 2007-08; all sightings were from mid-November to mid-December. They were observed in early spring for the third time in the past four years; as usual, they were gone by the time banding started in week 4. The peak mean daily count in week 3 was very similar to the highs in week 1 of 2013 and 2015. For the first time since 2009, none were observed in fall.

PISI: Pine Siskin / Tarin des pins (*Spinus pinus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	14.14	23.14	8.86	5.86	1.29			0.14			5.34				
# DAYS OBSERVED	6	6	6	6	4			1			29				
# PROCESSED				2							2				
FIRST OBSERVED: March 29			LAST OBSERVED: May 18			PEAK DATE: April 9			PEAK NUMBER OF INDIVIDUALS: 47						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY						0.14			0.14	0.29			1.14	0.29	0.14
# DAYS OBSERVED						1			1	1			2	2	7
FIRST OBSERVED: September 6				LAST OBSERVED: November 5				PEAK DATE: October 25				PEAK NUMBER OF INDIVIDUALS: 6			

The 11 Pine Siskins banded this winter were a record high, but the mean daily count of 1.5 was only slightly above average. The mean daily count for Pine Siskin in spring was triple the previous record high from 2009, and more than 25 times the long-term average for the season! Numbers were high from late March to mid-late April, peaking in week 2. The majority had moved on by the time that the banding program began in week 4, and only 2 individuals were banded, just short of the season record of 3. The first fall record was in early September for the second year in a row, but sightings for the season overall were far below average.

AMGO: American Goldfinch / Chardonneret jaune (*Spinus tristis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	3.57	5.86	5.57	12.43	13.14	17.43	15.86	18.14	21.43	14.71	12.81				
# DAYS OBSERVED	6	7	6	7	7	7	7	7	7	7	68				
# PROCESSED				3	4-0-1	6-3-3	6-0-1	21-2-4	19-3-3	5-0-1	64-8-13				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 23			PEAK NUMBER OF INDIVIDUALS: 35						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	22.00	23.29	17.86	24.43	31.00	23.43	21.43	14.86	9.86	12.29	4.57	3.00	8.29	16.00	16.59
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	5	4	7	7	93
# PROCESSED	4-2-1	1-1-0	2-1-0	6-1-0	5-1-0	2-0-1	1	1	1		1		9-1-0	10	43-7-2
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 30				PEAK NUMBER OF INDIVIDUALS: 65			

The unprecedented 434 American Goldfinches banded in winter accounted for 61% of all birds during the season; the mean daily count of 21.2 was more than double the previous record from winter 2004-05. The mean daily count in spring was also higher than in any previous year, and the number banded was the highest since 2005. Four were banded in summer, and the mean daily count of 12.3 was the highest since the record high of 14.7 in 2006. The mean daily count in fall was only slightly above average, while the number banded was unusually low. Although the peak in migration appeared to be from late August to early September, somewhat earlier than usual, nearly half of the birds were banded in the final two weeks of the season.

ATSP: American Tree Sparrow / Bruant hudsonien (*Spizelloides arborea*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	3.57	3.14	3.57	9.71	4.57	0.57					2.51				
# DAYS OBSERVED	4	6	6	7	7	4					34				
# PROCESSED				12-2-15	1-0-5	0-0-1					13-2-21				
FIRST OBSERVED: March 28			LAST OBSERVED: May 6			PEAK DATE: April 19			PEAK NUMBER OF INDIVIDUALS: 22						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY											2.14	2.57	4.71	4.57	1.00
# DAYS OBSERVED											5	7	6	7	25
# PROCESSED											3-0-1	4-1-0	10	11-1-1	28-2-2
FIRST OBSERVED: October 11				LAST OBSERVED: November 6				PEAK DATE: October 30				PEAK NUMBER OF INDIVIDUALS: 9			

A record high 65 American Tree Sparrows were banded in winter; the 31 repeats and mean daily count of 6.0 were also far higher than in any previous winter. The strong numbers continued into spring, with a record high mean daily count that was more than double the long-term average, and a near-record number banded as well. Migration peaked strongly in week 4, later than in any previous year. Fall numbers were slightly below average, despite the inclusion of week 14 for just the second time; compared to the first ten years of the Fall Migration Monitoring Program which ended in week 13, the number banded would have been the second lowest ever.

CHSP: Chipping Sparrow / Bruant familier (*Spizella passerina*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY				1.00	1.86	3.43	3.71	2.43	2.71	0.71	1.59				
# DAYS OBSERVED				5	5	7	7	7	7	5	43				
# PROCESSED							1	1	1		3				
FIRST OBSERVED: April 18			LAST OBSERVED: June 5			PEAK DATE: May 27			PEAK NUMBER OF INDIVIDUALS: 6						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43	0.29	0.14		0.43	1.14	1.29	4.57	1.71	0.14	0.71	0.14	0.57	0.14	0.84
# DAYS OBSERVED	2	2	1		2	3	2	7	5	1	3	1	3	1	33
# PROCESSED					1			1	2				1		5
FIRST OBSERVED: August 1				LAST OBSERVED: October 31				PEAK DATE: September 21				PEAK NUMBER OF INDIVIDUALS: 11			

The mean daily count of Chipping Sparrows in spring was above the long-term average for the season for a fifth consecutive year, suggesting an increasing trend over time. However, the 3 individuals banded was the lowest total for the season since 0 in 2011. The mean daily count in summer was 1.0, a new record high and nearly triple the long-term average, but none were banded. The mean daily count in fall was average, but the number banded matched the record low from 2006 and 2013. The peak of fall migration varies considerably from year to year for this species; this year there was a distinct spike in numbers only in week 7, somewhat earlier than in most years.

VESP: Vesper Sparrow / Bruant vespéral (*Poocetes gramineus*)

MARCH	APRIL					MAY					JUNE	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL	
# BIRDS / DAY								0.14			0.01	
# DAYS OBSERVED								1			1	
FIRST OBSERVED: May 19			LAST OBSERVED: May 19			PEAK DATE: May 19			PEAK NUMBER OF INDIVIDUALS: 1			

Vesper Sparrow was observed for the first time since 2012, and for the fifth time in 12 years overall. There was a single individual singing from the hedgerow across the field on the east side of MBO on May 19, only the second time that the species has been observed outside of April. A breeding pair has been present there for the past few years, but conditions are only occasionally suitable for detection from MBO.

SAVS: Savannah Sparrow / Bruant des prés (*Passerculus sandwichensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.43		0.14	0.06				
# DAYS OBSERVED								3		1	4				
FIRST OBSERVED: May 18			LAST OBSERVED: June 2			PEAK DATE: 4 dates			PEAK NUMBER OF INDIVIDUALS: 1						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY									0.14	0.14		0.14			0.03
# DAYS OBSERVED									1	1		1			3
# PROCESSED									1	1		1			3
FIRST OBSERVED: October 2				LAST OBSERVED: October 19				PEAK DATE: Oct 2, Oct 5, Oct 19				PEAK NUMBER OF INDIVIDUALS: 1			

The four individuals observed in spring was fairly typical for Savannah Sparrow in spring since 2010, although previously much more numerous. The first arrival on May 18 was by far the latest ever, and only the second time that the species has not been detected in April. After being missed in fall 2015, three Savannah Sparrows were observed this October, all of which were banded, marking the highest banding total since 2008.

FOSP: Fox Sparrow / Bruant fauve (*Passerella iliaca*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.86	5.86	2.86	0.57									1.01
# DAYS OBSERVED			1	7	6	3									17
# PROCESSED				7	1	1									9
FIRST OBSERVED: April 17			LAST OBSERVED: May 4			PEAK DATE: April 19			PEAK NUMBER OF INDIVIDUALS: 13						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY									0.14	0.57	1.71	1.29	2.29	8.14	1.01
# DAYS OBSERVED									1	4	6	3	6	7	27
# PROCESSED									2	3	3-0-1	6-0-1	23-0-2	37-0-4	
FIRST OBSERVED: September 29				LAST OBSERVED: November 6				PEAK DATE: November 6				PEAK NUMBER OF INDIVIDUALS: 14			

For only the second time in the past seven years, Fox Sparrow was missed in winter. After record-high spring results in 2015, Fox Sparrow numbers fell to below average this spring in terms of both mean daily count and banding total. The peak in both categories was in week 4, as usual. Fall migration was somewhat better, with the mean daily count and number banded both continuing a trend of above-average results in “even” years, dating back to 2010. However, this is a somewhat unfair comparison given that over half of this year’s observations came in week 14; the results up to week 13 would have been well below average compared to that time period in previous years. This may be reflective of the timing of migration shifting later for this species.

SOSP: Song Sparrow / Bruant chanteur (*Melospiza melodia*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	8.14	8.86	11.71	20.43	14.71	13.57	15.43	12.14	10.43	7.14	12.26				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	70				
# PROCESSED				9-3-1	5-2-7	6-1-3	1-2-4	2-1-3	5-1-5	1-0-3	29-10-26				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 22			PEAK NUMBER OF INDIVIDUALS: 32						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	14.14	7.43	3.86	5.00	5.00	3.14	6.86	8.71	7.29	6.71	4.86	4.86	2.57	1.71	5.87
# DAYS OBSERVED	7	7	7	7	7	6	7	7	7	7	7	5	7	4	92
# PROCESSED	36-0-6	12-1-6	7-2-4	7-1-1	5-0-3	1-1-1	8-2-2	13-1-6	11-0-2	10-1-2	9-1-0	7-0-3	6-0-2	4	136-10-38
FIRST OBSERVED: August 1				LAST OBSERVED: November 5				PEAK DATE: August 4				PEAK NUMBER OF INDIVIDUALS: 22			

A record high 6 Song Sparrows were banded in winter, but the mean daily count of 0.3 was only slightly above average; all were early spring migrants, beginning March 17. Spring numbers rebounded this year, with the mean daily count slightly above average, and the number banded >50% above the long-term average. Summer results (10 banded, mean daily count 6.0) were higher than the past two years, but still below average. The 136 individuals banded in fall tied the record low for the season set in 2014, and marked the third consecutive year with numbers considerably below average. The mean daily count also dropped further, to the third record low in a row.

LISP: Lincoln's Sparrow / Bruant de Lincoln (*Melospiza lincolni*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.29	0.86	0.57	0.43		0.21				
# DAYS OBSERVED						1	4	3	3		11				
# PROCESSED						2	6	2	3		13				
FIRST OBSERVED: May 7			LAST OBSERVED: May 28			PEAK DATE: 4 dates			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							0.29	0.86	0.43	0.57	0.14				0.16
# DAYS OBSERVED							2	4	3	3	1				13
# PROCESSED							1	1-0-1	2	3	1				8-0-1
FIRST OBSERVED: September 13				LAST OBSERVED: October 12				PEAK DATE: Sep 24, Sep 25, Oct 3				PEAK NUMBER OF INDIVIDUALS: 2			

Although uncommon as always, the number of Lincoln's Sparrows observed and banded in spring were both nearly double the long-term averages for the season, with the banding total a new record high. However, like last year, the strong spring results were offset by surprisingly low numbers in fall, with the mean daily count and number banded both just above half of the long-term averages.

SWSP: Swamp Sparrow / Bruant des marais (*Melospiza georgiana*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY		0.14		3.57	3.71	5.29	6.14	2.57	1.86	1.14	2.44				
# DAYS OBSERVED		1		7	7	7	7	7	7	5	48				
# PROCESSED				7-1-1	5-0-2	4	11				27-1-3				
FIRST OBSERVED: April 9			LAST OBSERVED: June 5			PEAK DATE: May 8, May 9, May 11			PEAK NUMBER OF INDIVIDUALS: 8						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	2.14	1.43	1.00	0.14	0.14	0.14	1.29	2.00	2.14	1.43	1.57	0.57	0.71	0.43	1.08
# DAYS OBSERVED	7	6	6	1	1	1	4	7	6	5	5	3	3	3	58
# PROCESSED	1-0-5	1-0-2	1-0-2			0-0-1	2-0-2	7-0-2	5	4-0-1	2-0-1	1	2-0-2	2-0-1	28-0-19
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: Sep 22, Oct 1				PEAK NUMBER OF INDIVIDUALS: 5			

The mean daily count of Swamp Sparrows in spring was well above average, and the number banded was a new record high for the season, one more than in 2013. The peak of migration was not until week 7, later than in all but one previous year. The 10 banded in summer doubled the previous record, while the mean daily count of 3.6 marked the third new record in the past four years. The fall numbers for Swamp Sparrow were almost identical to those from 2015, and marked the second year in a row with the mean daily count and banding total both somewhat below their long-term averages. As usual, there were two modest peaks of numbers in fall, one at the beginning of August, and another in late September.

WTSP: White-throated Sparrow / Bruant à gorge blanche (*Zonotrichia albicollis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.86	0.29	1.86	11.14	24.57	23.14	42.29	3.43	0.57	0.71	10.89				
# DAYS OBSERVED	4	2	6	7	7	7	7	7	4	3	54				
# PROCESSED				12-3-2	29-2-4	25-0-5	69-0-2	3			138-5-13				
FIRST OBSERVED: March 28			LAST OBSERVED: June 1			PEAK DATE: May 10			PEAK NUMBER OF INDIVIDUALS: 110						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	3.29	3.71	4.00	4.14	5.00	3.43	11.29	39.86	67.71	81.29	53.86	52.71	38.86	26.29	28.24
# DAYS OBSERVED	7	6	7	7	7	6	7	7	7	7	7	7	7	7	96
# PROCESSED	8-0-3	3	5-0-11	2-0-1	1-0-2	1-0-2	20-0-1	64-0-6	100-0-5	175-0-22	77-1-44	40-0-24	42-0-27	28-0-14	566-1-162
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 18				PEAK NUMBER OF INDIVIDUALS: 125			

Only 3 White-throated Sparrows were banded this winter, and the mean daily count of 0.7 was slightly below average. However, the species was far more dominant this spring than in any previous year, with the mean daily count greatly exceeding the old record of 7.0 in 2012, and the banding total of 138 far more than the 79 banded in 2008. The 69 individuals banded in week 7 was more than in any other previous entire spring season except 2008.

The 5 banded in summer more than doubled the previous record high of 2, and the mean daily count was above average, although still quite uncommon at 0.6; all were observed during the final two visits on July 24 and 30. White-throated Sparrow also had an above-average mean daily count in fall this year, and the 566 banded exceeded the previous record of 506 (in 2012), including a new single-week record of 175 banded in week 10.

WCSP (EWCS): (Eastern) White-crowned Sparrow / Bruant à couronne blanche (*Zonotrichia leucophrys leucophrys*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					0.29		3.29	1.71			0.53				
# DAYS OBSERVED					2		7	6			15				
# PROCESSED							7	2-0-1			9-0-1				
FIRST OBSERVED: April 27			LAST OBSERVED: May 22			PEAK DATE: May 10			PEAK NUMBER OF INDIVIDUALS: 10						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							1.43	1.71	5.14	1.43	1.14	0.29		0.14	0.81
# DAYS OBSERVED							4	4	7	6	5	1		1	28
# PROCESSED							4	4	4-0-1	2					10-0-1
FIRST OBSERVED: September 13				LAST OBSERVED: November 4				PEAK DATE: September 30				PEAK NUMBER OF INDIVIDUALS: 11			

For the fourth time in 12 years, the first White-crowned Sparrows of the year arrived in late April. The peak in week 7 was typical, but overall the spring numbers were below average. Fall results were even more poor, with fewer individuals observed and banded than in any previous year. This was the fourth year in a row with substantially below average numbers in fall, suggesting a sustained trend in comparison with earlier years. There was a strong peak in week 9, earlier than in all but one other year.

DEJU (SCJU): Dark-eyed (Slate-colored) Junco / Junco ardoisé (*Junco hyemalis hyemalis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	3.43	3.00	4.71	10.57	3.57	2.29	0.14				2.77				
# DAYS OBSERVED	7	6	7	7	7	6	1				41				
# PROCESSED				11-1-2	1-0-4						12-1-6				
FIRST OBSERVED: March 28			LAST OBSERVED: May 12			PEAK DATE: April 22			PEAK NUMBER OF INDIVIDUALS: 24						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY								1.71	9.00	16.14	16.29	16.43	21.29	34.86	8.27
# DAYS OBSERVED								3	6	7	7	7	7	7	44
# PROCESSED								2	23	26-0-2	19-0-1	29-0-2	46-0-8	64-4-8	209-4-21
FIRST OBSERVED: September 22				LAST OBSERVED: November 6				PEAK DATE: November 5				PEAK NUMBER OF INDIVIDUALS: 50			

The 55 Dark-eyed Juncos banded this winter and the mean daily count of 7.9 were both slightly below average for the season. Both were also below average in spring, as they have been in every “even” year since 2008. The last observation on May 12 matched the record late date set in 2011 and equaled in 2012 and 2014. Fall numbers were close to average, and as usual they steadily increased from late September through to the end of the season.

BOBO: Bobolink / Goglu des prés (*Dolichonyx oryzivorus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.29	0.71	0.29		0.13				
# DAYS OBSERVED							2	4	1		7				
FIRST OBSERVED: May 12			LAST OBSERVED: May 23			PEAK DATE: May 22, May 23			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY				0.14											0.01
# DAYS OBSERVED				1											1
FIRST OBSERVED: August 22				LAST OBSERVED: August 22				PEAK DATE: August 22				PEAK NUMBER OF INDIVIDUALS: 1			

Similar to the past three years, Bobolink observations were sparse over a short period around mid-May, and as usual, none were banded. For the second year in a row, only one individual was observed in fall.

OROR: Orchard Oriole / Oriole des vergers (*Icterus spurius*)

MARCH	APRIL					MAY					JUNE
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL
# BIRDS / DAY									0.14		0.01
# DAYS OBSERVED									1		1
FIRST OBSERVED: May 23			LAST OBSERVED: May 23			PEAK DATE: May 23			PEAK NUMBER OF INDIVIDUALS: 1		

Orchard Oriole had been previously identified as a species that was expected to eventually be observed at MBO, and it finally happened in May when one individual was heard singing on census near the banding cabin. It became the 212th species observed on site.

BAOR: Baltimore Oriole / Oriole de Baltimore (*Icterus galbula*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							5.43	10.71	10.43	4.43	3.10				
# DAYS OBSERVED							6	7	7	7	27				
# PROCESSED							4-3-5	7-3-8	2-0-4		13-6-17				
FIRST OBSERVED: May 10			LAST OBSERVED: June 5			PEAK DATE: May 21, May 24			PEAK NUMBER OF INDIVIDUALS: 14						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	11.71	7.86	5.86	5.43	2.14	0.29	0.43		0.14						2.42
# DAYS OBSERVED	7	6	7	7	7	2	3		1						40
# PROCESSED	19-0-6	13-0-4	3-0-7	1											36-0-17
FIRST OBSERVED: August 1				LAST OBSERVED: September 27				PEAK DATE: August 10				PEAK NUMBER OF INDIVIDUALS: 21			

The mean daily count and number of Baltimore Orioles in spring both matched long-term averages for the season, although the peak in migration was shifted somewhat later than it has been in recent years. The first arrival on May 10 matched the latest date, from 2005 and 2013. Summer numbers were fairly average, with 2 banded, and a mean daily count of 3.4. The mean daily count in fall was the highest since 2006, and the number banded the most since 2008. Activity peaked in the first week of fall for the first time since 2008, and as usual it tapered off quickly after late August, but the lone individual observed on September 27 was the second-latest record for fall.

RWBL: Red-winged Blackbird / Carouge à épauettes (*Agelaius phoeniceus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	36.57	28.00	27.86	44.43	38.86	41.71	40.86	34.14	32.14	26.71					35.13
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	70
# PROCESSED				5-1-0	5-2-0	10-3-1	16-3-5	15-3-4	2-2-1	2-1-0					55-15-11
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 72						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	13.71	7.43	4.29	4.00	6.00	24.57	17.86	17.00	24.29	80.86	232.00	175.43	190.71	105.29	64.53
# DAYS OBSERVED	6	6	6	5	4	4	5	4	7	6	7	7	7	7	81
# PROCESSED											3	2	3		8
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 26				PEAK NUMBER OF INDIVIDUALS: 400			

Ten Red-winged Blackbirds were banded in winter, but the mean daily count was below average for the season, at 5.5. All were early-returning spring migrants, starting on March 8. For the second year in a row, spring numbers were considerably below average, with both the mean daily count and number banded the lowest since 2009. There was no distinct peak to migration, although numbers were slightly higher from week 4 through week 7. Numbers remained below average in summer, with a mean daily count of 9.1 compared to a long-term average of 15.1, and only one individual banded. Fall numbers were also below average, for the fourth consecutive year. The peak in week 11 was the earliest since 2012, while the count in week 13 was marginally above last year, but otherwise the lowest that it has been since 2006.

BHCO: Brown-headed Cowbird / Vacher à tête brune (*Molothrus ater*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.43	1.00	0.71	1.00	2.71	2.57	3.43	3.71	4.86	2.86	2.33				
# DAYS OBSERVED	2	2	3	5	7	7	7	7	7	7	54				
# PROCESSED						1			1		2				
FIRST OBSERVED: March 29			LAST OBSERVED: June 5			PEAK DATE: May 17, May 31			PEAK NUMBER OF INDIVIDUALS: 8						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14						0.29		3.57		0.29				0.31
# DAYS OBSERVED	1						1		1		1				4
FIRST OBSERVED: August 2				LAST OBSERVED: October 12				PEAK DATE: September 26				PEAK NUMBER OF INDIVIDUALS: 25			

Brown-headed Cowbirds rebounded slightly from last year’s record low count in spring, but remained well below average, as did the number banded. The 0.5 per day in summer was also below average, and all were seen in June. Sightings were typically scarce in fall, with the greatest number counted in week 9, matching the long-term pattern.

RUBL: Rusty Blackbird / Quiscale rouilleux (*Euphagus carolinus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.86	0.14	0.43	3.00	1.14	0.14	2.14	0.14			0.80				
# DAYS OBSERVED	2	1	1	6	5	1	5	1			22				
# PROCESSED							4				4				
FIRST OBSERVED: March 31			LAST OBSERVED: May 17			PEAK DATE: April 19			PEAK NUMBER OF INDIVIDUALS: 10						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY						0.29	0.29	6.57	6.43	12.00	5.57		2.43	4.86	2.74
# DAYS OBSERVED						1	2	3	7	4	5		4	4	30
# PROCESSED														1	1
FIRST OBSERVED: September 5				LAST OBSERVED: November 6				PEAK DATE: October 4				PEAK NUMBER OF INDIVIDUALS: 65			

A single Rusty Blackbird was observed in winter, on March 10. Although fewer Rusty Blackbirds were observed this spring than in 2014 or 2015, the mean daily count was still higher than all previous years, and the four individuals banded matched the record set in 2012. The peak in week 4 was earlier than usual. The mean daily count was also above average in fall, the highest it has been since 2009. The two birds observed on September 5 were the earliest since 2011, but the peak of migration this year in week 10 was slightly later than usual. One individual was banded in fall, only the third time in 12 years that any have been captured during the season.

COGR: Common Grackle / Quiscale bronzé (*Quiscalus quiscula*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	0.43	5.57	2.14	15.57	11.29	11.00	18.29	16.86	12.43	6.57	10.01				
# DAYS OBSERVED	1	4	4	7	7	7	7	7	7	7	58				
# PROCESSED					2	5	7-2-0	5	6	1	26-2-0				
FIRST OBSERVED: March 29			LAST OBSERVED: June 5			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 40						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	17.29	17.43	54.14	11.86	12.71	8.86	33.43	3.86	55.86	26.71	15.57	10.43	93.86	7.71	26.41
# DAYS OBSERVED	7	7	7	7	7	6	5	6	6	7	6	4	6	7	88
# PROCESSED	1	1		0-1-0					1				1		4-1-0
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 27				PEAK NUMBER OF INDIVIDUALS: 300			

Common Grackles were unusually abundant this spring, with the highest mean daily count since 2006, and also an above average number of individuals banded. The peak of migration spanned weeks 7 and 8, matching the norm. A record number were observed in summer (mean daily count 14.6, vs. the previous high of 8.0 in 2013), but none were banded. The mean daily count and number banded in fall were both less than half of the long-term averages for the season, although not inconsistent with the considerable fluctuations seen in this species from year to year. Migration was episodic this fall, with an unusually early peak in week 3, and others in weeks 7, 9, and 13, interspersed with unusually low counts. The peak count of 300 was lower than in any other fall except 2011.

OVEN: Ovenbird / Paruline couronnée (*Seiurus aurocapilla*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.29	2.14	1.71	1.86	1.29	0.73				
# DAYS OBSERVED						2	7	7	6	7	29				
# PROCESSED							2	2	1		5				
FIRST OBSERVED: May 5			LAST OBSERVED: June 5			PEAK DATE: May 26			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	2.00	0.29	2.43	2.43	2.86	0.86	2.00	0.29	0.14						0.95
# DAYS OBSERVED	6	2	7	7	7	4	5	1	1						40
# PROCESSED	9-0-2	1	11-0-5	12-0-2	15-0-4	6	9-0-3	0-0-1	1						64-0-17
FIRST OBSERVED: August 1				LAST OBSERVED: September 26				PEAK DATE: Aug 1, Aug 19, Sep 13				PEAK NUMBER OF INDIVIDUALS: 5			

The mean daily count for Ovenbird in spring was the highest since 2011, and the species was observed on more days than in any previous spring, in part thanks to a record early first arrival. The 5 individuals banded was also a record, compared to a total of only 9 over all previous years combined. Another 5 were banded in summer, well above average, and the mean daily count of 2.1 for the season was a record high, quadruple the long-term average. Fall numbers were down slightly from last year's record highs, but still far above any previous year. The 15 individuals banded in week 5 was a single week high.

NOWA: Northern Waterthrush / Paruline des ruisseaux (*Parkesia noveboracensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							6.43	7.14	2.00		1.56				
# DAYS OBSERVED							7	7	3		17				
# PROCESSED							13-0-3	18-0-7	6-0-1		37-0-11				
FIRST OBSERVED: May 9			LAST OBSERVED: May 26			PEAK DATE: May 21			PEAK NUMBER OF INDIVIDUALS: 16						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14	1.14	1.14	2.14	1.71	0.14	0.57							0.50
# DAYS OBSERVED		1	5	5	5	5	1	4							26
# PROCESSED		1	6-0-1	7-0-1	12-0-1	7-0-3	0-0-1	3-0-1							36-0-8
FIRST OBSERVED: August 9				LAST OBSERVED: September 25				PEAK DATE: September 2				PEAK NUMBER OF INDIVIDUALS: 5			

Spring counts remained well above average for a fourth consecutive year, although slightly below the peak numbers recorded in 2014. For the first time since 2010, no Northern Waterthrushes were observed in the final week of the season. Fall results were close to average, although the peak was shifted a week or so later than usual. This was the first time since 2009 that none were detected in the first week of fall.

BAWW: Black-and-white Warbler / Paruline noir et blanc (*Mniotilta varia*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.29	1.71	1.14	0.71		0.39				
# DAYS OBSERVED						1	5	6	5		17				
# PROCESSED							2		2		4				
FIRST OBSERVED: May 7			LAST OBSERVED: May 29			PEAK DATE: May 11			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.71	1.00	1.86	1.57	1.00	0.57	0.71								0.53
# DAYS OBSERVED	5	4	6	5	5	3	4								32
# PROCESSED	3-1-0	4-0-1	4-0-4	5-0-1		0-0-1	3								19-1-7
FIRST OBSERVED: August 1				LAST OBSERVED: September 17				PEAK DATE: Aug 19, Aug 24				PEAK NUMBER OF INDIVIDUALS: 4			

The number of Black-and-white Warblers observed and banded was close to the long-term average for both spring and fall. For the fourth time in the past five years, the spring peak was in week 7, compared to it being in week 8 in five of the six years before that, and week 9 in 2005, suggesting that spring arrival is consistently shifting earlier. For the fourth year in a row, none were observed in summer. The timing of the fall peak in mid-late August was typical, and like in many years, sightings dropped off in mid-September.

TEWA: Tennessee Warbler / Paruline obscure (*Oreothlypis peregrina*)

MARCH		APRIL					MAY					JUNE						
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL							
# BIRDS / DAY							1.43	11.14	23.29	2.14	3.80							
# DAYS OBSERVED							2	7	7	4	20							
# PROCESSED								37-0-1	62-0-6	2	101-0-7							
FIRST OBSERVED: May 13			LAST OBSERVED: June 4			PEAK DATE: May 22			PEAK NUMBER OF INDIVIDUALS: 39									
		AUGUST					SEPTEMBER					OCTOBER					NOVEMBER	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL			
# BIRDS / DAY	0.71	0.71	2.14	0.57	0.29	0.57	1.71	1.43	1.29	0.14					0.68			
# DAYS OBSERVED	2	3	6	2	1	1	5	5	4	1					30			
# PROCESSED		5	8-0-3	1-0-1	1	2	3	3	5-0-1	1					29-0-5			
FIRST OBSERVED: August 3				LAST OBSERVED: October 4				PEAK DATE: August 17				PEAK NUMBER OF INDIVIDUALS: 5						

Tennessee Warbler numbers were again very high in spring, although slightly lower than the past two years; as usual there was a distinct peak in week 9. In contrast, the fall counts were shockingly low, with the fewest individuals banded and observed since 2010.

OCWA: Orange-crowned Warbler / Paruline verdâtre (*Oreothlypis celata*)

MARCH		APRIL					MAY					JUNE						
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL							
# BIRDS / DAY								0.14	0.14		0.03							
# DAYS OBSERVED								1	1		2							
# PROCESSED									1		1							
FIRST OBSERVED: May 12			LAST OBSERVED: May 19			PEAK DATE: May 12, May 19			PEAK NUMBER OF INDIVIDUALS: 1									
		AUGUST					SEPTEMBER					OCTOBER					NOVEMBER	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL			
# BIRDS / DAY							0.14		0.86	0.86	0.14	0.14			0.15			
# DAYS OBSERVED							1		4	3	1	1			10			
# PROCESSED									3	3	1				7			
FIRST OBSERVED: September 17				LAST OBSERVED: October 19				PEAK DATE: Oct 1, Oct 3				PEAK NUMBER OF INDIVIDUALS: 3						

Orange-crowned Warbler was typically scarce in both spring and fall. The one individual banded in May was only the sixth ever for spring. The fall peak from late September to early October was consistent with most previous years.

NAWA: Nashville Warbler / Paruline à joues grises (*Oreothlypis ruficapilla*)

MARCH		APRIL					MAY					JUNE						
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL							
# BIRDS / DAY								2.00	1.71	0.86	0.29	0.49						
# DAYS OBSERVED								6	6	4	2	18						
# PROCESSED									5	2		7						
FIRST OBSERVED: May 9			LAST OBSERVED: June 1			PEAK DATE: May 14			PEAK NUMBER OF INDIVIDUALS: 5									
		AUGUST					SEPTEMBER					OCTOBER					NOVEMBER	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL			
# BIRDS / DAY	0.43	0.14	0.86	1.00	0.57	0.14	1.14	2.71	2.29	0.43					0.69			
# DAYS OBSERVED	3	1	4	4	3	1	5	6	5	2					34			
# PROCESSED	2		4-0-1	1	1		2	9	4	2					25-0-1			
FIRST OBSERVED: August 2				LAST OBSERVED: October 4				PEAK DATE: September 21				PEAK NUMBER OF INDIVIDUALS: 6						

Results were poor this year for Nashville Warbler. The mean daily count in spring was the lowest since 2010, and the number banded the fewest since 2011. Fall was even worse, with both numbers well below the record lows established just last year, and around one-third of the historical average for mean daily observations, and one-quarter for birds banded. Spring and fall peaks were subtle, but corresponded with typical timing. The last observation of fall was earlier than any previous year by 4 days, and 10 days earlier than average. Despite observations to the last week of spring and beginning in the first week of fall, there were no sightings in summer, which is typical.

CONW: Connecticut Warbler / Paruline à gorge grise (*Oporornis agilis*)

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY				0.14			0.29	0.14							0.04
# DAYS OBSERVED				1			2	1							4
# PROCESSED				1			1-0-1	0-0-1							2-0-2
FIRST OBSERVED: August 27				LAST OBSERVED: September 21				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Connecticut Warbler was finally banded for the first time at MBO this August – and then another one three weeks later, which stayed around long enough to be recaptured twice more! It became the 121st species banded at MBO. There had been only three previous observations over the past 11 years, all between September 3 and 23.

MOWA: Mourning Warbler / Paruline triste (*Geothlypis philadelphia*)

	MARCH		APRIL					MAY					JUNE		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY									0.43	0.14		0.29			0.09
# DAYS OBSERVED									3	1		1			5
# PROCESSED									1						1
FIRST OBSERVED: May 19			LAST OBSERVED: May 31			PEAK DATE: May 31			PEAK NUMBER OF INDIVIDUALS: 2						

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY		0.14	0.14	0.14											0.03
# DAYS OBSERVED		1	1	1											3
# PROCESSED		1		1											2
FIRST OBSERVED: August 11				LAST OBSERVED: August 23				PEAK DATE: Aug 11, Aug 15, Aug 23				PEAK NUMBER OF INDIVIDUALS: 1			

After two years with unusually high spring numbers for Mourning Warbler, results this year dipped back down to slightly below the long-term averages for the season; as in most years, observations were limited to the final three weeks of the season. The number observed and banded in fall were both lower than in any other year.

COYE: Common Yellowthroat / Paruline masquée (*Geothlypis trichas*)

	MARCH		APRIL					MAY					JUNE		TOTAL
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	
# BIRDS / DAY						0.14	0.14	3.14	8.29	13.00	6.71				3.14
# DAYS OBSERVED						1	1	6	7	7	7				29
# PROCESSED								1	6-2-1	8-2-2	3-0-1				18-4-4
FIRST OBSERVED: April 25			LAST OBSERVED: June 5			PEAK DATE: May 24			PEAK NUMBER OF INDIVIDUALS: 18						

	AUGUST				SEPTEMBER				OCTOBER				NOVEMBER	TOTAL	
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13		WEEK 14
# BIRDS / DAY	6.00	4.14	4.57	5.57	4.43	5.29	5.43	4.00	1.14	1.00					2.97
# DAYS OBSERVED	7	6	7	7	7	7	7	6	7	5					66
# PROCESSED	6-1-2	1-0-2	5-0-3	13-0-4	8	8-3-1	8-0-3	4-0-1	1-0-1	1					55-4-17
FIRST OBSERVED: August 1				LAST OBSERVED: October 9				PEAK DATE: Aug 9, Sep 6				PEAK NUMBER OF INDIVIDUALS: 10			

The mean daily count of Common Yellowthroats in spring has been increasingly slightly over time, and this year was the second-highest in MBO's history, yet the 18 individuals banded was the fewest since 2010. The first arrival on April 25 was the earliest ever by three days, and more than one week ahead of average. After four consecutive years with a spring peak in week 8, it was back to week 9 this year, matching 2005-08 and 2010. Six individuals were banded in summer, and the mean daily count was 4.4; both were slightly above average for the season. The mean daily count for fall was the lowest since 2009; like in many years, numbers were fairly steady until a sharp drop-off in late September. The number banded in fall was the fewest since 2007.

AMRE: American Redstart / Paruline flamboyante (*Setophaga ruticilla*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							1.29	3.43	5.43	2.14	1.23				
# DAYS OBSERVED							3	7	7	4	21				
# PROCESSED							2	7	11-1-1	2-1-0	22-2-1				
FIRST OBSERVED: May 13			LAST OBSERVED: June 5			PEAK DATE: May 22, May 28			PEAK NUMBER OF INDIVIDUALS: 8						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	14.86	11.00	11.00	9.43	4.71	1.71	3.14	1.00							4.06
# DAYS OBSERVED	7	7	7	7	7	5	6	3							49
# PROCESSED	53-1-7	29-0-6	38-0-7	26-1-4	15-0-4	4-0-2	7-0-1	4							176-2-31
FIRST OBSERVED: August 1				LAST OBSERVED: September 22				PEAK DATE: August 1				PEAK NUMBER OF INDIVIDUALS: 25			

For the second year in a row, the mean daily count of American Redstarts in spring reached a new high. The timing of migration remains unchanged, including the peak in week 9, but the number observed is increasing throughout this period. The 22 individuals banded is more than double the average for spring, though fewer than last year’s record high of 28. Fall results were even more impressive, with new record highs for both mean daily count and number banded, both more than 50% higher than the long-term average for the season – and despite the last bird of the season being on September 22, the earliest since 2010. The fall peak has steadily been getting earlier, and this year for the first time occurred in the first week of the season for both observations and banding. There were also two individuals banded in summer, and a mean daily count of 1.5, with observations throughout the season; both results above average but not at record levels.

CMWA: Cape May Warbler / Paruline tigrée (*Setophaga tigrina*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.43			0.04				
# DAYS OBSERVED								2			2				
FIRST OBSERVED: May 19			LAST OBSERVED: May 22			PEAK DATE: May 19			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14			0.14	0.14	0.14		0.14							0.05
# DAYS OBSERVED	1			1	1	1		1							5
# PROCESSED	1			1											2
FIRST OBSERVED: August 6				LAST OBSERVED: September 21				PEAK DATE: 5 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Cape May Warbler was particularly scarce this spring, with the fewest observations since 2011, and none banded for the first time since 2010. Fall was particularly disappointing, especially in comparison with above-average results last year. The five individuals observed and two banded were both the lowest for the season since 2009.

NOPA: Northern Parula / Paruline à collier (*Setophaga americana*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.29	1.00	0.14		0.14				
# DAYS OBSERVED							2	4	1		7				
# PROCESSED								1			1				
FIRST OBSERVED: May 13			LAST OBSERVED: May 28			PEAK DATE: May 19, 20, 21			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY					0.29		0.43	0.29		0.14					0.08
# DAYS OBSERVED					1		1	2		1					5
FIRST OBSERVED: September 4				LAST OBSERVED: October 4				PEAK DATE: September 14				PEAK NUMBER OF INDIVIDUALS: 3			

Northern Parula was typically uncommon in spring, with a modest peak in week 8, as is often the case. Results were more surprisingly poor in fall, as this marked the first time ever that none were banded during the season. The number observed was also below average, and the fewest since 2010. However, the last observation on October 4 matched the previous late date for the species from both 2006 and 2009.

MAWA: Magnolia Warbler / Paruline à tête cendrée (*Setophaga magnolia*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							2.00	5.57	6.29	0.71	1.46				
# DAYS OBSERVED							5	7	7	3	22				
# PROCESSED							5	17-0-1	17-0-3	3	42-0-4				
FIRST OBSERVED: May 10			LAST OBSERVED: June 1			PEAK DATE: May 19			PEAK NUMBER OF INDIVIDUALS: 14						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			1.00	4.86	6.43	3.00	7.29	8.00	2.43	0.43					2.39
# DAYS OBSERVED			4	7	7	7	7	7	7	2					48
# PROCESSED			5	16-0-1	34	7-0-2	24-0-3	34-0-1	13-0-2						133-0-9
FIRST OBSERVED: August 16				LAST OBSERVED: October 4				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 28			

Although lower than the past two years, the number of Magnolia Warblers observed and banded in spring were both well above average for the season. The peak spanned weeks 8 and 9, marginally later than usual. Like many other warblers, fall numbers were far below normal. The mean daily count and total banded were both the lowest since 2009; for the first time ever, none were observed during the first two weeks of fall, and the peak in week 8 was later than ever before.

BBWA: Bay-breasted Warbler / Paruline à poitrine baie (*Setophaga castanea*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.57	0.43		0.14	0.11			
# DAYS OBSERVED								2	3		1	6			
FIRST OBSERVED: May 14			LAST OBSERVED: June 1			PEAK DATE: May 14			PEAK NUMBER OF INDIVIDUALS: 3						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14	0.14		0.57										0.06
# DAYS OBSERVED		1	1		1										3
# PROCESSED			1												1
FIRST OBSERVED: August 14				LAST OBSERVED: August 30				PEAK DATE: August 30				PEAK NUMBER OF INDIVIDUALS: 4			

The number of Bay-breasted Warblers observed in spring was average, but for the first time since 2010 none were banded. The six individuals observed in fall marked the lowest total count since 2009, and the one banded was the fewest ever for the season. This was also only the second time ever that none were observed beyond the end of August.

BLBW: Blackburnian Warbler / Paruline à gorge orangée (*Setophaga fusca*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.71			0.07				
# DAYS OBSERVED								4			4				
FIRST OBSERVED: May 17			LAST OBSERVED: May 20			PEAK DATE: May 17			PEAK NUMBER OF INDIVIDUALS: 2						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14		0.29			0.14								0.04
# DAYS OBSERVED		1		2			1								4
FIRST OBSERVED: August 8				LAST OBSERVED: September 12				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Blackburnian Warbler was typically scarce in spring, with all observations this year coming in week 8, which is most often the peak for this species. Even fewer were observed in fall, and for the third time in the past five years, none were banded.

YEWA: Yellow Warbler / Paruline jaune (*Setophaga petechia*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.43	6.43	12.43	14.14	7.86	4.13				
# DAYS OBSERVED						2	6	7	7	7	29				
# PROCESSED						1	12-3-3	16-2-7	5-1-1	2-1-2	36-7-13				
FIRST OBSERVED: May 4			LAST OBSERVED: June 5			PEAK DATE: May 24, May 28			PEAK NUMBER OF INDIVIDUALS: 18						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	8.00	4.71	2.86	0.57	0.14			0.14							1.17
# DAYS OBSERVED	7	7	7	2	1			1							25
# PROCESSED	18-0-5	4-1-5	1												23-1-10
FIRST OBSERVED: August 1				LAST OBSERVED: September 21				PEAK DATE: August 3				PEAK NUMBER OF INDIVIDUALS: 15			

The mean daily count of Yellow Warblers in spring rebounded slightly from last year’s record low, but remained lower than in any other previous year. Despite that, the number of individuals banded was average. The peak in week 9 was slightly later than usual, whereas the drop-off to week 10 was atypically substantial. This carried over to a below average mean daily count of 3.4 in summer, although it was the highest since 2012; 5 were banded. Fall results were below average for a fourth consecutive year, although both the mean daily count and number banded increased slightly for the second year in a row. As usual, most Yellow Warblers were gone by the end of August, but the one observed on September 21 was the third-latest ever in fall.

CSWA: Chestnut-sided Warbler / Paruline à flancs marron (*Setophaga pensylvanica*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							3.00	5.14	3.29	1.29	1.27				
# DAYS OBSERVED							4	7	7	7	25				
# PROCESSED							4	4-0-1	3	1	12-0-1				
FIRST OBSERVED: May 12			LAST OBSERVED: June 5			PEAK DATE: May 17			PEAK NUMBER OF INDIVIDUALS: 11						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	1.29	1.29	2.00	2.57	0.86	0.71	0.29								0.64
# DAYS OBSERVED	4	5	6	6	3	3	2								29
# PROCESSED	3	3	4-0-1	10-0-1	2		2								24-0-2
FIRST OBSERVED: August 1				LAST OBSERVED: September 17				PEAK DATE: August 25				PEAK NUMBER OF INDIVIDUALS: 7			

For the second year in a row, Chestnut-sided Warbler reached a new record high in spring for birds observed, and the number of banded was second only to the 15 last year. For the fourth year in a row, the peak for observations came in week 8, compared to an average of week 9 in previous years. Two were banded in summer, and the mean daily count of 2.0 was a record, nearly triple the previous high set just last year. Fall counts were slightly above average, but far from record levels.

BLPW: Blackpoll Warbler / Paruline rayée (*Setophaga striata*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.14	1.29	5.14	1.86	0.84				
# DAYS OBSERVED							1	4	5	3	13				
# PROCESSED									7		7				
FIRST OBSERVED: May 14			LAST OBSERVED: June 1			PEAK DATE: May 27			PEAK NUMBER OF INDIVIDUALS: 11						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY					0.14	0.14	0.14	0.57							0.07
# DAYS OBSERVED					1	1	1	4							7
# PROCESSED					1			1							2
FIRST OBSERVED: September 2				LAST OBSERVED: September 25				PEAK DATE: 7 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Blackpoll numbers were low this spring, with a mean daily count 30% below average, and the number of individuals banded the fewest since 2010. However, it is the fall results that were particularly poor, with fewer than half as many observed and banded as in 2015, which was already a record low for the species by a considerable margin.

BTBW: Black-throated Blue Warbler / Paruline bleue (*Setophaga caerulescens*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.43	1.29	2.57	0.57	0.43	0.53				
# DAYS OBSERVED						2	5	7	4	3	21				
# PROCESSED							1	1			2				
FIRST OBSERVED: May 6			LAST OBSERVED: June 4			PEAK DATE: May 19			PEAK NUMBER OF INDIVIDUALS: 6						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43			0.71	1.00		0.29	0.57	1.29	0.86	0.14				0.38
# DAYS OBSERVED	3			3	4		2	3	5	2	1				23
# PROCESSED				2-0-1	4		1	4	6	3	1				21-0-1
FIRST OBSERVED: August 2				LAST OBSERVED: October 10				PEAK DATE: October 4				PEAK NUMBER OF INDIVIDUALS: 5			

The first Black-throated Blue Warbler of the year on May 6 matched the earliest record of the species from 2008 and 2010, and the peak of migration in week 8 this spring was somewhat more distinct than in many other years. Overall, the mean daily count and number banded were both close to average for spring, but below average in fall for the fourth time in the last five years. The scarcity of Black-throated Blue Warblers was particularly notable in August, with none observed in either week 2 or 3 for the first time ever. It was also missed in summer for the second year in a row, after being recorded in small numbers annually from 2010 through 2014.

WPWA: Western Palm Warbler / Paruline à couronne rousse (forme de l'Ouest) (*Setophaga palmarum palmarum*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY							0.71	5.14	0.57	0.14					0.47
# DAYS OBSERVED							3	4	3	1					11
# PROCESSED							2	8							10
FIRST OBSERVED: September 12				LAST OBSERVED: October 5				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 18			

For the first time ever, no Palm Warblers of either subspecies were observed at MBO in spring. The mean daily count in fall was the highest since 2012, with 78% of observations occurring in week 8, and all of them within a record-short span of just 11 days in mid-September. The 10 individuals banded was somewhat below average, but also the highest total since 2012.

YPWA: Yellow Palm Warbler / Paruline à couronne rousse (forme de l'Est) (*Setophaga palmarum hypochrysea*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY									0.43						0.03
# DAYS OBSERVED									1						1
FIRST OBSERVED: September 29				LAST OBSERVED: September 29				PEAK DATE: September 29				PEAK NUMBER OF INDIVIDUALS: 3			

Three Yellow Palm Warblers were observed on September 29, nearly one week after the last record of Western Palm Warbler for the year. For the first time since 2010, none were banded.

PIWA: Pine Warbler / Paruline des pins (*Setophaga pinus*)

AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY														0.14	0.01
# DAYS OBSERVED														1	1
FIRST OBSERVED: November 3				LAST OBSERVED: November 3				PEAK DATE: November 3				PEAK NUMBER OF INDIVIDUALS: 1			

By late fall it appeared that Pine Warbler would be missed for the year for the first time since 2011, but then one individual was spotted on November 3, the latest record for the species at MBO by almost one month, and seven weeks beyond the average last date of observation.

YRWA (MYWA): Yellow-rumped (Myrtle) Warbler / Paruline à croupion jaune (*Setophaga coronata coronata*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY					0.57	2.00	16.29	9.86	1.29		3.00				
# DAYS OBSERVED					3	5	7	7	3		25				
# PROCESSED					1	2	25	16	1		45				
FIRST OBSERVED: April 26			LAST OBSERVED: May 27			PEAK DATE: May 13, May 19			PEAK NUMBER OF INDIVIDUALS: 29						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43	0.29	0.14		0.14	0.29	0.86	13.57	13.14	10.00	11.14	4.57	0.86	0.14	3.97
# DAYS OBSERVED	1	2	1		1	2	3	5	7	6	7	5	4	1	45
# PROCESSED			1				1	11	19-0-1	9	26-0-3	4-0-2	0-0-1		71-0-7
FIRST OBSERVED: August 5				LAST OBSERVED: November 1				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 56			

The mean daily count and number of Yellow-rumped Warblers banded in spring were almost perfectly aligned with long-term averages, and for the seventh consecutive year peaked in week 7. However, fall numbers were far below normal for a second year in a row, with the lowest mean daily count since 2009, and only slightly more banded than last year's record low of 57. Unlike most years, there was no distinct peak to fall migration, with the mean daily count instead hovering between 10 and 14 over a four-week span between mid-September and mid-October.

BTNW: Black-throated Green Warbler / Paruline à gorge noire (*Setophaga virens*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							1.57	1.86	1.00	0.29	0.47				
# DAYS OBSERVED							5	7	3	2	17				
FIRST OBSERVED: May 10			LAST OBSERVED: June 1			PEAK DATE: May 13, May 23			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14	0.29	0.14	0.86	0.14	0.29	0.43	0.71	0.14						0.22
# DAYS OBSERVED	1	2	1	3	1	2	2	4	1						17
# PROCESSED		1		2	1	2		2							8
FIRST OBSERVED: August 1				LAST OBSERVED: September 29				PEAK DATE: August 25				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count of Black-throated Green Warblers in spring nearly matched the record of 0.5 set in 2006, yet for the second year in a row, none were banded during the season. For the third year in a row, the mean daily count and number banded in fall were both at roughly half the long-term average for the season.

CAWA: Canada Warbler / Paruline du Canada (*Cardellina canadensis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.71	1.43		0.21				
# DAYS OBSERVED								3	4		7				
# PROCESSED								2	5		7				
FIRST OBSERVED: May 17			LAST OBSERVED: May 28			PEAK DATE: May 27			PEAK NUMBER OF INDIVIDUALS: 5						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14	1.14	2.29	0.71										0.31
# DAYS OBSERVED		1	6	5	4										16
# PROCESSED		1	4-0-1	10-0-2	4										19-0-3
FIRST OBSERVED: August 14				LAST OBSERVED: September 2				PEAK DATE: August 26				PEAK NUMBER OF INDIVIDUALS: 6			

For the second year in a row, the mean daily count and number of Canada Warblers banded in spring were both close to double the long-term averages for the season; as usual, all observations were tightly bunched in mid-late May. Fall numbers were right in line with long-term averages, while the peak of migration was one week later than usual, in week 4.

WIWA: Wilson's Warbler / Paruline à calotte noire (*Cardellina pusilla*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.29	1.00	3.29	0.29	0.49				
# DAYS OBSERVED							2	4	7	2	15				
# PROCESSED							1	2	9	1	13				
FIRST OBSERVED: May 13			LAST OBSERVED: June 1			PEAK DATE: May 26			PEAK NUMBER OF INDIVIDUALS: 8						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			0.57	0.86	0.29	1.86	1.00	0.14							0.34
# DAYS OBSERVED			4	6	2	6	4	1							23
# PROCESSED			4	2-0-3	1	8-0-1	3-0-2	1							19-0-6
FIRST OBSERVED: August 23				LAST OBSERVED: September 28				PEAK DATE: September 13				PEAK NUMBER OF INDIVIDUALS: 4			

After two consecutive years of new record highs in spring, Wilson's Warbler mean daily counts and total number banded fell back to just below the long-term averages for the season. As usual, there was a sharp peak in week 9, this year accounting for 68% of individuals observed, and 69% of those banded. The fall results were marginally higher than last year, but both the mean daily count and number banded were barely more than half of the long-term averages for the season. There was a distinct peak of migration in week 7, later than in most previous years.

SCTA: Scarlet Tanager / Piranga écarlate (*Piranga olivacea*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY								0.57	1.29	0.57	0.24				
# DAYS OBSERVED								3	4	3	10				
FIRST OBSERVED: May 17			LAST OBSERVED: June 1			PEAK DATE: May 24			PEAK NUMBER OF INDIVIDUALS: 4						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.43	0.29	0.14	0.71		0.14			0.14						0.13
# DAYS OBSERVED	3	2	1	4		1			1						12
# PROCESSED	1		1	1					1						4
FIRST OBSERVED: August 3				LAST OBSERVED: September 29				PEAK DATE: August 24				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Scarlet Tanagers this spring was more than double the record set just last year, yet there has still never been one banded at MBO in spring. The mean daily count and number banded in fall were both slightly above long-term averages, with the last bird of the season on September 29 being the third-latest on record.

NOCA: Northern Cardinal / Cardinal rouge (*Cardinalis cardinalis*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY	5.29	5.71	7.43	9.00	8.43	8.86	8.29	8.57	8.29	5.29	7.51				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	70				
# PROCESSED					3-1-1		1	2-2-0			6-3-1				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 18			PEAK NUMBER OF INDIVIDUALS: 12						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	9.86	7.14	5.14	5.71	4.86	5.14	5.57	5.14	7.71	5.29	5.00	6.43	10.71	8.57	6.59
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	98
# PROCESSED	2-1-1	3-1-1	1-0-1	1-1-2	3-0-2		1-0-1	2-0-1	2	5	3-0-2	3-0-1	6-0-5	7-0-4	39-3-21
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: September 27				PEAK NUMBER OF INDIVIDUALS: 32			

The 18 Northern Cardinals banded this winter was just short of the record of 19 set last winter; the mean daily count of 5.6 was a new record high, for the fourth year in a row. The mean daily count of Northern Cardinals in spring reached a record high for the second year in a row, and the six individuals banded was also a new high. For the third time in the past four years, the species was observed daily throughout spring. The trend continued in summer, with a mean daily count of 6.0 nearly doubling the previous record set in 2006; 2 were banded. Northern Cardinal was also observed daily throughout fall, and the mean daily count exceeded the previous record by 30%. The peak count of 32 individuals on September 27 was far above the previous record of 20, set in 2012. The number banded was a new high for the second year in a row, and is more than triple the long-term average.

RBGR: Rose-breasted Grosbeak / Cardinal à poitrine rose (*Pheucticus ludovicianus*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY						0.14	3.14	4.00	3.43	1.43	1.21				
# DAYS OBSERVED						1	7	7	6	5	26				
# PROCESSED							1-1-1	4-0-5	0-0-2	0-0-1	5-1-9				
FIRST OBSERVED: May 7			LAST OBSERVED: June 4			PEAK DATE: May 24			PEAK NUMBER OF INDIVIDUALS: 8						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	10.43	5.57	4.29	3.43	0.86	0.86	1.86	1.43	0.14	0.14					2.07
# DAYS OBSERVED	7	7	7	7	5	4	5	6	1	1					50
# PROCESSED	22-0-3	8	7	4-0-1			4	2-0-1							47-0-5
FIRST OBSERVED: August 1				LAST OBSERVED: October 4				PEAK DATE: August 4				PEAK NUMBER OF INDIVIDUALS: 16			

The mean daily count of Rose-breasted Grosbeaks in spring was the highest since 2008, thanks largely to sustained numbers across three weeks in May, rather than a prominent peak in migration. The number banded in spring was average. Summer results were somewhat low, with only 3 individuals banded, and a mean daily count of 1.0. However, for the second year in a row, fall results were particularly strong, with the mean daily count only slightly lower than in 2006 and 2015, and the total number banded just exceeding the previous record high of 45 set in 2006. The number observed and banded in the first week were both nearly 50% higher than in any previous year.

INBU: Indigo Bunting / Passerin indigo (*Passerina cyanea*)

MARCH	APRIL					MAY					JUNE				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	TOTAL				
# BIRDS / DAY							0.86	1.86	3.57	1.43	0.77				
# DAYS OBSERVED							3	6	7	6	22				
# PROCESSED								1	1-1-0	0-1-0	2-2-0				
FIRST OBSERVED: May 13			LAST OBSERVED: June 4			PEAK DATE: May 24			PEAK NUMBER OF INDIVIDUALS: 6						
AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	4.00	2.00	0.71	0.43	1.00	0.57	0.43	0.71	0.29						0.72
# DAYS OBSERVED	7	5	4	3	4	3	3	4	2						35
# PROCESSED	3	2			4	1	1		1						12
FIRST OBSERVED: August 1				LAST OBSERVED: September 29				PEAK DATE: August 3				PEAK NUMBER OF INDIVIDUALS: 6			

The number of Indigo Buntings observed and banded in spring were both marginally above the long-term averages for the season, but the peak was in week 9 as usual. In fall, the mean daily count of 0.7 was barely more than half of the long-term average for the season, but matched results from 2012 and 2014. The 12 individuals banded was the fewest ever in fall. Nearly 60% of fall observations came in the first two weeks of the season; while this corresponds with the typical peak of migration, the concentration was more exaggerated than usual this year. Despite that, summer numbers remained below average for a fourth consecutive year, with only three sightings between mid-June and mid-July, translating to a mean daily count of 0.4.