

*Lesser Slave Lake*



# **Bird Observatory**

*Slave Lake • Alberta • Canada*

## **2017 Annual Report**

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## 2017 Executive Summary

The Lesser Slave Lake Bird Observatory (LSLBO) conducted its 24<sup>th</sup> year of bird population monitoring in the Lesser Slave Lake Provincial Park, Alberta, in 2017. The LSLBO is dedicated to bird conservation through research and education by implementing its core long-term monitoring programs and collaborating 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 2017 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 migration monitoring.

Spring migration monitoring coverage lasted for 56 days from April 16 to June 10. Over 70,000 birds representing 158 species were recorded through the season. Visual migration counts and census were conducted daily. Mist-netting occurred on 50 of the days. An earlier start-up extended the season and the total net hours were above the spring average, but the average daily net hours were below the season average. Banding was slightly below the seasonal average with a total of 821 birds representing 45 species banded. The total capture rate of 24.0 birds per 100 net hours was below the season average of 32.8 birds per 100 net hours.

Fall migration monitoring extended from July 12 to September 30 for 81 days of coverage. Over 35,000 birds from 128 species were observed during the season. Visual migration counts and census were conducted daily. Mist-nets were set on 72 of the days and both the total net hours and average daily net hours were below the season average. Banding was below the seasonal average with 1382 birds from 60 species banded. The total capture rate was 28.6 birds per 100 net hours, which is well below the fall average of 43.5 birds per 100 net hours.

The LSLBO's four MAPS stations were monitored between June 11 and August 3. A total of 236 birds from 24 species were banded, which is equal to the banding average for the program. The breeding status was determined for 60 species encountered during MAPS banding.

Northern saw-whet owl fall migration monitoring was conducted over 40 nights from September 1 to October 26. A total of 87 northern saw-whet owls were banded, which is below the average. Boreal owl target banding occurred for its second year on the same nights as the saw-whet owl banding. No boreal owls were captured but an additional 7 northern saw-whet owls were captured in the boreal owl net array.

A total of 420 recaptures were recorded through the four monitoring projects that represented 230 individuals from 30 species. The oldest known aged bird captured was a white-throated sparrow banded as an ASY bird in 2012, making it at least seven years old. All but one bird were originally banded at the LSLBO. The foreign recapture was an adult female rufous hummingbird that was banded near Juneau, Alaska on July 5, 2017.

## 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; 2017 marks the 24<sup>th</sup> year of these 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 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 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.

Table 1. Criteria for daily coverage codes.

Code	Coverage	Field Hours	Census	#Vis-migs	%Mist-Netting	Requirements
0	None	0	No	0	0%	No Activity
1	Casual	1	Yes	4	>10%	Only 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

## Spring Migration Monitoring

Spring migration is typically monitored for approximately seven weeks beginning late April until early June. This time period covers the migratory window of most species expected to be encountered at the LSLBO. Monitoring usually begins in 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 consists of local breeding individuals. Spring migration monitoring ends on June 10.

Spring migration monitoring began on April 16 and was conducted daily until June 10 for 56 days of coverage which is above the seasonal average (Table 2). Mild spring conditions prompted monitoring to start slightly earlier than usual. The census was conducted daily and the target of eight daily visual migration counts was reached on all but 11 days, which resulted in a below average daily vis-mig count. Mist-netting coverage was lower than the spring average (Table 2); 29 days received reduced net-coverage and extremely poor weather prevented mist-netting entirely on six days. Cold morning temperatures often delayed mist-netting early in the mornings through April and early May and mist-netting can be limited by changing wind and rain conditions throughout the day. Overall migration coverage was similar to previous years (Table 2).

Table 2. Summary of effort during spring migration monitoring 2017. Season average is based from 1995 to 2017, except vis-migs, which average from 2000-2017 when time was reduced from 10 to 5 minutes.

<b>Coverage</b>	<b>2017</b>	<b>Average</b>	<b>Max</b>	<b>Max Year</b>	<b>Min</b>	<b>Min Year</b>
First Day	April 16	April 23	May 4	1998	April 15	2016
Last Day	June 10	June 9	June 17	1997	May 15	2011
Number of Days	56	46.4	57	2000,2001,2006	24	2011
Person Days	111	101.3	130	2001	55	2011
Average Daily Coverage Code	3.79	3.78	3.95	2005	3.46	2000
<b>Banding</b>						
Number of Days	50	42.3	54	2001	23	2011
Standard Nets Average Daily Net-Hours	62.0	64.9	75.8	2008	49.0	2003
Aerial Nets (2011-2017) Average Daily Net-Hours	8.1	9.6	10.8	2015	8.1	2017
<b>Census</b>						
Number of Days	56	45.17	57	2001,2006	24	2011
<b>Vis-Migs</b>						
Number of Days	56	48.89	57	2016	24	2011
Average Daily Vis-migs	0.76	0.78	0.84	2002	0.75	2016

## Spring Migration Daily Totals

A total of 70,988 birds representing 158 species were recorded during spring migration monitoring. Banding accounted for the lowest number of encounters and the lowest species diversity with 943 birds representing 46 species. Cooper’s hawk, northern saw-whet owl, boreal chickadee, and gray-cheeked thrush were only detected through mist-netting. Visual migration counts accounted for 8,892 birds from 59 species. No species were exclusively detected through these counts. The daily census accounted for 13,121 birds from 108 species. Hooded merganser, brown creeper, snow bunting, Harris’s sparrow, and Brewers’s blackbird were only detected along the census route. Incidental observations accounted for 51,835 birds from 147 species. Thirty-two species were only detected on incidental observations, which included several uncommon species: pacific loon, marbled godwit (first sighting since 2002), parasitic jaeger (first sighting since 2005), common nighthawk, olive-sided flycatcher, and LeConte’s sparrow.

Songbird migration was overall busier through the first half of the spring with several peaks of migratory activity throughout the season (Figure 1). The weather in early April was very mild, but turned stormy and cold after the monitoring began in mid-April. This reduced most bird activity, but a heavy snowfall grounded thousands of dark-eyed juncos on April 23. The weather finally cleared in late April giving a big push of American robins, myrtle warblers, and blackbirds. The pace of migration was steady through early May with primarily American robins and blackbirds, but also warblers and swallows were observed. Activity slowed until the third week of May which saw the busiest day of migration on May 21 which consisted of a very impressive diversity of species and large numbers of warblers, chipping sparrows, and clay-coloured sparrows. Migration then slowed considerably until the end of the season. One final push of surprisingly late warblers occurred in early June.

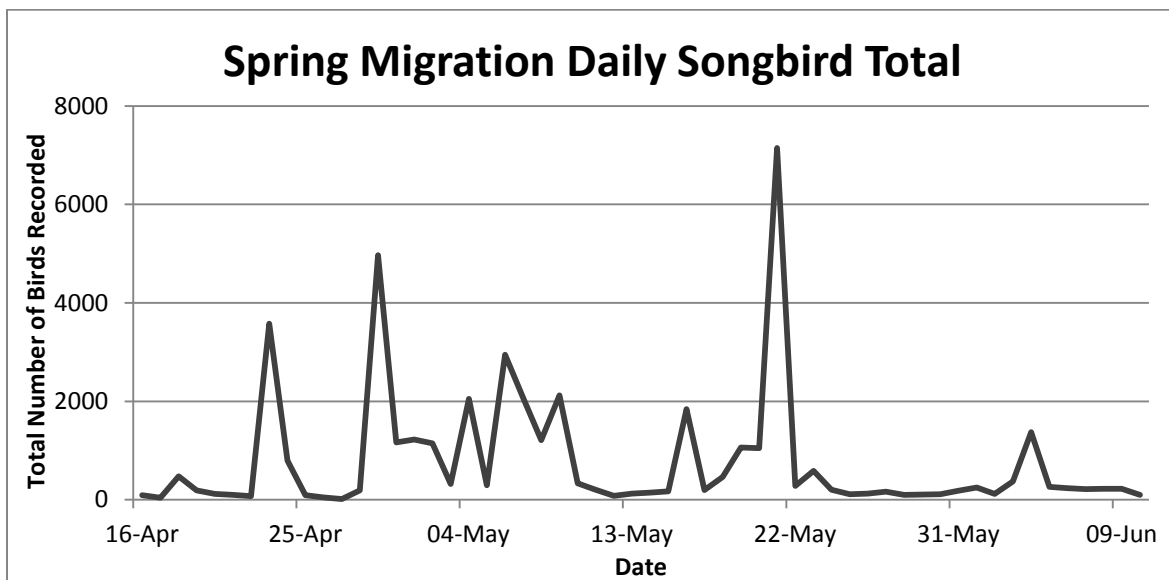


Figure 1. Total number of songbirds detected each day during spring migration, 2017.

## Spring Migration Banding

Mist-nets were set for a total of 3928.4 net hours; achieving 71.6% of the total possible net coverage. The twelve standard mist-nets were set for 3474.3 net hours; achieving 73.9% of the possible standard net hours. The standard mist-nets were set for slightly above the season average of 3272.2 net hours (since 2000 when 7 hour monitoring became standardized, and excludes 2011 because of a shortened season). The two aerial nets were set for 454.1 net hours; achieving 57.9% of the possible aerial net hours. This was slightly below the average of 488.5 net hours (excludes 2011 because of shortened season).

A total of 821 birds were banded and an additional 122 recaptures were recorded. The spring banding total was slightly below the average of 911 birds. Banding was slow through most of the April portion of the season due to poor weather conditions, with a small peak late April when weather conditions improved and a second peak occurring from mid to the third week of May (Figure 2). The busiest banding day was May 21 with 71 birds banded, followed by April 29 with 60 birds, and May 16 with 53 birds.

A total of 45 species were banded during the spring, which is just above the season average of 44. The top five banded species were: white-throated sparrow (108), Swainson's thrush (77), slate-coloured junco (74), Canada warbler (50), and American tree sparrow (45). These five species combined represent 43% of all birds banded in the spring. Spring banding totals for all species are listed in Appendix II.

Spring banding highlights included the first spring banding record of a Cooper's hawk (also only the fourth record for the LSLBO). Sharp-shinned hawks broke the previous spring banding record, surpassing the previous high of 9 set in 2000. The LSLBO banded its first spring American goldfinch (and only second banding record for the station). However, the American goldfinch was captured incidentally in a demonstration net outside of the standard or aerial mist-nets.

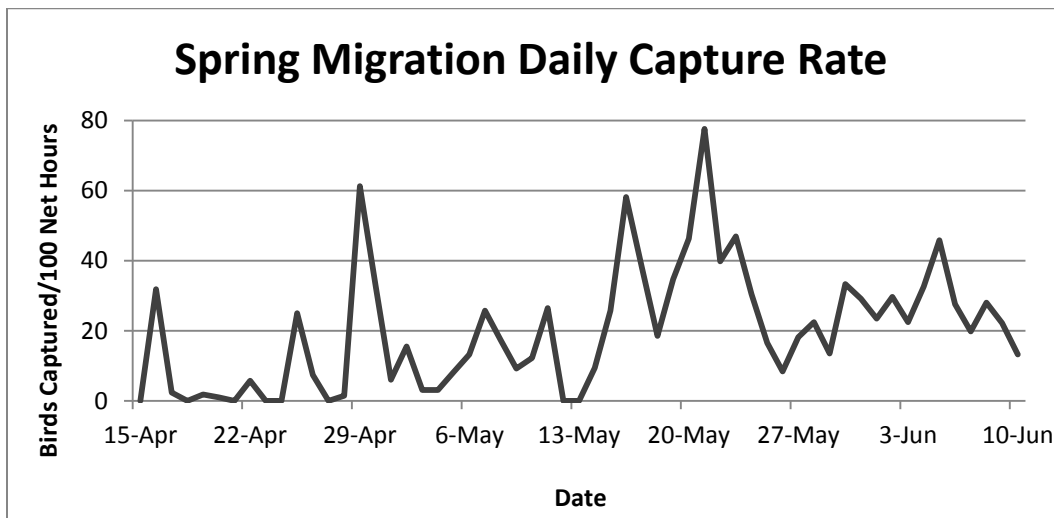


Figure 2. Daily capture rate for spring migration, 2017.

## Spring Migration Net-Lane 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 tend to have fewer net hours than the more sheltered forest net-lanes.

The total capture rate for the spring was 24.0 birds per 100 net hours (Table 3), which is below the season average of 33.8 birds per 100 net hours (excludes 1994 and 2011). The capture rates of all individual nets were below the spring average. Net-lane 6 had the highest capture rate with 85.3 birds per 100 net hours. Net 6 also recorded the highest species diversity with 29. This net is typically the most productive at the LSLBO. Net 1 had the lowest capture rate at 6.4 birds per 100 net hours and net 3 recorded the lowest diversity with 6 species. The two aerial nets accounted for 20% of the birds banded this spring. They accounted for half of the captures of yellow-bellied sapsucker, American robin, northern waterthrush, Tennessee warbler, American redstart, yellow warbler, and rose-breasted grosbeak captures. They also accounted for the only red-eyed vireo, bay-breasted warbler, and blackpoll warbler captured in the spring.

Table 3. Capture rates for each net-lane during spring migration, 2017.

Net-lane	Net hours	New Captures	Returns and Repeats	Total Captured	Capture Rate <sup>1</sup> (average)	Number of Species
1	298.0	17	2	19	6.4 (27.8)	9
2	298.0	31	5	36	12.1 (19.8)	10
3	298.0	16	7	23	7.7 (23.6)	6
4	282.0	24	10	34	12.1 (24.9)	11
5	290.8	72	15	87	29.9 (35.8)	21
6	271.8	209	23	232	85.3 (90.1)	29
7	299.0	30	7	37	12.4 (22.0)	12
8	299.0	36	8	44	14.7 (19.2)	16
9	296.5	14	6	20	6.7 (15.8)	12
10	296.5	28	2	30	10.1 (19.6)	17
11	260.3	122	7	129	49.6 (65.7)	28
12	284.3	58	10	68	23.9 (39.4)	19
Standard Net Total	3474.3	658	102	760	21.9 (32.8)	43
11x	203.6	98	6	104	51.1 (69.8)	28
12x	250.5	65	14	79	31.5 (37.0)	24
Aerial Net Total	454.1	163	20	183	40.3 (51.7)	35
<b>Grand Total</b>	<b>3928.4</b>	<b>821<sup>2</sup></b>	<b>122</b>	<b>942</b>	<b>24.0 (33.8)</b>	<b>46</b>

<sup>1</sup>Capture rate is the birds captured per 100 net hours. The average excludes 1994 and 2011.

<sup>2</sup>One bird was captured in a demonstration net and not counted in the standard or aerial net totals.



## Spring Migration Weekly Summary

### April 16 - April 29 (Week 1)

The first half of April was warm with little snow cover so spring migration monitoring began on April 16 to observe if migrants were moving early due to the mild spring conditions. The first day of monitoring was cool compared to earlier in the month and windy. Overall bird activity was fairly quiet and we only saw a few individuals of the expected early migrant species, such as sharp-shinned hawk, American tree sparrow, and dark-eyed junco. The lake was still covered in ice, but it was close to breaking-up and the mallard and common goldeneye flying past indicated that some open water was nearby.

The weather conditions through most of late April were cold, windy and snowy. Morning temperatures were consistently below freezing and there were several days that saw heavy snowfall. These snowy days saw a large amount of reverse migration and grounded flocks foraging for food; one morning saw over 3000 dark-eyed juncos grounded by the heavy snow slowly working their way south along the shore. Although conditions were not ideal, migration progressed and new species arrived almost daily though overall numbers remained low. First sightings included northern harrier, sandhill crane, northern flicker, yellow-bellied sapsucker, eastern phoebe, ruby-crowned kinglet, Townsend's solitaire, hermit thrush, American robin, American pipit, orange-crowned warbler, myrtle warbler, fox sparrow, song sparrow, Lincoln's sparrow, Harris's sparrow, blackbirds, purple finch and pine siskin. We also saw increased diversity of species associated with the lake as open water slowly appeared: snow goose, greater white-fronted goose, tundra swan, American wigeon, common merganser, killdeer, greater yellowlegs, Franklin's gull, herring gull, great blue heron, and belted kingfisher. The poor weather hindered banding substantially and only one day received full net hours and resulted in a total of 85 birds banded. The majority occurred on the 29<sup>th</sup> (60 banded) which was the first nice weather day since the banding station opened. The 29<sup>th</sup> also brought the first day of heavy migration that included over 3000 American robins and hundreds of blackbirds.

### April 30 - May 6 (Week 2)

The weather stayed warm for much of the week, but there was a consistent breeze and a few days of heavy wind. There was steady passage of American robins, myrtle warblers, and blackbirds through most of the week while the numbers of dark-eyed juncos and American tree sparrows trickled off as the week progressed. Large flocks of greater white-fronted geese moved through with total numbers in the thousands on a couple of days. Banding was attempted on all days, but only two days received full net hours and 74 birds were banded. The week saw the arrival of a large number of species that included: trumpeter swan, green-winged teal, northern pintail, northern shoveler, bufflehead, red-breasted merganser, common loon, spotted sandpiper, Bonaparte's gull, mew gull, peregrine falcon, Say's phoebe, tree swallow, winter wren, Lapland longspur, common yellowthroat, palm warbler, clay-coloured sparrow, savannah sparrow, white-crowned sparrow, white-throated sparrow, and western tanager.

### May 7 - May 13 (Week 3)

Most of the week was sunny and warm, but the wind usually picked up by mid-morning. A storm system moved in and brought strong winds and rain for several days late in the week. Migration was steady through most of the week, but not overly heavy. Myrtle warblers were the principle

migrant species. American robins, blackbirds, and a few large flocks of tree swallows were also observed. Banding was steady, but not overly busy with 74 birds banded. New species observed during the week included: blue-winged teal, surf scoter, white-winged scoter, long-tailed duck, red-necked grebe, broad-winged hawk, common tern, Forster's tern, solitary sandpiper, long-billed dowitcher, short-billed dowitcher, pectoral sandpiper, least flycatcher, blue-headed vireo, bank swallow, Swainson's thrush, black-and-white warbler, ovenbird, northern waterthrush, yellow warbler, black-throated green warbler, chipping sparrow, and vesper sparrow.

#### **May 14 - May 20 (Week 4)**

The stormy weather continued bringing cool temperatures and rain for the first few days of the week. Migration picked up slightly when the weather conditions improved, but it was short lived as more strong winds moved in. The weather turned nice for the last few days of the week and migration continued with decent numbers from an impressive diversity of swallows, thrush, warblers and sparrows. Despite the weather conditions, banding was good with 164 birds. New species included: hooded merganser, horned grebe, pacific loon, olive-sided flycatcher, eastern kingbird, Philadelphia vireo, red-eyed vireo, cliff swallow, gray-cheeked thrush, Tennessee warbler, American redstart, magnolia warbler, blackpoll warbler, Canada warbler, Wilson's warbler, rose-breasted grosbeak, and Baltimore oriole.

#### **May 21 - May 27 (Week 5)**

The weather was mostly nice and warm, except for a bit of wind and rain mid-week. May 21 was one of the busiest migration days of the spring which saw thousands of sparrows (mostly chipping and clay-coloured), thousands of warblers, and hundreds of swallows move through. It was also one of the highest species diversity days of the spring. This passage slowed down considerably the next day and migration was virtually absent for the remainder of the week. A total of 179 birds were banded, which included the busiest day of the spring with 71 banded on May 21. The week saw first sightings of many of the late spring migrants: parasitic jaeger, black tern, common nighthawk, western wood-pewee, warbling vireo, house wren, alder flycatcher, cedar waxwing, mourning warbler, bay-breasted warbler, Cape May warbler, LeConte's sparrow, and American goldfinch.

#### **May 28 - June 3 (Week 6)**

The weather through the week was mostly sunny and hot, with some strong wind and rain mid-week. Overall migration was quiet except for a moderate push of warblers late in the week. However, birds were sneakily moving through because banding was steady and 105 birds were banded. Western grebe was the only new species detected this week.

#### **June 4- June 10 (Week 7)**

The final week of spring migration was mostly sunny and warm, but the winds usually picked up mid-morning. There was a surprisingly high amount of migration activity for the final week of spring migration. The week began with the strong warbler migration observed from last week, but overhead migration slowed as the week progressed. Similar to the previous week, although migration was slow, banding was steady and a total of 147 birds were banded. Although most expected migrants have already arrived, the week provided some uncommon new sightings which included marbled godwit, ruby-throated hummingbird, yellow-bellied flycatcher, and blackburnian warbler.

## Fall Migration Monitoring

Fall migration monitoring is conducted for approximately 12 weeks from July 12 until late September. The time period covers the migratory window of the majority of the songbirds species expected at the LSLBO. Late fall species may have incomplete coverage if their migration extends into October. Typically, light migration occurs during the opening week of fall migration, but most of the bird activity is from local birds and family groups. Migration activity quickly picks up by the third week of July. Pulses of heavy migration and busy banding can occur throughout late July, August, and until mid-September. Migration slows down through late September and consists of the few late migratory species and winter residents.

Fall migration monitoring was conducted daily from July 12 until September 30 for 81 days of coverage, which is above the seasonal average (Table 4). The census and visual migration counts were conducted daily. Observers conducted 8 visual migration counts on 57 days; the remaining days received reduced counts due to poor weather and resulted in a below average daily vis-mig count. Poor weather conditions prevented mist-netting entirely on 9 days and forced reduced net hours on 47 days, which is below the season average. Reduced net hours occurred when mist-nets are closed in response to changing weather conditions throughout the day. It was a very windy fall season which greatly limited the mist-netting effort and resulted in one of the lowest average net hours observed in the past nine years despite excellent visual coverage (Table 4).

Table 4. Summary of effort during fall migration monitoring 2017. Season average is based from 1995 to 2017, except vis-migs, which average from 2000-2017 when time was reduced from 10 to 5 minutes.

<b>Daily Coverage</b>	<b>2017</b>	<b>Average</b>	<b>Max</b>	<b>Max Year</b>	<b>Min</b>	<b>Min Year</b>
First Day	July 12	July 13	Aug 5	1997	July 7	2000
Last Day	Sept 30	Sept 28	Oct 6	2000	Sept 22	2001
Number of Days	81	73.48	91	2000	35	1997
Person Days	146	141.14	207	2000	45	1997
Average Daily Coverage Code	3.72	3.75	3.90	2001	3.48	2003
<b>Banding</b>						
Number of Days	72	69.39	89	2000	33	1997
Standard Nets Average Daily Net-Hours	62.5	65.54	76.32	2008	34.29	1996
Aerial Nets (2010-2017) Average Daily Net-Hours	8.6	9.58	10.27	2012	8.56	2017
<b>Census</b>						
Number of Days	81	66.61	90	2000	8	1997
<b>Vis-Migs</b>						
Number of Days	81	78.83	91	2000	69	2001
Average Daily Vis-migs	0.74	0.76	0.78	2001	0.73	2011

## Fall Migration Daily Totals

A total of 38,817 birds from 128 species were recorded during fall migration monitoring through the four monitoring methods. Mist-netting accounted for the lowest number and diversity of birds with 1543 birds from 61 species and was the only method that accounted for rufous hummingbird, blue-headed vireo, gray-cheeked thrush, Cape May warbler, blackpoll warbler, and fox sparrow. Visual migration counts accounted for 2,954 birds from 47 species. Rough-legged hawk and Wilson's snipe were only detected on visual migration counts. Census accounted for 6,682 from 92 species. Blue-winged teal, Cooper's hawk, killdeer, and Harris's sparrow were only detected on census. Incidental observations recorded the highest number of birds and species with 29,775 from 112 species. Seventeen species were only encountered incidentally and included snow goose, hooded merganser (first fall sighting since 2002), northern goshawk, glaucous gull (first sighting since 2008), great horned owl, western wood-pewee, and evening grosbeak.

Songbird migration fluctuated greatly throughout the fall (Figure 3), but overall migration was very slow and there wasn't a major migratory passage that is usually seen a couple of times during the season. Several small migration peaks occurred, but none of these peaks surpassed 1000 birds. Part of the reason for the large fluctuations was the overall poor weather conditions. The wind was extremely persistent, which reduced songbird activity, the ability for observers to detect migrants, and reduced mist-netting effort.

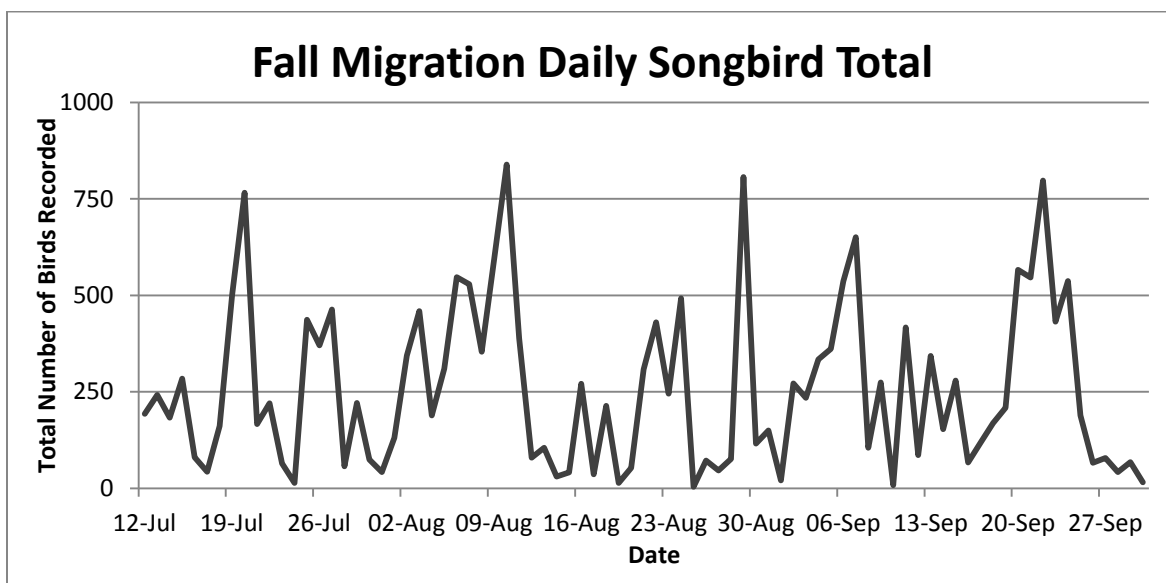


Figure 3. Total number of songbirds detected each day during fall migration, 2017.

## Fall Migration Mist-Netting

Mist-nets were set for a total of 5753 net-hours, achieving 72.5% of the total possible net coverage. The twelve standard net-lanes were set for 5059.7 net hours, achieving 74.4% of the total possible net hours. The standard net-hours are well below the fall average of 5533.2 (from 2000 when 7 hour monitoring became standardized). The two aerial nets were set for 693.4 net hours; achieving 61.1% of the possible aerial net hours, which was below the season average of 768.3 net hours.

A total of 1382 birds were banded and 160 recaptures were recorded. The banding total was below the season average of 1882. Banding was erratic through the entire fall season. The largest peaks occurred during the first two days of fall monitoring and then at end of migration in late September. Banding was overall busier in September missing the typical peak times of late July and early August (Figure 4). The busiest banding day was September 22 with 84 birds banded, followed by September 13 with 68 banded. Three dates tied with 62 birds banded, July 12, September 6, and September 24 and July 13 saw 60 birds banded.

A total of 60 species were banded during the fall, above the seasonal average of 56. The top five banded species were: Myrtle warbler (221), white-throated sparrow (99), Tennessee warbler (90), Swainson's thrush (87), and orange-crowned warbler (73). These five species accounted for 41% of all birds banded in the fall. Fall banding totals for all species are listed in Appendix II.

Highlights for banding included the first Harris's sparrow banded since 2008. Three species broke fall banding records: 12 downy woodpeckers (surpassing 7 banded in 2003), 73 orange-crowned warblers (surpassing 66 banded in 1996), and 37 white-crowned sparrows (surpassing 31 banded in 1998).

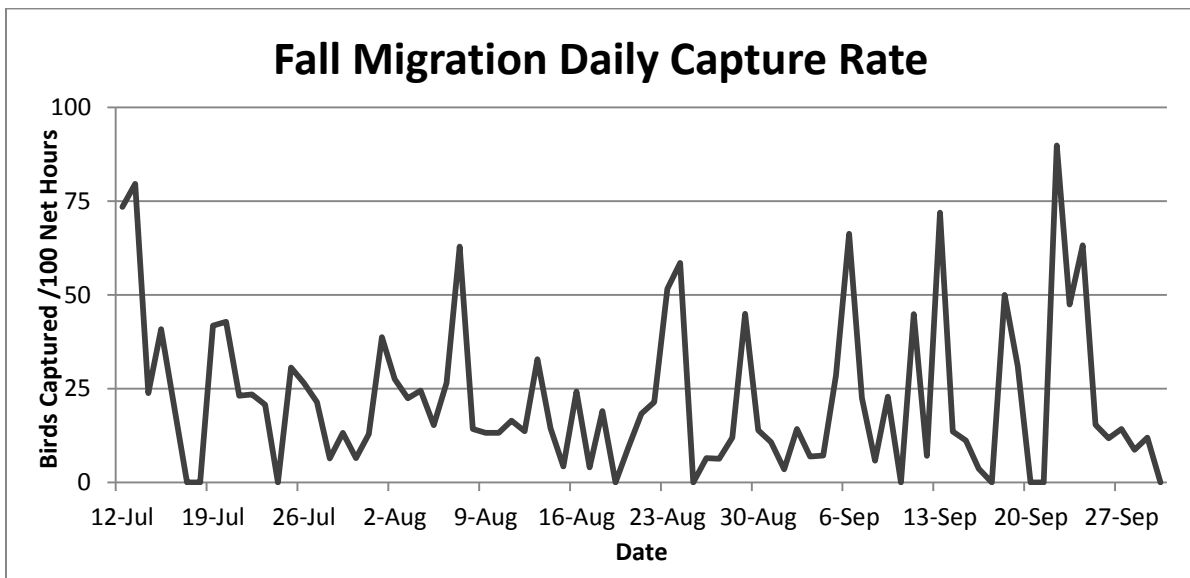


Figure 4. Daily capture rate during fall migration, 2017.

## Fall Migration Net-Lane 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. 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 sheltered forest nets.

The fall capture rate was 28.6 birds per 100 net hours (Table 5). This is well below the fall average of 45.1 birds per 100 net hours. The capture rate of all nets, except net 5, was well below the season average. Net 6 is consistently the most productive net at the LSLBO and this fall it had the highest capture rate with 134.9 birds per 100 net hours and species captured with 42. Net 9 had the lowest capture rate with 3.8 birds per 100 net hours and net 2 had the lowest species diversity with 5. The two aerial nets continue to perform well accounting for 19.5% of the birds banded in the fall. Net 11x had the third highest capture rate and net 12x had the second highest species diversity of all net-lanes.

Table 3. Capture rates for each net-lane during fall migration, 2017.

Net-lane	Net hours	New Captures	Returns and Repeats	Total Captured	Capture Rate <sup>1</sup> (average)	Number of Species
1	428.9	34	10	44	10.3 (61.0)	11
2	428.9	13	4	17	4.0 (33.8)	5
3	448.4	25	2	27	6.0 (32.8)	6
4	431.9	42	3	45	10.4 (22.2)	16
5	439.4	198	32	232	52.8 (50.3)	35
6	334.4	420	31	451	134.9 (151.0)	42
7	446.4	39	7	46	10.3 (20.2)	14
8	446.4	40	14	54	12.1 (20.4)	20
9	446.4	10	7	17	3.8 (17.3)	10
10	446.4	15	4	19	4.3 (20.6)	9
11	316.1	111	8	119	37.6 (65.7)	33
12	446.4	165	18	183	41.0 (45.4)	28
Standard Net Total	5059.7	1112	143	1255	24.8 (43.5)	54
11x	296.0	144	5	149	50.3 (95.1)	32
12x	397.4	126	12	138	34.7 (48.1)	35
Aerial Net Total	693.4	270	17	287	41.4 (68.3)	47
<b>Grand Total</b>	<b>5753.0</b>	<b>1382</b>	<b>160</b>	<b>1542</b>	<b>26.8 (45.1)</b>	<b>61</b>

<sup>1</sup>Capture rate is the birds captured per 100 net hours. The average excludes 1994.

## **Fall Migration Weekly Summary**

### **July 12 - July 18 (Week 1)**

Fall migration monitoring began on July 12. It was a nice sunny day with some wind late in the morning. There was a small amount of migration activity, but as expected for this early in the season most of the bird activity were local breeders and family groups. However, banding was surprisingly busy with 62 birds and was one of the busiest days of the fall and included one of the highlights of the entire season. The LSLBO captured its very first rufous hummingbird, which was a recapture that was originally banded near Juneau Alaska on July 5. The remainder of the week became cloudy and windy with eventual rain and only light migration. A total of 169 birds were banded.

### **July 19 - July 25 (Week 2)**

Much of the week was warm and calm with a few windy and rainy days late in the week. Smoke from forest fires made some hazy conditions for a couple days. Migration was still light for the time of year and consisted of swallows, a variety of species of warblers (primarily myrtle warbler, American redstart, and yellow warbler), and blackbirds. Large flocks of pine siskins were observed circling the banding lab. Banding was steady, but slow for the time of year with a total of 141 birds banded.

### **July 26 - August 1 (Week 3)**

The week brought a wide range of weather conditions ranging from sunny and hot, extremely smoky, calm, very windy, and heavy rain. There was light migration at the beginning of the week that included tree swallows, Tennessee warblers, myrtle warblers, and blackbirds. We continued to see large flocks of pine siskins circling the station, and actually managed to catch and band one of them! Gulls were very active during the poor weather, Franklin gull numbers were in the thousands and ring-billed gull numbers were in the hundreds. Migration slowed considerably through second half of the week. Banding remained extremely slow for the time of year with only 79 birds banded despite very good mist-netting coverage.

### **August 2 - August 8 (Week 4)**

The weather was mostly calm and hot with some rain late in the week. Migration was observed on most days; however, most active migration occurred early in the morning and slowed to a trickle with the occasional foraging flock at mid-morning when the temperature became too warm. Myrtle warblers and Tennessee warblers were the most active migrants, but groups of tree swallows and chipping sparrows were also observed. A Nelson's sparrow was spotted, which is a very unusual sighting. The first Wilson's warbler of the fall was also observed. Banding was slow but steady through the week with 152 banded.

### **August 9 - August 15 (Week 5)**

Most of the week was clear and hot, but very windy. There were only two days at the beginning of the week that were calm. Migration was steady through the first part of the week as myrtle warblers and Tennessee warblers continued to move through. However, the heavy winds through

the second half of the week halted all visual migration and greatly reduced mist-netting coverage. Only 79 birds banded through the week. The first eastern kingbirds of the fall were observed, but the last tree swallow, bank swallow, and cliff swallow were seen.

#### **August 16 - August 22 (Week 6)**

The windy conditions continued with only a couple of calm days that occurred at the beginning and end of the week. The windy conditions greatly reduced bird activity and banding efforts, but bird activity picked up late in the week when the winds died down. Myrtle warblers and Tennessee warbler remained the top migrant species, but good numbers of American redstart, ovenbirds, and western tanager were spotted. The week saw the last eastern phoebe and chipping sparrows of the fall, but the American pipits and orange-crowned warblers began to move through. Banding efforts only produced 81 birds.

#### **August 23 - August 29 (Week 7)**

The unfavourable weather conditions continued as the week saw more wind and rain. Several days were completely shut down due to strong winds and heavy rain. Light overhead migration and foraging activity were observed early in the week. Banding was good considering the weather conditions with 141 birds banded, but this was mostly due to capturing a couple foraging flocks. Myrtle warblers remained the most prominent migrant. The week saw the last fall sightings of eastern kingbird, red-eyed vireo, northern waterthrush, bay-breasted warbler, Canada warbler, song sparrow, and rose-breasted grosbeak. It also brought the first fall sightings of Lapland longspur, Nashville warbler, and white-crowned sparrow.

#### **August 30 - September 5 (Week 8)**

The strong winds continued through the first half of the week which made poor conditions for any type of bird or monitoring activity. Conditions calmed later in the week which brought a slow trickle of myrtle warblers overhead and small flocks of American pipits along the shore, but overall activity remained quiet. Only 64 birds were banded. The week saw the first flocks of greater white-fronted geese begin to move through and the first dark-eyed junco. The week saw the final fall sightings of Franklin gull, common tern, and mourning warbler.

#### **September 6 - September 12 (Week 9)**

The heavy winds tapered off through this week, but it remained breezy enough to limit mist-netting effort on most days. There was light and steady overhead migration that consisted mostly of myrtle warblers. Foraging groups of myrtle warblers, orange-crowned warblers, white-throated sparrows, and dark-eyed juncos were commonly observed. The increased bird activity and greater mist-netting effort due to the improved weather conditions from the past few weeks resulted in busier banding and 154 birds were banded. The week saw the final fall sightings of least flycatcher, alder flycatcher, black-and-white warbler, magnolia warbler, blackpoll warbler, yellow warbler, and western tanager. The first American tree sparrow of the fall arrived. A glaucous gull was also spotted, which is an unusual sighting.



### **September 13 - September 19 (Week 10)**

The week started calm, but the wind became heavy by mid-week and eventually brought rain. We also experienced the first mornings below freezing. Most of the bird activity consisted of myrtle warblers, orange-crowned warblers, and dark-eyed juncos, but Swainson's thrush and white-throated sparrow were observed late in the week. Larger flocks of greater white-fronted geese began to move more frequently and were joined by the first snow geese and sandhill cranes of the fall. Banding was slow but steady throughout the week, except for the first day which had 62 birds. A total of 99 birds were banded. The week saw the last spotted sandpiper, blue-headed vireo, Philadelphia vireo, Tennessee warbler, and American redstart. The first fox sparrow of the fall was seen.

### **September 20 - September 26 (Week 11)**

The first two days of the week were rainy, but calm, and were very busy in terms of bird activity. Northern harriers were moving through steadily in good numbers and large flocks of American pipits were seen flying along the lakeshore. Overhead migration was limited, but there were large numbers of myrtle warblers, clay-coloured sparrows, Lincoln's sparrows, white-throated sparrows, white-crowned sparrows, and dark-eyed juncos, foraging in the area. The sparrows were still actively foraging in the area when the rain cleared which resulted in the busiest banding day of the fall on September 22 with 82 birds banded. The sparrows quickly moved on, but myrtle warbler and dark-eyed junco passage remained steady for most of the week. All the foraging bird activity resulted in some of the busiest banding of the fall and a total of 199 birds were banded. This was the peak of greater white-fronted geese migration as very large flocks were observed. The week saw sightings of Harris's sparrow and gray-cheeked thrush. The week saw the final sightings of a large number of species, which is expected this late into the fall, and included: yellow-bellied sapsucker, Swainson's thrush, ovenbird, orange-crowned warbler, palm warbler, and swamp sparrow.

### **September 27 - September 30 (Week 12)**

The final days of fall migration reflected the overall tone of the 2017 fall migration season: windy with slow migration and banding. A few myrtle warblers, dark-eyed juncos and black-capped chickadees were seen moving through, but overall things were quiet. The last day of migration occurred on September 30 which just saw heavy winds and not much for birds. A total of 24 birds were banded.

## **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 at breeding sites to help identify factors driving population change. The LSLBO has contributed to the MAPS program since 1994 and it remains one of the core monitoring programs. 2017 marked the 24<sup>th</sup> year that the LSLBO has participated in MAPS.

The LSLBO operates four MAPS stations coded FAWA, FEGU, RESI, and ROAD. Three stations (FAWA, FEGU, and ROAD) are located in the forest adjacent to the migration monitoring station. RESI is located near the Boreal Centre for Bird Conservation. FAWA and ROAD have operated for all 24 years. FEGU operated from 1994 to 2000, then was reopened in 2003 and has since operated for 14 years. RESI was established in 2000 and has completed its 17<sup>th</sup> year of operation. Each station is visited once every 10 day period. Each visit consists of constant-effort mist-netting and visual observation to determine species' breeding status. All activities follow the protocols outlined in the MAPS Manual. The LSLBO operates through six periods; the dates that each station operated in 2017 were:

	<b>FAWA</b>	<b>FEGU</b>	<b>ROAD</b>	<b>RESI</b>
Period 5 (Jun 10 – 19)	June 11	June 12	June 12	June 13
Period 6 (Jun 20 – 29)	June 25	June 26	June 26	June 23
Period 7 (Jun 30 – Jul 9)	June 30	July 1	July 1	July 02
Period 8 (Jul 10 - Jul 19)	July 13	July 11	July 11	July 10
Period 9 (Jul 20 – 29)	July 22	July 23	July 25	July 20
Period 10 (Jul 30 – Aug 8)	July 31	August 1	August 3	August 2

Each MAPS station operates 10 mist-nets for 6 hours each visit for a maximum of 360 net-hours for the season. RESI received 359.5 net-hours due to a brief closure for net repair. ROAD received 357.5 net-hours due to windy conditions during period 5. FEGU received 357 net-hours due to windy conditions during period 6. FAWA received full net coverage.

A total of 313 birds were captured; 236 banded and 77 recaptures representing 24 species (Table 6). The banding total was slightly above the MAPS average of 226. Record numbers of mourning warbler and common yellowthroat were banded in through MAPS banding.

RESI had the highest capture total, recording 117 birds from 19 species. FEGU recorded 87 birds captured from 15 species and received its first banding record of a downy woodpecker. FAWA recorded 64 birds from 9 species. ROAD had the lowest number of captures with 45 birds from 12 species.

Table 6. Number of birds banded and recaptured at the four MAPS stations in 2017.

Species	FAWA		ROAD		RESI		FEGU		Total
	Band	Recap	Band	Recap	Band	Recap	Band	Recap	
American Redstart	6		1	1	6	3	14	5	36
American Robin			1		2	1	1		5
Black-and-white Warbler			1	1	3	1		1	7
Black-capped Chickadee				1					1
Brown Creeper							1		1
Canada Warbler	11	4	5	3	1		10	6	40
Common Yellowthroat	3				2	3	1		9
Downy Woodpecker							1	1	2
Lincoln's Sparrow	1				4				5
Magnolia Warbler			5	2	2		1	1	11
Mourning Warbler	15	3	2	1	10	3	11	2	47
Myrtle Warbler	1		2	1	7		4		15
Ovenbird			4	3	12	1	5	1	26
Philadelphia Vireo					1				1
Red-eyed Vireo					2			2	4
Song Sparrow			1						1
Swamp Sparrow					1				1
Swainson's Thrush	1		5	1	11	2	1		21
Tennessee Warbler					3				3
Warbling Vireo					1				1
Winter Wren					6	1			7
White-throated Sparrow	13	4	3	1	18	8	9	8	64
Yellow-bellied Sapsucker					2			1	3
Yellow Warbler	2								2
Total	53	11	30	15	94	23	59	28	313

## MAPS Breeding Status

Breeding status was determined for the 60 species encountered during MAPS station visits in 2017 (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.

Table 7. Breeding status of MAPS birds in 2017.

Species	RESI	ROAD	FEGU	FAWA	Species	RESI	ROAD	FEGU	FAWA
Canada Goose		T			Swainson's Thrush	B	B	L	L
Mallard	T				Hermit Thrush	B	T		
Ruffed Grouse	T	B	B	B	American Robin	B	B	T	B
Common Loon	T	T			Cedar Waxwing	T	T	T	T
Bald Eagle		T		T	Ovenbird	B	B	B	B
Northern Goshawk		T			Black-and-white Warb	B	B	B	B
Broad-winged Hawk	T				Tennessee Warbler	B	L	L	T
Franklin's Gull				T	Mourning Warbler	B	B	B	B
Ring-billed Gull				T	Common Yellowthroat	B		B	T
Belted Kingfisher	T				American Redstart	B	B	B	B
Yellow-bellied Sapsucker	B	T	B	T	Magnolia Warbler	B	B	B	
Downy Woodpecker		T	T		Bay-breasted Warbler	T			
Hairy Woodpecker	B	T	L	T	Blackburnian Warbler		T		
Northern Flicker	T				Yellow Warbler	B	T	B	B
Pileated Woodpecker	B	T		T	Yellow-rump'd Warb.	B	B	B	B
Alder Flycatcher		T	B	T	Black-tht Green Warbler	L			
Least Flycatcher	B	T	L	T	Canada Warbler	B	B	B	B
Blue-headed Vireo	B				Chipping Sparrow		B		
Warbling Vireo	B				Song Sparrow		T		L
Philadelphia Vireo	B	T	T	T	Lincoln's Sparrow	B		T	T
Red-eyed Vireo	B	B	B	B	Swamp Sparrow	T			
American Crow	T	B	T	T	White-thrt'd Sparrow	B	B	B	B
Common Raven	T		T		Western Tanager	B	L	B	T
Black-capped Chickadee	B	B	T	L	Rose-breast'd Grosbeak	B	T	T	T
Boreal Chickadee	L				Common Grackle		T		
Red-breasted Nuthatch	B	T	T	T	Purple Finch	T	T	T	
Brown Creeper	T	T	T		Wht-winged Crossbill		T		
Winter Wren	B		T		Pine Siskin	T	T		T
Goldn-crowned Kinglet	T				American Goldfinch	T	T	T	
Ruby-crowned Kinglet	L				Evening Grosbeak		T	T	
						RESI	ROAD	FEGU	FAWA
					Total sp. Breeder (B)	28	15	15	11
					Total sp. Likely (L)	3	2	4	3
					Total sp Transient (T)	16	25	15	18
					Total sp.	47	42	34	32

## Northern Saw-whet Owl Monitoring

Northern saw-whet owl fall migration monitoring began in 2004 and was conducted for the 14<sup>th</sup> year in 2017. The objective of this project is to monitor the population of the northern saw-whet owl through mist-netting during the fall. The LSLBO conducts this project from early September until late October. Four nets are set one hour after sunset for four hours. A call playback is used to lure the owls to the nets from a portable stereo that broadcasts the call on a continuous cycle. Nets are not set during windy or rain conditions. In 2016 a second mist-net array consisting of two nets were set near a short distance from the existing nets and focused on boreal owls. These nets operate under the same protocol as the northern saw-whet owl nets only broadcasting a boreal owl call simultaneously with the saw-whet owl call.

Northern saw-whet owl monitoring occurred on 40 nights between September 1 and October 26. The saw-whet owl nets were set for a total of 604 net hours. A total of 88 saw-whets were captured, 87 banded and one additional recapture. The capture rate was 14.6 owls per 100 net hours, which is below the average of 16.9 saw-whets per 100 net hours (Figure 5). Boreal owl nets were set for the same 40 nights for a total of 301 net-hours. No boreal owls were captured, but an additional 7 saw-whet owls were banded.

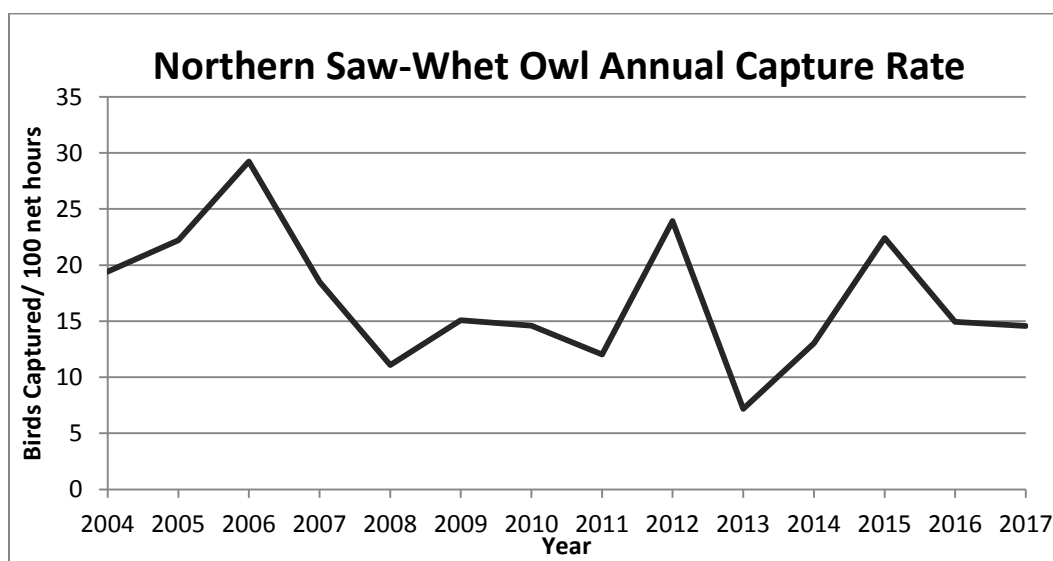


Figure 5. Annual capture rate of northern saw-whet owls captured in the saw-whet owl net array.

## Recaptures

The LSLBO recorded 420 recapture records during the 2017 banding season: 122 during spring migration, 160 during fall migration, 137 during MAPS, and 1 during northern saw-whet owl monitoring. These recapture records represent 230 individuals from 30 species. Of these, 154 were banded in 2017 and recaptured later in the season, 35 were banded in 2016, and 40 were banded before 2016 and represent the oldest known aged birds encountered during the banding season (Table 8). The oldest know-aged bird in 2017 was a white-throated sparrow banded as an ASY in the spring of 2012, making it at least seven years old.

The LSLBO did receive a rare foreign recapture record. An adult female rufous hummingbird originally banded near Juneau, Alaska on July 5 was recaptured on July 12 at the LSLBO.

Table 8. Age of recaptured birds originally banded at the LSLBO before 2016.

Species	Band Number	Original Banding			Recapture		Age (Years)
		Date	Location	Age	Date	Location	
Ovenbird	2511-95284	July 24, 2015	Mig	HY	May 21, 2017	Mig	2
Ovenbird	2511-95343	Aug 1, 2015	Mig	HY	July 2, 2017	RESI	2
Canada Warbler	2710-93393	July 29, 2015	Mig	HY	June 26, 2017	ROAD	2
Black-capped Chickadee	2710-93051	Sept 27, 2014	Mig	HY	May 7, 2017	Mig	3
Black-and-white Warbler	2710-93150	May 16, 2015	Mig	SY	July 10, 2017	RESI	3
Ovenbird	2351-34952	Aug 2, 2014	Mig	HY	May 21, 2017	Mig	3
Mourning Warbler	2710-92924	June 14, 2015	FEGU	SY	June 26, 2017	FEGU	3
Mourning Warbler	2710-92933	June 21, 2015	FAWA	SY	June 26, 2017	FEGU	3
Mourning Warbler	2710-92953	July 1, 2015	FAWA	SY	June 30, 2017	FAWA	3
Myrtle Warbler	2710-93211	May 22, 2015	Mig	SY	May 16, 2017	Mig	3
Myrtle Warbler	2710-92949	June 30, 2015	RESI	SY	June 13, 2017	RESI	3
Red-eyed Vireo	2591-91603	Aug 6, 2015	Mig	AHY	June 12, 2017	FEGU	3+
Red-eyed Vireo	2591-91720	Aug 10, 2015	Mig	AHY	July 1, 2017	FEGU	3+
American Robin	1152-62017	July 13, 2015	ROAD	AHY	May 30, 2017	Mig	3+
Canada Warbler	2710-92970	July 12, 2015	FEGU	AHY	July 13, 2017	FAWA	3+
White-throated Sparrow	2341-94151	June 14, 2015	FEGU	AHY	July 11, 2017	FEGU	3+
Black-capped Chickadee	2730-80983	Sept 9, 2013	MM	HY	July 25, 2017	Mig	4
Ovenbird	2351-35069	July 2, 2014	FEGU	SY	May 31, 2017	Mig	4
Common Yellowthroat	2730-80661	June 22, 2014	RESI	SY	July 2, 2017	RESI	4
American Redstart	2530-53718	June 22, 2014	RESI	SY	June 13, 2017	RESI	4
Canada Warbler	2710-92170	June 3, 2014	Mig	SY	June 30, 2017	FAWA	4
Lincoln's Sparrow	2351-34798	May 28, 2014	Mig	SY	May 11, 2017	Mig	4
Red-eyed Vireo	2511-95198	June 7, 2015	Mig	ASY	July 1, 2017	FEGU	4+
American Robin	1152-62101	April 24, 2015	Mig	ASY	June 3, 2017	Mig	4+
Mourning Warbler	2710-92952	July 1, 2015	FAWA	ASY	June 11, 2017	FAWA	4+
American Redstart	2530-53757	July 22, 2014	FEGU	AHY	June 26, 2017	FEGU	4+
Song Sparrow	2661-72011	June 10, 2015	Mig	ASY	May 10, 2017	Mig	4+
White-throated Sparrow	2341-93936	May 9, 2015	Mig	ASY	June 26, 2017	FEGU	4+
White-throated Sparrow	2341-94145	June 11, 2015	RESI	ASY	June 13, 2017	RESI	4+
White-throated Sparrow	2341-94161	June 21, 2015	FAWA	ASY	June 11, 2017	FAWA	4+
Mourning Warbler	2730-80621	July 4, 2013	RESI	SY	June 23, 2017	RESI	5
Canada Warbler	2730-80605	June 23, 2013	FEGU	SY	June 26, 2017	FEGU	5
Black-capped Chickadee	2730-93082	May 7, 2014	MM	ASY	May 10, 2017	Mig	5+
Ovenbird	2351-34807	May 30, 2014	Mig	ASY	July 12, 2017	ROAD	5+
American Redstart	2550-82407	June 2, 2014	Mig	ASY	June 12, 2017	FEGU	5+
White-throated Sparrow	2431-87780	June 22, 2014	RESI	ASY	July 20, 2017	RESI	5+
Swainson's Thrush	2431-87737	June 18, 2013	RESI	ASY	June 13, 2017	RESI	6+
American Redstart	2520-57897	July 2, 2013	FEGU	ASY	June 26, 2017	FEGU	6+
Canada Warbler	2590-66020	July 2, 2011	FEGU	SY	June 26, 2017	FEGU	7
White-throated Sparrow	2341-50941	May 11, 2012	Mig	ASY	Sept 23, 2017	Mig	7+

## **Publications**

The LSLBO has been involved in one published research article in 2017. The LSLBO contributed field data collected in 2012 through a collaborative project with the University of Alberta.

Haché, S., E. M. Bayne, M-A Villard, H. Proctor, C.S. Davis, D. Stralberg, J.K. Janes, M.T. Hallworth, K.R. Foster, E. Chidambara-vasi, A.A. Grossi, J.C. Gorrell, R. Krikun. 2017. Phylogeography of a migratory songbird across its Canadian breeding range: Implications for conservation units. *Ecology and Evolution* 2017;00:1–11. <https://doi.org/10.1002/ece3.3170>

## **Net-lane Habitat Assessment**

One of the challenges of long-term monitoring is ensuring that all variables, including habitat, remain constant so that we are monitoring changes in bird populations and not the response of birds to local vegetation change. Unfortunately, the forest where net-lanes are located are constantly changing due to natural processes. Therefore, every five years a detailed vegetation survey is conducted to document and quantify the amount of vegetation change at the migration monitoring station. The vegetation survey methods are detailed in *Determining the Effects of Local Habitat Succession on Abundance and Species Diversity of Birds Captured at the Lesser Slave Lake Bird Observatory over 18 years of Standardized Mist-netting* (Linfoot, 2011).

Net-lane vegetation surveys were conducted between June 22 and June 30, 2017 by Nicole Krikun and Robyn Perkins. All 12 net-lanes were surveyed and each aerial net was considered as the same vegetation as its associated ground net. The results of the vegetation change were not prepared in time for this report. They will be presented in a stand-alone report that will focus on the amount and type of habitat change, correlations to changes in capture rate and bird species, and the first full assessment of the aerial nets.

## **Staff and Volunteers**

The LSLBO accumulated 332 person days between staff and volunteers throughout the monitoring projects in 2017 (Table 9). The LSLBO operated with three full time licenced field staff. Richard Krikun has worked at the LSLBO since 2004, Nicole Krikun has been working at the LSLBO since 2008, and Robyn Perkins second season with the organization. Kimberly Johnston was support staff working at the BCBC and Michelle MacMillan was an educator.

Volunteer activity was low in 2016. Six volunteers accumulated 16 volunteer days. Three volunteers were banders from the Beaverhill Bird Observatory that came for extra training and three came to help and learn more about bird banding.

Table 9. Staff and volunteer days during the LSLBO’s main monitoring projects in 2017.

	Spring	MAPS	FALL	NSWO	Total
<b>LSLBO Staff</b>					
Richard Krikun	40	10	53	2	105
Nicole Krikun	28	11	45	40	124
Robyn Perkins	28	11	31		70
Kimberly Johnston	12	1	4		17
Michelle MacMillan				13	13
<b>Total</b>	<b>108</b>	<b>33</b>	<b>133</b>	<b>55</b>	<b>329</b>
<b>Volunteers</b>					
Myles Greives	3		4		7
Melissa Kucey			5		5
Meghan Jacklin			1		1
Sarah Pearse			1		1
Luke Zhan			1		1
Laura Werden			1		1
<b>Total</b>	<b>3</b>		<b>13</b>		<b>16</b>

## Visitors and Education

Education remains an important aspect of the LSLBO’s mandate. The LSLBO’s partnership with the Boreal Centre for Bird Conservation (BCBC) provides increased educational programming opportunities to expose visitors to birds, conservation, and the importance of research and monitoring. The LSLBO also hosts drop-in events throughout the summer to allow campers and visitors to the area a chance to see bird banding up-close. These programs and events allow all visitors a unique experience while maintaining bird safety and accurate data recording.

In 2017 the LSLBO received over 1000 visitors to the banding operations (Table 10). Spring migration had the highest amount of visitors because the large school groups and the annual Songbird Festival. There were 11 school groups ranging from grades 1 to high school. The annual Songbird Festival was held on May 27. Most of the activities were held at the BCBC, but several guided hikes and hourly bus tours brought over 100 visitors to the banding lab.

Visitation during fall migration is a little lighter due to fewer organized programs and more drop-in tours focused on families and campers. The LSLBO hosted 13 of these throughout the summer. Other tours included a homeschooled ground and the Junior Forest Wardens.

Northern saw-whet owl banding is a popular event because everyone loves owls! The LSLBO hosted the annual Family Owl Night on September 23, which was a great success with over 70 visitors. Other tours included a junior high school class from Ardrossen and the Junior Forest Rangers.



Table 10. Number of visitors to the banding station in 2017

	<b>Adults</b>	<b>Children</b>	<b>Total</b>
Spring Migration	231	331	561
Fall Migration	248	142	390
Northern Saw-whet Owls	63	63	126
<b>Total</b>	<b>542</b>	<b>536</b>	<b>1077</b>

## **Acknowledgements**

The LSLBO would like to thank the following people and organizations whose hard work, dedication, and contributions made 2017 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)

Allan Bell (Director at Large)

Brandy Walters (Director at Large)

**Executive Director:** Patti Campsall

**LSLBO Field Staff:** Richard Krikun, Nicole Krikun, Robyn Perkins

**Boreal Centre Staff and Educators:** Michelle MacMillan, Brianna Lorentz, Kimberly Johnston

**Alberta Parks Staff:** Ceiridwen Robbins, Michelle Holland, Natalie Graveline

**Banding Lab Volunteers:** Myles Greives, Melissa Kucey, Meghan Jacklin, Sarah Pearse, Luke Zhan, Laura Werden

**Our Good Friends:** Aaron Lehman and Wayne Bowles

Further information about migration monitoring and MAPS can be found at:

Canadian Migration Monitoring Network- [www.bsc.org/cmmn.html](http://www.bsc.org/cmmn.html)

Nature Counts- [www.naturecounts.ca](http://www.naturecounts.ca)

Institute for Bird Populations- [www.birdpop.org](http://www.birdpop.org)

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## Appendix I. 2017 Migration Occurrence Records

The following charts summarize the occurrences of the 165 species encountered during spring and fall migration monitoring in 2017. 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.

### Snow Goose (*Anser caerulescens*)

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	1.50	54.43	4.14	0.00	0.00	0.00	0.00	0.00	7.70				
# Days Observed	2	2	2	0	0	0	0	0	6				
First Date: April 26- 10			Last Date: May 9- 27			Peak Date: May 5- 371							
	JULY		AUGUST					SEPTEMBER			OCTOBER	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
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.14	4.00	47.50	3.31
# Days Observed	0	0	0	0	0	0	0	0	0	1	2	1	4
First Date: September 19- 50				Last Date: September 29- 190				Peak Date: September 29- 190					

### Greater White-fronted Goose (*Anser albifrons*)

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	160.79	2297.86	118.86	0.00	0.00	0.00	0.00	0.00	342.29				
# Days Observed	5	6	4	0	0	0	0	0	15				
First Date: April 22- 51			Last Date: May 10- 280			Peak Date: May 5- 7477							
	JULY		AUGUST					SEPTEMBER			OCTOBER	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
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.43	60.57	209.14	530.00	0.00	75.28
# Days Observed	0	0	0	0	0	0	0	2	5	6	3	0	16
First Date: September 2- 70				Last Date: September 22- 80				Peak Date: September 20- 2240					

### Canada Goose (*Branta canadensis*)

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	24.50	41.43	64.43	3.71	5.29	23.71	33.00	27.57					
# Days Observed	13	7	6	7	7	6	4	50					
First Date: April 16- 9			Last Date: June 10- 1			Peak Date: May 10- 254							
	JULY		AUGUST					SEPTEMBER			OCTOBER	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
Mean # Birds/Day	0.00	0.00	0.00	1.71	0.00	0.00	3.71	27.14	7.14	1.43	50.86	10.50	8.47
# Days Observed	0	0	0	1	0	0	1	6	4	1	5	2	20
First Date: August 6- 12				Last Date: September 30- 40				Peak Date: September 20- 237					

### Trumpeter Swan (*Cygnus buccinator*)

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.00	0.29	0.57	0.00	0.00	0.00	0.00	0.11			
# Days Observed	0	1	3	0	0	0	0	4			
First Date: May 6- 2			Last Date: May 9- 1			Peak Date: May 6 & 7- 2					

### Tundra Swan (*Cygnus columbianus*)

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	16.07	6.00	0.00	0.00	0.00	0.00	0.00	4.77			
# Days Observed	4	2	0	0	0	0	0	6			
First Date: April 22- 12			Last Date: May 3- 12			Peak Date: April 29- 118					

**Blue-winged Teal (*Spatula discors*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	2.86	0.71	1.14	0.00	0.00	0.59					
# Days Observed	0	0	2	2	2	0	0	6					
First Date: May 10- 9			Last Date: May 22- 3			Peak Date: May 11- 11							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
# Days Observed	0	0	0	1	0	0	0	0	0	0	0	0	1
First Date: August 4- 8				Last Date: August 4- 8				Peak Date: August 4- 8					

**Northern Shoveler (*Spatula clypeata*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	3.71	2.00	0.14	0.00	0.00	0.29	0.77					
# Days Observed	0	4	1	1	0	0	2	8					
First Date: May 3- 8			Last Date: June 6- 1			Peak Date: May 11- 14							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.14	0.00	0.04
# Days Observed	0	0	0	0	0	0	0	1	0	0	1	0	2
First Date: September 4- 2				Last Date: September 21- 1				Peak Date: September 4- 2					

**Gadwall (*Mareca strepera*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02		
# Days Observed	0	0	1	0	0	0	0	1		
First Date: May 11- 1			Last Date: May 11- 1			Peak Date: May 11- 1				

**American Wigeon (*Mareca americana*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.14	13.29	1.43	2.43	1.86	1.00	0.00	2.54					
# Days Observed	1	3	3	4	6	4	0	21					
First Date: April 29- 2			Last Date: June 1- 2			Peak Date: May 4- 63							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	0	1	0	0	0	0	0	0	0	0	0	0	1
First Date: July 23- 1				Last Date: July 23- 1				Peak Date: July 23- 1					

**Mallard (*Anas platyrhynchos*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	4.00	9.00	4.86	5.29	4.71	4.00	3.00	4.86					
# Days Observed	9	7	6	7	7	7	7	50					
First Date: April 17- 2			Last Date: June 10- 1			Peak Date: April 29- 35							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.43	0.57	0.43	0.14	0.86	0.43	0.00	0.00	3.29	4.00	5.43	3.00	1.49
# Days Observed	3	2	2	1	1	2	0	0	4	6	5	2	28
First Date: July 12- 1				Last Date: September 29- 11				Peak Date: September 10- 16					

**Northern Pintail (*Anas acuta*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	9.00	0.00	0.00	0.00	0.00	0.00	1.13		
# Days Observed	0	1	0	0	0	0	0	1		
First Date: May 3- 63			Last Date: May 3- 63			Peak Date: May 3- 63				

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

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.86	0.57	0.43	0.29	0.29	0.29	0.34	
# Days Observed	0	1	2	2	1	2	2	10	
First Date: April 30- 6			Last Date: June 7- 1			Peak Date: April 30- 6			

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

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02	
# Days Observed	0	0	0	0	1	0	0	1	
First Date: May 22- 1			Last Date: May 22- 1			Peak Date: May 22- 1			

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

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	4.29	58.43	9.71	0.57	0.00	9.13	
# Days Observed	0	0	1	7	5	1	0	14	
First Date: May 13- 30			Last Date: May 28- 4			Peak Date: May 15 & 18- 100			

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

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.43	3.71	1.14	0.14	0.00	0.68	
# Days Observed	0	0	1	4	2	1	0	8	
First Date: May 9- 3			Last Date: June 1- 1			Peak Date: May 15- 11			

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

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	1.43	79.57	12.71	0.00	0.00	11.71	
# Days Observed	0	0	1	6	3	0	0	10	
First Date: May 11- 10			Last Date: May 23- 5			Peak Date: May 14- 450			

**Bufflehead (*Bucephala albeola*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	1.14	0.57	2.14	1.71	0.00	0.00	0.70	
# Days Observed	0	2	1	5	5	0	0	13	
First Date: May 4- 2			Last Date: May 27- 2			Peak Date: May 6- 6			

	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.14	0.00	0.00	0.14	0.00	0.29	0.00	5.29	49.43	29.50	6.23
# Days Observed	0	0	1	0	0	1	0	1	0	5	7	4	19
First Date: July 27- 1				Last Date: September 30- 50				Peak Date: September 24- 100					

**Common Goldeneye (*Bucephala clangula*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	2.00	15.57	14.43	16.29	16.43	11.00	5.43	10.39	
# Days Observed	13	7	7	7	7	7	6	54	
First Date: April 16- 2			Last Date: June 10- 3			Peak Date: May 6- 31			

	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.14	0.00	0.29	2.57	0.71	1.71	2.14	1.29	2.57	6.71	6.00	1.86
# Days Observed	0	1	0	1	5	3	3	3	5	4	6	3	34
First Date: July 20- 1				Last Date: September 30- 15				Peak Date: September 30- 15					

**Hooded Merganser (*Lophodytes cucullatus*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02					
# Days Observed	0	0	0	1	0	0	0	1					
First Date: May 14- 1			Last Date: May 14- 1			Peak Date: May 14- 1							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.02
# Days Observed	0	0	0	0	0	1	0	0	0	0	0	0	1
First Date: August 21- 2				Last Date: August 21- 2				Peak Date: August 21- 2					

**Common Merganser (*Mergus merganser*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.86	10.86	5.86	8.43	16.29	17.43	32.14	11.59					
# Days Observed	2	7	7	6	7	7	7	43					
First Date: April 22- 6			Last Date: June 10- 13			Peak Date: June 9- 92							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.71	8.86	1.00	0.29	7.86	3.43	1.00	3.57	2.86	2.00	1.14	0.00	2.83
# Days Observed	2	4	5	2	5	7	4	5	6	3	5	0	48
First Date: July 14- 3				Last Date: September 26- 2				Peak Date: July 21- 50					

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

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	1.86	0.00	3.71	1.00	0.00	0.00	0.82		
# Days Observed	0	2	0	5	1	0	0	8		
First Date: May 4- 6			Last Date: May 22- 7			Peak Date: May 14- 10				

**Ruffed Grouse (*Bonasa umbellus*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.93	0.86	0.86	0.86	0.29	0.29	0.29	0.66					
# Days Observed	12	6	6	6	2	2	2	36					
First Date: April 17- 1			Last Date: June 7- 1			Peak Date: April 29- 2							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.14	1.14	0.57	0.25	0.19
# Days Observed	0	0	0	0	0	1	0	0	1	4	3	1	10
First Date: August 22- 1				Last Date: September 30- 1				Peak Date: September 14- 3					

**Horned Grebe (*Podiceps auritus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.04		
# Days Observed	0	0	0	1	1	0	0	2		
First Date: May 14- 1			Last Date: May 27- 1			Peak Date: All Dates- 1				

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

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.29	2.14	2.14	0.86	1.43	0.86					
# Days Observed	0	0	1	6	5	3	4	19					
First Date: May 13- 2			Last Date: June 10- 2			Peak Date: May 22- 5							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.14	0.43	1.00	0.43	1.00	1.29	1.14	1.00	0.86	1.14	0.43	0.00	0.77
# Days Observed	1	2	4	2	5	3	4	5	3	4	3	0	36
First Date: July 12- 1				Last Date: September 26- 1				Peak Date: 3 Dates- 4					

**Western Grebe (*Aechmophorus occidentalis*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.71	0.43	0.14	
# Days Observed	0	0	0	0	0	2	2	4	
First Date: May 28- 2			Last Date: June 6- 2			Peak Date: June 1- 3			

**Mourning Dove (*Zenaida macroura*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.29	0.00	0.00	0.14	0.00	0.00	0.05	
# Days Observed	0	1	0	0	1	0	0	2	
First Date: May 6- 2			Last Date: May 22- 1			Peak Date: May 6- 2			

**Common Nighthawk (*Chordeiles minor*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02	
# Days Observed	0	0	0	0	1	0	0	1	
First Date: May 24- 1			Last Date: May 24- 1			Peak Date: May 24- 1			

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

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.07	
# Days Observed	0	0	0	0	0	0	4	4	
First Date: June 6- 1			Last Date: June 10- 1			Peak Date: All Dates- 1			

**Rufus Hummingbird (*Selasphorus rufus*)**

	JULY			AUGUST				SEPTEMBER				OCTOBER		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		
Mean # Birds/Day	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	1	0	0	0	0	0	0	0	0	0	0	0	0	1
# Processed	0-1-0	0	0	0	0	0	0	0	0	0	0	0	0	0-1-0
First Date: July 12- 1				Last Date: July 12- 1				Peak Date: July 12- 1						

**Sandhill Crane (*Antigone canadensis*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	1.36	13.29	8.57	0.00	0.00	0.00	0.00	3.07	
# Days Observed	2	4	2	0	0	0	0	8	
First Date: April 22- 5			Last Date: May 8- 35			Peak Date: April 30- 50			

	JULY			AUGUST				SEPTEMBER				OCTOBER		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		
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.43	23.57	0.00	3.02	
# Days Observed	0	0	0	0	0	0	0	0	0	1	5	0	6	
First Date: September 19- 80				Last Date: September 26- 10				Peak Date: September 20- 107						

**Semipalmated Plover (*Charadrius semipalmatus*)**

	JULY				AUGUST				SEPTEMBER				OCTOBER	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		
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.00	0.00	0.29	0.00	2.14	0.00	0.00	0.00	0.22	
# Days Observed	0	0	0	1	0	0	2	0	1	0	0	0	4	
First Date: August 6- 1				Last Date: September 11- 15				Peak Date: September 11- 15						

**Killdeer (*Charadrius vociferous*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.21	0.14	0.29	0.29	0.43	0.00	0.00	0.20	
# Days Observed	2	1	1	1	3	0	0	8	
First Date: April 20- 1			Last Date: May 26- 1			Peak Date: 3 Dates- 2			

**Killdeer (*Charadrius vociferous*)**

	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	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	0	1	0	0	0	0	0	0	0	0	0	0	1
First Date: July 25- 1				Last Date: July 25- 1				Peak Date: July 25- 1					

**Marbled Godwit (*Limosa fedoa*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.05
# Days Observed	0	0	0	0	0	0	1	1
First Date: June 4- 3			Last Date: June 4- 3			Peak Date: June 4- 3		

**Pectoral Sandpiper (*Calidris melanotos*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.00	3.57	0.00	0.00	0.00	0.00	0.45
# Days Observed	0	0	1	0	0	0	0	1
First Date: May 9- 25			Last Date: May 9- 25			Peak Date: May 9- 25		

	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	0.00	0.00	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
# Days Observed	0	0	3	0	0	0	0	0	0	0	0	0	3
First Date: August 5- 7				Last Date: August 7- 1				Peak Date: August 5- 7					

**Short-billed Dowitcher (*Limnodromus griseus*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.00	2.86	0.00	0.00	0.00	0.00	0.36
# Days Observed	0	0	1	0	0	0	0	1
First Date: May 9- 20			Last Date: May 9- 20			Peak Date: May 9- 20		

**Long-billed Dowitcher (*Limnodromus scolopaceus*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.00	4.29	0.00	0.00	0.00	0.00	0.54
# Days Observed	0	0	1	0	0	0	0	1
First Date: May 9- 30			Last Date: May 9- 30			Peak Date: May 9- 30		

**Wilson's Snipe (*Gallinago delicata*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.14	0.29	0.29	0.00	0.14	0.00	0.00	0.13
# Days Observed	2	2	1	0	1	0	0	6
First Date: April 28- 1			Last Date: May 22- 1			Peak Date: May 7- 2		

	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	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
# Days Observed	1	0	0	0	0	0	0	0	0	0	0	0	1
First Date: July 15- 15				Last Date: July 15- 15				Peak Date: July 15- 15					

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

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	1.14	1.29	4.14	3.00	2.29	2.00	1.73
# Days Observed	0	3	4	6	7	7	7	34
First Date: May 4- 3			Last Date: June 10- 2			Peak Date: May 19- 21		

	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	0.71	0.71	0.57	3.14	0.57	1.71	0.86	0.00	0.00	0.29	0.00	0.00	0.74
# Days Observed	4	4	3	7	3	4	2	0	0	1	0	0	28
First Date: July 12- 1				Last Date: September 13- 2				Peak Date: August 18- 7					



**Solitary Sandpiper (*Tringa solitaria*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00			0.07		
# Days Observed	0	0	2	0	0	0	0	0			2		
First Date: May 7- 3			Last Date: May 10- 1			Peak Date: May 7- 3							
	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
# Days Observed	0	0	0	2	0	0	0	0	0	0	0	0	2
First Date: August 5- 1				Last Date: August 7- 2				Peak Date: August 7- 2					

**Lesser Yellowlegs (*Tringa flavipes*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	4.43	1.43	0.00	0.00	0.00	0.00	0.00			0.73		
# Days Observed	0	2	2	0	0	0	0	0			4		
First Date: May 4- 22			Last Date: May 9- 6			Peak Date: May 4- 22							
	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	2.14	3.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
# Days Observed	0	0	1	4	2	0	0	0	0	0	0	0	7
First Date: August 1- 15				Last Date: August 10- 1				Peak Date: August 1- 15					

**Greater Yellowlegs (*Tringa melanoleuca*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.21	0.57	6.14	0.00	0.14	0.00	0.00	0.00			0.91		
# Days Observed	3	3	2	0	1	0	0	0			9		
First Date: April 20- 1			Last Date: May 22- 1			Peak Date: May 9- 41							
	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.04
# Days Observed	0	0	0	1	0	0	0	0	0	0	1	0	2
First Date: August 5- 2				Last Date: September 26- 1				Peak Date: August 5- 2					

**Parasitic Jaeger (*Stercorarius parasiticus*)**

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00			0.04
# Days Observed	0	0	0	0	1	0	0	0			1
First Date: May 25- 2			Last Date: May 25- 2			Peak Date: May 25- 2					

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

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	2.00	4.71	0.00	0.29	0.00	0.00	0.00			0.88		
# Days Observed	0	4	2	0	1	0	0	0			7		
First Date: May 3- 3			Last Date: May 21- 2			Peak Date: May 9- 27							
	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
# Days Observed	0	0	0	0	1	0	0	0	0	0	0	0	1
First Date: August 12- 4				Last Date: August 12- 4				Peak Date: August 12- 4					

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

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.43	83.86	100.00	23.71	5.00	0.00	0.00	0.00			26.68
# Days Observed	1	5	6	5	5	0	0	0			22
First Date: April 29- 6			Last Date: May 27- 2			Peak Date: May 7- 366					

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

	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	94.71	4.00	540.86	1.43	6.00	17.86	178.57	1.00	0.00	0.00	0.00	0.00	72.98
# Days Observed	2	2	3	1	2	2	1	2	0	0	0	0	15
First Date: July 12- 5					Last Date: September 5- 2				Peak Date: July 28- 2684				

**Mew Gull (*Larus canus*)**

	APRIL		MAY				JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	0.00	1.71	2.00	0.00	0.00	0.00	0.00	4.46	
# Days Observed	0	1	3	0	0	0	0	4	
First Date: May 6- 12			Last Date: May 10- 6			Peak Date: May 6- 12			

**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	0.71	13.71	10.00	2.14	5.14	1.29	1.86	4.45	
# Days Observed	4	7	6	2	4	2	2	27	
First Date: April 17- 1			Last Date: June 8- 3			Peak Date: May 6- 29			

	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	32.43	7.14	62.14	0.57	33.71	94.86	52.57	11.29	8.00	1.14	1.00	0.75	26.38
# Days Observed	6	5	3	4	4	7	5	7	7	3	2	2	55
First Date: July 12- 1				Last Date: September 30- 1				Peak Date: August 16 & 17- 270					

**California Gull (*Larus californicus*)**

	APRIL		MAY				JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.04	
# Days Observed	0	0	0	1	1	0	0	2	
First Date: May 20- 1			Last Date: May 23- 1			Peak Date: 2 Dates- 1			

	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	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	0	0	0	1	0	0	0	0	0	0	0	0	1
First Date: August 4- 1				Last Date: August 4- 1				Peak Date: August 4- 1					

**Herring Gull (*Larus argentatus*)**

	APRIL		MAY				JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	1.07	3.00	0.57	1.86	0.43	0.00	0.00	1.00	
# Days Observed	2	5	3	3	1	0	0	14	
First Date: April 28- 6			Last Date: May 21- 3			Peak Date: Apr 29, May 14- 9			

	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	0.57	0.00	0.43	0.00	0.00	0.14	0.14	0.57	0.14	0.14	0.00	0.00	0.19
# Days Observed	1	0	2	0	0	1	1	3	1	1	0	0	10
First Date: July 16- 4				Last Date: September 13- 1				Peak Date: July 16- 4					

**Glaucous Gull (*Larus hyperboreus*)**

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.01
# Days Observed	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					

**Black Tern (*Chlidonias niger*)**

	APRIL		MAY				JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.43	0.14	0.00	0.07	
# Days Observed	0	0	0	0	1	1	0	2	
First Date: May 22- 3			Last Date: June 3- 1			Peak Date: May 22- 3			

**Common Tern (*Sterna hirundo*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.14	0.71	0.57	1.14	0.71	0.41					
# Days Observed	0	0	1	2	3	4	3	13					
First Date: May 9- 1			Last Date: June 10- 2			Peak Date: May 19- 4							
	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	2.14	1.29	1.00	2.57	11.29	1.00	0.29	0.43	0.00	0.00	0.00	0.00	1.73
# Days Observed	5	3	3	7	5	3	2	1	0	0	0	0	29
First Date: July 12- 2				Last Date: September 4- 3				Peak Date: August 12- 45					

**Forster's Tern (*Sterna forsteri*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.29	0.57	1.14	0.14	0.57	0.34					
# Days Observed	0	0	1	1	4	1	2	9					
First Date: May 11- 2			Last Date: June 9- 2			Peak Date: May 19- 4							
	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	0.29	0.00	0.14	0.86	0.71	0.57	0.14	0.00	0.00	0.00	0.00	0.00	0.23
# Days Observed	2	0	1	4	3	2	1	0	0	0	0	0	13
First Date: July 15- 1				Last Date: August 29- 1				Peak Date: September 22- 3					

**Pacific Loon (*Gavia pacifica*)**

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.11			
# Days Observed	0	0	0	1	0	0	0	1			
First Date: May 18- 6			Last Date: May 18- 6			Peak Date: May 18- 6					

**Common Loon (*Gavia immer*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.43	0.29	2.86	2.43	1.71	2.43	1.27					
# Days Observed	0	2	2	7	7	6	7	31					
First Date: May 2- 1			Last Date: June 10- 2			Peak Date: May 18 & 21- 6							
	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	0.57	1.29	4.00	1.71	0.86	0.57	5.29	0.57	2.00	0.57	0.00	0.25	1.52
# Days Observed	3	5	5	7	4	3	3	4	4	4	0	1	43
First Date: July 12- 1				Last Date: September 27- 1				Peak Date: August 23- 29					

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

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02			
# Days Observed	0	0	1	0	0	0	0	1			
First Date: May 7- 1			Last Date: May 7- 1			Peak Date: May 7- 1					

**American White Pelican (*Pelecanus erythrorhynchos*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.43	1.86	0.00	0.14	0.30					
# Days Observed	0	0	0	1	2	0	1	4					
First Date: May 14- 3			Last Date: June 6- 1			Peak Date: May 25- 9							
	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	0.00	0.14	0.43	0.86	0.14	0.00	0.14	0.29	0.71	0.14	0.14	0.00	0.26
# Days Observed	0	1	2	1	1	0	1	2	2	1	1	0	12
First Date: July 22- 1				Last Date: September 22- 1				Peak Date: August 3- 6					

**Great Blue Heron (*Ardea herodias*)**

	APRIL		MAY					JUNE					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total					
Mean # Birds/Day	0.21	0.14	0.14	0.00	0.00	0.00	0.00	0.09					
# Days Observed	2	1	1	0	0	0	0	4					
First Date: April 20- 2			Last Date: May 7- 1			Peak Date: April 20- 2							
	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	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.04
# Days Observed	0	0	2	0	0	0	0	0	0	0	1	0	3
First Date: July 29- 1				Last Date: September 20- 1				Peak Date: All Dates- 1					

**Osprey (*Pandion haliaetus*)**

	APRIL		MAY					JUNE					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total					
Mean # Birds/Day	0.07	0.00	0.00	0.29	0.14	0.29	0.00	0.11					
# Days Observed	1	0	0	2	1	2	0	6					
First Date: April 21- 1			Last Date: May 30- 1			Peak Date: All Dates- 1							
	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	0.14	0.43	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.07
# Days Observed	1	3	0	0	1	0	0	0	0	0	1	0	6
First Date: July 16- 1				Last Date: September 20- 1				Peak Date: All Dates- 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	1.29	1.43	2.00	1.57	1.43	1.14	1.00	1.39					
# Days Observed	11	7	7	6	6	5	6	48					
First Date: April 16- 1			Last Date: June 10- 1			Peak Date: April 22- 4							
	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	1.57	1.14	2.00	1.00	1.57	2.00	2.43	2.29	1.57	1.14	1.57	0.75	1.62
# Days Observed	5	4	7	6	6	6	7	7	7	6	6	3	70
First Date: July 14- 3				Last Date: September 30- 1				Peak Date: Aug 31, Sep 11- 4					

**Northern Harrier (*Circus hudsonius*)**

	APRIL		MAY					JUNE					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total					
Mean # Birds/Day	2.14	10.86	0.43	1.00	0.29	0.00	0.43	2.16					
# Days Observed	9	7	2	4	2	0	2	26					
First Date: April 17- 5			Last Date: June 5- 2			Peak Date: May 1- 32							
	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	0.00	0.14	0.00	0.29	0.86	0.71	0.71	0.86	2.14	2.71	10.86	0.75	1.70
# Days Observed	0	1	0	2	4	3	2	5	5	6	7	3	38
First Date: July 20- 1				Last Date: September 29- 1				Peak Date: September 20- 46					

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

	APRIL		MAY					JUNE					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total					
Mean # Birds/Day	1.43	1.00	0.43	1.00	0.14	0.71	0.29	0.80					
# Days Observed	8	4	2	4	1	4	2	25					
# Processed	5	0	0	3	1	2	1	12					
First Date: April 16- 1			Last Date: June 7- 1			Peak Date: April 24 & 26- 4							
	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	0.14	0.57	0.43	2.14	3.71	4.43	3.43	4.43	2.29	5.14	9.29	0.25	3.12
# Days Observed	1	2	2	6	5	6	6	6	5	7	6	1	53
# Processed	1	1	0	2	5-0-1	4	2	3	4	5	3	1	31-0-1
First Date: July 16- 1				Last Date: September 29- 1				Peak Date: September 22- 28					

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

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00			0.02		
# Days Observed	0	0	0	1	0	0	0	0	0	1			
# Processed	0	0	0	1	0	0	0	0	0	1			
First Date: May 19- 1			Last Date: May 19- 1			Peak Date: May 19- 1							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	0	0	0	0	0	0	1	0	0	0	0	0	1
First Date: August 23- 1				Last Date: August 23- 1				Peak Date: August 23- 1					

**Northern Goshawk (*Accipiter gentilis*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.07	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.04			
# Days Observed	1	0	0	1	0	0	0	0	0	2			
First Date: April 29- 1			Last Date: May 15- 1			Peak Date: All Dates- 1							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
# Days Observed	0	0	0	1	4	0	0	0	0	0	0	0	5
First Date: August 7- 1				Last Date: August 13- 1				Peak Date: All Dates- 1					

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

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.14	0.14	0.00	0.14	0.00	0.14	0.00	0.05			
# Days Observed	0	0	1	1	0	1	0	1	0	3			
First Date: May 10- 1			Last Date: June 1- 1			Peak Date: All Dates- 1							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.14	0.00	0.29	0.00	0.00	0.05
# Days Observed	0	0	0	1	0	0	0	1	0	1	0	0	3
First Date: August 6- 1				Last Date: September 13- 2				Peak Date: September 13- 2					

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

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.36	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.16			
# Days Observed	2	1	0	2	0	0	0	0	0	5			
First Date: April 22- 4			Last Date: May 20- 1			Peak Date: April 22- 4							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.29	0.00	0.00	0.04
# Days Observed	0	0	0	0	0	0	0	1	0	2	0	0	3
First Date: August 31- 1				Last Date: September 15- 1				Peak Date: All Dates- 1					

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

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05			
# Days Observed	1	1	0	0	0	0	0	0	0	2			
First Date: April 22- 2			Last Date: May 6- 1			Peak Date: April 22- 2							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01
# Days Observed	0	0	0	0	0	0	0	0	0	0	1	0	1
First Date: September 22- 1				Last Date: September 22- 1				Peak Date: September 22- 1					

**Great Horned Owl (*Bubo virginianus*)**

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.01
# Days Observed	0	0	0	0	0	0	0	0	0	1	0	0	1
First Date: September 18- 1				Last Date: September 18- 1				Peak Date: September 18- 1					

**Northern Saw-whet Owl (*Aegolius acadicus*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02
# Days Observed	0	0	0	0	0	1	0	1
# Processed	0	0	0	0	0	0-1-0	0	0-1-0
First Date: May 28- 1			Last Date: May 28- 1			Peak Date: May 28- 1		

**Belted Kingfisher (*Megaceryle alcyon*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.43	0.43	0.14	0.29	0.43	0.00	0.29	0.30
# Days Observed	4	3	1	2	3	0	2	15
First Date: April 22- 1		Last Date: June 10- 1			Peak Date: April 29- 3			

	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	0.00	0.43	0.43	0.86	0.29	0.14	0.14	0.00	0.14	0.29	0.14	0.00	0.25
# Days Observed	0	2	3	4	2	1	1	0	1	2	1	0	17
First Date: July 19- 2				Last Date: September 22- 1				Peak Date: August 3- 3					

**Yellow-bellied Sapsucker (*Sphyrapicus varius*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.07	2.57	2.14	1.86	2.86	2.14	2.14	1.73
# Days Observed	1	7	5	7	7	7	7	41
# Processed	0	0	0	1	3	0-0-1	0-0-1	4-0-2
First Date: April 29- 1		Last Date: June 10- 2			Peak Date: May 6- 9			

	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	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.09
# Days Observed	0	2	0	0	0	0	0	0	0	0	2	0	4
# Processed	0	0	0	0	0	0	0	0	0	0	3	0	3
First Date: July 19- 3			Last Date: September 25- 1				Peak Date: July 19- 3						

**Downy Woodpecker (*Picoides pubescens*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.07	0.00	0.14	0.00	0.14	0.00	0.00	0.05
# Days Observed	1	0	1	0	1	0	0	3
First Date: April 20- 1		Last Date: May 21- 1			Peak Date: All Dates- 1			

	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	2.86	0.29	0.14	0.14	0.14	0.00	0.00	0.00	0.14	0.14	0.00	0.50	0.36
# Days Observed	6	2	1	1	1	0	0	0	1	1	0	2	15
# Processed	9-0-5	2	0	0	0	0	0	0	1	0	0	0	12-0-5
First Date: July 12- 7			Last Date: September 29- 1				Peak Date: July 12- 7						

**Hairy Woodpecker (*Picoides villosus*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.14	0.14	0.29	0.00	0.00	0.57	0.14
# Days Observed	0	1	1	2	0	0	3	7
# Processed	0	0	0	0	0	0	1-0-1	1-0-1
First Date: May 6- 1		Last Date: June 9- 1			Peak Date: June 6- 2			

**Hairy Woodpecker (*Picoides villosus*)**

	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	1.43	2.71	1.14	0.14	0.29	0.00	0.00	0.00	0.43	0.14	0.14	0.25	0.57
# Days Observed	5	6	5	1	2	0	0	0	3	1	1	1	25
# Processed	5-0-1	4-0-4	2-0-1	0	0	0	0	0	0	0	0	0	11-0-6
First Date: July 12- 3				Last Date: September 29- 1				Peak Date: July 19- 7					

**Northern Flicker (*Colaptes auratus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	2.36	14.14	9.86	0.71	0.29	0.00	0.43	3.77		
# Days Observed	4	7	7	4	2	0	3	27		
# Processed										
First Date: April 24- 1			Last Date: June 8- 1			Peak Date: May 6- 47				

	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	0.00	0.00	0.14	0.00	0.00	0.00	0.14	0.00	0.14	0.43	0.43	0.00	0.11
# Days Observed	0	0	1	0	0	0	1	0	1	2	2	0	7
# Processed	0	0	0	0	0	0	0	0	0	1	1	0	2
First Date: July 29- 1				Last Date: September 24- 1				Peak Date: September 19 & 23- 2					

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

**Pileated Woodpecker (*Dryocopus pileatus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	1.21	0.57	1.29	1.43	0.71	0.29	0.86	0.95		
# Days Observed	13	4	7	7	5	2	5	43		
# Processed										
First Date: April 16- 1			Last Date: June 10- 1			Peak Date: Several Dates- 2				

	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	0.00	0.29	0.14	0.14	0.14	0.86	0.57	0.86	0.57	1.43	1.00	0.75	0.56
# Days Observed	0	2	1	1	1	4	3	5	3	7	5	3	35
# Processed	0	0	0	0	0	0	0	0	0	2	0	0	2
First Date: July 22- 1				Last Date: September 29- 1				Peak Date: September 18- 3					

**American Kestrel (*Falco sparverius*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.14	0.43	0.00	0.14	0.00	0.00	0.00	0.11		
# Days Observed	2	2	0	1	0	0	0	5		
# Processed										
First Date: April 25- 1			Last Date: May 16- 1			Peak Date: May 6- 2				

	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	0.14	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.14	1.00	0.00	0.12
# Days Observed	1	0	0	0	1	0	0	0	0	1	4	0	7
# Processed													
First Date: July 16- 1				Last Date: September 24- 1				Peak Date: September 23- 4					

**Merlin (*Falco columbarius*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.64	1.57	1.86	0.86	0.29	0.43	0.14	0.80		
# Days Observed	8	5	7	5	2	3	1	31		
# Processed										
First Date: April 19- 1			Last Date: June 4- 1			Peak Date: May 4- 5				

	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	0.43	0.14	0.00	0.57	0.29	0.29	0.29	0.14	0.43	0.43	0.57	0.00	0.31
# Days Observed	3	1	0	3	2	2	2	1	3	3	4	0	24
# Processed													
First Date: July 14- 1				Last Date: September 23- 1				Peak Date: August 8- 2					

**Peregrine Falcon (*Falco peregrinus*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.14	0.00	0.14	0.00	0.00	0.00	0.00	0.04				
# Days Observed	0	1	0	1	0	0	0	0	2				
First Date: May 4- 1			Last Date: May 20- 1			Peak Date: All Dates- 1							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.29	0.00	0.06
# Days Observed	0	0	0	0	0	0	0	0	0	3	1	0	4
First Date: September 15- 1				Last Date: September 22- 2				Peak Date: September 22- 2					

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

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.04	
# Days Observed	0	0	0	1	1	0	0	0	2	
First Date: May 20- 1			Last Date: May 22- 1			Peak Date: All Dates- 1				

**Western Wood-pewee (*Contopus sordidulus*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.14	0.14	0.29	0.07					
# Days Observed	0	0	0	0	1	1	2	4					
First Date: May 26- 1			Last Date: June 10- 1			Peak Date: All Dates- 1							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
# Days Observed	0	0	0	1	0	0	0	0	0	0	0	1	
First Date: August 9- 1				Last Date: August 9- 1				Peak Date: August 9- 1					

**Yellow-bellied Flycatcher (*Empidonax flaviventris*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.04		
# Days Observed	0	0	0	0	0	0	2	2		
# Processed	0	0	0	0	0	0	1	1		
First Date: June 5- 1			Last Date: June 10- 1			Peak Date: All Dates- 1				

**Alder Flycatcher (*Empidonax alnorum*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.86	1.86	6.57	1.16					
# Days Observed	0	0	0	0	3	6	7	16					
# Processed	0	0	0	0	3	2	17	22					
First Date: May 22- 3			Last Date: June 10- 3			Peak Date: June 4- 14							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.14	0.43	0.43	3.43	2.14	0.71	0.00	0.29	0.57	0.00	0.00	0.00	0.70
# Days Observed	1	2	1	6	5	4	0	2	1	0	0	0	22
# Processed	1	3	0	15	10	5	0	2	4	0	0	0	40
First Date: July 13- 1				Last Date: September 6- 4				Peak Date: August 7- 8					

**Least Flycatcher (*Empidonax minimus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	1.00	9.71	6.86	1.71	1.57	2.61		
# Days Observed	0	0	3	5	7	6	6	27		
# Processed	0	0	1	22	6	1	2	32		
First Date: May 9- 2			Last Date: June 10- 1			Peak Date: May 21- 30				



**Least Flycatcher (*Empidonax minimus*)**

	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	0.43	2.86	2.00	3.14	0.86	0.71	0.29	0.14	0.43	0.00	0.00	0.00	0.94
# Days Observed	3	5	4	7	2	3	2	1	3	0	0	0	30
# Processed	0	6	2	4	0	1	0	1	2	0	0	0	16
First Date: July 12- 1				Last Date: September 11- 1				Peak Date: July 21- 12					

**Eastern Phoebe (*Sayornis phoebe*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.43	1.14	2.00	0.29	0.00	0.00	0.00	0.54	
# Days Observed	4	6	5	2	0	0	0	17	
# Processed	0	0	6	0	0	0	0	6	
First Date: April 23- 3			Last Date: May 15- 1			Peak Date: May 10- 4			

	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	0.43	0.57	0.29	0.29	0.43	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.20
# Days Observed	2	4	2	2	1	2	0	0	0	0	0	0	13
# Processed	2	1	0	0	0	0	0	0	0	0	0	0	3
First Date: July 12- 2				Last Date: August 22- 1				Peak Date: August 10- 3					

**Say's Phoebe (*Sayornis saya*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	1.43	1.71	0.00	0.00	0.00	0.00	0.39	
# Days Observed	0	4	3	0	0	0	0	7	
First Date: May 1- 1			Last Date: May 10- 1			Peak Date: May 9- 10			

**Eastern Kingbird (*Tyrannus tyrannus*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.14	1.57	4.86	0.84	
# Days Observed	0	0	0	1	1	1	3	6	
First Date: May 20- 1			Last Date: June 8- 1			Peak Date: June 4- 31			

	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	0.00	0.00	0.00	0.43	1.14	0.43	1.14	0.00	0.00	0.00	0.00	0.00	0.27
# Days Observed	0	0	0	1	2	2	3	0	0	0	0	0	8
First Date: August 5- 3				Last Date: August 29- 3				Peak Date: August 10- 5					

**Blue-headed Vireo (*Vireo solitaries*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.14	1.00	0.43	0.00	0.00	0.20	
# Days Observed	0	0	1	5	3	0	0	9	
First Date: May 8- 1			Last Date: May 24- 1			Peak Date: May 18 & 19- 2			

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	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	1	0	0	1
First Date: September 13- 1				Last Date: September 13- 1				Peak Date: September 13- 1					

**Philadelphia Vireo (*Vireo philadelphicus*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	0.29	1.57	0.43	0.57	0.36	
# Days Observed	0	0	0	2	6	3	4	15	
First Date: May 19- 1			Last Date: June 7- 1			Peak Date: May 21- 4			

**Philadelphia Vireo (*Vireo philadelphicus*)**

	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	0.57	0.00	0.14	0.43	0.29	0.71	0.29	0.14	0.71	0.14	0.00	0.00	0.30
# Days Observed	3	0	1	3	1	4	2	1	3	1	0	0	19
# Processed	0	0	0	1	0	0	1	0	0	1	0	0	3
First Date: July 12- 1					Last Date: September 13- 1				Peak Date: September 9- 3				

**Warbling Vireo (*Vireo gilvus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.57	0.14	0.14	0.11		
# Days Observed	0	0	0	0	3	1	1	5		
First Date: May 21- 2			Last Date: June 7- 1			Peak Date: May 21- 2				

	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	0.14	0.00	0.00	0.14	0.14	0.14	0.00	0.29	0.00	0.00	0.00	0.00	0.07
# Days Observed	1	0	0	1	1	1	0	2	0	0	0	0	6
# Processed	0	0	0	1	1	0	0	1	0	0	0	0	3
First Date: July 12- 1				Last Date: September 5- 1				Peak Date: All Dates- 1					

**Red-eyed Vireo (*Vireo olivaceus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.29	0.71	2.86	5.14	1.13		
# Days Observed	0	0	0	2	4	7	7	20		
# Processed	0	0	0	0	0	1	0	1		
First Date: May 19- 1			Last Date: June 10- 4			Peak Date: Jun 5& 6- 7				

	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	3.00	4.57	2.29	5.00	2.29	3.29	0.71	0.00	0.00	0.00	0.00	0.00	1.83
# Days Observed	6	6	5	7	5	4	3	0	0	0	0	0	36
# Processed	2-0-1	6	0	1	0	3	1	0	0	0	0	0	13-0-1
First Date: July 12- 4				Last Date: August 29- 1				Peak Date: August 16- 9					

**Gray Jay (*Perisoreus canadensis*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.07		
# Days Observed	0	0	0	0	1	1	0	2		
First Date: May 22- 2			Last Date: May 28- 2			Peak Date: All Dates- 2				

**Blue Jay (*Cyanocitta cristata*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.57	3.71	0.57	0.71	0.29	0.14	0.75		
# Days Observed	0	2	4	2	2	2	1	13		
First Date: May 5- 1			Last Date: June 4- 1			Peak Date: May 8- 11				

	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	0.00	0.00	0.00	0.14	0.00	0.14	0.29	1.00	1.29	0.43	0.43	0.00	0.32
# Days Observed	0	0	0	1	0	1	2	4	3	2	2	0	15
# Processed	0	0	0	0	0	0	0	2	0-0-1	0	0	0	2-0-1
First Date: August 8- 1				Last Date: September 24- 1				Peak Date: September 6- 6					

**Black-billed Magpie (*Pica hudsonia*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.29	0.14	0.71	0.14	0.57	0.14	0.14	0.30		
# Days Observed	2	1	3	1	2	1	1	11		
First Date: April 20- 3			Last Date: June 8- 1			Peak Date: 3 Dates- 3				

**Black-billed Magpie (*Pica hudsonia*)**

	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	0.00	0.29	0.29	0.00	0.00	0.00	0.00	0.14	0.00	0.29	0.57	0.00	0.14
# Days Observed	0	1	1	0	0	0	0	1	0	2	2	0	7
First Date: July 20- 2				Last Date: September 25- 1				Peak Date: September 24- 3					

**American Crow (*Corvus brachyrhynchos*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	7.29	6.86	5.86	7.14	4.00	3.14	3.86	5.68		
# Days Observed	14	7	7	7	7	7	7	56		
First Date: April 16- 2			Last Date: June 10- 2			Peak Date: April 22- 23				

	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	5.00	4.14	3.86	2.71	2.14	3.57	5.29	5.14	5.14	0.14	2.71	0.00	3.44
# Days Observed	7	7	7	7	6	6	4	4	3	1	2	0	54
First Date: July 12- 4				Last Date: September 25- 1				Peak Date: September 11- 29					

**Common Raven (*Corvus corax*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	1.07	1.43	1.14	0.86	0.57	0.57	0.43	0.89	
# Days Observed	11	7	5	4	3	4	2	36	
First Date: April 16- 2			Last Date: June 6- 1			Peak Date: Several Dates- 2			

	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	1.14	0.57	0.71	1.43	2.14	5.00	4.57	8.29	4.43	2.29	7.86	4.00	3.52
# Days Observed	3	3	4	5	6	7	7	7	7	7	7	4	67
First Date: July 12- 2				Last Date: September 30- 4				Peak Date: September 21- 36					

**Horned Lark (*Eremophila alpestris*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	6.71	0.00	0.00	0.00	0.00	0.00	0.84	
# Days Observed	0	2	0	0	0	0	0	2	
First Date: May 4- 2		Last Date: May 6- 45			Peak Date: May 6- 45				

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.07
# Days Observed	0	0	0	0	0	0	0	0	0	0	2	0	2
First Date: September 21- 1				Last Date: September 23- 5				Peak Date: September 23- 5					

**Tree Swallow (*Tachycineta bicolor*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	8.71	153.29	7.14	0.00	0.14	0.14	21.18	
# Days Observed	0	5	4	1	0	1	1	12	
First Date: May 1- 1		Last Date: June 4- 1			Peak Date: May 7- 702				

	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	0.57	8.43	6.29	1.71	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.69
# Days Observed	2	3	2	3	2	0	0	0	0	0	0	0	12
First Date: July 12- 3			Last Date: August 13- 10				Peak Date: July 20- 50						

**Bank Swallow (*Riparia riparia*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.71	16.43	97.57	2.14	0.14	14.63	
# Days Observed	0	0	1	3	3	1	1	9	
First Date: May 9- 5		Last Date: June 5- 1			Peak Date: May 21- 679				

**Bank Swallow (*Riparia riparia*)**

	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	0.00	0.86	0.00	4.43	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
# Days Observed	0	1	0	3	2	0	0	0	0	0	0	0	6
First Date: July 20- 6				Last Date: August 10- 17				Peak Date: August 3- 20					

**Cliff Swallow (*Petrochelidon pyrrhonota*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.00	0.00	0.86	1.14	0.43	0.14	0.32
# Days Observed	0	0	0	1	1	1	1	4
First Date: May 19- 6			Last Date: June 4- 1			Peak Date: May 21- 8		

	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	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
# Days Observed	0	0	0	0	1	0	0	0	0	0	0	0	1
First Date: August 9- 4				Last Date: August 9- 4				Peak Date: August 8- 4					

**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	1.86	2.57	3.43	1.14	1.29	0.14	1.14	1.68
# Days Observed	9	5	6	5	4	1	4	34
# Processed	3-1-0	1	1-2-0	0	1	0	0	6-3-0
First Date: April 16- 3			Last Date: June 9- 1			Peak Date: May 7- 7		

	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	9.57	6.86	3.71	4.86	1.14	2.71	2.00	2.86	5.71	2.86	18.14	10.25	5.73
# Days Observed	7	6	6	7	3	4	5	5	6	6	6	4	65
# Processed	5	2-1-0	0	0	0	0	0	0	1	2	8-0-1	3	21-1-1
First Date: July 12- 11				Last Date: September 30- 2				Peak Date: September 25- 56					

**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	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
# Days Observed	0	0	1	0	0	0	0	1
# Processed	0	0	1	0	0	0	0	1
First Date: May 8- 1			Last Date: May 8- 1			Peak Date: May 8- 1		

	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	0.00	0.00	0.14	0.00	0.00	0.00	0.00	3.00	1.86	1.00	1.29	2.50	0.75
# Days Observed	0	0	1	0	0	0	0	2	4	4	4	3	18
# Processed	0	0	0	0	0	0	0	0	1	1	0	0	2
First Date: July 27- 1				Last Date: September 29- 4				Peak Date: September 5- 20					

**Red-breasted Nuthatch (*Sitta canadensis*)**

	APRIL		MAY			JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mean # Birds/Day	0.00	0.71	1.14	1.29	1.14	0.57	0.14	0.63
# Days Observed	0	2	5	7	6	4	1	25
# Processed	0	0	2	0	0	0	0	2
First Date: May 5- 1			Last Date: June 7- 1			Peak Date: May 6- 4		

	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	0.14	0.14	0.14	0.29	0.14	0.14	0.29	0.43	0.86	0.57	0.43	0.25	0.32
# Days Observed	1	1	1	2	1	1	2	3	2	4	3	1	22
First Date: July 13- 1				Last Date: September 29- 1				Peak Date: September 9 & 11- 3					

**Brown Creeper (*Certhia americana*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.04					
# Days Observed	0	0	0	1	1	0	0	2					
First Date: May 19- 1			Last Date: May 21- 1			Peak Date: May 19&21- 1							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.50	0.05
# Days Observed	1	0	0	0	0	0	0	0	0	1	0	2	4
# Processed	0	0	0	0	0	0	0	0	0	1	0	1	2
First Date: July 18- 1				Last Date: September 28- 1				Peak Date: All Dates- 1					

**House Wren (*Troglodytes aedon*)**

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.43	0.00	0.14	0.07			
# Days Observed	0	0	0	0	3	0	1	4			
# Processed	0	0	0	0	1	0	1	2			
First Date: May 21- 1			Last Date: June 8- 1			Peak Date: All Dates- 1					

**Winter Wren (*Troglodytes hiemalis*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.43	1.00	1.14	0.71	0.00	0.00	0.41					
# Days Observed	0	3	6	7	5	0	0	21					
First Date: May 4- 1			Last Date: May 27- 1			Peak Date: May 11 & 19- 2							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.14	0.00	0.02
# Days Observed	0	0	0	0	0	1	0	0	0	0	1	0	2
# Processed	0	0	0	0	0	1	0	0	0	0	0	0	1
First Date: August 16- 1				Last Date: September 23- 1				Peak Date: All Dates- 1					

**Golden-crowned Kinglet (*Regulus satrapa*)**

	JULY		AUGUST					SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.00	0.57	0.00	0.00	0.00	0.29	0.57	0.00	0.43	0.57	0.50	0.23
# Days Observed	0	0	1	0	0	0	1	2	0	2	3	2	11
# Processed	0	0	1	0	0	0	0	0	0	0	2	0	3
First Date: July 26- 4			Last Date: September 30- 1				Peak Date: July 26- 4						

**Ruby-crowned Kinglet (*Regulus calendula*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.64	0.57	1.86	1.00	0.43	0.00	0.29	0.68					
# Days Observed	5	3	5	3	2	0	2	20					
# Processed	2	0	0	2	1	0	0	5					
First Date: April 17- 3			Last Date: June 10- 1			Peak Date: May 8 & 16- 5							
	JULY			AUGUST				SEPTEMBER				OXTOBER	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	
Mean # Birds/Day	0.00	0.14	0.14	0.00	0.00	0.43	0.00	0.14	0.43	3.00	2.00	0.50	0.57
# Days Observed	0	1	1	0	0	2	0	1	3	5	5	2	20
# Processed	0	0	0	0	0	1	0	0	0	5	3	0	9
First Date: July 20- 1				Last Date: September 29- 1				Peak Date: September 13- 12					

**Townsend's Solitaire (*Myadestes townsendi*)**

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.05			
# Days Observed	3	0	0	0	0	0	0	3			
First Date: April 18- 1			Last Date: April 25- 1			Peak Date: All Dates- 1					

**Gray-cheeked Thrush (*Catharus minimus*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.00	0.00	0.00	0.29	0.86	0.14	0.00						0.16
# Days Observed	0	0	0	1	4	1	0						6
# Processed	0	0	0	2	6	1	0						9
First Date: May 17- 2			Last Date: May 28- 1				Peak Date: May 23- 3						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01
# Days Observed	0	0	0	0	0	0	0	0	0	0	1	0	1
# Processed	0	0	0	0	0	0	0	0	0	0	1	0	1
First Date: September 22- 1			Last Date: September 22- 1				Peak Date: September 22- 1						

**Swainson's Thrush (*Catharus ustulatus*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.00	0.00	0.57	5.71	11.43	4.14	4.43						3.29
# Days Observed	0	0	3	6	6	7	7						29
# Processed	0	0	1	21	25	14	16						77
First Date: May 11- 1			Last Date: June 10- 2				Peak Date: May 21- 42						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	2.86	4.00	2.00	3.43	1.71	1.71	2.86	1.57	1.29	2.00	1.43	0.00	2.15
# Days Observed	6	6	7	7	6	6	6	5	4	5	4	0	62
# Processed	7-1-0	14-0-2	4	10-0-1	4-0-1	8	11-0-2	7-0-1	5-0-1	6-0-1	10	0	86-1-9
First Date: July 12- 5			Last Date: September 25- 1				Peak Date: July 20- 8						

**Hermit Thrush (*Catharus guttatus*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.21	1.29	0.86	0.43	0.43	0.00	0.14						0.45
# Days Observed	2	5	3	2	2	0	1						15
# Processed	1	3	1	1	2	0	0						8
First Date: April 24- 1			Last Date: June 6- 1				Peak Date: May 2 & 8- 3						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.14	0.00	0.14	0.00	0.00	0.00	0.00	0.14	0.29	0.29	0.57	0.50	0.16
# Days Observed	1	0	1	0	0	0	0	1	2	1	2	2	10
# Processed	1	0	1	0	0	0	0	1	2	1-0-1	4	1	11-0-1
First Date: July 15- 1			Last Date: September 29- 1				Peak Date: September 22- 3						

**American Robin (*Turdus migratorius*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	313.50	516.29	71.71	1.86	2.14	3.29	4.00						153.29
# Days Observed	9	7	7	6	7	7	7						50
# Processed	0	0	0	1	1	3-2-0	3						8-2-0
First Date: April 17- 1			Last Date: June 10- 6				Peak Date: April 29- 3874						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	1.14	1.57	0.86	0.43	0.86	0.29	0.14	0.14	0.43	0.71	2.86	0.75	0.85
# Days Observed	6	5	3	1	3	2	1	1	2	2	4	2	32
# Processed	0	0	1	0	0	0	0	0	0	0	0	0	1
First Date: July 12- 2			Last Date: September 29- 1				Peak Date: September 22- 16						

**European Starling (*Sturnus vulgaris*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.29	9.29	3.43	2.14	2.00	0.29	0.43						2.27
# Days Observed	1	6	3	2	3	1	1						17
First Date: April 29- 4			Last Date: June 4- 3				Peak Date: May 6- 35						

**Cedar Waxwing (*Bombycilla cedrorum*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.00	0.00	0.00	0.00	1.29	34.43	210.86						30.82
# Days Observed	0	0	0	0	2	5	7						14
First Date: May 25- 7			Last Date: June 10- 6				Peak Date: June 4- 946						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	18.00	10.00	8.86	16.29	15.57	20.29	12.57	16.43	16.00	15.86	5.00	0.00	13.38
# Days Observed	7	7	7	7	7	7	7	6	6	5	5	0	71
# Processed	3	0	0	0	0	0	0	0	0	0	0	0	3
First Date: July 12- 12			Last Date: September 26- 8				Peak Date: September 13- 51						

**American Pipit (*Anthus rubescens*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.07	16.43	3.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.52
# Days Observed	1	3	5	0	0	0	0	0	0	0	0	0	9
First Date: April 29- 1			Last Date: May 11- 4				Peak Date: May 4- 68						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.14	3.14	21.29	29.29	23.57	34.14	0.50	9.67
# Days Observed	0	0	0	0	0	1	3	7	6	7	5	1	30
First Date: August 22- 1			Last Date: September 27- 2				Peak Date: September 20- 155						

**Evening Grosbeak (*Coccothraustes vespertinus*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.14	2.00	1.00	0.43	0.86	0.43	0.71	0.71	0.71	0.71	0.71	0.71	0.71
# Days Observed	1	5	4	2	3	3	3	3	3	3	3	3	21
First Date: April 29- 2			Last Date: June 10- 1				Peak Date: May 1- 7						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.05
# Days Observed	2	0	0	0	0	0	0	2	0	0	0	0	4
First Date: July 16- 1			Last Date: September 5- 1				Peak Date: All Dates- 1						

**Purple Finch (*Haemorhous purpureus*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	1.50	27.29	2.86	0.14	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20
# Days Observed	4	6	4	1	1	0	0	0	0	0	0	0	16
First Date: April 23- 3			Last Date: May 22- 2				Peak Date: May 6- 108						
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.14	3.00	1.71	5.29	9.29	2.86	2.29	0.14	0.14	0.14	0.29	0.00	2.19
# Days Observed	1	6	5	6	4	3	1	1	1	1	1	0	30
# Processed	0	0	2	0	0	0	0	0	0	0	0	0	2
First Date: July 15- 1			Last Date: September 23- 2				Peak Date: August 10- 28						

**Common Redpoll (*Acanthis flammea*)**

	APRIL			MAY				JUNE				Total	
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11		Week 12
Mean # Birds/Day	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
# Days Observed	2	0	0	0	0	0	0	0	0	0	0	0	2
First Date: April 22- 3			Last Date: April 23- 3				Peak Date: Apr 22 & 23- 3						

**White-winged Crossbill (*Loxia leucoptera*)**

	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.00	1.43	2.14	2.00	0.86	4.00	1.71	0.00	0.57	0.57	0.00	0.00	1.15
# Days Observed	0	1	4	5	2	3	3	0	2	1	0	0	21
First Date: July 25- 10			Last Date: September 15- 4				Peak Date: August 18- 24						

**Pine Siskin (*Spinus pinus*)**

	APRIL		MAY					JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.36	0.86	3.43	5.29	10.14	3.43	0.57	3.05		
# Days Observed	2	1	4	6	7	5	2	27		
First Date: April 28- 1			Last Date: June 7- 3			Peak Date: May 24- 20				

	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	26.71	82.43	50.00	42.14	23.43	20.00	13.57	6.57	5.00	35.43	29.00	3.75	29.07
# Days Observed	5	5	6	7	5	4	5	6	6	6	6	3	64
# Processed	0	0	1	0	0	0	0	0	0	0	0	0	1
First Date: July 12- 15				Last Date: September 29- 12				Peak Date: July 19- 225					

**American Goldfinch (*Spinus tristis*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	0.00	1.57	1.71	2.43	0.71	
# Days Observed	0	0	0	0	5	7	6	18	
# Processed	0	0	0	0	0	1	0	1	
First Date: May 21- 3			Last Date: June 10- 2			Peak Date: June 7- 6			

	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.14	0.00	0.00	0.00	0.00	0.05
# Days Observed	0	0	0	0	0	0	1	1	0	0	0	0	2
First Date: August 29- 3				Last Date: September 4- 1				Peak Date: August 29- 3					

**Lapland Longspur (*Calcarius lapponicus*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	44.29	1.14	0.29	0.14	0.00	0.00	5.73	
# Days Observed	0	3	1	1	1	0	0	6	
First Date: May 2- 1			Last Date: May 26- 1			Peak Date: May 4- 227			

	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.71	2.00	2.86	4.14	3.29	0.00	1.12
# Days Observed	0	0	0	0	0	0	1	3	6	4	4	0	18
First Date: August 29- 5				Last Date: September 24- 4				Peak Date: September 18- 16					

**Snow Bunting (*Plectrophenax nivalis*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.18	
# Days Observed	1	0	0	0	0	0	0	1	
First Date: April 29- 10			Last Date: April 29- 10			Peak Date: April 29- 10			

**American Tree Sparrow (*Spizelloides arborea*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	10.79	37.57	0.00	0.00	0.00	0.00	0.00	7.39	
# Days Observed	7	7	0	0	0	0	0	14	
# Processed	35	10	0	0	0	0	0	45	
First Date: April 16- 1			Last Date: May 6- 2			Peak Date: May 1- 124			

	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	4.14	3.75	0.57
# Days Observed	0	0	0	0	0	0	0	0	1	1	4	4	10
# Processed	0	0	0	0	0	0	0	0	1	1	4	6	12
First Date: September 8- 1				Last Date: September 30- 1				Peak Date: September 27- 12					



**Chipping Sparrow (*Spizella passerina*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	2.57	182.43	448.71	3.71	1.71		79.89				
# Days Observed	0	0	1	7	6	7	7		28				
# Processed	0	0	0	6	7	5-0-1	0		18-0-1				
First Date: May 13- 18			Last Date: June 10- 2			Peak Date: May 21- 3059							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	1.43	3.00	0.00	16.43	0.29	0.14	0.00	0.00	0.00	0.00	0.00	0.00	1.84
# Days Observed	4	1	0	4	1	1	0	0	0	0	0	0	11
# Processed	0	3	0	2	0	1	0	0	0	0	0	0	6
First Date: July 12- 1				Last Date: August 16- 1				Peak Date: August 7- 107					

**Clay-colored Sparrow (*Spizella pallida*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.57	0.43	47.29	186.29	2.71	1.14		29.80				
# Days Observed	0	2	2	7	7	6	5		29				
# Processed	0	0	1	12	15	6	1		35				
First Date: May 5- 3			Last Date: June 9- 2			Peak Date: May 21- 1242							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.57	0.00	0.29	0.00	0.14	0.00	0.00	0.14	0.00	0.14	3.57	0.00	0.42
# Days Observed	3	0	2	0	1	0	0	1	0	1	3	0	11
# Processed	0	0	1	0	1	0	0	0	0	0	2	0	4
First Date: July 12- 1				Last Date: September 23- 2				Peak Date: September 22- 14					

**Vesper Sparrow (*Poocetes gramineus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.14	0.14	0.00	0.00	0.00		0.04	
# Days Observed	0	0	1	1	0	0	0		2	
First Date: May 10- 1			Last Date: May 15- 1			Peak Date: All Dates- 1				

**Savannah Sparrow (*Passerculus sandwichensis*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	2.14	0.57	0.00	0.00	0.00	0.00		0.34				
# Days Observed	0	5	3	0	0	0	0		8				
# Processed	0	1	1	0	0	0	0		2				
First Date: May 1- 3			Last Date: May 11- 2			Peak Date: May 6- 9							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.14	1.00	0.14	0.14	0.00	0.14	0.00	0.14
# Days Observed	0	0	0	0	0	1	2	1	1	0	1	0	6
# Processed	0	0	0	0	0	1	3	1	0	0	0	0	5
First Date: August 22- 1				Last Date: September 22- 1				Peak Date: August 29- 4					

**LeConte's Sparrow (*Ammodramus leconteii*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.14	0.00	0.00		0.02				
# Days Observed	0	0	0	0	1	0	0		1				
First Date: May 24- 1			Last Date: May 24- 1			Peak Date: May 24- 1							
	JULY			AUGUST				SEPTEMBER			OCTOBER		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	
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.01
# Days Observed	0	0	0	0	0	0	0	0	0	0	1	0	1
First Date: September 22- 1				Last Date: September 22- 1				Peak Date: September 22- 1					

**Nelson's Sparrow (*Ammodramus nelsoni*)**

	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	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	0	0	0	1	0	0	0	0	0	0	0	0	1
First Date: August 6- 1				Last Date: August 6- 1				Peak Date: August 6- 1					

**Fox Sparrow (*Passerella iliaca*)**

	APRIL		MAY					JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Total
Mean # Birds/Day	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
# Days Observed	3	0	0	0	0	0	0	0	0	3
First Date: April 23- 4			Last Date: April 25- 1			Peak Date: April 23- 4				

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	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	1	0	0	1
First Date: September 16- 1				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	Week 8	Total	
Mean # Birds/Day	0.21	4.00	5.00	3.86	4.00	3.71	4.57	3.20		
# Days Observed	2	7	7	7	7	7	7	44		
# Processed	1	4	4-1-3	2-0-2	3-0-1	2	4	20-1-6		
First Date: April 28- 1		Last Date: June 10- 4			Peak Date: May 11- 9					

	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	3.00	2.86	2.57	1.86	1.00	0.29	0.43	0.00	0.00	0.00	0.00	0.00	1.04
# Days Observed	7	6	7	5	3	2	2	0	0	0	0	0	32
# Processed	2	0	1	0-0-1	0	1	1	0	0	0	0	0	5-0-1
First Date: July 12- 3				Last Date: August 24- 2				Peak Date: 3 Dates- 5					

**Lincoln's Sparrow (*Melospiza lincolni*)**

	APRIL		MAY					JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Total	
Mean # Birds/Day	0.07	0.86	3.43	7.14	5.29	4.57	4.57	3.25		
# Days Observed	1	2	6	7	7	7	7	37		
# Processed	0	1	5-1-0	7-0-7	1-0-4	0-0-8	4-0-1	18-1-20		
First Date: April 29- 1		Last Date: June 10- 5			Peak Date: May 16- 12					

	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	4.29	3.71	1.71	0.86	0.14	0.43	0.86	0.57	1.29	1.00	6.00	0.25	1.81
# Days Observed	7	7	6	6	1	2	4	3	4	4	4	1	49
# Processed	6-0-1	9-0-1	1	2-0-2	0	0-0-1	1-0-1	3	2	0	9	1	34-0-6
First Date: July 12- 5				Last Date: September 27- 1				Peak Date: September 22- 21					

**Swamp Sparrow (*Melospiza georgiana*)**

	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	0.00	0.43	0.43	0.57	0.00	0.00	0.14	0.00	0.00	0.00	1.00	0.00	0.22
# Days Observed	0	2	3	3	0	0	1	0	0	0	3	0	12
# Processed	0	2-0-1	2-0-1	2-0-1	0	0	1	0	0	0	3	0	10-0-3
First Date: July 22- 2				Last Date: September 24- 1				Peak Date: September 21 & 22- 3					

**White-throated Sparrow (*Zonotrichia albicollis*)**

	APRIL		MAY					JUNE		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Total	
Mean # Birds/Day	0.00	6.00	23.43	22.71	22.00	12.71	12.57	12.43		
# Days Observed	0	3	7	7	7	7	7	38		
# Processed	0	5	28	33-0-11	37-1-9	4-0-11	1-0-8	108-1-39		
First Date: May 4- 2		Last Date: June 10- 15			Peak Date: May 7- 74					

**White-throated Sparrow (*Zonotrichia albicollis*)**

	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	9.14	6.57	6.71	6.43	5.57	3.86	5.43	6.14	7.71	7.57	47.86	0.75	9.80
# Days Observed	7	7	7	7	7	5	6	7	7	7	7	2	76
# Processed	4-0-10	5-1-4	2-0-2	9	4	5-0-1	4-0-1	8-0-1	8-0-4	6-0-1	44-1-5	0	99-2-29
First Date: July 12- 11					Last Date: September 28- 1				Peak Date: September 22- 176				

**Harris's Sparrow (*Zonotrichia querula*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
# Days Observed	1	0	0	0	0	0	0	0	1	
First Date: April 29- 1			Last Date: April 29- 1				Peak Date: April 29- 1			

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.02
# Days Observed	0	0	0	0	0	0	0	0	0	0	2	0	2
# Processed	0	0	0	0	0	0	0	0	0	0	1	0	1
First Date: September 21- 1					Last Date: September 22- 1				Peak Date: All Dates- 1				

**White-crowned Sparrow (*Zonotrichia leucophrys*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.57	0.86	1.57	0.00	0.00	0.00	0.38		
# Days Observed	0	2	2	2	0	0	0	6		
# Processed	0	3	0	0	0	0	0	3		
First Date: April 30- 2			Last Date: May 19- 1				Peak Date: May 18- 10			

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.57	1.14	5.14	1.43	25.86	0.25	2.96
# Days Observed	0	0	0	0	0	0	1	3	6	3	6	1	20
# Processed	0	0	0	0	0	0	3	2	8	0	23-0-2	1	37-0-2
First Date: August 29- 4					Last Date: September 27- 1				Peak Date: September 22- 92				

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

**Slate-coloured Junco (*Junco hyemalis hyemalis*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	341.71	49.86	2.00	0.00	0.00	0.00	0.00	91.91		
# Days Observed	13	7	3	0	0	0	0	23		
# Processed	38	35	1	0	0	0	0	74		
First Date: April 16- 83			Last Date: May 10- 5				Peak Date: April 23- 3145			

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.86	9.71	43.00	11.25	5.20
# Days Observed	0	0	0	0	0	0	0	1	3	7	7	4	22
# Processed	0	0	0	0	0	0	0	1	2	7	37	10	57
First Date: September 4- 1					Last Date: September 30- 4				Peak Date: September 24- 103				

**Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	2.00	1.71	0.00	0.00	0.00	0.00	0.46		
# Days Observed	0	1	2	0	0	0	0	3		
First Date: May 6- 14			Last Date: May 9- 11				Peak Date: May 6- 14			

	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	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	0	0	0	1	0	0	0	0	0	0	0	0	1
First Date: August 8- 1					Last Date: August 8- 1				Peak Date: August 8- 1				

**Baltimore Oriole (*Icterus galbula*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	2.14	3.00	0.14	0.43	0.71	
# Days Observed	0	0	0	3	4	1	2	10	
First Date: May 18- 2			Last Date: June 9- 1		Peak Date: May 21- 12				

**Red-winged Blackbird (*Agelaius phoeniceus*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	1.43	76.29	19.86	4.43	7.86	1.14	0.86	14.16	
# Days Observed	6	6	6	5	6	3	4	36	
First Date: April 17- 1			Last Date: June 8- 1		Peak Date: May 6- 415				

	JULY			AUGUST				SEPTEMBER				OCTOBER		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		
Mean # Birds/Day	0.57	2.14	1.14	4.29	0.29	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.74
# Days Observed	1	3	1	3	1	0	1	0	0	0	0	0	0	10
# Processed	0	0	0	1	0	0	0	0	0	0	0	0	0	1
First Date: July 13- 4				Last Date: August 29- 1				Peak Date: August 6- 17						

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

**Brown-headed Cowbird (*Molothrus ater*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.29	1.29	4.29	7.86	1.00	2.29	2.13	
# Days Observed	0	1	3	6	5	3	6	24	
# Processed									
First Date: May 2- 2			Last Date: June 10- 1		Peak Date: May 21- 27				

	JULY			AUGUST				SEPTEMBER				OCTOBER		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		
Mean # Birds/Day	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
# Days Observed	1	1	0	0	0	0	0	0	0	0	0	0	0	2
First Date: July 15- 1				Last Date: July 22- 1				Peak Date: All Dates- 1						

**Brewer's Blackbird (*Euphagus cyanocephalus*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	1.43	0.00	0.00	0.00	0.00	0.00	0.18	
# Days Observed	0	1	0	0	0	0	0	1	
First Date: May 6- 10			Last Date: May 6- 10			Peak Date: May 6- 10			

**Common Grackle (*Quiscalus quiscula*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.64	3.86	2.43	1.00	1.00	0.86	0.29	1.34	
# Days Observed	2	6	2	2	3	2	1	18	
First Date: April 21- 5			Last Date: June 8- 2		Peak Date: May 9- 13				

	JULY			AUGUST				SEPTEMBER				OCTOBER		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		
Mean # Birds/Day	0.00	0.14	0.71	1.14	0.43	0.57	1.00	0.00	0.14	0.14	1.00	0.00	0.46	
# Days Observed	0	1	3	4	2	2	1	0	1	1	1	0	16	
First Date: July 25- 1				Last Date: September 22- 7				Peak Date: August 29 & September 22- 7						

**Ovenbird (*Seiurus aurocapilla*)**

	APRIL		MAY				JUNE		Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.86	4.86	8.43	5.00	5.43	3.07	
# Days Observed	0	0	3	7	7	7	7	31	
# Processed	0	0	1	9-1-0	16-2-3	5-1-2	4-1-4	35-5-6	
First Date: May 11- 2			Last Date: June 10- 5		Peak Date: May 21 & 22- 13				

**Ovenbird (*Seiurus aurocapilla*)**

	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	0.86	1.57	1.43	2.29	1.00	1.57	2.43	0.14	0.14	0.00	0.29	0.00	1.01
# Days Observed	3	5	5	7	3	2	4	1	1	0	2	0	33
# Processed	4-0-1	9-0-1	8-0-1	10-0-4	3-0-2	10	11	1	1	0	2	0	59-0-9
First Date: July 12- 1				Last Date: September 23- 1				Peak Date: August 24- 8					

**Northern Waterthrush (*Parkesia noveboracensis*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.29	1.14	0.86	1.00	0.86	0.52	
# Days Observed	0	0	2	6	6	7	6	27	
# Processed	0	0	1	2	0	0	0	3	
First Date: May 9- 1			Last Date: June 10- 1			Peak Date: May 16 & 17- 2			

	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	0.71	0.71	0.00	0.29	0.14	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.17
# Days Observed	3	2	0	2	1	0	1	0	0	0	0	0	9
# Processed	3	3-0-2	0	2	1	0	1	0	0	0	0	0	10-0-2
First Date: July 12- 2				Last Date: August 23- 1				Peak Date: July 19- 3					

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

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	3.14	5.29	7.00	4.86	4.00	3.04	
# Days Observed	0	0	6	7	7	7	7	34	
# Processed	0	0	5-1-0	8-0-2	8-1-1	5-0-4	5-0-5	31-2-12	
First Date: May 8- 1			Last Date: June 10- 2			Peak Date: May 21- 13			

	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	4.29	3.00	1.43	6.43	2.57	1.14	0.29	0.00	0.14	0.00	0.00	0.00	1.67
# Days Observed	7	5	5	7	5	5	1	0	1	0	0	0	36
# Processed	13-0-4	7-0-1	2-0-1	3	5	2	1	0	1	0	0	0	34-0-6
First Date: July 12- 6				Last Date: September 7- 1				Peak Date: August 2- 16					

**Tennessee Warbler (*Oreothlypis peregrina*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.00	0.00	0.00	7.14	22.57	4.71	1.57	4.50	
# Days Observed	0	0	0	2	7	5	3	17	
# Processed	0	0	0	4	2	4	0	10	
First Date: May 19- 11			Last Date: June 8- 1			Peak Date: May 21- 103			

	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	1.00	3.00	7.00	52.29	41.71	26.43	16.00	0.29	0.00	0.29	0.00	0.00	12.79
# Days Observed	4	5	5	7	7	4	4	2	0	2	0	0	40
# Processed	4	4	8	23	9-0-1	7	34	0	0	1	0	0	90-0-1
First Date: July 12- 1				Last Date: September 18- 1				Peak Date: August 9- 151					

**Orange-crowned Warbler (*Oreothlypis celata*)**

	APRIL		MAY			JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		
Mean # Birds/Day	0.21	22.71	12.57	2.00	0.00	0.00	0.00	4.71	
# Days Observed	1	7	7	5	0	0	0	20	
# Processed	0	2	7	4	0	0	0	13	
First Date: April 23- 3			Last Date: May 20- 1			Peak Date: May 6- 144			

	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	0.00	0.00	0.00	0.00	0.00	0.43	0.00	9.00	8.71	13.29	6.14	0.00	3.25
# Days Observed	0	0	0	0	0	2	0	4	6	7	7	0	26
# Processed	0	0	0	0	0	1	0	9	22	30	11	0	73
First Date: August 16- 1				Last Date: September 26- 1				Peak Date: September 13- 45					

**Nashville Warbler (*Oreothlypis ruficapilla*)**

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.14	0.00	0.00	0.02
# Days Observed	0	0	0	0	0	0	1	0	0	1	0	0	2
# Processed	0	0	0	0	0	0	1	0	0	0	0	0	1
First Date: August 24- 1				Last Date: September 18- 1				Peak Date: All Dates- 1					

**Mourning Warbler (*Geothlypis philadelphia*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.00	1.29	3.14	7.57	1.50		
# Days Observed	0	0	0	0	5	7	7	19		
# Processed	0	0	0	0	1	9	25-0-3	35-0-3		
First Date: May 23- 1			Last Date: June 10- 5			Peak Date: June 5- 12				

	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	4.00	2.43	3.86	5.57	2.57	1.57	1.00	0.43	0.00	0.00	0.00	0.00	1.85
# Days Observed	6	7	7	7	7	4	5	3	0	0	0	0	46
# Processed	5-0-8	2-0-5	11-0-4	22-0-4	11-0-2	5	7	3	0	0	0	0	66-0-23
First Date: July 12- 6				Last Date: September 5- 1				Peak Date: August 1 & 8- 8					

**Common Yellowthroat (*Geothlypis trichas*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.14	0.14	0.00	2.43	2.00	4.57	1.16		
# Days Observed	0	1	1	0	6	7	7	22		
# Processed	0	0	0	0	6	4	13	23		
First Date: May 6- 1			Last Date: June 10- 2			Peak Date: June 5- 7				

	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	1.00	1.43	1.00	1.29	0.43	0.00	1.57	0.43	0.71	0.00	0.29	0.00	0.70
# Days Observed	6	4	5	4	2	0	5	1	2	0	1	0	30
# Processed	0	6	1	4-0-1	1	0	8	1	4	0	0	0	25-0-1
First Date: July 12- 1				Last Date: September 22- 2				Peak Date: August 29- 6					

**American Redstart (*Setophaga ruticilla*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	2.43	21.43	13.57	18.14	6.95		
# Days Observed	0	0	0	4	7	7	7	25		
# Processed	0	0	0	1	10-1-0	2	28-0-2	41-1-2		
First Date: May 17- 1			Last Date: June 10- 7			Peak Date: May 23- 68				

	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	8.29	8.14	3.14	8.86	8.00	3.71	0.57	0.14	0.14	0.14	0.00	0.00	3.56
# Days Observed	7	6	7	7	5	5	3	1	1	1	0	0	43
# Processed	16-1-4	13-0-3	5-0-1	8	10-1-0	6-0-1	0	0	0	1	0	0	59-2-9
First Date: July 12- 11				Last Date: September 16- 1				Peak Date: August 11- 25					

**Cape May Warbler (*Setophaga tigrina*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.04		
# Days Observed	0	0	0	0	1	0	0	1		
First Date: May 21- 2			Last Date: May 21- 2			Peak Date: May 21- 2				

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.01
# Days Observed	0	0	0	0	0	0	1	0	0	0	0	0	1
# Processed	0	0	0	0	0	0	1	0	0	0	0	0	1
First Date: August 23- 1				Last Date: August 23- 1				Peak Date: August 23- 1					

**Magnolia Warbler (*Setophaga magnolia*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.14	2.71	2.14	3.71			1.09			
# Days Observed	0	0	0	1	5	6	6			18			
# Processed	0	0	0	0	0	2	2			4			
First Date: May 20- 1			Last Date: June 10- 1			Peak Date: June 4- 19							
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.14	0.14	0.86	2.43	0.86	0.00	0.86	0.00	0.29	0.00	0.00	0.00	0.48
# Days Observed	1	1	4	6	4	0	3	0	2	0	0	0	21
# Processed	1	0	2-0-4	5-0-1	1	0	2	0	1	0	0	0	12-0-5
First Date: July 13- 1				Last Date: September 12- 1				Peak Date: August 6- 8					

**Bay-breasted Warbler (*Setophaga castanea*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.43	0.00	0.00			0.05			
# Days Observed	0	0	0	0	2	0	0			2			
# Processed	0	0	0	0	1	0	0			1			
First Date: May 22- 1			Last Date: May 23- 2			Peak Date: May 23- 2							
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.00	0.00	0.00	0.29	0.00	0.57	0.14	0.00	0.00	0.00	0.00	0.00	0.09
# Days Observed	0	0	0	2	0	2	1	0	0	0	0	0	5
First Date: August 3- 1				Last Date: August 24- 1				Peak Date: August 16 & 18- 2					

**Blackburnian Warbler (*Setophaga fusca*)**

	APRIL		MAY					JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7				
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.14			0.02	
# Days Observed	0	0	0	0	0	0	1			1	
First Date: June 10- 1			Last Date: June 10- 1			Peak Date: June 10- 1					

**Yellow Warbler (*Setophaga petechia*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	1.00	8.86	11.29	4.29	4.00			3.68			
# Days Observed	0	0	3	6	7	7	7			30			
# Processed	0	0	0	5	2	2	0			9			
First Date: May 10- 2			Last Date: June 10- 4			Peak Date: May 21- 48							
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	9.00	7.43	1.00	2.43	1.43	1.00	0.43	0.00	0.14	0.00	0.00	0.00	1.98
# Days Observed	7	6	3	6	5	4	2	0	1	0	0	0	34
# Processed	18-0-2	24-0-4	2-0-1	0-0-1	1	2	2	0	1	0	0	0	50-0-8
First Date: July 12- 9				Last Date: September 6- 1				Peak Date: July 13- 23					

**Blackpoll Warbler (*Setophaga striata*)**

	APRIL		MAY					JUNE			Total		
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.43	0.14	0.00			0.09			
# Days Observed	0	0	0	1	2	1	0			4			
# Processed	0	0	0	0	0	1	0			1			
First Date: May 20- 1			Last Date: May 29- 1			Peak Date: May 21- 2							
	JULY			AUGUST				SEPTEMBER				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
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.14	0.00	0.00	0.00	0.06
# Days Observed	0	0	0	0	0	0	3	0	1	0	0	0	4
# Processed	0	0	0	0	0	0	4	0	1	0	0	0	5
First Date: August 23- 2				Last Date: September 7- 1				Peak Date: August 23- 2					

**Palm Warbler (*Setophaga palmarum*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.29	0.43	0.57	0.57	0.14	0.00	0.25					
# Days Observed	0	2	3	3	3	1	0	12					
# Processed	0	0	1	2	1	0	0	4					
First Date: May 5- 1			Last Date: June 2- 1			Peak Date: May 20 & 21- 2							
	JULY			AUGUST				SEPTEMBER			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
Mean # Birds/Day	0.00	0.14	0.00	0.14	0.00	0.00	0.29	1.14	1.00	0.00	0.86	0.00	0.31
# Days Observed	0	1	0	1	0	0	1	2	3	0	4	0	12
# Processed	0	1	0	0	0	0	1	1	3	0	2	0	8
First Date: August 9- 1				Last Date: August 9- 1				Peak Date: August 9- 1					

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

**Yellow-rumped Warbler (*Setophaga coronata*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	16.00	214.14	329.71	155.71	54.43	1.71	1.57	98.66					
# Days Observed	11	7	7	7	7	7	7	53					
# Processed	0	2	6	14-2-2	12-0-3	0	1	35-2-5					
First Date: April 17- 20			Last Date: June 10- 1			Peak Date: May 9- 862							
	JULY			AUGUST				SEPTEMBER			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
Mean # Birds/Day	15.71	44.43	30.43	87.71	69.43	42.71	118.00	97.86	176.71	44.43	137.29	6.25	75.04
# Days Observed	6	5	6	7	6	5	6	7	6	7	7	3	71
# Processed	46-0-1	5	1	5	0	8	21	9	75	26	25	0	221-0-1
First Date: July 12- 29				Last Date: September 29- 5				Peak Date: August 29- 511					

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

**Black-throated Green Warbler (*Setophaga virens*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.14	0.00	0.14	0.14	0.00	0.05					
# Days Observed	0	0	1	0	1	1	0	3					
First Date: May 11- 1			Last Date: June 2- 1			Peak Date: All Dates- 1							
	JULY			AUGUST				SEPTEMBER			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
Mean # Birds/Day	0.00	0.00	0.00	0.00	0.00	0.43	0.14	0.00	0.00	0.00	0.00	0.00	0.05
# Days Observed	0	0	0	0	0	3	1	0	0	0	0	0	4
# Processed	0	0	0	0	0	1	0	0	0	0	0	0	1
First Date: August 18- 1				Last Date: August 26- 1				Peak Date: All Dates- 1					

**Canada Warbler (*Cardellina canadensis*)**

	APRIL		MAY				JUNE			Total			
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7						
Mean # Birds/Day	0.00	0.00	0.00	0.14	5.71	11.86	10.43	3.52					
# Days Observed	0	0	0	1	7	7	7	22					
# Processed	0	0	0	0	5	28-1-0	17-2-3	50-3-3					
First Date: May 20- 1			Last Date: June 10- 7			Peak Date: June 4- 22							
	JULY			AUGUST				SEPTEMBER			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
Mean # Birds/Day	4.43	2.43	5.14	7.71	4.00	1.71	0.43	0.00	0.00	0.00	0.00	0.00	2.23
# Days Observed	6	6	7	7	7	4	3	0	0	0	0	0	40
# Processed	10-0-9	6-0-3	16-0-5	18-0-3	10-1-1	3	2	0	0	0	0	0	65-1-21
First Date: July 12- 11				Last Date: August 27- 1				Peak Date: August 2- 13					

**Wilson's Warbler (*Cardellina pusilla*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	0.29	0.14	0.86	0.29	0.20		
# Days Observed	0	0	0	2	1	3	1	7		
# Processed	0	0	0	1	0	1	0	2		
First Date: May 16- 1			Last Date: June 4- 2			Peak Date: June 6- 4				



**Wilson's Warbler (*Cardellina pusilla*)**

	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.00	0.00	0.00	0.14	0.29	1.71	3.00	1.29	0.71	0.14	0.14	0.00	0.64
# Days Observed	0	0	0	1	2	4	5	4	4	1	1	0	22
# Processed	0	0	0	1	1	2	16	8	5	0	1	0	34
First Date: August 8- 1				Last Date: September 22- 1				Peak Date: August 24- 8					

**Western Tanager (*Piranga ludoviciana*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.14	1.14	1.14	3.57	0.43	1.00	0.93		
# Days Observed	0	1	4	5	6	3	5	24		
First Date: May 6- 1			Last Date: June 9- 2			Peak Date: May 21- 12				

	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.43	1.29	2.71	6.14	2.57	3.57	1.00	0.00	0.14	0.00	0.00	0.00	1.54
# Days Observed	3	4	4	7	5	5	3	0	1	0	0	0	32
# Processed	0	2	1	1	1	3	1	0	0	0	0	0	9
First Date: July 15- 1				Last Date: September 9- 1				Peak Date: August 5- 16					

**Rose-breasted Grosbeak (*Pheucticus ludovicianus*)**

	APRIL		MAY				JUNE			Total
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7			
Mean # Birds/Day	0.00	0.00	0.00	4.43	10.71	1.00	1.29	2.18		
# Days Observed	0	0	0	5	7	5	7	24		
# Processed	0	0	0	0	2	0	0	2		
First Date: May 16- 2			Last Date: June 10- 1			Peak Date: May 21- 44				

	JULY			AUGUST				SEPTEMBER				OCTOBER	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	
Mean # Birds/Day	0.14	0.29	0.43	1.29	0.86	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.27
# Days Observed	1	2	3	5	3	0	1	0	0	0	0	0	15
# Processed	1	1	0	0	0	0	0	0	0	0	0	0	2
First Date: July 13- 1				Last Date: August 24- 1				Peak Date: August 9- 3					

## Appendix II. 2017 Banding Totals

Species	Migration		MAPS	Projects	Total	Annual Average	Grand Total 1993- 2017
	Spring	Fall					
"Audubon's" Warbler					0	0.1	2
Alder Flycatcher	22(21)	40			62	83.5	2087
American Goldfinch	1				1	0.1	2
American Kestrel					0	0.1	2
American Magpie					0	0.1	2
American Pipit					0	0.7	18
American Redstart	41	59	27		127	294.6	7364
American Robin	8	1	4	28	41	20.9	524
American Tree Sparrow	45	12			57	26.1	653
Baltimore Oriole					0	0.2	5
Bay-breasted Warbler	1				1	5.5	136
Barred Owl					0	0.2	4
Belted Kingfisher					0	0.1	1
Black-and-White Warbler	31	34	4		69	86.3	2158
Blackburnian Warbler					0	0.1	2
Black-capped Chickadee	6	21			27	44.8	1120
Blackpoll Warbler	1	5			6	14.3	358
Black-throated Green Warbler		1			1	5.2	129
Blue Jay		2			2	2.5	63
Blue-headed Vireo		1			1	3.4	86
Boreal Chickadee	1	2			3	1.3	33
Boreal Owl					0	0.4	9
Brown Creeper		2	1		3	2.6	65
Brown-headed Cowbird					0	0.4	9
Canada Warbler	50	65	27		142	126.0	3150
Cape May Warbler		1			1	6.2	154
Cedar Waxwing		3			3	7.5	188
Chestnut-sided Warbler					0	0.9	22
Chipping Sparrow	18	6			24	82.2	2055
Clay-colored Sparrow	35	4			39	41.7	1043
Common Grackle					0	0.2	6
Common Yellowthroat	23	25	6		54	31.2	780
Connecticut Warbler					0	1.1	28
Cooper's Hawk	1				1	0.2	4
Downy Woodpecker		12	1		13	3.8	96
Eastern Kingbird					0	0.1	1
Eastern Phoebe	6	3			9	6.9	174
Evening Grosbeak						0.1	2

Species	Migration		MAPS	Projects	Total	Annual Average	Grand Total 1993- 2017
	Spring	Fall					
Fox Sparrow		1			1	3.3	83
Golden-crowned Kinglet		3			3	3.6	89
Gray Catbird					0	0.2	6
Gray Jay					0	0.1	3
Gray-cheeked Thrush	9	1			10	8.8	221
Hairy Woodpecker	1	11			12	3.3	83
Harris's Sparrow		1			1	0.3	7
Hermit Thrush	8	11			19	24.9	622
Hoary Redpoll					0	0.1	1
House Wren	2				2	1.6	39
Lapland Longspur					0	0.2	5
Lazuli Bunting					0	0.1	1
Le Conte's Sparrow					0	0.3	7
Least Flycatcher	32	16			48	89.9	2247
Lincoln's Sparrow	18	35	5		58	43.2	1080
Long-eared Owl					0	0.1	1
MacGillivray's Warbler					0	0.1	2
Magnolia Warbler	4	12	8		24	40.0	1001
Marsh Wren					0	0.1	3
Mourning Warbler	35	66	38		139	58.5	1462
Nashville Warbler		1			1	0.4	9
Northern Flicker		2			2	1.7	42
Northern Goshawk					0	0.1	1
Northern Mockingbird					0	0.1	1
Northern Pygmy-Owl					0	0.1	2
Northern Saw-whet Owl				94	94	57.4	1434
Northern Shrike					0	0.1	2
Northern Waterthrush	3	10			13	32.2	804
Orange-crowned Warbler	13	73			86	55.9	1398
"Oregon" Junco					0	0.6	15
Olive-sided Flycatcher					0	0.1	2
Ovenbird	35	59	21		115	178.5	4462
"Western" Palm Warbler	4	8			12	11.6	291
Philadelphia Vireo		3	1		4	7.6	189
Pileated Woodpecker		2			2	0.4	10
Pine Siskin		1			1	6.6	166
Purple Finch		2			2	4.1	103
Red-breasted Nuthatch	2				2	5.4	135
Red-eyed Vireo	1	13	2		16	32.9	823
Red-winged Blackbird		1			1	0.3	8
Rose-breasted Grosbeak	2	2			4	13.4	336
Ruby-crowned Kinglet	5	9			14	16.9	422
Savannah Sparrow	2	5			7	8.8	219

Species	Migration		MAPS	Projects	Total	Annual Average	Grand Total 1993- 2017
	Spring	Fall					
Sharp-shinned Hawk	12	31			43	27.0	675
“Slate-colored” Junco	74	57			131	75.3	1883
Song Sparrow	20	5	1		26	14.9	372
Swainson's Thrush	77	87	18		182	247.8	6196
Swamp Sparrow		9	1		10	9.4	234
Tennessee Warbler	10	90	3		103	225.6	5639
Three-toed Woodpecker					0	0.1	1
Townsend’s Solitaire					0	0.1	3
Varied Thrush					0	0.2	6
Veery					0	0.3	8
Vesper Sparrow					0	0.1	3
Warbling Vireo		3	1		4	2.8	70
Western Tanager		9			9	9.1	228
Western Wood-Pewee					0	0.9	23
White-breasted Nuthatch					0	0.4	11
“Gambel's” White-crowned Sparrow	3	37			40	20.9	522
White-throated Sparrow	108	99	43		250	141.7	3543
White-winged Crossbill					0	0.1	1
Wilson's Warbler	2	33			35	22.9	572
Winter Wren		1	6		7	2.6	64
Yellow Warbler	9	50	2		61	147.3	3683
Yellow-bellied Flycatcher	1				1	3.1	77
Yellow-bellied Sapsucker	4	3	2		9	8.7	217
Yellow-rumped Warbler	35	221	14		270	514.8	12869
<b>Total number of birds banded</b>	<b>821</b>	<b>1382</b>	<b>236</b>	<b>122</b>	<b>2561</b>	<b>3090.9</b>	<b>77273</b>
<b>Total number of species banded</b>	<b>45</b>	<b>60</b>	<b>23</b>	<b>2</b>	<b>67</b>	<b>61.4</b>	<b>105</b>