McGill Bird Observatory
Fall Migration Monitoring Program
2010 Report

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March 2011

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Cover photo: Hatch-year, sex unknown Pine Warbler. Although Yellow-rumped Warblers dominated this fall, this Pine Warbler is the first "new" species banded at MBO since May 2008. This brings the list of species we have banded since 2004 to 106. (Photo by Simon Duval)

About McGill Bird Observatory

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, and is a member of the Canadian Migration Monitoring Network. 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 other sites 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 a particular emphasis on standardized research 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.

The Fall Migration Monitoring Program

The Fall Migration Monitoring Program (FMMP) is a standardized study undertaken at MBO annually, providing the basis for long-term trend analysis of bird populations. It is designed to be compatible with the aims and methodology of the Canadian Migration Monitoring Network. The program involves daily monitoring throughout the season, including a standardized census, banding, and incidental observations. A detailed protocol for migration monitoring at MBO has been prepared (Gahbauer and Hudson 2008). The FMMP season at MBO extends from August 1 to October 30. This 13-week period encompasses the majority of fall passerine migration, a requirement of the CMMN. The CMMN defines 'adequate' coverage as follows: (1) a minimum annual coverage of at least 75% of the days in the species' spring or fall migratory period (the span of dates within which the middle 95% of individuals occur); (2) an average of at least 10 individuals of a species recorded per season on an average of at least five separate days per season; and (3) where the majority of individuals of that species that are detected each day are passage migrants (i.e. the species does not breed or winter in significant numbers at the site).

2010 season coverage

Coverage of the FMMP 2010 was good, with census conducted on all 91 days, and at least partial banding coverage on all but four days scattered throughout the season, when steady rain made it unsafe to open the nets. On 61 days (67% of the season), there was full coverage (i.e. greater than 70 net hours), including census, banding, and general observations. Twenty-six other days had reduced net hours due to rain, cold, high winds, leaf volume, or a shortage of qualified extractors. Most of the days with restricted operations occurred in September and October. Despite the days of restricted operation, total net hours (6061.5) surpassed all previous fall seasons at MBO.

Equipment

Mist nets (30 mm mesh) were used for all trapping, aside from one bird incidentally captured in the J-trap despite it being left open. All nets were from Spidertech, and eight were new at the start of the season, replacing older sun-bleached nets. The standard setup involved 16 nets in six groups (A, B/N, C, D, E, H). Details of net allocations are summarized in Appendix B.

Weather

Weather can have a significant influence on migration. Of the three months, September had the greatest amount of precipitation; however, much of the rain came during the afternoon and night, and therefore had a less direct impact on migration monitoring than in some past years. Temperatures were slightly above average in August and September. The combination of wet conditions and warm temperatures caused a surge in the mosquito population. While the

mosquitoes were an unpleasant nuisance for the banding personnel, they provided an excellent source of food for many species of birds. October temperatures ranged from -1°C to 20°C; overall, this is slightly warmer than the range of -4°C to 16°C in 2009. A huge rainstorm occurred on October 15, resulting in record high water levels remaining in the ponds at the end of the season.

Results

Banding

During FMMP 2010, 6808 birds of 74 species were banded. This is almost double the number of individuals banded during FMMP 2009, but much of the difference is attributable to the greater number of Yellow-rumped Warblers this year (2359, compared to 106 in 2009).

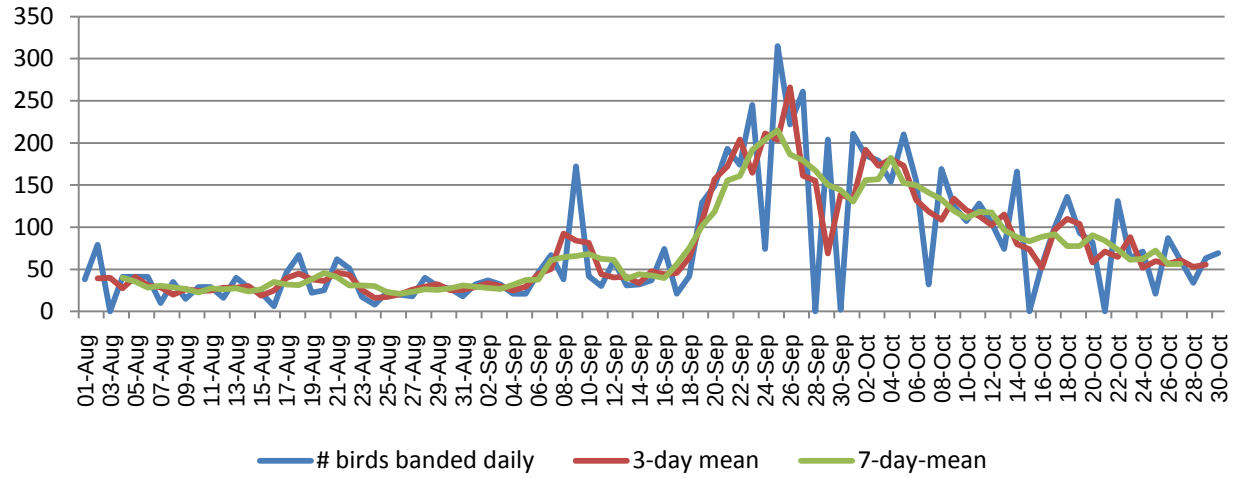

Figure 1. Number of individuals banded per day during FMMP 2010.

Migration began to peak in Week 8 and continued fairly steadily to Week 12. The busiest day was September 25, with 315 birds banded, shattering our previous single-day record of 240 set on October 2, 2008, and nearly double the 2009 peak of 166 individuals on October 8. Between September 19 and October 22, there were an additional six days with over 200 birds banded, and 18 more with at least 100 banded! These 25 occasions nearly double the previous record set in 2008 when over 100 birds were banded on 14 occasions. The mean over 87 days of banding was 78 birds per day, double the rate of FMMP 2009 and surpassing the previous high of 60 set in FMMP 2008.

Species richness among banded birds showed a slight peak that coincided with the initial peak period in September. Interestingly, the greatest number of species banded was September 9, with 29 species banded, just over two weeks before this season's peak in migration. (Figure 2). Overall there were 11 days on which 20 or more species were banded, up from six in 2009, but fewer than the 14 occurrences in 2008. The mean number of species banded per day was 14.6, higher than 12.6 in 2009 and marginally higher than 14.1 in 2008.

There was one species banded for the first time this fall, Pine Warbler, bringing the total to 106 species banded at MBO. Meanwhile, Common Tern and Red-bellied Woodpecker were observed for the first time, expanding the MBO checklist to 202 species.

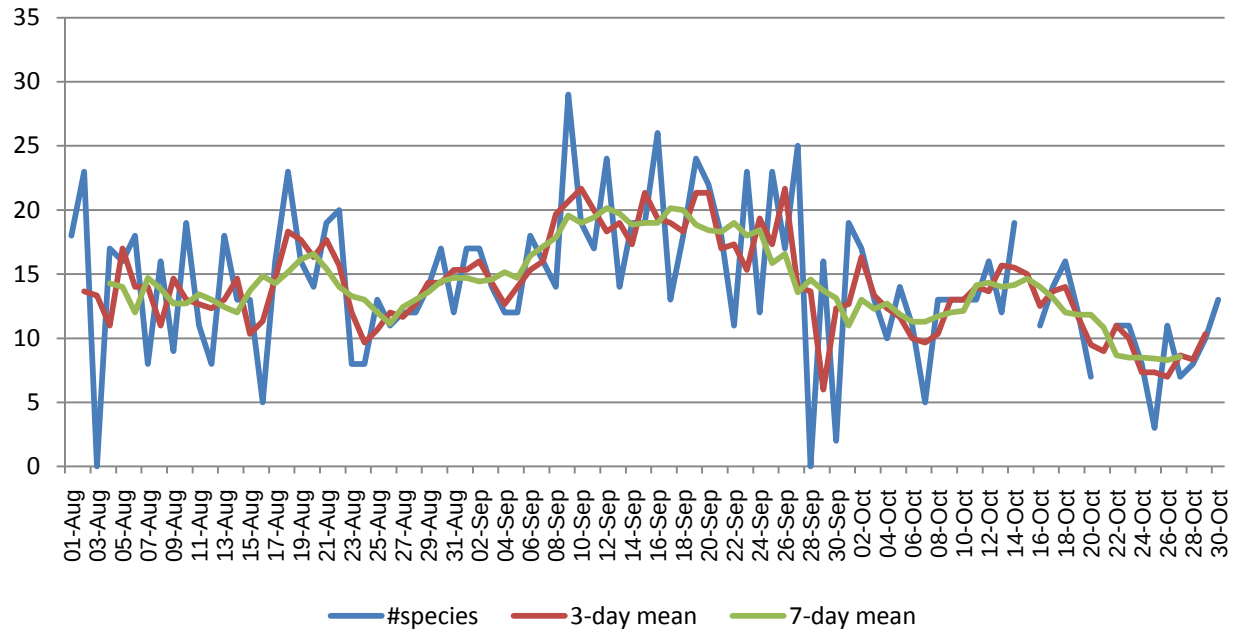

Figure 2. Number of species banded per day during FMMP 2010.

Seven species were banded only once: Great-crested Flycatcher, Red-breasted Nuthatch, Brown Thrasher, European Starling, Pine Warbler, Scarlet Tanager and Rusty Blackbird. This is the first time that Rusty Blackbird has been banded during the fall program and only the second time that European Starling has been banded in the fall; one was banded in late October of Fall 2006. Great-crested Flycatcher was not banded in FMMP 2009.

At the other extreme, Table 1 lists the 10 most frequently banded species. Nine of these were also in the top ten in 2009, nine in 2008, eight in 2007, seven in 2006 and nine in 2005, indicating a fair bit of consistency between years.

Table 1. Top 10 species banded at MBO during FMMP 2010, as well as numbers banded in previous years. Numbers in parentheses indicate past rank within the top 10; dashes represent species not in the top 10 in those years.

Species	# banded					
	2010	**2009**	**2008**	**2007**	**2006**	**2005**
1. Yellow- rumped Warbler	2359	106 (7)	1732 (1)	68 (-)	522 (1)	157 (8)
2. Slate-coloured Junco	509	361 (2)	236 (6)	127 (6)	33 (-)	191 (6)
3. Black-capped Chickadee	440	135 (6)	49 (-)	172 (5)	27 (-)	222 (3)
4. American Robin	394	200 (5)	346 (2)	318 (2)	299 (4)	119 (9)
5. White-throated Sparrow	351	428 (1)	315 (4)	318 (3)	187 (5)	354 (1)
6. Ruby-crowned Kinglet	271	257 (4)	319(3)	375(1)	435 (2)	245 (2)
7. Magnolia Warbler	260	103 (9)	264 (5)	74 (10)	157 (6)	192 (5)
8. Song Sparrow	219	322 (3)	199 (7)	198 (4)	302 (3)	212 (4)
9. Nashville Warbler	161	58 (-)	158 (8)	50 (-)	98 (7)	164 (7)
10. American Redstart	149	104 (8)	99 (9)	77 (9)	48 (-)	66 (-)

Yellow-rumped Warbler was far and away the species with the highest number banded (2359) this season, but 22 other species surpassed previous fall records (spanning 2005-2009), including an additional 11 warblers:

Slate-colored Junco (509)
Black-capped Chickadee (440)
American Robin (394)
Nashville Warbler (161)
American Redstart (149)
Tennessee Warbler (114)
Common Yellowthroat (100)
Golden-crowned Kinglet (90)
Hermit Thrush (90)
Western Palm Warbler (63)
Indigo Bunting (62)
Northern Waterthrush (53)
Fox Sparrow (51)
Blue Jay (41)
Black-and-white Warbler (39)
Canada Warbler (35)
Chestnut-sided Warbler (33)
Sharp-shinned Hawk (13)
Northern Cardinal (12)
House Finch (7)
Bay-breasted Warbler (6)
Cape May Warbler (6)

Recoveries

There were 884 repeats (individuals caught within three months of banding at MBO) of 44 species this season, roughly one-third more individuals and four more species than in 2009. Again, much of the discrepancy can be accounted for by Yellow-rumped Warblers, of which there were 279 repeats in 2010, but none in 2009.

Table 2. Top 10 species recaptured most often. These represent the same individuals caught repeatedly in some cases.

Species	# repeats
1. Yellow-rumped Warbler	279
2. Black-capped Chickadee	120
3. Hermit Thrush	51
4. White-throated Sparrow	49
5. Ruby-crowned Kinglet	48
6. Slate-coloured Junco	41
7. Gray Catbird	40
8. Song Sparrow	37
9. Magnolia Warbler	20
10. Common Yellowthroat	19

Seven of these species were also in the top ten in 2009, seven in 2008, six in 2007 and six in 2006, indicating a fair bit of consistency between years. Black-capped Chickadee, Gray Catbird and White-throated Sparrow have consistently been among the top ten each fall since 2006.

The majority of migrants recorded as repeats were recaptured within a few days of being banded. However, some individuals stayed at MBO for longer, over two months in several cases (Table 3). It is likely that most of the individuals lingering for a month or longer were breeders or their offspring from MBO or adjacent areas. In particular, many hatch-year birds that we suspect to have been raised on site were recaptured quite regularly, indicating that some young remained for at least one month before dispersing or migrating. These species include: Veery, Gray Catbird, Common Yellowthroat, Song Sparrow, Swamp Sparrow, White-throated Sparrow, Indigo Bunting and Rose-breasted Grosbeak. Overall, sparrows tended to stay the longest, but several moulting adult warblers also remained on site for at least a few weeks. The number of individuals present for extended periods demonstrates MBO's value as a staging area.

Table 3. List of migrants recaptured more than one week after banding, with first and last dates of capture, followed by time elapsed. Entries are sorted by time elapsed. Probable year-round residents such as Northern Cardinals, Black-capped Chickadees, and woodpeckers were excluded.

Species	First capture	Last capture	# of Days
Black-capped Chickadee	2-Aug	27-Oct	86
Black-capped Chickadee	1-Aug	22-Oct	82
Black-capped Chickadee	4-Aug	20-Oct	77
Black-capped Chickadee	20-Aug	30-Oct	71
Downy Woodpecker	20-Aug	29-Oct	70
Veery	10-Aug	18-Oct	69
Black-capped Chickadee	23-Aug	29-Oct	67
Song Sparrow	5-Aug	10-Oct	66
Black-capped Chickadee	13-Aug	17-Oct	65
Black-capped Chickadee	23-Aug	24-Oct	62
Black-capped Chickadee	28-Aug	27-Oct	60
Black-capped Chickadee	30-Aug	29-Oct	60
Downy Woodpecker	23-Aug	19-Oct	57
Black-capped Chickadee	13-Aug	6-Oct	54
Black-capped Chickadee	2-Aug	23-Sep	52
Song Sparrow	1-Sep	22-Oct	51
Song Sparrow	14-Aug	3-Oct	50
Black-capped Chickadee	2-Aug	17-Sep	46
Black-capped Chickadee	1-Sep	17-Oct	46
Black-capped Chickadee	9-Sep	24-Oct	45
Song Sparrow	13-Aug	26-Sep	44
Song Sparrow	20-Aug	2-Oct	43
Northern Cardinal	14-Sep	26-Oct	42
Indigo Bunting	2-Aug	12-Sep	41
Song Sparrow	4-Aug	14-Sep	41
White-throated Sparrow	11-Aug	20-Sep	40
Northern Cardinal	4-Aug	13-Sep	40
Swamp Sparrow	4-Aug	12-Sep	39
Northern Cardinal	15-Sep	24-Oct	39
Black-capped Chickadee	18-Sep	27-Oct	39
Black-capped Chickadee	13-Sep	22-Oct	39
Black-capped Chickadee	1-Aug	8-Sep	38
Black-capped Chickadee	11-Sep	19-Oct	38
Black-capped Chickadee	1-Aug	6-Sep	36
Rose-breasted Grosbeak	10-Aug	13-Sep	34
Gray Catbird	26-Aug	29-Sep	34
Gray Catbird	30-Aug	3-Oct	34
Black-capped Chickadee	20-Aug	23-Sep	34
Common Yellowthroat	4-Aug	7-Sep	34
Common Yellowthroat	4-Aug	7-Sep	34
Gray Catbird	25-Aug	27-Sep	33
Tennessee Warbler	10-Aug	12-Sep	33
Gray Catbird	4-Aug	5-Sep	32
Gray Catbird	1-Aug	1-Sep	31
Song Sparrow	2-Aug	2-Sep	31
Song Sparrow	4-Aug	4-Sep	31
Black-capped Chickadee	13-Sep	14-Oct	31
White-throated Sparrow	18-Aug	17-Sep	30
Gray Catbird	5-Aug	3-Sep	29
Rose-breasted Grosbeak	8-Aug	6-Sep	29
Chestnut-sided Warbler	15-Aug	13-Sep	29
Song Sparrow	14-Aug	11-Sep	28
Black-capped Chickadee	12-Sep	10-Oct	28
Black-capped Chickadee	12-Sep	10-Oct	28
Song Sparrow	18-Aug	14-Sep	27
House Wren	7-Aug	3-Sep	27
Song Sparrow	18-Aug	13-Sep	26
Black-capped Chickadee	13-Sep	9-Oct	26
Swamp Sparrow	8-Aug	2-Sep	25
Downy Woodpecker	8-Aug	1-Sep	24
Song Sparrow	19-Aug	12-Sep	24
Slate-coloured Junco	3-Oct	27-Oct	24
Song Sparrow	26-Aug	18-Sep	23
Black-capped Chickadee	2-Oct	25-Oct	23
White-throated Sparrow	11-Aug	2-Sep	22
Song Sparrow	11-Aug	2-Sep	22
White-throated Sparrow	5-Oct	27-Oct	22
Nashville Warbler	20-Aug	11-Sep	22
Slate-coloured Junco	5-Oct	26-Oct	21
Nashville Warbler	7-Aug	27-Aug	20
White-throated Sparrow	24-Sep	14-Oct	20
Black-capped Chickadee	5-Aug	25-Aug	20
Black-capped Chickadee	24-Sep	13-Oct	19
Yellow-rumped Warbler	21-Sep	10-Oct	19
White-throated Sparrow	10-Aug	28-Aug	18
Gray Catbird	13-Aug	31-Aug	18
Downy Woodpecker	8-Aug	26-Aug	18
Common Yellowthroat	1-Aug	19-Aug	18
Yellow-rumped Warbler	23-Sep	11-Oct	18
Slate-coloured Junco	24-Sep	12-Oct	18
Song Sparrow	19-Sep	6-Oct	17
Common Yellowthroat	11-Aug	28-Aug	17
Slate-coloured Junco	8-Oct	25-Oct	17
Slate-coloured Junco	8-Oct	25-Oct	17
Rose-breasted Grosbeak	1-Aug	17-Aug	16
White-throated Sparrow	8-Oct	24-Oct	16
Yellow-rumped Warbler	25-Sep	11-Oct	16
Gray Catbird	10-Aug	25-Aug	15
Hermit Thrush	3-Oct	18-Oct	15
White-throated Sparrow	14-Oct	29-Oct	15
Yellow-rumped Warbler	23-Sep	8-Oct	15
Swamp Sparrow	11-Sep	25-Sep	14
Fox Sparrow	10-Oct	24-Oct	14
White-throated Sparrow	29-Sep	13-Oct	14
Yellow-rumped Warbler	22-Sep	6-Oct	14
Yellow-rumped Warbler	27-Sep	11-Oct	14
Gray Catbird	14-Sep	27-Sep	13
Song Sparrow	26-Aug	8-Sep	13
White-throated Sparrow	14-Oct	27-Oct	13
American Redstart	20-Aug	2-Sep	13
Black-capped Chickadee	27-Sep	10-Oct	13
Black-capped Chickadee	3-Sep	16-Sep	13

Species	First capture	Last capture	# of Days
Common Yellowthroat	16-Aug	29-Aug	13
Yellow-rumped Warbler	20-Sep	3-Oct	13
Yellow-rumped Warbler	23-Sep	6-Oct	13
Yellow-rumped Warbler	27-Sep	10-Oct	13
Slate-coloured Junco	9-Oct	22-Oct	13
Slate-coloured Junco	17-Oct	30-Oct	13
Gray Catbird	25-Aug	6-Sep	12
Gray Catbird	26-Aug	7-Sep	12
Hermit Thrush	10-Oct	22-Oct	12
Black-capped Chickadee	9-Sep	21-Sep	12
Yellow-rumped Warbler	19-Sep	1-Oct	12
Yellow-rumped Warbler	21-Sep	3-Oct	12
Slate-coloured Junco	23-Sep	5-Oct	12
Yellow-rumped Warbler	23-Sep	5-Oct	12
Yellow-rumped Warbler	23-Sep	5-Oct	12
Yellow-rumped Warbler	23-Sep	5-Oct	12
Yellow-rumped Warbler	2-Oct	14-Oct	12
Slate-coloured Junco	11-Oct	23-Oct	12
Gray Catbird	1-Aug	12-Aug	11
Indigo Bunting	16-Aug	27-Aug	11
Indigo Bunting	2-Sep	13-Sep	11
Fox Sparrow	13-Oct	24-Oct	11
White-throated Sparrow	27-Sep	8-Oct	11
Hermit Thrush	11-Oct	22-Oct	11
Hermit Thrush	19-Oct	30-Oct	11
Yellow-rumped Warbler	20-Sep	1-Oct	11
Yellow-rumped Warbler	21-Sep	2-Oct	11
Yellow-rumped Warbler	22-Sep	3-Oct	11
Yellow-rumped Warbler	23-Sep	4-Oct	11
Yellow-rumped Warbler	23-Sep	4-Oct	11
Yellow-rumped Warbler	25-Sep	6-Oct	11
Yellow-rumped Warbler	25-Sep	6-Oct	11
Yellow-rumped Warbler	3-Oct	14-Oct	11
Slate-coloured Junco	11-Oct	22-Oct	11
Gray Catbird	1-Aug	11-Aug	10
Song Sparrow	5-Aug	15-Aug	10
White-throated Sparrow	23-Sep	3-Oct	10
Hermit Thrush	19-Oct	29-Oct	10
Tennessee Warbler	13-Aug	23-Aug	10
American Redstart	2-Sep	12-Sep	10
Black-capped Chickadee	11-Sep	21-Sep	10
Common Yellowthroat	18-Aug	28-Aug	10
Yellow-rumped Warbler	17-Sep	27-Sep	10
Yellow-rumped Warbler	19-Sep	29-Sep	10
Yellow-rumped Warbler	22-Sep	2-Oct	10
Yellow-rumped Warbler	22-Sep	2-Oct	10
Yellow-rumped Warbler	23-Sep	3-Oct	10
Yellow-rumped Warbler	23-Sep	3-Oct	10
Yellow-rumped Warbler	23-Sep	3-Oct	10
Yellow-rumped Warbler	1-Oct	11-Oct	10
Slate-coloured Junco	3-Oct	13-Oct	10
Slate-coloured Junco	6-Oct	16-Oct	10
Slate-coloured Junco	9-Oct	19-Oct	10
Slate-coloured Junco	9-Oct	19-Oct	10
Slate-coloured Junco	10-Oct	20-Oct	10
Slate-coloured Junco	16-Oct	26-Oct	10

Species	First capture	Last capture	# of Days
Indigo Bunting	19-Aug	28-Aug	9
Indigo Bunting	7-Sep	16-Sep	9
Gray Catbird	4-Sep	13-Sep	9
Fox Sparrow	9-Oct	18-Oct	9
Song Sparrow	2-Aug	11-Aug	9
White-throated Sparrow	11-Aug	20-Aug	9
Hermit Thrush	9-Oct	18-Oct	9
Hermit Thrush	18-Oct	27-Oct	9
American Redstart	2-Aug	11-Aug	9
American Redstart	8-Aug	17-Aug	9
Ruby-crowned Kinglet	4-Oct	13-Oct	9
Brown Creeper	4-Oct	13-Oct	9
Ruby-crowned Kinglet	10-Oct	19-Oct	9
Ruby-crowned Kinglet	14-Oct	23-Oct	9
Common Yellowthroat	4-Aug	13-Aug	9
Yellow-rumped Warbler	20-Sep	29-Sep	9
Yellow-rumped Warbler	22-Sep	1-Oct	9
Yellow-rumped Warbler	22-Sep	1-Oct	9
Yellow-rumped Warbler	22-Sep	1-Oct	9
Yellow-rumped Warbler	23-Sep	2-Oct	9
Yellow-rumped Warbler	23-Sep	2-Oct	9
Yellow-rumped Warbler	23-Sep	2-Oct	9
Yellow-rumped Warbler	23-Sep	2-Oct	9
Yellow-rumped Warbler	24-Sep	3-Oct	9
Yellow-rumped Warbler	25-Sep	4-Oct	9
Yellow-rumped Warbler	25-Sep	4-Oct	9
Yellow-rumped Warbler	13-Oct	22-Oct	9
American Tree Sparrow	13-Oct	22-Oct	9
American Tree Sparrow	17-Oct	26-Oct	9
Gray Catbird	10-Aug	18-Aug	8
Swamp Sparrow	19-Aug	27-Aug	8
Indigo Bunting	25-Aug	2-Sep	8
Song Sparrow	3-Sep	11-Sep	8
Song Sparrow	15-Sep	23-Sep	8
White-throated Sparrow	19-Sep	27-Sep	8
Song Sparrow	24-Sep	2-Oct	8
White-throated Sparrow	12-Oct	20-Oct	8
Hermit Thrush	6-Oct	14-Oct	8
White-crowned Sparrow	6-Oct	14-Oct	8
Hermit Thrush	12-Oct	20-Oct	8
Hermit Thrush	14-Oct	22-Oct	8
Common Yellowthroat	9-Aug	17-Aug	8
Yellow-rumped Warbler	19-Sep	27-Sep	8
Yellow-rumped Warbler	19-Sep	27-Sep	8
Yellow-rumped Warbler	19-Sep	27-Sep	8
Yellow-rumped Warbler	21-Sep	29-Sep	8
Yellow-rumped Warbler	21-Sep	29-Sep	8
Yellow-rumped Warbler	21-Sep	29-Sep	8
Yellow-rumped Warbler	23-Sep	1-Oct	8
Yellow-rumped Warbler	23-Sep	1-Oct	8
Yellow-rumped Warbler	25-Sep	3-Oct	8
Yellow-rumped Warbler	25-Sep	3-Oct	8
Yellow-rumped Warbler	27-Sep	5-Oct	8
Slate-coloured Junco	6-Oct	14-Oct	8
Yellow-rumped Warbler	8-Oct	16-Oct	8
Slate-coloured Junco	9-Oct	17-Oct	8
Slate-coloured Junco	10-Oct	18-Oct	8

There were 44 returns (individuals not captured since more than three months) of 20 species this fall (Table 4). The majority of returns were Black-capped Chickadees (14) and Song Sparrows (7), much like previous FMMPs. Exactly 25% of the records were birds handled during SMMP 2009, which almost certainly remained at MBO over the summer. Two additional returns were processed during the 2010 MAPS sessions in June and July.

Table 4. List of returns captured during FMMP 2010, sorted by time elapsed.

Species	Age/Sex	Banding date	Last capture	Fall recovery date	years	months	days
Baltimore Oriole	AHY-M	7-Aug-06		5-Aug-10	3 years	11 months	30 days
Rose-breasted Grosbeak	AHY-F	19-Sep-07		15-Sep-10	2 years	11 months	28 days
Gray Catbird	AHY-U	25-Sep-07		2-Sep-10	2 years	11 months	9 days
Nashville Warbler	AHY-F	7-Aug-08		24-Aug-10	2 years		18 days
Red-eyed Vireo	AHY-F	5-Aug-08		5-Aug-10	2 years		1 day
Yellow-rumped Warbler	AHY-F	15-Oct-08		6-Oct-10	1 year	11 months	22 days
Nashville Warbler	AHY-M	3-Aug-07	2-Sep-08	20-Aug-10	1 year	11 months	19 days
American Goldfinch	AHY-M	18-May-09	25-May-09	10-Aug-10	1 year	2 months	17 days
Song Sparrow	AHY-U	4-Aug-09	13-Aug-09	3-Oct-10	1 year	1 month	21 days
Song Sparrow	AHY-U	8-Aug-09		23-Sep-10	1 year	1 month	16 days
Warbling Vireo	AHY-U	25-Aug-06	2-Aug-09	9-Sep-10	1 year	1 month	8 days
Blue Jay	AHY-U	28-Aug-09		3-Oct-10	1 year	1 month	6 days
American Redstart	AHY-M	14-Aug-09		3-Sep-10	1 year		21 days
Red-eyed Vireo	AHY-U	9-Aug-09		25-Aug-10	1 year		17 days
Common Yellowthroat	AHY-M	31-Aug-09		9-Sep-10	1 year		10 days
Chestnut-sided Warbler	AHY-F	9-Aug-09		13-Aug-10	1 year		5 days
Baltimore Oriole	AHY-F	22-Aug-05	4-Aug-09	5-Aug-10	1 year		2 days
Black-capped Chickadee	AHY-U	17-Oct-09	27-Oct-09	25-Oct-10		11 months	29 days
American Redstart	AHY-M	7-Aug-09		2-Aug-10		11 months	27 days
Song Sparrow	AHY-U	29-Sep-09		20-Sep-10		11 months	23 days
Song Sparrow	AHY-U	4-Oct-09		17-Sep-10		11 months	14 days
Song Sparrow	AHY-U	2-Oct-09	14-Oct-09	18-Sep-10		11 months	5 days
Black-capped Chickadee	AHY-U	14-Sep-07	29-Oct-09	2-Oct-10		11 months	4 days
Indigo Bunting	AHY-M	3-Sep-09		5-Aug-10		11 months	3 days
Slate-coloured Junco	AHY-M	29-Nov-09		26-Oct-10		10 months	28 days
Black-capped Chickadee	AHY-U	17-Aug-08	23-Nov-09	17-Oct-10		10 months	25 days
Black-capped Chickadee	AHY-U	26-Aug-09	29-Nov-09	23-Sep-10		10 months	1 day
Black-capped Chickadee	AHY-U	2-Aug-07	29-Nov-09	18-Sep-10		9 months	21 days
Black-capped Chickadee	AHY-U	4-Aug-09	4-Dec-09	9-Sep-10		9 months	6 days
Red-winged Blackbird	AHY-M	25-May-08	25-Apr-09	29-Oct-10		6 months	5 days
Black-capped Chickadee	AHY-U	28-Sep-09	5-May-10	24-Oct-10		5 months	20 days
Black-capped Chickadee	AHY-U	16-Aug-07	1-May-10	14-Oct-10		5 months	14 days
Black-capped Chickadee	AHY-U	16-Aug-08	6-May-10	17-Oct-10		5 months	12 days
House Wren	AHY-U	3-Aug-09	5-May-10	26-Sep-10		4 months	22 days
Song Sparrow	AHY-U	24-Aug-08	26-May-10	4-Oct-10		4 months	9 days
American Goldfinch	AHY-M	18-Apr-10		20-Aug-10		4 months	3 days
Song Sparrow	AHY-U	26-Sep-09	20-Apr-10	15-Aug-10		3 months	27 days
Black-capped Chickadee	AHY-U	2-Aug-08	5-May-10	28-Aug-10		3 months	24 days
Black-capped Chickadee	AHY-U	12-Jan-06	12-Jul-10	30-Oct-10		3 months	19 days
Black-capped Chickadee	AHY-U	2-Sep-09	29-May-10	13-Sep-10		3 months	16 days
Swamp Sparrow	AHY-U	21-Aug-07	21-Apr-10	1-Aug-10		3 months	12 days
Black-capped Chickadee	AHY-U	18-Aug-09	14-May-10	23-Aug-10		3 months	10 days
Northern Cardinal	AHY-F	9-Oct-08	25-May-10	1-Sep-10		3 months	8 days
Black-capped Chickadee	AHY-U	3-Aug-09	13-Jun-10	13-Sep-10		3 months	1 day

Just five (11%; including 3 Black-capped Chickadees, a House Wren, and a Song Sparrow) individuals were also handled in fall 2009. Only the Black-capped Chickadee may have remained in the area throughout the year, even if not caught. However, the House Wren and Song Sparrow certainly departed before winter, returning to breed at or near MBO. Also worth special mention are the two Nashville Warblers, a female caught for the second August in three years, and a male caught in fall for the third time in the past four years. This species does not breed at MBO, therefore whether at a local or a more regional scale, these individuals appear to be molt migrants, returning to MBO after breeding in most years.

Census

One or more experienced observers walked the standardized census route on all 91 days. Almost without exception, they recorded species not otherwise observed during the course of the morning, highlighting the importance of the census in monitoring the presence of migrants at MBO. The following five species were recorded exclusively on census: American Bittern, Killdeer, Marsh Wren, Wood Thrush and Field Sparrow.

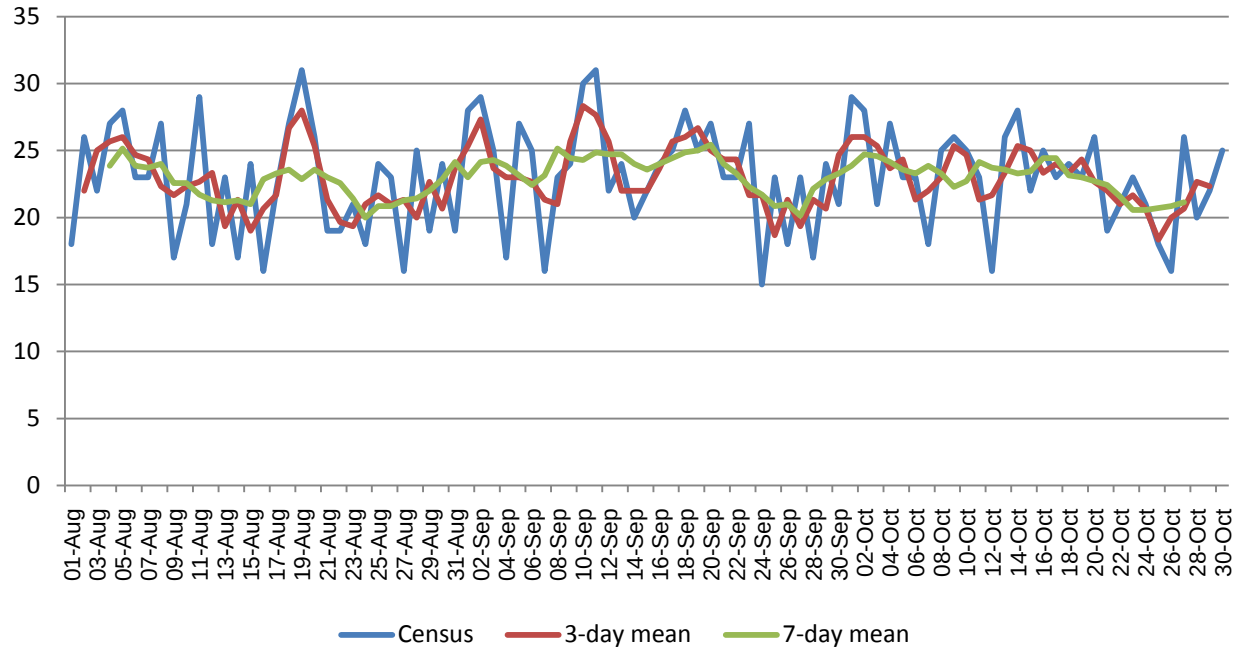

Figure 3. Number of species recorded on the daily census during FMMP 2010.

As shown in Figure 3, there was considerable daily variation in the number of species observed during the census, ranging from a low of 15 on September 24 to a high of 31 on August 19 and September 11. This reflects not only actual changes in the bird population from day to day, but also variation due to weather, and among observers; it was raining for most of the day on the October 21 and clear on the October 22. To account for the variability, three-day and seven-day running averages were calculated and plotted. The seven-day running average remained between 20 and 25 species for the entire season, with the exception of one interval in August when the average reached just over 25.

Daily estimated totals

The DET reflects not only banding and census data, but also all supplemental observations made by participants throughout each morning (Figure 4). 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. However, the DET is also valuable for passerines, both to monitor species rarely caught in fall such as blackbirds, and as an indicator of what percentage of individuals of each species are caught and banded. Twenty-six species were only observed through incidental observations, reflecting their value to the DET: Common Loon, Double-crested Cormorant, Common Merganser, Ruffed Grouse, Osprey, Bald Eagle, Northern Harrier, Rough-legged Hawk, American Kestrel, Peregrine Falcon, Greater Yellowlegs, American Woodcock, Great Black-backed Gull, Common Tern, Yellow-billed Cuckoo, Common Nighthawk, Chimney Swift, Olive-sided Flycatcher, Eastern Wood-Pewee, Horned Lark, Bank Swallow, American Pipit, Bohemian Waxwing, Eastern Towhee, Savannah Sparrow and Common Redpoll.

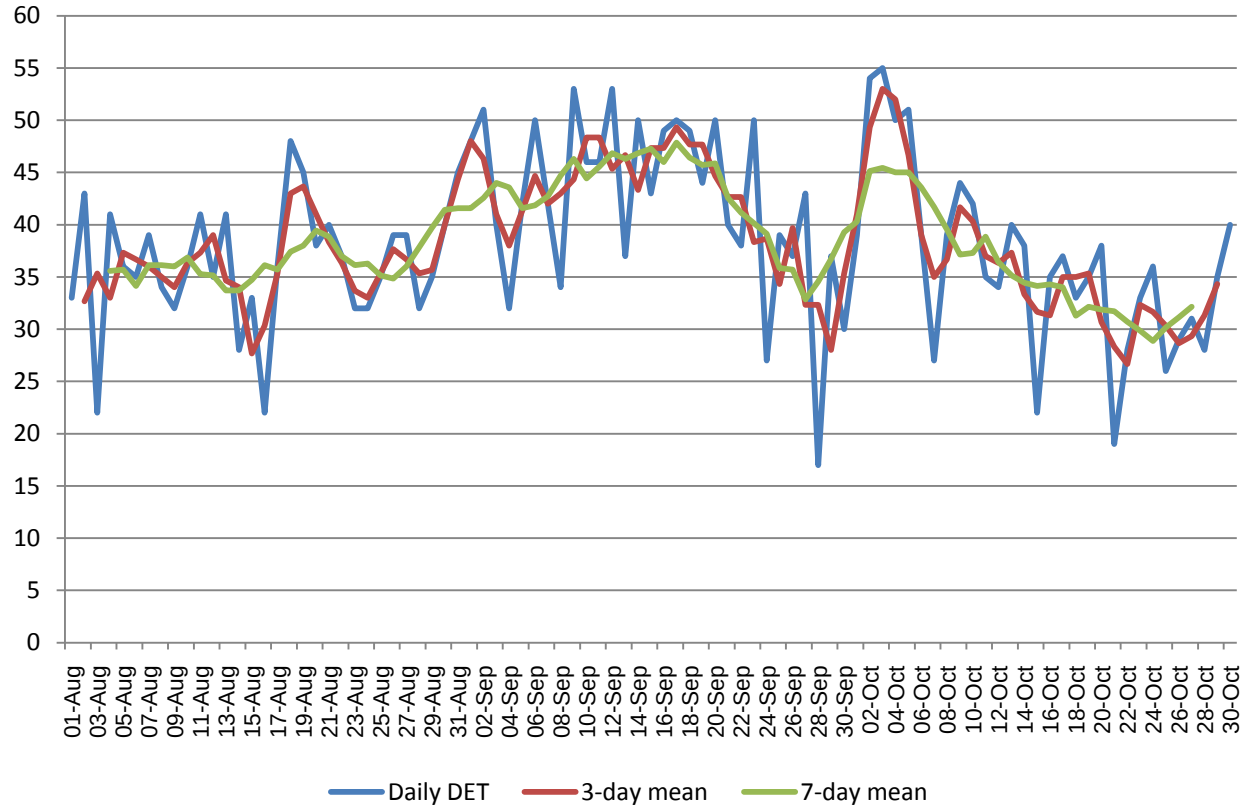

Figure 4. Daily estimated total number of species observed during FMMP 2010.

In total, 140 species were recorded this season, down from 143 during FMMP 2009, but equal to the 2008 total. Of these, 20 were seen on just a single day (13 of which were represented by a single individual) highlighting the importance of full daily coverage throughout the season. The highest single day total was 55 species on October 8. The lowest daily total of 17 species was under very windy conditions on August 28. Figure 4 shows that there was considerable variation in daily estimated totals from day to day. Like the census, a clearer pattern is shown by the seven-day running average, which showed a slight peak in mid-August, followed by a pronounced peak in the final third of September. Following this peak, there was a marked decline due to rainy and windy conditions to the end of September, followed by yet another peak

in early October, then a steady decline to the third week of October and finally, a slight and unexpected upturn at the end of the season. Though less pronounced, the seven-day average from the DET data mirrors the pattern seen in the seven-day average from the census data, with three peaks (mid-August, mid-to-late September and early October) followed by a trough and a small upturn.

Of the 143 species observed during FMMP 2009, 18 were not observed during the same period in 2010: Northern Shoveler, Northern Pintail, Red-breasted Merganser, Pied-billed Grebe, Golden Eagle, Virginia Rail, Spotted Sandpiper, Least Sandpiper, Wilson's Snipe, Black-billed Cuckoo, Barred Owl, Long-eared Owl, Northern Shrike, Townsend's Solitaire, Gray-cheeked Thrush, Connecticut Warbler, Clay-colored Sparrow, and House Sparrow. Of these species, three (Northern Shrike, Gray-cheeked Thrush and House Sparrow) had previously been observed annually in fall, while another three (Spotted Sandpiper, Wilson's Snipe, and Black-billed Cuckoo) had been recorded in four of the previous five years. Conversely, 15 species were observed during FMMP 2010 that were not present last fall: Ruffed Grouse, American Bittern, Bald Eagle, Greater Yellowlegs, Common Tern, Yellow-billed Cuckoo, Common Nighthawk, Red-bellied Woodpecker, Horned Lark, Barn Swallow, Eastern Bluebird, Bohemian Waxwing, Savannah Sparrow, Common Redpoll, and Pine Siskin. Of these species, two (Common Tern and Red-bellied Woodpecker) had never been observed at MBO previously, while two others have been recorded only in one previous fall (Yellow-billed Cuckoo and Common Nighthawk).

Owl banding

In 2004, 2005, 2007, 2009, and again this fall, Northern Saw-whet Owl banding was undertaken at MBO, although not part of the standardized Fall Migration Monitoring Program. In 2009 the owl nets were relocated around and through the fir/spruce grove near existing net E1 and the results vastly improved from previous years. Consequently, the same basic net setup as in 2009 was used in 2010. We also switched to 60-mm mesh nets (more ideally suited to catching saw-whets) for the five primary net lanes, but continued to also use two adjacent 30-mm mesh nets that are part of the passerine migration monitoring array (E1 and E2).

In all, 122 Northern Saw-whet Owls and 2 Eastern Screech-Owls were captured this year. Like last year, we caught two foreign-banded saw-whets over the course of the season (a second-year female that had been banded as a hatch-year bird on October 19, 2009, roughly 60 km southwest of Boston; and a hatch-year owl banded less than two weeks earlier at Hilliardton Marsh in north-eastern Ontario, roughly 500 km northwest of MBO). One of the saw-whets we banded in 2009 as a second-year female was recaptured at a banding station in Little Gap, Pennsylvania (roughly 500 km south of MBO, and 120 km west of New York City). Also of note, on October 31 we recaptured a saw-whet we had banded on October 2; presumably it had stayed relatively nearby, but despite frequent attempts throughout the season to search likely roost locations in daylight, we have yet to observe a saw-whet at MBO during the day.

Of the saw-whets banded this fall, 86 (70%) were hatch-year birds, while another 25 (20%) were second-year, and the other 11 (10%) were older, with at least one being a minimum of four years old. This is slightly different from last year, when we had 76% hatch-year and just 9% second-year. As is typical with saw-whet banding, there was a distinct female bias to the results, with 85 (69%) females, just 12 (10%) males, and the remaining 25 (20%) of undetermined sex due to intermediate size and weight.

The higher totals are partly a reflection of greater effort, with 35 nights of banding this fall compared to between 8 and 11 nights from 2004 and 2007 and 28 nights in 2009. Although the

124 owls banded was a new record by a wide margin, the capture rate was actually a bit lower than in 2009 due to the increased effort (not only 25% more nights, but also longer hours on average). Our overall peak for the season came on October 11 when we banded 18 saw-whets in one night, which was a new record for MBO. Combined with another 10 on October 12, we had nearly one-quarter of the season's owls on just these two nights, closely corresponding to our typical peak period of October 12-14.

Analysis

Migration patterns

Eighteen species were present throughout all 13 weeks of the season (see Appendix A). Fifteen of these were also present weekly last fall: Downy Woodpecker, Hairy Woodpecker, Yellow-shafted Flicker, Blue Jay (seen every day), American Crow (seen every day), Black-capped Chickadee (seen every day), White-breasted Nuthatch, American Robin (seen on all but 2 days), Song Sparrow (seen on all but 2 days), Swamp Sparrow, White-throated Sparrow, Northern Cardinal, Red-winged Blackbird, Common Grackle, and American Goldfinch. Added to the list this year were Sharp-shinned Hawk, Pileated Woodpecker and Common Raven. Of the species seen weekly throughout the season, only Black-capped Chickadee, Song Sparrow, Swamp Sparrow and White-throated Sparrow were banded or re-caught at least once in each week.

The majority of species were observed during a more limited period of migration. Eight species peaked in abundance during the first week of the season: Great Blue Heron, Chimney Swift, Red-bellied Woodpecker, Eastern Kingbird, Tree Swallow, Cedar Waxwing, Rose-breasted Grosbeak and Indigo Bunting. Of these, only Chimney Swift was limited to the first week of the season.

At the other end of the season, there were 15 species peaking in abundance during the final week (asterisk indicating the seven species not observed until the final week): Cackling Goose, Wood Duck, Mallard, American Green-winged Teal, Osprey, Mourning Dove, Hairy Woodpecker, Horned Lark*, American Robin, Bohemian Waxwing*, American Tree Sparrow, Fox Sparrow, Red-winged Blackbird, House Finch and Pine Siskin.

For many species, sex cannot be reliably determined outside the breeding season, explaining the overall sex breakdown among banded birds of 32% male, 26% female, and 42% unknown. The percentage of unknowns is 13% lower than last year, likely due to the percentage increase this year in warblers, which are sexually dimorphic even in fall, compared to sparrows which dominated last year, and are largely monomorphic. As is to be expected during fall migration, hatch-year individuals dominated, accounting for 89% of birds banded, while only 11% were after-hatch-year, and <1% were of unknown age. For nine species, all banded birds this season were aged as hatch-years: Downy Woodpecker (11), Yellow-shafted Flicker (3), Eastern Phoebe (2), House Wren (8), European Starling (1), Orange-crowned Warbler (2), Cape May Warbler (6), Pine Warbler (1), and Common Grackle (19). Among the top 10 species banded (Table 1), hatch-year birds again dominated, ranging from 68% (Ruby-crowned Kinglet) to 96.8% (Black-capped Chickadee) of the individuals banded (Table 5).

Table 5. Number of individuals of the top 10 banded species banded broken down by age and sex.

Species	HY (% of total)	AHY (% of total)	U (% of total)	Male (% of total)	Female (% of total)	Unknown sex (% of total)
1. Yellow- rumped Warbler	2205 (93)	153 (6)	1 (0.04)	1142 (48)	838 (36)	379 (16)
2. Slate-coloured Junco	445 (87)	62 (12)	2 (0.4)	254 (50)	213 (42)	42 (8)
3. Black-capped Chickadee	426 (97)	12 (3)	2 (0.5)	-	-	440 (100)
4. American Robin	79 (79)	85 (21)	-	119 (29)	184 (45)	104 (26)
5. White-throated Sparrow	330 (94)	21 (6)	-	15 (4)	7 (2)	329 (94)
6. Ruby-crowned Kinglet	185 (68)	83 (31)	3 (1)	162 (60)	108 (40)	1 (0.3)
7. Magnolia Warbler	221 (81)	39 (15)	-	84 (32)	50 (19)	126 (49)
8. Song Sparrow	205 (94)	14 (6)	-	-	3 (1)	216 (99)
9. Nashville Warbler	138 (86)	23 (14)	-	33 (20)	40 (25)	288 (55)
10. American Redstart	133 (89)	16 (11)	-	54 (36)	54 (36)	41 (28)

Priority species

MBO has produced a list of 62 target species for priority monitoring (Gahbauer and Hudson 2008). 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. Species not expected at MBO due to their geographic distribution or species that have on average been observed on fewer than 10 occasions per year between 2006 and 2008 are excluded. Several species were eliminated between 2007 and 2008 in order to reflect MBO's actual coverage of these species.

Of the species on the MBO priority list, 95% were observed during FMMP 2010 (only Alder Flycatcher, Cliff Swallow and Gray-cheeked Thrush were missed), and 82% were banded (Table 6). Priority species accounted for 91% of individuals banded, surpassing the previous fall season percentages, which ranged from 83% to 88%. Nine of the top 10 species (Nashville Warbler is not a priority species) banded at MBO during FMMP 2010 are designated as priority species, indicating that the program is effective at documenting these otherwise poorly monitored birds.

Table 6. Summary of priority species observed and banded during FMMP 2010. Detailed category definitions are provided in Gahbauer and Hudson (2008).

	Category A	**Category B**	**Category C**	**Category D**
Number of species in category	15	10	18	19
Number of species observed	13	10	17	19
Number of species banded	12	10	15	17
Number of individuals banded	569	3723	600	1329

Net productivity

As in previous seasons, the productivity of nets during FMMP 2010 was assessed. Table 7 summarizes the usage and productivity of all nets. The nets are clustered into three main groups. C and D (six nets total) are along the east and north edges of Stoneycroft Pond. Four nets sample the shrubby areas east of Stoneycroft Pond (A and E). H and B/N (six nets total) are along the back ponds. Under normal weather and personnel conditions, all nets are operated for five hours daily. However, the B/N nets are more vulnerable to wind, and are closed when conditions are unfavourable. They are also left out when human resources are limited and/or bird volume is sufficient to warrant operations being scaled back, resulting in a

core group of 12 nets (C-A-D-E-H) that allows for sampling from each area while minimizing walking time.

Table 7. Net usage and capture rates during FMMP 2010

Net	Hours open	New captures	Repeats+ Returns	Total captures	Birds / 100 net hours	
					New	Total
A1	401.5	1047	129	1176	260.8	292.9
A2	401.5	429	70	499	106.8	124.3
A - TOTAL	**803**	**1476**	**199**	**1675**	**183.8**	**208.6**
B2	334.4	165	34	199	49.3	59.5
N1	334.4	244	39	283	73.0	84.6
N3	334.4	177	21	198	52.9	59.2
B3	334.4	219	32	251	65.5	75.1
B/N – TOTAL	**1337.6**	**805**	**126**	**931**	**60.2**	**69.6**
C1	405.6	314	56	370	77.4	91.2
C2	405.6	355	60	415	87.5	102.3
C – TOTAL	**811.3**	**669**	**116**	**785**	**82.5**	**96.8**
D1	375.65	207	29	236	55.1	62.8
D2	375.65	129	32	161	34.3	42.9
D3	375.65	127	32	159	33.8	42.3
D4	375.65	227	40	267	60.4	71.1
D – TOTAL	**1502.6**	**690**	**133**	**823**	**45.9**	**54.8**
E1	397.9	282	28	310	70.9	77.9
E2	397.9	922	101	1023	231.7	257.1
E - TOTAL	**795.8**	**1204**	**129**	**1333**	**151.3**	**167.5**
H1	395.9	1095	124	1219	276.6	307.9
H2	393.9	865	99	964	219.6	244.7
H - TOTAL	**790.8**	**1960**	**223**	**2183**	**247.9**	**276.0**
SUBTOTAL	**6041.1**	**6804**	**926**	**7730**	**112.6**	**128.0**
Nest Boxes	-	-	-		-	-
Unknown	-	4	2	6	-	-
GRAND TOTAL	**6041.1**	**6808**	**928**	**7736**	**112.7**	**128.1**

The overall capture rate for FMMP 2010 was 112.7 new birds per 100 net hours, much higher than the 90.1 record achieved in 2008, and almost double the rate of 58.1 in 2009. An additional 15.4 birds per 100 net hours were recaptured, higher than the 10.1 of 2009, but below the 17.2 achieved in 2008.

The relative effectiveness of the net groups continues to vary from year to year. This fall, the H nets were the most productive nets as in 2009. The A nets also had a high productivity this season, similar to their success in 2008, when Yellow-rumped Warblers were present in high numbers. E nets were also above average, though primarily due to E2, which as the third most productive of all nets. The C nets were below average, but still managed a respectable capture rate, especially early in the season. The D nets were the least productive nets, as in 2009.

Some of the differences between years likely reflect the habitat preferences of the dominant species. This year Yellow-rumped Warblers were the top species banded, and they showed a preference for the semi-open shrubby habitat in which the H, A and E nets are situated.

Within most groups there was a fair amount of variability among individual nets. The capture rate at A1 was more than double than at A2, while E2 caught over three times more birds than E1 and H1 caught 79% more birds than H2. D2 and D3 were uniformly poor, sharing the lowest capture rate of all nets, while D1 and D4 were slightly better.

Photo documentation

MBO aims to obtain and catalogue photos of all rarities captured and banded, as well as any individuals showing abnormalities, such as aberrant pigmentation or moult, deformities, or healed injuries. Photos were taken throughout the season for use in the further development of MBO's online resource for bird identification, posted at www.migrationresearch.org/mbo/id.html. The aim is to provide diagnostic photos of the upper body, wing, and tail of each age and sex class of every species banded at MBO. These photos, supplemented by related commentary pointing out key differences between ages and sexes, are intended as a complement to the information presented by Pyle (1997). This is a major ongoing project for MBO, with updates reflecting contributions from the migration monitoring programs typically posted during winter, with minor revisions throughout the year.

Education and training

In addition to conducting research through migration monitoring and other banding projects, MBO exists as a facility to provide training in avian research techniques to McGill University students and other interested individuals. This has been actively implemented throughout FMMP 2010, with 114 volunteers receiving training during this period. This included 39 members of the McGill ornithology class, all of whom came out at least twice during the season. In addition, 34 members of the Natural History of Vertebrates class visited as a group, and many returned to participate as full volunteers later in the season.

Training was generally given by the bander-in-charge or assistant banders-in-charge, mostly on a one-on-one basis. Topics covered varied according to the experience level of the volunteers, ranging from instruction in record-keeping to hands-on practice with extraction of netted birds. 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.

On a few occasions, groups visited MBO for a tour, receiving basic information about the purposes and methods of bird banding, as well as observing ongoing research. The groups involved were visitors from the *Club d'ornithologie d'Ahuntsic*, *Société d'ornithologie de Lanaudière, Club d'ornithologie de la région des Moulins* and the Ecomuseum, as well as several friends and family of MBO volunteers interested in the activities, and banders visiting from other banding stations, totaling approximately 80 people.

Summary

This year's total of 6808 birds banded was a record, more than double last year's total of 3390, and well above the previous high of 5101 set in 2008. The rate of 112 birds banded / 100 net hours was also a new record high by a large margin. Repeats (884) and returns (44) were both above average but not record high this year.

To a large extent, this year's totals are due to an exceptional movement of Yellow-rumped Warblers, including 2359 banded, out of over 6000 individuals observed. This fits the six-year pattern we have observed at MBO, with far more of them banded in "even" years (average 1538) compared to "odd" years (average 110), despite comparable effort across years.

Aside from Yellow-rumped Warblers, we had record high banding counts for 23 other species, including 11 more warblers. We also banded our first Pine Warbler ever, increasing our count of species banded to 106.

Our peak period spanned weeks 8-10 of our 13-week season, with over 1000 birds banded in each of those three weeks, including a record high 1279 in week 8 (September 19-25), and largely coinciding with the peak of Yellow-rumped Warbler migration. However, we had record high counts in 7 out of 13 weeks, reflecting that it was a great fall for a variety of species.

Owl migration monitoring was very productive this year, with a record 124 owl captures. Although the owling season overlaps somewhat with the peak passerine migration, it can rely largely on a different set of volunteers, and therefore does not interfere significantly with operation of the standard FMMP protocol.

No net locations have been changed since the last minor modifications at the start of 2007. Annual analysis of net productivity suggests that the key locations vary from year to year, likely in association with the species that dominate in a given season. Collectively, the nets provide good representation of the habitat types available at MBO, and the current layout should be maintained indefinitely for the sake of consistency.

Acknowledgments

The 2010 Fall Migration Monitoring Program would not have been possible without the support of the many dedicated people who generously contributed their time at MBO. In total, 114 volunteers contributed roughly 2300 hours on site during the season. Special thanks to the primary bander-in-charge Simon Duval, who contributed many additional hours off-site, and Andrée-Anne Deschamps, who entered record amounts of data.

Executive Director: *Master permit holder, responsible for supervision of banding activities and data management.*
Marcel Gahbauer

Director and Bander-in-charge*: Licensed permit holder, responsible for directing the activities of all other volunteers, ensuring adherence to protocols, prioritizing the safety of birds at all times, banding birds, and directly supervising other trainees who are banding birds. Also responsible for generating weekly and season reports and data management and overseeing MBO programs, including research, fundraising, and publicity.*
Gay Gruner

Coordinator and Bander-in-charge*: Licensed permit holder, responsible for directing the activities of all other volunteers, ensuring adherence to protocols, prioritizing the safety of birds at all times, banding birds, and directly supervising other trainees who are banding birds. Also responsible for generating weekly reports and data management and overseeing volunteer coordination.*
Simon Duval

Assistant banders-in-charge: *Licensed permit holder responsible for all site activities in the absence of the Bander-in-charge, especially with respect to bird safety, banding birds and supervising the activities of other volunteers.*
Kristen Keyes, Lance Laviolette

Extractors: *Experienced volunteers trained specifically in extraction, capable of safely removing birds from nets with minimal or no supervision.*
Veronica Aponte, Bob Barnhurst, Christine Barrie, Barb Campbell, Leah Den Besten, Nicki Fleming, Barbara Frei, Tiffany Gilchrist, Jude Girard, Marie-Anne Hudson, Marie-France Julien, Le Duing Lang, Andrée Dubois-Laviolette, Steve Dumont, Meghan Laviolette, Geneviève Perreault, Alex Stone, Rodger Titman, Matt von Bornhoft

Censusers / 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 Bacon, Leah Den Besten, Jean Demers, Barbara Frei, Alain Goulet, Jeff Harrison, Marie-Anne Hudson, Barbara MacDuff, Betsy McFarlane, Chris Murphy, Clémence Soulard, Alex Stone, Rodger Titman

Assistants: *Volunteers of all levels, responsible for recording data, transporting birds, providing direct assistance to extractors and banders as requested, and helping with any other observation, monitoring, or maintenance tasks that arise.*
Lara Artinian, Christine Beaumier, Jeanne Beaudry-Pilotte, Mike Beaupré, Eve Bélisle, Matthias Bieber, Yves Bellemare, Dan Benoit, Marie-Eve Blanchet, Nancy Boily, Marianne Bolla, Jason Bueckert, Christine Burt, Francis Cabana, Barb Campbell, Marilyne Caponi, Alison Casazza, Megan Chan, Steve Charlton, Marc-Philippe Christophe, Gary Clemence, Marc-André Clément, Chantal Cloutier, Chris and Claude Cloutier, Ariel Cordova-Rojas, Jane Cormack, David Davey, Anna de Aguayo, Andrée-Anne Deschamps, Victoria Desmarais-Low, Abigail Dowden, Amélie Drolet, Karine Duffy, Philippe Dunn, Richard Dupuis, Benoit Duthu, Rejean Duval, Jenia Faibusovitch, Katie Fraser, Jo-Annie Gagnon, Marianne Gagnon, Ruoxi Gao, Olivier Gautheron, Marie-Line Gentes, Frederic Hareau, Valerie Hayot-Sasson, Nicolas Houde, Malcolm Johnson, Pia Kaukoranta, Diana Kirkwood, Jessica Krohner, Camille Legall-Payne, Kristen Lynn, France Millette, Christina Miller, Mahmoud Moghrabi, Dan and Claire

Murphy, Marissa Nolan, Johanne Paquette, Kasper Pater, Benoit and Francine Piquette, Amélie Perez, Lucile Pic, Sophie Price, Greg Rand, Julien Robitaille, Sonia Rousseau, Catherine Russell, Marie-Odile Samson, Melissa Scerbo, Charles Seguin, Roman Skorko, Jane Sorensen, Bonnie Soutar, Dan Schmucker, Audrey Speck, Katie St-Jean, Patricia Stotland, Pierrot Tellier-Machabée, Raphaelle Thomas, Dara Thompson, Alexis Thorbecke, Élodie Vajda, Mieke van der Heyde, Phong Vuong, Sylvia Wees

We would also like to thank the Canadian Migration Monitoring Network, Bird Studies Canada and the Canadian Wildlife Service for logistical, analytical and financial support of MBO.

We also extend our sincere thanks to the following MBO supporters:

- **2010 MBO Green Team (**Barbara MacDuff, Chris Murphy, Eric Boodman, Christine Burt, Chantal Cloutier, Jean Harwood Gregson, Richard Gregson, Marie-Melissa Kalamaras, Mike Beaupré, Céline Charette), the **Red-eyed Wearios** (Gay and Peter Gruner, Betsy McFarlane, Averill Craig and Jeff Harrison), **Marcel Gahbauer** and **Kristen Keyes** for all raising money in support of MBO and Bird Studies Canada through the annual Baillie Birdathon
- **Environment Canada**, for a donation in support of MBO
- **Bird Protection Quebec**, for grants supporting the FMMP and OMMP at MBO, and continued encouragement of members to become MBO volunteers
- **Canada Steamship Lines**, for donations in support of MBO
- **Avian Science and Conservation Centre**, for logistical and equipment support
- **Sheila Arthur, Ken Thorpe and Francine Marcoux,** for fundraising in support of MBO
- **Malcolm Johnson,** maintenance and landscape-engineer extraordinaire
- **Marie-Anne Hudson** for continued support and guidance

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Though not all of these works are referenced directly in this report, each was used to build the current report; most are freely available on the Migration Research Foundation website.

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Appendix A. Seasonal distribution charts

The charts below summarize the pattern of occurrence of each of the 140 species observed during FMMP 2010, listed in taxonomic sequence. The mean # birds observed/day is calculated using the number of days of observation each week (7 days/week). The # processed includes: individuals banded, returns, and repeats, in that order (or banded only, if no returns or repeats occurred). The total of the mean # birds/day is the total count for fall divided by 91 days. Many of the results are compared to five-year averages presented in *MBO Five-year Report #1: 2005-2009* (Gahbauer 2010)

GSGO: Greater Snow Goose / Oie des neiges (*Chen caerulescens atlanticus*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY									0.14	10.14			0.86	**0.86**
# DAYS OBSERVED									1	1			1	**3**
# PROCESSED														
	FIRST OBSERVED: October 2				LAST OBSERVED: October 26				PEAK DATE: October 3			NUMBER OF INDIVIDUALS: 71		

Notes: One large flock on the same day as the peak in 2009, and much smaller numbers on two other days in October.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY													1.43	**0.11**
# DAYS OBSERVED													1	**1**
# PROCESSED														
	FIRST OBSERVED: October 26				LAST OBSERVED: October 26				PEAK DATE: October 26			NUMBER OF INDIVIDUALS: 10		

Notes: A lone flock observed with a much larger flock of Canada Geese on October 26.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY		0.71		7.14	10.00	5.86	46.14	125.86	1147.00	1396.00	194.00	425.00	330.71	**283.70**
# DAYS OBSERVED		1		2	4	4	7	7	7	7	7	7	6	**59**
# PROCESSED														
	FIRST OBSERVED: August 13				LAST OBSERVED: October 30				PEAK DATE: October 3			NUMBER OF INDIVIDUALS: 6268		

Notes: Typically uncommon for the first six weeks of fall, then observed almost daily for the remainder of the season. Numbers peaked in early October, largely on the strength of an enormous flight of over 6000 individuals on October 3. Overall a higher count than in 2009, though observed on 9 fewer days.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.14		0.71	0.29		0.14	1.57	0.43	3.29	4.86	4.00	5.29	3.43	**1.86**
# DAYS OBSERVED	1		3	1		1	4	2	5	5	6	6	7	**41**
# PROCESSED														
	FIRST OBSERVED: August 7				LAST OBSERVED: October 30				PEAK DATE: October 3			NUMBER OF INDIVIDUALS: 14		

Notes: Only a few sightings spread over the first six weeks of fall, but then increasingly common over the remainder of the season, the opposite of the pattern last fall. Overall numbers the highest they have been since 2007, likely related to the above-average water levels in the ponds this fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY										0.29			0.14	**0.03**
# DAYS OBSERVED										2			1	**3**
# PROCESSED														
	FIRST OBSERVED: October 4				LAST OBSERVED: October 27				PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 1		

Notes: For the second year in a row limited to three individuals over the course of fall, though this time all sightings were restricted to October.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.43		0.29		0.14	0.29	0.86	0.43	3.43	24.29	7.14	21.86	31.14	**6.95**
# DAYS OBSERVED	1		1		1	1	2	1	5	7	7	6	7	**39**
# PROCESSED														
	FIRST OBSERVED: August 4				LAST OBSERVED: October 30				PEAK DATE: October 19			NUMBER OF INDIVIDUALS: 104		

Notes: Mostly sporadic sightings of 1-3 individuals for the first 8 weeks of fall, then much more regular and numerous over the final 5 weeks, peaking in week 13, as has been the case each year since 2007.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY										0.43	1.00		0.86	**0.18**
# DAYS OBSERVED										1	2		1	**4**
# PROCESSED														
	FIRST OBSERVED: October 9				LAST OBSERVED: October 26				PEAK DATE: October 14,26			NUMBER OF INDIVIDUALS: 6		

Notes: Although still rare, this was the first fall in which American Green-winged Teal was observed in more than one week. The increased number of observations may be linked to the above-average water levels in the ponds this fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY									0.43	0.14	0.14			**0.05**
# DAYS OBSERVED									1	1	1			**3**
# PROCESSED														
	FIRST OBSERVED: October 1				LAST OBSERVED: October 14				PEAK DATE: October 1			NUMBER OF INDIVIDUALS: 3		

Notes: Only the second time that Common Merganser has been recorded during fall. Unlike last year when one flock was observed in week 3 and two other lone individuals were seen in weeks 12 and 13, this year all observations were concentrated in the first half of October.

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

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

Notes: Only the second time that Ruffed Grouse has been recorded during fall. In contrast to 2008 when observations occurred in the final three weeks of the season, this year both sightings were within the first five weeks.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY									0.14	0.43				**0.04**
# DAYS OBSERVED									1	3				**4**
# PROCESSED														
	FIRST OBSERVED: September 29				LAST OBSERVED: October 5				PEAK DATE: 4 dates			NUMBER OF INDIVIDUALS: 1		

Notes: Four lone individuals seen flying overhead over a span of just 7 days in late September and early October, a surprisingly concentrated period, considering the wide range of observation dates in previous years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY							0.29					0.86		**0.09**
# DAYS OBSERVED							2					1		**3**
# PROCESSED														
	FIRST OBSERVED: September 12				LAST OBSERVED: October 17				PEAK DATE: October 17			NUMBER OF INDIVIDUALS: 6		

Notes: As usual, a limited number of observations scattered within the season, with two lone individuals recorded in mid-September, and a flock of 6 on October 17.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY							0.14							**0.01**
# DAYS OBSERVED							1							**1**
# PROCESSED														
	FIRST OBSERVED: September 18				LAST OBSERVED: September 18					PEAK DATE: September 18		NUMBER OF INDIVIDUALS: 1		

Notes: The first fall record since 2007, and the latest ever, by one day.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.86	0.29	0.14	0.43	0.14	0.43	0.71	0.29		0.14		0.14		**0.27**
# DAYS OBSERVED	2	2	1	1	1	2	5	2		1		1		**18**
# PROCESSED														
	FIRST OBSERVED: August 6				LAST OBSERVED: October 18					PEAK DATE: August 6		NUMBER OF INDIVIDUALS: 5		

Notes: A relatively typical pattern of fall observations, with weekly sightings for most of the first two months, then tapering off, with the latest record in week 12, for the fourth time in the past 6 years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29	0.14				0.14	0.43	0.14						**0.09**
# DAYS OBSERVED	2	1				1	3	1						**8**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: September 23					PEAK DATE: 8 dates		NUMBER OF INDIVIDUALS: 1		

Notes: Unusually scarce this fall, with fewer observations than in any previous year, and down from 21 days of observation in 2009. The three week gap in observations suggests that the herons observed in early August may have been the local residents, while those in September may have been migrants passing through.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29		0.57	0.14	0.14	0.29	0.14	0.14		4.86	1.00	0.43	0.14	**0.63**
# DAYS OBSERVED	1		1	1	1	1	1	1		4	2	1	1	**15**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: October 24					PEAK DATE: October 3		NUMBER OF INDIVIDUALS: 30		

Notes: The highest total of any fall season, but that is largely due to an unprecedented count of 30 individuals during a record flight of raptors on October 3; numbers for the rest of the season were more typical. This was just the second time that a Turkey Vulture was observed as late as week 13.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY										0.14			0.14	**0.02**
# DAYS OBSERVED										1			1	**2**
# PROCESSED														
	FIRST OBSERVED: October 3				LAST OBSERVED: October 30					PEAK DATE: October 3,30		NUMBER OF INDIVIDUALS: 1		

Notes: Rare, as in most years, with one individual observed during the big raptor flight on October 3, and a record-late individual on the final day of the season.

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

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

Notes: Recorded at MBO for only the second time in fall, thanks to 3 individuals that were part of the large raptor migration observed on October 3.

NOHA: Northern Harrier / Busard Saint-Martin (*Circus cyaneus*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY					1.00		0.43	0.14	0.29	1.43	0.29	0.14	0.29	**0.31**
# DAYS OBSERVED					3		2	1	2	5	1	1	1	**16**
# PROCESSED														
	FIRST OBSERVED: September 1				LAST OBSERVED: October 24				PEAK DATE: October 3			NUMBER OF INDIVIDUALS: 5		

Notes: More numerous than in the past couple of years; like most other raptors, numbers benefited from the strong movement observed on October 3. This marked the first time none were observed in August.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.14	0.43	0.43	1.43	1.57	3.29	2.14	1.86	5.29	0.86	0.86	1.14	**1.51**
# DAYS OBSERVED	1	1	2	2	4	5	5	6	6	5	3	4	6	**50**
# PROCESSED	1		2	1			4	1	3		1			**13**
	FIRST OBSERVED: August 6				LAST OBSERVED: October 30				PEAK DATE: October 3			NUMBER OF INDIVIDUALS: 21		

Notes: Seen weekly, for the third time in the past 5 fall seasons. A record count was observed during the big raptor flight on October 3, but even without that movement, the total number would have been higher than in any previous fall. This was also reflected in the record of 13 individuals banded, far more than the previous high of 7.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY		0.29		0.14	1.29	0.71	0.71	0.14	0.71	2.29	0.43	0.29	0.29	**0.56**
# DAYS OBSERVED		2		1	2	5	3	1	5	6	3	2	2	**32**
# PROCESSED														
	FIRST OBSERVED: August 11				LAST OBSERVED: October 30				PEAK DATE: October 3			NUMBER OF INDIVIDUALS: 8		

Notes: One of the few raptors that was overall less numerous than in 2009, although it also peaked with a record high count on October 3. The reduced number of records during the rest of the season may reflect that no pair appears to have been resident at MBO this year.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14			0.29	0.86	0.29	1.14	0.29		0.43	0.14			**0.27**
# DAYS OBSERVED	1			1	4	2	4	2		2	1			**17**
# PROCESSED														
	FIRST OBSERVED: August 4				LAST OBSERVED: October 11				PEAK DATE: September 15			NUMBER OF INDIVIDUALS: 4		

Notes: More numerous than in any previous fall, though unlike most other raptors, the increase was not linked to the big October 3 raptor migration. Rather, the peak was quite early, concentrated mostly in the first three weeks of September.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.43	0.57	0.43	0.57	0.71	0.43	1.00	0.14		1.57	0.43			**0.48**
# DAYS OBSERVED	3	4	2	4	3	3	5	1		4	3			**32**
# PROCESSED														
	FIRST OBSERVED: August 2				LAST OBSERVED: October 15				PEAK DATE: October 9			NUMBER OF INDIVIDUALS: 4		

Notes: Numbers relatively typical for fall, although tapering off sooner than usual, considering that in all previous years at least one individual was recorded in week 13.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY		0.29				1.14	1.57			0.71				**0.29**
# DAYS OBSERVED		2				2	4			2				**10**
# PROCESSED														
	FIRST OBSERVED: August 9				LAST OBSERVED: October 4				PEAK DATE: September 14			NUMBER OF INDIVIDUALS: 6		

Notes: The two lone individuals observed in week 2 were the earliest ever for fall at MBO, whereas the week 6 and 7 counts reflected the typical peak. For the first time, Broad-winged Hawk was observed in October, including 4 individuals during the big raptor flight on October 3, and one more the next day.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY		0.14	0.29		1.14	0.14	0.29	0.14	0.86	11.14	0.71	1.00	1.29	**1.32**
# DAYS OBSERVED		1	1		4	1	1	1	3	5	3	3	3	**26**
# PROCESSED														
	FIRST OBSERVED: August 9				LAST OBSERVED: October 30					PEAK DATE: October 3			NUMBER OF INDIVIDUALS: 55	

Notes: Another species with a record fall count largely influenced by the October 3 raptor flight, with the 55 individuals counted that day more than double the previous single-day high for MBO. Otherwise the pattern of occurrence and numbers observed were fairly typical, although this was the first time that none were recorded in week 4.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY										0.14	0.29		0.14	**0.04**
# DAYS OBSERVED										1	2		1	**4**
# PROCESSED														
	FIRST OBSERVED: October 9				LAST OBSERVED: October 29					PEAK DATE: 4 dates			NUMBER OF INDIVIDUALS: 1	

Notes: Observed in fall for the third time in the past 5 years, with the total of four individuals one more than the previous high.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.14				0.29			0.14		0.14	0.14		0.14	**0.08**
# DAYS OBSERVED	1				2			1		1	1		1	**7**
# PROCESSED														
	FIRST OBSERVED: August 4				LAST OBSERVED: October 24					PEAK DATE: 7 dates			NUMBER OF INDIVIDUALS: 1	

Notes: Unusually numerous this fall, although still limited to scattered sightings. The lone individual observed on October 24 was the first record later than mid-October.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY		0.14		0.14	0.86	0.57	0.14		0.57	0.57	0.14			**0.24**
# DAYS OBSERVED		1		1	3	2	1		4	4	1			**17**
# PROCESSED														
	FIRST OBSERVED: August 8				LAST OBSERVED: October 13					PEAK DATE: September 2,6			NUMBER OF INDIVIDUALS: 3	

Notes: As usual, the most common falcon in fall, although not quite as regular as last year, and tapering off sooner than in most previous years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY							0.29				0.14			**0.03**
# DAYS OBSERVED							2				1			**3**
# PROCESSED														
	FIRST OBSERVED: September 12				LAST OBSERVED: October 14					PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 1	

Notes: Three observations this fall, including two within week 7 that might have involved the same individual.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY							0.14							**0.01**
# DAYS OBSERVED							1							**1**
# PROCESSED														
	FIRST OBSERVED: September 15				LAST OBSERVED: September 15					PEAK DATE: September 15			NUMBER OF INDIVIDUALS: 1	

Notes: Like last year, limited to a single observation, but this year just over one month earlier on September 15.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.29				0.29	0.71							**0.11**
# DAYS OBSERVED	1	2				2	5							**10**
# PROCESSED														
	FIRST OBSERVED: August 4				LAST OBSERVED: September 17				PEAK DATE: 10 dates		NUMBER OF INDIVIDUALS: 1			

Notes: Observations of lone individuals were confined to two periods roughly a month apart, and in each case may have involved a single sandpiper stopping over at MBO for a while.

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

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

Notes: Seen for the first time since 2008, when there was also a lone individual observed during week 7.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY					0.14									**0.01**
# DAYS OBSERVED					1									**1**
# PROCESSED														
	FIRST OBSERVED: August 30				LAST OBSERVED: August 30				PEAK DATE: August 30		NUMBER OF INDVIDUALS: 1			

Notes: A lone individual this fall, observed on August 30.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29	0.29		0.29	0.71	0.14	0.43	7.14	1.00	7.00	5.29	2.14	2.43	**2.09**
# DAYS OBSERVED	1	1		1	3	1	1	2	2	5	3	5	3	**28**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: September 20		NUMBER OF INDIVIDUALS: 47			

Notes: Less numerous than in any previous fall, and for the first time since 2007 not observed every week. Like last year, numbers tapered off in late October, whereas in some other years this has been the peak period. Both in 2009 and 2010, this likely reflects the harvest of corn from the adjacent field being delayed until November.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY								0.14	0.29	1.57	0.14		0.14	**0.18**
# DAYS OBSERVED								1	1	4	1		1	**8**
# PROCESSED														
	FIRST OBSERVED: September 23				LAST OBSERVED: October 24				PEAK DATE: October 3		NUMBER OF INDIVIDUALS: 5			

Notes: More regular than in the past few years, with sightings almost weekly beginning in late September. The peak occurred on October 3, the same day as the big raptor flight, and may have in part reflected the extra effort devoted to scanning the skies that day.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY										0.29				**0.02**
# DAYS OBSERVED										1				**1**
# PROCESSED														
	FIRST OBSERVED: October 3				LAST OBSERVED: October 3				PEAK DATE: October 3		NUMBER OF INDIVIDUALS: 2			

Notes: Observations this year limited to two individuals seen while watching the big raptor migration on October 3.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY		0.29												**0.02**
# DAYS OBSERVED		1												**1**
# PROCESSED														
	FIRST OBSERVED: August 10				LAST OBSERVED: August 10				PEAK DATE: August 10			NUMBER OF INDIVIDUALS: 2		

Notes: Two individuals flying overhead, first heard and then seen, were the first record for MBO, becoming the second new species for the season, and species #202 for the site since 2004.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14		1.71	0.43	7.00	0.57					0.14		3.14	**1.01**
# DAYS OBSERVED	1		2	1	3	1					1		1	**10**
# PROCESSED														
	FIRST OBSERVED: August 4				LAST OBSERVED: October 30				PEAK DATE: September 2			NUMBER OF INDIVIDUALS: 25		

Notes: Unusually irregular this season, with the month-long gap in mid-season representing the longest absence ever documented during any spring or fall migration period. However, unusually large flocks in weeks 5 and 13 allowed the seasonal total to approach the long-term mean of 1.2 per day.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.57		0.43	0.43	0.43	0.86	1.29	2.29	2.71	2.29	2.71	7.71	**1.68**
# DAYS OBSERVED	1	3		1	3	3	2	6	6	6	7	6	7	**51**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: October 27			NUMBER OF INDIVIDUALS: 18		

Notes: Relatively scarce in the first half of the season, with the lack of observations in week 3 marking the first time ever that Mourning Dove was completely absence during a fall week. Numbers began increasing in week 8, with observations almost daily for the rest of the season, spiking sharply in the final week.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY			0.14											**0.01**
# DAYS OBSERVED			1											**1**
# PROCESSED														
	FIRST OBSERVED: August 20				LAST OBSERVED: August 20				PEAK DATE: August 20			NUMBER OF INDIVIDUALS: 1		

Notes: Only the third record for MBO, and the first since October 2005. The cuckoo was spotted in net C1, but escaped before it could be extracted.

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

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

Notes: Observed twice in three days in early October during the net opening round.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY			0.29											**0.02**
# DAYS OBSERVED			2											**2**
# PROCESSED														
	FIRST OBSERVED: August 18				LAST OBSERVED: August 21				PEAK DATE: August 18,21			NUMBER OF INDIVIDUALS: 1		

Notes: Two early morning observations in mid-August marked just the second and third records for MBO, following one previous late August observation from 2008.

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

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

Notes: A single individual observed on August 4, in sharp contrast to observations spanning at least three weeks in all previous fall seasons.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	1.57	2.71	4.29	3.71	2.00	0.86	0.29							**1.68**
# DAYS OBSERVED	6	6	7	7	6	5	2							**39**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: September 14				PEAK DATE: August 15			NUMBER OF INDIVIDUALS: 9		

Notes: As usual, observed almost daily over the first five weeks of fall in fairly steady numbers, then rapidly tapering off, with the last individual spotted in the middle third of September, as in all previous years. Though they were not banded, an effort was made to quickly age and sex hummingbirds during extraction whenever possible. Six males, 10 females, and seven undetermined individuals were released unbanded between 8 Aug and 10 Sep, but some individuals were likely caught more than once. 19 out of the 23 hummingbirds were aged as Hatch Year.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY		0.29	0.29	0.29				0.14		0.14				**0.09**
# DAYS OBSERVED		2	2	1				1		1				**7**
# PROCESSED														
	FIRST OBSERVED: August 9				LAST OBSERVED: October 4				PEAK DATE: August 27			NUMBER OF INDIVIDUALS: 2		

Notes: As in most years, scattered observations of one or two individuals occurred throughout much of the season, though the observation on October 4 was a record late sighting for MBO.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29		0.14											**0.03**
# DAYS OBSERVED	2		1											**3**
# PROCESSED														
	FIRST OBSERVED: August 4				LAST OBSERVED: August 16				PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 1		

Notes: Observed along the Arboretum slope on three occasions in August. A new species for MBO (#201), although at least one Red-bellied Woodpecker has been present in the Arboretum for close to two years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29		0.29		0.57	0.29								**0.11**
# DAYS OBSERVED	2		1		3	1								**7**
# PROCESSED	1					1								**2**
	FIRST OBSERVED: August 2				LAST OBSERVED: September 11				PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 2		

Notes: Unusually scarce this fall, and disappearing much sooner than usual, with records extending to at least week 9 in all previous years, and week 10 in four of the previous five years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	1.86	2.29	1.43	1.00	1.00	0.43	1.29	2.57	1.14	2.00	2.14	1.43	2.00	**1.58**
# DAYS OBSERVED	5	7	5	5	4	3	5	7	3	6	6	6	7	**69**
# PROCESSED	0-0-1	5-0-1	1-0-2	0-0-2	1-0-1		0-0-1	2-0-0			1-0-1	1-0-1	0-0-1	**11-0-11**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: 6 dates			NUMBER OF INDIVIDUALS: 4		

Notes: Much less common than in any previous fall (usual range of 2.3 to 3.2 per day over the season), and down from 88 days of observation in 2009. However, the number banded was only slightly below the five-year average of 13.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.43	0.29	0.57	0.71	0.43	0.43	1.00	1.14	0.86	1.00	1.86	1.29	2.14	**0.93**
# DAYS OBSERVED	3	2	2	4	2	3	5	5	4	4	7	6	7	**54**
# PROCESSED	1								1					**2**
	FIRST OBSERVED: August 2				LAST OBSERVED: October 30				PEAK DATE: October 28		NUMBER OF INDIVIDUALS: 4			

Notes: Present weekly, like Downy Woodpecker, but somewhat less numerous. As usual there was little seasonal pattern to abundance, although observations were somewhat more frequent in October. For the third consecutive fall, two individuals were banded.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	1.57	1.86	1.57	1.86	2.71	4.00	8.89	5.00	3.14	2.29	0.43	0.86	1.14	**2.71**
# DAYS OBSERVED	6	6	7	7	7	7	7	7	7	6	3	4	5	**79**
# PROCESSED						2-0-0	0-0-1	1-0-0						**3-0-1**
	FIRST OBSERVED: August 2				LAST OBSERVED: October 30				PEAK DATE: September 15		NUMBER OF INDIVIDUALS: 16			

Notes: For the second consecutive year the most abundant woodpecker over the course of fall, and for the fifth year in a row observed every week throughout fall. Three individuals banded matches the five-year average for fall. Exceptionally abundant this year in mid-September, with a record high count of 16 individuals on September 15.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.86	0.43	0.14	0.57	0.71	1.57	1.43	1.71	1.00	1.86	1.29	1.57	1.43	**1.12**
# DAYS OBSERVED	6	3	1	3	4	7	6	7	6	5	4	6	6	**64**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: 3 dates		NUMBER OF INDIVIDUALS: 4			

Notes: Observed weekly throughout the season, as was the case for fall in 2006-2008. Observations were almost twice as frequent as in 2009, when Pileated Woodpecker was recorded only on 33 days, with a season total of 0.56 per day.

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

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

Notes: A lone observation this fall, on September 6, a record late date for the species at MBO.

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

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

Notes: Particularly scarce this year, with a lone individual observed on August 5 - the second time in the past three years that there has been just one record for fall. None banded, for the third time in the past four years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.14	0.29	0.43	0.14	0.71	0.57							**0.12**
# DAYS OBSERVED	1	1	2	2	1	3	2							**12**
# PROCESSED	1	1	1	3	1	5	4							**16**
	FIRST OBSERVED: August 6				LAST OBSERVED: September 18				PEAK DATE: September 9,12		NUMBER OF INDIVIDUALS: 3			

Notes: In contrast to the concentrated migration period in 2009, this year Yellow-bellied Flycatchers were recorded for seven consecutive weeks, but never more than three times in a week. However, the number of individuals banded ended up being one more than last year, and well above the five-year average of 11.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29	0.71	0.29	0.29	0.14	0.14								**0.14**
# DAYS OBSERVED	2	2	2	2	1	1								**11**
# PROCESSED	2	5	1	2	1	1								**12**
	FIRST OBSERVED: August 2				LAST OBSERVED: September 10				PEAK DATE: August 10,13			NUMBER OF INDIVIDUALS: 2		

Notes: Considerably scarcer than usual, with the total observed well below the five-year mean of 0.4 per day, and the number banded matching the record low of 12 from 2005, and nearly half of the five-year mean of 21. The peak was in week 2 as usual, but even then observations were limited to two days in the week.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29	0.29	0.86	0.43	0.43	0.43								**0.21**
# DAYS OBSERVED	1	2	2	2	2	2								**11**
# PROCESSED	1-0-0	2-0-0	4-0-0	2-0-0	3-0-0	1-0-1								**13-0-1**
	FIRST OBSERVED: August 4				LAST OBSERVED: September 9				PEAK DATE: August 18			NUMBER OF INDIVIDUALS: 5		

Notes: The only *Empidonax* flycatcher this fall occurring in normal numbers, and in a reversal from 2009, the most abundant of them in terms of observations. Still scarce though overall, with limited numbers seen and banded over the first six weeks of the season.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29	0.43	0.14				0.14	0.14	0.14	0.43	0.14	0.29		**0.16**
# DAYS OBSERVED	2	2	1				1	1	1	3	1	2		**14**
# PROCESSED	2													**2**
	FIRST OBSERVED: August 2				LAST OBSERVED: October 21				PEAK DATE: August 13			NUMBER OF INDIVIDUALS: 2		

Notes: Unusually scarce this fall, with numbers observed and banded similar to the previous lows established in 2006, and less than half of the numbers recorded last year.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.29	0.43		0.14	0.14								**0.09**
# DAYS OBSERVED	1	2	2		1	1								**7**
# PROCESSED			1											**1**
	FIRST OBSERVED: August 5				LAST OBSERVED: September 6				PEAK DATE: August 15			NUMBER OF INDIVIDUALS: 2		

Notes: A record low number of sightings this fall, although unlike last year (the previous low) at least one individual was banded.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	1.57	1.00	0.57	0.14	0.14									**0.26**
# DAYS OBSERVED	6	5	2	1	1									**15**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: September 3				PEAK DATE: August 4,11			NUMBER OF INDIVIDUALS: 3		

Notes: Like most flycatchers, unusually scarce this fall, with the total observed less than half of any previous year, and none banded, for only the second time in six years. As usual though, numbers peaked in the first half of August.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14		0.43	0.14		0.14	0.29	0.71	1.71	1.86	0.29	0.43	0.14	**0.48**
# DAYS OBSERVED	1		3	1		1	2	3	4	4	2	3	1	**25**
# PROCESSED				1		1	2	5	4	6-0-1	1	3	1	**24-0-1**
	FIRST OBSERVED: August 7				LAST OBSERVED: October 30				PEAK DATE: October 1			NUMBER OF INDIVIDUALS: 6		

Notes: As in the previous two years, there were a few August records likely involving dispersal from breeders in the Arboretum, but as usual migrants began to arrive in September, peaking in weeks 9 and 10. Numbers observed and banded roughly half of what was recorded in 2009, but only slightly below the five-year averages.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.29	0.29	0.14	0.14	0.71								**0.19**
# DAYS OBSERVED	1	2	2	1	1	3								**13**
# PROCESSED		2	1	1	1	1-1-0								**6-1-0**
	FIRST OBSERVED: August 2				LAST OBSERVED: September 9				PEAK DATE: September 7,8		NUMBER OF INDIVIDUALS: 2			

Notes: Uncommon but present weekly over the first six weeks of the season, with total numbers observed and banded matching the five-year averages for fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY			0.14		0.14	0.71	1.00	0.43						**0.19**
# DAYS OBSERVED			1		1	2	5	3						**12**
# PROCESSED			1		1	4	4	1-0-2						**11-0-2**
	FIRST OBSERVED: August 21				LAST OBSERVED: September 24				PEAK DATE: September 8		NUMBER OF INDIVIDUALS: 4			

Notes: Much more common than in 2009, when only one individual was banded among five observed in total. Numbers were comparable with previous "good" years in 2005, 2006, and 2008, with the 11 individuals banded matching the record from 2005. The peak this year was slightly later than in previous years, when most moved through in weeks 5 and 6.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	3.86	5.00	2.71	3.29	2.71	5.00	2.71	1.29	1.14	0.14	0.29	0.29		**2.19**
# DAYS OBSERVED	7	7	7	7	7	7	6	6	3	1	1	2		**61**
# PROCESSED	12-1-2	9-0-2	4	14-1-0	7	20-0-1	15-0-4	8	4		1	2		**96-2-9**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 19				PEAK DATE: September 7		NUMBER OF INDIVIDUALS: 12			

Notes: Observed daily through the first six weeks, and then at least weekly through week 12. As with Philadelphia Vireo, the peak of migration appeared to be roughly one week later than on average. While the number observed was comparable to the five-year average of 2.1, the 96 banded was well above the average of 69, and only behind the count of 117 in 2005.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	4.00	5.71	7.43	8.29	12.57	17.86	31.71	77.43	94.00	39.43	22.43	15.14	15.00	**27.00**
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	**91**
# PROCESSED				1		2	6	18	9	3-1-0	1	1		**41-1-0**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: September 22		NUMBER OF INDIVIDUALS: 220			

Notes: One of 3 species seen daily this season. An exceptional year for Blue Jays, with the totals observed and banded roughly double the five-year averages of 13.7 observed per day and 19 individuals banded. The total of 220 individuals counted on September 22 was by far a record high, and the weekly averages for weeks 8 and 9 both more than doubled any previous week.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	11.43	19.57	24.29	27.00	21.14	39.14	84.71	97.29	87.00	215.43	87.57	135.14	207.57	**81.33**
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	**91**
# PROCESSED														
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: October 24		NUMBER OF INDIVIDUALS: 482			

Notes: One of 3 species seen daily this season. Numbers typical for fall, and as usual peaking in October.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.43	0.29	0.29	0.43	0.43	0.14	0.14	0.43	0.29	1.57	0.29	1.14	**0.46**
# DAYS OBSERVED	1	1	1	2	2	2	1	1	3	2	5	1	5	**27**
# PROCESSED														
	FIRST OBSERVED: August 2				LAST OBSERVED: October 30				PEAK DATE: October 13		NUMBER OF INDIVIDUALS: 6			

Notes: Seen weekly throughout the season for just the second time; numbers comparable to the five-year average.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY													1.43	**0.11**
# DAYS OBSERVED													1	**1**
# PROCESSED														
	FIRST OBSERVED: October 30				LAST OBSERVED: October 30					PEAK DATE: October 30		NUMBER OF INDIVIDUALS: 10		

Notes: A lone flock observed on the final day of fall was just the second fall sighting at MBO.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	2.29	1.57		0.14		0.57	0.57							**0.40**
# DAYS OBSERVED	3	3		1		1	1							**9**
# PROCESSED														
	FIRST OBSERVED: August 4				LAST OBSERVED: September 17					PEAK DATE: August 4,13		NUMBER OF INDIVIDUALS: 9		

Notes: Scarce, with sightings tapering off by mid-season, as has been the case the past couple of years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY					0.71									**0.05**
# DAYS OBSERVED					1									**1**
# PROCESSED														
	FIRST OBSERVED: August 31				LAST OBSERVED: August 31					PEAK DATE: August 31		NUMBER OF INDIVIDUALS: 5		

Notes: One flock of five observed on the last day of August, the first fall sighting since 2005.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.71	0.14	0.14											**0.08**
# DAYS OBSERVED	2	1	1											**4**
# PROCESSED														
	FIRST OBSERVED: August 2				LAST OBSERVED: August 15					PEAK DATE: August 4		NUMBER OF INDIVIDUALS: 4		

Notes: Scarcer than in any previous fall, with sightings limited to 7 individuals over 4 days in the first half of August.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	19.29	17.57	17.86	22.57	25.86	20.86	25.57	25.71	27.71	29.57	53.86	51.43	35.14	**28.69**
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	7	7	7	**91**
# PROCESSED	13-0-2	5-0-2	4-0-3	4-2-2	2-0-4	6-1-8	8-3-12	17-1-14	15-1-9	8-0-14	139-1-12	132-2-16	87-3-22	**440-14-120**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30					PEAK DATE: October 17		NUMBER OF INDIVIDUALS: 102		

Notes: One of 3 species seen daily during the season, and one of two banded every week this fall. A record year for Black-capped Chickadees, with a higher daily average than in any previous fall (ranging from 15.7 in 2006 to 24.5 in 2005) and nearly twice as many banded as in the previous record year (222 in 2005). The influx in weeks 11 and 12 was later than the typical week 10 peak, and came as a surprise given the relatively strong two-year pattern to date that featured distinct peaks in abundance in 2005, 2007, and 2009, whereas in intervening years most observations were limited to the local population. Unlike the big movement of chickadees in fall 2005, no Boreal Chickadees were observed at MBO this fall, even though a number were reported well south of their usual range in Ontario.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY		0.29	0.14		0.14	0.29	0.14	0.57	0.14	0.86			0.14	**0.21**
# DAYS OBSERVED		2	1		1	2	1	4	1	2			1	**15**
# PROCESSED		1								1				**1**
	FIRST OBSERVED: August 12				LAST OBSERVED: October 28					PEAK DATE: October 3		NUMBER OF INDIVIDUALS: 5		

Notes: As in most years, an irregular species throughout most of fall, without any distinct peak in numbers. The peak of migration on October 3 is interesting in that it coincided with an unusually significant raptor flight.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.57	0.86	1.43	0.86	1.14	0.71	0.43	1.86	0.71	1.71	0.43	0.71	1.00	**0.96**
# DAYS OBSERVED	3	4	5	4	6	5	3	6	3	5	2	3	4	**53**
# PROCESSED													1	**1**
	FIRST OBSERVED: August 2				LAST OBSERVED: October 30				PEAK DATE: September 20		NUMBER OF INDIVIDUALS: 6			

Notes: Observed on a weekly basis throughout the season, as has been the case every fall. Most observations likely involve local residents, though the peak of 6 individuals on September 20 suggested some others were moving through MBO.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY						0.14	0.14	0.57	0.14	0.43	0.86	0.14	0.29	**0.21**
# DAYS OBSERVED						1	1	2	1	3	5	1	2	**16**
# PROCESSED							1	4	1	2	2		1-0-1	**11-0-1**
	FIRST OBSERVED: September 10				LAST OBSERVED: October 29				PEAK DATE: September 21		NUMBER OF INDIVIDUALS: 3			

Notes: Numbers observed and banded this fall were both somewhat above average this fall. Observed weekly over the final 8 weeks of the season, which was a first, with a weak peak of migration in week 11.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	3.43	1.29	1.86	1.29	0.57	0.57	0.71		0.14					**0.76**
# DAYS OBSERVED	7	4	4	6	3	3	4		1					**32**
# PROCESSED	5	2-0-1	0-0-2				1		0-1-0					**8-1-3**
	FIRST OBSERVED: August 1				LAST OBSERVED: September 26				PEAK DATE: August 16		NUMBER OF INDIVIDUALS: 6			

Notes: Surprisingly scarce this fall, peaking in the first week as usual, but with numbers the lowest since 2006, and largely disappearing by mid-September, whereas sightings have extended weekly through early October in all other years. The count of 8 individuals was only one-third of the five-year average of 24.

WIWR: Winter Wren / Troglodyte mignon (*Troglodytes troglodytes*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY		0.14				0.14	0.43	0.29	1.14	0.71	1.43	0.57	0.14	**0.38**
# DAYS OBSERVED		1				1	2	2	1	4	4	2	1	**18**
# PROCESSED							2		2		1			**5**
	FIRST OBSERVED: August 9				LAST OBSERVED: October 29				PEAK DATE: October 2		NUMBER OF INDIVIDUALS: 8			

Notes: In contrast to House Wren, Winter Wren numbers were above average. The August 9 observation was the earliest ever at MBO, likely from a small breeding population within the Arboretum. Migration in previous years consistently peaked in week 10, but this year was shifted later by one week, as was the case with several other species.

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

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

Notes: For the third year in a row, a single Marsh Wren was observed in fall; this year's record was exactly one month later than in 2009.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY							2.86	2.43	7.43	26.86	8.71	1.43	0.71	**3.88**
# DAYS OBSERVED							4	5	7	7	7	5	3	**38**
# PROCESSED							5	15	10	33	23	2-0-1	2	**90-0-1**
	FIRST OBSERVED: September 15				LAST OBSERVED: October 27				PEAK DATE: October 6		NUMBER OF INDIVIDUALS: 85			

Notes: A very good fall count, after three poor years. Migrants arrived one week earlier than usual, but peaked in week 10 as usual. The 33 individuals banded in week 10 set a new record for a single week, and the 90 banded for fall broke the season record of 73 set in 2006.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY							4.14	8.57	39.71	47.43	10.29	9.57	3.71	**9.49**
# DAYS OBSERVED							6	7	7	7	7	7	7	**48**
# PROCESSED							7	20-0-5	82-0-6	96-0-8	32-0-12	25-0-8	9-0-9	**271-0-48**
	FIRST OBSERVED: September 12				LAST OBSERVED: October 30					PEAK DATE: October 1		NUMBER OF INDIVIDUALS: 89		

Notes: Like Golden-crowned Kinglet this year, absent during the first six weeks, then observed weekly for the remainder of the season. Ruby-crowned Kinglet was more regular, occurring daily from September 14 through October 30. Numbers represented an increase over 2009, but unlike Golden-crowned Kinglet, remained below the five-year averages of 10.3 individuals observed per day and 326 banded per fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY										0.43	2.00	0.14		**0.20**
# DAYS OBSERVED										1	2	1		**4**
# PROCESSED														
	FIRST OBSERVED: October 5				LAST OBSERVED: October 20					PEAK DATE: October 10,11		NUMBER OF INDIVIDUALS: 7		

Notes: Small numbers seen on four occasions over the first three weeks of October, highlighted by a flock of 7 that lingered for much of the morning on October 10 and 11 but managed to stay above all the nets.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.71	1.00	0.14	0.14	0.57	1.00								**0.27**
# DAYS OBSERVED	4	4	1	1	3	5								**18**
# PROCESSED	1-0-1	5-0-1		1	2-0-1	4								**13-0-3**
	FIRST OBSERVED: August 2				LAST OBSERVED: September 11					PEAK DATE: August 12		NUMBER OF INDIVIDUALS: 4		

Notes: Present weekly through week 6, with overall numbers a bit below average, mostly due to an unusually low number of observations in the second half of August.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.14					1.14	1.29	1.29	0.43	0.29	0.43			**0.38**
# DAYS OBSERVED	1					6	5	5	3	2	3			**25**
# PROCESSED	1					7	9	7	1-0-1	1	1			**27-0-1**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 16					PEAK DATE: September 16		NUMBER OF INDIVIDUALS: 4		

Notes: Numbers above average this fall, second only to 2005 in terms of both individuals observed and banded. For the third consecutive year, a molt migrant was banded in the first week of the season. Overall, the peak of migration was in weeks 7 and 8, which matches the typical pattern over the past five years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY							0.14	0.29	0.71	3.86	8.71	6.71	2.14	**1.74**
# DAYS OBSERVED							1	1	1	6	7	7	6	**29**
# PROCESSED							1	2	2	18-0-3	43-0-15	21-0-22	3-0-11	**90-0-51**
	FIRST OBSERVED: September 16				LAST OBSERVED: October 30					PEAK DATE: 3 dates		NUMBER OF INDIVIDUALS: 14		

Notes: As usual, the latest of the *Catharus* thrushes; unlike the past two years there were no early molt migrants in August. For the second consecutive year, new records were set for overall counts and total number banded. Like in every previous year, migration peaked in week 11; the 43 individuals banded that week was a single-week record.

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

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

Notes: A single sighting this fall of this always rare species, right in the middle of the season.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	21.71	7.86	7.43	9.29	12.29	11.00	10.86	15.86	25.29	113.86	430.57	552.14	547.86	**135.85**
# DAYS OBSERVED	7	6	7	6	7	7	7	7	7	7	7	7	7	**89**
# PROCESSED	17	3	1	1			1		2	2	51	191	125	**394-0-1**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30					PEAK DATE: October 30		NUMBER OF INDIVIDUALS: 1083		

Notes: Seen on all but two days of the season. As usual, fairly common through the first 9 weeks of the season, then increasing dramatically in October. This year huge flocks lingered right through the end of the season (and beyond), resulting in a record high mean count for the season (63.5 to 95.3 in previous years) and a record number of individuals banded (346 in 2008 being the previous high). Despite the large number banded, this likely represents a minority of the individuals that migrated through the area, considering the size of flocks observed, and just one repeat capture. On many days, a majority of the individuals counted were present in the first 15-20 minutes after sunrise.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	5.00	6.14	5.29	6.14	6.29	6.14	4.14	4.29	2.86	1.57	0.29			**3.70**
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	5	1			**69**
# PROCESSED	7-0-7	2-0-6	0-0-2	4-1-2	5-0-6	4-0-7	3-0-4	3-0-2	3-0-3	1-0-1				**32-1-40**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 14					PEAK DATE: August 4		NUMBER OF INDIVIDUALS: 11		

Notes: Present for the first 11 weeks of fall, as has been the case annually since 2007, but with numbers somewhat lower than usual this year, including a record low number banded (39 to 63 in previous falls seasons). Numbers were fairly steady until mid-September, but then tapered off earlier than usual.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY		0.43	0.14	0.29	0.29	0.71	0.86	0.57	0.14	0.14				**0.27**
# DAYS OBSERVED		3	1	2	2	4	4	3	1	1				**21**
# PROCESSED		1												**1**
	FIRST OBSERVED: August 9				LAST OBSERVED: October 5					PEAK DATE: 4 dates		NUMBER OF INDIVIDUALS: 2		

Notes: Present weekly but in small numbers from early August to early October, with a modest peak to migration in mid-September. Overall numbers comparable to the five-year average for fall, but just one individual banded, compared to an average of 5 and range of 2 to 8 in previous years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	1.71				0.14	0.43	11.14	31.00	12.14	45.14	26.14	167.00	116.57	**31.65**
# DAYS OBSERVED	4				1	1	3	4	5	6	6	7	7	**44**
# PROCESSED												1		**1**
	FIRST OBSERVED: August 2				LAST OBSERVED: October 30					PEAK DATE: October 22		NUMBER OF INDIVIDUALS: 345		

Notes: Unusually scarce in August, then exceptionally abundant throughout the last half of October. Banded in fall for only the second time; the previous record in 2006 also occurred in week 12.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY										1.00	0.29		0.29	**0.12**
# DAYS OBSERVED										2	1		1	**4**
# PROCESSED														
	FIRST OBSERVED: October 4				LAST OBSERVED: October 30					PEAK DATE: October 6		NUMBER OF INIDIVIDUALS: 6		

Notes: As in most years, observations limited to a few individuals spotted flying overhead, this year all in October.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY													0.14	**0.01**
# DAYS OBSERVED													1	**1**
# PROCESSED														
	FIRST OBSERVED: October 28				LAST OBSERVED: October 28					PEAK DATE: October 28		NUMBER OF INIDIVIDUALS: 1		

Notes: A lone early migrant in the final week of October, just the third fall record for MBO.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	24.57	9.71	11.57	6.14	18.86	13.14	9.57	4.57	3.14	2.29	0.29		0.57	**8.03**
# DAYS OBSERVED	7	7	7	7	7	7	6	6	3	3	1		1	**62**
# PROCESSED	15	7	1					2						**25**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 27				PEAK DATE: Aug 6, Sep 1			NUMBER OF INDIVIDUALS: 42		

Notes: Observed daily over the first six weeks of the season, then beginning to taper off by mid-September and becoming unusually scarce by October. Unlike last year, when at least one was banded in each of the first nine weeks, this fall all but three were banded during the first half of August. There were two peaks in numbers in weeks 1 and 5, both unusually early, compared to past years when the peak ranged from week 6 to week 11.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	1.86	1.43	1.86	3.00	2.57	3.29	1.86	3.00	1.29					**1.55**
# DAYS OBSERVED	6	6	5	5	6	5	6	6	3					**48**
# PROCESSED	10-0-1	6-0-2	11	10-0-1	17-0-1	20-0-2	11-0-1	20	9-0-1					**114-0-9**
	FIRST OBSERVED: August 1				LAST OBSERVED: September 27				PEAK DATE: September 9			NUMBER OF INDIVIDUALS: 9		

Notes: Present on a weekly basis until late September, in above-average numbers. An unusually protracted peak of migration extended from late August to past mid-September, contributing to a record count of 114 banded, more than double the average of 46 for fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY					0.14			0.14				0.14		**0.03**
# DAYS OBSERVED					1			1				1		**3**
# PROCESSED								1				1		**2**
	FIRST OBSERVED: September 3				LAST OBSERVED: October 18				PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 1		

Notes: One of very few warblers with distinctly below average numbers this fall, with the 3 individuals observed and 2 banded both representing record lows by a large margin.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.57		0.86	2.00	1.43	8.14	4.14	9.57	4.29	0.43				**2.42**
# DAYS OBSERVED	4		4	7	6	7	7	7	6	3				**51**
# PROCESSED	2-0-2		2-1-0	3-1-1	5	47-0-1	22-0-2	53-0-1	26	1				**161-2-7**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 8				PEAK DATE: September 9			NUMBER OF INDIVIDUALS: 31		

Notes: Much less common than usual in the first three weeks of August, but overall observations slightly above average thanks to good counts in September. A near record number banded (compared to 164 in 2005), including a new single-week record of 47 in week 6, eclipsed by an even higher count of 53 in week 8.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY					0.29		0.29	0.14	0.14					**0.07**
# DAYS OBSERVED					2		2	1	1					**6**
# PROCESSED					1		2	1	1					**5**
	FIRST OBSERVED: August 31				LAST OBSERVED: October 2				PEAK DATE: 6 dates			NUMBER OF INDIVIDUALS: 1		

Notes: As usual, a rare species with a few records scattered across the middle of the season, mostly involving birds banded.

YWAR: Yellow Warbler / Paruline jaune (*Dendroica petechia*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	6.14	3.86	2.14	0.14	0.29	0.14	0.14							**0.99**
# DAYS OBSERVED	7	7	5	1	2	1	1							**24**
# PROCESSED	29-0-3	10-0-4	3-0-2				1							**43-0-9**
	FIRST OBSERVED: August 1				LAST OBSERVED: September 12				PEAK DATE: August 4			NUMBER OF INDIVIDUALS: 13		

Notes: One of the earliest species to leave, and particularly quick to do so this year, with numbers dropping significantly already in week 2. Overall numbers lower than in any previous fall, although the number banded matched the five-year mean.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29	0.43	3.71	0.86	0.14	1.43	0.43							**0.56**
# DAYS OBSERVED	2	2	6	3	1	5	3							**22**
# PROCESSED	2	2-1-0	13-0-1	5-0-1	1	9	1-0-1							**33-1-3**
	FIRST OBSERVED: August 1				LAST OBSERVED: September 18				PEAK DATE: August 18		NUMBER OF INDIVIDUALS: 10			

Notes: Seen weekly until week 7, with an unusually strong movement during the usual week 3 peak contributing to an above-average count and record total of individuals banded this fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.29	0.57	7.00	10.14	4.57	12.86	9.00	3.14	2.43	0.71				**3.90**
# DAYS OBSERVED	2	2	6	7	7	7	7	6	4	4				**52**
# PROCESSED	2	4	37-0-1	44-0-5	23-0-5	74-0-3	46-0-4	17-0-1	11	2-0-1				**260-0-20**
	FIRST OBSERVED: August 5				LAST OBSERVED: October 9				PEAK DATE: September 9		NUMBER OF INDIVIDUALS: 50			

Notes: Present weekly from the beginning of August through week 10, with numbers well above average thanks to a strong and protracted migration from mid-August through mid-September.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.14	0.14	0.14	0.14	0.43								**0.09**
# DAYS OBSERVED	1	1	1	1	1	3								**8**
# PROCESSED	1	1	1	1		2								**6**
	FIRST OBSERVED: August 2				LAST OBSERVED: September 9				PEAK DATE: 8 dates		NUMBER OF INDIVIDUALS: 1			

Notes: Rare as always, but the best fall to date for Cape May Warbler, with observations weekly through week 6, triple the average mean total for the season, and nearly as many birds banded as in the previous five fall seasons combined (7).

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.14	1.00	0.57	1.86	1.86	1.86	1.43	1.00	0.29	0.14			**0.79**
# DAYS OBSERVED	1	1	5	4	5	7	6	5	6	2	1			**43**
# PROCESSED	1		3	1-0-1	10	10	8	7	4	2	1			**47-0-1**
	FIRST OBSERVED: August 2				LAST OBSERVED: October 14				PEAK DATE: September 2		NUMBER OF INDIVIDUALS: 6			

Notes: Present weekly except for the final half of October, as in three of the previous five years. Typically uncommon for most of this period, but as usual with a modest peak spreading across most of September.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY		0.14	0.14	0.57	0.71	0.43	9.14	239.00	299.43	251.43	51.43	6.57	0.86	**66.14**
# DAYS OBSERVED		1	1	1	2	2	6	7	7	7	7	7	3	**51**
# PROCESSED					1		27	881-0-49	750-0-141	605-1-61	88-0-26	7-0-2		**2359-1-279**
	FIRST OBSERVED: August 11				LAST OBSERVED: October 29				PEAK DATE: September 29		NUMBER OF INDIVIDUALS: 460			

Notes: Typically scarce until mid-September, then rapidly increasing to unprecedented numbers, with the mean daily count remaining well above 200 for three consecutive weeks in late September and early October, bringing the mean for the season to nearly double the previous record high of 34.7 per day in 2008. The estimated daily total was over 200 on 15 days, and over 100 on an additional 6 days. The number banded also shattered the previous season high of 1732 set the same year, and represents a more than twentyfold increase over the 106 banded in 2009. This year over 10% of individuals were recaptured, compared to none last year, but even so the rate of recapture was relatively low, suggesting a fair amount of turnover, rather than a flock stopping over at MBO for a prolonged period.

After six full years of fall migration monitoring at MBO, this is the most dramatic point in the apparent two-year cycle shown by Yellow-rumped Warbler numbers. In the three "odd" years, the mean number observed per day has averaged 4.3, while the average number banded is 110. Meanwhile, in the three "even" years, the mean number observed per day has averaged 39.2, while the average number banded is 1538. This order of magnitude difference is remarkable, and warrants further investigation.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY			0.57	0.43	1.14	1.00	1.71	1.00	0.57	0.14				**0.51**
# DAYS OBSERVED			3	3	5	3	6	4	3	1				**28**
# PROCESSED			3		3	4	7	6	2					**25**
	FIRST OBSERVED: August 15				LAST OBSERVED: October 5				PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 4		

Notes: Observed weekly from mid-August until early October, peaking in mid-September. Relatively uncommon during this period, as always, but with numbers somewhat above average.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY			1.00	0.14		0.29		0.14						**0.12**
# DAYS OBSERVED			4	1		2		1						**8**
# PROCESSED			4											**4**
	FIRST OBSERVED: August 17				LAST OBSERVED: September 22				PEAK DATE: August 17			NUMBER OF INDIVIDUALS: 3		

Notes: Although rare, more numerous this fall than in any previous year, including the first observations later than the first few days of September. The 4 individuals banded in week 3 represent a single-week record for MBO.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY			0.29	0.14				0.14						**0.04**
# DAYS OBSERVED			1	1				1						**3**
# PROCESSED								1						**1**
	FIRST OBSERVED: August 16				LAST OBSERVED: September 20				PEAK DATE: August 16			NUMBER OF INDIVIDUALS: 2		

Notes: Observed on just four dates, but this species is rare enough at MBO for that to be a new record for fall. The individual banded in week 8 was the first ever for MBO, the 106th species banded since 2004.

WPWA: Western Palm Warbler / Paruline à couronne rousse (*Dendroica palmarum palmarum*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY					1.86	10.43	2.43	2.57	0.57	0.14				**1.38**
# DAYS OBSERVED					5	6	6	3	2	1				**23**
# PROCESSED					3	37	5-0-1	13	5					**63-0-1**
	FIRST OBSERVED: September 1				LAST OBSERVED: October 3				PEAK DATE: September 7			NUMBER OF INDIVIDUALS: 24		

Notes: Present weekly throughout September and into early October, and in record numbers more than double the previous highs set in 2007, largely thanks to an unusually early and strong migration in week 6.

YPWA: Yellow Palm Warbler / Paruline à couronne rousse (*Dendroica palmarum hypochrysea*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY								0.14		0.29				**0.03**
# DAYS OBSERVED								1		2				**3**
# PROCESSED														
	FIRST OBSERVED: September 19				LAST OBSERVED: October 8				PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 1		

Notes: In sharp contrast to Western Palm Warbler, Yellow Palm Warbler was scarcer than in any previous fall, with only three individuals observed, and for the first time ever none banded.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY				0.29		0.43	0.14		0.14					**0.08**
# DAYS OBSERVED				2		1	1		1					**5**
# PROCESSED				2		3			1					**6**
	FIRST OBSERVED: August 22				LAST OBSERVED: October 1				PEAK DATE: September 9			NUMBER OF INDIVIDUALS: 3		

Notes: Typically uncommon in the middle of fall, including a record-late observation on October 1. The count of 6 individuals banded was double the five-year average for fall, and a new record by one.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY					0.29	2.43	1.00	1.57	0.57					**0.45**
# DAYS OBSERVED					2	4	4	5	2					**18**
# PROCESSED					2	14-0-1	4-0-2	10	3					**33-0-3**
	FIRST OBSERVED: August 29				LAST OBSERVED: September 30				PEAK DATE: September 9		NUMBER OF INDIVIDUALS: 9			

Notes: All observations confined to September except two earlier arrivals in late August. Comparable in abundance to the five-year average, but with an above-average number of individuals banded, thanks largely to a good movement in week 6.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	1.14	1.00	3.14	1.43	1.43	1.00	1.00							**0.78**
# DAYS OBSERVED	3	5	5	4	4	4	5							**30**
# PROCESSED	6-0-1	3-0-1	12	2-0-4	8	4	4							**39-0-6**
	FIRST OBSERVED: August 2				LAST OBSERVED: September 18				PEAK DATE: August 20		NUMBER OF INDIVIDUALS: 11			

Notes: Another warbler present in record numbers this fall, although it disappeared abruptly after week 7, despite having lingered longer in three of the previous five years. The peak occurred in week 3, as usual, highlighted by a single-day record count of 11 individuals on August 20; the 12 individuals banded that week was also a single-week record.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	4.71	5.43	11.00	6.29	3.14	8.71	2.14	0.86						**3.25**
# DAYS OBSERVED	7	6	7	6	7	7	5	4						**49**
# PROCESSED	22-1-0	14-0-5	41-0-3	22-0-1	8-5-2	32-0-3	8-0-2	2						**149-2-16**
	FIRST OBSERVED: August 1				LAST OBSERVED: September 22				PEAK DATE: August 17		NUMBER OF INDIVIDUALS: 20			

Notes: Fall numbers increased to new record levels for the fourth consecutive year, reaching levels almost twice as high as the five-year averages of 1.7 individuals observed per day and 79 individuals banded per fall. This year there appeared to be two distinct peaks in weeks 3 and 6, contrasting to the more typical single peak centered around weeks 4 and 5.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.57	0.71	1.14	1.29	1.14	1.29	0.57	0.29						**0.54**
# DAYS OBSERVED	2	3	5	6	4	5	3	1						**29**
# PROCESSED	4	5	8	7-0-1	6-0-2	7-0-1	1-0-1	2						**40-0-5**
	FIRST OBSERVED: August 2				LAST OBSERVED: September 21				PEAK DATE: Aug 30, Sep 10		NUMBER OF INDIVIDUALS: 4			

Notes: Present weekly through the first 8 weeks of the season, with numbers close to five-year averages and peaking slightly between weeks 3 and 6, reflecting the typical pattern observed over the past five years.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.14	0.29	0.86	1.00	2.57	3.43	0.57	0.14						**0.69**
# DAYS OBSERVED	1	2	6	4	7	6	2	1						**29**
# PROCESSED	1	2	6	7	17-0-1	17-0-5	2-0-1	1						**53-0-7**
	FIRST OBSERVED: August 6				LAST OBSERVED: September 19				PEAK DATE: September 3		NUMBER OF INDIVIDUALS: 10			

Notes: Present weekly though the first 8 weeks of the season, typically scarce in early August, but increasing to well above-average numbers during the first half of September, during which the previous record of 39 individuals banded (from 2006) was easily eclipsed.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.14	0.57	0.43	0.43		1.43	0.43							**0.16**
# DAYS OBSERVED	1	2	3	3		1	3							**13**
# PROCESSED	1	4	3	3			2							**13**
	FIRST OBSERVED: August 7				LAST OBSERVED: September 16				PEAK DATE: August 9		NUMBER OF INDIVIDUALS: 3			

Notes: Observations mostly limited to August, as usual, with numbers similar to five-year averages.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	4.57	5.29	5.29	5.00	7.00	6.86	2.86	3.14	1.00	0.14	0.29	0.14		**3.20**
# DAYS OBSERVED	7	7	7	7	7	7	7	7	3	1	2	1		**63**
# PROCESSED	11-0-1	14-0-4	12-0-3	4-0-4	17-0-2	24-1-3	8-0-2	7	2		1			**100-1-19**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 17				PEAK DATE: September 3		NUMBER OF INDIVIDUALS: 15			

Notes: Present daily until late September, then uncommon but seen weekly until mid-October. Overall abundance was slightly above average, while the number banded broke the previous record of 93 set in 2008.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY			0.43	1.14	1.14	3.43	1.43	0.14		0.14				**0.60**
# DAYS OBSERVED			3	4	6	6	5	1		1				**26**
# PROCESSED			3	5	5-0-1	18-0-1	7-0-2	1						**39-0-4**
	FIRST OBSERVED: August 15				LAST OBSERVED: October 3				PEAK DATE: September 6		NUMBER OF INDIVIDUALS: 7			

Notes: As usual, observations concentrated between mid-August and mid-September, but with the peak extending more into week 7 than usual. Overall, numbers were comparable to five-year averages.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	0.57	0.86	2.86	1.14	0.71	0.71	0.14							**0.41**
# DAYS OBSERVED	3	5	5	4	4	3	1							**25**
# PROCESSED	4	4-0-1	16-0-2	4-0-2	5	2								**35-0-5**
	FIRST OBSERVED: August 5				LAST OBSERVED: September 18				PEAK DATE: August 18		NUMBER OF INDIVIDUALS: 8			

Notes: Present weekly for the first seven weeks of fall, for the first time. Another warbler occurring in record numbers this fall, with the total mean per day and number banded both more than double the five-year average, and the total banded substantially more than the previous record high of 24 in 2008, thanks largely due to a single-week record of 16 in week 3, which as in most previous years was the peak of migration. Encouraging results for a species recently designated as Threatened nationally.

EATO: Eastern Towhee / Tohi à flancs roux (*Pipilo erythrophthalmus*)

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

Notes: A single observation on August 12; this is only the second time Eastern Towhee has been observed in fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY											0.71	4.29	11.71	**1.29**
# DAYS OBSERVED											2	6	7	**15**
# PROCESSED											3	13	37-0-5	**53-0-5**
	FIRST OBSERVED: October 11				LAST OBSERVED: October 30				PEAK DATE: October 27		NUMBER OF INDIVIDUALS: 30			

Notes: As usual, a late migrant beginning to arrive only in mid-October and peaking in the final week of the season. Numbers were well above the five-year averages, but lower than the records set last fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY			0.14					0.86	0.29	0.43	0.14			**0.14**
# DAYS OBSERVED			1					3	1	3	1			**9**
# PROCESSED			1					3	1	1				**6**
	FIRST OBSERVED: August 17				LAST OBSERVED: October 10				PEAK DATE: September 22		NUMBER OF INDIVIDUALS: 3			

Notes: Exceptionally rare during the first half of the season, and unusually scarce even during the traditional peak of migration in late September and early October, resulting in a record low rate of observation, and a near record low number banded.

FISP: Field Sparrow / Bruant des champs (*Spizella pusilla*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY								0.29						**0.02**
# DAYS OBSERVED								1						**1**
# PROCESSED														
	FIRST OBSERVED: September 23				LAST OBSERVED: September 23					PEAK DATE: September 23		NUMBER OF INDIVIDUALS: 2		

Notes: Two individuals present on September 23 marked the fourth time in six years that Field Sparrow has been observed at MBO in fall.

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

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

Notes: A single observation in early October; scarcity this year (as in 2009) likely tied to the field adjacent to MBO being planted in corn rather than crops more attractive to Savannah Sparrow and other sparrows.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY									0.29	1.14	4.29	4.29	7.14	**1.32**
# DAYS OBSERVED									2	3	6	6	7	**24**
# PROCESSED										4	13-0-2	12-0-3	22-0-4	**51-0-9**
	FIRST OBSERVED: October 1				LAST OBSERVED: October 30					PEAK DATE: October 27		NUMBER OF INDIVIDUALS: 15		

Notes: Sightings limited to October as usual, but with higher numbers in the first half of the month than usual, contributing to a much higher than average total rate of observation. The 22 individuals banded in week 13 was a single-week high, and helped shatter the previous record of 32 banded in a season (from 2009).

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	13.86	13.43	9.71	6.14	9.14	8.57	9.00	9.86	8.43	7.14	5.86	5.43	1.71	**8.33**
# DAYS OBSERVED	7	7	7	6	7	7	7	7	7	7	6	7	7	**89**
# PROCESSED	34-0-4	49-0-2	27-1-2	10-0-2	16-0-3	10-0-5	6-2-7	16-2-2	9-0-4	10-2-3	15-0-2	16-0-1	1	**219-7-37**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30					PEAK DATE: August 14		NUMBER OF INDIVIDUALS: 24		

Notes: Seen on all but two days of the season, and one of only two species banded every week this fall. Numbers were particularly high during the first half of August, with an impressive 83 individuals banded during this period, but then declined and remained fairly steady for most of the remainder of fall, without any distinct influxes of migrants as would be expected in most years, and resulting in below-average numbers overall, including a record low total rate of observation.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY				0.14		0.29	0.71	0.29	0.29	0.86	0.29	0.14		**0.23**
# DAYS OBSERVED				1		2	4	1	2	5	2	1		**18**
# PROCESSED				1		1	2	1	1	3	2			**11**
	FIRST OBSERVED: August 24				LAST OBSERVED: October 17					PEAK DATE: 3 dates		NUMBER OF INDIVIDUALS: 2		

Notes: An unusually early arrival in late August still had some juvenile body plumage; other migrants were generally observed from mid-September to mid-October, but in smaller numbers than usual.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	1.71	1.14	0.43	0.29	0.29	0.57	0.29	1.43	0.86	1.57	1.14	0.86	0.43	**0.85**
# DAYS OBSERVED	7	5	3	2	2	3	2	4	3	7	5	3	2	**48**
# PROCESSED	2-1-3	2	2-0-1	0-0-2	0-0-1	1	0-0-1	2-0-1	4	3	2-0-1	1-0-1	1	**20-1-11**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 29					PEAK DATE: September 23		NUMBER OF INDIVIDUALS: 5		

Notes: Present weekly throughout the season, but without any distinct peaks of abundance, and with record lows for both total rate of observation (previously 1.1 to 1.8) and individuals banded (previously 28 to 62).

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	1.57	4.00	3.14	1.14	5.14	9.71	17.14	50.71	102.71	70.14	56.57	32.57	22.00	**28.97**
# DAYS OBSERVED	2	5	6	3	7	7	7	7	7	7	7	7	7	**79**
# PROCESSED	5	4-0-3	2-0-3	0-0-2	2-0-1	7	25-0-4	75-0-3	70-0-5	63-0-4	41-0-12	25-0-4	22-0-8	**351-0-49**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: September 30			NUMBER OF INDIVIDUALS: 180		

Notes: Like in 2009, present weekly throughout the season, and banded in all but the fourth week. By far the most abundant sparrow this fall, with very high numbers over a four-week span from mid-September to mid-October, and remaining unusually common through the end of the season, resulting in a record-high season total rate of observation, although the number of individuals banded was only slightly above average.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY							0.14	1.14	4.14	10.29	5.57	2.29	0.29	**1.84**
# DAYS OBSERVED							1	3	7	7	7	5	1	**31**
# PROCESSED							1	5	8-0-2	22-0-3	7-0-6	0-0-1	2	**45-0-12**
	FIRST OBSERVED: September 13				LAST OBSERVED: October 30				PEAK DATE: October 6			NUMBER OF INDIVIDUALS: 25		

Notes: The lone individual observed on September 13 was the first ever recorded before week 8. Numbers peaked in week 10 as usual, but at a much lower level than usual, resulting in below-average totals for the season.

SCJU: Slate-coloured Junco / Junco ardoisé (*Junco hyemalis*)

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY						0.29	0.29	6.43	6.29	68.71	70.71	64.57	57.00	**21.10**
# DAYS OBSERVED						1	2	7	6	7	7	7	7	**44**
# PROCESSED								16	8	127-0-3	158-0-14	134-0-15	66-1-9	**509-1-41**
	FIRST OBSERVED: September 8				LAST OBSERVED: October 30				PEAK DATE: October 8			NUMBER OF INDIVIDUALS: 130		

Notes: Migrants began arriving earlier than in most years, and by week 8 were far more numerous than in any previous year at this point in the season. Numbers peaked in the first half of October, whereas in most previous years they were highest in week 13. However, flocks remained large and well above average throughout October, including 7 days with over 100 juncos on site. This resulted in both the total rate of observation and number of individuals banded more than doubling the five-year averages (9.6 and 190, respectively), and the banding total eclipsing last year's record of 361 by a substantial margin.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY			0.14	0.14	0.14									**0.03**
# DAYS OBSERVED			1	1	1									**3**
# PROCESSED				1										**1**
	FIRST OBSERVED: August 20				LAST OBSERVED: September 1				PEAK DATE: 3 dates			NUMBER OF INDIVIDUALS: 1		

Notes: Below average this fall, with just one individual banded and two others seen in late August and early September.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	4.29	5.86	3.57	2.57	1.43	3.43	3.14	2.00	2.43	2.29	3.71	4.43	6.71	**3.58**
# DAYS OBSERVED	7	7	7	7	5	7	7	6	6	7	7	6	7	**86**
# PROCESSED	4	2-0-1	1		0-1-0		2-0-2					2	1-0-2	**12-1-5**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: October 13			NUMBER OF INDIVIDUALS: 11		

Notes: Seen on all but five days this fall, and overall in above-average numbers, including a record banding total.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	4.43	2.71	1.86	1.86	0.86	2.71	1.57	0.43						**1.26**
# DAYS OBSERVED	7	5	6	6	4	7	6	2						**43**
# PROCESSED	13-0-3	4-0-2	2-0-1	3-0-2	3	5-0-1	3-1-1							**33-1-10**
	FIRST OBSERVED: August 1				LAST OBSERVED: September 22				PEAK DATE: August 2			NUMBER OF INDIVIDUALS: 10		

Notes: Present over the first 8 weeks of fall, with numbers highest in week 1, as usual, but rebounding a bit in mid-September as was the case last year. Numbers overall somewhat below average.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	6.29	5.86	3.14	2.14	3.29	1.71	1.43	1.57	0.71	0.29				**2.03**
# DAYS OBSERVED	7	7	6	7	7	7	5	6	3	1				**56**
# PROCESSED	8-1-1	8-0-1	12	4-0-3	8-0-4	7	2-0-4	9	4	0-0-1				**62-1-14**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 6				PEAK DATE: August 4			NUMBER OF INDIVIDUALS: 11		

Notes: As in three of the previous five years, observed weekly until week 10, but peaking in the first half of August. Present almost daily for the first six weeks, contributing to a near record total rate of observation. A record number of individuals were banded, despite the traditional mid-September peak being relatively weak this year. However, 32 were banded over the first four weeks, double the previous record for this period, and more than triple the five-year average of 10.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	8.14	4.71	1.57	2.71	6.57	7.00	8.86	33.29	91.00	217.43	424.00	348.71	305.14	**112.24**
# DAYS OBSERVED	6	3	5	3	5	4	5	6	6	7	7	7	7	**71**
# PROCESSED											1	10	1-1-0	**12-1-0**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: October 30			NUMBER OF INDIVIDUALS: 1100		

Notes: For the second year in a row, numbers were well below average in the first half of August, reflecting an early dispersal of the MBO breeding population. Observations from week 3 to week 8 were more typical, including the increase usually observed just after mid-September. However, for four weeks beginning in week 9, numbers were far above average, with this year's peak in week 11 more than double the previous high for that period. The sustained abundance through end of October resulted in a record high total rate of observation for the season. As usual, relatively few flew low enough to get caught and banded, all of them in the final three weeks, with the peak in week 12, consistent with the five-year average.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY							2.00	2.00	4.14	4.00	2.43	2.43	1.57	**1.43**
# DAYS OBSERVED							3	4	2	5	6	5	4	**29**
# PROCESSED												1		**1**
	FIRST OBSERVED: September 15				LAST OBSERVED: October 30				PEAK DATE: October 2			NUMBER OF INDIVIDUALS: 28		

Notes: Present weekly beginning in mid-September, and with a slight peak in weeks 9 and 10, consistent with the five-year average for Rusty Blackbird. Overall numbers were well below average this year, but the individual banded in week 12 was the first ever for MBO in fall, and only the 7th overall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY	13.14	8.00	24.00	20.43	184.43	8.86	32.14	4.43	25.29	7.71	33.00	31.57	3.71	**30.52**
# DAYS OBSERVED	6	5	3	6	6	5	5	4	4	2	5	6	4	**61**
# PROCESSED		1			6				10		1	1		**19**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: August 29			NUMBER OF INDIVIDUALS: 593		

Notes: Seen weekly throughout the season, but with abundance varying considerably and irregularly over the course of fall. Peak numbers occurred in week 5, like in 2006, but then dropped off to a remarkably low level the following week. In general, September numbers were far below normal, and while there was a slight increase in mid-October as part of the large Red-winged Blackbird flocks, numbers then were also smaller than usual.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	**TOTAL**
MEAN # BIRDS / DAY					0.14				5.29	0.29		0.57		**0.48**
# DAYS OBSERVED					1				3	1		2		**7**
# PROCESSED														
	FIRST OBSERVED: August 30				LAST OBSERVED: October 20				PEAK DATE: September 26			NUMBER OF INDIVIDUALS: 24		

Notes: Typically irregular for fall, scarce except for a couple of larger flocks in late September.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	2.86	4.00	5.71	1.86	4.00	1.14								**1.51**
# DAYS OBSERVED	6	6	6	4	6	4								**32**
# PROCESSED	7-2-2	3	1	2	2									**15-2-2**
	FIRST OBSERVED: August 1				LAST OBSERVED: September 11				PEAK DATE: August 21		NUMBER OF INDIVIDUALS: 15			

Notes: Present throughout August and into early September. However, for a second year in a row, numbers in the first half of August were below average, increasing to a modest peak in week 3. For the third time in the past four years, the number banded was low, in this case less than half of the five-year average of 34 for fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY				0.14	0.14	0.14	0.14		0.57	0.57	0.29		0.43	**0.19**
# DAYS OBSERVED				1	1	1	1		2	3	2		1	**12**
# PROCESSED									3				1	**4**
	FIRST OBSERVED: August 24				LAST OBSERVED: October 30				PEAK DATE: October 2,30		NUMBER OF INDIVIDUALS: 3			

Notes: Observed in small numbers from late August to the end of October, with only a slight peak in late September and early October; numbers overall slightly below five-year averages for fall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	0.14	0.57		0.14	0.86	0.29	0.29		0.14	0.43	0.14	2.57	14.29	**1.53**
# DAYS OBSERVED	1	3		1	3	1	2		1	3	1	5	6	**27**
# PROCESSED	1										1	3	2	**7**
	FIRST OBSERVED: August 6				LAST OBSERVED: October 30				PEAK DATE: October 30		NUMBER OF INDIVIDUALS: 37			

Notes: Observed on unusually many occasions throughout the season, and exceptionally abundant in the second half of October, especially week 13. The total rate of observation was more than double the previous best year (2005), and more individuals were banded this fall than in the previous five fall seasons combined (4).

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY												0.43		**0.03**
# DAYS OBSERVED												1		**1**
# PROCESSED														
	FIRST OBSERVED: October 22				LAST OBSERVED: October 22				PEAK DATE: October 22		NUMBER OF INDIVIDUALS: 3			

Notes: A flock of three individuals on October 22 was the earliest fall record for MBO, and only the third fall sighting overall.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY												1.57	2.57	**0.32**
# DAYS OBSERVED												1	3	**4**
# PROCESSED														
	FIRST OBSERVED: October 22				LAST OBSERVED: October 30				PEAK DATE: October 30		NUMBER OF INDIVIDUALS: 16			

Notes: Flocks were observed on four occasions over the final 9 days of the season.

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

	AUGUST				SEPTEMBER					OCTOBER				
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	TOTAL
MEAN # BIRDS / DAY	8.86	12.43	12.57	14.14	28.57	12.00	18.57	13.71	12.29	11.43	2.71	3.57	14.71	**12.74**
# DAYS OBSERVED	7	7	7	7	7	7	7	7	7	7	6	5	6	**87**
# PROCESSED	0-0-1	1-1-0	2-1-0	1	4	2	17	13	14	5	4		22	**85-2-1**
	FIRST OBSERVED: August 1				LAST OBSERVED: October 30				PEAK DATE: September 1		NUMBER OF INDIVIDUALS: 52			

Notes: Seen weekly throughout fall, and generally common, except for a noticeable dip in numbers during weeks 11 and 12, mirroring results from 2009. The peak for observations this fall was week 5, earlier than usual, but the number banded peaked in week 13, surprising considering that a total of only 7 had been banded during week 13 over the five previous years. Overall observations were just below average, while the number banded was just 9 short of the record set in 2007.

Appendix B. Net allocation for FMMP 2010

Net location	Manufacturer	Length / mesh	Dates
A1	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
A2	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
B2	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
N1	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
N3	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
B3	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
C1	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
C2	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
D1	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
D2	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
D3	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
D4	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
E1	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
E2	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
H1	Spidertech	12 m / 30 mm	Aug 1 – Oct 30
H2	Spidertech	12 m / 30 mm	Aug 1 – Oct 30