



## McGill Bird Observatory Annual Program Report 2017

Prepared by Marcel A. Gahbauer, Simon Duval, and David Davey  
June 2018



## In Memoriam

MBO lost a valuable team member, friend and Bander-in-Charge in 2017. After a valiant two and a half-year battle with cancer, Lisa Keelty, age 34, passed in peace and grace on March 20, with her family at her side. Lisa is survived by her parents Elizabeth and Malcolm, and her sister Jenn.

Lisa joined MBO in 2011 as a weekly volunteer. After having spent more than a decade working with parrots and exotic passerines in captivity, she shifted her focus towards native birds. In 2013 she received her federal banding permit and participated enthusiastically in the spring and fall migration monitoring programs at MBO, the MAPS program and the Canadian Snow Bunting Network.

Lisa had a great appreciation of nature and the natural cycle of things. She spent as much time as was possible at MBO and shared her knowledge and joy of birds with all of us. One of her favourite MBO activities was doing the census, no matter the season. Her hearing and observational powers were excellent; if Lisa said there was a Blackpoll Warbler on site, we could predict that one would land in the nets later that day. MBO was a second home to Lisa. She loved to band, she loved to walk, she loved to feel the wind and count the birds. Reciprocally, everyone at MBO loved being with Lisa.



Even as a young child Lisa was drawn to nature and creatures great and small. Her house was home to birds, cats, dogs, a lizard and a snake. Latterly she opened her heart to Cruiser, her horse that she rode frequently until her health would not allow her to do so safely.

In remembrance of Lisa, MBO has created a special location to honour her. A memorial bench with a view over Stonecroft Pond and a wildflower garden will allow all her former friends to relax and remember her, and keep her memory alive for new generations. It is a quiet and reflective place, yet full of life. Rest in peace, Lisa; you leave us rich in memories.

### Cover photo:

White-throated Sparrows were particularly abundant at MBO this winter and spring (photo by Simon Duval)

### Suggested citation for this report:

Gahbauer, M.A., S. Duval, and D. Davey. 2018. McGill Bird Observatory Annual Program Report 2017. Migration Research Foundation, Ste-Anne-de-Bellevue QC. 85 pp.

## TABLE OF CONTENTS

1. Executive Summary	1
2. Introduction	2
3. Winter population monitoring program	3
3.1. Effort	3
3.2. Site conditions	3
3.3. Results	3
3.3.1. Birds banded	4
3.3.2. Birds recaptured	4
3.3.3. Daily estimated totals (DET)	6
4. Spring Migration Monitoring Program (SMMP)	7
4.1. Effort	7
4.2. Site conditions	7
4.3. Results and discussion	7
4.3.1. Birds banded	7
4.3.2. Birds recaptured	10
4.3.3. Census	13
4.3.4. Daily estimated totals (DET)	13
4.3.5. Coverage of priority species	14
4.3.6. Net productivity	15
4.4. Summary and analysis	15
5. Summer (MAPS) program	17
5.1. Effort	17
5.2. Site conditions	17
5.3. Results	17
5.3.1. Birds banded	17
5.3.2. Birds recaptured	18
5.3.3. Daily estimated totals (DET)	19
6. Fall Migration Monitoring Program (FMMP)	20
6.1. Effort	20
6.2. Site conditions	20
6.3. Results	20
6.3.1. Birds banded	20
6.3.2. Birds recaptured	23
6.3.3. Census	25
6.3.4. Daily estimated totals (DET)	25
6.3.5. Coverage of priority species	26
6.3.6. Net productivity	27
6.4. Summary and analysis	28
7. Northern Saw-whet Owl Migration Monitoring Program	29
7.1. Effort	29
7.2. Site conditions	29
7.3. Results	29
7.3.1. Birds banded	29
7.3.2. Birds recaptured	30
7.3.3. Net productivity	30
7.4. Summary and analysis	31

8.	Other MBO programs	32
8.1.	Education and training	32
8.2.	Photo documentation	32
8.3.	Research projects	32
9.	Acknowledgments	34
10.	References	36
11.	Appendix A. Seasonal occurrence of species	37

**Figures:**

4.1:	Daily and running 7-day mean of individuals banded per day throughout spring 2017	8
4.2:	Daily and running 7-day mean of species banded per day throughout spring 2017	9
4.3:	Daily species count and running 7-day mean of species recorded on census throughout spring 2017	13
4.4:	Daily species count and running 7-day mean of species observed throughout spring 2017	14
6.1:	Daily and running 7-day mean of individuals banded per day throughout fall 2017	21
6.2:	Daily and running 7-day mean of species banded per day throughout fall 2017	22
6.3:	Daily species count and running 7-day mean of species recorded on census throughout fall 2017	25
6.4:	Daily species count and running 7-day mean of species observed throughout fall 2017	26

**Tables:**

3.1:	Weather conditions during the 2016-2017 winter population monitoring program, by month	3
3.2:	Summary results of the 2016-2017 winter population monitoring program, by month	4
3.3:	Top 10 species banded at MBO during the 2016-2017 winter population monitoring program	4
3.4:	List of returns captured during the 2016-2017 winter population monitoring program	5
4.1:	Weather conditions during the 2017 SMMP, by week	7
4.2:	Summary results of the 2017 SMMP, by week	8
4.3:	Top 10 species banded at MBO during the 2017 SMMP	9
4.4:	Top 10 species recaptured most often during the 2017 SMMP	10
4.5:	List of returns captured during the 2017 SMMP	10
4.6:	Summary of priority species observed and banded during the 2017 SMMP	14
4.7:	Net usage and capture rates during the 2017 SMMP	15
5.1:	Weather conditions during the 2017 MAPS program, by week	17
5.2:	Summary results of the 2017 MAPS Monitoring Program, by month	17
5.3:	Top 11 species banded at MBO during the 2017 MAPS program	18
5.4:	List of returns captured during the 2017 MAPS program	18
6.1:	Weather conditions during the 2017 FMMP, by week	20
6.2:	Summary results of the 2017 FMMP, by week	21
6.3:	Top 10 species banded at MBO during the 2017 FMMP	22
6.4:	Top 10 species recaptured most often during the 2017 FMMP	23
6.5:	List of returns captured during the 2017 FMMP	23
6.6:	Summary of priority species observed and banded during the 2017 FMMP	26
6.7:	Net usage and capture rates during the 2017 FMMP	27
7.1:	Weather conditions during the 2017 Northern Saw-whet Owl Monitoring Program, by week	29
7.2:	Summary results of the 2017 Northern Saw-whet Owl Monitoring Program, by week	29
7.3:	Foreign-banded Northern Saw-whet Owls captured at MBO during 2017	30
7.4:	Northern Saw-whet Owls captured elsewhere in fall 2017	30
7.5:	Net usage and capture rates during the 2017 Northern Saw-whet Owl Monitoring Program	31

## 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 2017 project cycle, from November 7, 2016 through November 6, 2017. It focuses primarily on the Spring and Fall Migration Monitoring Programs, but also provides summaries of the winter and summer programs, as well as an overview of other MBO efforts throughout the year.

The winter program (November 7, 2016 – March 27, 2017) was somewhat constrained by higher than normal levels of precipitation, especially in the second half of the season. As such, banding was limited to November and December this year, but it was particularly productive in November, and the total of 351 birds banded for the season ended up only slightly below average, with the 16 species involved matching the long-term average. However, only 43 species were observed this winter, fewer than usual. There were no particularly noteworthy sightings, but the mean daily count of Northern Cardinals reached a new high for the fifth consecutive winter.

The Spring Migration Monitoring Program (March 28 – June 5) was very productive for the fourth year in a row, with 1122 individuals banded of 66 species, both above average for the season. For the first time ever in spring, three species exceeded the threshold of 100 individuals banded in the same year (Tennessee Warbler, Ruby-crowned Kinglet, and White-throated Sparrow). The total of 142 species observed this spring was just above average, and included MBO's first ever sighting of Black Scoter, the 214<sup>th</sup> species added to the site checklist.

The summer program (June 6 – July 31) was for a ninth year operated as part of the international MAPS (Monitoring Avian Productivity and Survivorship) network. The 135 birds banded was just below average, but involved 34 species, a new record high for summer. Like last year, another three species were banded in summer for the first time: White-breasted Nuthatch, House Finch, and Golden-winged Warbler. Early molt-migrant Swainson's Thrushes were banded for the second summer in a row. The 64 species observed was the second-highest total for summer since the MAPS program was implemented.

The Fall Migration Monitoring Program (August 1 – November 6) was for the third year in a row extended to 14 weeks by adding an extra week at the end. Despite the additional effort, the 2824 individuals banded was only slightly more than the record low of 2792 in 2011. The 76 species banded was also below average, the fewest since 2010. The highlight of the season was the count of 85 species observed on September 9, the highest single-day total of MBO's history, in any season.

The Northern Saw-whet Owl Monitoring Program (September 26 – November 6) operated nightly (aside from weather cancellations) for an eighth consecutive year, with 213 individuals banded (including two Eastern Screech-Owls) and 7 foreign-banded Northern Saw-whet Owls; all numbers were slightly above average. The peak (42 owls banded over the nights of October 10 and 11) was fairly typical. Hatch-year birds accounted for only 37% of birds banded, the second-lowest proportion ever; second-year birds were far above average at 42%.

MBO also remained active in training and education in 2017. Most notably, MBO continued to contribute to and manage 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 bilingual education program centered on the fall owl-banding program, and provided hands-on training in bird banding techniques to dozens of students and other volunteers throughout the year. This year also marked the start of our research using the Motus Wildlife Tracking System. Our pilot project studied moult migration of 23 Swainson's Thrushes and 3 Tennessee Warblers, finding that individuals stopped over at MBO for an average of 46 days. Nearly two-thirds of the thrushes were subsequently detected at other stations in the Motus network in Pennsylvania, Georgia, and Florida. We plan to expand on this research in 2018.

## 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 2017 project cycle, which began with the winter 2016-2017 season and concluded with the 2017 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 fourth Wood Duck banded at MBO, the first since 2011 (at right) and the third Golden-winged Warbler banded at MBO, the first since 2008. (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 again 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 second 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 35 (25%) of the 141 days during the winter season, slightly below the long-term average of 38 days. There were between 7 and 10 visits per month except for December, when there were only 2. There were only 9 days with banding effort, the third-fewest across all winters; all were in November and December.

#### 3.2. Site conditions

Table 3.1 summarizes the official weather records at the Montreal International Airport. In winter, the microclimate at MBO is often slightly colder, and as a result, snow accumulation deeper. Overall, temperatures this winter were slightly above average, with November and December normal, January and February milder than usual, and March colder than any previous year except 2014. Both rainfall and snowfall were somewhat above average, with amounts particularly high in February and March.

**Table 3.1:** Weather conditions during the 2016-2017 winter population monitoring program, by month.

	Nov 7-30	Dec 1-31	Jan 1-31	Feb 1-28	Mar 1-27	Season
Mean daily high (°C)	6.8	-0.8	-1.5	0.0	-1.2	0.7
Mean daily low (°C)	-0.1	-8.2	-7.9	-7.9	-9.9	-6.8
Mean daily temp (°C)	3.4	-4.5	-4.7	-4.0	-5.6	-3.1
Highest temp (°C)	13	9	6	14	10	14
Lowest temp (°C)	-4	-24	-22	-16	-21	-24
# days with rainfall	9	8	9	6	7	39
Total rain (mm)	34	47	36	50	46	213
# days with snowfall	5	14	13	11	9	52
Total snow (cm)	10	64	42	58	55	229
Mean snow depth (cm)	2	9	6	10	8	7
Max. snow depth (cm)	5	15	13	29	28	29

#### 3.3. Results

The 351 birds banded this winter (Table 3.2) was fewer than the past two years, and slightly below the long-term average of 383. However, banding effort was largely limited to November due to weather, and the 303 birds banded then was above the long-term average of 244 for the month. The overall capture rate of 414.2 birds banded per 100 net hours was actually higher than in any previous winter, and the rate for November was also a record high for the month. Only 16 species were banded, the second lowest count since 2009. The number of species observed was 43, below the long-term average of 49 for winter; all of the monthly species totals were below normal except in February when 24 were observed, compared to the long-term average of 21.

**Table 3.2:** Summary results of the 2016-2017 winter population monitoring program, by month.

	Nov 7-30	Dec 1-31	Jan 1-31	Feb 1-28	Mar 1-27	Season
# individuals (species) banded	303 (16)	48 (7)	n/a	n/a	n/a	351 (16)
# individuals (species) return	28 (7)	2 (2)	n/a	n/a	n/a	30 (7)
# individuals (species) repeat	137 (11)	25 (6)	n/a	n/a	n/a	162 (11)
# species observed	35	18	21	24	20	43
# net hours	74.3	10.5	n/a	n/a	n/a	84.8
# birds banded / 100 net hours	408.1	457.1	n/a	n/a	n/a	414.2
# days operating	9	2	7	10	7	35
# days banding	8	1	n/a	n/a	n/a	9

### 3.3.1. Birds banded

No 'new' species were banded this winter, leaving the cumulative total for the season at 35 species. For the first time since winter 2008-2009, no new record high banding totals were established for any species. The highest number of birds banded was 72 on November 28, while diversity of birds banded peaked at 10 species on November 8.

For the second year in a row and seventh time overall, American Goldfinch was banded in greater numbers than any other species in winter (Table 3.3). More Dark-eyed Juncos were banded than in any other winter except 2010-2011. Together, these two species accounted for over two-thirds of all birds banded this winter. Another three sparrows were in the top ten for the season, with White-throated Sparrow outnumbering American Tree Sparrow for the first time ever in winter, and Fox Sparrow banded for the sixth winter in 12 years. White-breasted Nuthatch was banded for the fourth winter in a row, after having not been banded in any previous winters.

**Table 3.3:** Top 10 species banded at MBO during the 2016-2017 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.

	2016-17	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	136	434(1)	65(5)	70(1)	228(2)	87(2)	93(2)	80(1)	2(4)	21(1)	111(1)	113(1)
2. Dark-eyed Junco	101	55(3)	97(3)	28(3)	42(4)	90(1)	150(1)	50(3)	--	20(3)	54(2)	20(4)
3. House Finch	35	19(6)	68(4)	32(2)	95(3)	69(3)	61(3)	32(5)	--	21(1)	5(9)	58(2)
4. Black-capped Chickadee	26	26(5)	19(8)	6(5)	28(5)	12(6)	33(5)	54(2)	3(2)	17(4)	51(3)	26(3)
5. White-throated Sparrow	16	3(13)	25(7)	3(7)	8(9)	1(15)	12(7)	6(9)	--	--	2(11)	--
6. Northern Cardinal	12	18(7)	19(8)	9(4)	9(8)	11(7)	5(9)	4(11)	1(6)	2(8)	4(10)	7(6)
6. American Tree Sparrow	12	65(2)	33(6)	4(6)	24(6)	56(4)	25(6)	38(4)	2(4)	7(5)	11(5)	9(5)
8. Mourning Dove	3	6(10)	--	1(11)	1(15)	5(10)	2(10)	17(6)	--	6(6)	11(5)	2(10)
9. White-breasted Nuthatch	2	6(10)	2(16)	3(7)	--	--	--	--	--	--	--	--
9. Fox Sparrow	2	--	8(10)	--	--	2(11)	6(8)	7(8)	--	--	1(13)	--

### 3.3.2. Birds recaptured

The 162 repeats (birds last captured within the previous 90 days) was less than half the record high number recorded last winter, but still slightly above the long-term average. Two-thirds of individuals occurred as repeats only once, whereas 17 birds were captured between 3 and 6 times each, all of them Black-capped Chickadees. Overall, Black-capped Chickadees accounted for 66% of repeats this winter, well above the long-term average for the season of 56%. Dark-eyed Junco (12%) and American Goldfinch (6%) were the next most frequent repeats.

The 30 returns (birds not captured in at least 90 days) this winter (Table 3.4) were the second-fewest since 2009-2010. The count was likely influenced by the lack of banding effort in March, which on average accounts for more



returns than any other month in winter. As in all previous winters, Black-capped Chickadees had more returns than any other species, this year comprising 40% of the total, compared to 48% across all years. All but one of the 12 chickadee returns had last been recorded within the previous year. No species set new records for number of returns this winter.

The oldest return this winter was a Black-capped Chickadee banded as a hatch-year individual in September 2010, making it over 6 years old at time of recapture in November 2016. Only one individual, a female American Goldfinch, was recaptured for the first time in over two years. There were six American Tree Sparrows banded in previous winters that were recaptured at MBO this winter, but for the first time since 2008-2009, there were no Dark-eyed Junco returns.

**Table 3.4:** List of returns captured during the 2016-2017 winter population monitoring program, sorted by time elapsed.

Band number	Species	Age/sex at return	Age/sex at banding	Banding date	Previous capture	2016-17 return	Time elapsed		
2730-49548	AMGO	AHY-F	AHY-F	26 Nov 2014	26 Nov 2014	30 Nov	2 years		4 days
2730-49567	AMGO	AHY-M	HY-M	30 Nov 2014	30 Nov 2014	28 Nov	1 year	11 months	29 days
2650-44418	AMGO	AHY-F	AHY-F	19 Aug 2015	19 Aug 2015	8 Nov	1 year	2 months	20 days
2641-17899	NOCA	U-F	U-F	3 Nov 2015	6 Nov 2015	30 Nov	1 year		24 days
2650-45733	BCCH	AHY-U	SY-U	18 Apr 2014	6 Nov 2015	17 Nov	1 year		11 days
2641-17874	NOCA	U-F	HY-F	10 Oct 2015	21 Nov 2015	30 Nov	1 year		9 days
2650-42229	ATSP	AHY-U	HY-U	6 Nov 2013	18 Nov 2015	24 Nov	1 year		6 days
2720-00808	AMGO	AHY-F	HY-F	16 Dec 2015	16 Dec 2015	6 Dec		11 months	20 days
2720-00704	BCCH	AHY-U	AHY-U	13 Dec 2015	16 Dec 2015	6 Dec		11 months	20 days
2740-76682	AMGO	AHY-F	HY-F	25 Nov 2015	25 Nov 2015	14 Nov		11 months	20 days
2600-15948	BCCH	AHY-U	HY-U	9 Sep 2010	21 Nov 2015	8 Nov		11 months	18 days
2650-42299	ATSP	AHY-U	HY-U	5 Dec 2015	5 Dec 2015	14 Nov		11 months	9 days
2730-49927	BCCH	AHY-U	SY-U	21 Mar 2015	5 Dec 2015	14 Nov		11 months	9 days
2720-00859	AMGO	AHY-F	HY-F	26 Dec 2015	26 Dec 2015	30 Nov		11 months	4 days
2650-45644	BCCH	AHY-U	HY-U	12 Jul 2015	23 Dec 2015	24 Nov		11 months	1 day
2720-00922	AMGO	AHY-M	SY-M	31 Jan 2016	31 Jan 2016	10 Nov		9 months	10 days
2730-49932	BCCH	AHY-U	SY-U	18 Apr 2015	10 Mar 2016	24 Nov		8 months	14 days
2691-54062	DOWO	ASY-M	HY-M	1 Aug 2014	23 Mar 2016	30 Nov		8 months	7 days
2730-49969	BCCH	AHY-U	HY-U	14 Sep 2015	23 Mar 2016	28 Nov		8 months	5 days
2650-42293	ATSP	AHY-U	HY-U	5 Dec 2015	23 Mar 2016	24 Nov		8 months	1 day
2501-44954	HAWO	SY-M	HY-U	3 Aug 2015	8 Mar 2016	8 Nov		8 months	
2650-45770	BCCH	AHY-U	HY-U	20 Sep 2014	8 Mar 2016	8 Nov		8 months	
2690-79653	BCCH	AHY-U	AHY-U	7 Dec 2012	23 Mar 2016	17 Nov		7 months	25 days
2650-43018	BCCH	AHY-U	HY-U	16 Aug 2011	23 Mar 2016	17 Nov		7 months	25 days
2650-42256	ATSP	AHY-U	HY-U	16 Nov 2015	17 Mar 2016	8 Nov		7 months	22 days
2650-45645	BCCH	AHY-U	HY-U	12 Jul 2015	23 Mar 2016	10 Nov		7 months	18 days
2740-76799	ATSP	AHY-U	HY-U	10 Nov 2015	23 Mar 2016	10 Nov		7 months	18 days
2650-42284	ATSP	AHY-U	HY-U	25 Nov 2015	18 Apr 2016	10 Nov		6 months	23 days
2711-23357	WBNU	AHY-M	ASY-M	18 Apr 2016	18 Apr 2016	10 Nov		6 months	23 days
2650-45762	BCCH	AHY-U	HY-U	29 Aug 2014	1 May 2016	17 Nov		6 months	16 days

Also during winter, we received reports of three birds banded at MBO and recovered elsewhere. Two were Northern Saw-whet Owls banded in October 2016 and recaptured by other owl banders in the northeastern United States the following month. One reached Williamstown, Massachusetts (305 km to the south) in 18 days, while the other was encountered after 40 days in West Cape May, New Jersey (725 km to the south). The third report this winter was a bigger surprise – an American Robin banded as a hatch-year bird on August 2, 2009 (presumably from a nest at MBO), found dead in Victor, New York (385 km to the southwest) on March 27, 2017.

### 3.3.3. Daily estimated totals (DET)

The number of species observed daily was highest (25) on the first visit of the season on November 8, and bottomed out at 8 species on five dates from January to March. Like last year, no species were observed for the first time ever in winter, leaving the cumulative list for the season at 97 species. There were record high mean daily counts for four species: Bald Eagle (0.029, vs. 0.027 in 2010-11), Eastern Screech-Owl (0.029, vs. 0.027 in 2010-11), Red-bellied Woodpecker (0.2, vs. 0.03 in 2010-11), and Northern Cardinal (5.8, vs. 5.6 in 2015-16). It was the fifth consecutive winter that Northern Cardinal reached a new record high, consistent with results across other seasons reflecting a steadily increasing local population.



*A resident Eastern Screech-Owl poking its head out of one of our Wood Duck nest boxes on New Year's Day 2017.*

*(Photo by Pascal Berthelot)*

## 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 40 (89%) of the 45 scheduled days; banding was cancelled on five days (April 21, May 1, May 5, May 14, and May 22) due to rain. On an additional 10 days, rain and/or strong winds resulted in reduced net hours (less than 75 out of a normal 80), leaving 30 days (67%) of full banding effort according to the protocol, equal to the spring average. As a result, the 2899 net hours this spring was the lowest total since 2012, though nearly matching the average of 2906 from 2006 through 2016.

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 above average this spring, preventing the use of H1 from April 18 to May 8, and again on May 10. All nets were 12 m long with 30 mm mesh, from Avian Research Supplies, previously used in 2016.

### 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. In terms of mean daily high, it was the coolest spring ever at MBO, 0.1 °C less than in 2011, through the mean daily low this year was slightly higher than that year. There were only two weeks with mean daily highs above 20°C, and temperatures in the final week of the season were the coolest since 2009. There were two sharp warm fronts this spring, one in week 5, and another in week 8. A small amount of snow fell in the first week of the season, and added to a lingering snow pack on the ground, but was all melted by the time that banding began in week 4. The most notable aspect of the weather this spring was the record amount of rainfall, roughly 50% more than average, and 38 mm more than the previous high of 295 mm in 2006. The 86 mm of rain in week 2 was a single-week record for spring, and the weekly totals were above average for weeks 2-6 and 10; fortunately, rainfall was slightly below average during the usual peak of migration in weeks 7-9.

**Table 4.1:** Weather conditions during the 2017 SMMP, by week.

	1	2	3	4	5	6	7	8	9	10	Season
Mean daily high (°C)	6.1	10.5	13.7	11.2	16.2	13.4	15.4	22.1	21.2	18.9	14.9
Mean daily low (°C)	-0.1	2.2	3.5	3.3	6.0	4.3	6.2	10.3	11.4	10.5	5.8
Mean daily temp (°C)	3.1	6.4	8.6	7.3	11.1	8.9	10.8	16.2	16.3	14.7	10.4
Highest temp (°C)	10	26	16	18	25	22	23	30	26	24	30
Lowest temp (°C)	-2	-2	-1	0	2	1	1	6	10	8	-2
# days with rainfall	2	5	5	3	5	5	2	3	3	4	37
Total rain (mm)	6	86	26	27	55	38	7	11	21	58	333
# days with snowfall	2	0	0	0	0	0	0	0	0	0	2
Total snow (cm)	6	0	0	0	0	0	0	0	0	0	6

### 4.3. Results and discussion

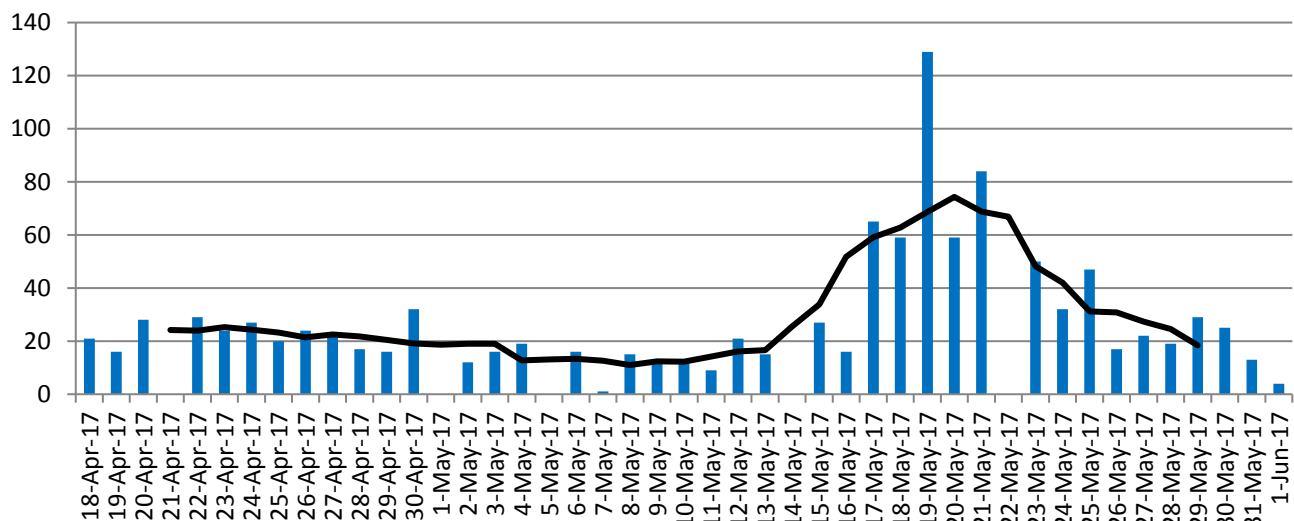
#### 4.3.1. Birds banded

Table 4.2 summarizes the spring 2016 banding results throughout the season. The 1122 birds banded this spring was slightly higher than the past two years (1117 in 2015, 1093 in 2016), and behind only the record high of 1356 in 2014. The 66 species banded was also above average. The busiest day of the season was May 19 (Figure 4.1), fairly close to the long-term average of May 16. The 412 birds banded in week 8 was a single-week record for

spring, offsetting below-average numbers in week 7, and relatively typical results for most of the rest of the season. The count of birds banded exceeded 40 on 7 days, all between May 17 and May 25; the peak of 129 was the second-highest ever for spring, behind 145 on April 25, 2014. The mean count of birds banded per day this spring was 24.9 (or 28.1 during the 40 days with nets open).

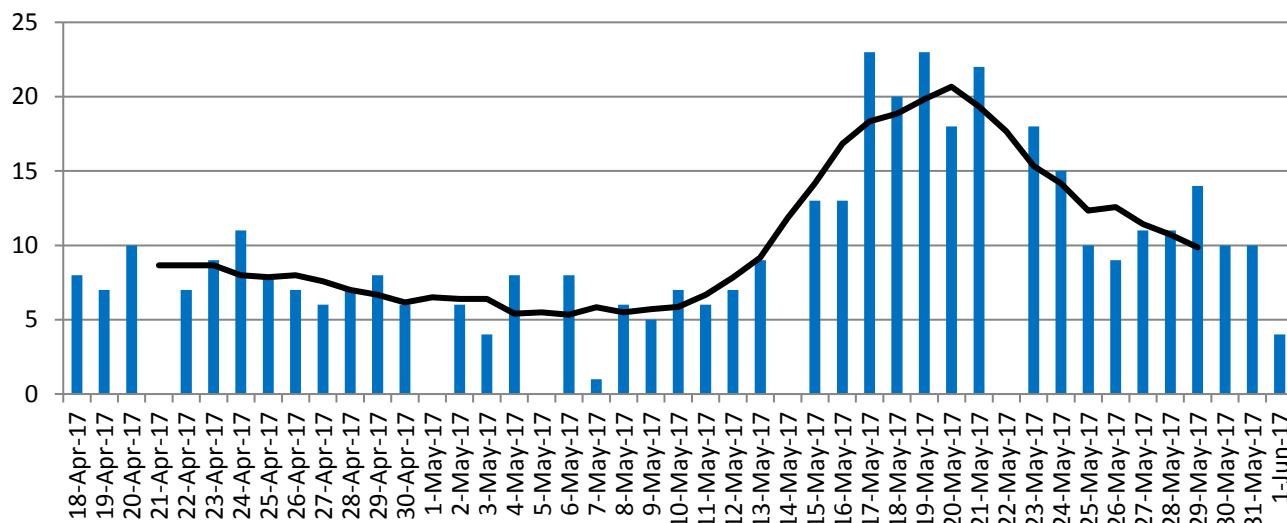
**Table 4.2:** Summary results of the 2017 SMMP, by week.

	S1	S2	S3	S4	S5	S6
# individuals (species) banded	n/a	n/a	n/a	145 (17)	131 (21)	79 (18)
# individuals (species) return	n/a	n/a	n/a	16 (8)	13 (8)	9 (6)
# individuals (species) repeat	n/a	n/a	n/a	21 (7)	28 (11)	31 (12)
# species observed	30	32	42	59	70	78
# net hours	n/a	n/a	n/a	438.8	405.0	357.8
# birds banded / 100 net hours	n/a	n/a	n/a	33.1	32.3	22.1
# days operating	7	7	7	7	7	7
# days banding	n/a	n/a	n/a	6	6	6
# days with full net coverage	n/a	n/a	n/a	5	5	2
	S7	S8	S9	S10	Average	Season
# individuals (species) banded	97 (24)	412 (47)	216 (35)	42 (17)	160 (26)	1122 (66)
# individuals (species) return	16 (7)	36 (13)	17 (11)	4 (4)	16 (8)	111 (25)
# individuals (species) repeat	30 (11)	54 (18)	77 (22)	21 (12)	37 (13)	262 (39)
# species observed	87	110	99	88	70	142
# net hours	457.0	480.0	544.0	216.0	414.1	2898.5
# birds banded / 100 net hours	21.2	85.8	39.7	19.4	36.2	38.6
# days operating	7	7	7	7	7.0	70
# days banding	6	6	7	3	5.7	40
# days with full net coverage	5	6	6	1	4.3	30



**Figure 4.1:** Daily and running 7-day mean of individuals banded per day throughout spring 2017.

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 18 species banded from May 17 to May 21. The greatest variety banded in a single day was 23 species on May 17 and May 19, similar to the average spring maximum of 22. The mean number of species banded per day was 10.1, slightly lower than the past two years.



**Figure 4.2:** Daily and running 7-day mean of species banded per day throughout spring 2017.

Wood Duck and Red-breasted Nuthatch were banded for the first time ever in spring this year, increasing the cumulative seasonal total to 101 species. Record high totals were recorded for another nine species: Tennessee Warbler (211, vs. 142 in 2014), Ruby-crowned Kinglet (147, vs. 97 in 2016), Golden-crowned Kinglet (15, vs. 13 in 2014), Veery (6, vs. 5 in 2014), Brown Thrasher (6, vs. 4 in 2005 and 2006), Yellow-shafted Flicker (4, vs. 3 in 2011 and 2016), Hermit Thrush (4, vs. 3 in 2016), Gray-cheeked Thrush (3, vs. 1 in 7 previous years), and Solitary Sandpiper (2, vs. 1 in three previous years).

Eleven species were banded just once this spring: Wood Duck, Sharp-shinned Hawk, Yellow-bellied Sapsucker, Blue Jay, Red-breasted Nuthatch, Rusty Blackbird, Black-and-white Warbler, Cape May Warbler, Western Palm Warbler, Black-throated Green Warbler, and Indigo Bunting.

At the other extreme, Table 4.3 lists the 10 most frequently banded species, which account for 66.6% of all birds banded during SMMP 2017. Two of these (Ruby-crowned Kinglet and Red-winged Blackbird) have been in the top 10 for spring annually since 2005; Yellow-rumped Warbler had also been among the top 10 in all previous years, but dropped to 13<sup>th</sup> this year, with only 19 individuals banded, fewer than in any other spring. After 13 years of the Spring Migration Monitoring Program, the top three species for cumulative totals are now Red-winged Blackbird (1126), Tennessee Warbler (896), and Ruby-crowned Kinglet (850).

**Table 4.3:** Top 10 species banded at MBO during the 2017 SMMP, with comparison to the numbers banded in 2005-2016 (rank in other years in parentheses).

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
1. Tennessee Warbler	211	101(2)	111(1)	142(2)	49(3)	94(2)	71(2)	7(22)	82(1)	6(27)	16(11)	2(40)	4(28)
2. Ruby-crowned Kinglet	147	97(3)	68(4)	71(4)	39(8)	54(5)	43(7)	36(4)	73(2)	92(2)	52(2)	58(3)	20(9)
3. White-throated Sparrow	110	138(1)	39(11)	40(10)	40(7)	57(4)	51(4)	22(8)	34(9)	79(3)	13(16)	42(5)	29(6)
4. Magnolia Warbler	57	42(7)	87(2)	82(3)	66(2)	39(8)	27(13)	11(19)	41(6)	18(14)	17(9)	22(8)	5(21)
5. American Goldfinch	46	64(4)	40(10)	60(6)	9(24)	51(6)	17(16)	45(3)	47(4)	41(5)	51(3)	32(6)	111(1)
6. Cedar Waxwing	38	26(14)	61(5)	232(1)	7(29)	77(3)	50(5)	72(2)	14(17)	29(8)	17(9)	17(13)	59(3)
7. Yellow Warbler	37	36(9)	34(13)	36(12)	43(4)	37(9)	30(9)	26(7)	43(5)	36(6)	29(6)	21(10)	47(4)
8. Common Yellowthroat	36	18(17)	25(15)	40(10)	23(10)	25(12)	30(9)	17(10)	28(10)	25(9)	12(17)	25(7)	22(8)
8. Red-winged Blackbird	36	55(5)	57(6)	63(5)	83(1)	116(1)	70(3)	85(1)	50(3)	114(1)	155(1)	169(1)	73(2)
10. Northern Waterthrush	29	37(8)	42(8)	48(8)	43(4)	28(10)	28(12)	12(18)	26(12)	12(18)	15(12)	5(29)	4(28)

Tennessee Warbler was the most frequently banded species at MBO this spring for the second time in the past three years, and third time overall; it has been among the top three each year since 2011. Ruby-crowned Kinglet was the runner-up for the first time since 2009; the top two species this spring were both banded in record numbers. White-throated Sparrow dropped only slightly from last year’s record high, to round out this year’s top three. From there, numbers dropped considerably to Magnolia Warbler and American Goldfinch in fourth and fifth place, followed by four species (Cedar Waxwing, Yellow Warbler, Common Yellowthroat, and Red-winged Blackbird) with nearly identical totals of 36 to 38. Northern Waterthrush anchored this year’s top ten with 29 banded, the fewest since it first entered the top ten in 2012.

#### 4.3.2. Birds recaptured

There were 262 repeats this spring, well above the long-term average of 208, but short of the record of 298 set in 2012. The 174 individuals involved were one fewer than last year, and just short of the high of 181 in 2014. Of these, 119 (68%) were recaptured just once, whereas 18 individuals were recorded as repeats at least three times each this spring, most notably a Swamp Sparrow on seven occasions, and a House Wren on six occasions. The 39 species with repeats was a new record high for the fifth time in the past six years, and included the first spring repeats ever for three species (Red-eyed Vireo, Golden-crowned Kinglet, and Mourning Warbler).

Several of the species with high numbers of repeats were local breeders, most notably Black-capped Chickadee, House Wren, Song Sparrow, Baltimore Oriole, Common Yellowthroat, and Yellow Warbler. Some entirely or mostly transient species also ranked high on the list, especially Ruby-crowned Kinglet, White-throated Sparrow, Northern Waterthrush, and Tennessee Warbler. For the first time ever, Red-winged Blackbird missed the top ten, with only 5 repeats this spring, one-third of the long-term average.

**Table 4.4:** Top 10 species recaptured most often during the 2017 SMMP (species with local breeding populations marked with an asterisk).

Species	# Repeats	# Individuals
1. Ruby-crowned Kinglet	33	26
2. Yellow Warbler*	30	14
3. House Wren*	21	8
4. Baltimore Oriole*	17	11
4. Tennessee Warbler	17	13
6. White-throated Sparrow	16	11
7. Song Sparrow*	14	8
7. Northern Waterthrush	14	9
9. Black-capped Chickadee*	12	8
10. Common Yellowthroat*	10	9

This spring there were 111 returns (Table 4.5), the third-highest count ever for spring, and well above the long-term average of 89. There were 25 species involved, one short of the high of 26 in 2015. Four of the returns had last been captured in 2013 or earlier, the longest gap being a female Common Yellowthroat that was banded as a hatch-year bird in August 2009, recaptured in May 2010, and then not recorded again until this spring, nearly 7 years later. In total there were 22 returns that were last recorded at MBO one year ago or longer, slightly fewer than the count in each of the past two spring seasons. Yellow-bellied Sapsucker was recorded as a return in spring for the first time ever.

**Table 4.5:** List of returns captured during the 2017 SMMP, sorted by time elapsed.

Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed		
2560-24726	COYE	ASY-F	HY-U	22 Aug 2009	23 May 2010	20 May	6 years	11 months	27 days
2650-41324	HOWR	AHY-U	SY-U	15 May 2012	11 Aug 2012	10 May	4 years	8 months	29 days
1342-36463	RWBL	ASY-M	SY-M	2 May 2013	2 May 2013	11 May	4 years		9 days

Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed		
1891-91662	RWBL	ASY-F	SY-F	6 Jun 2013	6 Jun 2013	30 Apr	3 years	10 months	24 days
2531-23653	RWBL	ASY-F	SY-F	17 May 2013	23 May 2014	15 May	2 years	11 months	22 days
2650-42740	ATSP	ASY-U	HY-U	26 Nov 2014	26 Nov 2014	27 Apr	2 years	5 months	1 day
2011-90265	TRES	ASY-F	SY-F	19 May 2013	28 Apr 2015	13 May	2 years		15 days
1433-37756	COGR	AHY-M	SY-M	15 May 2015	15 May 2015	28 May	2 years		13 days
2650-42370	AMGO	ASY-M	SY-M	5 May 2014	15 May 2015	11 May	1 year	11 months	26 days
2521-71927	TRES	ASY-F	AHY-F	11 May 2014	16 May 2015	10 May	1 year	11 months	24 days
1383-62336	BLJA	ASY-U	AHY-U	23 Sep 2011	19 May 2015	9 May	1 year	11 months	20 days
1352-85325	RWBL	ASY-M	ASY-M	19 Apr 2015	9 May 2015	26 Apr	1 year	11 months	17 days
2650-44809	COYE	ASY-M	AHY-M	10 Sep 2015	16 Sep 2015	24 May	1 year	8 months	8 days
2561-32371	NOCA	AHY-F	HY-F	14 Oct 2014	4 Sep 2015	28 Apr	1 year	7 months	24 days
1352-42325	RWBL	ASY-M	ASY-M	5 May 2014	27 Apr 2016	25 May	1 year		28 days
1433-37754	COGR	AHY-M	SY-M	12 May 2015	12 May 2016	19 May	1 year		7 days
2711-23373	YBSA	ASY-M	ATY-M	10 May 2016	18 May 2016	25 May	1 year		7 days
2720-00973	AMGO	ASY-M	ASY-M	21 May 2016	21 May 2016	28 May	1 year		7 days
1372-11248	RWBL	ASY-M	SY-M	12 May 2016	12 May 2016	18 May	1 year		6 days
2720-01062	YEWA	ASY-F	SY-F	17 May 2016	18 May 2016	23 May	1 year		5 days
2720-00988	AMGO	ASY-F	SY-F	26 May 2016	26 May 2016	28 May	1 year		2 days
2641-17960	BAOR	ASY-F	ASY-F	12 May 2016	15 May 2016	17 May	1 year		2 days
2650-41147	WAVI	ASY-U	SY-U	9 May 2012	24 May 2016	23 May		11 months	29 days
2720-00974	AMGO	AHY-F	SY-F	21 May 2016	21 May 2016	20 May		11 months	29 days
1352-95287	RWBL	ASY-M	ASY-M	17 Mar 2016	12 May 2016	10 May		11 months	28 days
2521-95160	TRES	ASY-F	SY-F	13 May 2016	14 May 2016	11 May		11 months	27 days
2561-09236	BAOR	ASY-M	HY-M	26 Aug 2013	21 May 2016	17 May		11 months	26 days
2650-44620	YEWA	ASY-F	AHY-F	13 Aug 2015	21 May 2016	17 May		11 months	26 days
2720-01132	COYE	ASY-F	SY-F	28 May 2016	28 May 2016	24 May		11 months	26 days
2641-17963	RBGR	ASY-F	SY-F	13 May 2016	24 May 2016	20 May		11 months	26 days
2641-17977	BAOR	ASY-M	SY-M	18 May 2016	22 May 2016	18 May		11 months	26 days
2430-45012	YEWA	ASY-M	SY-M	15 Jun 2014	21 May 2016	16 May		11 months	25 days
2421-70682	BAOR	ASY-M	ASY-M	18 May 2011	25 May 2016	17 May		11 months	22 days
2641-09076	RBGR	ASY-M	SY-M	18 May 2015	1 Jun 2016	20 May		11 months	19 days
2561-32049	RWBL	ASY-F	ASY-F	11 May 2014	13 May 2016	28 Apr		11 months	15 days
2561-32052	RWBL	ASY-F	ASY-F	11 May 2014	17 May 2016	30 Apr		11 months	13 days
2641-17990	NOCA	AHY-F	AHY-F	21 May 2016	21 May 2016	3 May		11 months	12 days
2521-95197	TRES	AHY-M	AHY-M	22 May 2016	22 May 2016	2 May		11 months	10 days
2561-09385	GRCA	ASY-U	SY-U	27 Jun 2015	6 Jun 2016	16 May		11 months	10 days
2650-44761	HOWR	AHY-U	AHY-U	30 Aug 2015	27 May 2016	6 May		11 months	9 days
2641-17716	RBGR	ASY-F	SY-F	3 Jul 2016	3 Jul 2016	30 May		10 months	27 days
2650-45669	YEWA	ASY-M	SY-M	24 Jun 2016	24 Jun 2016	18 May		10 months	24 days
2711-23366	BHCO	AHY-F	AHY-F	6 May 2016	24 Jun 2016	17 May		10 months	23 days
2650-44545	COYE	ASY-M	HY-M	1 Aug 2015	3 Jul 2016	19 May		10 months	16 days
2650-45681	COYE	ASY-M	SY-M	17 Jul 2016	17 Jul 2016	23 May		10 months	6 days
2730-49080	YEWA	ASY-F	AHY-F	22 May 2014	1 Aug 2016	1 Jun		10 months	
2691-45659	YBSA	SY-F	HY-F	3 Jul 2016	3 Jul 2016	30 Apr		9 months	27 days
2521-74018	SWSP	AHY-M	HY-U	20 Jul 2015	24 Jun 2016	18 Apr		9 months	25 days
2231-00142	BAOR	SY-F	HY-F	10 Aug 2016	10 Aug 2016	1 Jun		9 months	22 days
2650-45685	HOWR	AHY-U	AHY-M	17 Jul 2016	17 Jul 2016	6 May		9 months	19 days
2760-85266	AMRE	SY-M	HY-U	6 Aug 2016	6 Aug 2016	25 May		9 months	19 days
2581-69960	SOSP	AHY-M	HY-U	3 Oct 2013	1 Aug 2016	20 May		9 months	19 days
2760-85229	AMRE	SY-F	HY-F	1 Aug 2016	1 Aug 2016	19 May		9 months	18 days
2760-85158	AMRE	ASY-F	SY-F	24 May 2016	11 Aug 2016	29 May		9 months	18 days
2521-74040	SWSP	ASY-F	SY-F	11 Jun 2016	24 Jul 2016	11 May		9 months	17 days

Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed	
2521-74146	REVI	ASY-U	AHY-U	12 Aug 2014	14 Aug 2016	31 May	9 months	17 days
2011-90240	SWSP	ASY-M	SY-M	8 May 2013	17 Jul 2016	2 May	9 months	15 days
2650-44549	YEWA	ASY-F	AHY-U	1 Aug 2015	2 Aug 2016	16 May	9 months	14 days
2720-01175	YEWA	ASY-M	AHY-M	3 Aug 2016	3 Aug 2016	17 May	9 months	14 days
2760-85277	AMRE	AHY-F	AHY-F	7 Aug 2016	7 Aug 2016	21 May	9 months	14 days
2561-09495	BAOR	ASY-F	AHY-F	2 Aug 2016	7 Aug 2016	20 May	9 months	13 days
2521-95297	REVI	ASY-U	AHY-U	16 Aug 2016	16 Aug 2016	28 May	9 months	12 days
2730-49578	AMGO	ASY-F	SY-F	7 May 2015	1 Aug 2016	13 May	9 months	12 days
2741-62907	SOSP	AHY-U	HY-U	7 Aug 2016	7 Aug 2016	18 May	9 months	11 days
2720-01189	YEWA	SY-F	U-F	6 Aug 2016	10 Aug 2016	19 May	9 months	9 days
2740-77013	AMGO	ASY-F	SY-F	18 Aug 2016	18 Aug 2016	25 May	9 months	7 days
2720-01024	YEWA	ASY-M	ASY-M	13 May 2016	11 Aug 2016	17 May	9 months	6 days
2720-01197	HOWR	SY-U	HY-U	7 Aug 2016	7 Aug 2016	10 May	9 months	3 days
2720-01088	YEWA	ASY-M	SY-M	20 May 2016	14 Aug 2016	16 May	9 months	2 days
2760-85361	AMRE	ASY-F	AHY-F	21 Aug 2016	21 Aug 2016	23 May	9 months	2 days
2740-77114	HOWR	AHY-U	HY-U	11 Aug 2016	11 Aug 2016	9 May	8 months	28 days
2741-62931	SOSP	AHY-M	HY-U	27 Aug 2016	27 Aug 2016	25 May	8 months	28 days
2760-85362	AMRE	ASY-M	AHY-M	21 Aug 2016	21 Aug 2016	19 May	8 months	28 days
2650-45690	COYE	ASY-F	AHY-F	24 Jul 2016	23 Aug 2016	20 May	8 months	27 days
2741-64550	SOSP	AHY-U	AHY-U	23 Apr 2016	4 Aug 2016	29 Apr	8 months	25 days
2720-01188	HOWR	AHY-U	AHY-F	6 Aug 2016	6 Aug 2016	30 Apr	8 months	24 days
2741-64581	SOSP	AHY-U	HY-U	2 Aug 2016	2 Aug 2016	19 Apr	8 months	17 days
2421-93989	NOCA	AHY-M	HY-M	20 Sep 2012	8 Aug 2016	23 Apr	8 months	15 days
2740-77019	AMGO	ASY-F	AHY-F	28 Aug 2016	28 Aug 2016	11 May	8 months	13 days
2650-44680	COYE	ASY-M	AHY-M	19 Aug 2015	9 Sep 2016	20 May	8 months	11 days
2650-45688	HOWR	AHY-U	AHY-U	17 Jul 2016	23 Aug 2016	2 May	8 months	9 days
2650-44586	COYE	ASY-M	HY-U	7 Aug 2015	14 Sep 2016	17 May	8 months	3 days
2760-85252	AMRE	ASY-M	SY-M	4 Aug 2016	18 Sep 2016	20 May	8 months	2 days
1352-95380	BLJA	SY-F	HY-U	14 Sep 2016	21 Sep 2016	27 Apr	7 months	6 days
2691-45727	SOSP	AHY-U	HY-U	29 Sep 2014	14 Sep 2016	19 Apr	7 months	5 days
2741-62949	SOSP	AHY-U	AHY-U	19 Sep 2016	19 Sep 2016	23 Apr	7 months	4 days
2691-45662	DOWO	SY-M	HY-M	17 Jul 2016	2 Oct 2016	3 May	7 months	1 day
2771-51278	DOWO	SY-F	HY-F	23 Sep 2016	23 Sep 2016	19 Apr	6 months	27 days
2741-64116	SOSP	AHY-U	HY-U	5 Aug 2015	5 Oct 2016	30 Apr	6 months	25 days
2741-62960	SOSP	AHY-U	HY-U	25 Sep 2016	25 Sep 2016	19 Apr	6 months	25 days
2650-45684	BCCH	SY-F	HY-U	17 Jul 2016	29 Oct 2016	18 May	6 months	19 days
2501-44961	HAWO	SY-M	HY-M	7 Oct 2016	11 Oct 2016	22 Apr	6 months	11 days
2650-43009	BCCH	ASY-U	HY-U	1 Aug 2011	10 Oct 2016	20 Apr	6 months	10 days
2651-66674	NOCA	AHY-F	U-F	26 Oct 2016	30 Oct 2016	8 May	6 months	8 days
1383-62342	BLJA	ASY-F	HY-U	29 Sep 2011	20 Oct 2016	28 Apr	6 months	8 days
2650-45647	BCCH	AHY-F	HY-U	20 Jul 2015	10 Nov 2016	16 May	6 months	6 days
2651-66719	NOCA	SY-F	HY-U	24 Nov 2016	24 Nov 2016	26 May	6 months	2 days
2501-44954	HAWO	TY-M	HY-U	3 Aug 2015	18 Nov 2016	18 May	6 months	
2720-00722	BCCH	SY-U	HY-U	14 Aug 2016	27 Oct 2016	19 Apr	5 months	23 days
2730-49944	BCCH	ASY-M	HY-U	3 Aug 2015	28 Nov 2016	21 May	5 months	23 days
2730-49945	BCCH	AHY-F	HY-U	3 Aug 2015	28 Nov 2016	20 May	5 months	22 days
2650-45648	BCCH	AHY-U	HY-U	20 Jul 2015	8 Nov 2016	22 Apr	5 months	14 days
2771-52310	WTSP	SY-U	HY-U	5 Nov 2016	5 Nov 2016	19 Apr	5 months	14 days
2650-45762	BCCH	ASY-U	HY-U	29 Aug 2014	17 Nov 2016	29 Apr	5 months	12 days
2720-00724	BCCH	SY-U	HY-U	14 Aug 2016	30 Nov 2016	9 May	5 months	9 days
2810-33779	BCCH	SY-U	HY-U	10 Nov 2016	30 Nov 2016	8 May	5 months	8 days
2720-00808	AMGO	ASY-F	HY-F	16 Dec 2015	6 Dec 2016	11 May	5 months	5 days

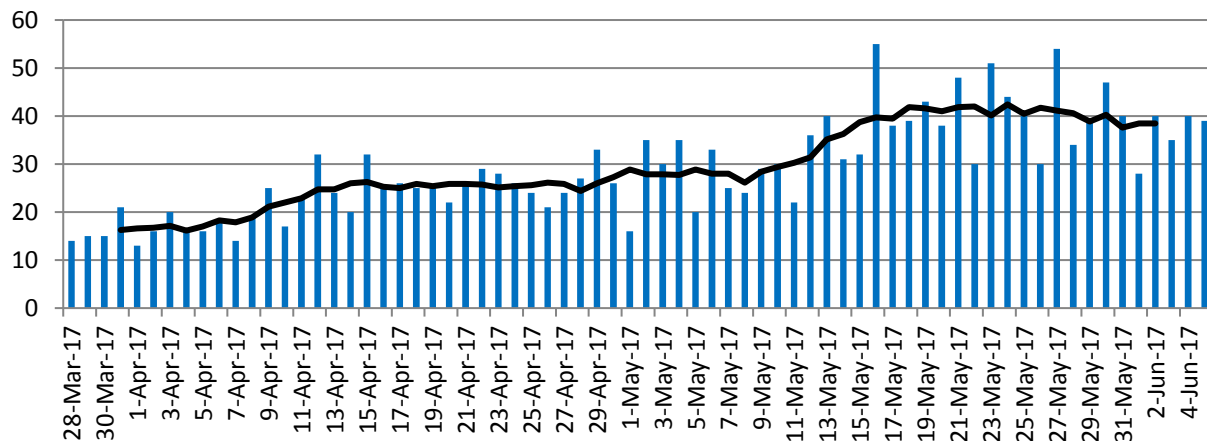


Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed
2730-49978	BCCH	ASY-U	HY-U	3 Oct 2015	18 Nov 2016	18 Apr	5 months
2810-34107	SCJU	SY-M	HY-M	28 Nov 2016	30 Nov 2016	22 Apr	4 months 23 days
2720-00727	BCCH	SY-M	HY-U	26 Aug 2016	30 Nov 2016	20 Apr	4 months 21 days
2810-33783	BCCH	SY-U	HY-U	14 Nov 2016	30 Nov 2016	19 Apr	4 months 20 days

During spring we learned of four birds banded at MBO that were encountered elsewhere. Three of these were the victims of collisions with stationary objects: a Northern Shrike banded in March 2016 that was found on April 1, 2017 in Dunrobin, Ontario (160 km to the west), a Red-winged Blackbird banded in May 2012 that was found on April 26, 2017 in nearby Ile Perrot (<5 km to the south), and an Ovenbird banded in September 2016 that was found on May 24, 2017 in St-Jérôme (40 km to the north). The fourth recovery this spring was a Northern Saw-whet Owl banded in October 2014, found dead on May 12, 2017, in Deerland, New York (170 km to the south).

### 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 an unusually many 11 that were not otherwise detected: American Black Duck, Ruffed Grouse, Greater Yellowlegs, Great Black-backed Gull, Northern Goshawk, Barred Owl, Northern Shrike, Philadelphia Vireo, American Pipit, Pine Siskin, and Vesper Sparrow.



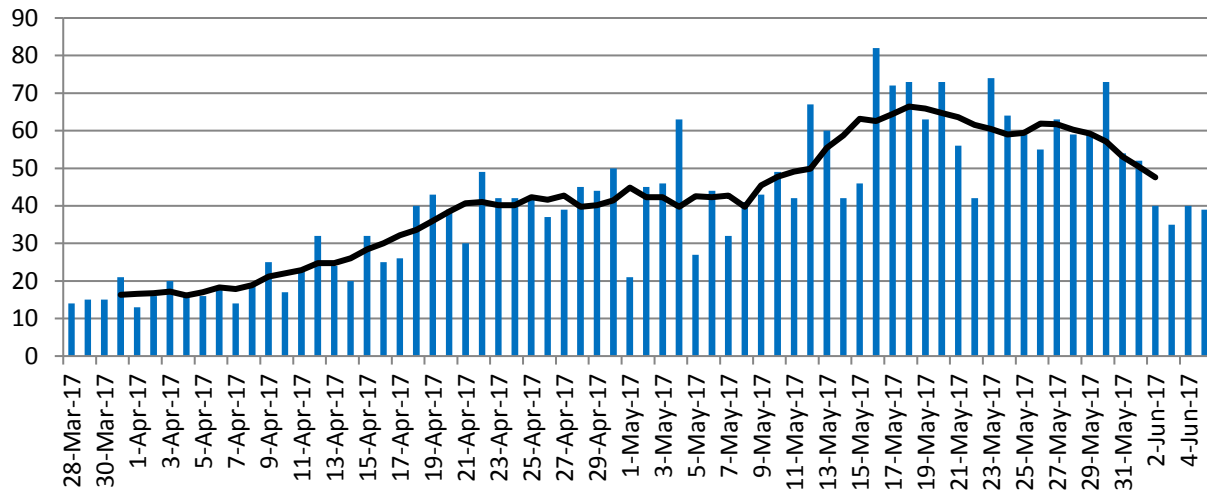
**Figure 4.3:** Daily species count and running 7-day mean of species recorded on census throughout spring 2017.

As shown in Figure 4.3, there was some daily variation in the number of species observed on census, but there were three plateaus in early April, mid-April to early May, and mid- to late May, each separated a rapid increase in numbers within less than one week. The lowest census was 13 species on April 1, while the highest was 55 species on May 16. The seven-day running mean peaked at 42 species on May 24, slightly later than usual.

### 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 2017, 142 species were recorded, just above the long-term average of 141 for the season. There were 11 species seen on just one date (Northern Shoveler, American Wigeon, Black Scoter, Greater Yellowlegs, Great Black-backed Gull, Great Egret, Northern Goshawk, Barred Owl, Pine Siskin, Vesper Sparrow, and Blue-winged Warbler), highlighting the importance of daily coverage by experienced observers throughout the season. Black Scoter was observed on May 20, becoming the 214<sup>th</sup> species on the MBO checklist, and 195<sup>th</sup> species detected in spring.

The highest single day DET of 82 species on May 16 was just one short of the record high reached on two dates in May 2016. The total species count for week 8 this year was 110, matching the single-week record high set in the same week last year. The 88 species observed in week 10 this year set a new record high for that period for the second year in a row; conversely, the total of 32 species in week 2 was fewer than in any previous year. The lowest count of 14 species was on March 28 and April 7. The seven-day running average (Figure 4.4) shows a pattern largely similar to that generated by census (Figure 4.3), except peaking a bit more strongly in mid-May and tapering off more thereafter. It remained above 60 species for 9 consecutive days from May 15 to May 23.



**Figure 4.4:** Daily species count and running 7-day mean of species observed throughout spring 2017.

This year a below average 17 species were observed during all 10 weeks of the spring season, all of which were also present weekly throughout spring 2016: Canada Goose, Mallard, Ring-billed Gull, Downy Woodpecker, Hairy Woodpecker, Pileated Woodpecker, Blue Jay, American Crow, Common Raven, Black-capped Chickadee, White-breasted Nuthatch, American Robin, American Goldfinch, Song Sparrow, Red-winged Blackbird, Common Grackle, and Northern Cardinal.

#### 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 2017, and 76% were banded (Table 4.6). Nearly 87% of individuals banded were priority species, which is above average. Of the top 10 species banded at MBO during SMMP 2016, all except American Goldfinch are designated as priority species, and half of them (including the top four) 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 2017 SMMP. Detailed category definitions are provided in Gahbauer et al. (2014).

	Priority A	Priority B	Priority C	Priority D
<b>Number of species in category</b>	15	10	18	19
<b>Number of species observed</b>	13	10	18	19
<b>Number of species banded</b>	10	10	14	13
<b>Number of individuals banded</b>	336	345	144	147

### 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 May 8, and was again underwater on May 10. 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 2017 SMMP.

Net	Hours open	New Captures	Returns + Repeats	Total Captures <sup>1</sup>	Birds / 100 net hours	
					New	Total
A1	187.5	95	22	117	50.7	62.4
A2	187.5	110	44	154	58.7	82.1
<b>A - TOTAL</b>	<b>375.0</b>	<b>205</b>	<b>66</b>	<b>271</b>	<b>54.7</b>	<b>72.3</b>
B2	186.0	44	17	61	23.7	32.8
N1	186.0	52	21	74	28.0	39.8
N3	186.0	42	23	65	22.6	34.9
B3	186.0	43	21	64	23.1	34.4
<b>B/N - TOTAL</b>	<b>744.0</b>	<b>181</b>	<b>82</b>	<b>264</b>	<b>24.3</b>	<b>35.5</b>
C1	187.5	77	28	105	41.1	56.0
C2	187.5	61	33	94	32.5	50.1
<b>C - TOTAL</b>	<b>375.0</b>	<b>138</b>	<b>61</b>	<b>199</b>	<b>36.8</b>	<b>53.1</b>
D1	187.5	59	17	76	31.5	40.5
D2	187.5	48	5	53	25.6	28.3
D3	187.5	50	14	64	26.7	34.1
D4	187.5	53	21	74	28.3	39.5
<b>D - TOTAL</b>	<b>750.0</b>	<b>210</b>	<b>57</b>	<b>267</b>	<b>28.0</b>	<b>35.6</b>
E1	187.5	81	16	97	43.2	51.7
E2	187.5	111	38	149	59.2	79.5
<b>E - TOTAL</b>	<b>375.0</b>	<b>192</b>	<b>54</b>	<b>246</b>	<b>51.2</b>	<b>65.6</b>
H1	92.0	63	15	78	68.5	84.8
H2	187.5	131	38	169	69.9	90.1
<b>H - TOTAL</b>	<b>279.5</b>	<b>194</b>	<b>53</b>	<b>247</b>	<b>69.4</b>	<b>88.4</b>
<b>GRAND TOTAL</b>	<b>2898.5</b>	<b>1120</b>	<b>373</b>	<b>1494</b>	<b>38.6</b>	<b>51.5</b>

<sup>1</sup> – Total captures include new captures, returns, repeats, and foreign recaptures.

The overall capture rate for SMMP 2017 was 38.6 new birds per 100 net hours, the third-highest ever for spring, and well above the long-term average of 32.1. An additional 12.9 birds per 100 net hours were recaptured, also roughly 20% above average.

The relative effectiveness of nets varies from year to year, although typically the A nets along with E2 and H2 have been the most productive in spring. This year H2 and H1 were the top nets for new captures, followed by E2, A2, and A1; E1 and C1 were the only other nets that were slightly above average for the season. B3 had been particularly productive in spring the previous three years, but this year had the second-lowest capture rate, only slightly ahead of N3. Overall, the B/N nets had the lowest capture rates this spring, slightly below the D nets.

### 4.4. Summary and analysis

The banding effort of 2904 hours this spring was the lowest since 2012, a function of this being the coldest and wettest spring on record for MBO. Despite this, the 1122 birds banded was the second-highest spring total ever, and the numbers of repeats and returns were also far above average. However, the banding total was strongly

influenced by the 412 birds banded in week 8, a single-week record for spring. The big push of migrants that week likely reflected the usual mid-May peak of migration, augmented by some birds that had been delayed by the unusually cold weather the previous week. The count of returns again exceeded 100 individuals this year, likely accounting for a large proportion of the birds breeding at MBO. Whereas the number of birds captured this spring was unusually high, only 142 species were observed, which is average. However, weekly totals approached or exceeded previous records over the last few weeks of the season, and many of the species that were not recorded this spring are typically early or mid-season migrants that might have been missed as a result of poor weather at the time of their passage.

Among the nine species setting new banding records this spring were both kinglets and three *Catharus* thrush species. Interestingly, all of the previous records for these species had been either established or tied within the past three years, reflecting an overall recent increase in these two groups. Despite Tennessee Warbler numbers in fall dropping off in recent years, the spring migration remained very strong for the fourth year in a row, setting new record highs by wide margins – for example, the 211 individuals banded this spring accounts for nearly 24% of the Tennessee Warblers banded in spring at MBO over the course of 13 years! They also comprised 19% of all birds banded at MBO this spring, the highest percentage by a single species in any spring other than Red-winged Blackbird at 22% in 2006 and 2007. However, Ruby-crowned Kinglets and White-throated Sparrows were also banded in great numbers this spring, and collectively it was the first time ever in spring that the top three species all exceeded 100 individuals banded. It was also only the second time that three species each accounted for at least 10% of individuals banded in a spring season (in 2008, Red-winged Blackbird, Ruby-crowned Kinglet, and White-throated Sparrow comprised 14%, 11%, and 10% of the season total, respectively).



*One of the highlights of spring was the discovery of this female Hooded Merganser and her brood of ducklings in the back pond at MBO.  
(Photo by Pascal Berthelot)*

## 5. Summer (MAPS) program

Summer at MBO spans an 8-week period between migration periods, from June 6 through July 31. From 2005 through 2008, 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 6 June and 31 July; 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 five occasions.

### 5.2. Site conditions

For the fourth time in the past five years, the mean daily high for summer was around 25°C (Table 5.1), nearly 1°C below the long-term mean. Temperatures varied relatively little over the course of the season this year, although atypically, the hottest days were in the first half of June. It was a slightly wetter than average summer, with rain on 57% of days.

**Table 5.1:** Weather conditions during the 2017 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)	25.7	25.1	24.2	22.9	26.2	24.7	26.1	25.4	25.0
Mean daily low (°C)	13.1	15.9	15.5	15.7	16.0	16.6	16.9	14.2	15.5
Mean daily temp (°C)	19.4	20.5	19.8	19.3	21.1	20.7	21.5	19.8	20.3
Highest temp (°C)	31	32	26	25	28	27	29	29	32
Lowest temp (°C)	7	10	13	13	13	14	14	11	7
# days with rainfall	2	4	5	6	4	6	2	3	32
Total rain (mm)	13	27	34	20	33	16	35	35	213

## 5.3. Results

### 5.3.1. Birds banded

This summer 135 birds were banded (Table 5.2), just slightly below the average of 138 since MAPS was started in 2009, but numbers were particularly skewed toward July this year, with only 11% of individuals banded during the three June sessions. For the fourth consecutive year, the highest count of birds was banded on the second-last day of the season, this year being July 23. The 34 species banded this summer was one more than the previous record, set in 2014. Additionally, 25 Tree Swallows were banded, the second-most ever, behind the record of 34 in 2007; this year all were nestlings, beating the previous high of 23 in 2007 and 2009.

**Table 5.2:** Summary results of the 2017 MAPS Monitoring Program, by month.

	Jun	Jul	Season
# individuals (species) banded	15 (11)	120 (30)	135 (34)
# individuals (species) return	5 (4)	9 (5)	14 (8)
# individuals (species) repeat	20 (11)	22 (12)	42 (15)
# species observed	47	56	64
# net hours	162.0	216.0	378.0
# birds banded / 100 net hours	9.3	55.6	35.7
# days operating	3	4	7
# days banding	3	4	7

Until 2014, three species had been in the top ten in all five years of the MAPS program (American Robin, Yellow Warbler, and Song Sparrow), but Yellow Warbler fell off the list from 2013 to 2015, before squeaking back on in

a tie for last place in 2016 and again this year. Black-capped Chickadee and American Robin tied for top species banded this summer with 12 each; for American Robin it was the fourth time, and third since 2014, but it was a first for Black-capped Chickadee. Red-eyed Vireo was the top species last year but was one individual short in 2017, tying for third place with American Redstart, which set a new record high with 11 banded. Song Sparrow numbers were similar to the past three years, but much lower than from 2010 to 2013. Gray Catbird fell out of the top three for the first time since 2012. The others in the top ten (Cedar Waxwing, American Goldfinch, Veery, and Northern Cardinal) all had above-average numbers this summer, with Northern Cardinal setting a new record for the season. Other less numerous species with record high banding totals this summer were Swainson's Thrush (4), Eastern Phoebe (3), and Purple Finch (2), while White-breasted Nuthatch, House Finch, and Golden-winged Warbler were all banded in summer for the first time, increasing the cumulative total for the season to 53 species. On the other hand, Brown Thrasher was not banded in summer for the first time since 2011, and White-throated Sparrow was missed for only the second time since 2009.

**Table 5.3:** Top 11 species banded at MBO during the 2017 MAPS program, with comparison to the numbers banded in 2005-2016 (rank in other years in parentheses). Dashes represent species not banded during a particular year.

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2007	2006	2005
1. Black-capped Chickadee	12	13(2)	7(9)	3(15)	1(22)	13(4)	8(6)	14(2)	11(2)	--	--	--
1. American Robin	12	10(4)	20(1)	20(1)	11(3)	18(3)	14(2)	13(3)	13(1)	--	--	--
3. Red-eyed Vireo	11	18(1)	15(3)	8(4)	4(9)	6(7)	12(3)	9(5)	4(10)	--	--	--
3. American Redstart	11	2(16)	8(6)	2(18)	4(9)	--	1(18)	1(18)	--	--	--	--
5. Song Sparrow	8	10(4)	9(5)	7(6)	29(1)	26(2)	18(1)	20(1)	10(3)	3(1)	10(1)	4(1)
6. Gray Catbird	7	11(3)	17(2)	18(2)	14(2)	3(11)	7(7)	3(13)	4(10)	--	--	2(5)
6. Cedar Waxwing	7	4(12)	8(6)	--	1(22)	4(10)	2(13)	10(4)	8(5)	1(2)	--	--
8. American Goldfinch	6	4(12)	1(22)	13(3)	2(15)	2(12)	1(18)	--	1(18)	--	--	--
8. Veery	6	2(16)	3(14)	4(11)	8(5)	2(12)	--	4(12)	4(10)	--	--	4(1)
10. Northern Cardinal	5	2(16)	1(22)	1(24)	3(12)	1(19)	--	--	1(18)	--	--	--
10. Yellow Warbler	5	5(8)	3(14)	4(11)	8(5)	61(1)	11(4)	8(6)	10(3)	--	3(3)	4(1)

### 5.3.2. Birds recaptured

There were 42 repeats of 15 species and 14 returns of 8 species during MAPS (Table 5.4). For the third year in a row, there were more returns by Red-eyed Vireos than any other species; this year they accounted for 36% of the total. For the first time since 2008, there were no Black-capped Chickadee returns in summer, and the two repeats were also fewer than average.

**Table 5.4:** List of returns captured during the 2017 MAPS program, sorted by time elapsed.

Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed
2641-09094	GRCA	ASY-F	SY-U	24 May 2015	24 Sep 2015	24 Jun	1 year 9 months
2720-00976	AMGO	ASY-M	SY-M	21 May 2016	21 May 2016	30 Jul	1 year 2 months 9 days
2720-00984	AMGO	ASY-M	SY-M	25 May 2016	25 May 2016	24 Jun	1 year 30 days
1372-11265	RWBL	ASY-M	ASY-M	20 May 2016	20 May 2016	7 Jun	1 year 18 days
2691-45653	SOSP	AHY-M	AHY-U	6 Jun 2016	17 Jul 2016	23 Jul	1 year 6 days
2521-74045	REVI	ASY-U	SY-F	17 Jul 2016	17 Jul 2016	16 Jul	11 months 29 days
2521-74012	REVI	AHY-F	SY-F	12 Jul 2015	5 Aug 2016	30 Jul	11 months 25 days
2521-95265	REVI	AHY-F	AHY-U	8 Aug 2016	8 Aug 2016	30 Jul	11 months 22 days
2760-85238	AMRE	SY-M	HY-M	1 Aug 2016	1 Aug 2016	23 Jul	11 months 22 days
2521-95261	REVI	SY-F	HY-U	6 Aug 2016	6 Aug 2016	23 Jul	11 months 17 days
2521-74070	REVI	ASY-F	ASY-U	30 Jul 2016	30 Jul 2016	16 Jul	11 months 16 days
2741-62855	VEER	AHY-F	AHY-U	4 Aug 2016	4 Aug 2016	16 Jul	11 months 12 days

Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed	
2651-66653	NOCA	AHY-M	HY-M	6 Oct 2016	24 Oct 2016	15 Jun	7 months	22 days
2651-66697	NOCA	SY-F	HY-F	3 Nov 2016	3 Nov 2016	15 Jun	7 months	12 days

One bird banded at MBO was encountered elsewhere this summer, an American Goldfinch from late April 2016, found dead by one of our volunteers in neighbouring Senneville on July 13, 2017.

### 5.3.3. Daily estimated totals (DET)

The number of species observed daily ranged from a low of 32 on June 24 to a high of 44 on both July 16 and July 30. Over the course of the season, 64 species were observed, two fewer than last year, but otherwise the highest total since 2007. Three species were observed in summer for the first time: Great Egret, Broad-winged Hawk, and Golden-winged Warbler; the cumulative total for summer observations is now 110 species. Chipping Sparrow was missed in summer for the first time since 2009, and Hairy Woodpecker was not observed in summer for only the third time. Record high mean daily counts were established for 9 other species: Blue Jay (4.9, vs. 4.6 in 2013), American Redstart (2.9, vs. 1.9 in 2015), Turkey Vulture (1.0, vs. 0.4 in 2015), Swainson’s Thrush (1.0, vs. 0.1 in 2016), Purple Finch (1.0, vs. 0.7 in 2015), Barn Swallow (0.9, vs. 0.4 in 2008), Rock Pigeon (0.7, vs. 0.6 in 2006), Yellow-bellied Sapsucker (0.6, vs. 0.4 in 2005), and Great Horned Owl (0.4, vs. 0.1 in 2016).



*The many juvenile sparrows banded at MBO can require close scrutiny; here are a Song Sparrow (left) and an unusually pale Swamp Sparrow (right) from this year’s local broods.*

*(Photos by Simon Duval)*

## 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 August 1 to October 30, but based on a pilot study in 2014, a 14<sup>th</sup> 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 88 days (90%), with a record high 10 days entirely lost to rain (August 5, 12, 15, 18; October 8, 29, 30, 31; November 2, 5). However, there were only 9 additional days with rain and/or strong winds resulting in reduced net hours (less than 75 out of a normal 80), leaving a record high 79 days (81%) of full banding effort according to the site protocol. Overall though, the total of 6627 net hours this fall was the lowest since the season was expanded to 14 weeks, and the 6371 hours over the first 13 weeks of the season was slightly below average for the past eight years. 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 Avian Research Supplies, 12 m long with 30 mm mesh, and were used, from spring 2016.

### 6.2. Site conditions

Overall, fall 2017 was the warmest on record in MBO's history, with a mean daily high temperature 0.2°C above the previous high set in 2007. This was largely due to record high temperatures in weeks 7 and 8, with the latter actually being the warmest week of the season, the first time ever that the peak has been later than week 5. Temperatures remained 2-5°C above average throughout the second half of the season. The total amount of rain this fall was slightly below average, but more of it than usual fell during the mornings, having a disproportionate effect on banding activities. Like last year, rain affected October more than other months.

**Table 6.1:** Weather conditions during the 2017 FMMP, by week.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Season
Mean daily high (°C)	26.4	25.8	25.3	23.0	20.3	19.9	26.4	28.1	20.8	21.4	16.8	18.9	16.4	12.7	21.6
Mean daily low (°C)	16.5	16.4	16.7	12.3	10.6	11.1	15.1	16.8	10.2	11.9	7.2	7.0	7.6	2.2	11.6
Mean daily temp (°C)	21.3	21.1	21.0	17.7	15.5	15.6	20.8	22.5	15.5	16.7	12.0	13.0	11.8	7.5	16.6
Highest temp (°C)	30	28	28	27	24	23	28	32	31	26	24	21	24	17	32
Lowest temp (°C)	13	13	15	9	6	6	12	14	5	6	1	0	3	0	0
# days with rainfall	2	2	2	1	3	5	0	0	1	4	2	0	4	7	33
Total rain (mm)	35	8	24	10	28	21	0	0	6	48	11	0	63	49	302

### 6.3. Results

#### 6.3.1. Birds banded

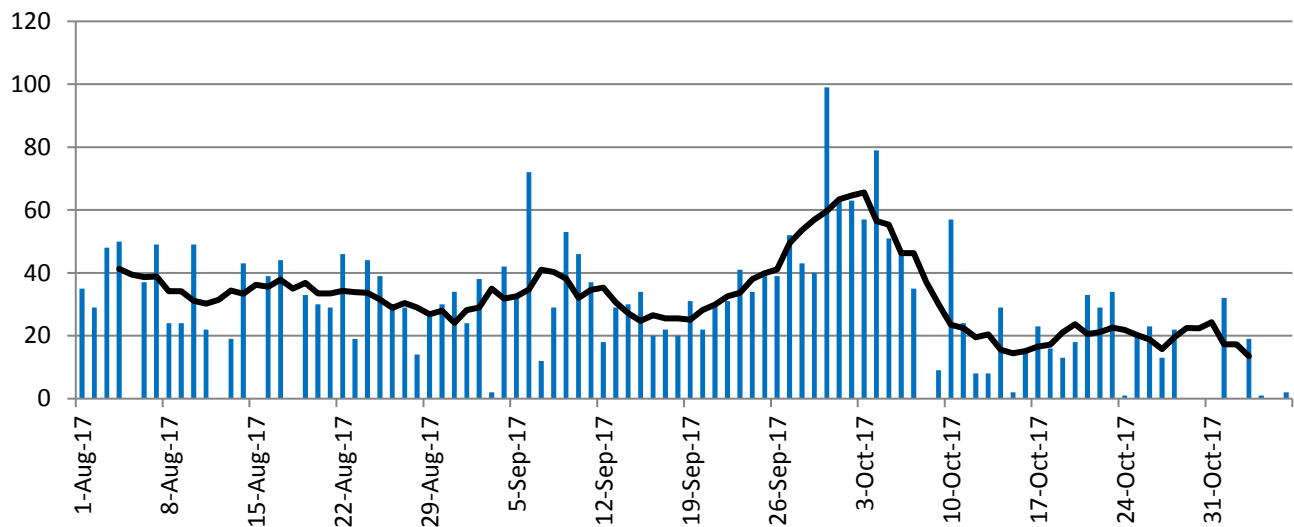
Table 6.2 summarizes the fall 2017 banding results throughout the season. The 2824 birds banded was only slightly above the record low for the season of 2792 in 2011, and this despite the inclusion of week 14 this year, without which the total would have been 2770. Weekly banding totals were slightly above long-term averages throughout August, but from week 7 onward they averaged 44% below average (ranging from 21% in week 9 to 70% in week 13, during which a record low 79 individuals were banded). The 76 species banded over the course of the season was the lowest total for fall since 2010.

The busiest day of the season was September 30, with 99 birds banded (Figure 6.1), only the second time in 13 years that the peak has been below 100. Four of the five days with more than 60 birds banded were between September 30 and October 4; the only exception was September 6. For FMMP 2017 the mean count of birds banded per day was 28.8 (32.1 for the 88 days with banding effort).



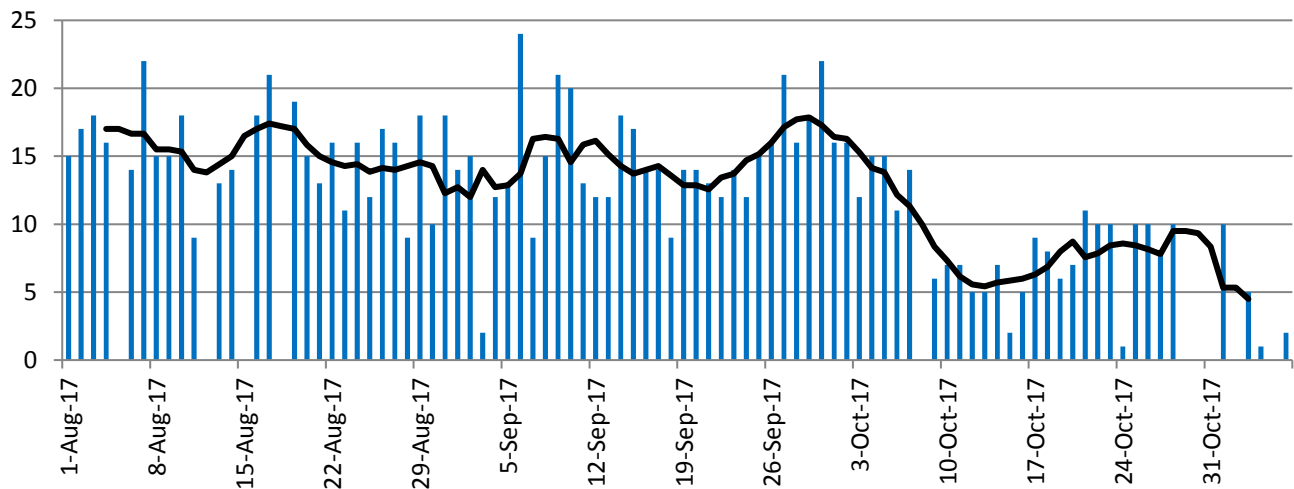
**Table 6.2:** Summary results of the 2017 FMMP, by week.

	F1	F2	F3	F4	F5	F6	F7	F8
# individuals (species) banded	248 (35)	181 (33)	175 (34)	221 (40)	197 (38)	282 (40)	173 (42)	228 (35)
# individuals (species) return	11 (9)	4 (2)	5 (2)	5 (5)	3 (3)	1 (1)	10 (8)	1 (1)
# individuals (species) repeat	35 (18)	32 (15)	47 (16)	53 (17)	43 (16)	53 (19)	27 (8)	30 (12)
# species observed	73	79	89	93	93	107	96	84
# net hours	476.0	480.0	396.0	560.0	480.5	520.0	560.0	560.0
# birds banded / 100 net hours	52.1	37.7	44.2	39.5	41.0	54.2	30.9	40.7
# days operating	7	7	7	7	7	7	7	7
# days banding	6	6	5	7	7	7	7	7
# days with full net coverage	6	6	5	7	6	6	7	7
	F9	F10	F11	F12	F13	F14	Average	Season
# individuals (species) banded	399 (43)	278 (32)	143 (14)	166 (20)	79 (16)	54 (11)	202 (31)	2824 (76)
# individuals (species) return	3 (3)	4 (2)	1 (1)	1 (1)	0	3 (2)	4 (3)	52 (24)
# individuals (species) repeat	80 (20)	73 (17)	44 (8)	20 (6)	28 (9)	26 (8)	42 (14)	591 (47)
# species observed	92	70	63	60	53	57	79	151
# net hours	560.0	416.0	487.0	551.0	324.0	256.0	473.3	6626.5
# birds banded / 100 net hours	71.3	66.8	29.4	30.1	24.4	21.1	41.7	42.6
# days operating	7	7	7	7	7	7	7.0	98
# days banding	7	6	7	7	5	4	6.3	88
# days with full net coverage	7	5	6	6	3	2	5.6	79



**Figure 6.1:** Daily and running 7-day mean of individuals banded per day throughout fall 2017.

Species richness among banded birds fluctuated throughout the first half of the season, hovering just below and above 15 species, before briefly increasing around the end of September and then quickly dropping off to a rolling average of fewer than 10 per day from the second week of October through to the end of the season (Figure 6.2). The greatest variety banded in a single day was 24 on September 6, the lowest peak since 22 in 2009. The mean number of species banded per day this fall was 12.7.



**Figure 6.2:** Daily and running 7-day mean of species banded per day throughout fall 2017.

No species were banded for the first time this fall, leaving the cumulative season total at 107 species. However, record high banding totals were reached by three species despite the overall lower numbers this fall: American Redstart (237, vs. 176 in 2016), Ovenbird (71, vs. 70 in 2015), and Eastern Phoebe (14, vs. 8 in 2008, 2013, and 2016). Conversely, Northern Shrike was missed for the first time since 2010, and Northern Parula was not banded for just the second time in 13 years, while new record low banding totals were set or tied for ten species: American Robin (56, vs. 79 in 2011), Nashville Warbler (17, vs. 25 in 2016), Traill’s Flycatcher (10, vs. 12 in 2010), American Tree Sparrow (10, vs. 13 in 2008 and 2013), Indigo Bunting (6, vs. 12 in 2016), Fox Sparrow (4, vs. 5 in 2011 and 2016), Black-throated Green Warbler (3, matching 2007), Chipping Sparrow (2, vs. 5 in 2006, 2013, and 2016), Orange-crowned Warbler (1, vs. 2 in 2010), and Bay-breasted Warbler (1, matching 2015 and 2016).

In addition to Orange-crowned Warbler and Bay-breasted Warbler, six other species were banded just once this fall: Black-billed Cuckoo, Yellow-bellied Sapsucker, Eastern Wood-Pewee, White-breasted Nuthatch, Red-winged Blackbird, and Brown-headed Cowbird. At the other extreme, Table 6.3 lists the 10 most frequently banded species, which account for 60.9% of all birds banded during FMMP 2017. 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. There were four warblers among the top ten species this fall, and overall the 21 warbler species banded accounted for 38% of birds banded. Conversely, there were only two sparrows among the top ten, most of the 9 sparrow species banded this fall were in below average numbers, and collectively they comprised only 21% of birds banded.

**Table 6.3:** Top 10 species banded at MBO during the 2017 FMMP, with comparison to the numbers banded in 2005-2016 (rank in other years in parentheses).

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
1. Ruby-crowned Kinglet	301	341(2)	257(3)	327(2)	347(1)	353(2)	180(4)	271(6)	257(4)	319(3)	376(1)	444(2)	245(2)
2. White-throated Sparrow	282	566(1)	326(1)	484(1)	263(4)	506(1)	216(2)	351(5)	428(1)	317(4)	318(2)	187(5)	354(1)
3. Magnolia Warbler	248	133(9)	173(4)	279(3)	284(2)	203(5)	252(1)	260(7)	103(9)	264(5)	74(10)	157(6)	192(5)
4. American Redstart	237	176(4)	165(6)	138(8)	146(7)	139(9)	150(6)	149(10)	104(8)	99(9)	77(9)	48(13)	66(13)
5. Yellow-rumped Warbler	145	71(12)	57(16)	164(6)	108(8)	292(3)	108(8)	2359(1)	106(7)	1732(1)	68(11)	522(1)	157(8)
6. Song Sparrow	139	136(8)	146(7)	136(9)	267(3)	217(4)	170(5)	219(8)	322(3)	199(7)	198(4)	302(3)	215(4)
7. Swainson's Thrush	99	170(5)	171(5)	46(21)	25(27)	176(7)	21(31)	27(34)	14(40)	15(40)	15(35)	7(46)	36(21)
8. Gray Catbird	92	71(12)	92(10)	94(13)	47(17)	64(17)	38(22)	32(33)	63(13)	45(17)	39(18)	41(19)	58(14)
9. Common Yellowthroat	91	55(15)	95(8)	71(19)	87(11)	121(11)	80(9)	100(12)	77(11)	93(10)	51(14)	77(8)	76(12)
10. Golden-crowned Kinglet	85	138(7)	63(15)	82(16)	101(9)	91(13)	70(12)	90(14)	25(29)	36(23)	22(25)	73(9)	54(15)

For the first time since 2013, and the third time overall, Ruby-crowned Kinglet was the most frequently banded species in fall; it has been among the top three species 10 times out of 13 years. It was followed closely by White-throated Sparrow, which had been the top species the past three years. Magnolia Warbler was among the top three for the fourth time. American Redstart set a new record high for the fifth time in the past eight years, and ranked fourth for the second consecutive year. After those top four species, there was a substantial drop in numbers to Yellow-rumped Warbler in fifth place and Song Sparrow in sixth place, both of which were more numerous than in 2016, but below long-term averages. There was then another wide gap until the remaining four species in the top ten, all clustered between 85 and 99 individuals, with Swainson’s Thrush, Gray Catbird, Common Yellowthroat, and Golden-crowned Kinglet all in above-average numbers.

### 6.3.2. Birds recaptured

There were 591 repeats this fall, well below the long-term average of 722, consistent with the overall lower number of birds banded. However, 47 species were represented, slightly more than the long-term average of 45. For the seventh time in 13 years, Black-capped Chickadee outnumbered all other species; it and five other species in the top ten this fall (Gray Catbird, Common Yellowthroat, Song Sparrow, Ovenbird, and American Redstart; Table 6.4) breed at MBO, and most of the repeats were likely of local birds. A number of birds were recaptured on multiple occasions, most notably a Downy Woodpecker, nine Black-capped Chickadees, two Gray Catbirds, and an Ovenbird which were each recaptured five or more times during the season. For only the second time ever, there were no repeats of Fox Sparrow or White-crowned Sparrow.

**Table 6.4:** Top 10 species recaptured most often during the 2017 FMMP (species with local breeding populations marked with an asterisk).

	Species	# Repeats	# Individuals
1.	Black-capped Chickadee*	101	34
2.	Gray Catbird*	60	37
3.	White-throated Sparrow	50	41
4.	Ruby-crowned Kinglet	45	34
5.	Magnolia Warbler	36	30
6.	Yellow-rumped Warbler	32	28
7.	Common Yellowthroat*	24	19
8.	Song Sparrow*	23	18
9.	Ovenbird*	22	12
10.	American Redstart*	20	18

Aside from birds likely to be local breeders, or their offspring, 13 individuals of 6 species stopped over for at least two weeks: Blue-headed Vireo (23 days), Ruby-crowned Kinglet (23 days), Swainson’s Thrush (18, 20, 30, 38, 42, and two individuals at 46 days), Black-and-white Warbler (20 and 31 days), Tennessee Warbler (30 days), and Nashville Warbler (41 days). All the warblers except Black-and-white included at least some molting adults.

There were 52 returns of 24 species during FMMP 2017 (Table 6.5). The number of individuals perfectly matches the long-term average for fall, but the 24 species involved ties the record high set in 2012. The only species with a record high count of returns was American Redstart (6, vs. 2 in 2010 and 2016). Overall, nine birds had not been encountered since two years or more, with the longest interval belonging to a Song Sparrow banded in September 2014 and not recaptured since. The oldest bird recaptured this fall was a female Common Yellowthroat banded as a second-year bird in May 2011, and now at least 7 years old.

**Table 6.5:** List of returns captured during the 2017 FMMP, sorted by time elapsed.

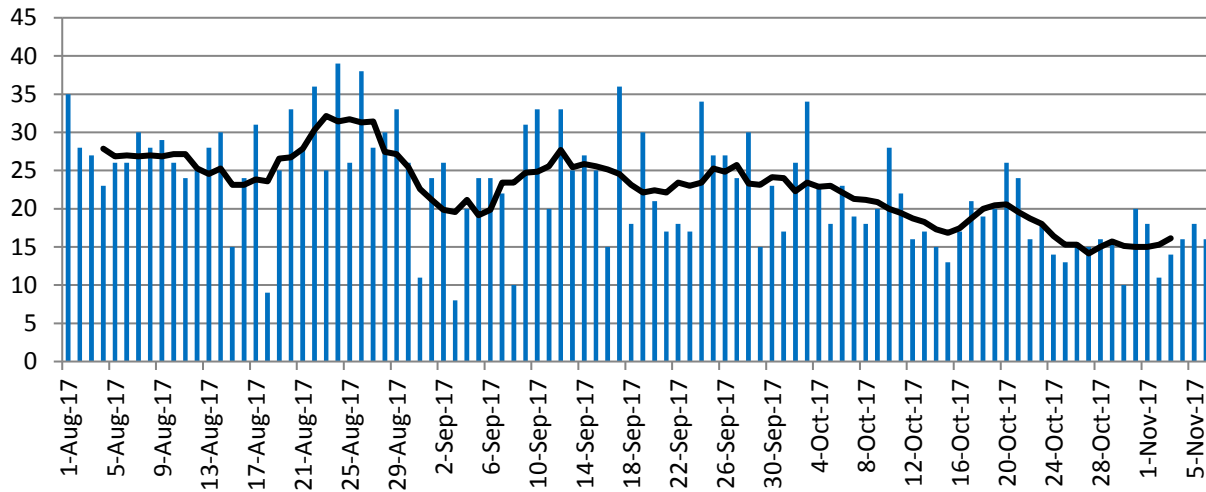
Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed		
2691-45706	SOSP	AHY-U	U-U	6 Sep 2014	6 Sep 2014	26 Aug	2 years	11 months	20 days
2760-51121	NAWA	AHY-F	AHY-U	20 Aug 2014	22 Aug 2014	6 Aug	2 years	11 months	15 days

Band number	Species	Age/sex in 2017	Age/sex at banding	Banding date	Previous capture	2017 return	Time elapsed		
2650-43226	COYE	AHY-F	SY-F	30 May 2011	29 Sep 2014	1 Aug	2 years	10 months	3 days
2650-44346	COYE	AHY-F	SY-F	19 May 2015	19 May 2015	15 Sep	2 years	3 months	27 days
2650-44215	WAVI	AHY-U	SY-U	9 May 2015	27 Jun 2015	16 Sep	2 years	2 months	20 days
2521-91039	OVEN	AHY-U	HY-U	1 Aug 2015	1 Aug 2015	18 Sep	2 years	1 month	17 days
2521-91042	REVI	AHY-U	AHY-U	2 Aug 2015	2 Aug 2015	4 Aug	2 years		2 days
2650-41039	SCJU	AHY-M	HY-M	17 Nov 2011	5 Nov 2015	6 Nov	2 years		1 day
2571-20527	VEER	AHY-U	HY-U	21 Jul 2013	25 Aug 2015	25 Aug	2 years		
1891-91604	BAOR	AHY-M	SY-M	27 Jun 2010	20 May 2016	8 Sep	1 year	3 months	19 days
2650-42400	AMGO	ASY-F	SY-F	19 May 2014	2 May 2016	10 Aug	1 year	3 months	8 days
2760-85346	AMRE	AHY-F	HY-U	18 Aug 2016	18 Aug 2016	14 Sep	1 year		27 days
2741-62751	WTSP	AHY-U	HY-U	1 Aug 2016	30 Aug 2016	17 Sep	1 year		18 days
2760-85234	AMRE	AHY-F	HY-U	1 Aug 2016	6 Aug 2016	20 Aug	1 year		14 days
2760-85272	AMRE	AHY-M	HY-M	6 Aug 2016	6 Aug 2016	19 Aug	1 year		13 days
2760-85299	AMRE	AHY-M	HY-M	10 Aug 2016	10 Aug 2016	19 Aug	1 year		9 days
2650-44015	AMGO	ASY-M	ASY-M	30 May 2014	4 Aug 2016	10 Aug	1 year		6 days
2760-85367	AMRE	AHY-F	HY-U	22 Aug 2016	22 Aug 2016	28 Aug	1 year		6 days
2720-01191	BAWW	AHY-M	AHY-U	6 Aug 2016	18 Aug 2016	23 Aug	1 year		5 days
2740-77011	AMGO	ASY-M	ASY-M	11 Aug 2016	11 Aug 2016	10 Aug		11 months	30 days
2760-85404	CSWA	AHY-F	AHY-F	28 Aug 2016	28 Aug 2016	25 Aug		11 months	28 days
2760-85226	AMRE	AHY-M	AHY-M	1 Aug 2016	21 Aug 2016	17 Aug		11 months	27 days
2760-85445	TEWA	AHY-F	AHY-U	14 Sep 2016	2 Oct 2016	27 Sep		11 months	25 days
2521-95298	REVI	AHY-U	AHY-U	16 Aug 2016	16 Aug 2016	6 Aug		11 months	21 days
2730-49958	BCCH	AHY-U	HY-U	24 Aug 2015	1 Nov 2016	10 Oct		11 months	9 days
2741-62847	SWTH	AHY-F	AHY-U	2 Aug 2016	7 Sep 2016	7 Aug		11 months	
2810-34128	SCJU	AHY-F	HY-F	6 Dec 2016	6 Dec 2016	4 Nov		10 months	29 days
2741-62943	SOSP	AHY-U	AHY-U	13 Sep 2016	13 Sep 2016	6 Aug		10 months	24 days
2730-49999	BCCH	AHY-U	AHY-U	5 Dec 2015	27 Oct 2016	16 Sep		10 months	20 days
2741-62945	SOSP	AHY-F	HY-U	17 Sep 2016	20 Sep 2016	7 Aug		10 months	18 days
2231-00121	GRCA	AHY-U	HY-U	4 Aug 2016	18 Sep 2016	1 Aug		10 months	14 days
2730-49960	BCCH	AHY-U	HY-U	29 Aug 2015	28 Nov 2016	2 Oct		10 months	4 days
2810-34053	AMGO	SY-F	HY-F	28 Nov 2016	30 Nov 2016	20 Aug		8 months	21 days
2421-93989	NOCA	U-M	HY-M	20 Sep 2012	23 Apr 2017	3 Nov		6 months	11 days
2650-43009	BCCH	AHY-U	HY-U	1 Aug 2011	20 Apr 2017	19 Oct		5 months	29 days
2720-00727	BCCH	AHY-U	HY-U	26 Aug 2016	20 Apr 2017	6 Oct		5 months	16 days
2691-45662	DOWO	SY-M	HY-M	17 Jul 2016	3 May 2017	7 Oct		5 months	4 days
2810-33790	BCCH	AHY-U	SY-U	18 Apr 2017	11 May 2017	7 Oct		4 months	26 days
2720-00722	BCCH	AHY-U	HY-U	14 Aug 2016	23 May 2017	9 Oct		4 months	16 days
1352-95380	BLJA	AHY-U	HY-U	14 Sep 2016	27 Apr 2017	4 Sep		4 months	8 days
2501-44954	HAWO	TY-M	HY-U	3 Aug 2015	18 May 2017	23 Sep		4 months	5 days
1372-39122	BRTH	AHY-U	SY-U	28 Apr 2017	28 Apr 2017	2 Sep		4 months	5 days
2720-01132	COYE	AHY-F	SY-F	28 May 2016	24 May 2017	27 Sep		4 months	3 days
2810-33783	BCCH	AHY-U	HY-U	14 Nov 2016	15 May 2017	15 Sep		4 months	
2651-66792	GRCA	AHY-U	SY-U	20 May 2017	23 May 2017	16 Sep		3 months	24 days
2771-51278	DOWO	SY-F	HY-F	23 Sep 2016	19 Apr 2017	7 Aug		3 months	19 days
2651-66803	GRCA	AHY-U	SY-U	24 May 2017	30 May 2017	16 Sep		3 months	17 days
2741-64550	SOSP	AHY-U	AHY-U	23 Apr 2016	1 Jun 2017	13 Sep		3 months	12 days
2650-44680	COYE	AHY-M	AHY-M	19 Aug 2015	25 May 2017	2 Sep		3 months	8 days
2771-52069	DOWO	SY-M	SY-M	4 May 2017	4 May 2017	10 Aug		3 months	6 days
2561-32371	NOCA	AHY-F	HY-F	14 Oct 2014	28 Apr 2017	2 Aug		3 months	5 days
2631-76350	SWSP	AHY-F	AHY-U	30 Apr 2017	30 Apr 2017	2 Aug		3 months	3 days
2730-49944	BCCH	AHY-U	HY-U	3 Aug 2015	21 May 2017	19 Aug		2 months	29 days

During fall, we received one report of a bird banded at MBO showing up elsewhere, an American Robin from mid-October 2016, found dead in nearby Ile-Perrot (<5 km to the south) on September 23, 2017.

### 6.3.3. Census

One or more experienced observers walked the standardized census route daily during FMMP. Over the course of the season, 112 species were observed on census, tying the record low from 2010. For the first time ever, there were no species observed on census that were not also detected through capture or general observations.



**Figure 6.3:** Daily species count and running 7-day mean of species recorded on census throughout fall 2017.

As shown in Figure 6.3, there was daily variation in the number of species observed during the census, ranging from a high of 39 on August 24 to a low of 8 on September 3. 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 final week of August, and had a couple of smaller spikes around mid- and late September, and just past mid-October, before tapering off to a lower plateau for the remainder of the season.

### 6.3.4. Daily estimated totals (DET)

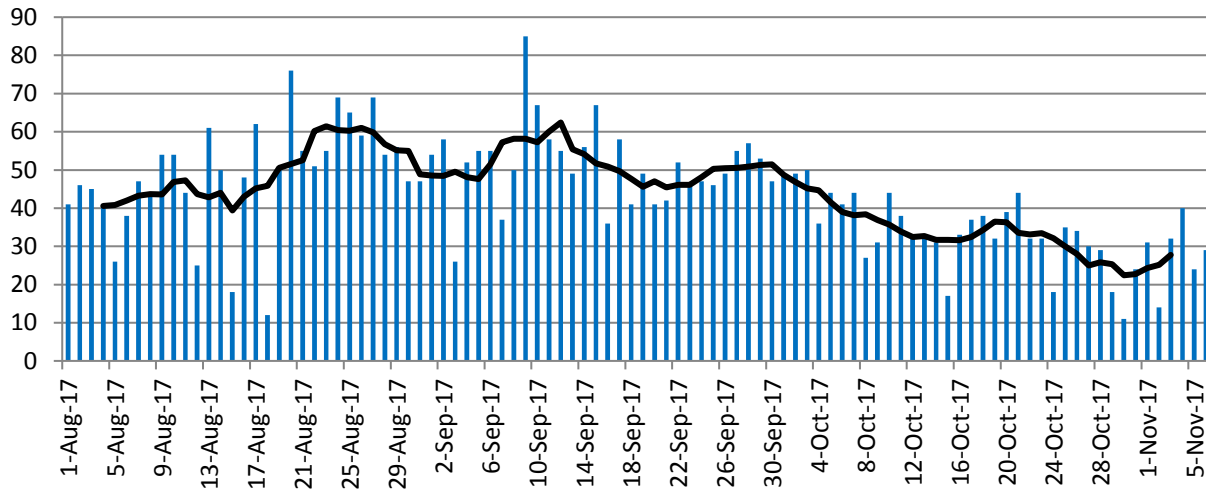
The DET, as described in Section 4.3.4, includes all observations made by participants at MBO. During FMMP 2017, 151 species were recorded, tying the record high set in 2005 and matched in 2015, and well above the long-term average of 146. Of note, however, four of these were only observed during week 14, so the 13-week total of 147 was only slightly above average.

This fall, 12 species were seen on just one day: Cackling Goose, American Black Duck, Northern Pintail, Black Scoter, Common Merganser, Ruffed Grouse, Yellow-billed Cuckoo, Wilson’s Snipe, Herring Gull, Rough-legged Hawk, Golden Eagle, Peregrine Falcon, Northern Shrike, Northern Rough-winged Swallow, Carolina Wren, Snow Bunting, Bobolink, and Golden-winged Warbler. Black Scoter was recorded for the first time in fall, becoming the 197<sup>th</sup> species observed during the season, but the overall site total remained at 214.

The highest single day DET, 85 species, was recorded on September 9, and not only shattered the previous single-day high for fall (72 on August 17, 2016), but became the best day ever in any season, exceeding the spring record of 83 species that was reached twice in May 2016. The count on September 9 included 10 raptors, 21 warblers, 4 sparrows, and a wide variety of uncommon species. At the weekly scale, the highest number of species was 107, in week 6 (September 5-11), far above the previous single-week high for fall of 96 (set in week 5 of 2016, and matched in week 7 of 2017). The totals for weeks 4 (93) and 9 (92) also matched or exceeded previous highs for those periods, and counts were above average for eight consecutive weeks (2-9) before dropping to slightly

below average levels for most of the rest of the season. The lowest count of 11 species occurred on October 30, a cold and rainy morning.

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 just above 60 species from August 22 to 26, and remained near or above 50 from August 19 through September 30, then declined fairly steadily throughout most of October, to below 30 on average over the final week of the season.



**Figure 6.4:** Daily species count and running 7-day mean of species observed throughout fall 2017.

This year 24 species were observed each week throughout fall (those not detected in all weeks in 2016 marked with an asterisk): Canada Goose, Mourning Dove, Sharp-shinned Hawk\*, Red-tailed Hawk, Great Horned Owl\*, Downy Woodpecker, Hairy Woodpecker, Yellow-shafted Flicker, Pileated Woodpecker, Blue Jay, American Crow, Common Raven, Black-capped Chickadee, White-breasted Nuthatch, American Robin, Cedar Waxwing, House Finch\*, American Goldfinch, Song Sparrow, Swamp Sparrow, White-throated Sparrow, Red-winged Blackbird, Common Grackle, and Northern Cardinal. Eight species that were observed weekly throughout last fall were missed in at least one week this year: Wood Duck, Mallard, Ring-billed Gull, Cooper’s Hawk, Red-breasted Nuthatch, Swainson’s Thrush, European Starling, and Purple Finch.

### 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 but two species on the MBO priority list were observed during FMMP 2017, and 84% 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 2017, all except Gray Catbird are designated as priority species, and half of them are classified as priority A or B, including all of the top three, indicating the program is effective at documenting these otherwise poorly monitored birds.

**Table 6.6:** Summary of priority species observed and banded during the 2017 FMMP. Detailed category definitions are provided in Gahbauer et al. (2014).

	Priority A	Priority B	Priority C	Priority D
<b>Number of species in category</b>	15	10	18	19
<b>Number of species observed</b>	13	10	18	19
<b>Number of species banded</b>	13	9	14	16
<b>Number of individuals banded</b>	523	844	586	477

### 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 and D4 closed early due to wind. Table 6.7 summarizes the usage and productivity of all nets during FMMP 2017.

**Table 6.7:** Net usage and capture rates during the 2017 FMMP.

Net	Hours open	New Captures	Returns + Repeats	Total Captures	Birds / 100 net hours	
					New	Total
A1	416.0	180	30	210	43.3	50.5
A2	416.0	233	60	293	56.0	70.4
<b>A - TOTAL</b>	<b>832.0</b>	<b>413</b>	<b>90</b>	<b>503</b>	<b>49.6</b>	<b>60.5</b>
B2	412.0	81	27	108	19.7	26.2
N1	412.0	147	31	178	35.7	43.2
N3	412.0	169	62	231	41.0	56.1
B3	412.0	171	56	227	41.5	55.1
<b>B/N - TOTAL</b>	<b>1648.0</b>	<b>568</b>	<b>176</b>	<b>744</b>	<b>34.5</b>	<b>45.1</b>
C1	416.0	243	60	303	58.4	72.8
C2	416.0	214	42	256	51.4	61.5
<b>C - TOTAL</b>	<b>832.0</b>	<b>457</b>	<b>102</b>	<b>559</b>	<b>54.9</b>	<b>67.2</b>
D1	415.0	87	18	105	21.0	25.3
D2	415.0	54	9	63	13.0	15.2
D3	415.0	125	18	143	30.1	34.5
D4	406.0	115	24	139	28.3	34.2
<b>D - TOTAL</b>	<b>1651.0</b>	<b>381</b>	<b>69</b>	<b>450</b>	<b>23.1</b>	<b>27.3</b>
E1	415.5	175	16	191	42.1	46.0
E2	415.5	323	85	408	77.7	98.2
<b>E - TOTAL</b>	<b>831.0</b>	<b>498</b>	<b>101</b>	<b>599</b>	<b>59.9</b>	<b>72.1</b>
H1	416.3	199	50	249	47.8	59.8
H2	416.3	307	55	362	73.8	87.0
<b>H - TOTAL</b>	<b>832.5</b>	<b>506</b>	<b>105</b>	<b>611</b>	<b>60.8</b>	<b>73.4</b>
<b>GRAND TOTAL</b>	<b>6626.5</b>	<b>2823</b>	<b>643</b>	<b>3466</b>	<b>42.6</b>	<b>52.3</b>

The overall capture rate of new birds for FMMP 2017 was 42.6, the lowest ever in fall, and far below the long-term average of 65.3. The additional 9.7 birds per net hour for recaptures was also a record low, and significantly below the long-term average of 13.0. As has been the case for the past several years, the D nets had the lowest capture rate as a group, and D2 was the poorest overall for the fifth year in a row, and eighth time in the past nine years.

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. This year E2 had the highest capture rate, followed relatively closely by H2, and then a considerable gap to C1 and A2 in third and fourth place. B3, C2, H1, and N3 were above average for fall 2017, but below the average capture rate (63.9) for the previous four years.

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 as usual concentrated mostly on thinning the buckthorns and hawthorns around all the nets, but also thinning the edge row between the census trail and the field around the cabin area. This year's annual habitat review took place in early September, as always involving visual inspection of all net lanes and surrounding areas and comparison with photos from each previous year dating back to 2005.

#### 6.4. Summary and analysis

Although rainfall was slightly below average for fall, more of it fell in mornings than usual, and as such 10 days were lost to weather and banding effort for the season ended up a bit below average. However, this alone does not account for the near-record low of 2824 individuals banded during the season. The banding rate of 42.6 birds per 100 net hours was lower than in any previous fall, and included record-low rates in four separate weeks (7, 11, 13, and 14). It continues a trend dating back to 2006, of higher banding rates in “even” years (mean 74.6; range 50.5 to 112.7) offset by lower ones in “odd” years (mean 48.9; range 42.6 to 58.1). Over a shorter period (since 2011), this same pattern is also strongly evident for some individual species such as White-throated Sparrow and Rusty Blackbird. For the first time since 2007, there were only six species with at least 100 individuals banded during fall. Despite the low numbers of birds observed and banded at MBO this fall, diversity was high, with 151 species observed, tying the record high for the season. Arguably the highlight of this fall was the single-day record count of 85 species observed on September 9.

This was the warmest fall in MBO’s history, with temperatures at record levels in weeks 7 and 8, and remaining warmer than usual from then through the end of the season. Whether this had a bearing on capture rates is unclear, but it is worth noting that the number of birds banded over the final four weeks of the season was exceptionally low, and two typical late-season species (American Tree Sparrow and Fox Sparrow) were in record low numbers, and Dark-eyed Juncos were also far scarcer than usual; it is possible for all these species that migration continued well beyond the end of the fall program. However, numbers were below average for a wide variety of migrants throughout the entire season, so there appears to have been no single explanation for the poor results. Only three species set new record highs for number banded this fall, and two of these (American Redstart and Ovenbird) have been steadily increasing in recent years. American Redstart set a new record for the third year in a row (and eighth time in 11 years); the 237 individuals banded is triple the fall average for the species over the first five years of MBO’s operation (2005-2009). The 71 Ovenbirds banded this fall was one more than in 2015, and the average of 68 over the past three fall seasons is a substantial jump from the average of 38 over the previous ten years.



*One of the species observed a single time this fall was Wilson’s Snipe; this individual was photographed at the edge of the back ponds on October 2.*

*(Photo by Pascal Berthelot)*



## 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 that banding took place, it 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, plus supplemental effort in some years until roughly mid-November on nights with suitable conditions. 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). As in 2016, an additional seven nets were operated at a second location this fall, 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 a below-average 32 (76%) of 42 nights during the standard season, with rain or strong winds preventing efforts on the remaining occasions. For the fifth year in a row, there was no banding outside of the standard season.

### 7.2. Site conditions

Temperatures were considerably above average throughout the owl banding season, but rainfall was unusually high in three of the six weeks (Table 7.1).

**Table 7.1:** Weather conditions during the 2017 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)	20.8	21.4	16.8	18.9	16.4	12.7	17.9
Mean daily low (°C)	10.2	11.9	7.2	7.0	7.6	2.2	7.7
Mean daily temp (°C)	15.5	16.7	12.0	13.0	11.8	7.5	12.8
Highest temp (°C)	31	26	24	21	24	17	31
Lowest temp (°C)	5	6	1	0	3	0	0
# days with rainfall	1	4	2	0	4	7	18
Total rain (mm)	6	48	11	0	63	49	177

### 7.3. Results

The 211 Northern Saw-whet Owls banded this fall was the third-highest season total ever; two Eastern Screech-Owls were banded, which was also above average (Table 7.2). Eastern Screech-Owls were also heard occasionally during the season, as were Barred and Great Horned Owls.

**Table 7.2:** Summary results of the 2017 Northern Saw-whet Owl Monitoring Program, by week.

	9	10	11	12	13	14	Average	Season
# owls banded	34	31	70	43	24	11	35.5	213
# owls return	0	0	1	0	0	0	0.2	1
# owls repeat	1	3	5	5	6	10	5.0	30
# owls foreign	1	1	3	0	2	0	1.2	7
# net hours	652.8	678.0	680.1	776.9	346.5	502.7	606.2	3637.1
# owls banded / 100 net hours	5.2	4.6	10.3	5.5	6.9	2.2	5.8	5.9
# nights banding	6	6	6	7	3	4	5.3	32

#### 7.3.1. Birds banded

The season started off well, with 34 owls banded in the first week, the second-highest total ever for that period. Numbers were similar the following week, but then 70 owls were banded in the third week (week 11), more than ever before for that period. Numbers remained slightly above average for the next two weeks before dropping

off to 11 in week 14, the lowest count for that period since 2011. The busiest night of the season was October 10, with 25 owls banded; this was the fifth time since the standardized program began in 2010 that the peak has been between October 6 and 11. Three of the four highest counts this fall were in week 11 (October 10, 11, 16); the other was unusually late in the season, October 25. On just one of the 32 nights of banding effort, no owls were banded.

This year, hatch-year birds accounted for only 78 of 211 (37%) Northern Saw-whet Owls banded, the second-lowest proportion ever, aside from the record of 18% four years ago, in 2013. Conversely, second-year birds comprised 42% of the total, second only to the high of 57% in 2013. As usual, females dominated (79%); males were scarcer than in any previous year (4%), and 17% were intermediates in size that could not be sexed.

### 7.3.2. Birds recaptured

For only the fifth time ever, there was a return this fall, a Northern Saw-whet Owl originally banded in October 2015 as a second-year female. The 30 repeats was a record high, and included three individuals that were recaptured twice, and two that were repeats on three dates each. Six individuals stopped over for at least 12 nights, with the longest durations recorded being 27 and 32 nights.

Seven foreign owls were recaptured at MBO this fall (Table 7.3), the third-highest season total to date. This included two from Whitefish Point, Michigan, including one banded there only three months earlier. No owls banded at MBO were recaptured elsewhere this fall. This year only one Northern Saw-whet Owl banded at MBO was reported elsewhere during the season (Table 7.4), an unusually low count.

**Table 7.3:** Foreign-banded Northern Saw-whet Owls captured at MBO during 2017, sorted by time elapsed (n/a – some details of banding records not available at the time of this report).

Band number	Age/sex in 2017	Age/sex at banding	Banding date	2017 capture	Time Elapsed	Banding Location	Distance (km)
1014-81273	TY-F	HY-F	17 Nov 14	1 Oct	2 years, 10 months, 14 days	Central City PA	710
1014-98142	ASY-F	SY-F	10 Oct 15	9 Oct	1 year, 11 months, 24 days	Prince Edward Point ON	280
1094-46773	HY-F	HY-F	10 Jul 17	11 Oct	3 months, 1 day	Whitefish Point MI	860
1014-69005	ASY-F	HY-F	19 Oct 14	14 Oct	2 years, 11 months, 25 days	Tadoussac QC	445
1014-54726	ASY-F	n/a	2015	16 Oct	n/a	n/a	n/a
1014-08554	SY-F	HY-F	7 Nov 16	26 Oct	11 months, 19 days	Newtown Square PA	615
1094-46882	AHY-U	n/a	n/a	n/a	n/a	Whitefish Point MI	860

**Table 7.4:** Northern Saw-whet Owls banded at MBO and captured elsewhere in fall 2017, sorted by time elapsed.

Band number	Age/sex in 2017	Age/sex at banding	Banding date	2017 capture	Time Elapsed	Banding Location	Distance (km)
1014-95173	TY-F	HY-F	14 Oct 15	20 Oct	2 years, 6 days	Albany NY	305

### 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. As in 2016, seven additional nets (X1-X7) were installed at a satellite location to target Long-eared Owls. These were at the northeast end of the property, in the same area that was used for the Boreal Owl pilot project (nets T1-T4) in 2012 (see Gahbauer et al. 2016). Three nets (X1, X4, and 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, and X5) were 90-mm nets, while the others were 60-mm nets.

Table 7.5 shows that the E net group had the highest capture rates this fall, although O4 was the single most productive net, as in almost all previous years. O1 also yielded typically high numbers, and O2 was above average for the second year in a row. As in 2016, no Long-eared Owls were captured at the X nets, and only low numbers of Northern Saw-whet Owls were caught there. X1 and X7 were slightly more productive than the others this year, compared to X2 having the best results in 2016.

**Table 7.5:** Net usage and capture rates during the 2017 Northern Saw-whet Owl Monitoring Program.

Net	Hours open	New Captures	Returns + Repeats	Total Captures <sup>1</sup>	Birds / 100 net hours	
					New	Total
O1	263.8	32	1	34	12.1	12.9
O2	263.8	21	2	23	8.0	8.7
O3	263.8	12	0	13	4.5	4.9
O4	263.8	50	8	60	19.0	22.7
O6	263.8	16	4	23	6.1	8.7
<b>O - TOTAL</b>	<b>1318.8</b>	<b>131</b>	<b>15</b>	<b>153</b>	<b>9.9</b>	<b>11.6</b>
E1	263.8	37	1	39	14.0	14.8
E2	263.8	28	3	33	10.6	12.5
<b>E - TOTAL</b>	<b>527.5</b>	<b>65</b>	<b>4</b>	<b>72</b>	<b>12.3</b>	<b>13.6</b>
X1	255.8	5	4	9	2.0	3.5
X2	255.8	1	0	2	0.4	0.8
X3	255.8	4	0	4	1.6	1.6
X4	255.8	0	0	0	0.0	0.0
X5	255.8	1	0	1	0.4	0.4
X6	255.8	1	1	2	0.4	0.8
X7	255.8	5	3	8	2.0	3.1
<b>X - TOTAL</b>	<b>1790.8</b>	<b>17</b>	<b>8</b>	<b>26</b>	<b>0.9</b>	<b>1.5</b>
<b>GRAND TOTAL</b>	<b>3637.1</b>	<b>213</b>	<b>27</b>	<b>251</b>	<b>5.9</b>	<b>6.9</b>

<sup>1</sup> – Total captures include new captures, returns, repeats, and foreign recaptures.

#### 7.4. Summary and analysis

It was another successful fall of owl banding, with the 211 Northern Saw-whet Owls banded a bit above the average of 195 (range 123-272) since the standardized program was implemented in 2010. This year started off strong with 34 owls banded in the first week of the season (only exceeded by 44 in 2012), and peaked with 70 in the third week, including 25 on the night of October 10. For only the second time, second-year Northern Saw-whet Owls outnumbered hatch-year individuals, quite a departure from the overall average of 60% and 25%, respectively.

Last year, 15% of owls were captured at the secondary net array targeting Long-eared Owls; this year the proportion was even lower, at 10%. It remained unclear whether Northern Saw-whet Owls were 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 10.6 new owls per 100 net hours was average, but marginally above the rate of 9.0 last fall. The Long-eared Owl project has been unsuccessful in its first two years, and will be re-evaluated prior to the 2018 season.



*This fourth-year Northern Saw-whet Owl originally banded in Tadoussac, Québec, was one of seven foreign recaptures during this year's owl banding program.*

*(Photo by Nicolas Bernier)*

## **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 or aspects of migration and stopover ecology.

### **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 2017 we were fortunate to have many experienced observers contributing their sightings, as well as training 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 again welcomed several groups for tours of MBO, including 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](http://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 third year of our education initiative centered around our owl banding program. With funding support again from Bird Protection Quebec, Shawna Sevigny and Sarah Dixon led eleven interpretive programs at the Morgan Arboretum in October 2017, five in English and six in French, with 154 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 nights also featured a demonstration of owl banding. The program continued to receive favourable reviews, and we plan to offer it again in 2018.

### **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](http://www.natureinstruct.org)), which is designed to be a dynamic and interactive resource for identification of North American birds. The design of *Piranga* allows the material to be more easily viewed on mobile devices, and is set up to allow for easy comparison of photos of different ages, sexes, or even species. All content on *Piranga* is also fully bilingual. 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, and several accounts were updated further in 2017.

### **8.3. Research projects**

The seasonal monitoring programs are the core of research at MBO, but other projects are always underway as well. In 2017, supplementary studies were focused on increasing MBO's participation in the Motus Wildlife Tracking System. This is a coordinated network of automated telemetry arrays led by Bird Studies Canada that over just a few years has already revolutionized the study of bird movements at a local, regional, and hemispheric scales. Automated telemetry systems allow for constant recording of tag signals from fixed positions on the landscape without the need for recapturing animals. They are increasingly being used in migration studies due to ongoing advances in miniaturization, allowing tags to even be placed on very small organisms such as insects. Motus is unique in that it employs a single radio frequency across all receivers of the network, allowing tags to

be detected at sites maintained by other projects. By the end of 2016, there were over 325 receiver stations distributed across 11 countries and 3 continents (Taylor et al. 2017).

MBO's involvement with Motus started with installation of a receiver on the old windmill near the banding cabin in 2016. In 2017, four birds from other Motus projects were detected by the MBO receiver. A Semipalmated Sandpiper tagged at staging grounds on James Bay on August 19 passed by MBO 12 days later on August 31. There were also two thrushes from a research program north of Quebec City, a Gray-cheeked Thrush tagged on September 18 and detected at MBO just three days later, and a Swainson's Thrush tagged on September 12 that passed MBO on September 29. Most intriguing though was a Northern Saw-whet Owl tagged as a nestling on July 16 in Nova Scotia by Shawn Craik – one of MBO's co-founders, and now a professor at Université Sainte-Anne in Church Point, NS. On September 7 (long before what we have considered to be the migration season for Northern Saw-whet Owls at MBO), this owl was detected at MBO, approximately 630 km to the west-northwest!

In 2017, two Motus research programs were initiated at MBO. The first, *Optimizing a radio receiver network for studying bird migration*, was a McGill University Honours Research Project undertaken by Megan Philips under the supervision of Dr. Kyle Elliott in the Department of Natural Resources Sciences at McGill University and co-supervision by Dr. Barbara Frei, Director of MBO. The main research question for this project was to determine environmental constraints on radio telemetry and how they affect signal strength as measured using hand-held Yagi receivers as well as automated Motus receivers. Tests included orientation of the radio tag, four habitat types (flat and hilly fields, deciduous and coniferous forests), height of the radio tag, distance of the radio tag to the receiver, and the amount of foliage present (pre and post leaf-out). The main finding was that the orientation of the tag, which was previously thought to be a dominant driver of signal strength, was not a significant in signal reception. Also, vegetation type (deciduous vs. coniferous) was not as important as vegetation density, with signal strength being significantly stronger pre-leaf than post-leaf conditions. Lastly, distance had a significant effect, with the predictable decay of signal strength with greater distance from the radio tags to the receiver.

Building on this, *Migration and stopover ecology of moult migrant songbirds* is a McGill University MSc research project started by Ana Morales in fall 2017, also under the joint supervision of Dr. Kyle Elliott and Dr. Barbara Frei. The main research objectives are to determine stopover length, habitat use and local-scale movements of moult-migrants and assess how physiological condition influences stopover duration, timing of departure, and frequency of local movements. We deployed 23 1-gram radio transmitters on Swainson's Thrushes and two 0.4 g units on Tennessee Warblers during the fall of 2017. Blood samples were collected from each bird for later analysis of cholesterol, glucose, triglyceride, and  $\beta$ -hydroxybutyrate levels to assess the physiological condition of the bird. Using manual telemetry tracking methods, we located radio-tagged individuals every few days, noted habitat characteristics and marked the GPS coordinates of each observation. Preliminary results indicate an average length of stopover of moult migrants is around  $46 \pm 4$  days; the longest was 58 days by a bird that arrived on August 14 and departed on October 11. These data suggest that actual stopover duration at MBO is much longer than what we had previously estimated based on capture-recapture data (mean 30.5 days). We have also learned that moult-migrant thrushes spend a majority of their time in thickly vegetated habitat, and move quite infrequently during the moulting period. All but one of the transmitters on thrushes remained active until after they departed MBO; 14 (64%) of these birds were subsequently detected at other stations in the Motus network in Pennsylvania, Florida and coastal Georgia.

In spring 2018 we will install two new Motus stations near MBO. These will continuously record signals from all tagged birds that fly within detection range, and we hope that this will improve the detection of our tagged birds over a larger area, especially moult migrant birds that may arrive at MBO and stay in the general area for a while, but beyond the range of our original tower. In fall 2018, we intend to tag additional Swainson's Thrushes and Tennessee Warblers to expand our data set and explore any inter-annual differences that may exist.

Lastly, a previous research project from 2016 was published in December 2017:

Jarjour, C, B. Frei, and K.H. Elliott. 2017. Associations between sex, age and species-specific climate sensitivity in migration. *Animal Migration* 4: 23-36, <https://doi.org/10.1515/ami-2017-0004>

## 9. Acknowledgments

The operation of MBO is possible only through the support of many dedicated people volunteering their time throughout the year. More than 4200 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

**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.

Angelika Aleksieva, Christine Barrie, Luke Currin, Alison Hackney, Phillip Mercier, Anita Morales, 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.

Jean Demers, Kyle Elliott, Wayne Grubert, Richard Guillet, Melanie Guigueno, Frédéric Hareau, Patrick Laniel, Barbara and Don MacDuff, Michael Mayerhofer, Betsy McFarlane, Catherine Russell, Clémence Soulard, Elise Titman, Jesse White

**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.

Richard Beauchamp, Pascal Berthelot, Zoe Bonerbo, Marc-Henri Bouchard, Marie-France Boudreault, Manon Bourdon, Alexander Boyer, Liz Brenhouse, Émile Brisson, Camille Brochu, Martha Bromby, Ariane Chénard, Claude Cloutier, Katelyn Depot, Stéfany Desroches, Ashleigh Downing, Liette Fortier, Shannon Galbraith,

Nathalie Gendron, Michel Greaves, Richard Gregson, Mathilde Guglielmi, Mercy Harris, Joanne Hayes, Catherine Jarjour, Helen Kohler, Kristen Lalla, Evelyne Lapointe, Marie-Pier Lavallée, Marcel Lebeau, Francine Marcoux, Mélissa Martinez, Connie Morgenstern, Anne Mouillier, Kiera O'Hagan, Benoît Piquette, Geneviève Potvin, Laurie St-Onge, Patricia Stotland, Laura Tabbakh, François Villeneuve

**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 2017, especially:

- Bird Protection Quebec, for financial support of the Fall Migration Monitoring Program, the owl education program and the MOTUS research project, as well as ongoing publicity and continuing to encourage members to become MBO volunteers
- The Zoological Society of Montreal for a generous donation to research at McGill Bird Observatory
- 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 2017:
  - MBO Green Team (on foot in and around MBO): Simon Duval, Barbara MacDuff, Francine Marcoux, Anita Morales
  - Red-eyed Wearios (in southern Quebec and eastern Ontario): Sue Bishop, Averill Craig, Gay Gruner, Betsy McFarlane, and Ahmad Shah
  - 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



## 10. References

- AOU (American Ornithologists' Union). 2017. AOU Checklist of North and Middle American Birds. Available at <http://checklist.aou.org/taxa>
- Gahbauer, M.A., M-A. Hudson, and S. Duval. 2014. McGill Bird Observatory Field Protocol for Migration Monitoring Program (Revised). Migration Research Foundation, Ste-Anne-de-Bellevue QC, 23 pp. Available at: [http://www.migrationresearch.org/mbo/documents/MBO\\_Protocol\\_2014.pdf](http://www.migrationresearch.org/mbo/documents/MBO_Protocol_2014.pdf)
- Gahbauer, M.A., S. Duval, and D. Davey. 2016. McGill Bird Observatory Ten-Year Report: 2005-2014. Migration Research Foundation, Ste-Anne-de-Bellevue QC, 326 pp. Available at <http://www.oommbo.org/wp-content/uploads/mbo-2005-2014.pdf>
- Gahbauer, M.A., S. Duval, and D. Davey. 2017. McGill Bird Observatory Annual Program Report 2015. Migration Research Foundation, Ste-Anne-de-Bellevue QC, 87 pp. Available at <http://www.oommbo.org/wp-content/uploads/MBO-report-2015.pdf>
- Gahbauer, M.A., S. Duval, and D. Davey. 2018. McGill Bird Observatory Annual Program Report 2016. Migration Research Foundation, Ste-Anne-de-Bellevue QC, 84 pp. Available at <http://www.oommbo.org/wp-content/uploads/MBO-report-2016.pdf>
- Project OwlNet. 2016. Netting migrant owls – the basics. Available at [http://www.projectowl.net/?page\\_id=103](http://www.projectowl.net/?page_id=103)
- Pyle, P. 1997. Identification Guide to North American Birds, Part 1. Slate Creek Press, Bolinas, California.
- Taylor P., T. Crewe, S. Mackenzie, D. Lepage, Y. Aubry, Z. Crysler, G. Finney, C. Francis, C. Guglielmo, D. Hamilton, R. Holberton, P. Loring, G. Mitchell, D.R. Norris, J. Paquet, R. Ronconi, J. Smetzer, P. Smith, L. Welch, and B. Woodworth. 2017. The Motus Wildlife Tracking System: a collaborative research network to enhance the understanding of wildlife movement. *Avian Conservation and Ecology*. 12.



*One of MBO's resident male Yellow Warblers.  
(Photo by Simon Duval)*



## 11. Appendix A. Seasonal occurrence of species

The charts below summarize the occurrence of each of the 161 species (including 95 passerines) observed during the 2017 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 2016-17, and summer 2017. This year only one additional species was observed outside of the migration monitoring programs, in winter; a brief text-only summary is provided for it. Species are listed according to taxonomic revisions by the American Ornithological Society as of 2017 (AOS 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 account, describing patterns of occurrence throughout the period covered in this report (November 7, 2016 to November 6, 2017), and often comparing them to data presented in the MBO Ten-year Report: 2005-2014 (Gahbauer et al. 2016) and the 2015 and 2016 Annual Reports (Gahbauer et al. 2017, Gahbauer et al. 2018).

### 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				1.57	7.71	11.86					2.11				
# DAYS OBSERVED				1	2	1					4				
FIRST OBSERVED: April 20			LAST OBSERVED: May 4			PEAK DATE: May 4			PEAK NUMBER OF INDIVIDUALS: 83						
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		1.29		0.29			7.14	0.65
# DAYS OBSERVED						1	1		2		2			1	7
FIRST OBSERVED: September 10				LAST OBSERVED: November 5				PEAK DATE: November 5				PEAK NUMBER OF INDIVIDUALS: 50			

Fewer Snow Geese were observed in spring than in any previous year. The modest peak of migration was in the first week of May for the second year in a row. Fall numbers were also well below average, although considerably more than last year's record low. The observation on September 10 was the earliest ever for the season, and this was only the second time (the other being 2009) that there were multiple sightings before October. The only sizeable flock of Snow Geese (50 individuals) was observed on the second-last day of the season.

### 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: September 29				LAST OBSERVED: September 29				PEAK DATE: September 29				PEAK NUMBER OF INDIVIDUALS: 1			

For the third consecutive year, Cackling Goose was observed in a single week in fall; as in 2015, it was week 9.

### 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	196.86	318.00	71.86	61.71	110.57	152.00	175.71	10.57	10.71	4.71	111.27				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	5	68				
FIRST OBSERVED: March 28			LAST OBSERVED: June 3			PEAK DATE: April 5			PEAK NUMBER OF INDIVIDUALS: 1100						
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	1.00	7.43	29.71	38.43	56.14	224.71	574.00	350.14	344.86	196.86	142.86	768.71	195.44
# DAYS OBSERVED	1	1	2	5	5	6	7	7	7	7	7	7	7	7	76
FIRST OBSERVED: August 5				LAST OBSERVED: November 6				PEAK DATE: November 6				PEAK NUMBER OF INDIVIDUALS: 2000			

As usual, Canada Goose was winter's most abundant bird by far, with a mean daily count of 80.5, slightly below average. Spring numbers rebounded slightly from the past two years, but remained below the long-term mean. There were two distinct waves of migration, one peaking in the first two weeks of the season, and a second that was later than usual, in weeks 6 and 7. Only one Canada Goose was observed in summer, the fewest since being missed entirely in 2010. As in spring, fall numbers were the highest since 2014 but short of the long-term seasonal mean. Numbers swelled in week 8 as usual, reaching a first peak in week 9, and then a secondary one in week 14.

**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		1.29	3.00	5.00	4.71	2.71	3.86	3.43	2.43	1.00	2.74				
# DAYS OBSERVED		3	6	7	7	6	6	6	7	5	53				
# PROCESSED							1				1				
FIRST OBSERVED: April 7			LAST OBSERVED: June 4			PEAK DATE: Apr 12, Apr 30, May 16			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	1.14	2.86		0.14	0.43	0.57	2.14	1.29	1.43	0.43	2.14	0.29	1.14	2.71	1.19
# DAYS OBSERVED	1	3		1	2	2	4	3	2	2	4	1	2	4	31
FIRST OBSERVED: August 2				LAST OBSERVED: November 5				PEAK DATE: August 11				PEAK NUMBER OF INDIVIDUALS: 15			

The mean daily count of Wood Ducks in spring was substantially below the previous record of 3.74 in 2015. The timing of the peak in week 4 was normal, but throughout the season, weekly counts were less than half of long-term averages. However, one was banded in spring for the first time, and it was only the fourth Wood Duck ever banded at MBO. For the second year in a row, only one Wood Duck was observed in summer. Fall numbers were also below average, though slightly higher than the past two years. Wood Ducks were seen weekly except week 3, with numbers fluctuating slightly through the season, including a surprising near-peak count in week 14.

**BWTE: Blue-winged Teal / Sarcelle à ailes bleues (*Spatula discors*)**

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				0.43								0.09
# DAYS OBSERVED			1				1								2
FIRST OBSERVED: August 20				LAST OBSERVED: September 13				PEAK DATE: August 20				PEAK NUMBER OF INDIVIDUALS: 6			

Two small flocks of Blue-winged Teal were observed this fall, the first sightings at MBO since May 2013.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	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			1.29			2.57									0.28
# DAYS OBSERVED			1			1									2
FIRST OBSERVED: August 20				LAST OBSERVED: September 9				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 18			

Northern Shoveler was observed at MBO for the second year in a row, after having been missed since 2009. The lone individual on May 18 was exactly one week later than the individual recorded in 2016. The two flocks observed in August (9 individuals) and September (18 individuals) are the only fall sightings in MBO's history outside of 2 individuals observed on October 29, 2009, and both exceeded the previous single-day high count of 4, observed on April 11, 2006.

**AMWI: American Wigeon / Canard d'Amérique (*Mareca 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							0.14				0.01	
# DAYS OBSERVED							1				1	
FIRST OBSERVED: May 10			LAST OBSERVED: May 10			PEAK DATE: May 10			PEAK NUMBER OF INDIVIDUALS: 1			

A single American Wigeon was observed on May 10. This was the seventh time in 13 years that the species was observed in spring, and similar to six previous occasions, the observation was limited to a single day.

**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	0.29	4.86	2.71	2.71	3.43	4.57	4.43	2.86	3.29	1.00	<b>3.01</b>				
# DAYS OBSERVED	1	7	6	7	7	7	7	7	7	5	<b>61</b>				
FIRST OBSERVED: April 3			LAST OBSERVED: June 4			PEAK DATE: April 10			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	0.29	0.29	0.57	1.00		0.57	0.14	0.57	0.43	0.14	0.29	0.14	0.29	2.57	<b>0.52</b>
# DAYS OBSERVED	2	2	3	4		2	1	2	3	1	1	1	1	3	<b>26</b>
FIRST OBSERVED: August 2				LAST OBSERVED: November 6				PEAK DATE: November 6				PEAK NUMBER OF INDIVIDUALS: 10			

For the first time ever, no Mallards were observed in winter. For the fourth consecutive year, the mean daily count of Mallards in spring reached a new record low. There were two weak peaks of migration, in week 2 and weeks 6-7, roughly consistent with typical patterns. The mean daily count in summer was 0.71, slightly below average. Fall numbers were especially low, with a mean daily count less than half of the record low set last year. There were sightings weekly except week 5, but the final day of fall was the only day all season long with a count of more than three individuals.

**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		0.57	0.86							0.14	<b>0.16</b>				
# DAYS OBSERVED		1	1							1	<b>3</b>				
FIRST OBSERVED: April 10			LAST OBSERVED: May 27			PEAK DATE: April 12			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												0.71			<b>0.05</b>
# DAYS OBSERVED												1			<b>1</b>
FIRST OBSERVED: October 21				LAST OBSERVED: October 21				PEAK DATE: October 21				PEAK NUMBER OF INDIVIDUALS: 5			

American Black Duck was observed on three dates this spring, the most since 2012; the sighting on May 27 was the first one beyond early May since 2007. For the third year in a row, fall sightings were limited to a single day.

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

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							<b>0.10</b>
# DAYS OBSERVED								1							<b>1</b>
FIRST OBSERVED: September 23				LAST OBSERVED: September 23				PEAK DATE: September 23				PEAK NUMBER OF INDIVIDUALS: 10			

Northern Pintail was observed in fall for the sixth time in 13 years, a single flock of 10 individuals flying over MBO on September 23, the highest single-day count for the species in any season since April 2012.

**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					0.14	1.43	1.00	0.29			<b>0.29</b>				
# DAYS OBSERVED					1	2	4	1			<b>8</b>				
FIRST OBSERVED: April 25			LAST OBSERVED: May 16			PEAK DATE: May 3			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						0.86		0.57	0.14						<b>0.11</b>
# DAYS OBSERVED						1		1	1						<b>3</b>
FIRST OBSERVED: September 8				LAST OBSERVED: September 27				PEAK DATE: September 8				PEAK NUMBER OF INDIVIDUALS: 6			

After five consecutive years with above-average spring counts, Green-winged Teal dropped to below-average number this spring. Sightings spanned four weeks mid-season, peaking in week 6 and tapering off thereafter. The three observation dates in fall and total of 11 individuals were both the highest counts since 2010. Curiously, all observations were in September, whereas all fall sightings in previous years were limited to October.

**WWSC: White-winged Scoter / Macreuse brune (*Melanitta 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								1.14	2.86		0.40
# DAYS OBSERVED								1	1		2
FIRST OBSERVED: May 20			LAST OBSERVED: May 28			PEAK DATE: May 28			PEAK NUMBER OF INDIVIDUALS: 20		

Two flocks of White-winged Scoters were seen flying over MBO in late May, the first observations of the species since May 21, 2006.

**BLSC: Black Scoter / Macreuse à bec jaune (*Melanitta 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								17.14			1.71				
# DAYS OBSERVED								1			1				
FIRST OBSERVED: May 20			LAST OBSERVED: May 20			PEAK DATE: May 20			PEAK NUMBER OF INDIVIDUALS: 120						
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			0.14
# DAYS OBSERVED												1			1
FIRST OBSERVED: October 21				LAST OBSERVED: October 21				PEAK DATE: October 21				PEAK NUMBER OF INDIVIDUALS: 14			

A large mixed flock of scoters flying over MBO on May 20 was dominated by Black Scoters, and this marked the first observation of the species from the site, becoming the 214<sup>th</sup> species on the checklist. A smaller flock of 14 was observed on October 21, to add a first fall record of the species.

**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											2.14	0.21
# DAYS OBSERVED											2	2
FIRST OBSERVED: June 1			LAST OBSERVED: June 3			PEAK DATE: June 1			PEAK NUMBER OF INDIVIDUALS: 9			

Hooded Merganser observations this year were limited to two days in the first week of June, later in spring than in any previous year. The high count of 9 individuals nearly doubled the previous single-day record of 5, and comprised a female with 8 young ducklings – the first confirmed breeding record of the species at MBO, and remarkable given the lack of observations throughout the rest of the season.

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

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						0.07				
# DAYS OBSERVED				3	1						4				
FIRST OBSERVED: April 19			LAST OBSERVED: April 30			PEAK DATE: April 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														0.71	0.05
# DAYS OBSERVED														1	1
FIRST OBSERVED: November 6				LAST OBSERVED: November 6				PEAK DATE: November 6				PEAK NUMBER OF INDIVIDUALS: 5			

Common Mergansers were typically uncommon this spring, with observations limited to the second half of April. Fall sightings were restricted to the final week of the season.

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

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: March 29			LAST OBSERVED: March 31			PEAK DATE: Mar 29, Mar 31			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 29				LAST OBSERVED: August 29				PEAK DATE: August 29				PEAK NUMBER OF INDIVIDUALS: 1			

Ruffed Grouse was observed in spring for just the third year, but limited to just the first week of the season. The one fall sighting was the first observation in August since 2010.

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

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	0.29						0.04
# DAYS OBSERVED								1	1						2
FIRST OBSERVED: May 9			LAST OBSERVED: May 16			PEAK DATE: May 16			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	0.86	2.43	0.86	0.57	1.14	0.43	1.14		0.71		0.62
# DAYS OBSERVED				2	1	3	1	1	1	1	1		1		12
FIRST OBSERVED: August 26				LAST OBSERVED: October 27				PEAK DATE: September 5				PEAK NUMBER OF INDIVIDUALS: 12			

The total of 3 Rock Pigeons observed this spring was far fewer than the previous record low of 15 in 2010. Five were observed in summer, for a record high mean daily count of 0.7. However, fall sightings were again scarce, matching the record low mean daily count from 2008.

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

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	0.29		0.71	0.57	0.71	0.14	0.43	0.29	0.86					0.41
# DAYS OBSERVED	1	1		3	3	3	1	3	2	3					20
FIRST OBSERVED: March 31			LAST OBSERVED: June 2			PEAK DATE: May 2			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	1.29	0.57	1.00	1.43	0.71	1.57	0.43	0.43	0.43	1.57	0.71	1.29	2.57	0.71	1.05
# DAYS OBSERVED	5	3	4	4	4	6	2	3	1	4	4	4	6	3	53
FIRST OBSERVED: August 2				LAST OBSERVED: November 6				PEAK DATE: October 25				PEAK NUMBER OF INDIVIDUALS: 7			

The mean daily count of 1.3 Mourning Doves this winter was the lowest for the season since 2007-08; 3 were banded. The mean daily count in spring was the lowest since 2012, and less than half of the long-term mean for the season. Mourning Doves were typically scarce in summer, with just two observations. The fall count was the lowest since 2008, at nearly one-third the long-term mean for the season. There was a modest peak in numbers in week 13, matching the typical timing, but even in that week, the mean daily count was lower than in all but three previous years.

**YBCU: Yellow-billed Cuckoo / Coulicou à bec jaune (*Coccyzus americanus*)**

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 28				LAST OBSERVED: October 28				PEAK DATE: October 28				PEAK NUMBER OF INDIVIDUALS: 1			

A single Yellow-billed Cuckoo was observed this year on October 28, later than any of the five fall sightings in previous years.

**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									0.71	0.57	0.13				
# DAYS OBSERVED									4	4	8				
FIRST OBSERVED: May 25			LAST OBSERVED: June 5			PEAK DATE: 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	0.43	0.43	0.57	0.86	0.29	0.14	0.14		0.14						0.21
# DAYS OBSERVED	2	3	2	4	2	1	1		1						16
# PROCESSED	1														1
FIRST OBSERVED: August 1				LAST OBSERVED: October 1				PEAK DATE: August 20				PEAK NUMBER OF INDIVIDUALS: 3			

There were more Black-billed Cuckoo sightings this spring than in any previous years, with observations on four days in each of the final two weeks of the season (compared to a long-term average of two days per spring). Only one Black-billed Cuckoo was observed in summer. For a third consecutive year, fall sightings occurred weekly through the first six weeks of the season, and this year continued into week 7 and included a single sighting on October 1, the second-latest ever record at MBO. Only one individual was banded, in the first week of the season. It appears that Black-billed Cuckoo has become established as a breeding species at MBO in recent years.

**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								0.29		0.14	0.04				
# DAYS OBSERVED								2		1	3				
FIRST OBSERVED: May 16			LAST OBSERVED: May 30			PEAK DATE: May 16, 17, 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	0.14	0.43	1.71												0.16
# DAYS OBSERVED	1	2	1												4
FIRST OBSERVED: August 7				LAST OBSERVED: August 17				PEAK DATE: August 17				PEAK NUMBER OF INDIVIDUALS: 12			

Chimney Swift numbers were again typically low in both spring and fall. The high count of 12 individuals on August 17 was the most in a single day since August 10, 2012, and fell within the typical peak of fall migration.

**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							0.14	1.71	1.43	0.71	0.40				
# DAYS OBSERVED							1	5	5	4	15				
FIRST OBSERVED: May 13			LAST OBSERVED: June 4			PEAK DATE: May 20			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	4.29	3.29	5.14	3.71	2.57	1.00	0.14							1.58
# DAYS OBSERVED	7	6	5	7	6	7	4	1							43
FIRST OBSERVED: August 1				LAST OBSERVED: September 19				PEAK DATE: August 9				PEAK NUMBER OF INDIVIDUALS: 10			

The mean spring daily count of Ruby-throated Hummingbirds was just below average; 7 individuals were captured between May 18 and 28 (2 after-second-year males, 2 after-second-year females, one unknown age male, one unknown age female, and one individual of unknown age and sex, which escaped before it could be assessed further). The mean daily count in summer was 1.57, the lowest since 2013, but still above average overall. In fall, the mean daily count was typical, and migration peaked in week 4, slightly later in August than usual. There were 40 captures in fall, comprising 4 after-hatch-year males, 9 after-hatch-year females, 9 hatch-year males, 10 hatch-year unknowns, and 8 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					0.14	0.14	0.29	0.29	0.14		0.10
# DAYS OBSERVED					1	1	2	2	1		7
FIRST OBSERVED: April 27			LAST OBSERVED: May 25			PEAK DATE: 7 dates			PEAK NUMBER OF INDIVIDUALS: 1		

Similar to last year, there were Virginia Rail sightings over a series of weeks in spring. However, they were much more sporadic this year, with no more than two observations per week, and only 7 in total, compared to 22 in 2016. There were two summer observations, but for the fifth time in the past seven years, there were none in fall.

**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						0.14		0.14			0.03
# DAYS OBSERVED						1		1			2
FIRST OBSERVED: May 4			LAST OBSERVED: May 18			PEAK DATE: May 4, May 18			PEAK NUMBER OF INDIVIDUALS: 1		

After being unusually frequent in spring 2016, Sora sightings dropped back to typically rare this spring, with just two encounters in May.

**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	0.29			0.14	0.29	0.57	0.14	0.71	0.86	0.14	0.31
# DAYS OBSERVED	1			1	2	2	1	3	5	1	16
FIRST OBSERVED: April 3			LAST OBSERVED: May 30			PEAK DATE: May 5			PEAK NUMBER OF INDIVIDUALS: 3		

The mean daily count of Killdeer this spring was just slightly above the record low of 0.26 in 2015, and there was only a modest peak in numbers in weeks 8 and 9, later than usual.

**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: May 28			LAST OBSERVED: May 31			PEAK DATE: May 28, May 31			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	0.29								0.14	0.04
# DAYS OBSERVED					1	2								1	4
FIRST OBSERVED: September 4				LAST OBSERVED: November 3				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 1			

American Woodcock was observed in the final two weeks of spring for the fourth year in a row, but for the first time there were no additional records earlier in the season. Single individuals were encountered on four days in fall, most of them in early September (possibly a single individual stopping over), and one on November 3 that set a new record for the latest fall observation at MBO.

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

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 2				LAST OBSERVED: October 2				PEAK DATE: October 2				PEAK NUMBER OF INDIVIDUALS: 1			

Wilson's Snipe was missed in spring for the first time since 2014. The only sighting of the year was a single individual on October 2.

**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	0.57	0.29		0.14	0.11				
# DAYS OBSERVED						1	2	2		1	6				
FIRST OBSERVED: May 4			LAST OBSERVED: May 30			PEAK DATE: May 10, May 12			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									0.03
# DAYS OBSERVED	1					2									3
FIRST OBSERVED: August 1				LAST OBSERVED: September 11				PEAK DATE: Aug 1, Sep 5, Sep 11				PEAK NUMBER OF INDIVIDUALS: 1			

The number of Spotted Sandpiper sightings this spring was down slightly from the record high set in 2016, but still far higher than in all other previous years. The first date of observation, May 4, tied with 2010 for the earliest detection of the species at MBO. It was typically rare in fall, with three observations over the first half of the season; the observation on September 11 was the second-latest for fall (the other being on September 14, 2007).

**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			0.14			0.29	1.71	3.29	2.00	0.14	0.76				
# DAYS OBSERVED			1			2	6	7	6	1	23				
# PROCESSED							1		1		2				
FIRST OBSERVED: April 15			LAST OBSERVED: May 23			PEAK DATE: May 12			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			0.14	0.43	0.29	0.43	0.29	0.29							0.13
# DAYS OBSERVED			1	2	2	3	2	2							12
FIRST OBSERVED: August 24				LAST OBSERVED: September 27				PEAK DATE: August 29				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Solitary Sandpiper was unusually high this spring, just short of the record set in 2008; numbers peaked in weeks 7 and 8 as usual. Two were banded, bringing the all-time total for MBO to five. Fall sightings were typically uncommon, and spanned six consecutive weeks mid-season.

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

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 4			LAST OBSERVED: May 4			PEAK DATE: May 4			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	0.29												0.03
# DAYS OBSERVED		1	1												2
FIRST OBSERVED: August 13				LAST OBSERVED: August 20				PEAK DATE: August 20				PEAK NUMBER OF INDIVIDUALS: 2			

For the first time since 2014, Greater Yellowlegs was observed in both spring and fall. The one spring sighting was on May 4<sup>th</sup>, the third-earliest date on record for MBO. All three individuals observed in fall were in mid-August, the first time ever that fall sightings did not occur in September or October (aside from 2007 and 2009 when the species was missed in fall entirely).



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

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	6.00	5.71	12.86	32.57	16.71	38.43	54.71	22.29	19.71	9.71	<b>21.87</b>				
# DAYS OBSERVED	6	7	7	7	7	7	7	7	7	6	<b>68</b>				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 4			PEAK NUMBER OF INDIVIDUALS: 140						
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	0.57	0.29	0.57	0.14	0.29	1.00	11.86	0.71	1.43	0.57	1.29	<b>1.39</b>
# DAYS OBSERVED		1	1	4	1	3	1	1	2	4	3	6	3	2	<b>32</b>
FIRST OBSERVED: August 10				LAST OBSERVED: November 6				PEAK DATE: October 3				PEAK NUMBER OF INDIVIDUALS: 80			

Ring-billed Gulls were unusually scarce this winter, with a mean daily count of only 0.2, compared to a long-term average of 1.6. After spiking to a record high in 2016, Ring-billed Gull numbers in spring returned to average levels, and peaked in week 7, consistent with the long-term weekly means. The mean daily count of 2.14 in summer was slightly below average. The mean daily count in fall was lower than ever before, with low numbers throughout the season except for a spike in week 10 that was largely driven by a flock of 80 individuals on October 3; otherwise there were fewer than 5 individuals observed on all other days this fall.

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

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								<b>0.01</b>
# DAYS OBSERVED							1								<b>1</b>
FIRST OBSERVED: September 15				LAST OBSERVED: September 15				PEAK DATE: September 15				PEAK NUMBER OF INDIVIDUALS: 1			

For just the second time in 13 years of standardized monitoring, no Herring Gulls were observed in spring. The lone individual observed in fall, on September 15, was also a record low for the season.

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

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									<b>0.01</b>				
# DAYS OBSERVED		1									<b>1</b>				
FIRST OBSERVED: April 9			LAST OBSERVED: April 9			PEAK DATE: April 9			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				0.29			<b>0.04</b>
# DAYS OBSERVED						1		1				2			<b>4</b>
FIRST OBSERVED: September 10				LAST OBSERVED: October 21				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 1			

A Great Black-backed Gull flying overhead on April 9 was the first spring record at MBO since 2014. Single individuals were observed on four dates in fall, only slightly below the long-term mean for the season.

**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								0.29			<b>0.03</b>	
# DAYS OBSERVED								2			<b>2</b>	
FIRST OBSERVED: May 17			LAST OBSERVED: May 20			PEAK DATE: May 17, May 20			PEAK NUMBER OF INDIVIDUALS: 1			

Single Common Terns were observed flying over MBO on two dates in mid-May. Of the 12 Common Terns that have been spotted at MBO over the history of the Spring Migration Monitoring Program, two-thirds have occurred within week 8.

**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	0.43	0.29	1.14	0.57	0.29	0.14	0.14	0.31				
# DAYS OBSERVED			1	2	2	1	3	2	1	1	13				
FIRST OBSERVED: April 17			LAST OBSERVED: May 30			PEAK DATE: May 4			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				0.14	0.29						0.29		0.14	0.07
# DAYS OBSERVED	1				1	1						1		1	5
FIRST OBSERVED: August 1				LAST OBSERVED: November 4				PEAK DATE: Sep 9, Oct 17				PEAK NUMBER OF INDIVIDUALS: 2			

After two years of elevated spring counts, Common Loon numbers this year returned to near average levels. As usual, there was a peak in week 6. Fall sightings were typically scarce, and scattered throughout the season.

**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				0.71	0.29	1.29	3.14	0.43	0.43	0.14	0.64				
# DAYS OBSERVED				3	1	2	3	1	1	1	12				
FIRST OBSERVED: April 19			LAST OBSERVED: June 2			PEAK DATE: May 10			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	1.29			0.29	0.14	0.29			2.86		1.14		0.29	0.43	0.48
# DAYS OBSERVED	1			1	1	1			1		1		2	1	9
FIRST OBSERVED: August 7				LAST OBSERVED: November 6				PEAK DATE: September 28				PEAK NUMBER OF INDIVIDUALS: 20			

Double-crested Cormorants were observed weekly in spring beginning in week 4, with a slightly above-average mean daily count, influenced largely by the distinct peak in week 7 that included a single-day record for spring of 19 individuals. Fall numbers were above average for the third year in a row, only slightly below the record level of 2015; the species was observed in November for the first time ever.

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

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: April 18			LAST OBSERVED: May 30			PEAK DATE: 5 dates			PEAK NUMBER OF INDIVIDUALS: 1			

The first American Bittern of 2017 was observed on April 18, the earliest record since 2012; the five sightings over the course of spring was the most since 2013, but matched the long-term mean. For the first time since 2014, there were no fall sightings.

**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			0.43	0.57	0.29	0.14	2.00	1.57	0.57	0.57				
# DAYS OBSERVED	1			3	3	2	1	5	6	3	24				
FIRST OBSERVED: April 2			LAST OBSERVED: June 2			PEAK DATE: May 17, May 18			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	0.57	0.86	0.29	1.00	0.29	0.71	0.29		0.43	0.29		0.14			0.35
# DAYS OBSERVED	2	4	2	5	2	4	1		3	1		1			25
FIRST OBSERVED: August 2				LAST OBSERVED: October 17				PEAK DATE: Aug 2, Aug 24				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count of Great Blue Herons in spring was the highest since 2012, a welcome result after two record-low years; the mean daily count of 2.0 in week 8 was the highest for any week in spring since 2008. Fall numbers were also somewhat higher than the past two years, and close to the long-term mean for the season. Sightings were most frequent in August, but continued past mid-October for just the second time in the past five years. For the second time in the past three years, there were no summer sightings.

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

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 16			LAST OBSERVED: May 16			PEAK DATE: May 16			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						0.29							0.03
# DAYS OBSERVED	1						1							2
FIRST OBSERVED: August 6				LAST OBSERVED: September 20				PEAK DATE: September 20				PEAK NUMBER OF INDIVIDUALS: 2		

A single Great Egret was observed on May 16, the seventh spring record for the species at MBO. One was observed in summer, the first ever for the season. There were observations on two dates in fall, including two individuals on September 20, increasing the cumulative fall total to 12 since the first sighting in 2011.

**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				0.14	0.29	0.43	0.14	0.29	0.71	0.14	0.21			
# DAYS OBSERVED				1	2	2	1	1	4	1	12			
FIRST OBSERVED: April 22			LAST OBSERVED: May 30			PEAK DATE: May 2, May 20, 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	0.14	0.14	0.14	0.29	0.29	0.14				0.14				0.09
# DAYS OBSERVED	1	1	1	2	2	1				1				9
FIRST OBSERVED: August 2				LAST OBSERVED: October 16				PEAK DATE: 9 dates				PEAK NUMBER OF INDIVIDUALS: 1		

Green Heron numbers were again below average in both spring and fall, but the observation on October 16 was a new record late date. There was only one summer sighting.

**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		1.43		2.14	2.71	0.86	1.29	2.71	1.86	0.57	1.36				
# DAYS OBSERVED		1		5	5	2	4	5	3	2	27				
FIRST OBSERVED: April 9			LAST OBSERVED: June 1			PEAK DATE: April 9			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		0.14	1.14	0.29	0.29	0.57	3.71	1.86	1.86	0.14	1.86	0.29	1.71	4.43	1.31
# DAYS OBSERVED		1	3	2	2	3	3	4	5	1	2	2	2	1	31
FIRST OBSERVED: August 11				LAST OBSERVED: November 4				PEAK DATE: November 4				PEAK NUMBER OF INDIVIDUALS: 31			

Turkey Vulture numbers were slightly above average in spring, but fluctuated considerably throughout the season. The mean daily count in summer was a record high of 1.0. In fall, it was the second-highest ever, with both an unusually early peak in week 7 and an unusually late even larger spike in the final week of the season.

**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					0.43	0.14				0.07				
# DAYS OBSERVED					2	1			1	4				
FIRST OBSERVED: May 2			LAST OBSERVED: May 23			PEAK DATE: May 2			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						0.04
# DAYS OBSERVED				1	1	1		1						4
FIRST OBSERVED: September 1				LAST OBSERVED: September 30				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 1		

Osprey was typically scarce in both spring and fall. The observation on May 23 was the third-latest ever in spring, while the one on September 1 was the third-earliest ever in fall.

**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								0.14		0.14	<b>0.03</b>				
# DAYS OBSERVED								1		1	<b>2</b>				
FIRST OBSERVED: May 16			LAST OBSERVED: May 31			PEAK DATE: May 16, May 31			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	0.29	0.29	0.14		0.14	0.14			<b>0.14</b>
# DAYS OBSERVED		1				1	2	1	1		1	1			<b>8</b>
FIRST OBSERVED: August 13				LAST OBSERVED: October 17				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 6			

A Bald Eagle was seen in winter for the first time since 2010-2011. There were only two sightings this spring, the fewest since 2013. Both were in the second half of May, and the one on May 31 was the latest spring record in MBO's history. Similarly, the observation on August 13 was the earliest ever for fall. Most observations have been of young birds summering in the Montreal area but not breeding. Six Bald Eagles were observed on September 9, a new single-day record, contributing to a new fall record high of 14 individuals.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY								0.14	0.29						<b>0.04</b>
# DAYS OBSERVED								1	2						<b>3</b>
FIRST OBSERVED: May 11			LAST OBSERVED: May 20			PEAK DATE: May 11, 16, 20			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		0.29	0.14		0.14	0.57	0.71	0.71	0.71	0.29	0.57	0.57	0.14	0.43	<b>0.38</b>
# DAYS OBSERVED		2	1		1	2	1	4	3	1	3	2	1	3	<b>24</b>
FIRST OBSERVED: August 11				LAST OBSERVED: November 4				PEAK DATE: September 15				PEAK NUMBER OF INDIVIDUALS: 5			

Northern Harrier was particularly scarce this spring, matching the record low of three individuals observed in 2013. All of them were observed within a 10-day span in mid-May, considerably past the typical peak period of late April. Fall results were much better, with the mean daily count just barely exceeding the previous record high of 0.37 set in 2015. However, numbers were low throughout the season as in most years, without a clearly defined peak in migration.

**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				0.29	0.43	0.43	0.43	0.14			<b>0.17</b>				
# DAYS OBSERVED				2	3	3	2	1			<b>11</b>				
# PROCESSED						1					<b>1</b>				
FIRST OBSERVED: April 22			LAST OBSERVED: May 16			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	0.29	0.29	0.29	0.43	0.86	3.00	4.00	1.14	1.14	0.57	0.71	1.00	0.29	0.14	<b>1.01</b>
# DAYS OBSERVED	2	2	2	3	4	5	7	3	5	4	4	4	2	1	<b>48</b>
# PROCESSED					1		1		1	1					<b>4</b>
FIRST OBSERVED: August 6				LAST OBSERVED: November 3				PEAK DATE: September 15				PEAK NUMBER OF INDIVIDUALS: 17			

There were two Sharp-shinned Hawk sightings this winter, which is average. Numbers this spring were slightly above average, and the one individual banded was the sixth one in 13 years. As usual, sightings were concentrated toward the middle of the season. For the second time in the past three years, Sharp-shinned Hawks were observed during all 14 weeks of the Fall Migration Monitoring Program, but the mean daily count of 1.01 was average, and almost identical to the past two years (1.00 in 2015, and 1.05 in 2016). However, the four individuals banded was the fewest since 2013, and roughly half the long-term mean for the season. There was an unusually prominent peak in migration in weeks 6 and 7.

**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				0.57	0.29	0.43	0.29	0.14	0.14		<b>0.19</b>				
# DAYS OBSERVED				3	1	2	2	1	1		<b>10</b>				
FIRST OBSERVED: April 19			LAST OBSERVED: May 25			PEAK DATE: Apr 24, Apr 29, May 4			PEAK NUMBER OF INDIVIDUALS: 2						
		AUGUST					SEPTEMBER					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	0.86	0.86	1.43	2.00	0.71	1.29	0.57	0.43	0.86	0.29	0.71	<b>0.73</b>
# DAYS OBSERVED	1		1	4	5	4	7	4	5	3	2	4	1	3	<b>44</b>
FIRST OBSERVED: August 2				LAST OBSERVED: November 6				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 5			

The winter mean daily count of 0.09 was typical for Cooper's Hawk. Numbers in both spring and fall were the lowest since 2013, although still close to the long-term means for each season.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	0.14														<b>0.01</b>
# DAYS OBSERVED	1														<b>1</b>
FIRST OBSERVED: April 2			LAST OBSERVED: April 2			PEAK DATE: April 2			PEAK NUMBER OF INDIVIDUALS: 1						
		AUGUST					SEPTEMBER					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									<b>0.02</b>
# DAYS OBSERVED						2									<b>2</b>
FIRST OBSERVED: September 10				LAST OBSERVED: September 11				PEAK DATE: Sep 10, Sep 11				PEAK NUMBER OF INDIVIDUALS: 1			

A single Northern Goshawk was observed in spring, the ninth record in 13 years, and the earliest of them all. Two individuals observed in week 6 were the only fall records this year, the fewest since 2014.

**RSA: 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				1.57	0.29	0.14	0.71	0.57	0.86	0.14	<b>0.43</b>				
# DAYS OBSERVED				6	2	1	4	3	3	1	<b>20</b>				
FIRST OBSERVED: April 18			LAST OBSERVED: May 30			PEAK DATE: Apr 18, Apr 24, May 23			PEAK NUMBER OF INDIVIDUALS: 3						
		AUGUST					SEPTEMBER					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	0.71	1.71	0.71	0.86	1.00	0.86	0.43		0.14	0.14		0.43	<b>0.52</b>
# DAYS OBSERVED	1	1	2	6	4	3	3	3	2		1	1		1	<b>28</b>
FIRST OBSERVED: August 2				LAST OBSERVED: November 4				PEAK DATE: August 26				PEAK NUMBER OF INDIVIDUALS: 5			

Both in spring and fall, the mean daily counts of Red-shouldered Hawk this year were close to long-term averages. For the fourth consecutive year, the peak count occurred in August, compared to September or October in eight of nine earlier years. There was one observation in summer, for the third time in four years.

**BWA: 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				0.57	0.29	0.57	0.14				<b>0.16</b>				
# DAYS OBSERVED				3	1	2	1				<b>7</b>				
FIRST OBSERVED: April 18			LAST OBSERVED: May 9			PEAK DATE: May 4			PEAK NUMBER OF INDIVIDUALS: 3						
		AUGUST					SEPTEMBER					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	1.86	1.29	0.14	6.29	15.86	2.57	0.29					0.14	<b>2.07</b>
# DAYS OBSERVED		2	3	4	1	3	5	4	2					1	<b>25</b>
FIRST OBSERVED: August 8				LAST OBSERVED: November 4				PEAK DATE: September 15				PEAK NUMBER OF INDIVIDUALS: 63			

Spring migration of Broad-winged Hawk was concentrated in the middle of the season as usual, and numbers were typical. For the first time ever, one was seen in summer. Fall numbers were above average for the fourth year in a row, with a peak in week 7 as in most years. The sighting on November 4 was a new record late date by five days.

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

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			0.43	0.29	1.00	0.57	0.71	1.14	1.29	0.29				0.57	
# DAYS OBSERVED			2	1	4	2	4	5	5	2				25	
FIRST OBSERVED: April 12			LAST OBSERVED: June 2			PEAK DATE: May 2, May 16, May 23			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	TOTAL	
# BIRDS / DAY	1.00	1.43	1.43	1.43	0.29	1.29	0.71	1.14	0.71	0.14	1.14	2.29	0.71	8.00	1.55
# DAYS OBSERVED	4	5	5	5	2	4	2	5	3	1	4	6	3	4	53
FIRST OBSERVED: August 2				LAST OBSERVED: November 6				PEAK DATE: November 4				PEAK NUMBER OF INDIVIDUALS: 51			

The mean daily count of 0.09 Red-tailed Hawks in winter was below average. In spring the count was above-average for the third time in the past four years, but there was only a modest peak in numbers in weeks 8 and 9. There were three sightings in summer, the most since 2014. For the second straight year, there were observations in all weeks of fall; this year there was a strong spike in the final week thanks to a near-record 51 individuals on November 4, without which the season's numbers would have been slightly below-average.

**RLHA: Rough-legged Hawk / Buse pattue (*Buteo lagopus*)**

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	0.01
# DAYS OBSERVED														1	1
FIRST OBSERVED: November 4				LAST OBSERVED: November 4				PEAK DATE: November 4				PEAK NUMBER OF INDIVIDUALS: 1			

One Rough-legged Hawk was observed in winter, and there was one other in fall, during the strong raptor migration on November 4.

**GOEA: Golden Eagle / Aigle royal (*Aquila chrysaetos*)**

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	0.01	
# DAYS OBSERVED													1	1	
FIRST OBSERVED: October 26				LAST OBSERVED: October 26				PEAK DATE: October 26				PEAK NUMBER OF INDIVIDUALS: 1			

A single Golden Eagle flying over MBO on October 26 was the first record of the species in exactly three years.

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

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	0.02
# DAYS OBSERVED													1	1	2
FIRST OBSERVED: October 30				LAST OBSERVED: October 31				PEAK DATE: Oct 30, Oct 31				PEAK NUMBER OF INDIVIDUALS: 1			

One Eastern Screech-Owl was detected in winter, and there were also single observations in each of the final two weeks of fall; in all three cases it was roosting in a Wood Duck nest box. Two hatch-year owls were banded on October 7 and 31.

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

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	0.14	0.14	0.57						0.17	
# DAYS OBSERVED				4	2	1	1	3						11	
FIRST OBSERVED: April 18			LAST OBSERVED: May 22			PEAK DATE: May 16			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	0.43	0.57	1.00	0.86	0.71	0.43	0.71	1.00	1.00	0.86	0.43	0.57	0.14	0.64
# DAYS OBSERVED	2	3	4	6	5	5	3	4	5	6	4	3	3	1	54
FIRST OBSERVED: August 6				LAST OBSERVED: November 4				PEAK DATE: 9 dates				PEAK NUMBER OF INDIVIDUALS: 2			

A single Great Horned Owl was detected in winter. The species was detected more often this spring than in any previous year, and for the second time in the past three years, it was observed in all 14 weeks of fall; the 54 days

of observation in fall was a new record high, as was the mean daily count of 0.64. In both seasons, all observations are believed to involve the resident pair. For the first time ever there were multiple sightings in summer, with a mean daily count of 0.43.

**BDOW: Barred Owl / Chouette rayée (*Strix 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						0.03				
# DAYS OBSERVED					1						1				
FIRST OBSERVED: May 1			LAST OBSERVED: May 1			PEAK DATE: May 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	0.14									0.02
# DAYS OBSERVED					1	1									2
FIRST OBSERVED: September 4				LAST OBSERVED: September 10				PEAK DATE: Sep 4, Sep 10				PEAK NUMBER OF INDIVIDUALS: 1			

Two Barred Owls heard on May 1 marked only the second time the species has been observed at MBO in spring (almost exactly 8 years after the other occasion, May 2, 2009). The only previous fall records were also in 2009; this year single individuals were heard nearly one week apart in early September. Unusually, none were heard during the owling season.

**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				0.43		0.04
# DAYS OBSERVED									1				2		3
# PROCESSED									1				2-0-1		3-0-1
FIRST OBSERVED: October 1				LAST OBSERVED: October 27				PEAK DATE: October 26				PEAK NUMBER OF INDIVIDUALS: 2			

For the seventh consecutive year, Northern Saw-whet Owls were observed during the daytime Fall Migration Monitoring Program, and for the fifth time over that period, some were also banded. Curiously, there were no daytime observations during the peak of migration in week 11, which accounted for 33% of birds banded during the six-week Owl Monitoring Program. The peak of migration this year (25 owls banded) was October 10, which is close to average. The season total of 211 banded was barely above the average of 209 over the previous 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					0.71	0.86	0.57	0.14	0.14						0.24
# DAYS OBSERVED					5	5	4	1	1						16
FIRST OBSERVED: April 20			LAST OBSERVED: May 16			PEAK DATE: April 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	0.29	0.14	0.43	0.29	0.29	0.14	0.14		0.14	0.14		0.14			0.15
# DAYS OBSERVED	2	1	3	2	2	1	1		1	1		1			15
FIRST OBSERVED: August 1				LAST OBSERVED: October 22				PEAK DATE: 15 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Belted Kingfisher was a pleasant surprise this spring, with more observations than in any previous year other than 2011. Most sightings were concentrated in a three-week span from mid-April to early May, consistent with the long-term peak of spring sightings. Fall sightings also were just short of the previous record high, set in 2014. They were largely scattered through the season, with 15 observations spanning 12 weeks, and no more than one individual on any single day.

**RBWO: Red-bellied Woodpecker / Pic à ventre roux (*Melanerpes 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				0.29	0.14			0.14			0.06
# DAYS OBSERVED				2	1			1			4
FIRST OBSERVED: April 18			LAST OBSERVED: May 12			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						0.02
# DAYS OBSERVED			1						1						2
FIRST OBSERVED: August 20				LAST OBSERVED: October 2				PEAK DATE: Aug 20, Oct 2				PEAK NUMBER OF INDIVIDUALS: 1			

Red-bellied Woodpecker had previously only been recorded once in winter, in 2010-2011, but this year was tallied seven times. The species was observed in spring for just the third year, and whereas there was only one sighting in each of 2013 (June 4) and 2015 (May 2), there were four this year, starting earlier in the season. However, there were only two observations in fall, far fewer than last year.

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

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	0.86	1.29	1.57	1.14	0.43	0.43	0.67
# DAYS OBSERVED			2	4	4	5	6	6	3	3	33
# PROCESSED					0-1-0	0-0-1	0-0-1		1-1-0		1-2-2
FIRST OBSERVED: April 11			LAST OBSERVED: June 5			PEAK DATE: Apr 30, May 6			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	0.29	0.29			0.14	0.14	0.14	0.14				0.12
# DAYS OBSERVED	2	1		2		2		1	1	1	1				11
# PROCESSED		1													1
FIRST OBSERVED: August 2				LAST OBSERVED: October 16				PEAK DATE: August 8				PEAK NUMBER OF INDIVIDUALS: 2			

After two above-average years, the mean daily count and number of Yellow-bellied Sapsuckers banded in spring both fell back to slightly below-average. The four sightings this summer resulted in a record high mean daily count of 0.6 for the season, and one was banded for the second year in a row. Fall numbers were also just a bit lower than average over the previous 12 years of monitoring.

**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	1.86	0.43	0.86	1.43	1.86	1.71	2.00	1.29	0.86	0.43	1.27
# DAYS OBSERVED	5	3	4	5	6	6	7	6	5	3	50
# PROCESSED				0-1-0		1-1-0	1				2-2-0
FIRST OBSERVED: March 28			LAST OBSERVED: June 4			PEAK DATE: March 31			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	2.57	2.00	1.86	2.29	1.57	2.29	2.57	2.57	2.43	2.86	3.71	3.29	1.43	1.86	2.38
# DAYS OBSERVED	7	6	6	7	5	7	7	7	6	6	6	7	5	6	88
# PROCESSED	2-1-1	0-1-0	0-0-2	2	1-0-1		0-0-2	2-0-1	0-0-1	4-1-3	0-0-2	1-0-1		0-0-2	12-3-16
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 16				PEAK NUMBER OF INDIVIDUALS: 7			

The winter mean daily count of 1.5 Downy Woodpeckers was slightly above average, although the lowest since 2011-2012; one was banded, which is average. The mean daily count in spring was the lowest since 2011, and the two individuals banded was half of the long-term average for the season. As usual, observations were somewhat higher in the middle portion of the season. The mean daily count of 1.7 in summer was lower than the past two years, but still above average; 3 were banded, the fewest in summer since 2012. In fall, both the mean daily count and number banded were down slightly from the past two years, but consistent with long-term averages. Numbers were fairly steady throughout the season, but peaked slightly around mid-October.



**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	0.43	0.29	0.29	1.14	0.71	1.00	0.43	0.71	0.57	0.29	0.59				
# DAYS OBSERVED	2	1	2	5	3	6	3	3	3	2	30				
# PROCESSED				0-1-0		0-0-1		0-1-1			0-2-2				
FIRST OBSERVED: March 30			LAST OBSERVED: June 5			PEAK DATE: Apr 19, May 18			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	0.43	1.00	1.14	1.00	1.00	1.14	1.14	1.71	1.00	0.43	1.29	0.71	0.86	0.95
# DAYS OBSERVED	2	2	4	5	5	5	5	6	7	4	2	6	3	5	61
# PROCESSED		1						0-1-0		0-0-1			1		2-1-1
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count of 0.7 Hairy Woodpeckers in winter was average; for the second winter in a row, one was banded. The mean daily count in spring was the lowest since 2012, and for the first time since 2013, none were banded. For the first time since 2012 there were no observations in summer. For the third year in a row, fall results were below average, with the mean daily count the lowest since 2010, and number banded the fewest since 2013. There were no distinct peaks in numbers in either spring or fall.

**NOFL (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	1.14	3.57	4.29	2.14	1.43	1.29	1.43	1.29	1.67				
# DAYS OBSERVED		1	6	7	7	6	7	4	6	4	48				
# PROCESSED					1				1	1	4				
FIRST OBSERVED: April 10			LAST OBSERVED: June 4			PEAK DATE: Apr 23, Apr 29			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	1.43	2.57	3.00	4.57	4.00	2.86	3.57	3.86	5.14	3.00	0.57	1.00	0.29	0.29	2.58
# DAYS OBSERVED	6	7	5	7	7	7	7	7	7	6	3	4	2	2	77
# PROCESSED								2	1						3
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: September 26				PEAK NUMBER OF INDIVIDUALS: 11			

Yellow-shafted Flicker was unusually common this spring, with the mean daily count of 1.67 only marginally below the record set in 2008, thanks to particularly good numbers during the traditional peak of migration in weeks 4 and 5. The four birds banded this spring was a record high for the season. Numbers were also above average in summer, with a mean daily count of 2.1, the highest since 2008; one was banded, which is average. In fall, both the mean daily count and number banded matched the average over the previous 12 years, and there was a sustained peak in numbers from late August through late September. As in all other years except 2005 and 2012, the species was observed in every week of fall.

**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	1.14	0.43	0.29	1.43	1.14	0.86	1.57	0.86	1.29	0.86	0.99				
# DAYS OBSERVED	7	3	2	6	6	6	7	5	6	5	53				
FIRST OBSERVED: March 28			LAST OBSERVED: June 4			PEAK DATE: May 11, May 28			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	1.00	1.57	1.29	2.00	1.14	1.43	1.43	1.29	1.71	1.14	1.29	2.29	1.14	1.57	1.45
# DAYS OBSERVED	5	6	5	6	6	6	6	6	7	7	6	7	5	7	85
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 25				PEAK NUMBER OF INDIVIDUALS: 4			

The mean daily count of Pileated Woodpeckers in winter was close to average at 0.3. In spring, it was slightly lower than the past two years, but the 53 days with observations was just short of the record of 54 set in 2016. The mean daily count of 0.9 in summer was more than double the long-term average. In fall, it was only slightly above the long-term average, but the 85 days of observation was again second only to last year.

**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		0.14	0.43	0.86	0.43	0.14		<b>0.21</b>				
# DAYS OBSERVED			1		1	3	5	3	1		<b>14</b>				
FIRST OBSERVED: April 15			LAST OBSERVED: May 29			PEAK DATE: May 13			PEAK NUMBER OF INDIVIDUALS: 2						
		AUGUST					SEPTEMBER					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	1.29	0.14			0.14				<b>0.17</b>
# DAYS OBSERVED			1			2	3	1			1				<b>8</b>
FIRST OBSERVED: August 17				LAST OBSERVED: October 11				PEAK DATE: September 15				PEAK NUMBER OF INDIVIDUALS: 7			

One American Kestrel was observed in winter; only the second ever during the season (the other in 2011-2012). The 15 American Kestrels observed this spring set a new high for the season, but most sightings were likely of the pair that were occupying a nest box along the Morgan Arboretum access road. Numbers were also above average in fall, with a mean daily count just short of the record of 0.2 set in 2015, and the 8 days of observation only one fewer than the 9 recorded in 2012.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY		0.14			0.29	0.14						0.29	0.29		<b>0.11</b>
# DAYS OBSERVED		1			2	1						2	2		<b>8</b>
FIRST OBSERVED: April 9			LAST OBSERVED: June 3			PEAK DATE: 8 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		0.43	0.14	0.57	1.14	0.71	0.57	0.71	0.14	0.14		0.14	<b>0.36</b>
# DAYS OBSERVED	1	1		3	1	3	4	5	4	4	1	1		1	<b>29</b>
FIRST OBSERVED: August 3				LAST OBSERVED: November 4				PEAK DATE: September 17				PEAK NUMBER OF INDIVIDUALS: 4			

For the second spring in a row, a new record count of Merlin sightings was set, with 8 observations across 8 dates spanning most of the season. The mean daily count in fall was also above-average, with higher numbers only in 2014; the count of 4 individuals on September 17 was one short of the single-day high of 5 on October 11, 2014.

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

		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					<b>0.01</b>			
# DAYS OBSERVED										1					<b>1</b>			
FIRST OBSERVED: October 5					LAST OBSERVED: October 5					PEAK DATE: October 5					PEAK NUMBER OF INDIVIDUALS: 1			

Only one Peregrine Falcon was observed this year, during the traditional peak of migration in the first week of October. The species was missed in spring for just the second time since 2010.

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

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	0.29		<b>0.04</b>
# DAYS OBSERVED												1	2		<b>3</b>
FIRST OBSERVED: May 24				LAST OBSERVED: May 31				PEAK DATE: May 24, 30, 31				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			0.29	0.71		0.14									<b>0.08</b>
# DAYS OBSERVED			1	4		1									<b>6</b>
FIRST OBSERVED: August 21				LAST OBSERVED: September 5				PEAK DATE: August 21, 23				PEAK NUMBER OF INDIVIDUALS: 2			

Prior to 2017, there was only one spring record of Olive-sided Flycatcher at MBO, on May 28, 2014. As such, it was quite surprising to have three observations over the final two weeks of spring this year. The 8 individuals observed this fall was also a record count by a large margin, with the previous high being 4 in 2009, and a cumulative total of just 15 from 2005 through 2016.

**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	TOTAL				
# BIRDS / DAY								0.14	0.57	0.43	0.11				
# DAYS OBSERVED								1	4	3	8				
FIRST OBSERVED: May 21			LAST OBSERVED: June 5			PEAK DATE: 8 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	0.43	0.86	1.14	2.43	1.71	1.00	0.86								0.60
# DAYS OBSERVED	3	5	5	7	6	4	3								33
# PROCESSED	1														1
FIRST OBSERVED: August 1				LAST OBSERVED: September 18				PEAK DATE: Aug 25, Sep 2				PEAK NUMBER OF INDIVIDUALS: 4			

As usual, Eastern Wood-Pewee sightings in spring were few, all in the final three weeks. Four were observed in summer, the most since 2005. The mean daily count in fall and number of days with observations both slightly edged the previous records (0.51 and 31, respectively) set in 2015, but only one was banded, which is average.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY												0.57	0.43		0.10
# DAYS OBSERVED												4	1		5
FIRST OBSERVED: May 23			LAST OBSERVED: May 30			PEAK DATE: May 30			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	1.00	2.14	0.43	0.71	0.29								0.36
# DAYS OBSERVED		2	5	3	2	4	1								17
# PROCESSED		3	5	8	2	4	1								23
FIRST OBSERVED: August 9				LAST OBSERVED: September 12				PEAK DATE: August 24				PEAK NUMBER OF INDIVIDUALS: 6			

Seven Yellow-bellied Flycatchers were observed this spring, more than in any previous year – yet for the first time since 2012, none were banded. The mean daily count and number banded in fall were both above average, but below the record levels set in 2014. There was a strong peak in week 4, similar to what was observed in 2014.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY										1.86	2.29	2.43			0.66
# DAYS OBSERVED										4	7	3			14
# PROCESSED										12	5-0-2	6			23-0-2
FIRST OBSERVED: May 18			LAST OBSERVED: June 1			PEAK DATE: May 30			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	0.14	0.29	0.86	1.00	0.14	0.14									0.18
# DAYS OBSERVED	1	2	4	4	1	1									13
# PROCESSED	1	2	2	4	1										10
FIRST OBSERVED: August 7				LAST OBSERVED: September 9				PEAK DATE: August 24				PEAK NUMBER OF INDIVIDUALS: 4			

For the third time in the past four years, the mean daily count and number of Traill's Flycatchers banded in spring were both well above average. Only one was noted in summer, which is close to average. However, the mean daily count in fall was the lowest since 2010, and fewer individuals were banded than in any previous fall.

**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								0.14	1.00	1.57	0.27	
# DAYS OBSERVED								1	5	3	9	
FIRST OBSERVED: May 18			LAST OBSERVED: June 1			PEAK DATE: May 30			PEAK NUMBER OF INDIVIDUALS: 8			

Traill's Flycatchers recognizable as Alder Flycatcher by their vocalizations were heard over the last three weeks of spring in average numbers, and there were two in summer. No Willow Flycatchers were identified this year.

**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								2.71	1.00	0.29	<b>0.40</b>				
# DAYS OBSERVED								7	3	2	<b>12</b>				
# PROCESSED								11	2	1	<b>14</b>				
FIRST OBSERVED: May 16			LAST OBSERVED: May 31			PEAK DATE: May 17			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	0.43	0.57	1.29	1.43	0.57	0.57	0.29								<b>0.37</b>
# DAYS OBSERVED	2	3	4	6	4	4	2								<b>25</b>
# PROCESSED	1		5	2	2	2	1								<b>13</b>
FIRST OBSERVED: August 3				LAST OBSERVED: September 16				PEAK DATE: Aug 17, Aug 20				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count of Least Flycatchers in spring was nearly average, even though for the first time ever the first sightings were delayed until week 8, four days beyond the previous latest spring arrival. There was a strong migration in week 8, and the number banded for the season was the third highest total for the season in 13 years. Only one was detected in summer, which is average; it was banded, the first one to be captured in summer since 2014, though it was on the last banding session of the season (July 30), and likely an early fall migrant. The mean daily count and number banded in fall were both well above average, just short of record highs reached in 2014.

**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			0.57	1.86	1.86	1.29	1.14	0.57	0.57	0.14	<b>0.80</b>				
# DAYS OBSERVED			3	7	7	6	6	3	3	1	<b>36</b>				
# PROCESSED				4	2-0-1						<b>6-0-1</b>				
FIRST OBSERVED: April 12			LAST OBSERVED: May 30			PEAK DATE: April 19			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	2.57	1.29	1.29	0.71	0.57	0.71	0.86	0.43	0.86	0.57	1.00	1.43		0.14	<b>0.89</b>
# DAYS OBSERVED	5	6	4	4	2	4	4	3	3	3	5	6		1	<b>50</b>
# PROCESSED	4	1-0-1	4	2		1			1-0-1	1					<b>14-0-2</b>
FIRST OBSERVED: August 1				LAST OBSERVED: November 3				PEAK DATE: August 4				PEAK NUMBER OF INDIVIDUALS: 6			

The mean daily count of Eastern Phoebes in spring was average, although the first sightings were not until almost mid-April, later than most years. The 6 individuals banded was the second-highest spring total, behind 8 in 2013. The mean daily count of 0.4 in summer was average, but all three observed were banded, a new record high for summer. New records were set in fall for both mean daily count (previously 0.8 in 2014) and number banded (previously 8 in 2008 and 2013). Numbers were highest in early-mid August, but there was a second push of migrants in mid-October, and the sighting on November 3 was a new record late date.

**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						0.29	0.71	2.29	4.00	3.86	<b>1.11</b>				
# DAYS OBSERVED						1	4	6	7	7	<b>25</b>				
# PROCESSED								1	1		<b>2</b>				
FIRST OBSERVED: May 7			LAST OBSERVED: June 5			PEAK DATE: June 4			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	1.86	1.86	1.57	2.14	0.43	0.29									<b>0.58</b>
# DAYS OBSERVED	7	6	5	6	2	2									<b>28</b>
# PROCESSED			2												<b>2</b>
FIRST OBSERVED: August 1				LAST OBSERVED: September 9				PEAK DATE: August 23				PEAK NUMBER OF INDIVIDUALS: 5			

The mean daily count and number banded in spring were average; as usual, the peak was in week 9. In summer, the mean daily count of 2.7 matched the high set in 2013, and 4 were banded, one short of the record in 2013. Fall results aligned with long-term averages, and followed the typical pattern of tapering off quickly after late August.

**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	1.00	1.71	1.57	3.00	2.00	<b>0.94</b>				
# DAYS OBSERVED					1	5	7	7	7	6	<b>33</b>				
# PROCESSED									2		<b>2</b>				
FIRST OBSERVED: April 28			LAST OBSERVED: June 5			PEAK DATE: May 23			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	0.71	1.43	1.00	0.71	0.29	0.29									<b>0.32</b>
# DAYS OBSERVED	3	6	5	4	2	2									<b>22</b>
FIRST OBSERVED: August 1				LAST OBSERVED: September 6				PEAK DATE: 9 dates				PEAK NUMBER OF INDIVIDUALS: 2			

Eastern Kingbird numbers in spring vary relatively little from year to year, and again were quite typical this year. However, the peak of migration was delayed to week 9 this spring, for the first time since 2009. After being missed last summer, the mean daily count of 1.0 this summer was slightly above average. However, the mean daily count in fall was below average for the sixth year in a row, reflective of a declining trend.

**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	0.29		0.29								<b>0.06</b>				
# DAYS OBSERVED	2		2								<b>4</b>				
FIRST OBSERVED: March 30			LAST OBSERVED: April 15			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	<b>0.01</b>
# DAYS OBSERVED														1	<b>1</b>
FIRST OBSERVED: November 6				LAST OBSERVED: November 6				PEAK DATE: November 6				PEAK NUMBER OF INDIVIDUALS: 1			

Northern Shrike sightings this winter were unusually scarce at 0.09 per day, and for the first time in four winters, none were banded. There were four Northern Shrike sightings in spring, all prior to mid-April as usual. The lone fall observation came on the final day of the season; for only the second time ever no Northern Shrikes were banded in fall.

**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	1.14	0.86	1.14	0.29		<b>0.40</b>				
# DAYS OBSERVED					2	6	4	4	1		<b>17</b>				
# PROCESSED					1	1			1		<b>3</b>				
FIRST OBSERVED: April 28			LAST OBSERVED: May 29			PEAK DATE: 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			0.43	0.29	1.57	0.71	0.86	1.14	1.29	0.57		0.14	0.14		<b>0.51</b>
# DAYS OBSERVED			3	2	5	3	3	4	5	4		1	1		<b>31</b>
# PROCESSED				1	3-0-3	2	2	2-0-1	2-0-1	1					<b>13-0-5</b>
FIRST OBSERVED: August 23				LAST OBSERVED: November 6				PEAK DATE: Sep 9, Oct 2				PEAK NUMBER OF INDIVIDUALS: 4			

Blue-headed Vireo was unusually numerous this spring, with the highest mean daily count since 2008, and the most individuals banded since 2009. The peak of migration typically occurs between early and mid-May; what was different this year was that numbers remained somewhat elevated over that three-week period, rather than peaking for a single week as in most other years. Fall totals were almost identical to last year (mean daily count 0.50 and 13 banded); as noted in the 2016 report, the mean daily count is close to the long-term average, but the number banded continues a pattern of decline, with an annual mean of 14 (range 11-22) since 2011, compared to an annual mean of 26 (range 15-41) from 2005 through 2010.

**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								0.14	0.43	0.14	0.07				
# DAYS OBSERVED								1	2	1	4				
FIRST OBSERVED: May 19			LAST OBSERVED: May 31			PEAK DATE: May 24			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		1.00	0.71								0.15
# DAYS OBSERVED			1	2		3	2								8
# PROCESSED						3	2								5
FIRST OBSERVED: August 17				LAST OBSERVED: September 18				PEAK DATE: Sep 9, Sep 10, Sep 18				PEAK NUMBER OF INDIVIDUALS: 3			

For the second year in a row, five Philadelphia Vireos were observed in spring, matching the record high for the season set in 2009; as usual, none were banded. In fall, both the mean daily count and number banded were below average, and the majority of migration was concentrated within a two-week span in mid-September.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY								1.14	5.86	5.57	4.29				1.69
# DAYS OBSERVED								3	7	7	7				24
# PROCESSED									1	2-1-0					3-1-0
FIRST OBSERVED: May 12			LAST OBSERVED: June 5			PEAK DATE: May 17			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	2.57	1.86	1.00	2.14	0.43	1.57	2.57	1.71							0.99
# DAYS OBSERVED	6	6	5	7	3	6	7	6							46
# PROCESSED	1	1		1			0-1-0								3-1-0
FIRST OBSERVED: August 1				LAST OBSERVED: September 24				PEAK DATE: August 1				PEAK NUMBER OF INDIVIDUALS: 9			

For the sixth year in a row, the mean daily count in spring was above the long-average, reflecting an increasing trend for this species (mean of 0.4 from 2005 through 2011, compared to a mean of 1.9 from 2012 through 2017). However, the three individuals banded in spring matched the 12-year average for the season. The mean daily count of 1.7 in summer was above average, but lower than the past two years; 3 were banded. However, like the past two years, the mean daily count in fall was above the long-term average, while the number banded was on the low side. There appeared to be three peaks in numbers this fall, with early August likely representing local birds, and then two waves of migrants passing through in late August and mid-September.

**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								2.00	8.29	6.29	1.66				
# DAYS OBSERVED								6	7	7	20				
# PROCESSED								1	6-1-1	1-1-1	8-2-2				
FIRST OBSERVED: May 17			LAST OBSERVED: June 5			PEAK DATE: May 29			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	10.43	9.71	4.86	6.00	4.43	6.29	3.43	1.43	0.57	0.29					3.39
# DAYS OBSERVED	7	7	6	7	7	7	7	6	3	2					59
# PROCESSED	13-2-1	12-0-1	5-0-1	4	9	17	4	2		1					67-2-3
FIRST OBSERVED: August 1				LAST OBSERVED: October 6				PEAK DATE: August 8				PEAK NUMBER OF INDIVIDUALS: 16			

The mean daily count of Red-eyed Vireos in spring has been above average for seven consecutive years now, and reached a new high this year; the 8 individuals banded tied the record set in 2015. Summer results were also far above average, with a mean daily count of 4.4; 11 were banded, which was slightly above average. Fall results were considerably lower than last year; the mean daily count remained slightly above the long-term average, but the number banded was around 15% below average.

**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	6.57	5.71	5.71	4.86	7.29	10.29	5.71	11.43	6.00	4.29	<b>6.79</b>				
# DAYS OBSERVED	7	6	7	6	7	7	7	6	7	7	<b>67</b>				
# PROCESSED					0-2-1		1-1-0		0-0-1		<b>1-3-2</b>				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 16			PEAK NUMBER OF INDIVIDUALS: 65						
	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	6.29	7.43	10.43	12.43	9.00	11.43	16.00	14.57	23.29	17.57	27.71	18.29	15.00	14.43	<b>14.56</b>
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	6	7	<b>97</b>
# PROCESSED	1				2-1-0	1	1	4	4-0-1	7	3-0-1	3-0-1		1-0-2	<b>27-1-5</b>
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 12				PEAK NUMBER OF INDIVIDUALS: 50			

The mean daily count of Blue Jays in winter was 4.6, which is typical; one was banded, slightly below average. Spring results were comparable to last year, with a mean daily count slightly above average, and a single individual banded, just below average. This year, however, counts peaked more distinctly in weeks 6 and 8, with the latter being considerably later than usual. This may have carried over into the record high summer mean daily count of 4.9. However, the mean daily count in fall was the lowest since 2009, and fewer were average were banded, the lowest total since 2011. Numbers peaked from late September to mid-October, roughly one week later than usual.

**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	9.57	6.14	8.29	34.57	25.14	19.86	23.14	14.43	23.00	12.71	<b>17.69</b>				
# DAYS OBSERVED	7	6	6	7	7	7	7	7	7	7	<b>68</b>				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 24			PEAK NUMBER OF INDIVIDUALS: 67						
	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	4.71	10.00	15.86	23.43	34.57	37.86	26.43	42.57	30.86	50.86	37.14	92.00	42.57	23.14	<b>33.71</b>
# DAYS OBSERVED	6	7	7	7	7	7	7	7	7	7	7	7	7	7	<b>97</b>
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 17				PEAK NUMBER OF INDIVIDUALS: 170			

The mean daily count of American Crows in winter was 3.4, above only the record low of 2.6 in 2013-2014. Spring numbers rebounded slightly this year, to the highest mean daily count since 2012; as usual, they were highest in week 4. In summer, the mean daily count of 4.6 was the highest since 2011. The mean daily count for fall was roughly 10% above last year's record low, but still far below the long-term average, and continuing the pattern of decline (an average of 80.4 from 2005 through 2011, compared to an average of 38.2 from 2012 through 2017).

**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	1.43	0.71	3.14	1.71	1.71	0.71	0.57	1.43	0.86	<b>1.24</b>				
# DAYS OBSERVED	1	4	4	6	5	6	4	3	6	4	<b>43</b>				
FIRST OBSERVED: March 31			LAST OBSERVED: June 3			PEAK DATE: April 4			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	1.14	0.43	1.00	0.29	1.43	4.00	3.14	2.43	2.14	1.57	2.00	2.57	0.86	2.14	<b>1.80</b>
# DAYS OBSERVED	6	3	5	2	6	6	7	7	6	5	7	7	4	5	<b>76</b>
FIRST OBSERVED: August 1				LAST OBSERVED: November 4				PEAK DATE: September 10				PEAK NUMBER OF INDIVIDUALS: 10			

The mean daily count of Common Ravens in winter was 0.3, which is average. In other season, sightings continued to become more frequent, with new record high mean daily counts in both spring (1.24, vs. 0.99 last year) and fall (1.80, vs. 1.32 in 2014). Presumably these primarily reflect daily sightings of local birds, although in spring there was a distinct peak in numbers in week 4 (3.14 per day in week 4, compared to a previous single-week high mean of 2.0 in spring in week 5 of 2014), and in fall numbers were particularly elevated in weeks 6 and 7, also eclipsing the previous weekly high count for the season of 3.43 in week 12 of 2014. The mean daily count for summer was 0.9, roughly triple the long-term average.

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

	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												0.43		1.14	0.11
# DAYS OBSERVED												1		1	2
FIRST OBSERVED: October 21				LAST OBSERVED: November 4				PEAK DATE: November 4				PEAK NUMBER OF INDIVIDUALS: 8			

Horned Larks were observed in fall for the sixth time in 13 years; as usual the sightings were limited to small numbers in late October and early November.

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

	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		3.14	0.43	0.43											0.29
# DAYS OBSERVED		5	1	2											8
FIRST OBSERVED: August 9				LAST OBSERVED: August 27				PEAK DATE: August 9				PEAK NUMBER OF INDIVIDUALS: 10			

For the second year in a row, no Purple Martins were observed in spring. The mean daily count for fall was average, thanks mostly to the best single-week and single-day totals for the species since August 2008.

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

	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 10	WEEK 10		
# BIRDS / DAY		0.43	4.43	11.71	13.14	11.86	13.71	12.57	14.00	10.00			9.19	
# DAYS OBSERVED		1	6	7	6	6	7	7	7	7			54	
# PROCESSED				1		2-1-0	2-3-1	3-0-1					8-4-2	
FIRST OBSERVED: April 10			LAST OBSERVED: June 5			PEAK DATE: May 2			PEAK NUMBER OF INDIVIDUALS: 22					

	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		2.00	0.43	0.29	0.86										0.26
# DAYS OBSERVED		3	2	1	1										7
FIRST OBSERVED: August 8				LAST OBSERVED: August 31				PEAK DATE: August 9				PEAK NUMBER OF INDIVIDUALS: 10			

The mean daily count of Tree Swallows in spring increased for the fourth year in a row, and finally recovered to slightly above the long-term average for the season. Numbers spiked in week 4 as usual, and remained elevated through the end of the season. In summer, the mean daily count of 3.9 was the highest since 2011, although still lower than in the early years of monitoring. Unfortunately fall results were poor, with the lowest mean daily count since 2009, and sightings on a record-few seven days.

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

	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 10	WEEK 10		
# BIRDS / DAY									0.14	0.14	0.14		0.04	
# DAYS OBSERVED									1	1	1		3	
FIRST OBSERVED: May 20			LAST OBSERVED: May 30			PEAK DATE: May 20, 23, 30			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			0.57												0.04
# DAYS OBSERVED			1												1
FIRST OBSERVED: August 20				LAST OBSERVED: August 20				PEAK DATE: August 20				PEAK NUMBER OF INDIVIDUALS: 4			

For the third year in a row, there were only three sightings of Northern Rough-winged Swallow in spring, well below the long-term average. The species was observed in fall for the first time since 2014, but all sightings came on a single day, August 20.



**CLSW: Cliff Swallow / Hirondelle 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					0.57	1.29	4.14	4.71	4.71	2.43	1.79				
# DAYS OBSERVED					3	3	4	5	6	5	26				
FIRST OBSERVED: April 26			LAST OBSERVED: June 5			PEAK DATE: May 12			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			0.29	0.57											0.06
# DAYS OBSERVED			1	1											2
FIRST OBSERVED: August 20			LAST OBSERVED: August 25			PEAK DATE: August 25			PEAK NUMBER OF INDIVIDUALS: 4						

Cliff Swallows were remarkably uncommon this spring, with the lowest mean daily count since 2005, and a peak count of 12 that was the smallest ever, and less than one-quarter of the average over the previous 12 years. The total of 6 individuals observed in fall was typically few.

**BARS: Barn Swallow / Hirondelle 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	0.29	0.57	0.14		0.11				
# DAYS OBSERVED						1	2	3	1		7				
FIRST OBSERVED: May 3			LAST OBSERVED: May 24			PEAK DATE: May 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	0.29	2.43	3.57	0.57											0.49
# DAYS OBSERVED	1	5	3	3											12
FIRST OBSERVED: August 4			LAST OBSERVED: August 25			PEAK DATE: August 20			PEAK NUMBER OF INDIVIDUALS: 13						

There were far fewer Barn Swallow sightings at MBO this spring than in any previous year, and for only the second time since 2009, none were observed in week 10. However, Barn Swallows were observed in summer for the first time since 2008, and mean daily count of 0.9 was a record high. The fall results were more encouraging, with the mean daily count above average for the third year in a row, thanks to frequent observations throughout mid-August.

**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	13.86	9.14	10.57	13.71	10.29	8.43	11.00	7.00	6.71	4.71	9.54				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	6	69				
# PROCESSED				4-6-1	1-1-2	0-1-2	0-1-4	1-4-2	1-0-1		7-13-12				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 3			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	14.14	9.43	8.14	15.71	10.71	15.29	16.86	14.14	17.43	13.00	14.14	14.71	11.43	13.71	13.49
# DAYS OBSERVED	7	7	7	7	6	7	7	7	7	7	7	7	7	7	97
# PROCESSED	11-0-4	6-0-1	2-0-3	1-0-5	4-0-3	1-0-6	1-2-4	1-0-11	2-1-9	1-3-8	2-1-17	8-1-12	4-0-10	0-0-8	44-8-101
FIRST OBSERVED: August 1			LAST OBSERVED: November 6			PEAK DATE: October 26			PEAK NUMBER OF INDIVIDUALS: 26						

The mean daily count of Black-capped Chickadees this winter was 12.9, perfectly matching the long-term average; 26 were banded, the same number as last winter, and also aligned with the long-term average for the season. Similarly, the mean daily count and number banded in spring were both close to average, and numbers peaked in week 4, as they did annually from 2007 through 2014. In summer the mean daily count of 5.7 was average, while the 12 banded was slightly more than normal. The mean daily count in fall was lower than in any previous year, and numbers remained largely steady throughout the season except for a bit of a dip in the middle two weeks of August. The 44 individuals banded this fall was fewer than in any other year except 2006 (27). Combined, the results suggest that there was little to no migration of Black-capped Chickadees through MBO this fall, and the vast majority of individuals banded were offspring of local breeding pairs.

**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							0.86	0.57	1.43	0.14	0.30				
# DAYS OBSERVED							2	3	5	1	11				
# PROCESSED							1				1				
FIRST OBSERVED: May 12			LAST OBSERVED: May 30			PEAK DATE: May 13			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	0.57	1.00	0.86	0.86	0.57	0.43	0.86	1.29	0.57	0.14	0.14	0.29		0.55
# DAYS OBSERVED	1	4	4	4	3	4	3	4	5	4	1	1	2		40
# PROCESSED			1				1								2
FIRST OBSERVED: August 7				LAST OBSERVED: October 28				PEAK DATE: September 29				PEAK NUMBER OF INDIVIDUALS: 4			

Only two Red-breasted Nuthatches were observed this winter, slightly below average. Red-breasted Nuthatch was observed in higher numbers this spring than any previous year, even though the first sighting of the season was later than ever before. One was banded in week 7, the first one ever in spring. The mean daily count in fall was above average for the third year in a row, though far from the record level reached in 2015. Two individuals were banded, bringing the cumulative total for fall to 12 individuals over 13 years.

**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	1.71	0.71	1.71	2.00	2.00	0.57	1.43	2.43	2.71	1.71	1.70				
# DAYS OBSERVED	5	5	5	5	6	4	6	6	7	6	55				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: March 30			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	2.71	2.43	2.14	3.14	2.14	2.14	1.71	1.57	2.00	2.14	1.71	2.43	0.14	1.43	1.99
# DAYS OBSERVED	7	7	6	7	7	7	7	7	6	5	5	7	1	6	85
# PROCESSED				1											1
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: Aug 22, Aug 25, Oct 13				PEAK NUMBER OF INDIVIDUALS: 5			

The mean daily count of White-breasted Nuthatches in winter was 1.1, which was above average for the fourth year in a row; the species was also banded for the fourth straight winter, but the two individuals was below average over this period. For the second consecutive year, the mean daily count in spring reached a new record high, but as usual, none were banded. The mean daily count of 1.6 in summer was just marginally below last year's record high, and one was banded in summer for the first time ever. In fall, the mean daily count dropped from last year's record high, but remained above average. One individual was banded, which is close to average.

**BRCR: Brown Creeper / Grimpereau brun (*Certhia 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	0.14		0.43	0.71	0.14						0.14				
# DAYS OBSERVED	1		2	3	1						7				
FIRST OBSERVED: April 3			LAST OBSERVED: April 26			PEAK DATE: Apr 15, Apr 20, Apr 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	0.71	0.57	1.29		0.71	0.43		0.28
# DAYS OBSERVED							1	3	4	4		4	2		18
# PROCESSED							1	3	3	5-0-1		1	1		14-0-1
FIRST OBSERVED: September 15				LAST OBSERVED: October 27				PEAK DATE: October 4				PEAK NUMBER OF INDIVIDUALS: 4			

A single Brown Creeper was observed in winter, making this the eleventh out of 13 winter seasons with at least one sighting. The number of Brown Creepers observed this spring was average, and as in 6 of 12 previous years, none were detected beyond April. For the first time since 2007, none were banded. The mean daily count in fall was nearly identical to the past two years, and marginally above the long-term average, as was the number banded. All sightings were from mid-September to late October.

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

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	3.57	7.71	5.71	6.00	5.86	<b>3.09</b>				
# DAYS OBSERVED				2	5	7	7	7	7	7	<b>42</b>				
# PROCESSED					1-1-1	0-3-4	2-3-10	3-0-2	1-0-4		<b>7-7-21</b>				
	FIRST OBSERVED: April 20			LAST OBSERVED: June 5			PEAK DATE: May 12, May 16			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	6.00	4.29	3.43	3.14	1.00	2.00	1.14	1.29	1.57	0.14					<b>1.71</b>
# DAYS OBSERVED	7	7	7	7	6	7	5	6	7	1					<b>60</b>
# PROCESSED	9-0-5			1	1	2	1	4	1	0-0-1					<b>19-0-6</b>
	FIRST OBSERVED: August 1				LAST OBSERVED: October 3				PEAK DATE: August 1				PEAK NUMBER OF INDIVIDUALS: 10		

The mean daily count of House Wrens in spring was unusually high, just short of the record of 3.3 set in 2009; the total of 7 individuals banded was also above average. The first sighting of the season was on April 20, matching the earliest observation on record, from 2012. In summer, the mean daily count of 2.0 was slightly above average, although lower than the past two years, and only one individual was banded. The mean daily count and number banded in fall both matched long-term averages; as usual, numbers were highest in early August and tapered off in September, with the final sighting in early October.

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

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		<b>0.06</b>				
# DAYS OBSERVED			1	1					2		<b>4</b>				
	FIRST OBSERVED: April 14			LAST OBSERVED: May 18			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						0.43	0.14	0.14	0.71	0.43	0.29	0.29	0.14		<b>0.18</b>
# DAYS OBSERVED						2	1	1	3	2	1	2	1		<b>13</b>
# PROCESSED						1	1		4	1		1			<b>8</b>
	FIRST OBSERVED: September 10				LAST OBSERVED: October 27				PEAK DATE: September 28				PEAK NUMBER OF INDIVIDUALS: 3		

Winter Wrens were typically scarce in spring, with four sightings scattered over a span of six weeks. The mean daily count in fall was the lowest since 2011, but the number banded was above average. The peak of migration was in week 9, one week earlier than in most other years.

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

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						<b>0.02</b>
# DAYS OBSERVED					1				1						<b>2</b>
	FIRST OBSERVED: September 4				LAST OBSERVED: September 30				PEAK DATE: Sep 4, Sep 30				PEAK NUMBER OF INDIVIDUALS: 1		

There were two sightings of Marsh Wren in September, nearly four weeks apart. These were the first fall observations since 2012.

**CARW: Carolina Wren / Troglodyte de Caroline (*Thryothorus ludovicianus*)**

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											<b>0.01</b>
# DAYS OBSERVED				1											<b>1</b>
	FIRST OBSERVED: August 26				LAST OBSERVED: August 26				PEAK DATE: August 26				PEAK NUMBER OF INDIVIDUALS: 1		

A Carolina Wren was observed on August 26, the first record at MBO since August 3, 2013.

**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		1.29	7.57	7.14	0.43						1.64				
# DAYS OBSERVED		5	6	7	2						20				
# PROCESSED			15-0-1								15-0-1				
FIRST OBSERVED: April 4		LAST OBSERVED: April 27			PEAK DATE: April 11			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								2.00	15.14	9.71	3.57	6.14	3.86	1.43	2.99
# DAYS OBSERVED								4	7	7	6	5	5	3	37
# PROCESSED								4	23	24-0-1	1	19	10-0-1	4	85-0-2
FIRST OBSERVED: September 21		LAST OBSERVED: November 5			PEAK DATE: September 29				PEAK NUMBER OF INDIVIDUALS: 35						

One Golden-crowned Kinglet was observed in winter. The mean daily count in spring was identical to 2016, and just slightly below the record high of 1.7 in 2014. The number banded was a new record high. In fall, the mean daily count was slightly below average, but the number banded was above average. However, there has been a generally increasing trend in banding totals for this species, with an average of 42 (range 25 to 73) over the first five years of the Fall Migration Monitoring Program, compared to an average of 90 (range 63 to 138) from 2010 through 2017.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY			2.43	19.71	31.57	14.57	12.43	1.29	0.29						8.23
# DAYS OBSERVED			6	7	7	7	7	3	1						38
# PROCESSED				56-0-11		51-0-12		20-0-8		16-0-2		4			147-0-33
FIRST OBSERVED: April 11		LAST OBSERVED: May 29			PEAK DATE: April 26			PEAK NUMBER OF INDIVIDUALS: 82							
		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	1.29	5.00	24.29	34.43	22.57	12.57	4.86	3.43		7.77
# DAYS OBSERVED					2	6	6	7	7	7	7	6	7		55
# PROCESSED					1	2	13-0-1	76-0-3	83-0-25	70-0-11	37-0-2	13-0-1	6-0-2		301-0-45
FIRST OBSERVED: September 5		LAST OBSERVED: November 6			PEAK DATE: Sep 30, Oct 10				PEAK NUMBER OF INDIVIDUALS: 80						

The mean daily count of Ruby-crowned Kinglets in spring was a record high for a second year in a row, more than double the long-term average for the season. Similarly, the 147 banded shattered last year's record high of 97. Curiously, the mean daily count in fall was below average for the second consecutive year, and for the first time ever, was lower than the mean daily count in spring. The number banded was slightly below average for fall. Migration peaked in week 10 as usual.

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

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 29		LAST OBSERVED: May 18			PEAK DATE: Apr 29, 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				0.86			3.43	1.29	0.71	0.43	0.50
# DAYS OBSERVED	1			1				2			1	3	1	2	11
FIRST OBSERVED: August 5		LAST OBSERVED: November 4			PEAK DATE: October 11				PEAK NUMBER OF INDIVIDUALS: 24						

Single Eastern Bluebirds were observed on two dates in spring, slightly below the long-term average for the season. The mean daily count in fall was close to average; for the third time in the past four years, there were sightings in August, which had never been recorded until 2013. The peak of migration was in week 11 for the second year in a row, and included an unusually high count of 24 individuals on October 11, just short of the record of 27 on October 7, 2016.

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

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	1.71	0.86	0.57	<b>0.40</b>				
# DAYS OBSERVED							3	6	4	4	<b>17</b>				
# PROCESSED							3	2	1		<b>6</b>				
FIRST OBSERVED: May 12			LAST OBSERVED: June 5			PEAK DATE: 4 dates			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	1.00	1.14	3.00	2.00	1.43	0.57	0.29	0.43		0.29				<b>0.76</b>
# DAYS OBSERVED	2	5	4	7	6	5	2	2	2		1				<b>36</b>
# PROCESSED	1-0-1	3	6	10-1-2	6-0-6	4-0-3	2		2						<b>34-1-12</b>
FIRST OBSERVED: August 6				LAST OBSERVED: October 11				PEAK DATE: August 25				PEAK NUMBER OF INDIVIDUALS: 6			

The mean daily count of Veery was above average in spring for the third time in the past four years, and the number banded beat last year's record by one. The mean daily count of 1.6 in summer was just above average, as was the total of 6 individuals banded. In fall, the mean daily count was above average, while the number banded matched the record set in 2015. The two individuals observed in week 11 were later than usual, with only one previous record beyond this date (October 17, 2015).

**GCTH: Gray-cheeked Thrush / Grive à joues grises (*Catharus 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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY												0.43	0.14		<b>0.06</b>
# DAYS OBSERVED												3	1		<b>4</b>
# PROCESSED												3	0-0-1		<b>3-0-1</b>
FIRST OBSERVED: May 24			LAST OBSERVED: May 30			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							0.29	0.14	0.71	0.29					<b>0.10</b>
# DAYS OBSERVED							2	1	3	1					<b>7</b>
# PROCESSED							2	1	2-0-3						<b>5-0-3</b>
FIRST OBSERVED: September 14				LAST OBSERVED: October 3				PEAK DATE: Sep 29, Oct 2, Oct 3				PEAK NUMBER OF INDIVIDUALS: 2			

Three Gray-cheeked Thrushes were banded this spring, the first time ever that more than one has been banded in a single spring season. One of them was recaptured the following week; all four spring records involved captures. The mean daily count and number banded in fall were both lower than the past two years, but average overall.

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

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	0.29					<b>0.11</b>
# DAYS OBSERVED									4	2					<b>6</b>
# PROCESSED									2-0-1	1-0-1					<b>3-0-2</b>
FIRST OBSERVED: May 16			LAST OBSERVED: May 28			PEAK DATE: May 20			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	1.86	1.57	1.00	3.71	2.86	4.00	5.71	3.00	5.71	1.86	0.43				<b>2.27</b>
# DAYS OBSERVED	5	5	7	7	7	7	7	7	7	6	2				<b>67</b>
# PROCESSED	5-1-2	8	4	1-0-1	5-0-1	21-0-1	24-0-1	8-0-1	21-0-7	2-0-1					<b>99-1-15</b>
FIRST OBSERVED: August 1				LAST OBSERVED: October 16				PEAK DATE: August 24				PEAK NUMBER OF INDIVIDUALS: 11			

The mean daily count of Swainson's Thrush was above average in spring for the fourth consecutive year, although still very low. Three individuals were banded, the same as last year, which is above average as well. The species was observed in summer for the second year in a row, with a record high mean daily count of 1.0. A record high 4 individuals were banded in summer, all early fall molt-migrants. In fall, the mean daily count and number banded were both far lower than in 2015 and 2016, but still above the long-term means for the season. As usual, the main peak of migration was in mid-September, but there was also an atypical secondary peak in week 9.

**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				0.71	0.43	0.14					0.13				
# DAYS OBSERVED				5	2	1					8				
# PROCESSED				2	1	1					4				
FIRST OBSERVED: April 19			LAST OBSERVED: May 4			PEAK DATE: April 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			0.14	0.57	0.14	0.14	0.29	0.14	2.14	1.00	0.57	4.14	2.00	0.57	0.85
# DAYS OBSERVED			1	3	1	1	1	1	7	3	4	7	5	2	36
# PROCESSED				2	1			1	11-0-1	4	3-0-1	19-0-3	4-0-7	1-0-4	46-0-16
FIRST OBSERVED: August 20				LAST OBSERVED: November 1				PEAK DATE: October 21				PEAK NUMBER OF INDIVIDUALS: 13			

One Hermit Thrush was observed in winter, the third year in a row with sightings during this season. The mean daily count in spring was average, but the four individuals banded was a new record high for the second year in a row. In fall, both the mean daily count and number banded were slightly below average. Numbers were unusually low in week 11, which has been the peak in most previous years, but increased dramatically in week 12.

**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								0.86	2.14	1.14	0.71				0.49
# DAYS OBSERVED								5	6	5	5				21
# PROCESSED									2						2
FIRST OBSERVED: May 10			LAST OBSERVED: June 5			PEAK DATE: May 17			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		0.29	0.29						0.08
# DAYS OBSERVED			1		2	1		2	1						7
# PROCESSED			1		1			2	1-0-1						5-0-1
FIRST OBSERVED: August 19				LAST OBSERVED: September 27				PEAK DATE: September 27				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Wood Thrush in spring was marginally below the record of 0.50 set in 2015, and for the third time in four years, a record-tying 2 individuals were banded during the season. In summer, the mean daily count of 1.6 was the third-highest ever, and 3 individuals were banded. Observations were typically scarce in fall, but 5 individuals were banded, second only to the high count of 7 in 2015.

**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	7.14	9.71	9.43	10.43	11.29	6.57	8.71	4.71	4.43	2.86					7.53
# DAYS OBSERVED	6	7	6	7	7	7	7	7	7	7	7	7	7	7	67
# PROCESSED				2	1-0-1		2	1							6-0-1
FIRST OBSERVED: March 29			LAST OBSERVED: June 5			PEAK DATE: Apr 6, Apr 19			PEAK NUMBER OF INDIVIDUALS: 23						
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	11.43	24.43	14.43	15.14	7.57	9.71	16.71	16.57	22.00	22.57	80.29	169.14	249.43	253.57	65.21
# DAYS OBSERVED	7	7	7	7	6	7	7	7	7	7	7	7	7	7	97
# PROCESSED	3-0-1	3	1		1			2	1	6	4	3	13	19	56-0-1
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 27				PEAK NUMBER OF INDIVIDUALS: 500			

For the third time, American Robin was among the top three most numerous species in winter, with a mean daily count of 19.2; one was banded. The mean daily count in spring was well below-average, as was the case in 2013 and 2015, and contrasting with three years of increasing record highs in 2012, 2014, and 2016. Only six individuals were banded, the fewest since 2009. American Robin was the most abundant species at MBO this summer, with a mean daily count of 8.6, roughly 30% above average; the 12 individuals banded tied with Black-capped Chickadee as the most of any species this summer. However, fall numbers were low, with the mean daily count just above the previous lows of 61.3 (2011) and 63.5 (2005), and far fewer banded than in the previous low of 79 in 2011. Numbers peaked over the final three weeks of the season as usual, just at lower levels.

**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	4.29	2.29	1.26				
# DAYS OBSERVED							6	7	7	6	26				
# PROCESSED							1	10-1-0	6-0-6	0-0-2	17-1-8				
FIRST OBSERVED: May 10			LAST OBSERVED: June 5			PEAK DATE: May 23			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	7.43	6.29	5.71	7.00	7.00	9.14	8.86	8.29	6.14	3.57	1.00				5.03
# DAYS OBSERVED	7	7	6	7	7	7	7	7	7	4					73
# PROCESSED	20-1-3	10-0-7	8-0-6	5-0-9	5-0-5	8-0-4	13-2-8	14-0-6	8-0-7	1-0-5					92-3-60
FIRST OBSERVED: August 1				LAST OBSERVED: October 14				PEAK DATE: September 22				PEAK NUMBER OF INDIVIDUALS: 13			

In spring, the mean daily count and number of Gray Catbirds banded were very similar to last year, and above long-term averages for the season. Similarly in summer, the mean daily count of 4.0 was above average for the fifth year in a row, but only 7 individuals were banded, the fewest since 2012. The mean daily count in fall has remained quite consistent over the years, and for the third time in the past four years, the number banded was very similar (92 in 2015 and 2017; 94 in 2014). As usual, numbers remained quite steady over the first eight weeks of the season and tapered off 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		0.14	0.14		0.43	1.00	1.29	1.00	1.43	1.14	0.66				
# DAYS OBSERVED		1	1		3	4	4	6	6	5	30				
# PROCESSED					2	1-0-1	1-0-1	2	0-0-2		6-0-4				
FIRST OBSERVED: April 8			LAST OBSERVED: June 3			PEAK DATE: May 12			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	1.86	1.43	1.00	1.71	1.14	1.57	0.43					0.70
# DAYS OBSERVED			4	6	5	6	7	5	7	2					42
# PROCESSED				0-1-0	1		2	1	0-0-1						4-1-1
FIRST OBSERVED: August 24				LAST OBSERVED: October 11				PEAK DATE: September 2				PEAK NUMBER OF INDIVIDUALS: 4			

It was a good spring for Brown Thrasher, with the highest mean daily count since 2005, and more individuals banded than in any previous year. The mean daily count of 0.7 in summer was above average. In fall, the species was absent over the first three weeks of the season for only the second time (also in 2011), but overall the mean daily count remained above average, and the number banded matched the long-term average. By a small margin, the highest count was in week 5, earlier than in any other year, but there was a small secondary peak in week 8 closer to the usual timing. An apparent third wave of migration in week 10 was by far the highest number observed that late in the season, and the sighting on October 11 tied the latest one on record from 2009.

**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	1.14			1.00	2.57	0.14	0.14	0.57		1.00	0.66				
# DAYS OBSERVED	3			3	3	1	1	2		3	16				
FIRST OBSERVED: March 31			LAST OBSERVED: June 4			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	2.86	2.43	0.29	2.43	24.14	17.57	11.57	76.86	107.14	65.86	271.14	118.14			50.03
# DAYS OBSERVED	4	2	1	2	4	6	6	5	7	7	7	7	7	7	58
FIRST OBSERVED: August 9				LAST OBSERVED: November 6				PEAK DATE: October 27				PEAK NUMBER OF INDIVIDUALS: 630			

The mean daily count of European Starlings this winter was 21.4, roughly average. However, in spring it was the lowest ever by a large margin (previously 1.2 in 2005), and the species was observed on just 16 days, well below the previous record low of 22 in 2012. In summer, the mean daily count of 5.1 was the highest since 2013. Fall counts were slightly above average, primarily due to large flocks over the final two weeks of the season.

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

	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									0.43	0.43					0.06
# DAYS OBSERVED									1	1					2
FIRST OBSERVED: September 30				LAST OBSERVED: October 7				PEAK DATE: Sep 30, Oct 7				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count of Bohemian Waxwings in winter was 2.7, which is slightly below average. The only other sightings this year were in fall, and they occurred much earlier in the season (September 30 and October 7) than ever before (all previous fall records have been between October 23 and November 5).

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

	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	1.43								2.71	35.14			16.71	5.69	
# DAYS OBSERVED	2								4	7			7	22	
# PROCESSED										28			10	38	
FIRST OBSERVED: March 29			LAST OBSERVED: June 5					PEAK DATE: May 24					PEAK NUMBER OF INDIVIDUALS: 55		

	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	14.00	16.00	14.43	10.86	7.57	9.29	9.86	26.29	18.86	9.14	3.29	8.43	1.86	3.14	10.93
# DAYS OBSERVED	7	7	6	7	7	6	7	7	6	6	2	6	4	4	82
# PROCESSED	16-0-3	6-0-1	4-0-1	1				3	2						32-0-5
FIRST OBSERVED: August 1				LAST OBSERVED: November 4				PEAK DATE: October 2				PEAK NUMBER OF INDIVIDUALS: 42			

In winter, the mean daily count of Cedar Waxwings was 1.5, slightly below average. For spring, it was the lowest since 2013. Similar to that year, sightings were scarce over the first half of the season. This year, over 60% of individuals were recorded in week 9, matching the peak of migration in 2006, 2007, 2009, and 2012, all of which were also below-average years for the species at MBO. Despite the compressed period of migration, the 38 individuals banded was only a bit below average for spring. The late migration carried over into an above average mean daily count of 8.1 in summer; 7 individuals were banded. For the fourth year in a row, Cedar Waxwings were observed weekly throughout fall; the mean daily count and number banded were both close to average for the season. Numbers were elevated throughout most of August, then tapered off until another wave of migrants passed through in weeks 8 and 9.

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

	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						0.04
# DAYS OBSERVED									2						2
FIRST OBSERVED: May 4			LAST OBSERVED: May 6					PEAK DATE: May 6					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						0.43	0.43	1.29	0.14	1.29	3.86	3.71	1.57	0.29	0.93
# DAYS OBSERVED						1	2	2	1	2	3	3	2	2	18
FIRST OBSERVED: September 9				LAST OBSERVED: November 4				PEAK DATE: October 13				PEAK NUMBER OF INDIVIDUALS: 19			

Small numbers of American Pipits were observed on May 4 and 6. This was the fourth year in the past five with spring observations, and in three of those (2013, 2016, and 2017) all sightings were in week 6. The mean daily count in fall was above average, and for the first time ever, sightings were recorded over nine consecutive weeks. The peak of migration spanning weeks 11 and 12 was roughly one week later than in most other years.

**PIGR: Pine Grosbeak / Durbec des sapins (*Pinicola enucleator*)**

Six Pine Grosbeaks were observed at MBO this winter, a flock of four on November 28, and another two on December 6, all flying overhead, the first in any season since winter 2012-2013.



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

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		1.00				0.86	0.29					0.23	
# DAYS OBSERVED		1		3				2	2					8	
FIRST OBSERVED: April 6			LAST OBSERVED: May 28			PEAK DATE: May 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	TOTAL	
# BIRDS / DAY	2.57	1.71	0.86	3.71	1.00	0.57	0.57	0.86	0.71	2.00	0.57	3.57	1.14	1.29	1.51
# DAYS OBSERVED	6	5	3	7	5	3	3	3	2	5	2	7	2	3	56
# PROCESSED	2														2
FIRST OBSERVED: August 1				LAST OBSERVED: November 5				PEAK DATE: August 22				PEAK NUMBER OF INDIVIDUALS: 10			

The mean daily count of House Finches in winter was 2.5, slightly higher than last year's record low, but still less than half the long-term average; 35 were banded, almost twice as many as last winter, yet still below average overall. The mean daily count of House Finches in spring was identical to last year, and slightly above average, but as usual, observations were scattered irregularly throughout the season. Two House Finches were observed in summer, the first records for the season since 2008, and one was banded for the first time ever. For only the third time (all since 2014), House Finch was observed weekly throughout fall. The mean daily count was above average for the season, while the total of two individuals banded was average. For the third time in the past five years, all of the bandings occurred in the first week of the season, despite observations throughout fall.

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

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	1.00	1.43	1.00	1.00	0.71	1.14	0.57				0.70
# DAYS OBSERVED			1	6	6	5	6	4	5	3				36
# PROCESSED				1					3					4
FIRST OBSERVED: April 15			LAST OBSERVED: June 5			PEAK DATE: May 26			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	TOTAL
# BIRDS / DAY	2.00	1.71	1.43	2.14	0.71	0.57	0.29	2.57	1.71	0.71	2.14	0.57		1.22
# DAYS OBSERVED	6	7	5	6	4	4	3	2	7	5	2	6	3	60
# PROCESSED	4	4-0-2		1-0-2	1	3-0-1			1-0-1	2-0-1			1	17-0-7
FIRST OBSERVED: August 1				LAST OBSERVED: October 27				PEAK DATE: October 21				PEAK NUMBER OF INDIVIDUALS: 9		

Purple Finches were unusually scarce in winter, with a mean daily count of 0.17; only one was banded, down from the record of 48 last winter. The mean daily count in spring was slightly above average, as was the number banded. Both results were above average in fall, although a bit lower than last year. Numbers were relatively high throughout August, then lower for most of September, before reaching a season peak in week 9. The mean daily count in summer was a record high, at 1.0, and 2 individuals were banded, also a new record.

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

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	0.01
# DAYS OBSERVED														1	1
FIRST OBSERVED: June 2			LAST OBSERVED: June 2			PEAK DATE: June 2			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									0.57	0.29	12.00	0.43	1.57	1.06	
# DAYS OBSERVED									2	1	3	1	2	9	
FIRST OBSERVED: October 4				LAST OBSERVED: November 4				PEAK DATE: October 21				PEAK NUMBER OF INDIVIDUALS: 44			

A single Pine Siskin was banded in winter, and no others were observed. There was also only one observed in spring; curiously it was seen on June 2, later than any previous record for the season. Fall sightings began in week 10 and continued weekly through the end of the season, with the overall mean daily count slightly below average for the season. The peak count of 44 individuals on October 21 was the highest for fall since 60 on September 29, 2012.

**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	2.86	2.86	4.86	7.71	9.00	10.43	13.86	11.57	15.86	11.29	<b>9.03</b>				
# DAYS OBSERVED	4	5	7	7	7	7	7	7	7	7	<b>65</b>				
# PROCESSED				4	4-0-2	1	3-4-0	8-1-2	23-3-5	3	<b>46-8-9</b>				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 3, May 9			PEAK NUMBER OF INDIVIDUALS: 25						
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	14.00	15.86	13.14	23.14	26.29	13.86	22.43	13.43	16.71	11.71	11.00	22.00	11.43	11.86	<b>16.20</b>
# DAYS OBSERVED	7	7	6	7	7	7	7	7	7	6	6	7	5	7	<b>93</b>
# PROCESSED	1-0-2	0-3-0	0-1-0	1	2		2		3	4	6	14	3	2	<b>38-4-2</b>
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 29				PEAK NUMBER OF INDIVIDUALS: 58			

After a record-high count last winter, American Goldfinch numbers dropped to 10.3 per day this winter, just above the long-term average. It was again (for the seventh time) banded in higher numbers than any other species this winter; 136 were banded, the third-highest total for a winter season. The mean daily count and number banded in spring almost perfectly matched the long-term averages for the season. Numbers did not peak until week 9, the latest since 2011. Abundance was below average in summer, with a mean daily count of just 8.0, but the 6 individuals banded was the second-highest ever total for the season, behind 13 in 2014. For the second year in a row, the mean daily count in fall was slightly above average, but the number banded was far below usual – the fewest since 2011. The main peak of migration was slightly earlier than usual, spanning weeks 4 and 5, but there was another spike in numbers in week 7, and another unusually late and substantial peak in week 12 (14 individuals banded, compared to a cumulative total of 18 during this week in all 12 previous years).

**SNBU: Snow Bunting / Plectrophenax des neiges (*Plectrophenax nivalis*)**

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	<b>0.05</b>
# DAYS OBSERVED														1	<b>1</b>
FIRST OBSERVED: November 4				LAST OBSERVED: November 4				PEAK DATE: November 4				PEAK NUMBER OF INDIVIDUALS: 5			

One Snow Bunting was observed in winter. The only others observed at MBO this year were a flock of 5 flying overhead on November 4.

**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	3.14	2.86	1.14	1.71	0.43	0.14	0.14				<b>0.96</b>				
# DAYS OBSERVED	5	5	2	6	3	1	1				<b>23</b>				
# PROCESSED				4-0-1	1-1-0	0-0-1	1				<b>6-1-2</b>				
FIRST OBSERVED: March 28			LAST OBSERVED: May 10			PEAK DATE: Mar 31, Apr 4			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	1.29	3.71	<b>0.38</b>
# DAYS OBSERVED												2	4	6	<b>12</b>
# PROCESSED												2	5-0-1	3	<b>10-0-1</b>
FIRST OBSERVED: October 21				LAST OBSERVED: November 6				PEAK DATE: November 1				PEAK NUMBER OF INDIVIDUALS: 7			

The mean daily count of American Tree Sparrows in winter was 3.4, which barely exceeds the long-term average, but only 12 were banded, well below average for winter. The mean daily count in spring was somewhat below average, although the number banded was typical. Except for a slight rebound in week 4, observations tapered off steadily from the start of the season until early May; the sighting on May 10 tied for the latest ever, with one in 2005. Fall sightings started on October 21, later than in any previous year, and the mean daily count for the season was the second-lowest ever. Only 10 individuals were banded, fewer than in any previous year.

**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			0.14	1.43	1.86	1.57	2.14	1.71	3.29	2.14	1.43				
# DAYS OBSERVED			1	5	5	6	6	6	7	7	43				
# PROCESSED				1				3	2	0-0-1	6-0-1				
FIRST OBSERVED: April 13			LAST OBSERVED: June 5			PEAK DATE: May 29			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	0.86	0.71	1.29	0.14	0.71		0.14	1.43	1.43	0.43	0.14	0.29		0.57
# DAYS OBSERVED	2	4	2	4	1	2		1	4	5	2	1	1		29
# PROCESSED									2						2
FIRST OBSERVED: August 3				LAST OBSERVED: October 25				PEAK DATE: Oct 1, Oct 2				PEAK NUMBER OF INDIVIDUALS: 4			

Spring results for Chipping Sparrow continued a trend of higher numbers since 2012. From 2005 through 2011, the average mean daily count for spring was 0.7; since 2012, it has been 1.6. Similarly, the mean number banded per spring has increased from 2.2 over the first seven years to 5.8 over the past six years. Conversely, Chipping Sparrow was missed in summer for the first time since 2009. Also, the mean daily count this fall was below average, the second-lowest result since 2010, and the total of 2 individuals banded was by far the lowest ever. There was a faint peak around weeks 9 and 10, close to the typical timing for this species, but counts were much lower than usual during that period.

**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 9			LAST OBSERVED: May 9			PEAK DATE: May 9			PEAK NUMBER OF INDIVIDUALS: 1			

For the second year in a row there was a single detection of a Vesper Sparrow in May. Again, it was a male singing from the hedgerow on the far side of the field east of MBO.

**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	TOTAL				
# BIRDS / DAY	0.14	0.29	4.14	8.57	5.43	0.43					1.90				
# DAYS OBSERVED	1	2	6	7	5	3					24				
# PROCESSED				17	8-0-2	0-0-1					25-0-3				
FIRST OBSERVED: April 1			LAST OBSERVED: May 6			PEAK DATE: April 26			PEAK NUMBER OF INDIVIDUALS: 20						
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	0.29	0.57	0.13
# DAYS OBSERVED												5	2	3	10
# PROCESSED												3	1		4
FIRST OBSERVED: October 17				LAST OBSERVED: November 4				PEAK DATE: Oct 17, Oct 19, Nov 4				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Fox Sparrows in winter was 0.17, which is slightly below average; two were banded. It was a good spring for the species, with the mean daily count and number banded both well above the long-term averages. There was a distinct peak in week 4, matching almost all previous years. Conversely, fall results were the poorest in 13 years of monitoring. Only 13 individuals were observed, matching the low from 2008, but that year the protocol did not yet extend to week 14, so the count would likely have been larger in comparison with this year. The previous record low for number banded was 5, in 2006 and 2011.

**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	0.86	7.86	10.00	12.57	9.86	7.57	10.71	7.14	6.57	6.29	<b>7.94</b>				
# DAYS OBSERVED	1	7	7	7	7	7	7	7	6	7	<b>63</b>				
# PROCESSED				8-4-1	1-2-1	0-0-3	2-0-1	1-2-1	0-1-6	0-0-1	<b>12-9-14</b>				
FIRST OBSERVED: April 3			LAST OBSERVED: June 5			PEAK DATE: April 18			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	11.00	7.14	5.00	6.00	4.29	4.43	7.43	15.71	10.14	8.43	6.43	4.57	1.29	0.57	<b>6.60</b>
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	3	3	<b>90</b>
# PROCESSED	22-2-1	17-0-5	7-0-2	11-1-1	6-0-1	6-0-3	5-1-0	21-0-2	13-0-4	19-0-4	6	5		1	<b>139-4-23</b>
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: September 19				PEAK NUMBER OF INDIVIDUALS: 42			

The mean daily count of Song Sparrows in spring was far below average, with lower results only in 2011 and 2015. Unusually few were banded too, with a lower total only in 2011. Numbers peaked in week 4 as usual, but at roughly two-thirds the long-term average. The mean daily count of 3.4 in summer was less than half the long-term average; 8 were banded, which is average since 2014, but lower than previous years. Numbers were also very low in fall, although slightly above the record lows set last year for both mean daily count and birds banded. The seasonal timing matched long-term patterns though, with high numbers in the first week of August, a lull in early-mid September, and a secondary peak from week 8 through week 10.

**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						0.43	0.43	1.00		0.14	<b>0.20</b>				
# DAYS OBSERVED						3	3	3		1	<b>10</b>				
# PROCESSED						1	3	5		1	<b>10</b>				
FIRST OBSERVED: May 4			LAST OBSERVED: May 30			PEAK DATE: May 17			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	1.00	1.43	0.43	1.29	0.29		0.14			<b>0.34</b>
# DAYS OBSERVED					1	3	4	1	4	1		1			<b>15</b>
# PROCESSED					1	4	1	3	4-0-1	1		1			<b>15-0-1</b>
FIRST OBSERVED: September 1				LAST OBSERVED: October 21				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 5			

Spring results for Lincoln's Sparrow were down slightly from 2016, but still well above the long-term averages for both mean daily count and number banded. Fall results were typical in both categories, and the bulk of migration occurred in September as usual. The sighting on October 21 tied the third-latest date on record for MBO.

**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			1.86	4.86	3.57	2.57	2.14	1.57	0.71	1.00	<b>1.83</b>				
# DAYS OBSERVED			7	7	6	5	7	5	4	5	<b>46</b>				
# PROCESSED				6-1-3	4-0-1	3-1-2	1-1-2	2		0-0-1	<b>16-3-9</b>				
FIRST OBSERVED: April 11			LAST OBSERVED: June 5			PEAK DATE: April 19			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	4.14	1.71	0.86	0.86	0.43	0.57	0.29	1.00	1.57	1.57	1.00	0.29	0.14	0.14	<b>1.04</b>
# DAYS OBSERVED	7	5	5	6	2	3	1	3	4	5	3	1	1	1	<b>47</b>
# PROCESSED	4-1-0	3	1-0-2	1	1-0-1	1-0-2	1	4	7-0-2	3-0-1	0-0-2	2	0-0-1		<b>28-1-11</b>
FIRST OBSERVED: August 1				LAST OBSERVED: November 5				PEAK DATE: August 1				PEAK NUMBER OF INDIVIDUALS: 6			

Both the mean daily count and number of Swamp Sparrows banded this spring were close to long-term averages. Numbers peaked unusually early in week 4, for the first time since 2006. The mean daily count of 2.0 in summer was average, but only 2 were banded, fewer than usual. Fall numbers were almost identical to those from 2015 and 2016 (mean daily count 1.08/1.08/1.04; number banded 25/28/28), and somewhat below the long-term averages. As in many years, observations were particularly numerous in the first week, and there was a secondary but lower peak from late September to around mid-October.

**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	1.14	1.43	3.14	8.57	36.14	51.14	22.00	2.86	0.29		12.67				
# DAYS OBSERVED	4	4	7	7	7	7	7	5	2		50				
# PROCESSED				9-1-3	39-0-4	32-0-5	27-0-4	3			110-1-16				
FIRST OBSERVED: March 28			LAST OBSERVED: May 27			PEAK DATE: May 2			PEAK NUMBER OF INDIVIDUALS: 130						
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	1.00	1.00	2.29	1.86	3.86	12.14	30.00	49.86	54.86	40.86	23.14	10.43	9.57	17.24
# DAYS OBSERVED	3	5	4	6	5	6	7	7	7	7	7	7	7	7	85
# PROCESSED	3-0-1	1-0-1	1-0-1	0-0-1	3-0-1	10-0-2	12-1-4	51-0-2	87-0-13	51-0-6	34-0-8	19-0-1	4-0-5	6-0-4	282-1-50
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 10				PEAK NUMBER OF INDIVIDUALS: 80			

The mean daily count of 3.2 in winter was triple the long-term average, and 16 were banded, more than in any previous winter except 2014-2015 (25). For the second year in a row, there was a new record high mean daily count for spring; the number banded was second only to the record high of 138 last year. Conversely, only one was observed in summer, and the mean daily count and number banded in fall were both below average. This continues a pattern of lower results in “odd” years dating back to 2011: mean daily count 17.1 (range 12.5 to 23.1) in odd years vs. 31.8 (range 28.2 to 36.6) in even years; average number banded 272 (range 216 to 282) in odd years vs. 519 (range 484 to 566) in even years. Fall migration peaked in weeks 9 and 10, as usual.

**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					0.86	0.29	1.43	3.43	0.29		0.63				
# DAYS OBSERVED					4	2	4	3	1		14				
# PROCESSED					1		1	3			5				
FIRST OBSERVED: April 28			LAST OBSERVED: May 23			PEAK DATE: May 16			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					0.86	0.14		6.71	6.14	2.00					1.13
# DAYS OBSERVED					2	1		6	6	3					18
# PROCESSED						1		5	2	5					13
FIRST OBSERVED: September 6				LAST OBSERVED: October 12				PEAK DATE: October 1				PEAK NUMBER OF INDIVIDUALS: 13			

The mean daily count of White-crowned Sparrows in spring was below average for the second year in a row, and the number banded matched the record low from 2005. For the third time in the past four years, migration peaked in week 8, compared to week 7 in almost all previous years. Both the mean daily count and number banded in fall rebounded slightly from last year’s record lows, but remained well below average. There was a very distinct peak of migration in weeks 9 and 10, accounting for 81% of observations this fall.

**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	12.71	10.86	5.57	13.14	22.00	1.57					6.59				
# DAYS OBSERVED	7	6	7	7	6	4					37				
# PROCESSED				10-1-0	5						15-1-0				
FIRST OBSERVED: March 28			LAST OBSERVED: May 6			PEAK DATE: April 26			PEAK NUMBER OF INDIVIDUALS: 85						
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	1.14	3.29	4.86	15.14	6.71	9.86	2.99
# DAYS OBSERVED								4	4	5	6	7	6	6	38
# PROCESSED								2	4	5	2	23	7	8-2-2	51-2-2
FIRST OBSERVED: September 21				LAST OBSERVED: November 6				PEAK DATE: October 17				PEAK NUMBER OF INDIVIDUALS: 50			

The mean daily count in winter was 13.9, roughly 30% above average; 101 were banded, the second-highest season total (behind 150 in 2010-2011). In spring, the mean daily count and number banded were both above average, and the peak of migration was later than usual, in week 5 for only the second time (matching 2006). In fall, the mean daily count and number banded were both the lowest since 2006.

**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	0.43	0.14		0.09				
# DAYS OBSERVED							2	3	1		6				
FIRST OBSERVED: May 12			LAST OBSERVED: May 26			PEAK DATE: 6 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 29				LAST OBSERVED: August 29				PEAK DATE: August 29				PEAK NUMBER OF INDIVIDUALS: 1			

There were only six Bobolink sightings this spring, each involving a single individual; this was the lowest count since 2013, and the second-lowest across all 13 years of the Spring Migration Monitoring Program. All observations were within a two-week span in mid-late May, corresponding to the typical peak of occurrence for Bobolink. For the third year in a row, only one Bobolink was observed in fall, this year on August 29.

**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						0.14	3.00	11.71	8.86	6.86	3.06				
# DAYS OBSERVED						1	4	7	7	7	26				
# PROCESSED								12-5-7	0-0-8	0-1-2	12-6-17				
FIRST OBSERVED: May 4			LAST OBSERVED: June 5			PEAK DATE: May 19			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	4.14	5.14	2.86	4.29	1.29	0.29	0.14								1.30
# DAYS OBSERVED	6	6	6	6	5	2	1								32
# PROCESSED	12-0-1	1	1	2		0-1-0									16-1-1
FIRST OBSERVED: August 1				LAST OBSERVED: September 14				PEAK DATE: August 6				PEAK NUMBER OF INDIVIDUALS: 12			

The spring results for Baltimore Oriole this year (mean daily count 3.06, 12 banded, 6 returns, 17 repeats, 26 days observed) were almost identical to last year's (mean daily count 3.10, 13 banded, 6 returns, 17 repeats, 27 days observed), although the first individual arrived six days earlier this year, on May 4. For the fifth spring in a row, migration peaked in week 8, and this year all of the birds banded were during that week. Whereas the spring numbers were typical, both the mean daily count and number banded were below average in fall. The mean daily count of 2.3 in summer was also below average, while the 4 individuals banded was typical.

**RWBL: Red-winged Blackbird / Carouge à épaulettes (*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	TOTAL				
# BIRDS / DAY	25.71	30.57	32.86	37.00	37.57	28.29	31.71	24.57	23.14	21.86	29.33				
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	70				
# PROCESSED					3-4-0	7	11-3-2	13-1-2	1-1-1	1	36-9-5				
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: April 14			PEAK NUMBER OF INDIVIDUALS: 95						
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	5.86	7.43	6.29	5.86	2.86	16.29	76.14	95.00	170.00	35.43	228.71	193.71	115.29	122.00	77.20
# DAYS OBSERVED	6	6	5	5	3	4	4	5	7	5	7	7	6	7	77
# PROCESSED													1		1
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: October 13				PEAK NUMBER OF INDIVIDUALS: 836			

The mean daily count of Red-winged Blackbirds in winter was 5.2, which is above average if excluding the exceptionally high numbers in 2009-2010 and 2014-2015. The mean daily count and number banded in spring have been steadily declining since 2012, and this year the count reached the lowest levels since 2005, while far fewer were banded than in any previous year. In summer, the mean daily count of 6.7 was the lowest since 2012; for the second year in a row only one was banded. The mean daily count for fall was average, but only one was banded, the fewest ever, aside from the first year of the Fall Migration Monitoring Program in 2005 when there were none. As usual, flocks began to build in week 7, but this year peaked earlier than usual around mid-October.

**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			1.14	3.14	3.43	3.43	3.29	2.43	2.71	2.00	2.16				
# DAYS OBSERVED			5	7	6	7	7	7	7	6	52				
# PROCESSED								0-1-0	0-0-1		0-1-1				
FIRST OBSERVED: April 11			LAST OBSERVED: June 5			PEAK DATE: 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	0.29	0.43									0.14				0.06
# DAYS OBSERVED	2	2									1				5
# PROCESSED		1													1
FIRST OBSERVED: August 2				LAST OBSERVED: October 11				PEAK DATE: August 9				PEAK NUMBER OF INDIVIDUALS: 2			

The mean daily count of Brown-headed Cowbirds in spring was below average for the sixth year in a row, suggesting a pattern of decline compared to earlier years. For the first time ever, none were banded in spring. Two were observed in summer, also fewer than average. This species is always scarce in fall, but particularly few were observed this year. However, one was banded in week 2, only the second ever in fall.

**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			0.29	3.71	18.00	2.00	0.71				2.47				
# DAYS OBSERVED			2	6	6	4	4				22				
# PROCESSED					1						1				
FIRST OBSERVED: April 11			LAST OBSERVED: May 13			PEAK DATE: April 30			PEAK NUMBER OF INDIVIDUALS: 68						
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		0.43	1.29	5.86	7.00	0.57	2.71	1.42
# DAYS OBSERVED							4		2	4	6	5	1	4	26
FIRST OBSERVED: September 12				LAST OBSERVED: November 6				PEAK DATE: October 13				PEAK NUMBER OF INDIVIDUALS: 24			

The mean daily count of Rusty Blackbirds in winter was 0.2, which is above average. It was also a great spring, with the mean daily count of 2.47 breaking the previous record of 2.2 in 2014, and more than quadrupling the long-term average. This was the fourth consecutive year with greatly above-average spring numbers, an encouraging sign for this species that is listed as Special Concern under the *Species at Risk Act*. Only one was banded in spring, but this matches the long-term average. In contrast to spring, the mean daily count in fall was below average this year, but it has been more variable, and since 2011 there has been a two-year cycle with lower results in odd years (mean 1.2; range 1.0 to 1.4) and higher ones in even years (mean 2.5; range 2.3 to 2.7).

**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	0.57	0.86	4.43	7.00	6.71	4.43	8.29	7.29	9.00	6.29	5.49				
# DAYS OBSERVED	3	3	6	7	6	6	7	7	7	7	59				
# PROCESSED					1	1	2	6-1-1	1-1-0	1-0-1	12-2-2				
FIRST OBSERVED: March 31			LAST OBSERVED: June 5			PEAK DATE: May 28			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	11.71	28.14	18.71	11.86	25.57	10.29	63.29	100.57	56.43	143.14	229.71	278.14	17.71	3.43	71.34
# DAYS OBSERVED	7	7	5	7	7	6	6	7	7	6	7	7	4	5	88
# PROCESSED				1					1						2
FIRST OBSERVED: August 1				LAST OBSERVED: November 5				PEAK DATE: October 18				PEAK NUMBER OF INDIVIDUALS: 650			

Three Common Grackle sightings in winter were fewer than usual. The mean daily count in spring was the lowest since 2010, and the number banded the fewest since 2011; a modest peak of migration spanned mid-late May. The mean daily count of 8.0 in summer was above average but like in 2016 none were banded. The mean daily count was above average in fall, with particularly large counts in weeks 11 and 12, later than the usual peak for this species. However, only two were banded, the fewest since 2011, and far below the season average of 12.

**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						1.00	2.86	3.14	3.43	1.86	1.23				
# DAYS OBSERVED						5	7	7	7	7	33				
FIRST OBSERVED: May 3			LAST OBSERVED: June 5			PEAK DATE: May 18			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	1.14	1.71	3.86	3.00	2.14	2.00	1.86	0.57	0.29						1.18
# DAYS OBSERVED	4	5	5	6	6	6	6	3	2						43
# PROCESSED	8	9	13-0-9	10-0-8	8-0-4	10-0-1	7-1-0	4	2						71-1-22
FIRST OBSERVED: August 2				LAST OBSERVED: September 29				PEAK DATE: August 20				PEAK NUMBER OF INDIVIDUALS: 11			

The mean daily count of Ovenbirds this spring exceeded the previous record of 1.1 set in 2010, yet for the first time since 2013 none were banded during the season. There was a protracted peak of migration that largely spanned weeks 7 to 9. The mean daily count in summer was 0.9, and 3 individuals were banded. Fall results were distinctly above average for the third year in a row, and both the mean daily count and number banded slightly exceeded the records set in 2015 (1.05 and 70, respectively). As usual, numbers were highest in the second half of August, and dropped off quickly past mid-September.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY						0.14	1.14	1.29	5.29	2.71	0.43				1.10
# DAYS OBSERVED						1	4	4	7	6	2				24
# PROCESSED								2-0-2	2-0-2	18-0-5	6-0-5			1	29-0-14
FIRST OBSERVED: April 28			LAST OBSERVED: June 1			PEAK DATE: May 17, May 18			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	0.43	1.86	1.71	1.57	1.29	0.57	0.43								0.56
# DAYS OBSERVED	3	6	4	5	6	3	3								30
# PROCESSED	2-0-1	8-0-2	8-0-2	8-0-1	7-0-1	3	1								37-0-7
FIRST OBSERVED: August 1				LAST OBSERVED: September 14				PEAK DATE: August 20				PEAK NUMBER OF INDIVIDUALS: 6			

Northern Waterthrush has become considerably more abundant at MBO in spring over time, with a mean daily count of under 0.4 (range 0.2 to 0.9) from 2005 through 2010, compared to 1.2 (range 0.7 to 1.6) from 2011 through 2017. The number banded has similarly increased, from 12 (range 4 to 26) in 2005-2010 to 36 (range 28 to 48) in 2011-2017. The spring 2017 results were therefore above average overall, but slightly low by more recent standards. In fall, the mean daily count and number banded were both close to the long-term averages, which have no shifted over time in parallel to spring results. The peak this year was in week 2, earlier than in any previous year.

**GWWA: Golden-winged Warbler / Paruline à ailes dorées (*Vermivora chrysoptera*)**

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 23				LAST OBSERVED: August 23				PEAK DATE: August 23				PEAK NUMBER OF INDIVIDUALS: 1			

A Golden-winged Warbler was banded in summer for the first time ever, and another (or the same) observed on August 23 was only the third fall record at MBO; unlike the previous two fall birds, this one was not captured.

**BWWA: Blue-winged Warbler / Paruline à ailes bleues (*Vermivora cyanoptera*)**

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			

A Blue-winged Warbler observed on May 19 was only the second ever in spring, and third for MBO overall; unlike the previous two, this one was not banded.



**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	0.57	1.71	0.29		<b>0.29</b>				
# DAYS OBSERVED						2	3	5	2		<b>12</b>				
# PROCESSED								1			<b>1</b>				
FIRST OBSERVED: May 3			LAST OBSERVED: May 26			PEAK DATE: May 16, May 17			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	4.43	3.43	1.43	1.71	0.57	0.14							<b>0.89</b>
# DAYS OBSERVED	2	2	5	6	5	4	3	1							<b>28</b>
# PROCESSED	2	1	17-0-6	6-1-4	3-0-3	2-0-1	1	1							<b>33-1-14</b>
FIRST OBSERVED: August 4				LAST OBSERVED: September 19				PEAK DATE: Aug 16, Aug 22				PEAK NUMBER OF INDIVIDUALS: 10			

Both the mean daily count and number of Black-and-white Warblers banded this spring were below average, with the one individual banded matching the record low in 2005 and 2013. The majority of individuals were observed in week 8, which is the typical peak of migration for this species. One was observed in summer for the first time since 2012, and was banded. Fall was a pleasant surprise, with a record high mean daily count, and a well above average number of individuals banded. There was a strong peak of migration in weeks 3 and 4, corresponding to the usual timing.

**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								0.14	46.29	19.00	6.29	<b>7.17</b>			
# DAYS OBSERVED								1	7	7	3	<b>18</b>			
# PROCESSED									152-0-11	55-0-5	4-0-1	<b>211-0-17</b>			
FIRST OBSERVED: May 12			LAST OBSERVED: June 2			PEAK DATE: May 19			PEAK NUMBER OF INDIVIDUALS: 130						
		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	2.00	0.71	2.71	1.14	4.71	2.71	1.00	1.71	0.43					<b>1.32</b>
# DAYS OBSERVED	3	4	2	7	4	6	6	4	5	2					<b>43</b>
# PROCESSED	4-0-1	4-0-1	1	3	2	18-0-1	5	2	7-1-0	1					<b>47-1-3</b>
FIRST OBSERVED: August 4				LAST OBSERVED: October 7				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 13			

Tennessee Warbler numbers have been unusually high in spring over the past few years, presumably in relation to the Spruce Budworm outbreak to the northeast of MBO. The mean daily count in spring was nearly 40% higher than the previous high in 2013, and the number banded nearly 50% higher than the record set in 2014. An incredible 152 individuals were banded in week 8 alone, more than in the first six years of the Spring Migration Monitoring Program combined! The peak count of 130 individuals on May 19 was nearly double the previous single-day record of 72 on May 23, 2014. However, for the third year in a row the fall results were far below average, suggesting differences in spring and fall migration routes.

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

		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					<b>0.05</b>
# DAYS OBSERVED						1			2	2					<b>5</b>
# PROCESSED										1					<b>1</b>
FIRST OBSERVED: September 9					LAST OBSERVED: October 5				PEAK DATE: 5 dates			PEAK NUMBER OF INDIVIDUALS: 1			

Orange-crowned Warbler was missed in spring for the first time since 2008. The five individuals observed in fall was the lowest count since 2010, and only one was banded, fewer than in any previous year.

**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								2.57	0.29	0.14	<b>0.30</b>				
# DAYS OBSERVED								6	2	1	<b>9</b>				
# PROCESSED								3			<b>3</b>				
FIRST OBSERVED: May 16			LAST OBSERVED: May 30			PEAK DATE: May 16, 17, 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	0.14	0.14	0.29	1.29	0.71	1.71	1.86	0.43	1.71	0.43		0.14			<b>0.63</b>
# DAYS OBSERVED	1	1	2	5	3	7	5	2	5	1		1			<b>33</b>
# PROCESSED	0-1-0		2	0-0-1	1	2-0-1	3	0-0-1	7-0-1	1		1			<b>17-1-4</b>
FIRST OBSERVED: August 6				LAST OBSERVED: October 21				PEAK DATE: October 1				PEAK NUMBER OF INDIVIDUALS: 6			

Spring results for Nashville Warbler were even poorer than last year’s unusual lows, with a mean daily count matching the record lows set in 2005 and 2010, and fewer individuals banded than in any previous year. Fall was no better, with both statistics slightly below the record lows established just last year. The low fall numbers over the past three years (mean daily count 0.72, average number banded 27) are in stark contrast to the average results over the first ten years of the Fall Migration Monitoring Program (mean daily count 2.2, average number banded 107).

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

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	0.57	0.14	<b>0.13</b>				
# DAYS OBSERVED								4	2	1	<b>7</b>				
# PROCESSED								3-0-1	2-0-1		<b>5-0-2</b>				
FIRST OBSERVED: May 17			LAST OBSERVED: May 30			PEAK DATE: May 18, 23, 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		0.43	0.29	0.71	0.71	0.29	0.43								<b>0.20</b>
# DAYS OBSERVED		2	2	3	3	2	2								<b>14</b>
# PROCESSED		1	1	1-0-1	1	1									<b>5-0-1</b>
FIRST OBSERVED: August 8				LAST OBSERVED: September 17				PEAK DATE: August 27				PEAK NUMBER OF INDIVIDUALS: 3			

The mean daily count of Mourning Warblers in spring was close to average, but more were banded than in most previous years. In fall, the mean daily count was on the high side, but far fewer were banded than usual. There was only a modest peak of migration around the end of August, a bit later than usual.

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

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	2.43	10.57	10.00	8.57	<b>3.21</b>				
# DAYS OBSERVED						3	4	7	7	7	<b>28</b>				
# PROCESSED						2	8	20-5-2	5-3-6	1-0-2	<b>36-8-10</b>				
FIRST OBSERVED: May 4			LAST OBSERVED: June 5			PEAK DATE: May 18, May 31			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	5.43	2.86	3.86	5.14	7.57	5.86	7.43	5.29	2.57	0.29	0.14				<b>3.32</b>
# DAYS OBSERVED	7	6	7	7	7	7	7	7	6	2	1				<b>64</b>
# PROCESSED	10-1-0	4-0-4	9-0-1	15-0-4	18-1-5	11-0-4	11-1-2	8-0-2	4-1-2	1					<b>91-4-24</b>
FIRST OBSERVED: August 1				LAST OBSERVED: October 10				PEAK DATE: September 2				PEAK NUMBER OF INDIVIDUALS: 13			

The mean daily count of Common Yellowthroats in spring has shown a gradual increasing trend over time, and this year’s result was the second-highest ever. Similarly, the number banded was just short of the record high of 40 in 2014. As usual, numbers were highest in weeks 8 and 9. The mean daily count of 2.1 in summer was the lowest since 2010, and only 2 were banded, half of the long-term average. Fall results were average in all regards.

**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								5.29	5.29	3.14	1.37				
# DAYS OBSERVED								7	7	7	21				
# PROCESSED								8-4-2	4-3-1	1	13-7-3				
FIRST OBSERVED: May 16			LAST OBSERVED: June 5			PEAK DATE: May 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	11.57	11.57	9.86	17.71	10.14	5.14	2.43	0.86	0.43	0.14					4.99
# DAYS OBSERVED	7	6	7	7	7	6	6	3	2	1					52
# PROCESSED	54-0-2	44-0-1	35-4-4	46-1-7	37-0-4	13-0-2	5-1-0	1	1	1					237-6-20
FIRST OBSERVED: August 1				LAST OBSERVED: October 5				PEAK DATE: August 25				PEAK NUMBER OF INDIVIDUALS: 25			

For a third consecutive year, a new record high was established for the mean daily count in spring; this year the peak of migration fully spanned weeks 8 and 9, and the number lingering into week 10 has higher than ever before. The number banded was also well above average, although below last year’s record high. The mean daily count of 2.9 in summer was 50% higher than the previous record set in 2015, and the 11 birds banded beat the record of 8 set in summer 2015. Also for the third year in a row, new record highs were set in fall for both mean daily count and number banded. Interestingly, the peak of migration was in week 4 this fall, the latest it has been since 2007, and in contrast to the steadily advancing peak of movement over the past decade. However, numbers were above average throughout August and early September, so this deviation from the pattern may be minor.

**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							0.29	0.29	0.29		0.09				
# DAYS OBSERVED							1	2	1		4				
# PROCESSED								1			1				
FIRST OBSERVED: May 13			LAST OBSERVED: May 24			PEAK DATE: May 13, May 24			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		1.29	0.14	1.43	0.29		0.14						0.27
# DAYS OBSERVED	1	2		4	1	4	2		1						15
# PROCESSED	1	2		1	1	5									10
FIRST OBSERVED: August 7				LAST OBSERVED: September 28				PEAK DATE: Aug 27, Sep 6				PEAK NUMBER OF INDIVIDUALS: 5			

As usual, only a few Cape May Warblers were observed in spring, and the one individual banded was average for the season. Similarly in fall, both the mean daily count and number of individuals banded were close to long-term averages for MBO, although the peak count of 5 individuals on two dates this fall had only been exceeded three times previously (12 on September 8, 2013, and 8 on both August 18 and 22, 2015).

**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	0.14		0.14	0.06				
# DAYS OBSERVED							1	1		1	3				
FIRST OBSERVED: May 12			LAST OBSERVED: June 4			PEAK DATE: May 12			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		0.29	0.71	0.14	0.29		0.14					0.13
# DAYS OBSERVED		1	1		2	3	1	2		1					11
FIRST OBSERVED: August 10				LAST OBSERVED: October 3				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 3			

Only four Northern Parulas were observed this spring, the fewest since 2005; for the first time since 2013 none were banded during the season. In fall, the mean daily count was average, but for the second year in a row none were banded, in contrast to all 11 previous seasons. The last sighting of the year was on October 3, marking the sixth time in 13 years that this occurred between October 2 and 4.

**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						0.14		5.71	7.43	1.43	1.47				
# DAYS OBSERVED						1		5	7	2	15				
# PROCESSED								24	29-0-5	4	57-0-5				
FIRST OBSERVED: May 2			LAST OBSERVED: May 31			PEAK DATE: May 23			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	3.14	10.86	12.14	23.43	10.71	5.29	3.57	0.57					5.05
# DAYS OBSERVED		3	4	7	7	7	7	7	6	3					51
# PROCESSED		1-0-1	11-0-3	40-0-3	50-0-5	89-0-15	29-0-5	14-0-1	13-0-2	1-0-1					248-0-36
FIRST OBSERVED: August 10				LAST OBSERVED: October 7				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 42			

The mean daily count of Magnolia Warblers this spring was almost identical to 2016, and somewhat above the long-term average for the season. The number banded was also quite high, reflecting an overall increasing trend over time (mean 19 banded per spring from 2005 through 2010, vs. 57 from 2011 through 2017). In fall, the mean daily count was just short of the record high of 5.1 set in 2014, while the number banded was roughly 25% above the long-term average. Migration peaked more strongly than in most years, and did so in week 6, the earliest since 2011.

**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							0.14	0.14	0.71	0.29	0.13				
# DAYS OBSERVED							1	1	3	2	7				
FIRST OBSERVED: May 13			LAST OBSERVED: June 1			PEAK DATE: May 23, May 24			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	0.29	0.71	0.14		0.14						0.11
# DAYS OBSERVED			1	1	2	3	1		1						9
# PROCESSED						1									1
FIRST OBSERVED: August 17				LAST OBSERVED: September 29				PEAK DATE: Sep 5, Sep 9				PEAK NUMBER OF INDIVIDUALS: 2			

Although still quite uncommon, with only nine sightings, the mean daily count of Bay-breasted Warbler was above average this spring for the fifth consecutive year, although for the second year in a row none were banded. The mean daily count in fall was average, but for the third straight year only a single individual was banded, fewer than in any of the ten previous years.

**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							0.14		0.29		0.04				
# DAYS OBSERVED							1		2		3				
FIRST OBSERVED: May 12			LAST OBSERVED: May 26			PEAK DATE: May 12, 25, 26			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					0.29	0.14	0.14								0.04
# DAYS OBSERVED					2	1	1								4
FIRST OBSERVED: August 29				LAST OBSERVED: September 17				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 1			

Only three Blackburnian Warblers were observed in spring, slightly below the long-term average. Fall numbers were comparable, with four sightings over a span of three weeks, also just below average. For the second year in a row, none were banded all year.

**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						0.14	2.29	18.14	12.14	10.57	4.33				
# DAYS OBSERVED						1	3	7	7	7	25				
# PROCESSED							4	30-8-11	2-1-13	1-1-6	37-10-30				
	FIRST OBSERVED: May 4			LAST OBSERVED: June 5		PEAK DATE: May 17			PEAK NUMBER OF INDIVIDUALS: 38						
	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	4.14	1.86	1.00		0.14			0.14						0.79
# DAYS OBSERVED	6	6	5	4		1			1						23
# PROCESSED	12-0-3	7-0-2	2	1		1									23-0-5
	FIRST OBSERVED: August 1				LAST OBSERVED: September 27			PEAK DATE: Aug 8, Aug 9			PEAK NUMBER OF INDIVIDUALS: 7				

The mean daily count of Yellow Warblers in spring remained below average for a fourth consecutive year, but was slightly higher than 2015 and 2016, and the number banded was average for the season, thanks to a single-week record high of 30 banded in week 8. The mean daily count of 2.9 in summer was typical over the past five years, but below the long-term average; the same is true for the 5 birds banded. In fall, the mean daily count matched the record low set in 2014, and the number banded was the same as last year, considerably below average. As in all years since 2006, the number banded peaked in the first week of the season, but for the first time since 2009, the mean daily count was slightly higher in week 2 than week 1. The sighting on September 27 was the second-latest on record for MBO, behind October 4, 2015.

**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								2.29	4.71	2.29	0.93				
# DAYS OBSERVED								7	7	7	21				
# PROCESSED								3	6		9				
	FIRST OBSERVED: May 16			LAST OBSERVED: June 5		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	0.29	1.57	2.14	3.29	1.14	1.29	0.71	0.14							0.76
# DAYS OBSERVED	3	5	6	7	4	4	2	1							32
# PROCESSED	2	3	3-0-3	8-1-2	3-0-1	4	4	1							28-1-6
	FIRST OBSERVED: August 3				LAST OBSERVED: September 19			PEAK DATE: August 24			PEAK NUMBER OF INDIVIDUALS: 10				

The mean daily count and number of Chestnut-sided Warblers banded in spring both dropped somewhat from the record highs of the past two years, but remained well above long-term averages. Numbers peaked in week 9, as usual. The mean daily count in summer was 0.4, lower than in the past two years, and one was banded. Both mean daily count and number banded were also unusually elevated in fall, the highest since 2011.

**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								1.57	4.14	1.43	0.71				
# DAYS OBSERVED								5	5	1	11				
# PROCESSED								2	2	2	6				
	FIRST OBSERVED: May 17			LAST OBSERVED: May 30		PEAK DATE: May 23			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		1.43	0.57	0.14	0.29		0.14				0.19
# DAYS OBSERVED				1		4	3	1	2		1				12
# PROCESSED				1		7	2		1						11
	FIRST OBSERVED: August 26				LAST OBSERVED: October 10			PEAK DATE: September 9			PEAK NUMBER OF INDIVIDUALS: 4				

Blackpoll Warblers were unusually scarce this spring for the second year in a row, with the fewest observed and banded since 2010. Fall numbers rebounded slightly from last year's record lows, but both the mean daily count and number banded remained far less than half of historical averages.

**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	1.57	1.00	0.86	0.57	0.44				
# DAYS OBSERVED						2	3	5	2	2	14				
# PROCESSED								1	2		3				
FIRST OBSERVED: May 2			LAST OBSERVED: June 4			PEAK DATE: May 15			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		0.71	1.14	0.71	1.29	0.86	0.14	1.29						0.45
# DAYS OBSERVED	1		3	5	3	6	3	1	5						27
# PROCESSED			1	5	2-0-1	3-0-1	2		7						20-0-2
FIRST OBSERVED: August 3				LAST OBSERVED: October 2				PEAK DATE: September 12				PEAK NUMBER OF INDIVIDUALS: 4			

The Black-throated Blue Warbler observed on May 2 was the earliest ever record of the species at MBO. The mean daily count for the season was average, while the number banded was typically small. In fall, both the mean daily count and number banded were somewhat below average; as usual there was no distinct peak in migration, but numbers in late August were a bit higher than usual.

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

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				0.29	0.07				
# DAYS OBSERVED						2				2	4				
# PROCESSED										1	1				
FIRST OBSERVED: April 27			LAST OBSERVED: May 17			PEAK DATE: April 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							2.14	0.86	1.71	0.14					0.35
# DAYS OBSERVED							4	3	7	1					15
# PROCESSED							1	3	5	1					10
FIRST OBSERVED: September 13				LAST OBSERVED: October 4				PEAK DATE: Sep 14, Sep 17				PEAK NUMBER OF INDIVIDUALS: 6			

After being missed last spring, Western Palm Warbler was back to being typically rare this spring, with three individuals observed in late April, and another two in mid-May. The one banded in May was only the sixth one ever for spring. The mean daily count in fall was just below average, with all observations falling within an unusually tight span of just 22 days. The number banded was slightly below average. For the first time ever, no Yellow Palm Warblers were observed at MBO this year.

**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				0.14	0.29	2.29	4.57	6.43	1.57		1.53				
# DAYS OBSERVED				1	2	5	5	6	5		24				
# PROCESSED						1	1	16-0-1	1		19-0-1				
FIRST OBSERVED: April 22			LAST OBSERVED: May 27			PEAK DATE: May 17			PEAK NUMBER OF INDIVIDUALS: 17						
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	1.43	3.71	20.43	28.00	19.86	6.71	3.43		0.14	6.03
# DAYS OBSERVED				2	1	5	5	7	7	5	5			1	45
# PROCESSED				1		1	4	39-0-1	55-0-19	38-0-12	4	3			145-0-32
FIRST OBSERVED: August 26				LAST OBSERVED: November 4				PEAK DATE: October 4				PEAK NUMBER OF INDIVIDUALS: 47			

Yellow-rumped Warblers were unusually uncommon this spring, with the lowest mean daily count and banding total since 2010. Numbers did not peak until week 8, the first time since 2009 that they have been so late. Fall numbers rebounded somewhat from the lows of the past two years, but still remained well below long-term averages for the season. The peak of migration started a bit early this fall, in week 8, but continued through the typical high of weeks 9 and 10.

**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						0.14	0.43	0.57	0.43	0.29	<b>0.19</b>				
# DAYS OBSERVED						1	2	3	2	2	<b>10</b>				
# PROCESSED								1			<b>1</b>				
FIRST OBSERVED: May 5			LAST OBSERVED: June 5			PEAK DATE: May 12, 18, 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	0.14	0.57	1.57	0.71	0.29	0.29						<b>0.27</b>
# DAYS OBSERVED			1	1	3	5	3	2	2						<b>17</b>
# PROCESSED							1	1	1						<b>3</b>
FIRST OBSERVED: August 20				LAST OBSERVED: October 2				PEAK DATE: September 9				PEAK NUMBER OF INDIVIDUALS: 7			

In spring, the mean daily count of Black-throat Green Warblers matched the unusual low observed in 2015, but one individual was banded this spring, only the eighth one ever for the season. Fall results remained below average for a fourth consecutive year, with the number banded particularly disappointing, matching the record low from 2007.

**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								1.29	1.00	0.43	<b>0.27</b>				
# DAYS OBSERVED								3	3	1	<b>7</b>				
# PROCESSED								6	1-0-1		<b>7-0-1</b>				
FIRST OBSERVED: May 19			LAST OBSERVED: May 31			PEAK DATE: May 23			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	1.00	1.57	1.00	0.43	1.43									<b>0.40</b>
# DAYS OBSERVED	1	3	4	5	3	4									<b>20</b>
# PROCESSED		3	6	4	1	6-0-1									<b>20-0-1</b>
FIRST OBSERVED: August 7				LAST OBSERVED: September 11				PEAK DATE: 4 dates				PEAK NUMBER OF INDIVIDUALS: 4			

The mean daily count of Canada Warblers this spring was higher than in any previous year, and the number banded was above average for the fifth year in a row – encouraging results for a species classified as Threatened under Canada’s *Species at Risk Act*. In fall, the mean daily count and number banded were both average, but the strong pulse of migration in week 6 was atypical.

**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								1.14	3.00	1.14	<b>0.53</b>				
# DAYS OBSERVED								4	5	3	<b>12</b>				
# PROCESSED								5-0-1	7	3	<b>15-0-1</b>				
FIRST OBSERVED: May 18			LAST OBSERVED: June 1			PEAK DATE: May 24			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			0.14	0.86	0.57	2.71	2.00	0.14	0.14						<b>0.47</b>
# DAYS OBSERVED			1	3	3	7	6	1	1						<b>22</b>
# PROCESSED			1	2	3	9-0-1	9-0-1		1						<b>25-0-2</b>
FIRST OBSERVED: August 17				LAST OBSERVED: September 28				PEAK DATE: September 13				PEAK NUMBER OF INDIVIDUALS: 8			

Both the mean daily count and number of Wilson’s Warblers banded this spring were slightly below average, although the high count of 10 individuals on May 24 was just one short of the all-time record of 11 on May 28, 2008. Similarly, the fall mean daily count and banding total were a bit below average, but the peak of 8 individuals on September 13 tied the record reached on three previous dates (September 6, 2006, September 7, 2007, and September 6, 2011).

**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								0.29	0.57	0.14	0.10				
# DAYS OBSERVED								2	4	1	7				
FIRST OBSERVED: May 17			LAST OBSERVED: May 30			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	1.43	0.29	0.43	0.43								0.19
# DAYS OBSERVED			1	6	2	2	2								13
# PROCESSED			2	1	1	1									4
FIRST OBSERVED: August 17				LAST OBSERVED: September 15				PEAK DATE: 6 dates				PEAK NUMBER OF INDIVIDUALS: 2			

The number of Scarlet Tanagers observed this spring was slightly above average, but as in all previous years, none were banded. The number observed in fall was a new record high, while the number banded was slightly above average. The peak in week 4 was more distinct than in any previous year, the first time a weekly mean count for this species has exceeded 1 since 2006.

**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	WEEK 11	WEEK 12	WEEK 13	WEEK 14	TOTAL
# BIRDS / DAY	10.00	7.00	7.86	9.29	7.57	7.71	8.71	6.71	7.43	6.29	7.86				
# DAYS OBSERVED	7	6	7	7	7	7	7	7	7	7	7	69			
# PROCESSED				1-1-0	2-1-0	1-2-0			0-1-1			4-5-1			
FIRST OBSERVED: March 28			LAST OBSERVED: June 5			PEAK DATE: May 9			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	8.29	6.00	6.29	7.57	5.43	4.57	5.43	5.71	5.14	6.57	6.29	8.14	6.43	9.57	6.53
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	7	98
# PROCESSED	3-1-2	5	1-0-1	1	1		1	1-0-1	3	2-0-2	1	9-0-1	3-1-2	31-2-9	
FIRST OBSERVED: August 1				LAST OBSERVED: November 6				PEAK DATE: August 22				PEAK NUMBER OF INDIVIDUALS: 20			

The mean daily count of Northern Cardinals in winter was 5.8, a new record high for the fifth year in a row; 12 were banded, which is above average, but less than the previous two winters. For the third consecutive year, the spring mean daily count reached a new high, but the number banded was average. The mean daily count of 4.4 in summer was above average, but lower than last year's record high of 6.0; a record-high 5 individuals were banded. In fall, the mean daily count was just below last year's record high of 6.59, and the number banded was more than double the long-term average, although a bit lower than the last two years. As in 2015 and 2016, many of the birds were banded in the final two weeks of the season, suggesting a movement of individuals through the site at that time.

**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	0.86	2.86	3.43	1.71	0.90				
# DAYS OBSERVED						1	4	7	7	6	25				
# PROCESSED								2-2-0	2	0-1-2	4-3-2				
FIRST OBSERVED: May 7			LAST OBSERVED: June 5			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	5.14	4.43	3.00	5.43	3.14	2.43	2.00	1.00	0.57						1.94
# DAYS OBSERVED	7	6	5	7	6	7	6	5	2						51
# PROCESSED	10	5-0-2	4	4-0-1		1	2	2							28-0-3
FIRST OBSERVED: August 1				LAST OBSERVED: September 27				PEAK DATE: Aug 3, Aug 9, Aug 27				PEAK NUMBER OF INDIVIDUALS: 10			

In spring, the mean daily count and number of Rose-breasted Grosbeaks banded were both average, although the peak in week 9 was one week later than usual. Summer numbers were high, with a mean daily count of 2.3, roughly 50% above normal; however, only one was banded. The mean daily count in fall was slightly lower than in 2015 and 2016, but still above average, while the number banded was slightly below average. As usual, the majority of records came in August, but numbers were a bit higher than usual over the first half of September.



**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								1.57	2.57	2.29	<b>0.64</b>				
# DAYS OBSERVED								5	6	7	<b>18</b>				
# PROCESSED								1			<b>1</b>				
FIRST OBSERVED: May 17			LAST OBSERVED: June 5			PEAK DATE: May 23			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	2.14	0.57	0.43	0.86	0.29	0.43	0.57	0.29	0.14					<b>0.61</b>
# DAYS OBSERVED	7	6	3	3	3	1	2	3	2	1					<b>31</b>
# PROCESSED	2				2		2								<b>6</b>
FIRST OBSERVED: August 1				LAST OBSERVED: October 5				PEAK DATE: Aug 1, Aug 13				PEAK NUMBER OF INDIVIDUALS: 4			

The mean daily count, number of Indigo Buntings banded, and peak of migration in spring were all typical. The summer mean daily count was 0.4, roughly half the long-term average, but one individual was banded, the first in summer since 2011. Fall results also continued their downward trend, with the mean daily count of 0.6 the lowest since 0.5 in 2007, and the number banded exactly half of the record low set just last year. Over half of individuals observed were in the first two weeks of the season, similar to last year.



*More Tree Swallow nestlings were banded in 2017 than any previous year. This success was made possible by the hard work of Pascal Berthelot, Claude Cloutier, and Alison Hackney, who installed a new predator guard system (see above) on 28 nest boxes, and refurbished many of the boxes themselves.*

*(Photo by Gay Gruner)*