

# **2015 Annual Report**

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# **2015 Executive Summary**

The Lesser Slave Lake Bird Observatory (LSLBO) conducted its 22<sup>nd</sup> year of bird population monitoring in the Lesser Slave Lake Provincial Park, Alberta, in 2015. The LSLBO is dedicated to bird conservation through research and education by implementing its core long-term monitoring programs and collaborations with the Canadian Migration Monitoring Network/ Réseau Canadien de Surveillance des Migrations (CMMN-RCSM), Alberta Parks, Institute for Bird Populations, and other institutions and organizations. This report summarizes the 2015 results of the LSLBO's four core monitoring programs: spring migration monitoring, fall migration monitoring, Monitoring Avian Productivity and Survivorship (MAPS), and northern saw-whet owl fall monitoring.

Spring migration monitoring coverage lasted for 52 days from April 20 to June 10. Visual migration counts and a standardized census were conducted daily and mist-netting occurred on 50 of the days. Over 78,000 birds representing 146 species were recorded through the season, including the LSLBO's first sighting of stilt sandpipers, which became the 253 species to be recorded at the station during monitoring activities. It was a below average banding season with a total of 643 birds representing 48 species banded.

Fall migration monitoring extended from July 12 to September 30 for 81 days of coverage. Visual migration counts and census were conducted each day the station was active and mist-nets were set on all but seven days. Over 64,000 birds representing 130 species were observed during the season. It was a busy banding season with 2955 birds representing 61 species banded; the third highest banding total on record.

Four MAPS stations were monitored from June 11 to August 2. A total of 395 birds from 31 species were banded; the second highest MAPS banding total on record. No new species were recorded during MAPS banding, but several species were banded in record numbers. The breeding statuses of 66 species were determined during MAPS banding.

Northern saw-whet owl fall migration monitoring was conducted on 40 nights from September 1 to October 22. A total of 139 northern saw-whet owls were banded, above the average banding total for the LSLBO. Two foreign recapture saw-whet owls were captured; one originally banding in 2012 near Prince Albert, Saskatchewan, the other was originally banded in 2014 near Tofield, Alberta. No other species of owls were captured.

There were 450 recapture records representing 285 individuals in 2015. All recapture records (except the two northern saw-whet owls reported above) were originally banded by the LSLBO. The oldest known aged bird captured was a Canada warbler originally banded as an ASY bird in 2009, making it at least 8 years old.

# **Migration Monitoring**

Migration monitoring is a method of monitoring bird populations from a fixed point. Observers combine data from standardized observations and constant effort mist-netting to estimate the number of migrants passing through the study area each day during the migration period. These daily estimated totals are used to create annual population indices, which are compared to previous years to derive long-term population trends. The Lesser Slave Lake Bird Observatory (LSLBO) has been conducting standardized spring and fall migration monitoring since 1994; 2015 marks the 22<sup>nd</sup> year of monitoring activities. The LSLBO became a full member of the Canadian Migration Monitoring Network/ Réseau Canadien de Surveillance des Migrations (CMMN-RCSM) in 1999. The CMMN oversees migration monitoring across Canada and provides support and resources to the over 25 member stations, including the population trend analysis.

Migration monitoring at the LSLBO follows the standardized protocols described in the 2013 Revised Lesser Slave Lake Bird Observatory Station Manual. These protocols ensure that comparable data is collected each year to create accurate population trends. The LSLBO employs the same monitoring techniques during both spring and fall migration. Although passerines and near-passerines are the primary focus of the LSLBO, all encountered birds of all species are recorded. Monitoring is conducted for a maximum of seven hours each day, beginning one half-hour before sunrise. A half-hour census is conducted once each day to document bird activity within the entire study site. A five minute visual migration count is conducted once every hour which focuses only on actively migrating birds. All other birds observed during the monitoring period outside the described counts are recorded as incidental observations. The LSLBO operates 12 standard mist-nets and 2 non-standard aerial nets (established in 2010) for a maximum of 98 net hours each day for bird banding. Mist-netting does not occur if the temperature is below 2°C, during periods of precipitation, or if the wind strength is above 3 on the Beaufort Scale.

Each day an overall code is assigned based on the actual migration coverage effort achieved during the count period (Table 1). Coverage code takes into account the skill of the observers and the amount of counting and mist-netting effort. All the listed requirements must be met to obtain a code. Observers should strive for the highest code possible with the available staff and weather conditions. The LSLBO aims to achieve a daily migration coverage code of 4, however often achieves a 3 on poor weather days.

Code	Coverage	Field Hours	Census	#Vis-migs	%Mist-Netting	Requirements
0	None	0				No Activity
1	Casual	1	Yes	4	>10%	One of the three counts
2	Poor	2	Yes	4	>25%	Census, one of the other two counts
3	Fair	4	Yes	6	>50%	All, one class 1 or 2 observer
4	Good	6	Yes	7	>50%	All, at least one class 1 observer
5	Excellent	10	Yes	8	>90%	All, three class 1 observers

Table 1. Criteria for daily coverage codes.

# **Spring Migration Monitoring**

Spring migration is monitored for approximately 7 weeks from late April until early June. This time period covers the migration window of the majority of the species expected to be encountered at the LSLBO. Monitoring begins late April once daytime temperatures have risen above freezing to allow for banding. Early spring migrant species typically have begun passing through the area before monitoring begins, but the extent of the migration varies depending on the overall spring conditions. Species diversity quickly increases in early May and new species are detected constantly throughout the month. Periods of heavy migration can occur at any time. The pace of migration slows down in late May with only the remaining late migrant species moving through. Many of the observations through late May and June consist of local breeding individuals. Spring migration monitoring ends on June 10.

Spring migration monitoring began on April 20 in 2015 and was conducted daily until June 10 for 52 days of coverage (Table 2). Observers conducted the census and recorded incidental observations each day. The target of 8 daily visual migration counts was achieved on all but 6 days. Mist-netting received excellent coverage, however only 18 days received full net coverage. Poor weather conditions, including wind, precipitation, and below freezing temperatures, forced some to all mist-nets shut at some point on those days. Extremely poor weather prevented mist-netting entirely on only 2 days in the spring.

Coverage	2007	2008	2009	2010	2011	2012	2013	2014	2015
First Day	24-Apr	26-Apr	25-Apr	22-Apr	22-Apr	23-Apr	25-Apr	23-Apr	20-Apr
Last Day	10-Jun	10-Jun	10-Jun	10-Jun	15- May	10- Jun	10-Jun	10-Jun	10-Jun
Number of Days	48	45	46	50	24	49	47	49	52
Person Days	92	105	89	114	55	96	95	88	107
Average Daily Coverage Code	3.81	3.78	3.79	3.76	3.91	3.76	3.81	3.84	3.88
Banding									
Number of Days	47	43	42	44	23	45	41	43	50
Av. Daily Net Hrs	73.6	75.8	70.4	64.4	81.8*	80.68*	79.7*	73.4*	82.9*
Census									
Number of Days	48	45	46	50	24	48	47	49	52
Vis-Mig									
Number of Days	48	45	46	50	24	49	47	49	52
Av Daily Vis-Migs	7.9	7.8	7.7	7.6	7.8	7.5	7.6	7.6	7.8

Table 2. Summary of effort during spring migration monitoring at LSLBO, 2007-2015

\*includes net hours from two non-standard aerial nets.

# **Daily Totals**

A total of 78,020 birds representing 146 species were recorded during spring migration monitoring. Banding accounted for the lowest number of encounters and the lowest species diversity with 757 birds (new bandings and recaptures) representing 48 species. House wren, Nashville warbler, and swamp sparrow were only detected through mist-netting. The daily census recorded the second lowest number of birds, 6,913, but a high species diversity with 101 species. Lesser yellowlegs, gray catbird, and common redpoll were only detected during the census. Visual migration counts accounted for 12,770 birds from 43 species. Solitary sandpiper and bohemian waxwing and were only detected on the visual migration counts. Incidental observations accounted for the highest number of birds and species diversity with 60,602 birds from 138 species. Twenty-seven species were only encountered during incidental observations, including uncommon species: blackburnian warbler, common nighthawk, lark sparrow, and trumpeter swan. The LSLBO's first sighting of a stilt sandpiper during monitoring occurred on May 1 and represents the 253 species to be recorded during LSLBO monitoring activities.

Songbird migration was overall light through most of the spring. The busiest day of songbird migration occurred on the opening day of monitoring, April 20, which consisted of large numbers of both American robin and blackbirds. Only two other days saw over 1000 songbirds, April 23, which saw the American robin and blackbird migration continue and May 5 which contained tree swallow and blackbirds. May 5 was the final peak of migrants and the remainder of spring migration was light without any large passages observed. Typically heavy migrations occur after several days of rain hold up the migrants. This year, May was mostly hot, clear, and fairly calm without adverse weather conditions that would delay the migrants. Conditions were favourable for migration and we speculate that the migrants took advantage of perfect overnight conditions to migrate at night or to fly at high altitudes, outside of visual range, during the day.

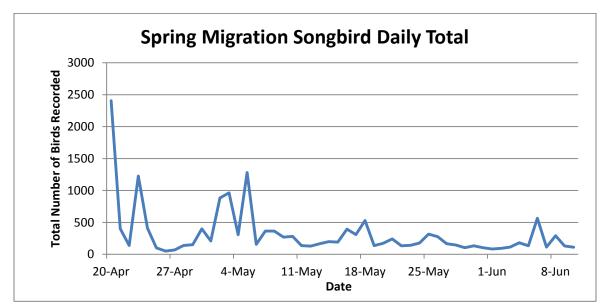


Figure 1. Total number of songbirds detected each day during spring migration, 2015.

# Mistnetting

Mist-nets were set for 4314.1 net hours; achieving 85% of the total possible net coverage following the LSLBO mist-netting protocols. The twelve standard mist-nets were set for 3755.2 net hours, achieving 86% of the possible net hours. The two aerial nets were set for 588.9 net hours or 81% of the possible net hours. A total of 653 birds were banded and an additional 106 recaptures were recorded. The spring banding total fell short of the average of 930 birds. Banding started fairly slow for the first few weeks of spring monitoring, but picked up through the second week of May (Figure 2). It remained steady through to the end of spring, with another small busy period the third week of May. The busiest banding day was May 18 with 49 birds banded, followed by May 17 with 48 birds.

A total of 48 species and forms were represented during spring banding, this is above the spring average of 44. The top five banded species were: Swainson's thrush (81), white-throated sparrow (68), black-and-white warbler (44), ovenbird (41), and clay-colored sparrow (33). These five species combined to account for 41% of all the birds banded in the spring. Highlights of the banding included: the first evening grosbeak since 1996 and only the second LSLBO banding record; the second banding record and first spring record of Townsend's solitaire; the first western wood-pewee banded since 2009; the first spring Connecticut warbler since 2002; and the second spring Nashville warbler record. Black-and-white warblers broke a new spring record, surpassing the previous high set in 2012. Spring banding totals for all species is listed in Appendix II.

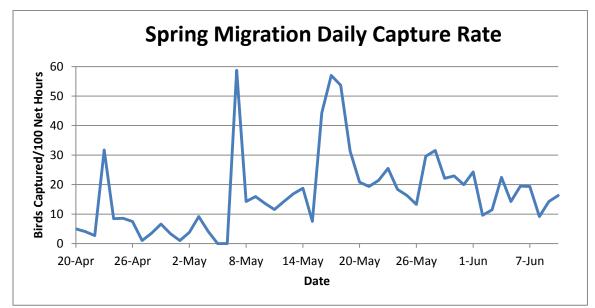


Figure 2. Daily capture rate during spring migration, 2015.

# **Net Productivity**

The LSLBO operates twelve standard net-lanes during migration monitoring which are numerically designated 1 through 12. The two aerial nets, designated 11x and 12x, were established in 2011 and are located adjacent to the corresponding standard net-lane number. The three nets located along the shoreline (6, 11, and 11x) are exposed to wind and typically have fewer net hours than the forest net-lanes.

The total capture rate was 17.7 birds per 100 net hours. Net-lane 6 had the highest capture rate with 53.8 birds per 100 net hours and also had the highest species count with 32. This net is typically the most productive at the LSLBO. Net 10 had the lowest capture rate with only 4.7 birds per 100 net hours and 9 species. The two aerial nets have performed very well since they were introduced and have a higher capture rate than their associated standard nets. The aerial nets accounted for 23% of the birds banded this spring. They captured the majority of the American redstarts, black-and-white warblers, and least flycatchers, and captured the only Nashville warbler and western wood-pewee of the spring.

Net-lane	Net hours	New	<b>Returns and</b>	Total	Capture Rate	Number of
Nethane	Net nours	Captures	Repeats	Captured	(birds/100 net hours)	Species
1	319.7	58	14	72	22.5	22
2	319.7	39	8	47	14.7	12
3	320.7	33	2	35	10.9	14
4	313.7	20	2	22	7.0	9
5	317.7	44	8	52	16.4	22
6	284.5	139	14	153	53.8	32
7	321.2	36	6	42	13.1	15
8	321.2	14	7	21	6.5	12
9	321.2	14	6	20	6.2	10
10	321.2	8	7	15	4.7	9
11	278.2	46	7	53	19.1	22
12	316.2	52	9	61	19.3	21
Standard Net Total	3755.2	503	90	593	15.8	43
11x	259.2	88	4	92	35.5	23
12x	299.7	62	12	74	24.7	26
Aerial Net Total	588.9	150	16	166	29.7	35
Grand Total	4314.1	653	106	762	17.7	48

Table 3. Capture rates for each net-lane during spring migration, 2015.

# **Spring Migration Summary**

## April 20 to April 29

Spring migration monitoring began on April 20. Early spring migrants were taking advantage of the warm spring conditions and the opening day saw heavy migration as thousands of American robins moved overhead and were joined by American pipit, myrtle warbler, American tree sparrow, dark-eyed junco, blackbirds, and an uncommon sighting of a Townsend's solitaire. The ice on Lesser Slave Lake had already begun to break up and waterfowl species such as mallard, northern pintail, common goldeneye, and common merganser were taking advantage of the open water.

The weather through the rest of the week was moderately warm; overnight temperatures dropped below freezing only twice. Overall active migration was light for the rest of the week, but new species were detected daily including eastern phoebe, tree swallow, winter wren, ruby-crowned kinglet, hermit thrush, orange-crowned warbler, savannah sparrow, fox sparrow, and song sparrow. The weather conditions remained ideal for mist-netting and a total of 53 birds were banded. The open water quickly expanded with the warm temperatures and strong winds shifting the ice around the lake. Large flocks of waterfowl began to move through the area, including the first flocks of greater white-fronted geese.

## April 30 to May 6

The second week of spring migration began cool and calm, but ended with rain, wind, and snow. Overall songbird migration was light through the week, with the occasional push of migrants. The majority of migrants were Myrtle warbler, American robin, American pipit, red-winged blackbird, and the occasional tree swallow and orange-crowned warbler. Heavy migration of geese began late in the week. Over 20,000 greater white-fronted geese and 15,000 snow geese were counted on May 5 amid a huge snowstorm. New species sightings of the week included Say's phoebe, vesper sparrow, white-crowned sparrow, and white-throated sparrow. One of the highlights was the LSLBO's first sighting of stilt sandpipers as a small flock flew past the banding station. Mist-netting effort was reduced because of the weather, with two days missed because of the snow, resulting in only 15 birds banded.

## May 7 to May 13

The third week of spring migration began with increased migration of songbirds that were likely held up by the recent snow storms. But it was short lived and active migration remained relatively light for most of the week. Myrtle warbler, white-throated sparrow, and blackbirds remained the most frequent migrants. Much of the activity that was observed occurred over the lake with large flocks of surf scoter, white-winged scoter, and long-tailed duck flying back and forth over the water. A large number of new species were observed which included: yellowbellied sapsucker, least flycatcher, blue-headed vireo, Swainson's thrush, ovenbird, northern waterthrush, black-and-white warbler, Tennessee warbler, black-throated green warbler, chipping sparrow, clay-coloured sparrow, swamp sparrow, and western tanager. Mist-netting occurred every day of the week, though some days had reduced net hours due to cold morning or gusty wind conditions; 101 birds were banded.

## May 14 to May 20

Migration during the fourth week of spring began slowly, but activity picked up for a few days mid-week. Most notable were the numbers of Swainson's thrush, white-throated sparrow, chipping sparrow, and clay-colored sparrows that were moving through the area. The migration quieted down to almost nothing by the end of the week. A number of new species were observed, including: warbling vireo, Philadelphia vireo, rose-breasted grosbeak, common yellowthroat, American redstart, magnolia warbler, blackpoll warbler, Wilson's warbler, Canada warbler, and Baltimore oriole. A lark sparrow was also observed, which is an unusual species for the area. The weather conditions cooperated for mist-netting and busiest banding days of the spring occurred during the week. A total of 192 birds were banded, including an evening grosbeak, one of the highlight species of the spring.

## May 21 to May 27

The fifth week of spring migration was sunny, calm, and very hot. Observed migration was very light through the entire week. However, unidentified migrants were observed flying at altitudes too high to see with the naked eye. There were some instances with low flying migrants that included Tennessee warbler, American redstart, and clay-colored sparrow. A number of the late migrate species were observed, including: red-eyed vireo, alder flycatcher, cedar waxwing, Connecticut warbler, and mourning warbler. The weather was perfect for mist-netting and a total of 119 birds were banded.

## May 28 to June 3

The second last week of spring migration brought more unsettled weather, it was cooler, windier and periods of rain occurred throughout the week. Overall bird activity was very light through the entire week. Most of the observations were local breeders with only a few actively migrating birds. Most of the migrants were flycatchers, American redstart, and Canada warblers. The first yellow-bellied flycatcher, western wood-pewee and blackburnian warbler were observed. Mistnetting coverage was good, despite the weather, and 99 birds were banded.

## June 4 to June 10

The final week of spring migration monitoring was mostly sunny and warm with winds picking up strength late in the morning. These winds were often strong enough to force the exposed nets to close early. Bird activity was expectedly light for this late in the season. Cedar waxwings were the most prominent species around often seen in flocks of 20 to 50 individuals. The final day of spring migration was on June 10. It was a quiet day, but with a couple surprises. A grey catbird was observed near the banding station and the first ruby-throated hummingbird of the year was finally seen. Despite the slow activity, banding was quite busy with 74 birds banded.

# **Fall Migration Monitoring**

Fall migration monitoring is conducted for approximately 12 weeks from mid-July to late September. This time frame covers the migratory window of the majority of songbird species expected at the LSLBO. Late fall species may have incomplete coverage if conditions extend their migratory window into October. Migration is often light during the first week of monitoring with most of the activity consisting of local breeders. Activity picks up quickly after the first week with periods of heavy migration and busy banding from late July until early August. Migration activity throughout August and until mid-September occurs in pulses. These pulses of heavy migration are often followed by several very slow days. Activity dwindles in the last half of September with most of the activity consisting of a small number of late migratory and winter resident species.

Fall migration monitoring was conducted from July 12 until September 30 for 81 days of coverage in 2015. The census and visual migration counts were conducted daily. Observers conducted 8 visual migration counts on 63 days. The remaining days received reduced counts due to poor weather conditions. Poor weather conditions prevented mist-netting on 7 days and forced reduced net hours on 49 days. Generally the wind picked up strength mid-morning, forcing mist-nets in exposed locations to be closed early. A stretch of poor weather reduced banding in late July and then again through late September. Overall, fall migration received excellent migration coverage consistent with previous years (Table 4).

Coverage	2007	2008	2009	2010	2011	2012	2013	2014	2015
First Day	12-Jul	12-Jul	12-Jul	12-Jul	12- Jul	12-Jul	12-Jul	12-Jul	12-Jul
Last Day	30-Sep	2-Oct	28-Sep	30-Sep	30-Sep	29-Sep	29-Sep	30-Sep	30-Sep
Number of Days	73	76	77	80	81	80	80	79	81
Person-days	114	131	165	158	140	126	131	120	151
Average Daily Coverage Code	3.33	3.48	3.73	3.7	3.67	3.78	3.84	3.74	3.77
Banding									
Number of Days	68	74	75	77	75	77	76	76	74
Av. Daily Net Hrs.	71.9	75.7	78.9	81.5*	77.9*	82.1*	82.7*	80.2*	75.4*
Census									
Number of Days	73	75	77	80	81	80	80	79	81
Vis-Migs									
Number of Days	73	76	77	80	81	80	80	79	81
Av Daily Vis- migs	7.7	7.5	7.6	7.5	7.3	7.6	7.6	7.5	7.5

Table 4. Summary of effort during fall migration monitoring at LSLBO, 2007-2015.

\*includes net hours from two non-standard aerial nets.

# **Daily Totals**

A total of 64,587 birds from 130 species were recorded during fall migration monitoring through the four monitoring methods. Mist-netting accounted for the lowest number and diversity of birds, with 3159 birds from 61 species. However, it was the only method that accounted for house wren, gray-cheeked thrush, Townsend's solitaire, Nashville warbler, Connecticut warbler, and fox sparrow. Visual migration counts accounted for 7,056 birds from 49 species. Olive-sided flycatcher was only detected on visual migration counts. Census accounted for 13,421 birds from 99 species. Chestnut-sided warbler was only detected on the census. Incidental observations recorded the highest number of birds and species with 43,991 birds from 121 species. 12 species were only encountered incidentally and included cliff swallow, Cooper's hawk, gray jay, and tundra swan.

Migration of songbirds came in pulses throughout the fall season and some migrant species were observed nearly every day (Figure 3). Migration began slowly with the first sign of heavy migration beginning in the third week of July consisting of a large number of warbler species; the most species in the highest numbers were myrtle warbler, Tennessee warbler, and yellow warbler. Late July was relatively quiet because of a long stretch of really poor weather. Migration was heavy through the first half of August, which included the busiest day of songbird migration, August 10. There was a very high diversity of species moving through at this time, but Myrtle warbler and Tennessee warbler remained the top encountered species. The pace of migration slowed slightly through the second half of fall, but busy periods occurred during late August and mid-September. Overall diversity diminished during the second half of fall as the last individuals of many species left the area. However, myrtle warbler migration remained strong and they were the top species observed during the second half of fall.

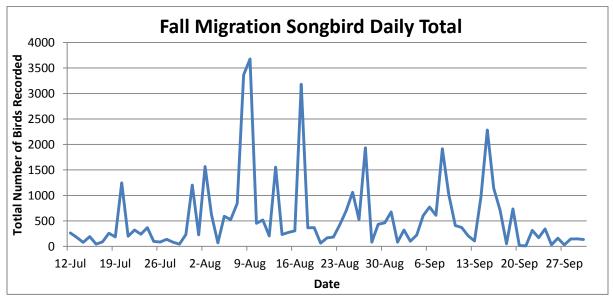


Figure 3. Total number of songbirds detected each day during fall migration, 2015.

# **Mist-netting**

Mist-nets were set for a total of 6110.5 net hours, achieving 77% of the total possible net coverage for the season. The twelve standard net-lanes were set for 5355.8 net hours and the two aerial nets were set for 754.7 net hours; achieving 79% and 67% of the total possible net hours, respectively. A total of 2955 birds were banded and 204 recaptures were recorded. The banding total was well above the fall average of 1815 and represents the third highest fall banding total on record (Figure 4). Banding reached several peaks throughout the fall: early August, late August and mid-September. The busiest banding day of the fall was August 6 with 203 birds banded, followed by August 8 and September 14 with 196 banded, and September 15 with 156 banded.

A total of 61 species were banded during the fall, above the fall average of 55 species. The top five banded species were: Myrtle warbler (1087), ovenbird (289), Swainson's thrush (262), Tennessee warbler (240), and white-throated sparrow (96). These five species accounted for 66% of all birds banded in the fall. Highlights included a Townsend's solitaire and Nashville warbler. Four pileated woodpeckers were banded, which doubled the previous total banded at the station. Myrtle warblers recorded their second highest fall banding total. Northern flicker, hairy woodpecker, eastern phoebe, red-eyed vireo, American robin, Swainson's thrush, mourning warbler, Lincoln's sparrow, white-throated sparrow, western tanager, and purple finch received record high fall banding totals. A complete list of all fall banding totals and species is listed in Appendix II.

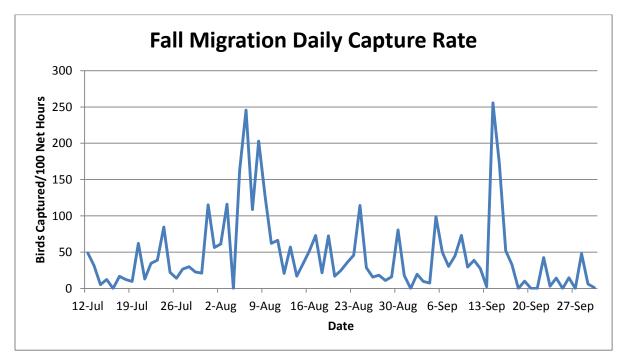


Figure 4. Daily capture rate during fall migration, 2015.

# **Net Productivity**

The net-lanes used for fall migration are the same for spring migration with twelve standard nets designated 1 through 12 and two aerial nets designated 11x and 12x. The aerial nets were first used in fall migration in 2010. The three net-lanes located adjacent to the shore-line (nets 6, 11, and 11x) are more exposed to wind and typically have fewer net hours than the other, more sheltered, nets.

In 2015 the total capture rate was 51.7 birds per 100 net hours (Table 5). Net 6 had the highest capture rate of the individual nets with 253.6 birds per 100 net hours and the highest number of species captured with 47. Net 9 had the lowest capture rate at 7.9 birds per 100 net hours. Net 2 and 7 had the lowest species diversity with 12 species. The two aerial nets accounted for 24% of the birds banded in the fall. Net 11x had the second highest capture rate and second highest species diversity of all the nets operated.

Net-lane	Net hours	New	<b>Returns and</b>	Total	Capture Rate	Number of
Net-lane	Net nours	Captures	Repeats	Captured	(birds/100 net hours)	Species
1	459.7	211	19	203	50.0	28
2	459.7	186	11	197	42.9	12
3	467.2	109	13	122	26.1	15
4	463.7	53	12	65	14.0	22
5	469.6	175	26	201	42.8	37
6	361.9	902	15	917	253.6	47
7	468.6	47	7	54	11.5	12
8	468.6	68	6	74	15.8	19
9	469.9	32	5	37	7.9	13
10	469.9	33	13	46	9.8	16
11	326.6	234	12	246	75.3	37
12	470.5	183	21	204	43.3	29
Standard Net Total	5355.8	2233	160	2393	44.7	57
11x	321.7	438	11	449	139.6	42
12x	432.9	284	33	317	73.2	32
Aerial Net Total	754.7	722	44	766	101.5	46
Grand Total	6110.5	2955	204	3159	51.7	61

Table 5. Capture rates for each net-lane during fall migration, 2015.

# **Fall Migration Summary**

## July 12 to July 18

The first week of fall migration was met with poor weather. Conditions were windy with periods of rain mid-week. Smoke from forest fires was so heavy at times that it was difficult to observe passing migrants. It was clear that fall migration had begun on the first day of monitoring when a few warblers, mostly myrtle warblers, were observed passing through. Later in the week, the migration remained light, but began picking up and included more species including yellow warbler, Tennessee warbler, and chipping sparrow. Mist-netting coverage was moderate because of the weather and a total of 80 birds were banded.

## July 19 to July 25

The second week of fall migration was sunny and warm, but every second day was extremely windy. There wasn't much activity on the windy days, but the birds took advantage of the calm days and good overhead migration was observed, as well as foraging flocks moving through the forest. Myrtle warbler, Tennessee warbler, and American redstart were the most commonly observed species, but there were many other species as well, including ovenbird, northern waterthrush, black-and-white warbler, black-throated green warbler, western tanager, and rose-breasted grosbeak. The pace of banding increased along with overall bird activity in the area and 214 birds were banded.

## July 26 to August 1

Extremely windy conditions made up the weather for most of the third week of fall migration. The only species that were active in the wind were Franklin gulls; large flocks were observed riding the wind nearly every day. Occasionally some foraging birds, such as myrtle warbler and yellow warbler, were observed moving through the forest, but the extent of this movement was unknown because detections were difficult in the wind. The wind died for one day late in the week and there was spectacular migration. Lots of birds were moving with great diversity and bird banding was fantastic. A total of 210 birds were banded through the week, with over half caught on July 30.

## August 2 to August 8

The windy conditions finally ended and it became an extremely busy week of migration and bird banding. Migration was heavy for most of the week with a large diversity of birds seen nearly every day. Myrtle warbler and Tennessee warbler were the most abundant migrant species observed. Over 1500 myrtle warblers were counted on August 8. There were also good numbers of red-eyed vireo, swallows, ovenbird, black-and-white warbler, American redstart, yellow warbler, white-throated sparrow, western tanager, and rose-breasted grosbeak. Banding included two of the busiest days of the fall; 203 birds on August 6 and 196 birds on August 8. A total of 684 birds were banded through the week. Bird diversity was very high through mist-netting ranging from 15 to 29 species banded daily.

#### August 9 to August 15

The weather through this week of fall migration remained sunny and warm with the occasional bit of wind. The pace of migration slowed somewhat from the previous week, but it was still steady with the occasional period of heavy passage. Overall diversity had also decreased from the previous week. Myrtle warblers remained the most abundant migrant, but a good number of Tennessee warblers were still observed. Sharp-shinned hawks began to consistently pass through the area. Weather conditions allowed for excellent mist-netting coverage. Banding was busy and steady through the week with a total of 348 birds banded.

## August 16 to August 22

The winds returned through the sixth week of fall monitoring. Most days of the week experienced high winds or gusty conditions which halted overhead migration and reduced the ability to detect birds. Migrants did, however, take advantage of the calm periods. The heaviest passages of myrtle warblers of the fall occurred early on August 17 with over 2200 counted. They were joined by Tennessee warblers and a host of other warblers flying too high to positively identify. The number of Swainson's thrush moving through the area noticeably began to increase throughout the week. The last tree swallow, bank swallow, Cape May warbler, Canada warbler, and swamp sparrow of the year were recorded. The wind conditions reduced the mist-netting effort for most of the week; still a total of 213 birds were banded thanks to a few foraging flocks that were captured and the steady movement of Swainson's thrush. Also, two pileated woodpeckers were banded during the week, which added some more excitement to the bird banding.

## August 23 to August 29

The wind died down and conditions remained sunny and warm for most of the week. Migration activity was steady through most of the week. Myrtle warblers were the most abundant migrant passing through with only a few individuals from other species observed. Swainson's thrush, however, had a strong presence in the mist-nets. Large flocks of cedar waxwings, that had yet to begin migrating, were often observed circling around overhead. August 27 saw heavy passage of migrants, including over 1500 myrtle warblers, and good representation from a wide diversity of species. The last observations of yellow-bellied sapsucker, Philadelphia vireo, warbling vireo, and song sparrow were recorded. The calm weather allowed for excellent mist-netting coverage and a total of 227 birds banded.

## August 30 to September 5

The weather throughout the week had a little bit of everything to offer: from sunny and calm, to overcast and windy, and to wet and rainy. There was consistent migration through the week, but mostly by myrtle warblers. There were some other species moving through as dark-eyed juncos, orange-crowned warblers, American pipit, Lapland longspur, and white-crowned sparrow began to steadily migrate through the area. Over the lake the first fall flocks of greater white-fronted

geese were seen and the occasional flock of sandhill cranes also moved through. The final observations of eastern kingbird, blue-headed vireo, red-eyed vireo, northern waterthrush, Tennessee warbler, magnolia warbler, yellow warbler, chipping sparrow, clay-colored sparrow, western tanager, and rose-breasted grosbeak were made. Mist-netting occurred when the weather allowed, with one day missed because of rain, and a total of 198 birds were banded.

## September 6 to September 12

The weather through the week was mostly warm, sunny and calm. The strong myrtle warbler migration continued through the week with steady passage, at times becoming quite heavy. Occasional Swainson's thrush, orange-crowned warblers, American pipit, and white-crowned sparrow were seen moving through the area. Over the lake, flocks of greater white-fronted geese and Franklin gulls were observed. Banding was steady throughout the week with 258 birds banded, over half of which were myrtle warblers. The final alder flycatcher, least flycatcher, eastern phoebe, barn swallow, ovenbird, mourning warbler, and bay-breasted warbler of the year were observed.

## September 13 to September 19

The weather through the week was mostly warm and calm, with only some rain and days with heavy wind. Myrtle warbler migration remained strong through the week. Orange-crowned warbler, palm warbler, and American pipit were also migrating through, but in smaller numbers. The volume of myrtle warblers moving through resulted in some very busy banding days. A total of 439 birds were banded, mostly myrtle warblers. Two of the busiest banding days of the fall occurred during the week, September 14 with 196 birds banded and September 15 with 156 birds banded. Common goldeneye and bufflehead began to group on the lake and small flocks of greater white-fronted geese were joined by snow geese. Fox sparrows were observed in the area and the only fall sighting of a Townsend's solitaire was made. The week saw the last sightings of Swainson's thrush, black-and-white warbler, common yellowthroat, blackpoll warbler, Wilson's warbler, and Lincoln's sparrow.

#### September 20 to September 30

Most of the final portion of fall migration monitoring was very windy and bird activity was very light. Myrtle warblers were still the most observed species, but orange-crowned warbler, palm warbler, white-crowned sparrow, and dark-eyed juncos were also observed. The weather finally improved over the last three days of fall monitoring. But being so late in the season, hardly any birds were observed migrating overhead. The first American tree sparrows were seen and an extremely late American redstart was also observed. Over the lake snow geese and surprisingly early tundra swans were observed. Banding was slow, mostly due to the weather and the late time of season with 84 birds banded. The general slow bird activity and the gradually cooler weather meant that fall migration was coming to an end and the banding station shut down for the winter on September 30.

# Monitoring Avian Productivity and Survivorship (MAPS)

Monitoring Avian Productivity and Survivorship (MAPS) is a continent wide program coordinated by the Institute for Bird Populations which uses demographic parameters of landbirds monitored on the breeding grounds to help determine the causes of population declines. The LSLBO has contributed to the MAPS program since 1994 and it remains one of the core monitoring projects. 2015 marked the 22 year that the LSLBO has participated in MAPS.

The LSLBO operates four MAPS stations coded FAWA, FEGU, ROAD, and RESI. Three stations (FAWA, FEGU, and ROAD) are located in the forest bordering the migration monitoring station, while RESI is located near the Boreal Centre for Bird Conservation. FAWA and ROAD have operated for all 22 years. FEGU operated from 1994 to 2000, then was reopened in 2003 and has since operated for 12 consecutive years. RESI was established in 2000 and has completed its 15<sup>th</sup> consecutive year of operation. Each station is visited once every 10 day period. Each visit consists of constant-effort mist-netting and visual observations to determine species' breeding status. All activities follow the protocols outlined in the MAPS Manual. The LSLBO operates through 6 periods; the dates that each station operated in 2015 were:

	FAWA	FEGU	ROAD	RESI
Period 5 (Jun 10 – 19)	June 12	June 14	June 15	June 11
Period 6 (Jun 20 – 29)	June 21	June 22	June 23	June 24
Period 7 (Jun 30 – Jul 9)	July 1	July 2	July 3	June 30
Period 8 (Jul 10 - Jul 19)	July 11	July 12	July 13	July 10
Period 9 (Jul 20 – 29)	July 20	July 21	July 22	July 23
Period 10 (Jul 30 – Aug 8)	July 31	August 1	August 2	July 30

Each MAPS station operates 10 mist-nets for 6 hours each visit for a maximum of 360 net-hours for the season. The MAPS stations received excellent mist-net coverage in 2015: FEGU, ROAD, and RESI received the maximum net coverage and FAWA received 345 net-hours due to rain during period 7.

A total of 531 birds were captured; 395 banded and 136 recaptures, representing 31 species (Table 6). This represents the second highest MAPS banding total on record. Yellow-bellied sapsucker, black-capped chickadee, American robin, black-and-white warbler, mourning warbler, Lincoln's sparrow, swamp sparrow, and white-throated sparrow were all banded in record numbers. RESI had the highest capture total, recording 153 birds from 22 species. FEGU recorded 149 birds captured from 17 species. FAWA recorded 124 birds captured from 18 species, including the stations first banding records of bay-breasted warbler and swamp sparrow. ROAD had the lowest with 105 birds captured from 17 species.

Species	FA	WA	RC	DAD	FF	EGU	R	ESI	Total
Species	Band	Recap	Band	Recap	Band	Recap	Band	Recap	Totai
Alder Flycatcher					2				2
American Redstart	1				12	10	6	4	33
American Robin	1		2		4		1		8
Black-and-white Warbler	2		1		4		3	2	12
Bay-breasted Warbler	1						1		2
Black-capped Chickadee					7	1	7		15
Canada Warbler	3		6		12	9	1		31
Cedar Waxwing	2								2
Chipping Sparrow			2				3		5
Common Yellowthroat							2	3	5
Hairy Woodpecker							2		2
Hermit Thrush			1				5	1	7
Least Flycatcher	1								1
Lincoln's Sparrow	11		3	2	7	1	15	1	40
Magnolia Warbler			1	4			1		6
Mourning Warbler	16	5	3	3	3	5	7	4	46
Myrtle Warbler	9	2		6	4	4	5	2	32
Northern Waterthrush				1					1
Ovenbird	6	3	11	17	6	5	17	1	66
Rose-breasted Grosbeak			1						1
Red-eyed Vireo			1	1		1			3
Song Sparrow			1			1			2
Sharp-shinned Hawk							1		1
Swamp Sparrow	4						7		11
Swainson's Thrush	1		8	2	9	1	5		26
Tennessee Warbler	10		6		5		6		27
Western Tanager	1		-						1
Winter Wren					1		1	1	3
White-throated Sparrow	27	10	13	9	25	7	29	5	125
Yellow-bellied	4								8
Sapsucker	4						4		ð
Yellow Warbler	4				1	2			7
Total	104	20	60	45	102	47	129	24	531

Table 6. Number of birds banded and recaptured at the four MAPS stations in 2015.

# **Breeding Status**

Breeding status was determined for the 66 species encountered during MAPS station visits in 2015 (Table 7). The breeder status (B) was given to species with strong evidence supporting an active nest within the boundaries of the MAPS station. Likely breeders (L) were species observed at a station, but lacked strong evidence of breeding within the boundaries of the MAPS station. Transient species (T) were observed at a station, but it is unlikely that they breed within the stations boundaries. Observations were restricted to MAPS banding site visits only.

Species	RESI	ROAD	FEGU	FAWA		RESI	ROAD	FEGU	FAWA
American Wigeon	Т				Ruby-crowned Kinglet	L			
Mallard	L			Т	Swainson's Thrush	В	В	В	Т
Common Goldeneye	Т		Т		Hermit Thrush	В	Т		
Ruffed Grouse		Т	L	В	American Robin	В	В	В	L
Common Loon	Т				Cedar Waxwing	Т	Т	Т	Т
Bald Eagle		Т	Т	Т	Ovenbird	В	В	В	В
Sharp-shinned Hawk	Т				Northern Waterthrush		Т	L	
Solitary Sandpiper	Т				Black-and-white Warb	В	В	В	В
Franklin's Gull		Т		Т	Tennessee Warbler	В	В	В	В
Common Nighthawk	Т				Mourning Warbler	В	В	В	В
Yellow-bellied Sapsucker	В		Т	В	Common Yellowthroat	В		В	
Downy Woodpecker		Т	Т	Т	American Redstart	В	В	В	В
Hairy Woodpecker	Т	Т	L	В	Magnolia Warbler	В	В	Т	
Northern Flicker	Т	Т		Т	Bay-breasted Warbler	В			Т
Pileated Woodpecker	Т		Т	Т	Yellow Warbler	L	В	В	В
Western Wood-pewee	Т			L	Blackpoll Warbler				Т
Alder Flycatcher		L	В	В	Yellow-rump'd Warb.	В	В	В	В
Least Flycatcher	В	Т	L	Т	Canada Warbler	В	В	В	В
Eastern Phoebe		В	Т	Т	Chipping Sparrow	В	L	L	
Blue-headed Vireo	В	L	L	Т	Clay-colored Sparrow			Т	L
Warbling Vireo	В			L	Song Sparrow	Т		Т	Т
Philadelphia Vireo	В		Т		Lincoln's Sparrow	В	Т	L	Т
Red-eyed Vireo	В	В	В	В	Swamp Sparrow	Т	Т		Т
Blue Jay		Т			White-thrt'd Sparrow	В	В	В	В
American Crow	Т	Т	Т	Т	Western Tanager	В	Т	L	Т
Common Raven	В				Rose-breast'd Grosbeak	В	Т	L	Т
Tree Swallow		Т			Red-winged Blackbird				Т
Black-capped Chickadee	В	В	В	Т	Common Grackle			Т	Т
Boreal Chickadee	L				Purple Finch	Т	Т	Т	Т
Red-breasted Nuthatch	В	Т	L	Т	White-winged Crossbill	Т	Т	Т	Т
White-breasted Nuthatch				Т	Pine Siskin	Т	Т	Т	Т
Brown Creeper			Т		American Goldfinch		Т		Т
Winter Wren	В	В	В	Т	Evening Grosbeak	Т	Т	Т	Т
					C				FAWA
					Total sp. Breeder (B)	28	16	16	14
					Total sp. Likely (L)	4	3	10	4
					Total sp Transient (T)	18	23	18	30
					Total sp.	50	42	44	48
					i otai sp.	20			.0

Table 7. Breeding status of MAPS birds in 2015.

## Northern Saw-whet Owl Monitoring

Northern saw-whet owl fall migration monitoring began in 2004 and was conducted for the 12<sup>th</sup> consecutive year at the LSLBO in 2015. The objective of this ongoing project is to monitor the population of the northern saw-whet owl through mist-netting. The LSLBO conducts northern saw-whet owl banding in the fall from early September until late October. Four nets are set up one hour after sunset for four hours. A call playback is used to lure the northern saw-whet owls into the nets. A stereo broadcasts the call on a continuous cycle. Nets are not set if the temperatures become too cold or during rain or heavy wind. Maintenance construction forced the owl net array to be moved a short distance to a more forested area in 2013. 2015 was the third year that the new location was used.

Northern Saw-whet owl monitoring occurred on 40 nights from September 1 to October 22. The four mist-nets were set for a total of 620 net hours. The nets were closed entirely on 12 nights and poor weather reduced net effort on an additional 4 nights. A total of 143 northern saw-whet owls were captured: 139 banded, 2 recaptures, and 2 foreign recaptures. The capture rate was 22.4 owls per 100 net hours, which is above of the average of 17.3 saw-whets per 100 net hours (Figure 5).

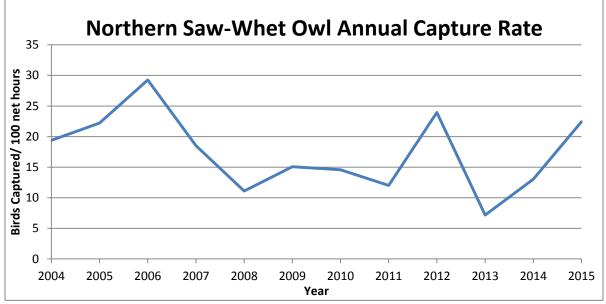


Figure 5. Annual capture rate of northern saw-whet owls. Net-lane locations were moved in 2013.

# **Recaptures**

The LSLBO recorded 450 recapture records during the 2015 banding season: 106 during spring migration monitoring, 204 during fall migration monitoring, and 136 during MAPS, and 4 during northern saw-whet owl monitoring. These recapture records represent 285 individuals: 219 were banded during 2015 banding activities and recaptured later in the season, 28 were banded in 2014, and 27 were banded before 2014 and represent the oldest known aged birds encountered during the banding season (Table 8). The oldest known-aged bird in 2015 was a Canada warbler originally banded as an ASY in 2009, making it at least 8 years old.

Succion	Band	Origina	al Banding		Recap	oture	Age
Species	Number	Date	Location	Age	Date	Location	(Years)
Black-capped Chickadee	2730-80983	Sept 9, 2013	Mig	HY	Apr 28	Mig	2
Black-and-white Warbler	2730-80514	July 19, 2013	Mig	HY	June 11	RESI	2
Hermit Thrush	2431-87745	June 25, 2013	RESI	SY	June 24	RESI	3
Mourning Warbler	2730-80621	July 4, 2013	RESI	SY	June 11	RESI	3
Yellow Warbler	2730-80612	July 2, 2013	FEGU	SY	June 14	FEGU	3
Canada Warbler	2730-80605	June 23, 2013	FEGU	SY	June 14	FEGU	3
White-throated Sparrow	2431-87740	June 23, 2013	FEGU	SY	May 29	Mig	3
White-throated Sparrow	2431-87967	May 16, 2013	Mig	SY	May 15	Mig	3
Ovenbird	2351-34398	July 17, 2013	Mig	AHY	June 21	FAWA	3+
Mourning Warbler	2730-80810	Aug 14, 2013	Mig	AHY	May 30	Mig	3+
Canada Warbler	2730-80615	July 2, 2013	FEGU	AHY	July 2	FEGU	3+
Swainson's Thrush	2431-87580	June 8, 2012	Mig	SY	Jun 15	ROAD	4
Ovenbird	1741-02969	June 25, 2012	RESI	SY	June 30	RESI	4
American Redstart	2520-57920	July 24, 2011	Mig	HY	June 22	FEGU	4
Sharp-shinned Hawk	1543-06242	June 1, 2012	Mig	AHY	Apr 26	Mig	4+
Red-eyed Vireo	2311-97769	July 13, 2012	Mig	AHY	July 12	FEGU	4+
American Redstart	2520-57897	July 2, 2013	FEGU	ASY	June 22	FEGU	4+
Myrtle Warbler	2730-80601	June 18, 2013	RESI	ASY	July 10	RESI	4+
Canada Warbler	2590-66020	July 2, 2011	FEGU	SY	May 30	Mig	5
Myrtle Warbler	2590-66397	May 17, 2012	Mig	ASY	June 22	FEGU	5+
White-throated Sparrow	2431-87581	June 10, 2012	Mig	ASY	July 2	FEGU	5+
White-throated Sparrow	2291-01481	July 14, 2011	FEGU	AHY	June 14	FEGU	5+
Myrtle Warbler	2560-00478	June 6, 2010	Mig	SY	June 2	Mig	6
Canada Warbler	2500-78957	June 23, 2010	ROAD	SY	May 27	Mig	6
Ovenbird	1741-02809	May 26, 2009	Mig	SY	May 31	Mig	7
Canada Warbler	2500-78568	June 7, 2009	Mig	ASY	July 2	FEGU	8+

Table 8. Age of recaptured birds originally banded at the LSLBO before 2014.

# **Recoveries**

Five foreign recoveries occurred involving birds banded by the LSLBO and through the LBLSO's 2015 banding activities (Table 9). Three birds were originally banded by the LSLBO and recovered at another location. Two northern saw-whet owls were captured during owl banding that were originally banded at another location

Species	Band	Ori	ginal Banding		Recovery			
Species	Dallu	Date	Location	Age	Date	Location	Status	
Sharp-shinned	1543-	Aug 29, 2013	LSLBO	HY	Oct 4, 2014	Delano,	Found	
Hawk	06230					Minnesota, USA	Dead	
Dark-eyed	2730-	May 7, 2013	LSLBO	ASY	Feb 2, 2015	Hutchinson,	Found	
Junco	80278					Kansas, USA	Dead	
Red-eyed	2351-	Jun 4, 2013	LSLBO	AHY	Oct 13, 2015	Cundinamarca, La	Alive	
Vireo	34389					Guajira, Columbia		
Northern Saw-	1014-	Oct 6, 2012	Prince Albert,	HY	Sep 28, 2015	LSLBO	Alive	
whet Owl	64242		Saskatchewan					
Northern Saw-	1014-	Nov 1, 2014	Tofield, Alberta	HY	Sep 30, 2015	LSLBO	Alive	
whet Owl	91719							

Table 9. Foreign recaptures reported from fall 2014 to fall 2015.

# **Staff and Volunteers**

The LSLBO accumulated 336 person days between staff and volunteers throughout the monitoring projects in 2015 (Table 10). The LSLBO operated with three full time field staff; two licensed banders and one student field assistant. Richard Krikun, the bander-in-charge, has been working at the LSLBO since 2004 and Nicole Linfoot has been working at the LSLBO since 2008. Jacob Lachapelle, a first-year university student, was hired as an assistant bander for the season.

Volunteer activity was low in 2015. Six volunteers accumulated 27 volunteer days. Three volunteers came for extra training for their summer field work and to work towards becoming licensed banders. Two volunteers came out to observe and help with the bird banding. Javan Green was the field assistant at the LSLBO in 2010 and 2011 and managed to make it back to the LSLBO for a couple days to visit and help with songbird and owl banding.

The LSLBO staff also assisted in a research project conducted by Amélie Roberto-Charron from the University of Manitoba. The project is studying the migratory connectivity of Canada warblers through the use of geolocators. The LSLBO staff assisted the project by assisting recovering birds that had geolocators deployed in 2014 and deploying new geolocators through late May until mid-June.

	Spring	MAPS	Fall	NSWO	Total
LSLBO Staff					
Richard Krikun	38	13	52	7	110
Nicole Linfoot	35	11	47	34	127
Jacob Lachapelle	29	10	29		68
Sydney Haney			4		4
Total	102	34	132	41	309
Volunteers					
Ingrid Prouse	5				5
Jordan Lange			7		7
Myles Grieve			6		6
Meghan Jacklin			3		3
Emily Cicon			3		3
Javan Green	1			2	3
Total	6		19	2	27

Table 10. Number of staff and volunteer days spend on monitoring activities in 2015.

# **Visitors and Education**

Education remains an important aspect of the LSLBO's mandate. Various programs through the Boreal Centre for Bird Conservation (BCBC) provide visitors and students the opportunity to learn more about birds, conservation, and the importance of research and monitoring. The LSLBO also hosts drop in events throughout the summer to allow campers and visitors exploring the area a chance to see some bird banding up close and learn about bird research and conservation efforts. These programs and events allow all visitors a unique experience while maintaining bird safety and accurate data recording.

In 2015, the LSLBO received over 1000 visitors to the banding station (Table 11). Spring migration had the most visitors, which was largely due to school programming and the annual Songbird Festival. There were 9 school groups ranging from grades one through seven. The annual Songbird Festival was held on May 30. Most of the activities were held at the BCBC, but hiking and bus tours brought visitors to the banding lab to check out the bird banding. It was an excellent day and all visitors were able to see a bird being banded. A few lucky visitors were even able to observe the blackburnian warbler singing near the lab.

Fall migration had fewer organized tours, with the focus being on drop-in tours for the summer campers and families. The LSLBO hosted 9 of these tours throughout late July and August; there was usually between 20 and 30 people at each tour. The LSLBO also hosted a tour for Junior Forest Wardens and a biology 30 class from Slave Lake.

Northern saw-whet owl banding drew in people to a couple of events. The most successful was the family owl night held on October 17, which had approximately 60 visitors. A junior high class from Ardrossen also took the opportunity to watch the owl banding.

	Adults	Children	Total
Spring Migration	237	291	528
Fall Migration	280	175	455
Northern Saw-whet Owls	49	51	100
Total	566	517	1083

Table 11. Number of visitors to the banding station in 2015.

# Acknowledgements

The LSLBO would like to thank the following people and organizations whose hard work, dedication, and contributions made 2015 a very successful year.

**LSLBO Board of Directors:** Bob Deacon (Chair), Terry Kristoff (Vice-chair), Ronda Groom (Treasurer), Tyler Flockhart (Director of Field Research), Nelson Lutz (Director at Large), Neal Knoot (Director at Large), and Alan Bell (Director at Large).

Executive Director: Patti Campsall

LSLBO Banders: Richard Krikun, Nicole Linfoot, Jacob Lachapelle

**Boreal Centre Staff and Educators:** Susie VanderVaart, Laura Windsor, Maddie Faubert, and Sydney Haney

Alberta Parks Staff: Ceiridwen Robbins, Alex Beatty, and Jonathan Kobewka

University of Manitoba Canada Warbler Crew: Amélie Roberto-Charron, Kevin Methuen, and Judith Kennedy

**Banding Lab Volunteers:** Ingrid Prouse, Jordan Lange, Myles Grieve, Meghan Jacklin, Emily Cicon, and Javan Green.

**Our Good Friends:** Aaron Lehman, Wayne Bowles, Stephen Partington, Dave and Kathy Cullen.

Further information about migration monitoring and MAPS can be found at: Canadian Migration Monitoring Network- <u>www.bsc.org/cmmn.html</u> Nature Counts- <u>www.naturecounts.ca</u> Institute for Bird Populations- www.birdpop.org





CANADIAN MIGRATION MONITORING NETWORK





Environment Canada Environnement Canada



## Canada Summer Jobs Program

# Government of Alberta













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# **Appendix I. 2015 Migration Occurrence Records**

The following charts summarize the occurrences of the 159 species encountered during spring and fall migration monitoring in 2015. The charts include the average number of birds encountered each week during migration. The first and last encounter date and the peak date for each species is included along with the number of individuals encountered on each of those dates. The # processed is the number of birds banded. If any recaptures occurred the number banded is followed by the number of returns then the number of repeats (banded-return-repeat). Notes are included with species with special occurrences.

oreater traine													
	APH	RIL				MAY						IUNE	
	Week	: 1	Week 2	V	Veek 3	Wee	k 4	Week 5	V	Week 6	Week	7	Total
Mean # Birds/Day	381.3	30	4489.43		68.57	0		0		0	0		686.90
# Days Observed	4		5		1	0		0		0	0		10
	First Date	st Date: April 20- 30 Last Date: May 10- 480 Peak Date: May 5- 20607											
		JULY 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	Total
Mean # Birds/Day	0	0	0 0 0 0 0					62.86	244.71	62.14	79.14	15.00	39.53
# Days Observed	0	0	0 0 0 0 0					3	4	5	4	1	17
	First Date	First Date: September 2- 20 Last Date: September 27- 60							Peak D	ate: Septen	nber 9- 1240		

## Greater White-fronted Goose (Anser albifrons)

#### Snow Goose (Chen caerulescens)

· · · · · · · · · · · · · · · · · · ·															
	API	RIL				MAY						J	IUNE		
	Week	:1	Week 2	W	/eek 3	Weel	k 4	Week	5	We	eek 6	Week 2	7	Tot	al
Mean # Birds/Day	0.20	)	2581.14		58.57	0		0	0 0.2		.29	0		355.	42
# Days Observed	1		3	3 2 0							1	0	Week 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		
	First Date	e: April 27	- 2 Last Date: May 31- 2 Peak Date:								: May 5- 17060				
		JULY			AUC	JUST			SEPTEMBER OCTO				BER		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	We	ek 9	Week 10	Week 11	Week 1	2 1	Total
Mean # Birds/Day	0	0	0					0		0	4.29	56.43	17.50	) (	6.11
# Days Observed	0	0	0	0 0 0 0 0				0		0	1	3	1		5
	First Date	First Date: September 14- 30 Last Date: September 27-						) Peak Date: September 22- 330							

#### Canada Goose (Branta canadensis)

	APH	RIL				MAY					J	UNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week 2	7	Total
Mean # Birds/Day	21.9	0	58.14		5.71	4.1	4	3.14		19.71	4.71		17.08
# Days Observed	9		7		7	7		7		4	4		45
	First Date	e: April 20	- 22		Last Date	: June 10- 6	ō		Peak Date:	May 4- 324			
		JULY			AUC	JUST			SI	EPTEMBEF	2	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	4.00	8.00	8.29	0	3.71	0.57	8.14	15.14	27.14	15.43	7.00	0	8.42
# Days Observed	1	1	1	0	2	2	4	6	7	5	4	0	33
	First Date	e: July 14-	28		Last Date: September 24- 12			Peak Date: July 31- 58					

#### Trumpeter Swan (Cygnus buccinator)

	APRIL			MAY				JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total	
Mean # Birds/Day	0	1.86	0	0	0 0			0	0.25	
# Days Observed	0	2	0	0 0		0		0	2	
	First Date: May 4	- 8	Last Date:	Last Date: May 5- 5			Peak Date: May 4- 8			

#### Tundra Swan (Cygnus columbianus)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	5 Week 7	Total
Mean # Birds/Day	67.00	2.71	0	0	0	0	0	13.25
# Days Observed	5	3	0	0	0	0 0		8
	First Date: April 2	20- 305	Last Date:	May 5-11	Pe	ak Date: April	20-305	

#### Tundra Swan (Cygnus columbianus)

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	TOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0	0	0	0	0	0	0	4.75	0.23
# Days Observed	0	0	0	0	0	0	0	0	0	0	0	1	1
	First Date	e: Septemb	er 27- 19	Last Date: September 27- 19				Peak Date: September 27- 19					

#### Gadwall (Anas strepera)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6 Week 7	Total	
Mean # Birds/Day	0	0.43	0	0 0 0		0	0	0.06	
# Days Observed	0	1	0	0 0		0	0	1	
	First Date: April	30-3	Last Date:	Last Date: April 30- 3			Peak Date: April 30- 3		

#### American Wigeon (Anas americana)

-	APF	RIL				MAY					J	IUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	v	Veek 6	Week '	7	Total
Mean # Birds/Day	6.10	)	8.29		1.57	0.5	7	0.29		0	0.43		2.67
# Days Observed	5		6	6 2 2						0	1		18
	First Date	e: April 20	- 33		Last Date	: June 9- 3			Peak Date:	April 30-4	)		
		JULY			AUC	JUST			S.	EPTEMBEF	ł		OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 1	2 Total
Mean # Birds/Day	0	0	0	0 0 0.57 0 0				0	0	0	0.29	0	0.07
# Days Observed	0	0	0	0 0 1 0 0					0 0 1 0 2				2
	First Date	st Date: August 12- 4 Last Date: September 24							Peak D	ate: August	12-4		

#### Mallard (Anas platyrhynchos)

	APH	RIL				MAY						JUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	1	Week 6	Week	7	Total
Mean # Birds/Day	9.80	)	4.29		2.71	3.1	4	3.86		1.86	0.86		4.13
# Days Observed	10		7	7 7 7						6	2	45	
	First Date	e: April 20- 17 Last Date: June 8- 4 Peak Date: April 21- 33									3		
		JULY			AUC	JUST			S	EPTEMBE	ર		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	2 Total
Mean # Birds/Day	0.57	0.57	0.29					1.57	7.57	9.14	4.71	7.00	3.04
# Days Observed	1	3	2	2 4 4 4 3				5	6	7	6	4	49
	First Date	e: July 17-	4		Last Date: September 30-2				Peak Date: September 16- 34				

#### Blue-winged Teal (Anas discors)

Dide winged i	blue-winged Tell (Intus useors)													
-	APH	RIL				MAY						J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	W	eek 5	W	/eek 6	Week	7	Total
Mean # Birds/Day	0		0.29		0.86	0.1	4	(	0.57		0	0		0.25
# Days Observed	0		1		1	1			3		0	0		6
	First Date	e: May 1-2	2		Last Date	: May 24- 1				Peak Date:	May 13- 6			
		JULY			AUC	JUST				SI	EPTEMBEF	2	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	We	ek 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0.29	0	0		0	0.14	0	0	0	0.04
# Days Observed	0	0	0	0	1	0	0		0	1	0	0	0	2
	First Date	e: August 1	2-2	Last Date: September 10- 1			Peak Date: August 12- 2							

#### Northern Shoveler (Anas clypeata)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.50	0.29	0.29	0	0	0	0	0.17
# Days Observed	2	1	1	0	0	0	0	4
	First Date: April	23-3	Last Date:	May 9-2	Pea	k Date: April 23- 3		

#### Northern Pintail (Anas acuta)

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4 Week 5		Week 6	Week 7	Total		
Mean # Birds/Day	0.80	0.29	0	0	0	0	0	0.19		
# Days Observed	2	1	0	0		0 0		3		
	First Date: April	20-3	Last Date:	May 1-2	Pe	ak Date: April 27- 5	5			

#### American Green-winged Teal (Anas crecca carolinensis)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 6	Week 7	Total	
Mean # Birds/Day	3.30	3.86	0.29	1.29	0.43	0.14	0.43	1.50
# Days Observed	5	5	1	3	1	1 1		17
	First Date: April	23- 17	Last Date:	Last Date: June 4- 3		c Date: April 23-1	7	

#### Ring-necked Duck (Aythya collaris)

	APRIL			MAY				JUNE	JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total			
Mean # Birds/Day	1.20	1.71	0	0	0	0		0	0.46			
# Days Observed	1	1	0	0 0		0 0		0	2			
	First Date: April 2	28-12	Last Date:	Last Date: April 30- 12			Peak Date: All Dates- 12					

#### Greater Scaup (Aythya marila)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 6	Week 7	Total	
Mean # Birds/Day	0.10	0	0	0	0	0	0	0.02
# Days Observed	1	0	0 0		0	0	0	1
	First Date: April 2	28-1	Last Date:	April 28-1	Pe	eak Date: April 28-1		

Note: flocks of scaup flying at a distance are recorded as unidentified scaup

#### Surf Scoter (*Melanitta perspicillata*)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	0	2.43	63.43	40.14	14.71	0	0	16.25	
# Days Observed	0	2	7	5 6		0 0		20	
	First Date: May 3	- 2	Last Date:	May 27-4	Peak Date: May 16- 123				

#### White-winged Scoter (Melanitta fusca)

-	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4 Week 5		Week 6	Week 7	Total
Mean # Birds/Day	0.20	0	4.43	0.57	0.43	0	0	0.77
# Days Observed	1	0	4	2 2		0 0		9
	First Date: April	23-2	Last Date:	May 22- 2	Pea	Peak Date: May 8-12		

#### Long-tailed Duck (Clangula hyemalis)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4 Week 5		Week 6	Week 7	Total	
Mean # Birds/Day	0.80	0.86	28.57	0.57	0	0	0	4.19	
# Days Observed	2	1	7	2 0		0 0		12	
	First Date: April 2	27-1	Last Date:	May 17-2	Pea	Peak Date: May 12- 54			

#### Bufflehead (Bucephala albeola)

	APH	RIL				MAY					]	UNE	
	Week	: 1	Week 2	V	Veek 3	eek 3 Week 4		Week 5	1	Week 6	Week 2	7	Total
Mean # Birds/Day	0.20	)	0.29		1.71	0.2	9	0.57		0	0		0.42
# Days Observed	2		1	1 I		1		3		0	0		9
	First Date	First Date: April 25- 1				Last Date: May 23-1				: May 7 & 9-	6		
	JULY				AUGUST				c	EPTEMBER	)		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	Total
Mean # Birds/Day	0	Week 2         Week 3         Week 4           0         0         0			0	0	0	0.29	0	6.57	7.86	28.00	2.65
# Days Observed	0	0	0	0	0	0	0	1	0	3	5	4	13
	First Date: September 4-2				Last Date: September 30- 70				Peak Date: September 30- 70				

## Common Gold<u>eneye (Bucephala clangula)</u>

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total		
Mean # Birds/Day	13.00	14.00	14.29	9.14	18.29	4.29	4.71	11.21		
# Days Observed	10	7	7	7 7 7		6 7		51		
	First Date: April 2	20-7	Last Date:	June 10- 1	Pea	k Date: April 30- 2	.8			

#### Common Goldeneye (Bucephala clangula)

		JULY	Ĭ	,	AUC	JUST			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	Total	
Mean # Birds/Day	1.43	7.00	1.29	1.00	5.57	7.00	6.14	0	1.71	4.00	8.86	24.25	5.00	
# Days Observed	3	6	3	4	5	6	7	0	2	5	6	4	51	
	First Date	First Date: July 12- 1			Last Dat	Last Date: September 30- 40			Peak D	ate: Septem	ıber 29 & 30	- 40		

#### Hooded Merganser (Lophodytes cucultatus)

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4 Week 5		Week 6	Week 7	Total		
Mean # Birds/Day	0	0.29	0	0	0	0	0	0.04		
# Days Observed	0	1	0	0 0		0	0	1		
	First Date: May 6	- 2	Last Date:	May 6-2	Pe	ak Date: May 6-	2			

## Common Merganser (Mergus merganser)

	APF	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	eek 3 Week 4		Week 5	V	Veek 6	Week 2	7	Total
Mean # Birds/Day	12.6	0	11.00		5.71	5.1	4	18.86	18.86 21.29		3.57		11.25
# Days Observed	10		6	6 11 I		7		7		7	3		47
	First Date	First Date: April 20- 11				Last Date: June 10- 10 P				May 22-44			
		** ** * *							<b>C</b> 1				CTOPER
		JULY		AUGUST				S	EPTEMBEF	ł.	(	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	Total
Mean # Birds/Day	Week 1         Week 2         Week 3         Week 4           1.43         4.14         4.29         2.57				1.43	2.00	0.57	6.29	2.14	2.29	0.57	2.75	2.53
# Days Observed	2	4 4 3			3	4	1	4	4	2	2	3	36
	First Date: July 12-1			Last Dat	Last Date: September 30- 3			Peak Date: July 31 & Septembe			er 4- 14		

#### Red-breasted Merganser (Mergus serrator)

	APF	RIL				MAY					J	UNE	
	Week	1	Week 2	V	Veek 3	Weel	k 4	Week 5	W	Veek 6	Week	7	Total
Mean # Birds/Day	0.80	)	1.14		0.86	0.0	0	4.43		0.29	0.29		1.10
# Days Observed	2		2		3	0		6		1	1		15
	First Date	First Date: April 27- 4				: June 9- 2			Peak Date:	May 25-8			
													0000000
		JULY			AUC	JUST			SI	EPTEMBEF	ł	(	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	Total
Mean # Birds/Day	0 0 0 0 0		0	0	0	1.43	0	0	0	0	0	0.12	
# Days Observed	0	0	0	0	0	0	1	0	0	0	0	0	1
	First Date	rst Date: August 26- 10				e: August 2	26- 10		Peak Da	ate: August	26- 10		

#### Ruffed Grouse (Bonasa umbellus)

	APH	RIL				MAY					]	UNE	
	Week	: 1	Week 2	W	/eek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	2.00	)	2.00		1.57	0.7	1	0.29		1.14	0.29		1.19
# Days Observed	10	10 7 irst Date: April 20- 2			7	4		2		7	2		39
	First Date	e: April 20	- 2		Last Date:	: June 8-1			Peak Date:	3 Dates- 3			
		JULY			AUC	JUST			S	EPTEMBE	ર	(	DCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.57	0	0 0		0	0.14	0	0.14	1.00	1.29	0.43	0.75	0.35
# Days Observed	2	0	0	0 0		1	0	1	5	4	3	3	19
	First Date	e: July 13-	1		Last Dat	te: Septeml	ber 30- 1		Peak D	ate: Septem	ber 14- 4		

#### Common Loon (Gavia immer)

Common Loon	Gura	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,												
	APH	RIL					MAY					J	UNE	
	Week	:1	Week 2	W	Veek 3		Weel	<u>k</u> 4	Week 5	1	Week 6	Week	7	Total
Mean # Birds/Day	0.50	)	1.14		3.43		1.5	7	4.57		3.14	1.71		2.19
# Days Observed	2	2 6 First Date: April 28- 2					6		7		6	7		40
	First Date	e: April 28	8-2			Last	Date: June	e 10- 2			Peak Date	: May 27- 17	1	
		JULY				AUG	UST				SEPTEMBER		0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week	x 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	1.29         1.57         0.29         9.14				5.00	0	0.43	2.14	1.14	6.86	1.00	0.29	0.75	2.56
# Days Observed	6 5 2 7				4		3	6	5	6	5	2	3	54
	First Date	e: July 12-	1			Last	Date: Sept	ember 30	- 1		Peak Date	: August 3-3	3	

#### Red-Necked Grebe (Podiceps grisegena)

	API	RIL				MAY					J	UNE	
	Week	x 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0.10	)	0.71		2.71	1.5	7	2.71		1.43	1.43		1.44
# Days Observed	1	1 3 First Date: April 27- 1				5		7		5	5		31
	First Dat	e: April 27	- 1		Last Date	: June 10- 3	3		Peak Date:	May 7 & 8-	· 6		
		JULY			AUC	JUST			S	EPTEMBEF	ξ	C	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0 0.71 0.86 1.71			2.14	1.57	2.86	2.29	2.14	0.71	0.57	0.75	1.38	
# Days Observed	0 4 2 6			7	6	7	6	6	3	3	2	52	
	First Dat	e: July 20-	1		Last Dat	te: Septeml	oer 30- 2		Peak D	ate: Septem	ber 7- 7		

#### Eared Grebe (Podiceps nigricollis)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	1.29	0	0	0	0	0.17
# Days Observed	0	0	2	0	0	0	0	2
	First Date: May 7	- 8	Last Date:	May 9-1	Pea	ak Date: May 7- 8		

#### Western Grebe (Aechmophorus occidentalis)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	с б	Week 7	Total
Mean # Birds/Day	0	0	0	0	9.86	0		0	1.33
# Days Observed	0	0	0	0	5	0		0	5
	First Date: May 2	2-1	Last Date:	May 26-1		Peak Date: May	y 23- 40		

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2         Week 3           0         0         0.29		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0.29	0	1.29	0.29	0.71	0.71	0	0	0	0.25	0.30
# Days Observed	0	0	1	0	2	2	5	3	0	0	0	1	14
	First Date	First Date: July 31- 2				te: Septeml	ber 30- 1		Peak D	ate: August	10-5		

#### Double-crested Cormorant (Phalacrocorax auritus)

		JULY			AUC	JUST			S	EPTEMBE	ł	00	CTOBER
	Week 1			Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0	0	0	0	0	0	0	0.86	0	0	0	0.09
# Days Observed	1	0	0	0	0	0	0	0	1	0	0	0	2
	First Date	First Date: July 18- 1				te: Septeml	oer 9- 6		Peak D	ate: Septem	ıber 9- 6		

#### American White Pelican (Pelecanus erythrorhynchos)

	APH	RIL				MAY					J	IUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0.30	)	0		0	0.2	9	0		0	0.14		0.12
# Days Observed	1	1 0 First Date: April 27- 3			0	1		0		0	1		3
	First Date	first Date: April 27- 3				: June 10- 1			Peak Date:	April 27-3			
									~				0
		JULY			AUC	JUST			S	EPTEMBEF	ł	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0 0 0 0 0		0	0	0.14	1.43	1.14	1.43	5.00	0.29	0	0.81	
# Days Observed	0 0 0 0		0	0	1	5	4	4	4	2	0	20	
	First Date	e: August	18-1		Last Dat	te: Septeml	oer 26- 1		Peak D	ate: Septem	ber 16- 20		

## Great Blue Heron (Ardea herodias)

			)												
	APH	RIL				MAY						]	UNE		
	Week	: 1	Week 2	W	Veek 3	Weel	k 4	Week	5	We	ek 6	Week	7	,	Total
Mean # Birds/Day	0.30	)	0.43		0	0		0			0	0			0.12
# Days Observed	2	2 2 First Date: April 21- 2				0		0			0	0			4
	First Date	e: April 21	- 2		Last Date	: May 5-2			Peal	k Date: A	pr 21, Ma	y 5-2			
		JULY			AUC	GUST				SEF	PTEMBER	2		OC	TOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week	8 We	leek 9	Week 10	Week 11	Week	12	Total
Mean # Birds/Day	0 0 0.14 0.14			0.14	0	0	0	0	).14	0	0	0		0.05	
# Days Observed	0	0 1 1			1	0	0	0		1	0	0	0		4
	First Date	e: July 27-	1		Last Dat	te: Septeml	ber 9- 1			Peak Dat	e: All Date	es-1			

#### **Osprey** (Pandion haliaetus)

		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,											
	APH	RIL				MAY					]	IUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0	0		0		0.14	0		0.02
# Days Observed	0		0		0	0		0		1	0		1
	First Date	e: June 3-	1		Last Date	: June 3-1			Peak Date:	June 3-1			
		JULY			AUC	JUST			S	EPTEMBE	2	O	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14 0 0.14 0.14			0.29	0.14	0	0	0	0	0	0.25	0.09	
# Days Observed	1 0 1 1			2	1	0	0	0	0	0	1	7	
	First Date	irst Date: July 16- 1				te: Septeml	oer 29- 1		Peak D	ate: All Date	es- 1		

#### Bald Eagle (Haliaeetus leucocephalus)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total
Mean # Birds/Day	2.00	2.29	1.86	1.57	1.43	1.71		1.29	1.75
# Days Observed	10	7	7	7	7	7		7	52
	First Date: April 2	20-3	Last Date:	June 10- 1	Pea	k Date: May	2 & 3-	4	

		JULY			AUC	JUST			S	EPTEMBEF	ર	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	1.86	2.00	2.86	1.29	2.00	2.71	3.00	2.43	2.14	2.14	2.29	1.75	2.22
# Days Observed	7	7	7	6	7	7	7	7	7	7	7	3	79
	First Date	e: July 12-1	2		Last Dat	e: Septeml	oer 29- 2		Peak D	ate: July 18	& 25- 5		

## Northern Harr<u>ier (Circus cyaneus)</u>

	APF	RIL				MAY					J	IUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week	5	Week 6	Week	7	Total
Mean # Birds/Day	3.90	)	4.57		0.57	0.4	3	0		0.14	0		1.52
# Days Observed	7		6			2		0		1	0		20
	First Date: April 20- 3Last Date: June 2- 1Peak Date:						te: May 2-16						
									~				
		JULY			AUC	JUST				SEPTEMBE	R		OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week	Week 10	Week 11	Week 1	2 Total
Mean # Birds/Day			0.29	0	0.14	1.14	1.00	1.14	1.86	0.57	1.75	0.64	
# Days Observed	2 0 0 1			0	1	6	4	4	6	2	3	29	
	First Date	e: July 13-	1		Last Dat	e: Septemi	ber 29- 2		Pea	< Date: Septen	nber 15- 5		

#### Sharp-shinned Hawk (Accipiter striatus)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 6	Week 7	Total	
Mean # Birds/Day	0.70	1.14	0.43	1.00	0.29	0.14	0.14	0.56
# Days Observed	5	5	3	4	2	1	1	21
# Processed	1-1-0	1	0	2	1-0-1	0	1	6-1-1
	First Date: April	21-1	Last Date:	June 10- 1	Pea	ak Date: April 30.	May 16-3	

		JULY			AUC	JUST			S	EPTEMBEF	R	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0.14	0.14	2.43	5.86	6.29	12.00	4.71	4.86	6.00	1.57	0.25	3.83
# Days Observed	1	1	1	4	7	7	7	6	7	5	4	1	51
# Processed	0	0	1	3	6	4	9	3	6	4	2	1	39
	First Date	e: July 15-	1		Last Dat	te: Septeml	oer 28- 1		Peak D	ate: August	27-26		

#### Cooper's Hawk (Accipiter cooperii)

		JULY			AUC	JUST			S	EPTEMBE	ર	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0 0 0 0 0 0			0	0	0.14	0	0	0	0	0	0.01
# Days Observed	0	0	0	0	0	0	1	0	0	0	0	0	1
	First Da	te: August 2	27-1		Last Dat	e: August 2	27-1		Peak D	ate: August	27-1		

#### Northern Goshawk (Accipiter gentilis)

		JULY			AUC	JUST			S	EPTEMBE	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0 0 0 0 0			0	0.14	0	0.14	0	0	0	0	0	0.02
# Days Observed	0	0	0	0	1	0	1	0	0	0	0	0	2
	First Date	rst Date: August 15- 1 Last Date: August 28- 1							Peak D	ate: All Date	es- 1		

#### Broad-winged Hawk (Buteo platypterus)

0		JULY			AUC	JUST			S	EPTEMBE	λ.	00	CTOBER
	Week 1	Week 2	Week 3	Week 4 Week 5 Week 6 Week 7 Week 8				Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	0	0	0	0	0.14	0	0	0.14	0	0.14	0	0	0.04
# Days Observed	0	0	0	0	1	0	0	1	0	1	0	0	3
	First Date	e: August 1	4-1		Last Dat	e: Septemi	oer 16- 1		Peak D	ate: All Date	es- 1		

#### Red-tailed Hawk (Buteo jamaicensis)

	APF	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	x 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0.14	0		0.14		0.29	0		0.08
# Days Observed	0 0 First Date: May 13, 1				1	0		1		2	0		4
	First Date: May 13-1				Last Date	: May 30- 1			Peak Date:	All Dates-	1		
		II II V			ATT	TIOT	_				,		OCTODED
		JULY			AUC	JUST		_		EPTEMBEF			DCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0 0 0 0		0	0	0	0	0.14	0	0.86	0.57	0	0.14	
# Days Observed	0 0 0 0			0	0	0	1	0	3	2	0	6	
	First Date	e: Septemb	er 2- 1		Last Dat	e: Septeml	oer 24- 2		Peak D	ate: Septerr	ıber 14- 3		

#### Rough-legged Hawk (Buteo lagopus)

			5°P											
	APH	RIL				MAY					J	IUNE		
	Week	: 1	Week 2	V	Veek 3	Wee	k 4	Week 5	V	Veek 6	Week	7	Total	
Mean # Birds/Day	0.30	)	0		0.14	0		0		0	0		0.08	
# Days Observed	2 0 First Date: April 21-1			1	0		0		0	0		3		
	First Date	e: April 21	- 1		Last Date	: May 8-1			Peak Date:	April 24-2				
		JULY			ATIC	JUST			C	EPTEMBE	)		OCTOBE	7D
		JULI			AUC	1031			3	EPIEMBER	(		OCTOBE	ĸ
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 1	12 <b>Tot</b>	al
Mean # Birds/Day			0	0	0	0	0	0	0.14	0.25	0.0	)2		
# Days Observed	0 0 0 0		0	0	0	0	0	0	1	1	2			
	First Date	e: Septemb	er 24-1		Last Dat	te: Septem	ber 28- 1		Peak D	ate: All Date	es- 1			

#### Sandhill Crane (Grus canadensis)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	29.10	55.71	0	0	0	0	0	13.10
# Days Observed	4	3	0	0	0	0	0	7
	First Date: April	21-3	Last Date:	May 5- 50	Pea	k Date: May 4- 2	90	

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1 Week 2 Week			Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0 0 0 0			0	0	0	0	25.14	0	1.71	0	25.00	3.56
# Days Observed	0	0	0	0	0	0	0	1	0	1	0	1	3
	First Date	e: Septemb	er 2- 176		Last Dat	e: Septemb	oer 27- 100		Peak D	ate: Septem	ber 2- 176		

#### Killdeer (Charadrius vociferous)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Weel	к б	Week 7	Total
Mean # Birds/Day	0.50	0.14	0	0	0.14	0		0	0.13
# Days Observed	3	1	0	0	1	0		0	5
	First Date: April	20-3	Last Date:	: May 25- 1		Peak Date: Apr	il 20- 3		

#### **Spotted Sandpiper** (*Actitis macularius*)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week	6	Week 7	Total	
Mean # Birds/Day	0	0.71	1.00	3.14	0.86	1.00	)	1.29	1.08
# Days Observed	0	4	6	7	5	5		7	34
	First Date: May 2-	- 1	Last Date:	June 10- 2	Pea	ak Date: May	/ 16- 12		

		JULY			AUC	JUST			S	EPTEMBER	۲. Electric contraction of the second se	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.86	1.00	1.43	3.57	3.86 3.00 1.86			1.57	0.86	0	0	0.25	1.57
# Days Observed	4	4	6	7	6 6 7			5	5	0	0	1	51
	First Dat	rst Date: July 12- 1				Last Date: September 27-1			Peak Date: August 15-14				

· ·	APF	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0	0 0.14 0						0	0		0.02
# Days Observed	0		0	0 1 0						0	0		1
	First Date	e: May 8- 1	l	Last Date: May 8-1 Peak						May 8-1			
		JULY			AUC	JUST			S	EPTEMBEF	ξ	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0.14	0	0	0	0	0	0	0	0	0.01
# Days Observed	0	0	0	0 1 0 0 0				0	0	0	0	0	1
	First Date	First Date: August 4-1 La					Last Date: August 4-1				Peak Date: August 4-1		

#### Solitary Sandpiper (Tringa solitaria)

## Greater Yellowlegs (Tringa melanoleuca)

	APRIL			MAY				J	UNE	
	Week 1	Week 2	Week 3	Week 4	Week	5 Weel	k 6	Week 7	1	Total
Mean # Birds/Day	1.60	0.71	0.43	0.29	0	0		0		0.50
# Days Observed	4	4	3	2	0	0		0		13
	First Date: April 2	3-10	Last Date:	May 19-1		Peak Date: Ap	ril 23- 10	)		
	JULY		AUC	JUST		SEPT	EMBER		0	CTOBER
	Wook 1 Wook 2	Mook 3 M	look A Mook 5	Week 6 Week 7		R Wook Q W	look 10	Week 11	Week 12	Total

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	0	0	0	0.43	1.57	1.43	1.14	1.71	2.14	1.29	0.57	0	0.89	
# Days Observed	0	0	0	3	2	5	6	5	7	5	4	0	37	
	First Date	First Date: August 2-1				Last Date: September 26-1				Peak Date: August 10-10				

Note: a number of yellowlegs are not positively identified and are recorded as unidentified yellowlegs.

#### Lesser Yellowlegs (Tringa flavipes)

	APF	RIL				MAY					J	IUNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week '	7	Total
Mean # Birds/Day	0.60	)	0		0	0		0		0	0		0.12
# Days Observed	1		0		0	0		0		0	0		1
	First Date	First Date: April 23- 6Last Date: April 23- 6Peak Date: April 23-							April 23-6				
		JULY			AUC	JUST			S	EPTEMBEF	ł		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	Total
Mean # Birds/Day	0	0	0.43	0.71	1.57	0.43	0.14	0.29	0	0	0	0	0.31
# Days Observed	0	0	3	2	3	3	1	1	0	0	0	0	13
	First Date	e: July 27-	· 1		Last Date: September 4- 2				Peak Date: August 10-9				

Note: a number of yellowlegs are not positively identified and are recorded as unidentified yellowlegs.

#### Stilt Sandpiper (Calidris himantopus)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 6	Week 7	Total		
Mean # Birds/Day	0.00	0.71	0.00	0.00	0.00	0.00	0.10		
# Days Observed	0	1	0	0	0 0 1				
	First Date: May 1	- 5	Last Date:	May 1- 5	Peak Date: May 1- 5				

#### Common Snipe (Gallinago gallinago)

-	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total		
Mean # Birds/Day	0.30	0.29	0	0	0	0	0.10			
# Days Observed	3	2	0	0	0	0 0 5				
	First Date: April 2	23-1	Last Date: May 3-1 Peak Date: All Dates-1							

#### Bonaparte's Gull (Chroicocephalus philadelphia)

-	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 6	Week 7	Total	
Mean # Birds/Day	0	0	0	0	0	0	0.19	
# Days Observed	0	0	0	0	0 0 1			
	First Date: May 2	23-10	Last Date:	May 23-10	ak Date: May 23- 10	)		

#### Franklin's Gull (Leucophaeus pipixcan)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 6	Week 7	Total	
Mean # Birds/Day	1.70	53.86	34.00	6.57	3.14	27.29	17.63	
# Days Observed	3	6	5	5	5	2	4	30
	First Date: April 2	7-2	Last Date:	June 9- 2	Peak Date: May 8- 190			

#### Franklin's Gull (Leucophaeus pipixcan)

		JULY		,	AUC	JUST			S	EPTEMBE	۲.	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	21.00	555.71	382.71	39.43	49.43	0.14	240.29	0	211.43	0.14	0	0	129.65
# Days Observed	3	3	6	2	5	1	5	0	1	1	0	0	27
	First Dat	Date: July 16- 25 Last Date: September 14- 1						Peak D	ate: July 25-	3888			

#### Mew Gull (Larus canus)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 6	Week 7	Total	
Mean # Birds/Day	0	1.57	12.00	0	0	0	2.12	
# Days Observed	0	3	3	0	1	0	0	7
	First Date: May 1	- 2	Last Date:	May 21-15	k Date: May 7-63			

#### Ring-billed Gull (Larus delawarensis)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.80	1.57	0.14	0	0	0.43	0.43	0.50
# Days Observed	2	2	1	0	0	2	1	8
	First Date: April	20-2	Last Date:	June 8-3	Pea	k Date: April 21 &	May 2-6	

		JULY		AUGUST					S	EPTEMBEF	ł	00	CTOBER
				3 Week 4 Week 5 Week 6 Week 7			Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	4.29         51.86         25.00			3.00	3.00 25.57 5.71 4.43			7.14	4.86	9.86	29.57	11.75	15.38
# Days Observed	5 3 7			5	7	6	6	7	7	6	7	4	70
	First Date: July 13-2				Last Dat	e: Septem	per 30- 18		Peak D	ate: July 25-	329		

Note: a number of gulls are recorded as unidentified, particularly the juveniles in the fall.

#### California Gull (Larus californicus)

	APF	RIL				MAY					J	IUNE	
	Week	:1	Week 2	V	Veek 3	Yeek 3 Week 4		Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0	0		0		0	0.14		0.02
# Days Observed	0 0 First Date: June 5- 1			0	0		0		0	1		1	
	First Date	e: June 5-	1		Last Date: June 5-1				Peak Date:	June 5-1			
	1										-		
		JULY			AUGUST				SI	EPTEMBE	2		OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 1	2 Total
Mean # Birds/Day	0 0 0 0 0			0.29	0	0	0	0	0	0	0	0.02	
# Days Observed	0 0 0 0		1	0	0	0	0	0	0	0	1		
	First Date: August 12- 2			Last Date: August 12- 2				Peak D	ate: August	12-2			

#### Herring Gull (Larus argentatus)

-	APH	RIL				MAY					J	UNE	
	Week	: 1	Week 2	W	Veek 3 Week 4		Week 5	W	/eek 6	Week 2	7	Total	
Mean # Birds/Day	2.30	)	3.00		0.86	0.4	3	0.29		0.29	0		1.10
# Days Observed	4	4 6 First Date: April 21- 7		3	1		2		2	0		18	
	First Date	e: April 21	- 7		Last Date: June 2-1 P				Peak Date:	May 2-10			
	*												
		JULY			AUGUST				SI	EPTEMBEF	2	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day			0.86	0.57	0.29	0.43	0	0.14	0.14	0	0.25		
# Days Observed	1 1 1 0		3	2	2	2	0	1	1	0	14		
	First Date: July 14-1			Last Date: September 21- 1				Peak Da	ate: August	10-4			

#### Common Tern (Sterna hirundo)

	APRIL			MAY					JUNE	
	Week 1	Week 2	Week 3	Week 4	W	eek 5	Week	: 6	Week 7	Total
Mean # Birds/Day	0	0	0 0.29 0		1	1.86	0.43	3	0	0.35
# Days Observed	0	0	1	0		5	2		0	8
	First Date: May 12	2-2	Last Date:	Last Date: June 3-1			c Date: May	y 21 & 2	22-4	
										0.0000000

		JULY			AUC	JUST			S	EPTEMBEF	ł.	0	CTOBER
				Week 4	leek 4 Week 5 Week 6 Week 7			Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0.29	0.29	0.14	0.57	0.29	1.14	1.29	0.43	0	0	0	0.38
# Days Observed	0	1	2	1	2	1	1	3	1	0	0	0	12
	First Dat	First Date: July 23- 2				e: Septeml	oer 10- 3		Peak D	ate: August	26-8		

ruister s rein													
	APH	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	i I	Week 6	Week	7	Total
Mean # Birds/Day	0		0		0	1.1	4	0.57		1.00	0.14		0.38
# Days Observed	0 0		0	4		3		4	1		12		
	First Date	First Date: May 15-1				Last Date: June 4-1 Pe				: May 18, Ju	n 3- 3		
					4 7 7 6	ALICHICT							CTODED
		JULY			AUGUST				3	EPTEMBE	Κ	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.29 0.14 0.71 1.86			0.57	0.43	0.71	0	0	0	0	0	0.41	
# Days Observed	2 1 2 4			3 1 2 0				0	0	0	0	15	
	First Date	First Date: July 12- 1			Last Date: August 25- 3				Peak D	ate: August	2-5		

## Forster's Tern (Sterna forsteri)

#### Mourning Dove (Zenaida macroura)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total
Mean # Birds/Day	0	0	0	0	0.57	0		0	0.08
# Days Observed	0	0	0	0 0		0		0	3
	First Date: May 2	5-1	Last Date:	May 27- 1	Р	eak Date: May	y 26- 2		

#### Great Horned Owl (Bubo virginianus)

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 1 Week 2 Week 3 Week 4				Week 4 Week 5 Week 6 Week 7 W			Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0	0	0	0	0	0	0	0.25	0.01
# Days Observed				0	0	0	0	0	0 0 0			1	1
	First Date: September 27-1				Last Dat	Last Date: September 27-1			Peak D	ate: Septem	ber 27- 1		

#### Barred Owl (Strix varia)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 3 Week 4 We		Week 6	Week 7	Total
Mean # Birds/Day	0	0.14	0	0	0.14	0	0	0.04
# Days Observed	0	1	0	0	1	0	0	2
	First Date: May 4	- 1	Last Date:	May 25-1	Pe	eak Date: All Dat	es- 1	

#### Common Nighthawk (Chordeiles minor)

0	APRIL			MAY			JU	NE
	Week 1	Week 2	Week 3	Week 4 Week 5		Week	6 Week 7	Total
Mean # Birds/Day	0	0	0	0	0.14	0	0	0.02
# Days Observed	0	0	0	0	1	0	0	1
	First Date: May 2	27-1	Last Date:	May 27- 1		Peak Date: May	27-1	

Note: usually only one individual encountered each year.

#### Ruby-throated Hummingbird (Archilochus colubris)

	APF	RIL				MAY					J	JUNE	
	Week	: 1	Week 2	V	Veek 3	ek 3 Week 4		Week	5	Week 6	Week	7	Total
Mean # Birds/Day	0		0		0	0		0		0	0.14		0.02
# Days Observed	0 0 First Date: June 10- 1			0	0		0		0	1		1	
	First Date	e: June 10-	- 1		Last Date: June 10- 1				Peak Date	: June 10- 1			
											-		
		JULY			AUGUST					SEPTEMBER	2		OCTOBER
	Week 1 Week 2 Week 3 Week 4				Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 1	2 Total
Mean # Birds/Day	0.14 0 0 0.29			0	0	0	0	0	0	0	0	0.04	
# Days Observed	1 0 0 1			0	0	0	0	0	0	0	0	2	
	First Date: July 17-1			Last Date: August 7- 2				Peak I	Date: August	7-2			

#### Belted Kingfisher (Megaceryle alcyon)

First Date: July 15-1

0	APRIL		MAY								JUNE			
	Week 1		Week 2	V	Week 3		Week 4		I	Week 6	ek 6 Week 7		Total	
Mean # Birds/Day	0.20	0.20			0.43	0.29		0.43		0.43	0		0.33	
# Days Observed	2	2		2		2		3	3		0		15	
	First Date	e: April 23	- 1		Last Date: June 1-1				Peak Date: May 5-3					
	JULY			AUGUST					SEPTEMBER OCTOBER				CTOBER	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	0.57	0.14	0	0.14	0	0.14	0.14	0.14	0.57	0	0	0	0.16	
# Days Observed	3	1	0	1	0	1	1	1	4	0	0	0	12	

Peak Date: July 18-2

Last Date: September 11-1

	APR	RIL				MAY					J	UNE	
	Week	1	Week 2	V	Veek 3	Weel	k 4	Week 5		Week 6	Week	7	Total
Mean # Birds/Day	0.30	)	0.86		4.57	1.7	1	1.71		0.43	1.00		1.44
# Days Observed	3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			7	7		6		3	5		33
# Processed	0				5	1-0-	-1	0-0-1		0	1-0-1		7-0-3
	First Date	0 0 irst Date: April 22- 1				: June 10- 2	2		Peak Date	: May 7- 8			
	-												
		ппу											
		JULY			AUC	JUST			S	EPTEMBE	2	C	CTOBER
	Week 1	JULY Week 2	Week 3	Week 4	AUC Week 5	JUST Week 6	Week 7	Week 8	S Week 9	EPTEMBER Week 10	R Week 11	Week 12	Total
Mean # Birds/Day	Week 1 0.86		Week 3 0.43	Week 4 0.86			Week 7	Week 8				-	
Mean # Birds/Day # Days Observed		Week 2			Week 5	Week 6			Week 9			-	Total
	0.86	Week 2	0.43		Week 5	Week 6 0.00			Week 9 0			-	<b>Total</b> 0.31

## Yellow-bellied <u>Sapsucker (Sphyrapicus varius)</u>

## Downy Woodpecker (Picoides pubescens)

	API	RIL				MAY						J	UNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Wee	x 5	W	eek 6	Week	7	Total
Mean # Birds/Day	0		0		0	0		0.2	9		0	0.86		0.15
# Days Observed	0		0		0	0		2			0	5		7
# Processed	0		0		0	0		1			0	1-0-3		2-0-3
	First Dat	e: May 22-	- 1		Last Date	: June 10- 1			Pea	ak Date: J	June 9- 2			
		JULY			AUC	JUST				SE	PTEMBEF	ł	(	OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week	8 W	/eek 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	1.43	0.71	0.29	0.14	0.14	0	0	0.14		0	0	0	0	0.25
# Days Observed	4	3	2	1	1	0	0	1		0	0	0	0	12
# Processed	5-0-2	1	0-0-1	0	0	0	0	0		0	0	0	0	6-0-3
	First Dat	e: July 12-	1		Last Dat	te: Septem	ber 5- 1			Peak Da	te: July 13-	6		

## Hairy Woodpecker (Picoides villosus)

· 1	APF	RIL				MAY					J	IUNE	
	Week	1	Week 2	V	Veek 3	Weel	k 4	Week 5	I	Week 6	Week	7	Total
Mean # Birds/Day	0.10	0.10 0 0.1				0.2	9	0.29		0	0		0.13
# Days Observed	1		0		2	2		2		0	0		7
	First Date	e: April 21	- 1		Last Date	: May 26- 1			Peak Date:	All Dates-	1		
		JULY			AUC	JUST			S	EPTEMBE	2	O	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	3.14	2.14	0.86	2.00	1.57	1.00	0.57	0.43	0.57	0.43	0.71	0.75	1.20
# Days Observed	7	5	5	6	6	4	4	3	4	3	3	3	53
# Processed	5-0-5	, 2 2 0				0-0-1	0	0	1	0-0-1	1	0-0-1	12-0-15
	First Date	e: July 12-	6		Last Dat	te: Septeml	oer 30- 1		Peak D	ate: July 12-	6		

## Northern Flicker (Colaptes auratus)

	APF	RIL				MAY						]	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Wee	ek 5	W	/eek 6	Week 2	7	Total
Mean # Birds/Day	3.60	)	7.57		2.57	1.2	9	0.	86		0.14	0.14		2.38
# Days Observed	10		6		7	6		6	5		1	1		37
# Processed	1		0 (			0		(	)		0	0		1
	First Date	e: April 20	)- 3		Last Date	: June 10- 1			Pe	ak Date:	May 3- 35			
		JULY			AUC	JUST				SE	EPTEMBER	ł.		OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Wee	k8 V	Week 9	Week 10	Week 11	Week ?	2 Total
Mean # Birds/Day	0.86	0.43	0.43	0.29	0.86	0.43	0.29	0.7	1	0.57	0.29	0.14	0	0.46
# Days Observed	2	2	3	2	5	3	2	4		3	2	1	0	29
# Processed	2	0	0	1	0	1	0	0-0	-2	2	0	0	0	6-0-2
	First Date	e: July 12-	· 1		Last Dat	te: Septeml	oer 26- 1			Peak Da	ate: July 13-	5		

Note: All northern flickers encountered were yellow-shafted flickers.

## Pileated Woodpecker (Dryocopus pileatus)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total
Mean # Birds/Day	0.10	0.29	0.43	0.14	0.43	0.43	3	0.43	0.31
# Days Observed	1	1	3	1	3	3		3	15
	First Date: April 2	27-1	Last Date:	June 10- 1	Η	Peak Date: May	/ 3- 2		

## Pileated Woodpecker (Dryocopus pileatus)

		JULY		ŕ	AUC	JUST			S	EPTEMBE	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4					Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0.71	1.00	0.57	0.86	0.57	0.43	0	0	0.36
# Days Observed	0	0	0	0	4	6	4	4	4	2	0	0	24
# Processed	0	0	0	0	0	2	0	2	0-0-1	0-0-1	0	0	4-0-2
	First Date	e: August 9	- 2		Last Dat	te: Septeml	oer 16- 1		Peak D	ate: August	30- 3		

## American Kestrel (Falco sparverius)

	APF	RIL				MAY					J	IUNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week	5	Week 6	Week	7	Total
Mean # Birds/Day	0.20	)	1.43		0	0.2	9	0		0	0		0.27
# Days Observed	1		5		0	1		0		0	0		7
	First Date	e: April 29	- 2		Last Date	: May 16- 2	2		Peak Da	te: May 2 & 5	- 3		
		JULY			AUC	JUST				SEPTEMBE	P		CTOBER
	Week 1		Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week		Week 11	Week 12	Total
Mean # Birds/Day	0				0	0	1.00	0.14	0.43	0.43	0	0	0.17
# Days Observed	0	0	0	0	0	0	4	1	1	1	0	0	7
	First Date	e: August 2	26-2		Last Dat	te: Septeml	oer 15- 3		Pea	< Date: 3 Date	s- 3		

## Merlin (Falco columbarius)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.30	0.71	0.00	0.43	0.14	0.14	0	0.25
# Days Observed	1	2	0	3	1	1	0	8
	First Date: April 2	20-3	Last Date:	May 30-1	Pea	k Date: May 6-4		

		JULY			AUC	JUST			S	EPTEMBEF	R	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.43					1.43	1.43	0.43	0.71	0.14	0.29	0.25	0.70
# Days Observed					6	5	5	2	3	1	2	1	39
	First Date	e: July 15-	1		Last Dat	e: Septemb	oer 29- 1		Peak D	ate: August	17-4		

## Peregrine Falcon (Falco peregrinus)

		JULY			AUC	JUST			S	EPTEMBEF	Ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	Week 1         Week 2         Week 3         Week 4           0         0         0         0         0				0	0	0	0	0.29	0.29	0	0.05
# Days Observed	0	0	0	0	0	0	0	0	0	2	2	0	4
	First Dat	e: Septemb	er 13- 1		Last Dat	te: Septeml	ber 25- 1		Peak D	ate: All Date	es- 1		

## **Olive-sided Flycatcher** (*Contopus cooperi*)

		JULY	Ĺ	,	AUC	JUST			S	EPTEMBEF	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0.14	0	0	0	0	0	0	0	0	0.01
# Days Observed	0	0	0	1	0	0	0	0	0	0	0	0	1
	First Date	e: August 2	- 1		Last Dat	e: August 2	2-1		Peak D	ate: August	2-1		

Note: Usually only one individual is sighted and not observed every year.

## Western Wood-pewee (Contopus sordidulus)

	APRIL			MAY			JUI	NE
	Week 1	Week 2	Week 3	Week 4	Week 5	Week of	6 Week 7	Total
Mean # Birds/Day	0	0	0	0	0	0.43	0.43	0.12
# Days Observed	0	0	0	0	0	2	2	4
# Processed	0	0	0	0	0	1	0	1
	First Date: June 1	- 2	Last Date:	June 10-1	Pe	ak Date: June	1 & 4-2	

		JULY			AUC	JUST			S	EPTEMBEF	2	00	CTOBER
	Week 1 Week 2 Week 3 Week 4				Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.29	0.71	0	0.14	0	0	0	0	0	0	0	0	0.10
# Days Observed	2	4	0	1	0	0	0	0	0	0	0	0	7
	First Dat	e: July 12-	1		Last Dat	te: August 3	3-1		Peak D	ate: July 22-	- 2		

## Yellow-bellied Flycatcher (Empidonax flaviventris)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	0	0	0	0.29	0	0.04
# Days Observed	0	0	0	0	0	1	0	1
# Processed	0	0	0	0	0	2	0	2
	First Date: May 2	8-2	Last Date:	May 28- 2	F	Peak Date: May 28-	- 2	

	APF	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	W	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0	0		0.29		3.14	7.43		1.46
# Days Observed	0	0 0			0	0		1		7	7		15
# Processed	0	0 0 0				0		1		4	16		21
	First Date	0				: June 10- 5	5		Peak Date:	June 4- 12			
		5											
		JULY				GUST			SE	EPTEMBEF	ł		OCTOBER
	Week 1	JULY Week 2	Week 3	Week 4	AUC Week 5	GUST Week 6	Week 7	Week 8	SE Week 9	EPTEMBER Week 10	R Week 11	Week 1	
Mean # Birds/Day	Week 1 0.86		Week 3 0.43	Week 4 3.43			Week 7	Week 8 0.29				Week 1	
Mean # Birds/Day # Days Observed		Week 2			Week 5	Week 6			Week 9			Week 1 0 0	2 Total
~	0.86	Week 2	0.43	3.43	Week 5 2.57	Week 6 1.29		0.29	Week 9 0.29			Week 1 0 0	2 Total 1.00

## Alder Flycatch<u>er (Empidonax alnorum)</u>

## Least Flycatcher (Empidonax minimus)

·	APH	RIL				MAY						J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	W	eek 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		1.86	3.0	0	9	3.57		1.57	0.57		1.42
# Days Observed	0		0		6	6			7		6	3		28
# Processed	0		0		2	4			5		2	0		13
	First Date	e: May 7-	2		Last Date:	: June 9-1			]	Peak Date:	May 16-8			
	First Date: May 7-2 JULY				AUC	JUST				SI	EPTEMBER	R		OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	We	ek 8	Week 9	Week 10	Week 11	Week 12	2 Total
Mean # Birds/Day	0.29	0.71	3.43	7.29	5.57	1.43	0.29	0.	.57	0.29	0	0	0	1.72
# Days Observed	2	3	5	7	6	5	2		3	2	0	0	0	35
# Processed	0	2	10	11-0-1	13	1	1		0	1	0	0	0	39-0-1
	First Date	e: July 12-	1		Last Dat	e: Septeml	oer 9- 1			Peak D	ate: August	9- 15		

## Eastern Phoebe (Sayornis phoebe)

	API	RIL				MAY					J	IUNE	
	Week	: 1	Week 2	V	Veek 3	Wee	k 4	Week 5		Week 6	Week	7	Total
Mean # Birds/Day	2.00	)	2.29		2.14	2.1	4	1.14		1.00	0.86		1.67
# Days Observed	9		7		7	7		7		7	6		50
# Processed	5-0-	5-0-1 0-0-3		1	1-0-	-1	0		0-0-1	0		7-0-6	
	First Date	e: April 21	- 1		Last Date	: June 10- 1	-		Peak Date	: 5 Dates- 4			
		JULY			AUG	GUST			S	EPTEMBE	2	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	1.29	1.71	1.86	3.71	2.86	1.71	0.14	0.14	0.14	0	0	0	1.17
# Days Observed	5	7	5	7	6	4	1	1	1	0	0	0	37
# Processed	0-0-1	1-0-1	2	5	1-0-2	1-0-1	0	0	0	0	0	0	10-0-5
	First Date	e: July 12-	3		Last Dat	te: Septem	oer 7- 1		Peak D	Date: August	6-11		

## Say's Phoebe (Sayornis saya)

	APF	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	Wee	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0.86		0.29	0		0		0	0		0.15
# Days Observed	0		2		2	0		0		0	0		4
	First Date	e: May 5-2	2		Last Date	: May 8-1			Peak Date:	May 6-4			
												_	
		JULY			AUC	JUST			S	EPTEMBEF	2	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0.14	0	0	0.14	0	0	0	0	0.02
# Days Observed	0	0	0	0	1	0	0	1	0	0	0	0	2
	First Date	e: August l	5-1		Last Dat	te: Septeml	ber 3- 1		Peak D	ate: All Date	es- 1		

## Eastern Kingbird (Tyrannus tyrannus)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Weel	x 6	Week 7	Total
Mean # Birds/Day	0	0	0	0	0.29	0.2	9	0.43	0.13
# Days Observed	0	0	0	0	2	1		2	5
	First Date: May 2	1-1	Last Date:	June 8-2		Peak Date: Jun	e 1 & 8	- 2	

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1 Week 2 Week 3			Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0.43	0.86	1.29	0.29	0.43	0.14	0	0	0	0	0.30
# Days Observed	0	0	2	3	2	1	2	1	0	0	0	0	11
	First Date	e: July 27-	2		Last Dat	e: August 3	31-1		Peak D	ate: August	10-7		

	APH	RIL				MAY						JUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week	5	Week 6	Week	7	Total
Mean # Birds/Day	0		0		0.71	1.0	0	0.43		0.29	0		0.33
# Days Observed	0		0		4	5		3		2	0		14
	First Date	e: May 8-	1		Last Date	: May 29- 1			Peak D	te: May 16-	3		
		JULY			AUC	JUST				SEPTEME	ER	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week	9 Week 1	Week 11	Week 12	Total
Mean # Birds/Day	0.29	0.14	0	0	0.14	0	0	0.29	0	0	0	0	0.07
# Days Observed	2	1	0	0	1	0	0	2	0	0	0	0	6
# Processed	0	0	0	0	1	0	0	0	0	0	0	0	1
	First Date	e: July 12-	1		Last Dat	e: Septem	ber 2- 1		Pea	k Date: All D	ates- 1		

## Blue-headed Vireo (Vireo solitaries)

## Warbling Vireo (Vireo gilvus)

0	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total
Mean # Birds/Day	0 0		0	0.57	0.71	0.43	3	0.14	0.25
# Days Observed	0	0	0	3	4	2		1	10
	First Date: May 1	4-1	Last Date:	June 5-1		Peak Date: 3 Da	ates-2		

		JULY			AUC	JUST			S	EPTEMBER	۲. Electric contraction of the second se	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0	0.14	0.29	0	0	0.43	0	0	0	0	0	0.09
# Days Observed	1	0	1	2	0	0	2	0	0	0	0	0	6
# Processed	0	0	0	1	0	0	0	0	0	0	0	0	1
	First Dat	e: July 12-	1		Last Dat	te: August 2	26-2		Peak D	ate: August	26-2		

## Philadelphia Vireo (Vireo philadelphicus)

	APH	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	W	/eek 6	Week 2	7	Total
Mean # Birds/Day	0		0		0	0.1	4	0.43		0.29	0.29		0.15
# Days Observed	0 0 0 First Date: May 18-1 I			0	1		3		2	1		7	
	First Date	e: May 18-	1		Last Date	: June 5-2			Peak Date:	June 5-2			
		JULY			AUC	JUST			SI	EPTEMBEF	2	O	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0.29	0.29	1.29	0.71	0.29	0.14	0	0	0	0	0	0.27
# Days Observed	1	2	2	5	5	1	1	0	0	0	0	0	17
# Processed	0	0	0	3	0	1	1	0	0	0	0	0	5
	First Date	e: July 12-	1		Last Dat	e: August 2	23-1		Peak D	ate: August	7-3		

## Red-eyed Vireo (Vireo olivaceus)

·	APF	RIL				MAY						J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	1	Week 5	W	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0	0			1.86		4.29	5.86		1.62
# Days Observed	0		0		0	0			6		7	7		20
# Processed	0		0		0	0			0		3	7-0-3		10-0-3
	First Date	e: May 22	- 1		Last Date	: June 10- 5	5			Peak Date:	4 Dates- 7			
		JULY			AUG	JUST				SI	EPTEMBEF	ł	ОСТО	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	V	Veek 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	3.57	4.14	6.29	15.71	7.57	2.29	0.29		0.14	0	0	0	0	3.46
# Days Observed	7	7	7	7	7	4	2		1	0	0	0	0	42
# Processed	2-0-3	2	6-0-1	29-0-2	15-0-7	3	1		0	0	0	0	0	58-0-13
	First Date	2-0-3 2 6-0-1 29-0-2 First Date: July 12- 5				te: August 3	30-1			Peak D	ate: August	3- 38		

## Gray Jay (Perisoreus canadensis)

		JULY			AUC	JUST			S	EPTEMBEF	ર	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0.29	0	0	0	0	0	0	0	0.02
# Days Observed	0	0	0	0	1	0	0	0	0	0	0	0	1
	First Dat	e: August 1	0-2		Last Dat	e: August 1	LO- 2		Peak D	ate: August	10-2		

## Blue Jay (Cyanocitta cristata)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total
Mean # Birds/Day	0.30	0.14	1.14	3.00	1.43	0.14	1	0.43	0.90
# Days Observed	3	1	3	6	5	1		3	22
	First Date: April	25-1	Last Date:	June 10- 1	]	Peak Date: May	y 14 & 1	6-5	

## Blue Jay (Cyanocitta cristata)

• • •		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0.14	0.14	1.43	2.14	1.29	2.29	2.29	1.43	0.86	0.57	0.25	1.11
# Days Observed	1	1	1	6	7	6	7	7	6	6	3	1	52
	First Date	e: July 12-	1		Last Dat	e: Septemi	oer 28- 1		Peak D	ate: August	26-4		

## Black-billed Magpie (Pica hudsonia)

Diach onica iti	"BPIC (I	ica mua	some)										
	APF	RIL				MAY					J	UNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	1.00	)	0.29		0	0		0.29		0	0		0.27
# Days Observed	6		1		0	0		2		0	0		9
	First Date	e: April 20	- 1		Last Date	: May 26- 1			Peak Date:	April 28-5			
		JULY			AUC	JUST			S	EPTEMBEF	2	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	2.43	0	9.00	2.29	4.43	1.43	0.86	1.86	1.50	2.00
# Days Observed	0	0	0	1	0	4	3	5	6	3	6	4	32
	First Date	e: August 8	8-17		Last Dat	te: Septeml	oer 30- 1		Peak D	ate: August	18-31		

## American Crow (Corvus brachyrhynchos)

	APH	RIL				MAY					]	IUNE	
	Week	:1	Week 2	V	Week 3	Wee	k 4	Week 5	i i	Week 6	Week	7	Total
Mean # Birds/Day	6.40	)	6.71		5.43	5.4	3	3.14		1.71	2.57		4.60
# Days Observed	10		7		7	7		7		7	7		52
	First Date	e: April 20	- 10		Last Date	: June 10-4	1		Peak Date	: 4 Dates- 10	)		
		JULY			AUG	JUST			S	EPTEMBE	R	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	3.86	2.14	2.43	1.86	11.57	14.57	17.57	7.57	3.43	0.86	0	0	5.69

Mean # Birds/Day	3.86	2.14	2.43	1.86	11.57	14.57	17.57	7.57	3.43	0.86	0	0	5.69
# Days Observed	7	7	6	6	7	7	7	7	7	3	0	0	64
	First Date	e: July 12-	4		Last Dat	e: Septemi	oer 18-3		Peak D	ate: August	23- 52		

## Common Raven (Corvus corax)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	2.40	2.71	1.00	1.43	1.43	0.29	0	1.38
# Days Observed	8	6	5	6	6	2	0	33
	First Date: April 2	20-10	Last Date:	May 30- 1	Pea	k Date: April 20- 1	0	

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.29	4.86	6.71	3.14	2.43	6.14	4.29	3.86	3.14	5.29	6.29	7.00	4.36
# Days Observed	2	5	7	6	6	7	7	7	7	7	7	4	72
	First Date	e: July 16-	1		Last Dat	e: Septeml	oer 30- 2		Peak D	ate: Septem	ber 25- 17		

## Horned Lark (Eremophila alpestris)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	к б	Week 7	Total
Mean # Birds/Day	0	0	0	1.14	0.57	0		0	0.23
# Days Observed	0	0	0	1	2	0		0	3
	First Date: May 1	6-8	Last Date:	: May 24- 2		Peak Date: May	y 16-8		

## Tree Swallow (Tachycineta bicolor)

			,										
	APF	RIL				MAY					]	IUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	2.40	)	75.14		5.29	0.5	7	0.86		1.43	1.86		11.92
# Days Observed	2		7		7	3		4		7	7		37
	First Date	e: April 24	- 20		Last Date	: June 10- 1			Peak Date:	May 5-469			
		JULY			AUC	JUST			SI	EPTEMBEF	Ł	0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.57	0.86	0.14	3.57	0.43	0.71	0	0	0	0	0	0	0.54
# Days Observed	1	2	1	5	1	1	0	0	0	0	0	0	11
	First Date	e: July 15-	4		Last Dat	te: August 1	17-5		Peak D	ate: August	8- 18		

## Bank Swallow (*Riparia riparia*)

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	25.29	5.71	0.29	0	0	0	0	0	0	2.70
# Days Observed	0	0	0	1	1	1	0	0	0	0	0	0	3
	First Dat	e: August 8	- 177		Last Dat	te: August 1	L7- 2		Peak D	ate: August	8- 177		

## Cliff Swallow (*Petrochelidon pyrrhonota*)

		JULY		,	AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 1 Week 2 Week 3 Wee			Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0 0 0			0.14	0	0	0	0	0	0	0	0.16
# Days Observed	0	0	0	1	1	0	0	0	0	0	0	0	2
	First Date	First Date: August 7-12				e: August 9	9-1		Peak D	ate: August	7- 12		

## Barn Swallow (Hirundo rustica)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	с б	Week 7	Total
Mean # Birds/Day	0	0	0.14	0	0.29	0		0	0.06
# Days Observed	0	0	1	0	1	0		0	2
	First Date: May 8-	- 1	Last Date:	May 25- 2		Peak Date: May	y 25- 2		

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1 Week 2 Week 3			Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0 0.29 0			0	0	0	0.29	0	0.14	0	0	0	0.06
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0	0	0	1	0	1	0	0	0	3
	First Date: July 19-2			Last Dat	e: Septemi	oer 8- 1		Peak D	ate: July 19	& August 23	- 2		

## Black-capped Chickadee (Poecile atricapillus)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6 Week 7	Total
Mean # Birds/Day	3.20	3.14	3.29	2.43	2.43	1.00	1.29	2.44
# Days Observed	10	7	7	7	7	5	6	49
# Processed	0-1-0	1-1-0	1-1-1	0-0-2	0	0	0	2-3-3
	First Date: April 2	20-3	Last Date:	June 10- 2	Peal	k Date: April	1 28- 6	

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	TOBER
	Week 1 Week 2 Week 3 Week 4				Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	4.43	5.57	3.86	4.43	4.71	3.57	5.43	4.29	8.00	6.57	3.71	9.00	5.16
# Days Observed	7 6 6			6	7	7	7	7	7	7	7	4	78
# Processed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			3	0	0	1	3	6-0-2	5-0-3	0-0-1	7-1-3	28-1-9
	First Date: July 12- 6			Last Dat	e: Septeml	oer 30- 4		Peak D	ate: Septem	ber 19 & 28	- 16		

## **Boreal Chickadee** (*Poecile hudsonicus*)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.10	0	0	0	0	0	0	0.02
# Days Observed	1	0	0	0	0	0	0	1
	First Date: April 2	25-1	Last Date:	April 25-1	Pea	ak Date: April 25-	l	

## Red-breasted Nuthatch (Sitta canadensis)

	APR	IL				MAY					]	IUNE	
	Week	1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0.10 0				0.43	0.1	4	0.14		0	0		0.12
# Days Observed	1 0				3	1		1		0	0		6
	First Date	: April 25	- 1		Last Date:	: May 21- 1			Peak Date:	All Dates-	1		
	JULY				AUC	JUST			S	EPTEMBER	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.00	0.20	0.20	0.57	1.43	0.43	1.00	0.71	1.43	0.86	0.86	0.50	0.70

	1100101	TOOKL	1100100	1100K I	110010	110010	1100101	1100100	110010	11001110	WOOK 11	TTOOR IL	1000
Mean # Birds/Day	0.00	0.29	0.29	0.57	1.43	0.43	1.00	0.71	1.43	0.86	0.86	0.50	0.70
# Days Observed	0	2	2	3	4	2	5	5	7	5	4	2	41
# Processed	0	0	0	0	0	0	0	0	2	0	1	0	3
	First Date	e: July 20-	1		Last Dat	e: Septeml	oer 30- 1		Peak D	ate: August	9-6		

## White-breasted Nuthatch (Sitta carolinensi)

		JULY			AUC	JUST			S	EPTEMBER	ર	00	CTOBER
	Week 1				Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0	0	0.14	0	0	0	0	0	0	0	0.25	0.04
# Days Observed	1	0	0	1	0	0	0	0	0	0	0	1	3
	First Date	First Date: July 12- 1				e: Septem	ber 29- 1		Peak D	ate: All Date	es- 1		

#### Brown Creeper (Certhia americana)

_		JULY			AUC	JUST			S	EPTEMBEF	ł	00	TOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0.14	0	0.14	0.14	0	0	0	0	0.04
# Days Observed	0 0 0			0	1	0	1	1	0	0	0	0	3
# Processed	0	0	0	0	1	0	1	0	0	0	0	0	2
	First Dat	First Date: August 15-1				e: August 3	31-1		Peak D	ate: All Date	es- 1		

## House Wren (*Troglodytes aedon*)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total
Mean # Birds/Day	0	0	0	0	0	0.14	Ļ	0	0.02
# Days Observed	0	0	0	0	0	1		0	1
# Processed	0	0	0	0	0	1		0	1
	First Date: May 3	1-1	Last Date:	May 31-1		Peak Date: May	/ 31- 1		

		JULY			AUC	JUST			S	EPTEMBEF	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0	0	0	0.14	0	0	0	0	0.01
# Days Observed	0	0	0	0	0	0	0	1	0	0	0	0	1
# Processed	0	0	0	0	0	0	0	1	0	0	0	0	1
	First Date: September 2-1			Last Dat	te: Septeml	oer 2- 1		Peak D	ate: Septem	ber 2- 1			

## Winter Wren (Troglodytes hiemalis)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	1.00	1.00	1.00	1.14	1.00	0.29	0.14	0.81
# Days Observed	8	7	6	6 7		2	1	38
	First Date: April 2	2-1	Last Date:	June 9-1	Pea	ak Date: 4 Dates-	2	

		JULY			AUC	JUST			S	EPTEMBER	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.71 0.43 0.43 0.29			0 0.14 0			0	0	0	0	0	0.17	
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			2	0	1	0	0	0	0	0	0	14
# Processed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0	0 1 0 0 0 0 0 0			0	1				
	First Date: July 12- 1			Last Dat	Last Date: August 21-1				Peak Date: All Dates- 1				

## Golden-crowned Kinglet (Regulus satrapa)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	0	0	0.14	0	0	0	0	0.02	
# Days Observed	0	0	1	1 0		0	0	1	
	First Date: May 8-1		Last Date:	May 8-1	Pea	Peak Date: May 8-1			

## Golden-crowned Kinglet (Regulus satrapa)

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	TOBER
	Week 1	Week 1 Week 2 Week 3			3 Week 4 Week 5 Week 6 Week 7			Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0 0 0 0.14			0.29	0.29	0.43	0.57	1.00	0.20
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0	0	0	1	2	2	2 3 4 2			14
	First Date	First Date: August 26- 1			Last Dat	e: Septemi	oer 30- 1		Peak Date: September 29-3				

## Ruby-crowned Kinglet (Regulus calendula)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	1.80	1.43	0.86	0.14	0.14	0	0.14	0.71
# Days Observed	8	6	5	1	1	0	1	22
# Processed	2	1	2	0	0	0	0	5
	First Date: April 2	21-3	Last Date:	June 4-1	Peak	Date: April 24-	5	

		JULY			AUC	JUST			S	EPTEMBEF	Ł	00	TOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0.14 0.14 0.14			0	0	0.71	0.86	1.71	3.86	1.14	0.75	0.80
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			1	0	0	4	3	4	6	3	2	26
# Processed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0	0 0 0 0			0	2	1	1	0	5
	First Date: July 14-1			Last Date: September 30-1				Peak Date: September 14- 10					

#### APRIL MAY JUNE Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Total Mean # Birds/Day 0.20 0 0 0 0 0 0 0.04 # Days Observed 2 0 0 0 0 0 0 2 0 0 # Processed 0 0 0 0 1 1 First Date: April 20-1 Last Date: April 21-1 Peak Date: All Dates- 1 JULY AUGUST SEPTEMBER OCTOBER Week 4 Week 5 Week 6 Week 11 Total Week 1 Week 3 Week 7 Week 8 Week 9 Week 10 Week 12 Week 2 Mean # Birds/Day 0 0 0 0 0 0 0 0 0 0.14 0 0 0.01 # Days Observed 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 # Processed 0 1 1 First Date: September 14-1 Last Date: September 14-1 Peak Date: September 14-1

## Townsend's Solitaire (Myadestes townsendi)

## Gray-cheeked Thrush (Catharus minimus)

·	API	RIL		,		MAY						J	UNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Weel	: 5	We	ek 6	Week '	7	Total
Mean # Birds/Day	0		0		0.29	2.5	7	0.2	)		0	0		0.42
# Days Observed	0		0		2	4		2			0	0		8
# Processed	0		0		1	16		2			0	0		19
	First Date	e: May 12-	1		Last Date	Last Date: May 27-1 Pe				ik Date: N	lay 17-7			
	JULY				AUC	AUGUST				SEPTEMBER			0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week	8 W	/eek 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0	0	0	0	(	0.14	0	0	0	0.01
# Days Observed			0	0	0	0		1	0	0	0	1		
# Processed	0 0 0 0		0	0	0	0		1	0	0	0	1		
	First Date: September 7-1				Last Date: September 7-1					Peak Date: September 7- 1				

## Swainson's Thrush (Catharus ustulatus)

	APF	RIL				MAY					]	IUNE	
	Week	: 1	Week 2	V	Week 3	Weel	k 4	Week 5	W	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		2.43	19.2	29	4.00		3.71	2.00		4.23
# Days Observed	0		0		5	4		7		7	7		30
# Processed	0	0 0 First Date: May 7- 9			9	40	)	19		12	1		81
	First Date	e: May 7-	9		Last Date	: June 10- 1	l		Peak Date:	eak Date: May 17- 71			
		JULY				AUGUST			SEPTEMBER			(	DCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	2.71	4.57	4.14	9.43	9.86	13.86	11.14	4.43	6.57	0.14	0	0	5.78
# Days Observed	5 7 7 5		7	7	7	7	5	1	0	0	58		
# Processed	6-0-1 17-0-2 19-0-3 32-0-5			43-0-5 61-0-11 43-0-12			14-0-8	27-0-4	0	0	0	262-0-51	
	First Date: July 12-9				Last Date: September 13-1				Peak Da	Peak Date: August 23- 25			

#### Hermit Thrush (Catharus guttatus)

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total		
Mean # Birds/Day	0.30	2.29	2.71	0.71 0.57		0	0.14	0.92		
# Days Observed	2	4	5	3	4	0	1	19		
# Processed	1	1	4	2		0	0	9-0-1		
	First Date: April 2	3-1	Last Date:	June 4-1	Pea	Peak Date: May 6-10				

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.29	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0.43 0.57 0.43 0.29			0	0 0.29 0.43 0.57			0.75	0.36
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			2	3	3	2	0	1	2	2	2	21
# Processed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			2	2-0-1	3	2	0	0 2 2 3			3	24-0-1
	First Date	First Date: July 13-2			Last Date: September 29- 2				Peak Date: September 24-3				

#### American Robin (Turdus migratorius)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total
Mean # Birds/Day	292.40	138.43	3.86	3.86 2.43 4.43		2.86	5	4.14	77.25
# Days Observed	10	6	7	7	7	7		7	51
# Processed	4	1	0	0	0-1-0	3		4-0-3	12-1-3
	First Date: April 2	0-2154	Last Date:	June 10- 4	Pea	Peak Date: April 20- 2154			

## American Robin (Turdus migratorius)

	<b></b>												
		JULY			AUC	JUST			S	EPTEMBEF	ł.	00	TOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	4.29	4.29 1.71 3.00 6 5 6			5.57 1.86 1.29 1.14			3.71	1.57	0.14	6.57	20.75	3.69
# Days Observed	6	6 5 6			6	4	4	4	4	1	4	4	55
# Processed	6-0-3 0 3 1-0			1-0-1	0	2-0-1	1-1-0	-0 0 0 0			3	2	18-1-5
	First Dat	First Date: July 12- 10			Last Date: September 30- 52				Peak Date: September 30- 52				

## Gray Catbird (Dumetella carolinensis)

	APRIL			MAY				JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total		
Mean # Birds/Day	0	0	0	0	0	0		0.14	0.02		
# Days Observed	0	0	0	0 0		0		1	1		
	First Date: June 1	0-1	Last Date:	June 10- 1		Peak Date: June 10- 1					

## European Starling (Sturnus vulgaris)

_	APH	RIL				MAY					J	JUNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week	5	Week 6	Week	7	Total
Mean # Birds/Day	2.20	)	1.71		1.29	2.1	4	2.86		0	0		1.50
# Days Observed	3		3		4	4		3		0			17
	First Date	First Date: April 21- 8				: May 25- 1			Peak Date	: May 21- 17			
	JULY				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 ?	2 Total
Mean # Birds/Day	0 0 0 0 0			0	0	0	0	0	2.14	0	0	0.19	
# Days Observed	0 0 0 0			0	0	0	0	0	1	0	0	1	
	First Date: September 14-15				Last Date: September 14- 15			Peak	Peak Date: August 14-15				

## American Pipit (Anthus rubescens)

	APF	RIL				MAY					J	JUNE		
	Week	: 1	Week 2	W	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week 2	7	Total	
Mean # Birds/Day	7.90	)	119.71		2.43	0.1	4	0.14		0	0		18.00	
# Days Observed	6		6		5	1		1		0	0		19	
	First Date	e: April 20	- 7		Last Date:	: May 23- 1			Peak Date:	May 2- 646				
		JULY			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 1	2 Tota	al	
Mean # Birds/Day	0	0	0 0 0		0	0	19.86	10.43	36.29	34.57	4.43	1.00	9.17	7
# Days Observed	0	0 0 0			0	0	6	6	7	6	4	2	31	
	First Date: August 23-1				Last Date: September 30- 3			Peak D	Peak Date: September 14- 114					

## Bohemian Waxwing (Bombycilla garrulus)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total
Mean # Birds/Day	0.40	0	0	0	0	0		0	0.08
# Days Observed	1	0	0	0	0	0		0	1
	First Date: April	23-4	Last Date:	April 23-4		Peak Date: April 23- 4			

## Cedar Waxwing (Bombycilla cedrorum)

	APRIL			MAY				JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total	
Mean # Birds/Day	0	0	0	0	0.43	3.86	5	118.43	16.52	
# Days Observed	0	0	0	0	2	3		7	12	
# Processed	0	0	0	0	0	0		1	1	
	First Date: May 2	2-1	Last Date:	June 10- 12	Р	Peak Date: June 6- 468				

		JULY				GUST			S	EPTEMBER	R	00	CTOBER
	Week 1				Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	15.00	14.29	10.43	14.57	37.14	36.00	25.86	16.57	13.86	3.14	0.14	0	16.16
# Days Observed	7	7 7 7 7			7	7	7	7	6	5	1	0	68
# Processed	4	1	1	2	4	0	1	0	2-0-1	0	0	0	15-0-1
	First Date	First Date: July 12- 18			Last Date: September 24-1				Peak Date: August 17- 103				

## Lapland Longspur (Calcarius lapponicus)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	2.00	3.29	0.29	0	0	0	0	0.87	
# Days Observed	2	5	2	0	0	0	0	9	
	First Date: April 2	24-1	Last Date:	May 9-1	Pea	Peak Date: April 29- 19			

## Lapland Longspur (Calcarius lapponicus)

		JULY		ŕ	AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Veek 1 Week 2 Week 3			3 Week 4 Week 5 Week 6 Week 7			Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0				0	0.29	2.43	2.00	5.86	10.00	2.86	0.25	2.04
# Days Observed	0	0	0	0	0	2	5	3	7	6	3	1	27
	First Date	First Date: August 21- 1			Last Dat	Last Date: September 29-1			Peak Date: September 19- 25				

## Ovenbird (Seiurus aurocapilla)

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total	
Mean # Birds/Day	0	0	0.86	4.29	9.29	7.43	3	4.43	3.54	
# Days Observed	0	0	3	7	7	7		7	31	
# Processed	0	0	1	8-1-0	22-1-1	7-2-	6	3	41-4-7	
	First Date: May 1	0-1	Last Date:	Last Date: June 10- 4			Peak Date: May 25- 16			

		JULY			AUC	JUST			S	EPTEMBEF	ł	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	Total
Mean # Birds/Day	3.29	3.29 10.57 9.29			16.43	3.57	3.00	0.14	0.43	0	0	0	5.37
# Days Observed	6	3.29         10.57         9.29         15.43           6         6         7         6			7 6 6 1			1	2	0	0	0	47
# Processed	10	10 50-0-12 42-0-9 73-0-4			79-0-1 15-1-1 17 1			1	2	0	0	0	289-1-27
	First Dat	First Date: July 12-7		Last Date: September 8-1				Peak Date: August 8 & 9-46					

## Northern Waterthrush (Parkesia noveboracensis)

	APRIL			MAY						
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total		
Mean # Birds/Day	0	0	1.00	2.00 1.14		0.71	0.57	0.73		
# Days Observed	0	0	5	6	7	5	4	27		
# Processed	0	0	2	6 1		0	0	9		
	First Date: May 7-	- 3	Last Date:	Last Date: June 9-1			Peak Date: 5 Dates- 3			

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.29	0.29 $0.43$ $1.14$			0.57	0.29	0.29	0.14	0	0	0	0	0.35
# Days Observed	2	2 $2$ $4$			3	2	2	1	0	0	0	0	21
# Processed	2	3	3	4	4	2	2	1	0	0	0	0	21
	First Date	First Date: July 15- 1			Last Date: August 30- 1			Peak Date: July 31-4					

## Black-and-white Warbler (*Mniotilta varia*)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	5.14	9.00	6.57	3.57	3.43	3.73
# Days Observed	0	0	7	7	7	7	7	35
# Processed	0	0	8	21	11-1-2	4	0-0-1	44-1-3
	First Date: May 7	- 2	Last Date:	June 10- 4	Pea	ak Date: May 20-	13	

## Black-and-white Warbler (*Mniotilta varia*)

		JULY			AUC	JUST			S	EPTEMBER	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	1.14	5.14	6.43	14.86	8.71	1.57	1.29	0	0.14	0.29	0	0	3.42
# Days Observed	3	5	3	7	5	4	4	0	1	1	0	0	33
# Processed	3	14	8-0-1	41-0-2	10	4	4	0	1	2	0	0	87-0-3
	First Date	First Date: July 12-2				e: Septemi	oer 14- 2		Peak D	ate: August	8- 45		

## Tennessee Warbler (Oreothlypis peregrine)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	0.29	3.57	13.71	2.00	0.29	2.67
# Days Observed	0	0	2	7	7	5	2	23
# Processed	0	0	0	2	3	0	0	5
	First Date: May 1	2-1	Last Date:	June 10- 1	Peal	k Date: May 25-	- 41	

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3					Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	4.71	38.43	28.00	202.14	114.14	21.43	3.71	0.43	0	0	0	0	35.69
# Days Observed	4	7	5	6	7	4	5	1	0	0	0	0	39
# Processed	1	16	9	178	26	5	3	2	0	0	0	0	240
	First Date	First Date: July 12- 5				te: August 3	30-3		Peak D	ate: August	8- 700		

	API	RIL				MAY				J	UNE		
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Week 6	Week	7	Total
Mean # Birds/Day	0.10	)	3.14		6.14	1.2	9	0		0	0		1.44
# Days Observed	1		4		4	5		0		0	0		14
# Processed	0	0 2			15	3		0		0	0		20
	First Date	e: April 28-	- 1		Last Date	: May 19- 1	1		Peak Date:	May 7-33			
	JULY												
		JULY			AUC	GUST			S	EPTEMBEF	ł	C	OCTOBER
	Week 1	JULY Week 2	Week 3	Week 4	AUC Week 5	GUST Week 6	Week 7	Week 8	S Week 9	EPTEMBER Week 10	R Week 11	Week 12	Total
Mean # Birds/Day	Week 1		Week 3	Week 4 0.29			Week 7 0.57	Week 8					-
Mean # Birds/Day # Days Observed	Week 1 0 0				Week 5	Week 6			Week 9	Week 10	Week 11	Week 12	Total
	Week 1 0 0 0		0		Week 5	Week 6 0.29	0.57		Week 9	Week 10	Week 11	Week 12 0.50	<b>Total</b> 1.86

## Orange-crowned Warbler (Oreothlypis celata)

## Nashville Warbler (Oreothlypis ruficapilla)

	APF	RIL				MAY						IUNE	
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0	0		0		0.14	0		0.02
# Days Observed	0		0		0	0		0		1	0		1
# Processed	0		0		0	0		0		1	0		1
	First Date	e: May 28-	1		Last Date:	: May 28- 1			Peak Date:	May 28-1			
		JULY			AUC	JUST			SI	EPTEMBER	ξ	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0			0.14	0	0	0	0	0	0	0.01
# Days Observed	0	0	0	0	0	1	0	0	0	0	0	0	1

Last Date: August 17-1

Peak Date: August 17-1

## Connecticut Warbler (Oporornis agilis)

# Processed

First Date: August 17-1

	APH	RIL				MAY						J	UNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	W	Veek 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0	0			0.14		0.14	0		0.04
# Days Observed	0		0		0	0			1		1	0		2
# Processed	0		0		0	0			1		0	0		1
	First Date	e: May 27-	- 1		Last Date:	: May 29- 1				Peak Date:	All Dates- 1	1		
	JULY				AUC	JUST				S	EPTEMBEF	ł		OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	W	leek 8	Week 9	Week 10	Week 11	Week 12	2 Total
Mean # Birds/Day	0	0	0.14	0	0	0	0		0	0	0	0	0	0.01
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0	0	0		0	0	0	0	0	1	
# Processed	0	0  1  0		0	0	0		0	0	0	0	0	1	
	First Date	First Date: August 1- 1				e: August 2	L- 1			Peak D	ate: August	1-1		

## Mourning Warbler (Geothlypis philadelphia)

	API	RIL				MAY					J	UNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week 2	7	Total
Mean # Birds/Day	0		0		0	0		1.00		1.57	3.29		0.79
# Days Observed	0		0		0	0		2		6	7		15
# Processed	0	0		0	0		2		1-1-0	10-0-4	Ļ	13-1-4	
	First Date	e: May 24-	2		Last Date	: June 10- 2	2		Peak Date:	June 6- 6			
	JULY			AUC	JUST			S	EPTEMBEF	ł	C	CTOBER	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.29	0.57	2.43	3.43	2.57	0.71	0.57	0.14	0.14	0	0	0	0.94
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			4	4	3	1	1	0	0	0	31	
# Processed	0 2-0-1 11-0-1 17-0-1			9	3	3	1	1	0	0	0	47-0-3	
	First Date	First Date: July 12- 2				e: Septeml	oer 10- 1		Peak D	ate: August	9- 11		

## Common Yellowthroat (Geothlypis trichas)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	0	0.43	1.57	2.14	2.43	0.88
# Days Observed	0	0	0	2	7	6	7	22
# Processed	0	0	0	2	2	4	5	13
	First Date: May 1	8-1	Last Date:	June 10- 2	Pea	k Date: June 4	- 5	

## Common Yellowthroat (Geothlypis trichas)

		. (2:::::	$J_F \sim \cdots \sim$										
		JULY			AUC	JUST			S	EPTEMBEF	ર	00	CTOBER
	Week 1	Week 2	Week 3					Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	1.71	0.71	1.00	0.57	0.71	0.86	2.71	1.43	1.29	0.43	0	0	0.99
# Days Observed	6	3	5	3	4	3	6	5	5	2	0	0	42
# Processed	2	0	2	2	2	3	5	0	1	0	0	0	17
	First Dat	First Date: July 12-2			Last Dat	te: Septeml	ber 15- 1		Peak D	ate: August	25-6		

## American Redstart (Setophaga ruticilla)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	0	2.14	10.57	8.57	5.86	3.65
# Days Observed	0	0	0	5	7	7	7	26
# Processed	0	0	0	2	5	16	9-1-0	32-1-0
	First Date: May 1-	4-2	Last Date:	June 10- 7	I	Peak Date: May 2	5-26	

		JULY			AUC	JUST			S	EPTEMBEF	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 4 Week 5 Week 6 Week 7 We			Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	2.29	5.86	8.29	19.57	8.57	2.57	1.71	0.71	0.14	0	0.14	0	4.31
# Days Observed	6	7	5	7	7	6	4	3	1	0	1	0	47
# Processed	1-0-1	10-0-1	13	39	16	6	2	0	1	0	0	0	88-0-2
	First Date	First Date: July 12- 2			Last Dat	te: Septeml	ber 22- 1		Peak D	ate: August	8- 57		

## Cape May Warbler (Setophaga tigrina)

		JULY			AUC	JUST			S	EPTEMBEF	ર	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0.43	0	0.14	0	0	0	0	0	0	0.05
# Days Observed	0	0	0	2	0	1	0	0	0	0	0	0	3
# Processed	0	0	0	3	0	0	0	0	0	0	0	0	3
	First Date: August 5-2			Last Dat	Last Date: August 18-1				ate: August	5-2			

## Magnolia Warbler (Setophaga magnolia)

	APRIL			MAY					JUNE	
	Week 1	Week 2	Week 3	Week 4	v	Veek 5	Week 6	1	Week 7	Total
Mean # Birds/Day	0	0	0	0.29		1.29	1.71		1.14	0.60
# Days Observed	0	0	0	2		5	6		7	20
# Processed	0	0	0	2		1	2		1	6
	First Date: May 1	8-1	Last Date:	Last Date: June 10- 1			c Date: May 2	28-6		
	JULY		AUG	UST		SEPTEN	MBER		OCTOBER	

		JULI			AUC	1031			3	EFIEMDER	<b>`</b>	00	TODER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.43	0.14	0.86	1.43	1.43	0.29	1.00	0.29	0	0	0	0	0.51
# Days Observed	3	1	2	3	2	2	4	1	0	0	0	0	18
# Processed	0	0	1	5	3	1	2	2	0	0	0	0	14
	First Date	First Date: July 12- 1				e: August 3	31-2		Peak D	ate: August	9-6		

## Bay-breasted Warbler (Setophaga castanea)

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0.29	0.43	1.29	0.14	0.14	0	0	0.14	0	0	0	0.21
# Days Observed	0	2	2	4	1	1	0	0	1	0	0	0	11
# Processed	0	0	1	7	1	1	0	0	1	0	0	0	11
	First Date	First Date: July 19-1			Last Dat	Last Date: September 6-1				ate: August	7-4		

## Blackburnian Warbler (Setophaga fusca)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	0	0	0	0.14	0	0.02
# Days Observed	0	0	0	0	0	1	0	1
	First Date: May 3	0-1	Last Date:	May 30-1	Pea	ak Date: May 30- 1		

## Yellow Warbler (Setophaga petechia)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	0.43	7.14	10.14	5.14	3.86	3.60
# Days Observed	0	0	2	7	7	7	7	30
# Processed	0	0	0	0	2	4	0	6
	First Date: May 8	- 1	Last Date:	June 10- 2	Pea	k Date: May 16- 21		

## Yellow Warbler (Setophaga petechia)

	- (~~~p	man pe											
		JULY			AUC	JUST			S	EPTEMBER	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	3.86	9.14	14.86	24.71	6.29	3.00	3.71	1.57	0	0	0	0	5.80
# Days Observed	7	6	6	6	7	6	4	3	0	0	0	0	45
# Processed	0	9	16	31	9	4	1	2	0	0	0	0	72
	First Dat	First Date: July 12-9			Last Dat	Last Date: September 1-2			Peak D	ate: July 31-	73		

## Chestnut-sided Warbler (Setophaga pensylvanica)

		JULY			AUC	GUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0.14	0	0	0	0	0	0	0	0	0	0.01
# Days Observed	0	0	1	0	0	0	0	0	0	0	0	0	1
	First Date	First Date: July 31- 1			Last Date: July 31- 1				Peak D	ate: July 31-	1		

#### Blackpoll Warbler (Setophaga striata)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total
Mean # Birds/Day	0	0	0	0.14	0	0		0	0.02
# Days Observed	0	0	0	1	0	0		0	1
# Processed	0	0	0	1	0	0		0	1
	First Date: May 1	8-1	Last Date:	May 18-1		Peak Date: May	y 18-1		

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0.29	0.29	0.14	0.43	0	0.14	0	0.57	0	0	0.16
# Days Observed	0	0	1	2	1	2	0	1	0	2	0	0	9
# Processed	0	0	0	2	1	2	0	1	0	2	0	0	8
	First Dat	First Date: July 31-2			Last Dat	te: Septeml	oer 15- 1		Peak D	ate: Septem	ber 14- 3		

## Palm Warbler (Setophaga palmarum)

	APF	RIL	, , , , , , , , , , , , , , , , , , ,			MAY				JUNE				
	Week	1	Week 2	V	Veek 3	Wee	k 4	Week 5	1	Week 6	Week '	7	Total	
Mean # Birds/Day	0		0		0.43	1.4	3	0.14		0	0		0.27	
# Days Observed	0		0		3	4		1		0	0		8	
# Processed	0		0				0		0 0			1		
	First Date	e: May 9- 1			Last Date	: May 25- 1			Peak Date:	May 16-4				
		JULY				JUST			S	EPTEMBER	ξ		OCTOBER	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 1	2 Total	
Mean # Birds/Day	0	0.14	0.43	1.57	0	1.00	1.57	0.86	1.43	0.43	1.29	0	0.75	
# Days Observed	0	1	2	3	0	3	5	3	4	2	2	0	25	
# Processed	0	0	1	2	0	2	0	4	2	2	4	0	17	

First Date: July 21-1Last Date: September 24-4Peak Date: August 2-8

Note: Palm warblers were identified as Western Palm Warblers Setophaga palmarum palmarum

## Yellow-rumped Warbler (Setophaga coronata)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	7.00	31.86	51.43	24.29	4.57	1.71	2.43	17.00
# Days Observed	10	7	7	7	7	6	7	51
# Processed	3	3-1-0	14-1-0	4-0-1	2-0-1	0-1-0	1-3-8	27-6-10
	First Date: April 20- 7		Last Date:	June 10- 2	Pea	k Date: May 10- 11	1	

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1 Week 2 Week 3 Week 4			Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	6.86 57.43 61.00 377.43			385.00	405.57	541.00	238.14	523.57	657.86	61.86	39.75	288.51	
# Days Observed	5         6         6         7			7	7 7 7 7			7	7	6	4	76	
# Processed	6 11 7 110			43	53 111 151 168			379	34	14	1087		
	First Date: July 12- 14			Last Date: September 30- 22			Peak Date: August 17- 2278						

Note: all yellow-rumped warblers banded were Myrtle warblers Setophaga coronata coronata

## Black-throated Green Warbler (Setophaga virens)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	0	0	0.43	0.43	0	0.14	0	0.13	
# Days Observed	0	0	3	3	0	1	0	7	
	First Date: May 1	0-1	Last Date:	May 29-1	Pea	Peak Date: All Dates- 1			

## Black-throated Green Warbler (Setophaga virens)

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	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	Total	
Mean # Birds/Day	0.14	0.14 0.14 0 0.43				0 0.14 0 0			0	0	0	0	0.07	
# Days Observed	1	1	0	2	0 1 0			0	0	0	0	0	5	
# Processed	0	1	0	1	0	0 1 0		0	0	0	0	0	3	
	First Date: July 17-1			Last Date: August 17-1				Peak Date: August 2-2						

## Canada Warbler (Cardellina canadensis)

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6	Week 7	Total	
Mean # Birds/Day	0	0	0	0.14	3.14	8.00	)	7.29	2.50	
# Days Observed	0	0	0	1	4	7		7	19	
# Processed	0	0	0	0	6-1-0	16-2	-0	4	26-3-0	
	First Date: May 1	9-1	Last Date:	June 10- 8	Peak Date: May 27-14					

		JULY		AUGUST					S	EPTEMBE	ł	OCTOBER		
	Week 1				Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	0.57				10.71 6.00 0.29 0			0	0	0	0	0	2.21	
# Days Observed	3 7 6 7			7	7 6 2 0			0	0	0	0	0	31	
# Processed	1 3-0-1 10 13			10 0 0			0	0	0	0	0	37-0-1		
	First Date: July 12-2			Last Date: August 18-1			Peak Date: August 2-22							

## Wilson's Warbler (Cardellina pusilla)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Weel	к б	Week 7	Total
Mean # Birds/Day	0	0	0	0.14	0	0		0	0.02
# Days Observed	0	0	0	1	0	0		0	1
	First Date: May 1	5-1	Last Date:	May 15-1	Peak Date: May 15-1				

		JULY			AUGUST				SEPTEMBER				OCTOBER	
	Week 1	Week 1 Week 2 Week 3 Week 4				Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	0	0	0	0	0.43 0.29 0.86			0.43	0.43	0.29	0	0	0.23	
# Days Observed	0	0 0 0 0				3 2 3 2			3	1	0	0	14	
# Processed	0 0 0 0				1 2 2 2			2	1	1	0	0	9	
	First Date: August 9-1			Last Date: September 14-2			Peak Date: August 26-3							

## American Tree Sparrow (Spizelloides arborea)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	12.50	0	0	0	0	0	0	2.40	
# Days Observed	7	0	0	0	0	0	0	7	
# Processed	9	0	0	0	0	0	0	9	
	First Date: April 2	20-22	Last Date:	April 26-1	Peal	Peak Date: April 23- 59			

		JULY		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	Total	
Mean # Birds/Day	0	0 0 0 0				0 0 0 0				0 0 0 0			0.04	
# Days Observed	0 0 0 0				0 0 0 0			0	0	0	0	2	2	
# Processed	0 0 0 0			0 0 0 0			0	0	0	0	2	2		
	First Date: September 29-2			Last Date: September 30- 1				Peak Date: September 29- 2						

## Chipping Sparrow (Spizella arborea)

	APRIL			MAY		JUNE				
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total	
Mean # Birds/Day	0	0	2.71	38.14	10.29	0.57	7	0.71	7.06	
# Days Observed	0	0	5	7	6	4		5	27	
# Processed	0	0	1	16	3-1-0	1		1	22-1-0	
	First Date: May 9-	- 3	Last Date:	Last Date: June 9-1			Peak Date: May 18- 181			

	JULY				AUC	JUST			S	EPTEMBE	2	00	TOBER
	Week 1 Week 2 Week 3 Week 4		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	1.86 0.43 1.00		1.00	0.71 1.71 0 0.86		0.29	0	0	0	0	0.59		
# Days Observed	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			4 3 0 2			1	0	0	0	0	17	
# Processed	2 0 2 4			1	1 0 1 0			0	0	0	0	10	
	First Date: July 12-4			Last Date: September 2- 2				Peak Date: August 9-10					

#### APRIL MAY JUNE Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Total Mean # Birds/Day 11.86 0 0 0.71 25.71 4.43 5.14 6.44 # Days Observed 0 0 2 7 7 7 30 2 10-0-1 35-0-1 0 18 2 # Processed 0 3 First Date: May 12-2 Last Date: June 10-3 Peak Date: May 18-143 JULY AUGUST SEPTEMBER OCTOBER Week 4 Week 5 Week 9 Week 10 Week 11 Total Week 1 Week 2 Week 3 Week 6 Week 7 Week 8 Week 12 4.43 Mean # Birds/Day 4.14 6.43 1.71 1.86 0.29 0.57 1.57 0.00 0.00 0.00 0.00 1.81 # Days Observed 7 7 5 5 5 2 2 3 0 0 0 0 36 0 0 0 2 10 # Processed 4 1 2 0 0 0 0 1

Last Date: September 3-1

Peak Date: July 23-15

## Clay-colored Sparrow (Spizella pallida)

## Vesper Sparrow (Pooecetes gramineus)

First Date: July 12-6

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	k 3 Week 4 Week 5		Week 6	Week 7	Total		
Mean # Birds/Day	0	0.14	0.14	0	0	0	0	0.04		
# Days Observed	0	1	1	0	0	0	0	2		
	First Date: May 2	2-1	Last Date:	Last Date: May 7-1			Peak Date: All Dates- 1			

#### Lark Sparrow (Chondestes grammacus)

_	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 3 Week 4 Week		Week 6	Week 7	Total	
Mean # Birds/Day	0	0	0 0.14 0.14			0	0	0.04	
# Days Observed	0	0	0	0 1		0	0	2	
	First Date: May 1	4-1	Last Date:	May 23-1	Pea	eak Date: All Dates- 1			

#### Savannah Sparrow (Passerculus sandwichensis)

_	APF	RIL				MAY					J	IUNE	
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week 5	W	Veek 6	Week	7	Total
Mean # Birds/Day	1.30	)	3.71		0.86	1.5	7	0.43		0	0		1.13
# Days Observed	2		6		4	3		2		0	0		17
# Processed	0 0 First Date: April 28- 4				4	2		0		0	0		6
	First Date	e: April 28	- 4		Last Date:	: May 23- 2	2		Peak Date:	eak Date: April 29- 9			
		JULY			AUGUST				SEPTEMBER				CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.29	0	0	0	0	0.14	0.43	0.43	0.43	0	0.14	0	0.16
# Days Observed	1	0	0	0	0	1	2	1	2	0	1	0	8
# Processed	2	0	0	0	0	1	3	1	2	0	0	0	9
	First Date	e: July 17-	2		Last Date: September 24- 1 Pe				Peak Da	Peak Date: September 2- 3			

## Fox Sparrow (Passerella iliaca)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Weel	x 6	Week 7	Total
Mean # Birds/Day	1.70	0	0	0	0	0		0	0.33
# Days Observed	4	0	0	0 0		0		0	4
# Processed	3	0	0	0	0	0		0	3
	First Date: April	22-1	Last Date:	Peak Date: Api	ak Date: April 24- 11				
	<u> </u>			· · ·					

		JULY		AUGUST					S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0 0 0 0				0	0	0.14	0	0	0.01
# Days Observed	0	0	0	0	0	0	0	0	0	1	0	0	1
# Processed	0	0	0	0	0	0 0 0 0			0	1	0	0	1
	First Dat	e: Septemb	er 16- 1		Last Dat	Last Date: September 16-1				Peak Date: September 16-1			

#### Song Sparrow (Melospiza melodia)

	APRIL			MAY			JUNE			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total		
Mean # Birds/Day	2.20 3.29		4.43 3.00 2.		2.29	1.86	3.29	2.87		
# Days Observed	8 7		7 7 7		6	6	7	48		
# Processed	0-1-0 0		3-0-1	1-0-2	0	1	4-0-1	9-1-4		
	First Date: April 2	1-1	Last Date:	June 10- 5	Pe	Peak Date: May 9- 8				

## Song Sparrow (Melospiza melodia)

Song Spanson	(112000)												
		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	4.57	3.00	0.71	0.86	1.00	0.14	0.14	0	0	0	0	0	0.90
# Days Observed	7	7	3	4	4	1	1	0	0	0	0	0	27
# Processed	4-0-3	6-0-1	2	3-0-1	1-0-1	0-0-1	0	0	0 0 0 0			0	16-0-7
	First Date	First Date: July 12- 10				Last Date: August 24-1			Peak Date: July 12-10				

## Lincoln's Sparrow (Melospiza lincolnii)

	APRIL			MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	0	1.00 3.71		5.00	3.71	2.86	1.86	2.44	
# Days Observed	0	2	6 7		7	7	6	35	
# Processed	0	0	8-0-2	8-0-2 6-1-0 3-0-4		2-0-2	20-1-12		
	First Date: May 5	- 4	Last Date:	June 10- 3	Pe	Peak Date: May 12, 16, 17-7			

		JULY			AUC	JUST			S	EPTEMBEF	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4 Week 5 Week 6 Week 7				Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	4.43					2.57 1.86 1.00 0.2				0.43	0	0	2.01
# Days Observed	7	7	6	6	6 7 6			2	5	3	0	0	55
# Processed	7-0-4	17-0-5	4-0-2	4-0-3	8-0-2	6-0-2	1-0-2	1-0-2 1 2-0-1 1 0			0	51-0-21	
	First Date	First Date: July 12- 11			Last Date: September 18-1				Peak Date: July 21-12				

## Swamp Sparrow (Melospiza georgiana)

	APF	RIL	8	·		MAY					J	UNE	
	Week	: 1	Week 2	W	/eek 3	Weel	Week 4		V	Veek 6	Week	7	Total
Mean # Birds/Day	0		0		0.14 0			0		0	0		0.02
# Days Observed	0 0				1	0		0	0 0		0		1
# Processed	0 0 First Date: May 11- 1				1	0		0		0	0		1
	First Date	e: May 11-	1		Last Date:	: May 11- 1			Peak Date:	May 11-1			
		II II X			ALICHET				0			CTODED	
		JULY			AUGUST			_	SEPTEMBER				CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Maan # Dinda/Dan													Total
Mean # Birds/Day	0.14	0.57	0.29	0.29	0	0.29	0	0	0	0	0	0	0.14
# Days Observed	0.14	0.57 2	0.29	0.29	0	0.29	0	0	0	0	0	0	
	0.14 1 0	0.57 2 3	0.29 1 2	0.29 2 2	0 0 0		0 0 0	0 0 0	0 0 0	0	0 0 0	0 0 0	0.14

## White-throated Sparrow (Zonotrichia albicollis)

	APRIL			MAY				JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	с б	Week 7	Total	
Mean # Birds/Day	0	1.57	10.86	18.71	11.43	9.29	)	8.00	8.06	
# Days Observed	0	3	3 7 7		7	7		7	38	
# Processed	0	0	16	16 28-1-3		15-1-5 8-2-		1-0-2	68-4-13	
	First Date: May 4	- 1	Last Date:	Last Date: June 10- 6			Peak Date: May 17-43			

		JULY			AUC	JUST			S	EPTEMBE	ł	00	CTOBER
	Week 1	Week 2	Week 3	3 Week 4 Week 5 Week 6 Week 7				Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	9.86	15.86	8.43	7.71	6.29	4.29	5.71	5.86	6.29	5.57	0.43	0	6.59
# Days Observed	7	7	7	7	6	6	7	6	7	6	2	0	68
# Processed	2-0-3	20-0-2	17-0-2	18-0-3	13	8-0-1	4	1-0-1	1-0-1 8-0-4 5-0-1 0			0	96-0-17
	First Dat	First Date: July 12- 14				te: Septeml	oer 22- 1		Peak Date: July 31- 30				

## White-crowned Sparrow (Zonotrichia leucophrys)

	API	RIL				MAY					J	IUNE	
	Week	:1	Week 2	V	Veek 3	Yeek 3 Week 4		Week 5		Week 6	Week	7	Total
Mean # Birds/Day	0.30	)	5.43		1.29	1.0	0	0		0	0		1.10
# Days Observed	1		3		4	2		0	0		0		10
# Processed	0		1		1 1			0		0	0		3
	First Date	e: April 29	)- 3		Last Date	: May 17- 1			Peak Date	: May 6- 35			
		JULY			AUC	GUST			SEPTEMBER				OCTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 5 Week 6 Week 7			Week 9	Week 10	Week 11	Week 1	2 Total
Mean # Birds/Day	0	0	0	0	0	0	0.29	1.00	1.43	3.29	0.71	0	0.58
# Days Observed	0	0 0 0			0	0	2	3	6	5	3	0	19
# Processed	0	0	0 0		0	0	2	0	4-0-1	8	2	0	16-0-1
	First Date	e: August	25-1		Last Dat	Last Date: September 24-3				Peak Date: September 16- 16			

Note: all banded white-crowned sparrows were identified as the Gambel's subspecies Zonotrichia leucophrys gambelii

## Slate-coloured Junco (Junco hyemalis)

	APF	RIL				MAY						J	UNE		
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	V	Week 5	V	Veek 6	Week	7	Т	otal
Mean # Birds/Day	20.7	0	2.71		1.29	0.0	0		0.00		0.00	0.00		4	.52
# Days Observed	10		7		3	0			0		0	0			20
# Processed	23-0-	-1	4		0	0			0		0	0		27	-0-1
	First Date: April 20- 49Last Date: May 10- 1Peak Date: June 20- 49							April 23- 7	9						
	JULY				AUC	JUST				S	EPTEMBEF	ξ		OCT	OBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	N	Veek 8	Week 9	Week 10	Week 11	Week	12	Total
Mean # Birds/Day	0	0	0	0	0	0	0.14		0.29	0.14	1.57	0.43	3.75	5	0.41
# Days Observed	0	0	0	0	0	0	1		1	1	4	2	3		12
# Processed	0	0	0	0	0	0	0		1	0	3	0	2		6
	First Date	e: August 2	25-1		Last Dat	te: Septeml	ber 30- 3			Peak D	ate: Septer	ber 29- 10			

## Western Tanager (Piranga ludoviciana)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total
Mean # Birds/Day	0	0	1.43	1.29	1.14	0.71		0.14	0.63
# Days Observed	0	0	5	7	6	5		1	24
	First Date: May 8-1		Last Date:	June 6-1	P	Peak Date: May	/ 12- 4		

		JULY			AUC	JUST			S	EPTEMBEF	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.57	7.86	7.14	11.29	11.29	1.71	0.43	0.14	0	0	0	0	3.49
# Days Observed	3	6	6	7	7	5	2	1	0	0	0	0	37
# Processed	0	12	7	4	2	1	0	0	0	0	0	0	26
	First Date	First Date: July 13- 1			Last Dat	te: Septeml	oer 2- 1		Peak D	ate: August	9-31		

## Rose-breasted Grosbeak (Pheucticus ludovicianus)

	APRIL			MAY					JUNE	
	Week 1	Week 2	Week 3	Week 4	W	eek 5	Week	6	Week 7	Total
Mean # Birds/Day	0	0	0	3.57	5	.14	1.29		0.86	1.46
# Days Observed	0	0	0	7		7	6		5	25
# Processed	0	0	0	1		0	1		0	2
	First Date: May 1	4-3	Last Date:	June 10- 1		Peal	k Date: May	21-9		
	****									OCTORER

		JULY			AUC	JUST			S	EPTEMBEF	2	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.57	1.43	0.57	5.14	2.43	0.29	0.14	0.14	0	0	0	0	0.93
# Days Observed	3	3	2	7	6	1	1	1	0	0	0	0	24
# Processed	0	1	0	2-0-1	1	1	0	0	0	0	0	0	5-0-1
	First Date	First Date: July 12- 2				te: Septeml	oer 2- 1		Peak D	ate: August	8 & 9- 10		

## Red-winged Blackbird (Agelaius phoeniceus)

8	APH	RIL				MAY					J	IUNE	
	Week	: 1	Week 2	V	Veek 3	Wee	k 4	Week 5	V	Veek 6	Week	7	Total
Mean # Birds/Day	25.2	0	20.57		14.14	11.0	00	6.29		2.29	0.43		12.21
# Days Observed	8		5		7	7		7		6	2	42	
	First Date	First Date: April 20- 50Last Date: June 10- 1Peak Date:								April 23-1	10		
		JULY			AUC	JUST			S	EPTEMBEF		0	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	7.71	19.29	0.29	13.86	3.14	0	0	0	0.14	0	0	0	3.84
# Days Observed	4	5	1	6	2	0	0	0	1	0	0	0	19
# Processed	0	1	0	0	0	0	0	0	0	0	0	0	1
	First Date	e: July 12-	- 10		Last Dat	te: Septeml	ber 9- 1		Peak D	ate: July 20-	- 85		

Note: a large number of blackbirds are recorded as unidentified because their migration patterns make positive id difficult.

## Western Meadowlark (Sturnella neglecta)

	APRIL			MAY				JUNE
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	6 Week	7 Total
Mean # Birds/Day	0	0	0	0.14	0	0	0	0.02
# Days Observed	0	0	0	1	0	0	0	1
	First Date: May 1	6-1	Last Date:	May 16-1	Pe	eak Date: May	16-1	

#### MAY JUNE APRIL Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Total Mean # Birds/Day 40.10 2.14 0 0 0 0 0 8.00 # Days Observed 2 1 0 0 0 0 0 3 First Date: April 23- 236 Last Date: May 6-15 Peak Date: April 23- 236 JULY 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 Total Mean # Birds/Day 0 0 0 0 14.14 0 1.22 0 0 0 0 0 0 # Days Observed 0 0 0 0 0 0 0 0 0 3 0 0 3 First Date: September 14-24 Last Date: September 16-15 Peak Date: September 15-60

## Rusty Blackbird (Euphagus carolinus)

## Brewer's Blackbird (Euphagus cyanocephalus)

		JULY			AUC	JUST			S	EPTEMBEF	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0	0	0	0	0	0	0	0	0	0	20.00	3.75	1.91
# Days Observed	0	0	0	0	0	0	0	0	0	0	2	1	3
	First Date	First Date: September 23- 60				e: Septemi	oer 30- 15		Peak D	ate: Septem	ber 24- 80		

## Common Grackle (Quiscalus quiscula)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	4.90	4.14	3.71	1.71	0	0.14	0	2.25
# Days Observed	7	5	2	1	0	1	0	16
	First Date: April 2	20-4	Last Date:	May 29- 1	Pea	k Date: April 23- 2	1	

		JULY			AUC	JUST			S	EPTEMBER	ł	00	CTOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	0.14	0	0.43	1.71	14.43	0.14	0.43	0	0.57	0	0	0	1.54
# Days Observed	1	0	2	4	4	1	3	0	2	0	0	0	17
	First Date	First Date: July 12- 1			Last Dat	e: Septeml	oer 10- 1		Peak D	ate: August	13-68		

## Brown-headed Cowbird (Molothrus ater)

	APF	RIL				MAY					J	UNE		
	Week	: 1	Week 2	V	Veek 3	Weel	k 4	Week :	5 V	Veek 6	Week	7	Total	
Mean # Birds/Day	0.40	)	0		1.57	2.2	9	2.14		0.43	0.14		0.96	
# Days Observed	2		0		3	5		6		3	1 20			
	First Date: April 21- 2Last Date: June 5- 1Peak Date: May 18- 8													
	JULY				AUC	GUST			S	EPTEMBE	2	C	CTOBER	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	0.14	0	0	0	0	0	0.14	0	0	0	0	0	0.02	
# Days Observed	1	0	0	0	0	0	1	0	0	0	0	0	2	
	First Date	e: July 12-	1		Last Dat	te: August 2	25-1		Peak D	ate: All Date	es- 1			

## Baltimore Oriole (Icterus galbula)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0	0	0.14	0.29	0.29	0	0.10
# Days Observed	0	0	0 0		2	2	0	5
	First Date: May 14-1		Last Date:	May 31-1	Pea	k Date: All Dates-	1	

## Purple Finch (Haemorhous purpureus)

_	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	1.60	0.29	0.57	0.43	0.57	0	0	0.56
# Days Observed	7	2	2	3	2	0	0	16
	First Date: April	20-4	Last Date:	May 27-3	Pea	k Date: April 20 &	21-4	

		JULY			AUC	AUGUST			S	EPTEMBEF	ł	OCTOBER	
				Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Mean # Birds/Day	1.43	6.71	2.71	14.14	7.29	1.57	0.57	0	0.57	0	0	0	3.02
# Days Observed	4	7	5	7	5	2	2	0	1	0	0	0	33
# Processed	0	0	2	8	1-0-1	0	0	0	0	0	0	0	11-0-1
	First Date	irst Date: July 12- 5				Last Date: September 6- 4			Peak Date: August 8- 32				

## White-winged Crossbill (Loxia leucoptera)

0													
		JULY			AUC	JUST			S	EPTEMBEF	ł.	00	CTOBER
	Week 1	Week 2	Week 3	3 Week 4 Week 5 Week 6 Week 7			Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	0.71	5.71	0.57	0	0	0	0	0	0	3.86	1.71	5.50	1.36
# Days Observed	3	3	1	0	0	0	0	0	0	1	2	1	11
	First Dat	e: July 15-	2		Last Date: September 29- 22				Peak Date: September 19- 27				

## Common Redpoll (Acanthis flammea)

	APRIL			MAY				JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week	: 6	Week 7	Total
Mean # Birds/Day	0.50	0	0	0	0	0		0	0.10
# Days Observed	1	0	0	0	0	0		0	1
	First Date: April	20- 5	Last Date:	April 20- 5	Р	Peak Date: Apr	il 20- 5		

## Pine Siskin (Spinus pinus)

	APRIL			MAY			JUNE	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0	0.29	0.86	5.29	4.29	3.43	4.29	2.48
# Days Observed	0	2	4	7	7	7	6	33
	First Date: May 3	- 1	Last Date:	June 10- 3	Pea	k Date: May 14-	15	

		JULY			AUC	GUST			SEPTEMBER				OCTOBER	
				Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total	
Mean # Birds/Day	28.00	44.71	10.43	27.71	48.86	10.43	14.00	9.00	92.14	50.29	12.00	12.25	30.64	
# Days Observed	6	7	7	6	7	7	6	5	7	7	4	3	72	
# Processed	0	0	0	0	0	0	0	0	1	0	0	0	1	
	First Date	e: July 12-	y 12- 64 Last Date: September 30- 22 Peak Date: September 8- 514											

## American Goldfinch (Spinus tristis)

	APF	RIL	MAY						JUNE					
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week 2	7		Total
Mean # Birds/Day	0		0	0 0 0			0.86		2.43				0.85	
# Days Observed	0		0	0 0 4 5 7							16			
	First Date	e: May 23-	- 1		Last Date	: June 10- 6	ō		Peak Date:	June 3 & 4-	- 7			
		II II V			ATTC	TIOT		-	01		,		00	TODED
		JULY			AUC	JUST			2	EPTEMBEF	(		00	TOBER
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week	12	Total
Mean # Birds/Day	0.29	0	0.14	0	0	0	0	0	0	0	0	0		0.04
# Days Observed	1	0	1 0 0 0 0 0 0 0 0 0 0							2				
	First Date	st Date: July 15-2 Last Date: July 31-1 Peak Date: July 15-2												

## Evening Grosbeak (Coccothraustes vespertinus)

	APF	RIL		MAY						J	UNE			
	Week	:1	Week 2	V	Veek 3	Weel	k 4	Week 5	V	Veek 6	Week '	7	Total	
Mean # Birds/Day	2.20	)	1.14		3.00	2.1	4	1.00		0.71	1.14		1.65	
# Days Observed	6		4	4 7 5						3	3		32	
# Processed	0		0	0 0 1 0						0 0 1				
	First Date	e: April 20	0-3 Last Date: June 9-2 Peak Date: April 28-11											
		JULY			AUC	JUST			S	EPTEMBE	2		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	Total	
Mean # Birds/Day	0.86	1.00	0.57						0.43	1.00	0.14	0	0.53	
# Days Observed	3	3	1 2 3 2 1 0 2 4						1	0	22			
	First Date: July 12- 2 Last Date: September 24- 1 Peak Date: 3 Dates- 4													

# **Appendix II. Annual Banding Totals**

Species	2015 Spring Migration	2015 MAPS	2015 Fall Migration	2015 Projects	2015 Total	Grand Total 1993- 2015
"Audubon's" Warbler						2
Alder Flycatcher	21	2	51		74	1942
American Goldfinch						1
American Kestrel						2
American Magpie						2
American Pipit						18
American Redstart	32	19	88		139	7103
American Robin	12	8	18		38	422
American Tree Sparrow	9		2		11	583
Baltimore Oriole						5
Bay-breasted Warbler		2	11		13	130
Barred Owl						4
Belted Kingfisher						1
Black-and-White Warbler	44	10	87		141	1988
Blackburnian Warbler						2
Black-capped Chickadee	2	14	28		44	1027
Blackpoll Warbler	1		8		9	341
Black-throated Green Warbler			3		3	124
Blue Jay						60
Blue-headed Vireo			1		1	79
Boreal Chickadee						26
Boreal Owl						2
Brown Creeper			2		2	60
Brown-headed Cowbird						6
Canada Warbler	26	22	37		85	2877
Cape May Warbler			3		3	149
Cedar Waxwing	1	2	15		18	178
Chestnut-sided Warbler						22
Chipping Sparrow	22	5	10		37	1997
Clay-colored Sparrow	35		10		45	958
Common Grackle						6
Common Yellowthroat	13	2	17		32	676
Connecticut Warbler	1		1		2	26
Cooper's Hawk	•		•			3
Downy Woodpecker	2		6		8	76
Eastern Kingbird	-		-			1
Eastern Phoebe	7		10		17	156
Evening Grosbeak	1				1	2
Fox Sparrow	3		1		4	82
Golden-crowned Kinglet	5		÷		+ • +	78

Species	2015 Spring Migration	2015 MAPS	2015 Fall Migration	2015 Projects	2015 Total	Grand Total 1993- 2015
Gray Catbird						6
Gray Jay						3
Gray-cheeked Thrush	19		1		20	197
Hairy Woodpecker		2	12		14	57
Harris's Sparrow						6
Hermit Thrush	9	6	24		39	585
Hoary Redpoll						1
House Wren	1		1		2	32
Lapland Longspur						5
Lazuli Bunting						1
Le Conte's Sparrow						7
Least Flycatcher	13	1	39		53	2156
Lincoln's Sparrow	20	36	51		107	940
Long-eared Owl						1
MacGillivray's Warbler					1 1	2
Magnolia Warbler	6	2	14		22	948
Marsh Wren						3
Mourning Warbler	13	29	47		89	1152
Nashville Warbler	1	_	1		2	6
Northern Flicker	1		6		7	39
Northern Goshawk						1
Northern Mockingbird						1
Northern Pygmy-Owl						2
Northern Saw-whet Owl				135	135	1233
Northern Shrike						2
Northern Waterthrush	9		21		30	749
Orange-crowned Warbler	20		39		59	1249
"Oregon" Junco						14
Olive-sided Flycatcher						2
Ovenbird	41	40	289		370	4137
Western Palm Warbler	1	-	17		18	266
Philadelphia Vireo	_		5		5	180
Pileated Woodpecker			4		4	8
Pine Siskin			1		1	165
Purple Finch			11		11	94
Red-breasted Nuthatch			3		3	126
Red-eyed Vireo	10	1	58		69	779
Red-winged Blackbird	10		1		1	7
Rose-breasted Grosbeak	2	1	5		8	324
Ruby-crowned Kinglet	5		5		10	387
	6		9		15	
Savannah Sparrow	6	1	39		46	200
Sharp-shinned Hawk		1				580
"Slate-colored" Junco	27	4	6		33	1688
Song Sparrow	9	1	16		26	327
Swainson's Thrush	81	23	262		366	5679

Species	2015 Spring Migration	2015 MAPS	2015 Fall Migration	2015 Projects	2015 Total	Grand Total 1993- 2015
Swamp Sparrow	1	11	7		19	206
Tennessee Warbler	5	27	240		272	5459
Three-toed Woodpecker						1
Townsend's Solitaire	1		1		2	3
Varied Thrush						6
Veery						8
Vesper Sparrow						3
Warbling Vireo			1		1	65
Western Tanager		1	26		27	203
Western Wood-Pewee	1				1	23
White-breasted Nuthatch						11
"Gambel's" White-crowned Sparrow	3		16		19	470
White-throated Sparrow	68	94	96		258	2967
White-winged Crossbill						1
Wilson's Warbler			9		9	518
Winter Wren		2	1		3	54
Yellow Warbler	6	5	72		83	3508
Yellow-bellied Flycatcher	2				2	76
Yellow-bellied Sapsucker	7	8	3		18	200
Yellow-rumped Warbler	27	18	1087		1132	11324
Total number of birds banded	653	395	2955	135	4138	70671
Total number of species banded	48	30	61	1	65	105