



2022 Annual Report

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Slave Lake, Alberta
January 2023

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2022 Executive Summary

The Lesser Slave Lake Bird Observatory (LSLBO) completed its 29th year of avian population monitoring in the Lesser Slave Lake Provincial Park of northern Alberta (28th year of standardized efforts). Dedicated to bird conservation through research and education, the LSLBO manages four core monitoring programs that contribute to national and international networks: spring migration monitoring, fall migration monitoring, Monitoring Avian Productivity and Survivorship (MAPS), and fall owl migration monitoring.

Spring migration monitoring ran daily from April 18 to June 10. Overall, spring monitoring efforts were below average; although more days were covered, daily effort was reduced due to frequent cold and snowy weather in April and early May. Migration peaked early to mid-May with large flocks of geese, Common Redpoll, and “Slate-coloured” Junco. Most warblers and other sparrows came later as songbird migration lulled then concluded with Alder Flycatcher, Swainson’s Thrush, and some late-season warblers in early June. An above-average 1,244 birds were banded from 50 species. Among the 123 recapture records, the oldest known-age bird was a Hairy Woodpecker estimated to be 10 years old.

Fall migration monitoring occurred daily from July 12 to September 30 with slightly above average efforts. Songbird migration was erratic, particularly mid-August to mid-September and overhead migration rates were subdued while foraging activity was unusually high. This behaviour contributed to the well above average 3,803 new bands from 65 species and 542 recapture records. Although this broke the streak of consecutive record-breaking falls, it was still the third highest fall band total since 1995. The oldest known-age bird recaptured during fall was a Mourning Warbler estimated to be 8 years old.

Four MAPS sites were operated June 11 to August 1, completing our 29th year of MAPS contributions. It was the second busiest season yet with 610 birds banded from 30 species (double the MAPS average). From a record-breaking 366 recapture records, the oldest known-age bird was a White-throated Sparrow estimated to be 10+ years old. The annual breeding status of all 66 observed species was assessed.

Targeted fall owl migration monitoring was conducted for the 19th year on 43 nights from September 1 to October 31. A Northern Saw-whet Owl net array and a smaller Boreal Owl net array captured a combined 161 Saw-whet Owls, 1 Boreal Owl, and 1 Barred Owl for the fourth highest capture total yet. The only recapture was a Northern Saw-whet Owl banded in 2020 by the Calgary Bird Banding Society.

Three birds banded by the LSLBO were found elsewhere: an American Redstart banded in 2020 was found dead in Tennessee, a Northern Saw-whet Owl banded in 2021 was found dead in Saskatchewan, and a White-throated Sparrow banded this spring was found dead in Arkansas.

Additional collaborative projects included Barred Owl occupancy surveys and GPS datalogger downloads (West Fraser), feather sampling (Environment and Climate Change Canada), flat fly collection (University of Guelph), arthropod surveys (Caterpillars Counts!), eBird contributions (Cornell Lab), and specimen donations (Royal Alberta Museum). One article was published which used some LSLBO data. For periodic in-depth habitat monitoring efforts, vegetation surrounding standard net-lanes and owl speaker locations were resurveyed. Simplified habitat surveys were performed on the census route and each MAPS site.

COVID-19 safety measures were relaxed and education programs and volunteer opportunities resumed. Migration monitoring programs received 774 visitors on-site and off-site presentations welcomed 909 visitors. The LSLBO published 23 weekly blogs. Throughout all core monitoring and maintenance projects, 501 person-days were accumulated between staff and volunteers. Fifteen volunteers contributed 58 person-days to core monitoring activities. Additionally, 24 volunteers helped census the region on December 18 in the 27th Slave Lake Christmas Bird Count.

Migration Monitoring

Migration monitoring estimates population trends central to boreal avian conservation efforts. Since much of northern Canada is remote with low human population densities, breeding bird surveys often cannot provide sufficient information on northern species. Similarly, South American nations often lack the resources required to study Neotropical migratory species on their wintering grounds. By considering numbers of observed and captured individuals migrating through more accessible locations, population trends of these otherwise difficult to monitor species can be estimated.

Since 1994, the Lesser Slave Lake Bird Observatory (LSLBO) has been conducting migration monitoring over both spring and fall migration periods with 2022 marking the 28th year of standardized data collection (since 1995). The LSLBO is a member station of the Canadian Migration Monitoring Network - Réseau canadien de surveillance des migrations (CMMN-RCSM) and contributes to the population trend analysis program. Established in 1998, the CMMN is a unique network including Birds Canada, Environment and Climate Change Canada, and approximately 25 member stations working collaboratively to monitor avian migration across Canada.

Migration monitoring follows a standardized approach as outlined in the *Lesser Slave Lake Bird Observatory Standard Operating Protocol (revised 2021)*. The approach is roughly the same in both the spring and the fall, with small differences to account for the opposite directions of migration. Priority species for monitoring include passerines and near-passerines, but all avian species encountered are recorded daily using four methods: census, visual migration counts, incidental observations, and mist-netting. Census is performed once daily along a 700 m transect across the study site for 30-minutes during peak migration hours. Visual migration counts are 5-minute-long observations from a fixed location of clearly migrating individuals. Other birds encountered in the study area not included in these standardized counts are recorded as incidental observations.

Banding is performed alongside standardized and incidental observations to record species that migrate discreetly and to gather morphometric measurements and demographic information from a subset of individuals that cannot be obtained through other means. Mist-netting is accomplished using twelve standard nets (since 1995) and two non-standard aerial nets (since fall 2010) for a period of seven hours beginning half an hour before sunrise (maximum 98 net-hours possible in a day). Mist-netting is not performed under adverse weather conditions or the persistent presence of predators.

To summarize the effort dedicated to observing migration, a daily coverage code is assigned (Table 1). Throughout migration monitoring, the LSLBO strives to obtain a daily coverage code of four. However, when the weather prevents mist-netting, the maximum coverage code that can be attained is three.

Table 1. Criteria for daily coverage codes. Obtaining field hours is mandatory; performance of census, visual migration counts, and standard mist-netting is required as described. Class 1 observers can reliably identify > 75% of bird species encountered, while class 2 observers can identify 50-75%.

Code	Coverage	Field Hours	Census	Vis. Migs.	Standard Mist-Netting	Requirements (Census, vis. migs., netting)	Min. Observer Requirements
0	None	0	No	0	0%	No Activity	None
1	Casual	1	Yes	4	≥ 10%	One of the three counts	1 (class 2+)
2	Poor	2	Yes	4	≥ 25%	Census, one of other counts	1 (class 2+)
3	Fair	4	Yes	6	≥ 50%	Two counts	1 (class 2+)
4	Good	6	Yes	7	≥ 50%	All	1 (class 1)
5	Excellent	10	Yes	8	≥ 90%	All (non-standard period)	3 (class 1)

Spring Migration Monitoring

Spring migration monitoring occurs for approximately seven weeks from mid-April to June 10, although yearly weather conditions can allow monitoring beyond the standard period or prevent early efforts. This period covers the migration window for most species encountered at the LSLBO as they move northward to their breeding grounds. However, some species that migrate early and irregularly (for example, Dark-eyed Junco) are frequently missed by our spring monitoring period. Overall, the diversity of species observed increases quickly in May, with busy banding periods possible mid to late May. By June, local breeding birds are encountered regularly alongside small numbers of late migrants.

In 2022, spring migration monitoring took place from April 18 to June 10. In response to the abating COVID-19 pandemic and detections of Highly Pathogenic Avian Influenza A(H5N1) in Canadian wild birds, additional hygiene measures of masking and frequent equipment sanitization were resumed, but other restrictions limiting volunteers and visitors were lifted. With daily coverage achieved, the number of days covered and those with census and visual migration counts (vis-migs) were above average (Table 2). The number of person-days was similarly above average as volunteers returned. Despite 37 days meeting our goal of eight vis-migs per day, cold temperatures, high winds, and rain cut monitoring efforts short often enough that the daily vis-mig code was below average. Poor weather similarly prevented the nets from being opened on 15 days, while cold starts and late morning winds prevented full net-hours on an additional 23 days for the eighth lowest average daily net-hours accumulated since monitoring began. Only 16 days obtained full net-hours. Overall, daily monitoring efforts for spring migration this year were somewhat below average compared to previous years.

Table 2. Summary of effort during spring migration monitoring. Averages include 1995 to 2022, except visual migration effort, which is 2000-2022 (standard observation time reduced from 10 to 5 minutes).

	2022	Average	Min (Year)	Max (Year)
Daily Coverage				
First day ¹	18-Apr	22-Apr	April 15 (2016)	May 4 (1996, 98)
Last day ¹	10-Jun	9-Jun	May 15 (2011) ²	June 17 (1997)
Number of days	54	47	24 (2011) ²	57 (2000, 01, 06)
Person-days	120	101	55 (2011) ²	130 (2001)
Average daily coverage code	3.67	3.75	3.43 (2020)	3.95 (2005)
Census				
Number of days	54	46	24 (2011) ²	57 (2001, 16)
Visual Migration Counts				
Number of days	54	50	24 (2011) ²	57 (2000, 01, 16)
Average daily vis. migs.	7.4	7.7	7.0 (2020)	8.4 (2002)
Banding				
Number of days	39	42	23 (2011) ²	54 (2001)
Standard nets average daily net-hours (84 max)	50.1	63.0	48.7 (2019)	75.8 (2008)
Aerial nets average daily net-hours (14 max)	6.2	8.7	5.6 (2019)	10.7 (2015)

1. "Min" date values represent the earliest first or last date, while "Max" represents the latest start or end date.

2. 2011: Monitoring site was evacuated due to large forest fires in May cutting the season short.

Spring Migration Daily Totals

A total of 62,392 birds from 157 identified species were recorded across counting methods. Census documented 11% of all birds encountered with a high diversity of 107 identified species including the only Canada Jay and Chestnut-sided Warbler recorded during spring migration monitoring. Visual migration counts documented 13% of birds encountered with 57 species identified, but no unique species. Banding accounted for 2% of encounters from 45 species, including the only Brown Creeper, Gray Catbird, Connecticut Warbler, and Blackpoll Warbler. Incidental observations contributed the most individuals (74% of records) from 151 species, 32 of which were only encountered incidentally, including: Gadwall, Lesser Scaup, Mourning Dove, Black Tern, Swainson's Hawk (the third encountered since 1995), Rough-legged Hawk, Northern Saw-whet Owl, American Three-toed Woodpecker, Great Crested Flycatcher (third encountered), Say's Phoebe, Golden-crowned Kinglet, Bohemian Waxwing (seventh flock encountered), Snow Bunting, Lark Sparrow (third encounter), Vesper Sparrow, Nashville Warbler, and Wilson's Warbler.

Overall migration activity peaked in early to mid-May (Figure 1). Large flocks of geese made the busiest days of overhead migration May 4, 5, 11, and especially May 12. Waterfowl migration was busiest early May due to these geese, but died down as smaller flocks of ducks moved through. Songbird migration was more erratic with numerous flocks of Common Redpoll and "Slate-coloured" Junco early in the season. Warblers and sparrows came later as songbird migration lulled with a few rushes during favourable weather. American Robin migration was subdued compared to recent years. Spring migration concluded with movements of Alder Flycatcher, Swainson's Thrush, and some warblers in early June. For a brief weekly review see Spring Migration Weekly Summary (p. 8). For a more detailed break-down of each species' abundances and migratory windows, see Appendix I. Migration Occurrence Records (p. 33).

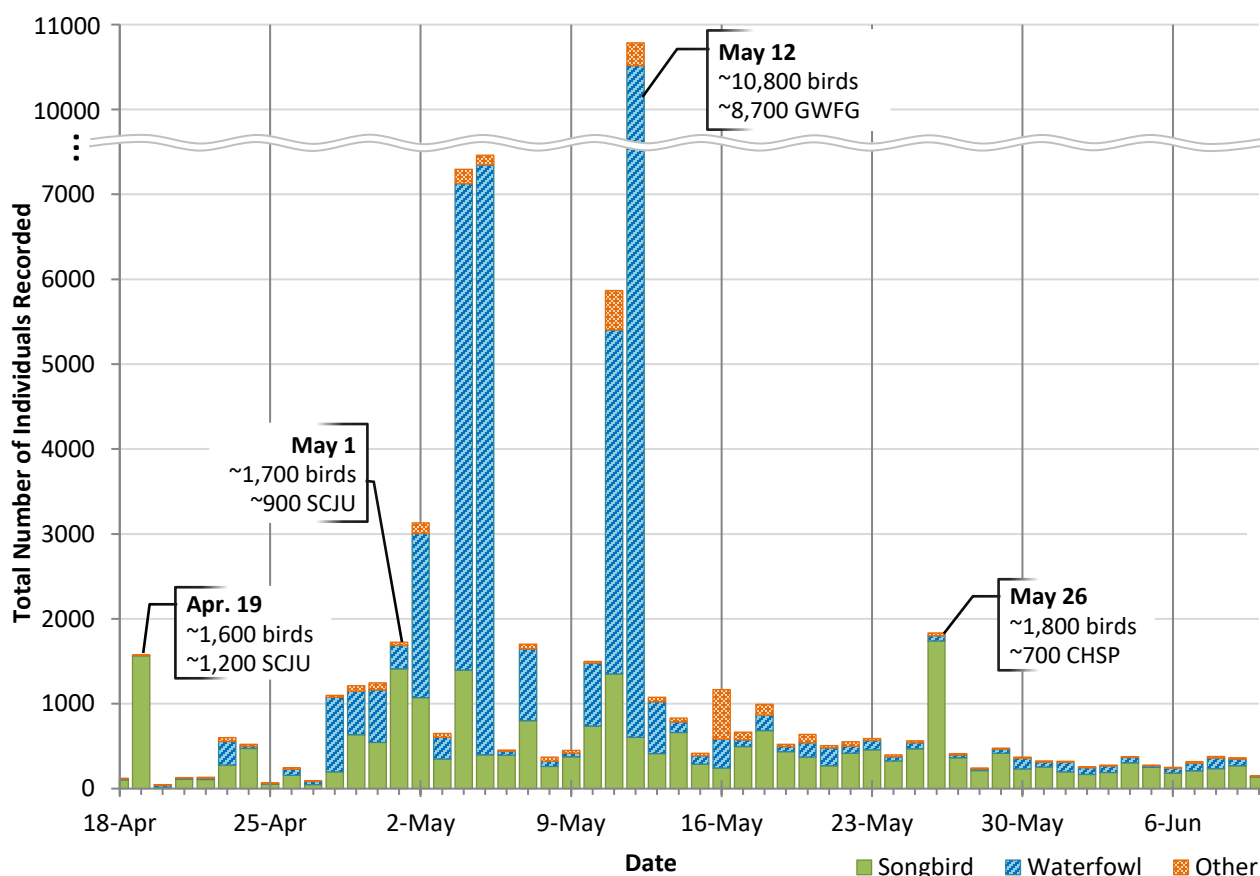


Figure 1. Total number of individuals detected daily during spring migration monitoring between all methods.
Codes: "Slate-coloured" Junco (SCJU), Greater White-fronted Goose (GWFG), and Chipping Sparrow (CHSP).

Spring Migration Weather

Weather conditions are described every two hours beginning at first light by recording temperature, wind speed and direction, cloud cover, and precipitation descriptions. Temperatures were somewhat below average in April and early May coinciding frequently with periods of sleet and snow (Figure 2). By late May temperatures were approximately average, while June was above average. Winds were erratic and often increased in strength throughout the day.

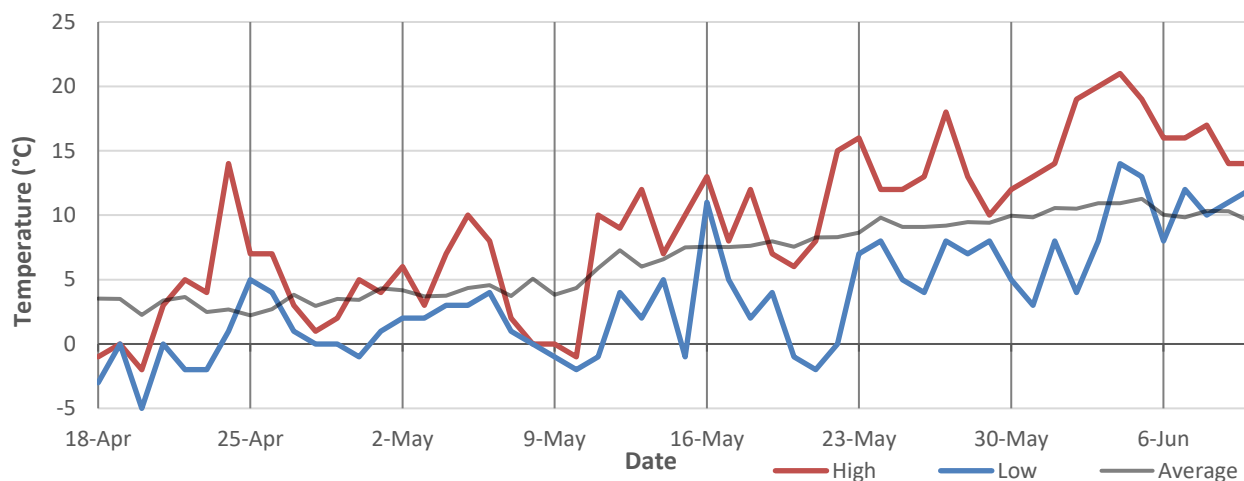


Figure 2. Daily temperature high and lows (°C). Historical daily temperature ("Average") averaged from daily temperature records between 2000-21.

Spring Visual Migration Counts

Anytime during the day there can be a constant flow of songbirds, waterfowl, or the occasional raptor migrating overhead. To record this movement in a standardized way, a 5-minute visible migration count (vis-mig) is conducted once hourly during the monitoring period. The first vis-mig takes place one half hour before sunrise. Up to eight vis-migs are conducted on days with fair weather conditions. When conditions are poor, six vis-migs are performed. During vis-migs in 2022, 7,940 birds of 57 species were detected on their northward migration and 197 birds of 11 species were detected moving back south (often due to poor weather). Spring songbird migration was busiest between the second and fourth vis-migs, while waterfowl tended to migrate later (Figure 3). A handful of large shorebird flocks counted on the sixth vis-mig in early May accounted for most detections of *other* bird species.

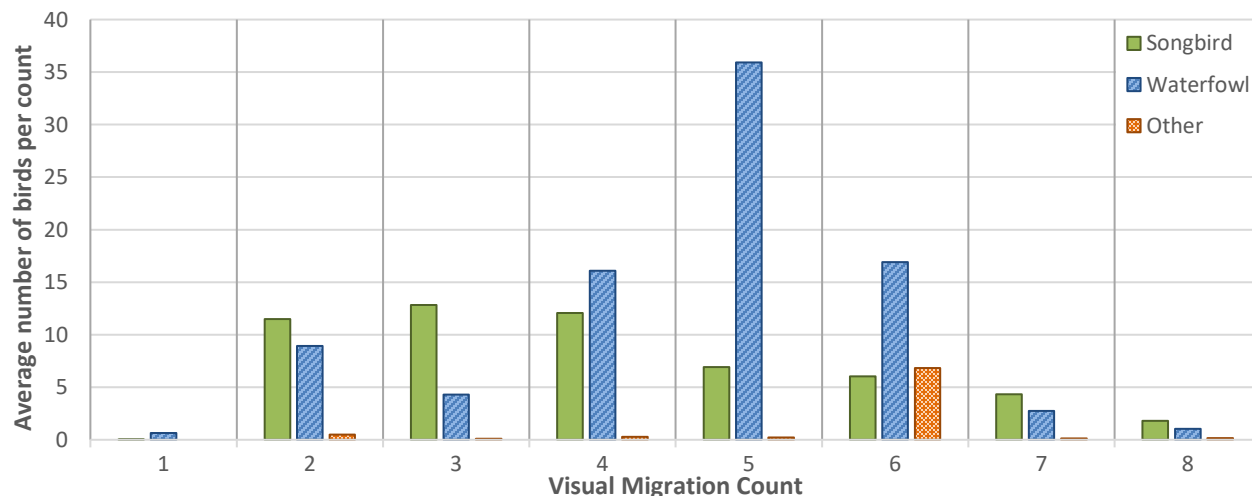


Figure 3. Average number of birds detected per hourly vis-mig during spring migration monitoring.

Spring Migration Mist-netting Effort & Productivity

The LSLBO operates 12 standard and 2 non-standard (aerial) nets during migration monitoring. Standard nets are labeled 1 to 12 and have operated since 1995, with 7-hour monitoring periods standardized in 2000. In 2011, two aerial nets (11X/12X) were set-up alongside nets 11 and 12 for their first spring season and have operated yearly since except spring 2020 when the COVID-19 pandemic limited manpower. A total of 3,041.5 net-hours were accumulated in 2022, representing 59.7% of 5,292.0 possible net-hours (Table 3). Both standard (2,708.0 net-hours) and non-standard (333.5 net-hours) coverage was well below the spring average of 3,170.4 net-hours (2000-21, 2011 excluded) and 461.6 net-hours, respectively. Mist-netting was partially attempted on 23 days and not attempted on 15 days due to cold temperatures, rain, and high winds. Situated close to the shoreline, nets 6, 11, and the aerials accumulated the fewest net-hours due to wind exposure.

Across all nets, the capture rate for spring migration monitoring was 47.5 birds per 100 net-hours, which is above the season average of 35.4 birds per 100 net-hours (Table 3). Many nets saw roughly average capture rates. Nets 3 and 9 captured approximately 25% fewer birds than their historical average, but nets 5, 8, 10, and 12X captured around double their average. Located in relatively short willow, net 6 achieved the highest capture rate of 123.1 birds per 100 net-hours and the greatest species diversity of 34 species. The two aerial nets were productive, capturing 19% of all birds. The net with the lowest capture rate was net 9 (11.7 birds/100 net-hours) and the net with the lowest species diversity was net 3 (12 species) - both nets are in mature forest with a thinning understory. A total of 9 birds were released either accidentally or because they were stressed or females with eggs in their oviducts.

Table 3. Net-hours and capture rates per 100 net-hours for each net-lane during spring migration, including average capture rates from 1995-2022 (2011 excluded).

Net-lane	Net-hours (Coverage %)	Captures				Capture Rate (Average)
		New Band	Recapture	Released Unbanded	Total Capture of Total Species	
1	232.5 (61.5%)	56	8	0	64 of 20	27.5 (26.1)
2	232.5 (61.5%)	36	5	1	42 of 13	18.1 (18.2)
3	240.0 (63.5%)	28	11	0	39 of 12	16.3 (21.4)
4	240.0 (63.5%)	88	10	0	98 of 23	40.8 (24.6)
5	223.5 (59.1%)	145	13	3	161 of 27	72.0 (37.9)
6	198.3 (52.4%)	229	15	0	244 of 34	123.1 (89.3)
7	226.0 (59.8%)	52	10	0	62 of 14	27.4 (21.0)
8	226.0 (59.8%)	84	5	1	90 of 24	39.8 (19.6)
9	230.5 (61.0%)	23	3	1	27 of 16	11.7 (15.7)
10	230.5 (61.0%)	65	10	0	75 of 20	32.5 (17.6)
11	205.3 (54.3%)	121	5	3	129 of 30	62.9 (62.4)
12	223.0 (59.0%)	84	9	0	93 of 26	41.7 (38.7)
Total standard	2,708.0 (59.7%)	1,011	104	9	1,124 of 44	42.8 (32.7)
11X	153.0 (40.5%)	107	5	0	112 of 29	73.2 (60.4)
12X	180.5 (47.8%)	126	14	0	140 of 33	77.6 (42.1)
Total non-standard	333.5 (44.1%)	233	19	0	252 of 40	75.6 (51.3)
Grand total	3,041.5 (57.5%)	1,244	123	9	1,376 of 51	47.5 (35.4)

Spring Migration Captures

A total of 1,244 birds were banded during spring migration monitoring with an additional 123 recapture records. The banding total is above the season average of 948.8 birds banded per spring (1995-2022, 2011 excluded) and the fifth highest total since 1995. The first peak in capture rates occurred on May 1, although net-hours were reduced due to the cold, with 50 birds banded – nearly all of them “Slate-coloured” Juncos (Figure 4). In general, capture rates were around or below the historical average until after the season’s typical banding peak (May 21 to 25). By May 26, capture rates became consistently at or above average. Most of these late-season captures were Alder Flycatcher, Mourning Warbler, American Redstart, and Canada Warbler, which are often the last to arrive. This surge also included the busiest day of spring banding (June 5), when 73 birds of 15 species were banded.

A total of 50 species were banded, which is above the spring average of 45.7 species (1995-2022, 2011 excluded). The five most frequently banded species accounted for 45% of all birds banded. These species were: Swainson's Thrush (137 banded), “Slate-coloured” Junco (129), American Redstart (127), White-throated Sparrow (86), and Canada Warbler (78). All species banding totals are listed in Appendix II. To-date and 2022 Banding Totals (p. 73).

Several species broke their previous spring records: Ovenbird (62 banded, previous record 58 banded in 2016), Canada Warbler (78 banded, surpassing 57 in 2001), and Rose-breasted Grosbeak (11 banded, surpassing 6 in 2002). No species saw record low captures. Capture highlights included the spring’s tenth Cape May Warbler, eighth Connecticut Warbler, seventh Downy Woodpecker, fifth and sixth LeConte’s Sparrow, fifth Common Redpoll, and fourth Brown Creeper. The oldest known-age bird recaptured during the spring was a Hairy Woodpecker estimated to be 10 years old (see Recaptures, p. 24).

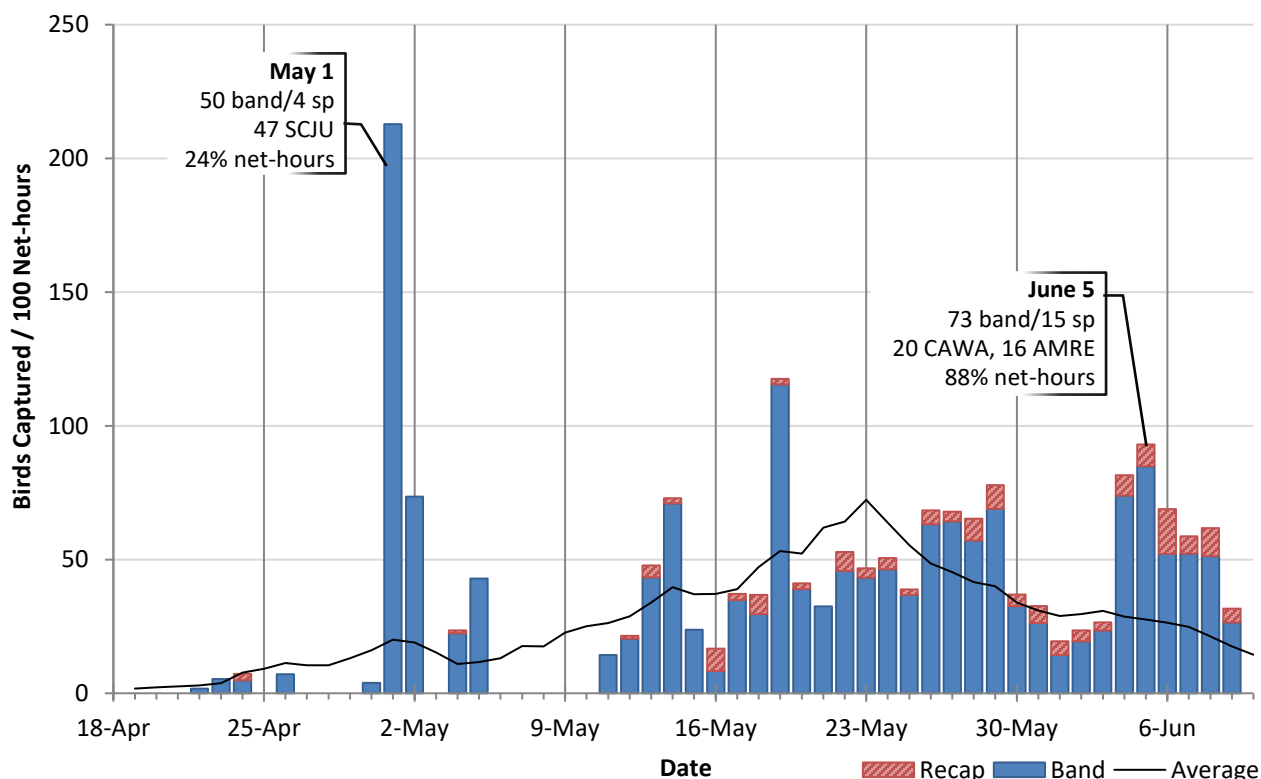


Figure 4. Daily capture rates standardized to 100 net-hours during spring migration with a three-day moving average for capture rates from 2000-2022. Codes: species (sp), “Slate-coloured” Junco (SCJU), Canada Warbler (CAWA), American Redstart (AMRE).

Spring Migration Weekly Summary

The following is a summary of weekly monitoring efforts, captures, and observations. In total capture summaries the number of birds banded is followed by the week's most banded species, a *return* is a bird banded in a previous year and recaptured in 2022, while a *repeat* was previously banded or recaptured in 2022. For more detailed weekly totals, see Appendix I (page 33).

April 18 - April 24 (Week 1)

The site's shrubs were heavily browsed over the winter and several large willows and trees fell to block the net-lanes and trails. A warm start to April melted most of the snow except the largest drifts and only net 6 required shoveling. Yet between cold early morning temperatures and periods of snow or high winds, mist-netting could only be partially attempted on three days, accumulating 28% of possible net-hours to capture few birds (Figure 5). The poor weather also spurred reverse migration with several days recording more movement toward the south than to the north. Both Common Redpolls and Dark-eyed Juncos saw weekly counts of over 1,000 birds and these two species accounted for 73% of the over 3,000 birds recorded. A few other early migrants were observed with modest numbers, but counts were highest for spring for Tundra Swans, Short-billed (Mew) Gulls, and Snow Buntings, alongside rare sightings of Bohemian Waxwings and Townsend's Solitaires. Diversity was the lowest for spring with 37 identified species. The only sounds resonating from the forest was the drumming of woodpeckers and Ruffed Grouse. Even so, love was already in the air and the Bald Eagle pair was observed copulating.

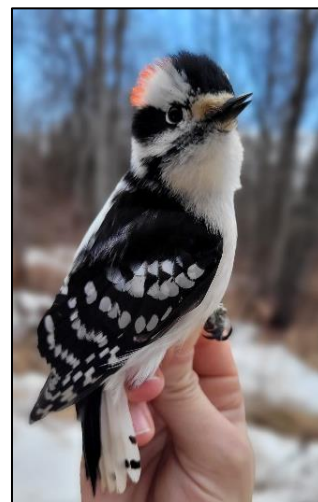


Figure 5. This Downy Woodpecker was the first bird banded in 2022.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.4, 48 VISUAL MIGRATION WATCHES, 194.5 NET-HOURS

TOTAL CAPTURES: 10 OF 4 SP; 8 BAND (3 AMERICAN TREE SPARROW), 2 RETURN, 0 REPEAT

April 25 – May 1 (Week 2)

The week began cold and windy before turning to a stretch of sleet and snow. Yet lingering snow drifts melted away in warmer afternoon temperatures and pockets of open water formed within the lake's ice to host some of the spring's first waterfowl sightings. Mist-netting was attempted on only three days for 23% of possible net-hours. Songbird migration peaked on May 1 with flocks of sparrows traveling through the forest and the capture of a large flock of Dark-eyed Juncos (Figure 6). With the high captures, a storm front visible on the horizon, and census coming up, the nets were closed slightly early. After the rain began, the nets could not be reopened. With only 23.5 net-hours, but 51 captures, May 1 saw the highest capture rate for spring (Figure 4). Within the 59 species recorded were the first observations for 29 species, including "Lesser" Snow Goose, Greater White-fronted Goose, Spotted Sandpiper, Franklin's Gull, Northern Goshawk, Rough-legged Hawk, Golden-crowned Kinglet, Swainson's Thrush, Hermit Thrush, Fox Sparrow, Rusty Blackbird, Common Grackle, and Orange-crowned Warbler. Spring migration peaked for Mallard, Wilson's Snipe, Horned Lark, Lapland's Longspur, and Fox Sparrow.



Figure 6. "Slate-coloured" Juncos dominated captures and sightings.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.3, 46 VISUAL MIGRATION WATCHES, 160.0 NET-HOURS

TOTAL CAPTURES: 58 OF 8 SP; 58 BAND (50 "SLATE-COLOURED" JUNCO), 0 RETURN, 0 REPEAT

May 2 - May 8 (Week 3)

Warmer weather at the start of the week allowed for the first three full-days of spring mist-netting to capture mostly Juncos and American Tree Sparrows. After the cool weather, these birds were quite fatty from foraging. However, low temperatures, high winds, and snow mid to late week reduced net-hours to 43% of possible. Despite the poor weather, this was the busiest week of observations with over 21,000 records (Figure 1). Early morning overhead migration was dominated by American Robin, "Slate-coloured" Junco, blackbird species, and "Myrtle" Warbler. On May 4 and 5, these songbird flocks were followed by large goose flocks. Overall, 80 species were identified, 20 of which were season first records including Ring-necked Duck, Great Blue Heron, Broad-winged Hawk, Belted Kingfisher, Yellow-bellied Sapsucker, Eastern Phoebe, Winter Wren, Chipping Sparrow, Song Sparrow, Lincoln's Sparrow, Red-winged Blackbird, and Brown-headed Cowbird. Peak migration passed for Snow Goose, Northern Harrier, Rough-legged Hawk, American Pipit, American Robin, Savannah Sparrow, Rusty Blackbird, Common Grackle, and Orange-crowned Warbler. The last Tundra Swan, Northern Pintail, Snow Bunting, and Fox Sparrow came and went. This week also had the first sighting of one of the habituated Black Bears which would become a problem in the fall but was not seen again in the spring.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.4, 48 VISUAL MIGRATION WATCHES, 292.5 NET-HOURS

TOTAL CAPTURES: 136 OF 15 SP; 135 BAND (76 "SLATE-COLOURED" JUNCO), 0 RETURN, 1 REPEAT

May 9 - May 15 (Week 4)

Though it began cold and windy, the rest of the week was warm and calm, allowing for a modest increase in efforts to 49% of possible net-hours. Widening pockets of open water in the rotting lake ice kept waterfowl flocks close to shore. Large flocks of geese migrated overhead midweek and made May 12 the busiest single day of overhead migration this spring. Songbird migration was a steady trickle of American Robins, "Myrtle" Warblers, and sparrows. With almost as many encounter records as last week (20,900), this was the most diverse period of spring monitoring with 108 species identified, 38 of which were season firsts including: several warbler species, Hooded Merganser, Peregrine Falcon, Least Flycatcher, Blue-headed Vireo, Gray-cheeked Thrush, Swamp Sparrow, Baltimore Oriole, and Western Tanager. Observations peaked for Canada Goose, Sharp-shinned Hawk, Belted Kingfisher, Yellow-bellied Sapsucker, "Yellow-shafted" Flicker, Eastern Phoebe, Tree Swallow, Ruby-crowned Kinglet, Purple Finch, and "Myrtle" Warbler. The last Snow Goose, Common Redpoll, Lapland's Longspur, and American Tree Sparrow were recorded. Highlights included rare sightings of a Swainson's Hawk and a Lark Sparrow.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.7, 52 VISUAL MIGRATION WATCHES, 332.5 NET-HOURS

TOTAL CAPTURES: 120 OF 26 SP; 114 BAND (25 WHITE-THROATED SPARROW), 4 RETURN, 2 REPEAT

May 16 - May 22 (Week 5)

Despite cool midweek temperatures and sporadic high winds, 65% of net-hours were attained and the vegetation began to green. The first signs of active breeding were observed with some captured birds exhibiting cloacal protuberances and birdsong progressively filled the forest. May 16 had several flocks of shorebirds flying high up, but otherwise observations were of slow-steady passerine migration with periods of foraging. Diversity continued to be high with 103 species identified, but arrivals of new species lulled. There were first encounters of 14 species, including White-winged Scoter, Bank Swallow, House Wren, and Palm Warbler; and last encounters of 21 species, including Bufflehead, Killdeer, Wilson's Snipe, Hermit Thrush, Rusty Blackbird, and Orange-crowned Warbler. Peak occurrences were recorded for Long-tailed Duck, Common Goldeneye, Spotted Sandpiper, Common Tern, Common Loon, White-throated Sparrow, and Lincoln's Sparrow. Highlights included sightings of a Black Tern and of a possible Varied Thrush-American Robin hybrid with a thick, distinct black bib.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.7, 54 VISUAL MIGRATION WATCHES, 444.5 NET-HOURS

TOTAL CAPTURES: 214 OF 26 SP; 196 BAND (46 SWAINSON'S THRUSH), 5 RETURN, 13 REPEAT

May 23 – May 29 (Week 6)

Further improved weather conditions helped efforts yet again and mist-netting was attempted each day (89% of possible net-hours). Overhead migration slowed considerably and most activity was of sparrows rushing through the upper canopy with some moving low enough to get captured. As a result, this was the busiest week of banding and achieved an LSLBO capture milestone (Figure 7). Within the 96 identified species were the first Ruby-throated Hummingbird, Alder Flycatcher, Cedar Waxwing, Gray Catbird, Nashville Warbler, Chestnut-sided Warbler, and Canada Warbler; and the last Broad-winged Hawk, Golden-crowned Kinglet, LeConte's Sparrow, Savannah Sparrow, Cape May Warbler, Palm Warbler, and some exceptionally late Sandhill Crane, Horned Lark, Gray-cheeked Thrush, American Pipit, "Slate-coloured" Junco, and White-crowned Sparrow. Migration peaked for several sparrow species, Least Flycatcher, Swainson's Thrush, Baltimore Oriole, Ovenbird, Black-and-white Warbler, American Redstart, Yellow Warbler, and Western Tanager.



Figure 7. This Yellow Warbler was the 100,000th bird banded by the LSLBO since trials began in 1993.

EFFORT: AVERAGE DAILY COVERAGE CODE 4.0, 56 VISUAL MIGRATION WATCHES, 613.5 NET-HOURS

TOTAL CAPTURES: 357 OF 32 SP; 327 BAND (47 SWAINSON'S THRUSH), 9 RETURN, 21 REPEAT

May 30 - June 5 (Week 7)

With pleasant weather aside from a few gusty periods, the nets accumulated the most weekly net-hours of spring (96% of possible), but captures were low (Figure 4). Observations were similarly subdued since most species were well past their migratory peaks. Signs of active breeding became common and included the first brood patches, some observed copulation, the first Canada Goose goslings, and a dispersing hatch year Canada Jay. Of the 2,200 detections, 34% were of birds no longer migrating and likely breeding on-site. Diversity continued to decline with 80 species identified, including nine season first observations of: Yellow-bellied Flycatcher, Philadelphia Vireo, Connecticut Warbler, Mourning Warbler, Bay-breasted Warbler, and Blackpoll Warbler. A Great Crested Flycatcher taunted field staff by hopping around net 12, but it would not be caught. With the warmer weather, leaves unfurled, and the first flowers blossomed to create a haze of pollen late-week that coated every surface. Birds in flight were joined by mosquitoes, midges, and dragonflies.

EFFORT: AVERAGE DAILY COVERAGE CODE 4.0, 56 VISUAL MIGRATION WATCHES, 659.0 NET-HOURS

TOTAL CAPTURES: 287 OF 30 SP; 252 BAND (47 AMERICAN REDSTART), 15 RETURN, 20 REPEAT

June 6 - June 10 (Week 8, 5-day period)

Spring's final week recorded 1,500 observations, of which 55% were locally breeding birds. There were no season first encounters. The nets were hindered by some rain and wind (70% of possible), but steadily captured Alder Flycatcher, Mourning Warbler, American Redstart, and Canada Warbler, which all appeared to be the only species still migrating and kept capture rates above the historical average for June. The first eggs were detected in breeding female's oviducts and a few nests were found. This included an extremely obvious Ruffed Grouse nest that was detected by a predator the same day field staff first spotted it. By the end of the day the eggs had disappeared. By the following day, the feather lining had also been completely pilfered to insulate other, more cleverly hidden nests.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.8, 38 VISUAL MIGRATION WATCHES, 345.0 NET-HOURS

TOTAL CAPTURES: 185 OF 21 SP; 154 BAND (33 AMERICAN REDSTART), 13 RETURN, 18 REPEAT

Fall Migration Monitoring

Fall migration monitoring takes place over 12 weeks from July 12 to September 30 (although some years have monitored beyond the standard dates) – a period that covers the migration window for most songbird species anticipated at the LSLBO as they move south for the winter. Unfortunately, the species that often receive poor coverage during spring migration monitoring also receive poor coverage in the fall as they tend to migrate through the area in October when it is normally too cold for mist-netting and monitoring has finished. Abundances of individuals increase through July as more migrants are observed alongside local breeders. By August, most encounters are of migrants which continue to move in declining numbers into late September. Fall migration is erratic and busy days are remarkably difficult to predict.

In 2022, fall migration monitoring occurred daily from July 12 to September 30 (Table 4). Overall monitoring efforts for fall migration were slightly above average. Since the number of days monitored (81 days) was above average, so too were the number of days with census and visual migration counts (vis-migs), which were performed daily. A total of 65 days achieved the desired eight daily vis-migs. Poor weather completely prevented the nets from opening for 6 days. Late August, a Black Bear was a frequent nuisance on-site and, as a result, the standard nets were kept closed and only the aerials were opened to help keep birds and staff safe. This resulted in below average daily standard net-hours, but above average non-standard net-hours. Combined with late morning winds, only partial net-hours were attained on 42 days. Yet 33 days obtained full net-hours. With volunteers and a contract extension for the field assistant during early September, the number of person-days accumulated was well above average (see Staff and Volunteers, p. 30).

Table 4. Summary of effort during fall migration monitoring. Averages based on 1995 to 2022 data, except visual migration effort (2000-2022; standard observation time reduced from 10 to 5 minutes).

	2022	Average	Min (Year)	Max (Year)
Daily Coverage				
First day ¹	12-Jul	13-Jul	July 7 (2000)	Aug. 5 (1997)
Last day ¹	30-Sep	29-Sep	Sept. 22 (2001)	Oct. 6 (2000)
Number of days	81	75	35 (1997)	91 (2000)
Person-days	191	146	45 (1997)	207 (2000)
Average daily coverage code	3.78	3.75	3.48 (2003)	3.90 (2001)
Census				
Number of days	81	69	8 (1997)	90 (2000)
Visual Migration Counts				
Number of days	81	79	69 (2001)	91 (2000)
Average daily vis. migs.	7.6	7.6	7.3 (2011)	7.8 (2001)
Banding				
Number of days	71	70	33 (1997)	89 (2000)
Standard nets average daily net-hours (84 max)	62.2	64.4	34.3 (1996)	76.3 (2008)
Aerial nets average daily net-hours (14 max)	9.6	8.6	3.8 (2021)	10.3 (2012)

1. "Min" date values represent the earliest first or last day, while "Max" represents the latest start or end.

Fall Migration Daily Totals

A total of 53,016 birds from 130 identified species were recorded during fall migration monitoring between counting methods. Census accounted for 16% of all encounters with 89 species identified, including the only Bufflehead, Ruby-throated Hummingbird, Canada Jay, and European Starling recorded during fall migration monitoring. Visual migration counts contributed 10% of encounters with 43 identified species, including the only Wilson's Snipe. Banding accounted for the smallest proportion of encounters, but at 7%, added more to total observations during fall than during spring migration monitoring (2%). There were 65 species banded, including the only encounters of Fox Sparrow, "Oregon" Junco, Baltimore Oriole, and Connecticut Warbler. Incidental observations recorded the majority of birds (67%) and the highest species diversity (119 species) with 18 species only recorded incidentally, including: Sora (fifth encountered since 1995), Semipalmated Sandpiper, Cooper's Hawk, Swainson's Hawk (fourth encounter), Barred Owl, Northern Rough-winged Swallow (sixth encountered), Red Crossbill, and Yellow-headed Blackbird.

Songbird migration was erratic, particularly mid-August to mid-September (Figure 8). Overhead migration rates were again somewhat subdued while foraging activity was unusually high throughout the season, contributing to the high capture rates. Only a few days had remarkable overhead migration, including September 4, which counted the fourth highest single-day total of "Myrtle" Warblers at the LSLBO. It is possible that the effects of large forest fires to the northeast in 2019 continue to be felt. Unlike 2021, 2022 had much lower Tennessee Warbler counts. For a more detailed summary of each week see Fall Migration Weekly Summary (p. 16). For a break-down of each species' abundance, as well as arrival, peak, and departure timing, see Appendix I (p. 33).

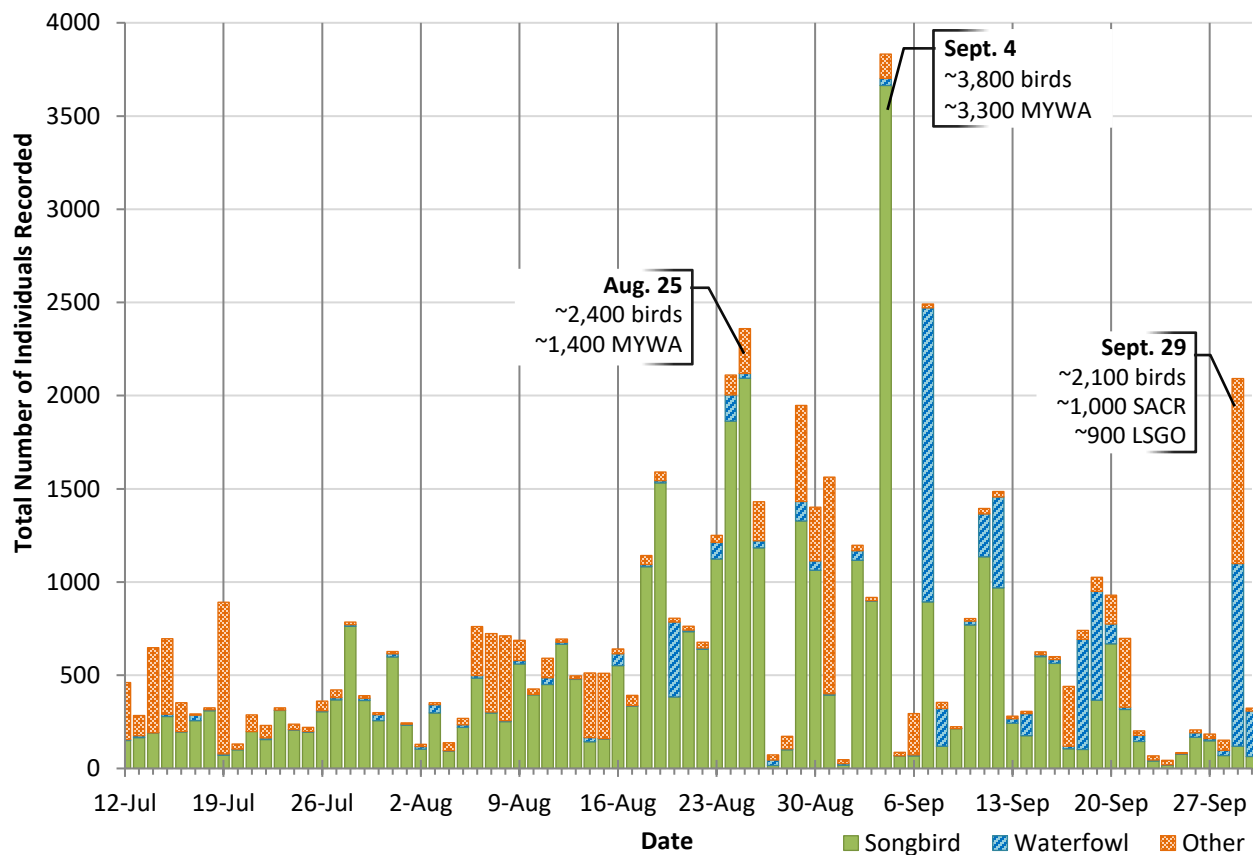


Figure 8. Total number of individuals detected daily during fall migration across all methods. Codes: "Myrtle" Warbler (MYWA), Sandhill Crane (SACR), and "Lesser" Snow Goose (LSGO).

Fall Migration Weather

Several weather variables are recorded at first light and every two-hours afterward. Fall temperatures were often above average and unusually warm mid to late September with no hard frosts (Figure 9). Rains frequently fell overnight, which allowed for good netting efforts without particularly dry conditions. Winds were calm until late August and often increased in strength throughout the day. Wind direction during fall is normally from the north-west, but in 2022 was more often from the south-east or south.

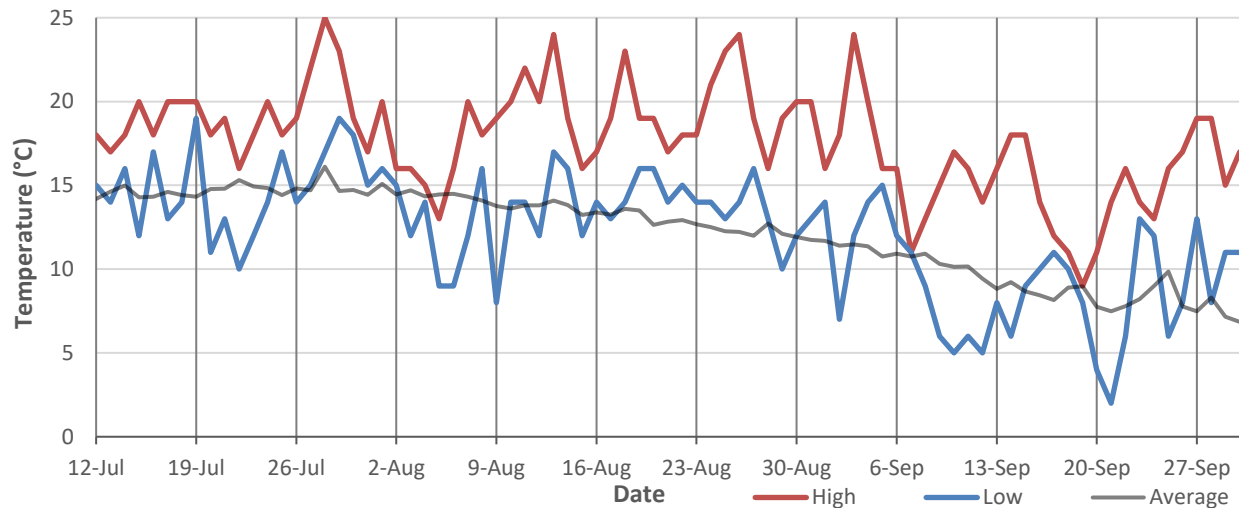


Figure 9. Daily temperature high and lows (°C). Historical temperature ("Average") averaged from daily temperature records between 2000-21.

Fall Visual Migration Counts

To sample overhead migration in a standardized way, a 5-minute visible migration watch (vis-mig) is conducted hourly during the monitoring period for between six to eight vis-migs per day. In fall 2022, 5,085 birds were detected on their southward migration during vis-migs and 145 birds were detected moving back north (often due to poor weather or smoky conditions). While very few birds were detected moving half an hour before sunrise (vis-mig #1), fall songbird migration was busiest on the second vis-mig with a steady decline of migration activity as the morning progressed (Figure 10).

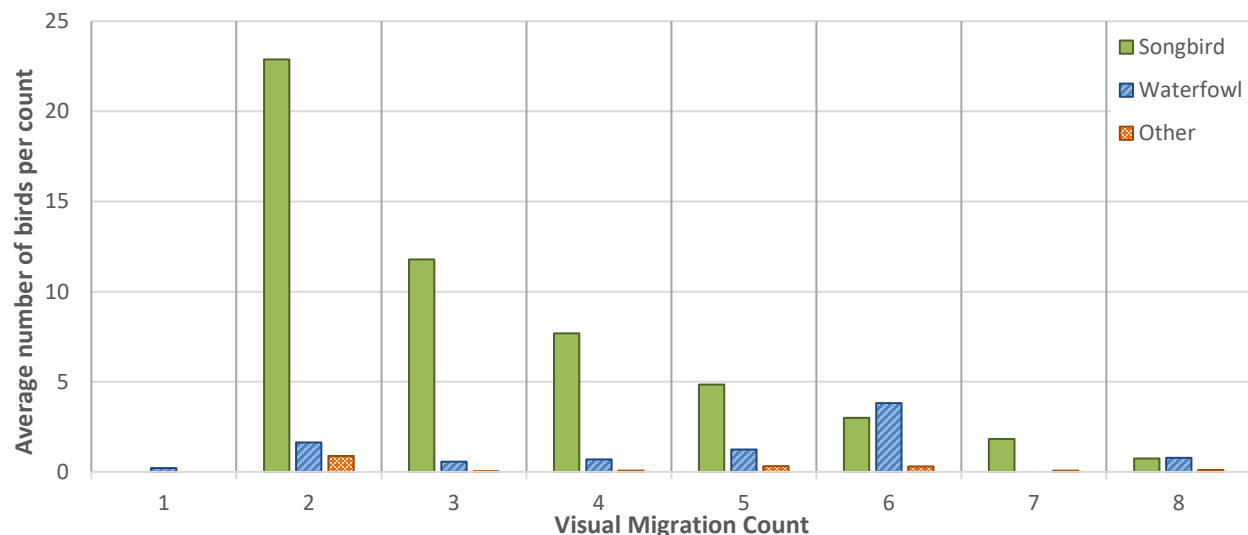


Figure 10. Average number of birds detected per hourly vis-mig during fall migration monitoring.

Fall Migration Mist-netting Effort & Productivity

Fall migration monitoring uses the same nets as spring with 12 standard nets (coded 1 to 12, established 1994-95) and two non-standard aerial nets (11X/12X, established fall 2010). This fall accumulated a total of 5,819.0 net-hours, achieving 73.3% of 7,938.0 possible net-hours (Table 5). The standard nets were set for 5,038.5 net-hours, below the average of 5,342.6 net-hours per fall (2000-2022). With 780.5 net-hours, non-standard netting was above average (692.3 net-hours; 2010-2022). It is unusual to have standard net coverage below average, but non-standard coverage above average. This quirk is due to the presence of a habituated Black Bear that forced the closure of the standard nets for approximately a week, but the much higher non-standard nets were opened. Moreover, despite an above average number of days monitored, the combination of inclement weather and the presence of possible predators often prevented mist-netting this fall. In addition to high capture events forcing its closure on a few occasions and due to its high exposure to wind along the less vegetated shoreline, net 6 accumulated the fewest net-hours, followed by nets 11X and 11 for similar reasons.

The total fall capture rate was almost double this spring's and well above the average fall capture rate with 78.6 birds per 100 net-hours (average 57.6 birds/100 net-hours; Table 5). To keep processing times low, captures were released at the net on August 9. On other days, birds were released at the net after showing signs of stress, escaping extractors, or exhibiting complete juvenile plumage sometimes making identification impossible. Only nets 1, 2, and 3 captured below their average capture rate, but nets 8 and 12X nearly doubled their average. As usual, net 6 experienced the highest capture rate (262.9 birds/100 net-hours), but net 11 caught the highest diversity (42 species). The two aerials were productive and caught 25% of all birds captured. One recapture was unwell and able to be caught by hand.

Table 5. Net-hours and capture rates per 100 net-hours for each net-lane during fall migration.

Net-lane	Net-hours (Coverage %)	Captures				Capture Rate (Average)
		New Band	Recapture	Released Unbanded	Total Capture of Total Species	
1	427.0 (75.3%)	94	34	1	129 of 21	30.2 (60.6)
2	427.0 (75.3%)	76	14	0	90 of 18	21.1 (32.9)
3	426.0 (75.1%)	52	9	1	62 of 14	14.6 (30.9)
4	432.5 (76.3%)	155	32	1	188 of 26	43.5 (29.0)
5	430.0 (75.8%)	390	55	0	445 of 39	103.5 (67.3)
6	365.5 (64.5%)	882	75	4	961 of 41	262.9 (180.5)
7	417.5 (73.6%)	102	18	0	120 of 21	28.7 (23.6)
8	417.5 (73.6%)	210	48	1	259 of 26	62.0 (31.0)
9	435.5 (76.8%)	70	12	0	82 of 18	18.8 (17.9)
10	435.5 (76.8%)	140	33	0	173 of 25	39.7 (25.8)
11	378.3 (66.7%)	425	34	12	471 of 42	124.5 (75.8)
12	446.3 (78.7%)	269	31	1	301 of 28	67.5 (58.1)
Total standard	5,038.5 (74.1%)	2,865	395	21	3,281 of 61	68.1 (52.8)
11X	368.8 (65.0%)	514	59	13	586 of 39	158.9 (106.4)
12X	411.8 (72.6%)	424	87	2	513 of 38	124.6 (66.3)
N/A	-	0	1	0	1 of 1	-
Total non-standard	780.5 (68.8%)	938	147	15	1,099 of 48	141.8 (86.3)
Grand total	5,819.0 (73.3%)	3,803	542	36	4,380 of 64	78.6 (57.6)

Fall Migration Captures

A well above average 3,803 birds were banded during fall migration monitoring (average 2,335.0 bands per fall; 1995-2022) with an additional 542 recapture records and 36 birds that were released unbanded. Although this broke the streak of consecutive record-breaking falls, it is still the third highest fall band total since 1995. Captures were steadily busy overall in July and first peaked on July 27 when 124 birds were banded (Figure 11). Through August, capture rates would slow overall, but become more erratic with unpredictable rushes. By September, capture rates were often below the historical average, with a few exceptions, including the busiest day of fall when 229 birds were banded on September 20.

With 65 species banded, species diversity was also above average (58.4 species; 1995-2022). The five most frequently banded species accounted for 66% of all birds banded. These species were: "Myrtle" Warbler (1,012 banded), American Redstart (520), Swainson's Thrush (412), Yellow Warbler (393), and Tennessee Warbler (173). All species banding totals are listed in Appendix II (p. 73).

Several species broke their previous record highs, including Blue Jay (8 banded; surpassing 6 banded in fall 2006), Philadelphia Vireo (36; 34 in 2021), Red-eyed Vireo (97; 75 in 2021), Western Tanager (51; 39 in 2021), and Yellow Warbler (393; 291 in 2020). No species saw record low captures. Other capture highlights were the eighth fall LeConte's Sparrow, seventh Red-winged Blackbird, second Gray Catbird, and second Baltimore Oriole (first since 2006). The oldest known-age bird recaptured during fall was a Mourning Warbler estimated to be 8 years old (see Recaptures, p. 24).

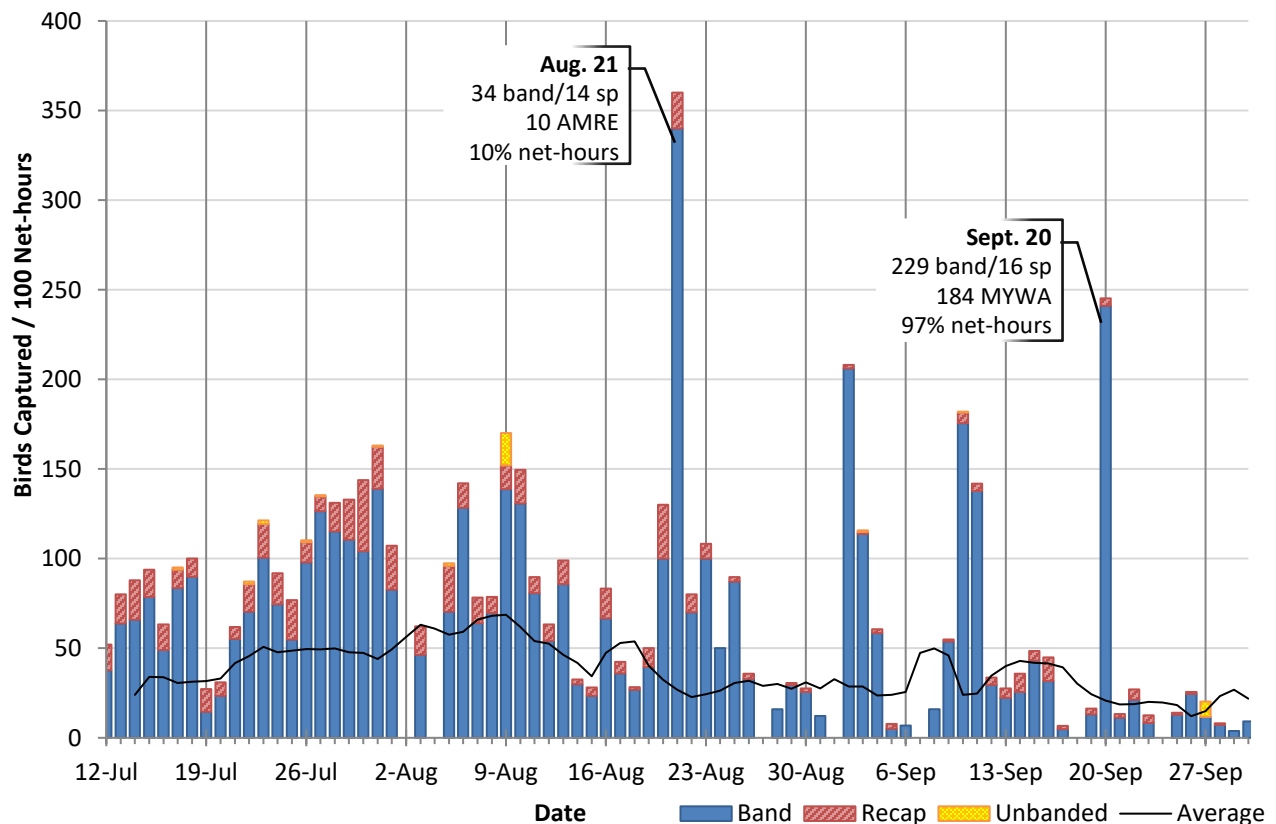


Figure 11. Daily capture rates standardized to 100 net-hours during fall migration for standard and non-standard captures with a three-day moving average of capture rates from 2000-2022. Codes: *species (sp)*, American Redstart (AMRE), "Myrtle" Warbler (MYWA).

Fall Migration Weekly Summary

The following is a weekly summary of fall monitoring efforts, captures, and observations. For total capture summaries, birds banded is followed by the top banded species, a *return* was banded in a previous year and recaptured in 2022, while a *repeat* was banded or already recaptured within 2022. For more detailed weekly totals, see Appendix I (page 33).

July 12 - July 18 (Week 1)

After a month away, we were surprised to see the spring's barren, rocky shore covered with towering sweet clover and alfalfa. The first week of fall migration monitoring began with favourable weather. A small amount of rain briefly closed the nets, but with full netting on five days, this week accumulated the most net-hours of any week during fall monitoring with 96% of possible net-hours attained. Capture rates were consistently above the historical average for this period (Figure 11). From the 61 identified species, final efforts of local breeders were plentiful with many songbird fledglings and a Common Goldeneye and her three ducklings hugging the shore. The forest was quiet overall with few species singing consistently alongside a subtle cacophony of begging calls. Overhead was dominated by circling Franklin's Gulls, but migration began as a trickle on July 15 with overhead blackbirds, "Myrtle" Warblers, and a few Tennessee Warblers, American Redstarts, Yellow Warblers, and Western Tanagers. Of the 3,000 birds spotted, 28% were estimated to be lingering summer residents.

EFFORT: AVERAGE DAILY COVERAGE CODE 4.0, 56 VISUAL MIGRATION WATCHES, 661.0 NET-HOURS

TOTAL CAPTURES: 539 OF 33 SP; 443 BAND (94 YELLOW WARBLER), 12 RETURN, 84 REPEAT

July 19 - July 25 (Week 2)

It was warm, but windier and the exposed shoreline and aerial nets were sometimes closed (87% of possible net-hours). Captures were mostly fledglings enduring their pre-formative moults and adults beginning their pre-basics in preparation for migration (Figure 12). Encounters fell to 2,300 birds of 59 species, including the first migrating Red-tailed Hawk and Blue-headed Vireo, and an unusual fall sighting of a Canada Jay. Overhead was dominated by American Redstarts, Yellow Warblers, and "Myrtle" Warblers with a handful of vireos and Western Tanagers foraging as they moved through the canopy. Several birds were still raising their broods and the Bald Eagles were seen delivering fish and waterfowl to their nest.



Figure 12. Recaptured Ovenbird undergoing the pre-basic moult.

EFFORT: AVERAGE DAILY COVERAGE CODE 4.0, 56 VISUAL MIGRATION WATCHES, 595.0 NET-HOURS

TOTAL CAPTURES: 441 OF 31 SP; 355 BAND (91 AMERICAN REDSTART), 9 RETURN, 77 REPEAT

July 26 - August 1 (Week 3)

The weather was hot, humid, and calm overall with a trickle of overhead migration. Unusually high foraging activity and capture rates made this the busiest week for fall banding with 700 birds banded. Of these captures, the highlights were the only Western Wood-pewee and Baltimore Oriole banded of 2022. With such high captures (especially around census) and field staff finishing MAPS banding, the shorelines and aerals were sometimes closed to reduce captures, while high temperatures closed exposed nets early on July 28 (93% of net-hours attained). Among the 76 species identified were 15 season firsts including Ruby-throated Hummingbird, Solitary Sandpiper, "Yellow-shafted" Flicker, and Cape May Warbler. Migration peaked for Tree Swallow, Black-and-white Warbler, American Redstart, and Yellow Warbler.

EFFORT: AVERAGE DAILY COVERAGE CODE 4.0, 56 VISUAL MIGRATION WATCHES, 638.0 NET-HOURS

TOTAL CAPTURES: 833 OF 36 SP; 700 BAND (240 AMERICAN REDSTART), 9 RETURN, 123 REPEAT

August 2 - August 8 (Week 4)

Rain was replaced by high winds, which resulted in reduced efforts (60% net-hours attained). There was again a slow trickle of overhead migration with most birds continuing to forage as they moved. The Franklin's and Ring-billed Gulls enjoyed soaring up and down the shore in the winds. Only a few White-throated Sparrows and Canada Warblers determinedly sung in the poor weather, but the forest was otherwise full of indistinct chips and chittering. Most adults neared the end of their yearly pre-basic moults. Within the 62 identified species was the first Northern Harrier, Cooper's Hawk, and Yellow-bellied Flycatcher, the only Northern Rough-winged Swallow, and the last Solitary Sandpiper. Peak migration passed for Alder Flycatcher, Warbling Vireo, and Clay-coloured Sparrow.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.7, 52 VISUAL MIGRATION WATCHES, 411.5 NET-HOURS

TOTAL CAPTURES: 389 OF 27 SP; 321 BAND (57 YELLOW WARBLER), 0 RETURN, 68 REPEAT

August 9 - August 15 (Week 5)

Foraging behaviour was steady, but overhead migration increased. A breeze late week spurred circling gulls and closed the shorelines. Moreover, for the first time this fall, two bold Black Bears forced the closure of the standard nets (before any birds could be harmed, thankfully). Despite these hiccups, 90% of net-hours were attained and this was the most diverse week for captures with 35 species banded, including the fall's only Hairy Woodpecker, Gray Catbird, and Connecticut Warbler (Figure 13). An exceptionally busy check on August 9 had field staff release birds at the net for the first and only time this fall (Figure 11). Among the 78 species identified were the first Northern Goshawk, Bank Swallow, and Wilson's Warbler, the only Sora, Wilson's Snipe, Connecticut Warbler, and Black-throated Green Warbler, and the last Cape May Warbler. Peak migration passed for Least Flycatcher, Philadelphia Vireo, Swainson's Thrush, Chipping Sparrow, White-throated Sparrow, Ovenbird, Mourning Warbler, Canada Warbler, Western Tanager, and Rose-breasted Grosbeak. Between the visitors, waxwings, sparrows, thrushes, bears, and chipmunks, the once bountiful crop of saskatoons steadily vanished.



Figure 13. The only fall Connecticut Warbler banded - we average one band of this species per fall.

EFFORT: AVERAGE DAILY COVERAGE CODE 4.0, 56 VISUAL MIGRATION WATCHES, 614.0 NET-HOURS

TOTAL CAPTURES: 566 OF 35 SP; 501 BAND (148 SWAINSON'S THRUSH), 1 RETURN, 64 REPEAT

August 16 - August 22 (Week 6)

With sightings of at least four different Black Bears throughout the week - two of which were indifferent to field staff and any available deterrents - the standard, ground level nets were mostly kept closed and several days opened only the aerals (36% of possible net-hours). Although busy observations and periods of high foraging activity created the potential for high captures, captures were instead low due to the reduced net-hours. Overhead migration was steadier overall and busy around census with 6,000 birds detected - of which 35% of records were "Myrtle" Warblers. Among the 78 identified species was the first Western Grebe, Broad-winged Hawk, Olive-sided Flycatcher, and American Goldfinch. Migration peaked for Common Tern, Common Loon, Purple Finch, Common Grackle, and Magnolia Warbler. The fall's last Cooper's Hawk, Eastern Phoebe, Chipping Sparrow, LeConte's Sparrow, Yellow-headed Blackbird, and Northern Waterthrush were detected. With fewer nets to check, field staff and volunteers turned their attentions to what maintenance tasks could be accomplished in pairs while documenting overhead migration.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.3, 46 VISUAL MIGRATION WATCHES, 246.5 NET-HOURS

TOTAL CAPTURES: 143 OF 27 SP; 125 BAND (30 SWAINSON'S THRUSH), 2 RETURN, 16 REPEAT

August 23 - August 29 (Week 7)

While being on high alert for bears (which did not make an appearance), we gradually reopened the most easily monitored nets throughout the week while performing net checks every 15-minutes rather than the standard 30-minutes. As a result, netting coverage increased to 44% of net-hours. Smoke from distant forest fires created a constant haze over the far shore but did not slow migration. High winds, however, created a lull in movements mid-week. The last summer breeders departed and 96% of encounters were actively migrating or dispersing. “Myrtle” Warblers continued to migrate in high numbers and accounted for 48% of the 9,300 encounter records - the highest weekly count total of fall. It was also the most diverse week and amid the 79 identified species was the first Greater White-fronted Goose, Osprey, Cliff Swallow, American Pipit, Lapland’s Longspur, Orange-crowned Warbler, and Blackpoll Warbler alongside rare sightings of Swainson’s Hawk and Red Crossbill. Peaks in migration passed for Northern Harrier, Sharp-shinned Hawk, Broad-winged Hawk, Eastern Kingbird, and Cedar Waxwing. Last encounters of Olive-sided Flycatcher, Warbling Vireo, Bank Swallow, Tree Swallow, and Red-winged Blackbird occurred.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.4, 52 VISUAL MIGRATION WATCHES, 303.0 NET-HOURS

TOTAL CAPTURES: 126 OF 20 SP; 121 BAND (43 SWAINSON’S THRUSH), 0 RETURN, 5 REPEAT

August 30 - September 5 (Week 8)

While predator sightings remained low and we were able to resume 30-minute checks, high winds prevented full net-hours (77% of possible). A steady stream of “Myrtle” Warblers (Figure 14) marked the peak of their migration, and they comprised 61% of all encounters. Indeed, “Myrtle” Warbler migration made September 4 the busiest day of fall songbird migration, and luckily, of the 3,300 recorded, only 26 Myrtles found the nets. Capture rates in the days leading up to this were high with over 100 birds banded on September 3, while September 2 became the first day this year to surpass 200 bands. Diversity continued its steady decline with 70 species identified, including the last Eastern Kingbird, House Wren, Song Sparrow, Black-and-white Warbler, and Bay-breasted Warbler. Season firsts were sparse with just Sandhill Crane, Peregrine Falcon, Golden-crowned Kinglet, Gray-cheeked Thrush, White-crowned Sparrow, and Savannah Sparrow. Likewise, migration peaks were few, but included American Crow, Blackpoll Warbler, and “Myrtle” Warbler. The poplars and willows began to turn a sickly brown in the continued heat.



Figure 14. “Myrtle” Warblers were common overhead and in-the-hand.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.7, 52 VISUAL MIGRATION WATCHES, 528.0 NET-HOURS

TOTAL CAPTURES: 417 OF 28 SP; 409 BAND (285 “MYRTLE” WARBLER), 1 RETURN, 7 REPEAT

September 6 - September 12 (Week 9)

Intermittent winds and rains interfered with mist-netting (70% of possible net-hours) but captures in the nets remained steady with a few heavy checks around census. The geese began to move alongside the “Myrtle” Warblers overhead. Smokey conditions seemed to spur small reverse migration events. While several unexpected species lingered, diversity declined to 69 species with the last Osprey, Yellow-bellied Flycatcher, Alder Flycatcher, Least Flycatcher, American Goldfinch, and Yellow Warbler, but the first Great Blue Heron and Horned Lark. Peak counts occurred for Greater White-fronted Goose, Canada Goose, Bald Eagle, American Pipit, Lapland’s Longspur, White-crowned Sparrow, and Wilson’s Warbler.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.9, 54 VISUAL MIGRATION WATCHES, 482.0 NET-HOURS

TOTAL CAPTURES: 390 OF 27 SP; 376 BAND (284 “MYRTLE” WARBLER), 0 RETURN, 14 REPEAT

September 13 - September 19 (Week 10)

Frequent periods of fog, rain, and high winds again prevented mist-netting (45% of possible net-hours) and dampened overhead migration. The only steady migrants were geese with a trickle of “Myrtle” Warblers, while other songbirds were more commonly recorded foraging in the understory and a few days even recorded Pine Siskins heading north. Bald Eagles and Common Ravens enjoyed soaring in the gusts. With just 4,000 encounter records of 63 identified species, season firsts were recorded for only Tundra Swan, Forester’s Tern, and Fox Sparrow. Peak migration passed for Brown Creeper, Gray-cheeked Thrush, and Hermit Thrush. Several species recorded their rather late-in-the-season last encounters, including Philadelphia Vireo, Lincoln’s Sparrow, Ovenbird, Common Yellowthroat, Blackpoll Warbler, Western Tanager, and Rose-breasted Grosbeak. Blue Jays were relatively frequent visitors to the nets (Figure 15).

EFFORT: AVERAGE DAILY COVERAGE CODE 3.7, 52 VISUAL MIGRATION WATCHES, 478.0 N-HR
TOTAL CAPTURES: 160 OF 24 SP; 125 BAND (39 “MYRTLE”
 WARBLER), 0 RETURN, 35 REPEAT



Figure 15. It was a record-breaking fall for Blue Jay bands.

September 20 - September 26 (Week 11)

Following last week’s poor weather, the birds were keen to forage rather than to migrate on September 20. What began simply as abundant chipping in the forest continued over the day with “Myrtle” Warblers being lured into the nets by Black-capped Chickadees to make this the busiest day of fall banding with 229 birds banded – 77% of the band total in this entire week. Mist-netting was attempted almost daily, but winds sometimes interfered and filled the nets with leaves (72% of net-hours attained). Most movements came from “Myrtle” Warblers overhead, American Pipits along the shore, and the odd apparently irrupting Black-capped Chickadee or Red-breasted Nuthatch through the canopy. The last sightings of Franklin’s Gull, Yellow-bellied Sapsucker, Blue-headed Vireo, Purple Finch, Common Grackle, Tennessee Warbler, and Magnolia Warbler were among the 56 species identified. However, peaks passed for “Yellow-shafted” Flicker, Ruby-crowned Kinglet, Orange-crowned Warbler, and Palm Warbler. The only season first observation was of Rusty Blackbird.

EFFORT: AVERAGE DAILY COVERAGE CODE 3.7, 52 VISUAL MIGRATION WATCHES, 492.0 NET-HOURS
TOTAL CAPTURES: 310 OF 21 SP; 296 BAND (203 “MYRTLE” WARBLER), 2 RETURN, 12 REPEAT

September 27 - September 30 (Week 12, 4-day period)

Fall finished remarkably warm without recording sub-zero temperatures. These warm conditions likely contributed to the later-than-usual departure of several species over the fall and seemed to confuse even the dandelions as several began blooming again. Despite the nets attaining 94% of possible net-hours, only 30 birds were banded (Figure 16), but included an unusual “Oregon” Junco. Songbird migration continued to decline, but the number of individual birds detected per day increased slightly with sightings of large Snow Goose and Sandhill Crane flocks on September 29 (Figure 8). Since the fall was warm and several species were recorded lingering later than is typical, it is possible some migrants that would normally be observed late in the season had not yet moved in earnest and “Slate-coloured” Juncos and most waterfowl were just beginning their migrations.



Figure 16. This Golden-crowned Kinglet was the last band of fall migration monitoring, 2022.

EFFORT: AVERAGE DAILY COVERAGE CODE 4.0, 32 VISUAL MIGRATION WATCHES, 370.0 NET-HOURS
TOTAL CAPTURES: 31 OF 10 SP; 30 BAND (7 “MYRTLE” WARBLER; FIGURE 12), 0 RETURN, 1 REPEAT

Monitoring Avian Productivity and Survivorship (MAPS)

Coordinated by the Institute for Bird Populations (IBP), MAPS is a continent-wide program that aims to understand population changes to conserve birds and their habitats. By banding during the breeding season, population parameters such as productivity (young produced), recruitment (young returning to breed), and survival (adults returning to breed) may be estimated. Conservation efforts can then target causes of populations declines, such as poor breeding success or poor habitat quality.

The LSLBO has contributed to MAPS since 1994, with this year marking our 29th year of efforts. Four MAPS stations are operated: Far and Away (FAWA), Fern Gully (FEGU), Residential (RESI), and Roadside (ROAD). FAWA, FEGU, and ROAD are located in mature deciduous forest near the migration station, while RESI is in more diverse habitats near the Boreal Centre for Bird Conservation. FAWA and ROAD have operated yearly since 1994 (29 years). FEGU has operated from 1994 to 2000, then 2003 to 2022 (26 years), while RESI has operated since 2000 (23 years).

The LSLBO follows protocols detailed in the MAPS Manual (IBP, 2022). Each station is visited six times, once in each 10-day MAPS period, and uses 10 nets over six hours to a maximum of 60 net-hours in a period and 360 net-hours in a summer. Only ROAD achieved full net-hours in 2022 (Table 6). FAWA lost net-hours in period 6 due to high winds and was closed early in period 10 after several bears were sighted moving northward from the migration station. FEGU had deer running through the nets in period 6 and was opened gradually in period 10 only after we were confident capture rates would be manageable. RESI lost net-hours due to broken poles and high winds.

Table 6. Dates of operation and net-hours completed for each MAPS period and station.

MAPS Period (Dates)	Station (Net-hours 2022)			
	FAWA (340.0)	FEGU (354.5)	ROAD (360.0)	RESI (350.5)
5 (June 10 – 19)	June 13 (60.0)	June 11 (60.0)	June 11 (60.0)	June 12 (60.0)
6 (June 20 – 29)	June 24 (55.0)	June 20 (56.0)	June 20 (60.0)	June 22 (60.0)
7 (June 30 – July 9)	July 2 (60.0)	June 30 (60.0)	June 30 (60.0)	July 2 (58.5)
8 (July 10 – 19)	July 10 (60.0)	July 11 (60.0)	July 11 (60.0)	July 10 (52.0)
9 (July 20 – 29)	July 21 (60.0)	July 22 (60.0)	July 23 (60.0)	July 20 (60.0)
10 (July 30 – Aug. 8)	July 31 (45.0)	July 29 (58.5)	August 1 (60.0)	July 30 (60.0)

With 610 birds banded (Table 7), MAPS 2022 was the second busiest season yet, banding double the average of 280.3 birds per MAPS season (Table 8). Capture rates were relatively high in the first period, then dropped as breeding territories were firmly established before picking up again for the last two periods due to captures of fledged young and southward migrants. FAWA banded the most birds (218 banded) and ROAD banded the fewest (101). Record numbers were banded for Downy Woodpecker, Least Flycatcher, and American Redstart. Diversity of banded species was also above average with 30 species (average 26.0 species/season). Unusual captures included the second Nashville Warbler of the MAPS program and a Yellow-bellied Flycatcher.

Table 7. Capture rates for each period of MAPS 2022.

MAPS Period	5	6	7	8	9	10	Total
New captures	103	71	90	80	153	113	610
Recaptures	55	61	87	62	55	46	366
Total captures	158	132	177	142	208	159	976
Capture rate per 100 net-hours	65.8	57.1	74.2	61.2	86.7	71.1	69.5

There were an additional 366 recapture records from 18 species during MAPS (Table 8); a record-breaking sum for the fifth consecutive year and well above the average of 121.0 recaptures per MAPS season. FAWA had the most recaptures (117 records) while RESI recorded the fewest (56). From these recapture records, the oldest known-age bird was a White-throated Sparrow captured in RESI estimated to be 10 years old or older (see Recaptures, p. 24).

Table 8. Number of birds banded and recaptured at the four MAPS stations (taxonomic order), 2022.

Species	FAWA		FEGU		ROAD		RESI		TOTAL	
	Band	Recap	Band	Recap	Band	Recap	Band	Recap	Band	Recap
Downy Woodpecker	1	0	0	0	0	0	2	0	3	0
Hairy Woodpecker	1	0	0	1	0	0	0	0	1	1
Yellow-bellied Flycatcher	0	0	0	0	1	0	0	0	1	0
Alder Flycatcher	0	0	0	0	0	0	2	3	2	3
Least Flycatcher	17	10	2	0	1	0	1	0	21	10
Philadelphia Vireo	2	0	0	0	2	0	0	0	4	0
Red-eyed Vireo	7	8	3	2	2	3	1	1	13	14
Black-capped Chickadee	7	0	0	0	1	1	6	0	14	1
Ruby-crowned Kinglet	0	0	0	0	0	0	1	0	1	0
Cedar Waxwing	2	0	0	0	0	0	0	0	2	0
Red-breasted Nuthatch	0	0	0	0	0	0	1	0	1	0
Winter Wren	1	1	1	0	2	0	1	1	5	2
Swainson's Thrush	24	15	9	7	11	10	11	4	55	36
American Robin	0	0	0	0	0	0	1	0	1	0
White-throated Sparrow	17	16	23	15	3	12	21	13	64	56
Lincoln's Sparrow	1	0	2	2	0	1	3	1	6	4
Ovenbird	8	2	6	6	14	8	7	2	35	18
Northern Waterthrush	1	0	1	0	0	0	2	0	4	0
Black-and-white Warbler	5	1	2	3	4	7	5	2	16	13
Tennessee Warbler	20	2	7	2	2	0	13	0	42	4
Nashville Warbler	0	0	0	0	0	0	1	0	1	0
Mourning Warbler	11	6	12	10	5	4	9	3	37	23
Common Yellowthroat	0	0	1	0	1	0	1	0	3	0
American Redstart	50	22	51	35	26	23	17	10	144	90
Magnolia Warbler	5	8	7	3	2	4	13	5	27	20
Yellow Warbler	16	6	7	2	2	1	3	0	28	9
"Myrtle" Warbler	6	3	3	1	6	4	9	4	24	12
Canada Warbler	10	17	11	9	16	17	4	7	41	50
Western Tanager	2	0	1	0	0	0	2	0	5	0
Rose-breasted Grosbeak	4	0	2	0	0	0	3	0	9	0
Total number of captures	218	117	151	98	101	95	140	56	610	366
Average captures (1994-2022)	59.1	25.2	88.0	44.8	58.1	39.2	106.3	20.7	280.3	121.0
Total number of species	23	14	19	14	18	13	26	13	30	18
Grand Total (Captures / Species)									976 / 30	

MAPS Breeding Status

To assess the summer residency of species observed during MAPS, each of the 66 species detected was given a breeding status code (Table 9). Observations were recorded within each station's boundaries during standard operations and combined with mist-netting results. Confirmed breeding species (B) are those with at least one individual observed with an active nest, young fledglings, adults carrying food or nesting material, performing a distraction display, or by persistent territorial singing across periods. If a species is heard singing infrequently, then it is often coded a likely breeder (L). Transient species (T) breed in the wider area but are not likely breeding within the site. An unusual detection was a Bay-breasted Warbler singing in RESI – a species often associated with older forests, but it did not remain in the area.

Table 9. Breeding status of species detected during MAPS, 2022. “B” indicates a breeding species, “L” a likely breeding species, and “T” a transient species for each site (taxonomic order).

Species	FAWA	FEGU	ROAD	RESI	Species	FAWA	FEGU	ROAD	RESI
Canada Goose	T			T	Hermit Thrush		T		
Mallard		T			American Robin	L	L	B	B
Common Goldeneye	T	T	T		Evening Grosbeak	T		T	T
Ruffed Grouse	T	T	B	B	Purple Finch	T			T
Franklin's Gull		T	T		White-winged Crossbill	T	T	T	T
Ring-billed Gull	T		T		Pine Siskin	T	T	T	T
Common Loon	T	T	T	T	Chipping Sparrow	T	T	L	B
Bald Eagle			T		Clay-coloured Sparrow		T		
Barred Owl		L	T		White-throated Sparrow	B	B	B	B
Yellow-bellied Sapsucker	B	T		L	Song Sparrow	T	T	T	
Downy Woodpecker	T	L	L	L	Lincoln's Sparrow	L	L	T	B
Hairy Woodpecker	L	B	L	L	Swamp Sparrow				L
Pileated Woodpecker		T	T		Red-winged Blackbird	T		T	
Merlin		L	B		Brown-headed Cowbird	T			T
Western Wood-Pewee		L			Ovenbird	B	B	B	B
Yellow-bellied Flycatcher			T		Northern Waterthrush	B	B		L
Alder Flycatcher	T	B	L	B	Black-and-white Warbler	B	B	B	B
Least Flycatcher	B	B	T	B	Tennessee Warbler	B	B	L	B
Eastern Phoebe		B	B		Nashville Warbler				T
Blue-headed Vireo			T	T	Mourning Warbler	B	B	B	B
Philadelphia Vireo	B	B	T	L	Common Yellowthroat	T	L	T	B
Warbling Vireo	T				American Redstart	B	B	B	B
Red-eyed Vireo	B	B	B	B	Magnolia Warbler	B	B	B	B
Canada (Gray) Jay				T	Bay-breasted Warbler				T
Blue Jay		T	L	T	Yellow Warbler	B	B	B	B
Black-billed Magpie			T		"Myrtle" Warbler	B	B	B	B
American Crow	L	L	L	L	Black-throated Green Wa.	T			L
Common Raven	T	T		T	Canada Warbler	B	B	B	B
Black-capped Chickadee	B	B	B	L	Western Tanager	B	B	B	B
Ruby-crowned Kinglet				L	Rose-breasted Grosbeak	B	L	L	B
Cedar Waxwing	T	T	T	T					
Red-breasted Nuthatch	L	L	L	B	TOTALS	FAWA	FEGU	ROAD	RESI
Brown Creeper			T	T	Breeding species (B)	20	21	17	23
House Wren		T			Likely breeding sp. (L)	5	10	10	10
Winter Wren	B	B	L	B	Transient species (T)	21	17	21	15
Swainson's Thrush	B	B	B	B	Total species detected	46	48	48	48

Northern Saw-whet Owl & Boreal Owl Monitoring

Since 2004, the LSLBO has contributed to Project OwlNet, an international network of Northern Saw-whet Owl banding stations. Beyond understanding these owl's population trends and migratory habits, habitat quality of mature forests and population trends of small mammal species may also be inferred. Targeted owl banding was performed during favourable weather conditions September 1 to October 31 to monitor migratory Northern Saw-whet Owls and potentially migratory Boreal Owls.

Two net arrays were used. The Saw-whet Owl array consists of a line of four nets near the Boreal Centre for Bird Conservation in mature deciduous forest (moved to this location in 2013). Another two nets in a nearby stand of conifers makes up the Boreal Owl net array (established 2016). Nets are opened one hour after sunset with standardized call playbacks specific to each species used to attract owls. This was the 19th year of fall owl migration monitoring.

Owl banding was performed on 43 out of 61 possible nights, above the average of 40.6 nights per season. With additional hours beyond the standard 4-hour period on 5 nights, the Saw-whet array accumulated 652.0 net-hours (average 617.6 net-hours), while the Boreal array accumulated 332.0 net-hours (average 309.2 net-hours) to an average of 16.2 net-hours per night of operation between the two arrays. The capture rate of 15.0 owls per 100 net-hours was similar to the season average of 15.3 owls per 100 net-hours (2004-2022), but due to 20 owls being captured during non-standard hours and 40 owls being captured in the Boreal array, 2022's total of 161 Northern Saw-whet Owls, 1 Boreal Owl, and 1 Barred Owl (the fifth banded incidentally during this program) was the fourth highest capture total since operations began. Of these owls, 123 Saw-whets were captured in the Saw-whet Owl array and 38 Saw-whets, 1 Boreal, and 1 Barred were captured in the Boreal Owl array. The busiest night was September 28, which captured 17 owls (Figure 17). However, since no additional hours were pursued, September 13 saw the highest capture rate by capturing 15 owls within the standard period.

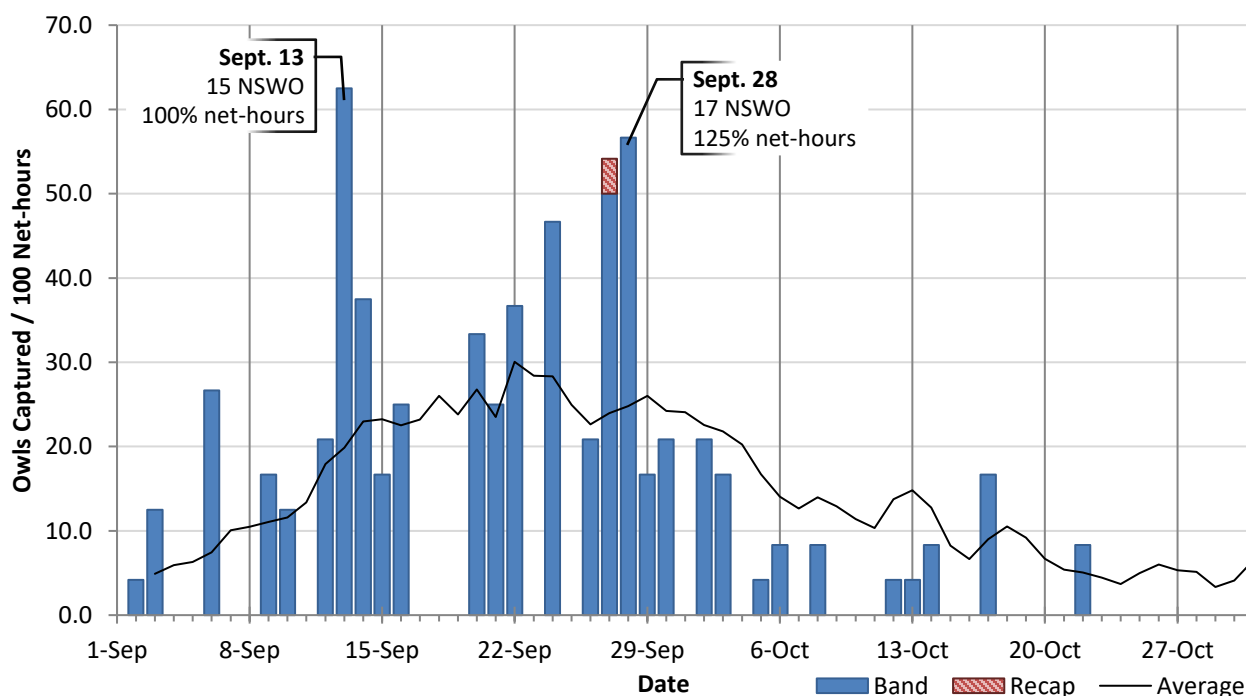


Figure 17. Capture rates standardized to 100 net-hours during owl monitoring sessions including both owl net arrays and non-standard banding Sept. 1 to Oct. 31, 2022. Nightly average capture rates from 2004-2022 shown with a moving average of three-day periods. Codes: Northern Saw-whet Owl (NSWO)

Recaptures

In 2022, the LSLBO recorded 1,032 recapture records: 123 during spring migration, 542 during fall migration, 366 during MAPS, and 1 during owl banding. Local breeders are often recaptured multiple times in a year; thus, these 1,032 records represent 562 individuals of 36 species with 384 birds originally banded this year and 105 banded last year. There were 73 birds banded prior to 2021 (Table 10). The most frequently recaptured bird was a male Canada Warbler captured 12 times between June 4 and July 24. This Canada Warbler has been recaptured 30 times total and has bred near the migration monitoring station every year since being banded in 2017.

Adult songbirds often cannot be aged as older than two when banded. However, by recapturing a bird years later, we can better estimate its age. In 2022, the oldest known-age bird was a White-throated Sparrow estimated to be 10 years old or older (Table 10). This sparrow is a white-stripe male which was banded in RESI in 2014 and has been recaptured at the same site all but three years since. None of the below recapture records represent new international longevity records. See Appendix III (p. 76) for help understanding assigned ages.

Table 10. Location (migration monitoring [MM], MAPS sites [FAWA, FEGU, ROAD, RESI]) and approximate age of recaptured birds banded 2020 or earlier and recaptured in 2022.

Species	Band Number	Banding Details			Recapture		Age (Years)
		Date	Site	Age	Date (2022)	Site	
Canada Warbler	2290-40166	July 24, 2020	MM	HY	June 11	FEGU	2
American Redstart	1960-31945	July 28, 2020	MM	HY	June 8	MM	2
American Redstart	1960-31995	July 30, 2020	MM	HY	July 23	MM	2
American Redstart	2930-02024	July 30, 2020	MM	HY	June 13	FAWA	2
"Myrtle" Warbler	2290-40369	July 30, 2020	MM	HY	June 20	FEGU	2
Swainson's Thrush	2951-12046	July 30, 2020	FEGU	HY	July 10	FAWA	2
Mourning Warbler	2290-40468	July 31, 2020	MM	HY	June 12	RESI	2
Swainson's Thrush	2951-12411	August 1, 2020	MM	HY	May 26	MM	2
Black-and-white Warbler	2290-40561	August 2, 2020	MM	HY	June 30	ROAD	2
Swainson's Thrush	2951-12482	August 8, 2020	MM	HY	June 30	FEGU	2
Alder Flycatcher	2820-92866	June 23, 2020	RESI	UNK	July 20	RESI	2+
Canada Warbler	2920-33937	August 5, 2019	MM	HY	June 12	RESI	3
American Redstart	2930-01984	May 28, 2020	MM	SY	June 20	FEGU	3
Swainson's Thrush	2951-12257	June 3, 2020	MM	SY	June 11	ROAD	3
American Redstart	2930-02000	June 10, 2020	MM	SY	July 30	MM	3
American Redstart	2330-37258	June 11, 2020	ROAD	SY	July 29	FEGU	3
Red-eyed Vireo	2131-84335	June 12, 2020	FEGU	SY	July 28	MM	3
White-throated Sparrow	2771-69976	June 20, 2020	FAWA	SY	July 11	FEGU	3
White-throated Sparrow	2771-69981	June 21, 2020	ROAD	SY	May 18	MM	3
Magnolia Warbler	2330-37283	June 21, 2020	ROAD	SY	June 4	MM	3
Black-and-white Warbler	2820-92859	June 21, 2020	FEGU	SY	July 12	MM	3
"Myrtle" Warbler	2820-92860	June 21, 2020	ROAD	SY	July 31	MM	3
American Redstart	2330-37284	June 21, 2020	FEGU	SY	June 30	FEGU	3
Canada Warbler	2820-92867	June 30, 2020	ROAD	SY	June 6	MM	3
Yellow Warbler	2820-92869	June 30, 2020	FEGU	SY	July 23	MM	3
Canada Warbler	2820-92876	July 4, 2020	FAWA	SY	July 2	FAWA	3
White-throated Sparrow	2951-12001	July 10, 2020	RESI	SY	July 20	RESI	3
American Redstart	1960-31721	July 16, 2020	MM	SY	June 11	FEGU	3

RECAPTURES

Species	Band Number	Banding Details			Recapture		Age (Years)
		Date	Site	Age	Date (2022)	Site	
American Redstart	2930-00943	July 21, 2020	FAWA	SY	July 2	FAWA	3
Red-eyed Vireo	2131-84338	June 14, 2020	FAWA	AHY	July 10	FAWA	3+
"Myrtle" Warbler	2820-92895	July 20, 2020	RESI	AHY	June 22	RESI	3+
White-throated Sparrow	2951-12027	July 21, 2020	FAWA	AHY	July 10	FAWA	3+
White-throated Sparrow	2951-12334	July 27, 2020	MM	AHY	July 26	MM	3+
White-throated Sparrow	2951-12047	July 31, 2020	RESI	AHY	June 12	RESI	3+
American Redstart	2930-02146	August 2, 2020	MM	AHY	August 13	MM	3+
Red-eyed Vireo	2131-84374	August 2, 2020	FAWA	AHY	June 24	FAWA	3+
Red-eyed Vireo	2181-51523	August 6, 2020	MM	AHY	July 22	MM	3+
"Myrtle" Warbler	2820-92914	May 29, 2019	MM	SY	May 18	MM	4
Magnolia Warbler	2570-16139	June 12, 2019	FEGU	SY	July 11	FEGU	4
Canada Warbler	2810-64070	July 3, 2019	ROAD	SY	June 2	MM	4
American Redstart	2570-16164	July 3, 2019	ROAD	SY	June 11	FEGU	4
American Redstart	2570-16774	July 17, 2019	MM	SY	July 10	FAWA	4
Red-eyed Vireo	2131-76453	July 24, 2019	MM	AHY	July 23	MM	4+
Canada Warbler	2820-92837	August 1, 2019	ROAD	AHY	June 11	FEGU	4+
Canada Warbler	2920-33984	August 6, 2019	MM	AHY	July 29	MM	4+
Black-and-white Warbler	1550-97193	June 10, 2020	MM	ASY	July 23	ROAD	4+
American Redstart	2330-37261	June 12, 2020	FEGU	ASY	June 11	FEGU	4+
White-throated Sparrow	2771-69987	June 30, 2020	FEGU	ASY	July 22	FEGU	4+
Song Sparrow	2741-70887	May 12, 2018	MM	SY	July 24	MM	5
Black-and-white Warbler	2460-13651	May 30, 2018	MM	SY	July 21	MM	5
Canada Warbler	2810-12941	July 12, 2018	FEGU	AHY	June 5	MM	5+
Ovenbird	2621-61701	July 15, 2018	MM	AHY	July 13	MM	5+
White-throated Sparrow	2741-70953	July 20, 2018	FAWA	AHY	July 21	FAWA	5+
Ovenbird	2131-76583	May 25, 2019	MM	ASY	May 20	MM	5+
Canada Warbler	2820-92931	June 6, 2019	MM	ASY	June 30	FEGU	5+
White-throated Sparrow	2471-66868	June 21, 2019	FEGU	ASY	June 1	MM	5+
American Redstart	2570-16151	June 21, 2019	FEGU	ASY	June 30	FEGU	5+
Swainson's Thrush	2471-66866	June 21, 2019	FEGU	ASY	July 23	ROAD	5+
Swainson's Thrush	2471-66873	July 3, 2019	FEGU	ASY	July 2	FAWA	5+
Canada Warbler	2740-83920	June 12, 2017	ROAD	SY	June 4	MM	6
Swainson's Thrush	2661-72879	July 10, 2017	RESI	AHY	June 22	RESI	6+
Mourning Warbler	2740-83974	July 13, 2017	FAWA	AHY	June 13	FAWA	6+
Red-eyed Vireo	2621-61105	July 17, 2016	MM	AHY	July 23	ROAD	7+
Swainson's Thrush	2661-72844	July 24, 2016	ROAD	AHY	July 23	ROAD	7+
Mourning Warbler	2710-92953	July 1, 2015	FAWA	SY	July 29	MM	8
Ovenbird	2591-91941	May 29, 2016	MM	ASY	July 11	FEGU	8+
Canada Warbler	2740-83241	May 31, 2016	MM	ASY	June 9	MM	8+
Swainson's Thrush	2661-72801	June 22, 2016	RESI	ASY	June 12	RESI	8+
Hairy Woodpecker	1152-42881	June 3, 2014	MM	TY	May 12	MM	10
White-throated Sparrow	2431-87780	June 22, 2014	RESI	ASY	July 10	RESI	10+

Foreign Recoveries

Though exceptionally rare, recoveries of banded birds at other locations ('foreign' to our station) can suggest migration routes or rates of travel. With three birds banded by the LSLBO found elsewhere in 2022 (Figure 18), approximately 40 of the nearly 105,000 birds we have banded have been recovered outside the LSLBO. The first recovery of 2022 was an American Redstart found dead from unknown causes on March 16 in Tennessee. This bird was banded as a young bird on August 16, 2020 and was likely undergoing its second northward spring migration. The second bird was a Northern Saw-whet Owl found dead after a potential window strike in Saskatchewan on April 3. This owl had not yet completed its first year of life and had been banded on October 5, 2021. The third recovery was an older White-throated Sparrow found in the grill of a fire truck on November 1 in Arkansas. Recapture records suggest this bird bred near ROAD after being banded on May 18, 2022 before heading south to meet his fate.

In addition, the LSLBO captured one bird banded by another researcher: a Northern Saw-whet Owl banded on October 15, 2020 by the Calgary Bird Banding Society near Bragg Creek in southern Alberta. This owl was the seventh Northern Saw-whet Owl and the eleventh bird captured by the LSLBO which was originally banded by another researcher.



Figure 18. Band recovery locations of birds banded by the LSLBO (yellow star) and encountered elsewhere in 2022: [1] American Redstart found dead, Tennessee; [2] Northern Saw-whet Owl found dead, Saskatchewan; [3] White-throated Sparrow found dead, Arkansas; and [4] Northern Saw-whet Owl foreign recapture, banded near Calgary; Google Earth imagery.

Collaborative Projects

West Fraser/STRIX Barred Owl Habitat Occupancy and Home Ranges

To test a recent habitat model, STRIX Ecological Consulting (on behalf of West Fraser Timber Co.), assessed Barred Owl abundances, occupancy, home range, habitat use, and nest site characteristics in Alberta through occupancy surveys, VHF telemetry, and satellite dataloggers. The LSLBO assisted in local occupancy surveys between March 18 and 21, and in satellite data downloads in October and November 2022, with plans for January and March 2023 downloads.

Environment and Climate Change Canada Rectrice Samples

The simple collection of a tail feather from a sample of captured birds can be used to analyse heavy metal concentrations to better understand influences of environmental contaminants, to examine isotopes to reveal important migratory connectivity, and to assess genetic structures of Canada-wide populations. For these reasons, the LSLBO (and other CMMN stations) collected two tail feathers from a subset of captured species. Plucking does not impair the bird's flight and regrowth of these feathers begins quickly. In the first year of this project, the LSLBO contributed samples from 531 birds of 21 species.

University of Guelph Flat Fly Collections

Flat flies (louse flies, *Hippoboscidae*) are parasites which feed on the blood of birds and mammals and tend to be highly specialized to their hosts. Relatively little is known about this group since they are rarely collected. The LSLBO collected flat flies in the second year of a Canada-wide project to provide a survey of flat fly diversity, associated hosts, and phenology. Moreover, researchers hope to study the mites that parasitize flat flies and to describe new species. At least 278 flat flies were collected by the LSLBO in 2022.

Standardized eBird Checklists

Managed by the Cornell Lab of Ornithology, eBird is an online tool to compile global bird observations. By relying on citizen scientists, eBird is limited by observer distributions, skills, and motivations. By submitting census counts every Wednesday of migration monitoring, the local eBird dataset is improved, which in turn benefits both researchers and visitors. In 2022, 20 checklists were submitted.

Royal Alberta Museum (RAM) Specimen Donations

Although bird safety is our top priority, some injuries and even death are unavoidable. Staff take every precaution, but 5-10 deaths occur yearly in < 0.1% of captures. Since northern regions are often under-sampled in specimen collections, as of 2020 these birds are donated to the RAM to advance education and research goals. Staff also collect mortalities from other causes. A total of 35 birds collected in 2022 from (predominantly) window strikes, roadkill, cat depredation, illness, and the LSLBO were donated.

Publications

One article was published using data collected by the LSLBO:

Youngflesh, C., Saracco, J. F., Siegel, R. B., & Tingley, M. W. (2022). **Abiotic conditions shape spatial and temporal morphological variation in North American birds.** *Nature Ecology and Evolution*, 1–35.

→ Used LSLBO capture data from our four MAPS stations alongside 1,116 other MAPS stations to calculate changes in 105 species' wing lengths and weights over space and time.

Habitat Monitoring

When each monitoring station was established, the habitat was mostly riparian or young mixedwood forest edged with mature mixedwood. Being located within a provincial park, on-site habitats cannot be managed to stabilize vegetative structure which has consequentially matured. This habitat change likely influences how birds move through the site and affects capture rates. To quantify these habitat changes, detailed habitat assessments were conducted in 2011 and 2017 around all standard migration monitoring net-lanes using BBird surveying methods with modifications as described in *LSLBO Standard Operating Protocols (revised 2021)*. Between June 14 to July 7, 2022, standard net-lanes were resurveyed and photographed with additional detailed surveys performed at the owl migration monitoring speaker locations. Simplified habitat surveys were also performed on the census route and the four MAPS sites. Results of these surveys are to be reported separately.

Caterpillars Count!

Arboreal birds may time their young's hatching to coincide with peak insect abundances so there is ample high-protein food available. Since climate change may impact the timing and extent of vegetative growth and insect abundances, it may also impact birds who rely on insects to feed themselves and their offspring. If peak insect abundances become out of sync with when songbirds hatch, younger birds could become less fit or even starve, which in turn may contribute to population declines. *Caterpillars Count!* is part of *Pheno Mismatch*: a multiagency project to assess if peak insect abundances are becoming asynchronized with avian phenology. Standardized beat-sheet surveys are used to reveal arthropods which are identified to taxonomic order.

This was the second year the LSLBO surveyed 30 *Caterpillars Count!* sites. We were the northernmost of 70 participating stations in 2022 and conducted 12 surveys at 15 sites near the LSLBO and 13 surveys at 15 sites near the BCBC between May 11 to September 9. A total of 4,287 individuals from 16 arthropod groups were recorded. Arthropod abundance increased quickly alongside average leaf length, driven primarily by Springtail counts (Figure 19). Spiders were common on all plant species surveyed throughout the season. Caterpillars were uncommon, although some MAPS periods anecdotally saw high caterpillar abundances on the forest floor not quantified with *Caterpillars Count!* methods.

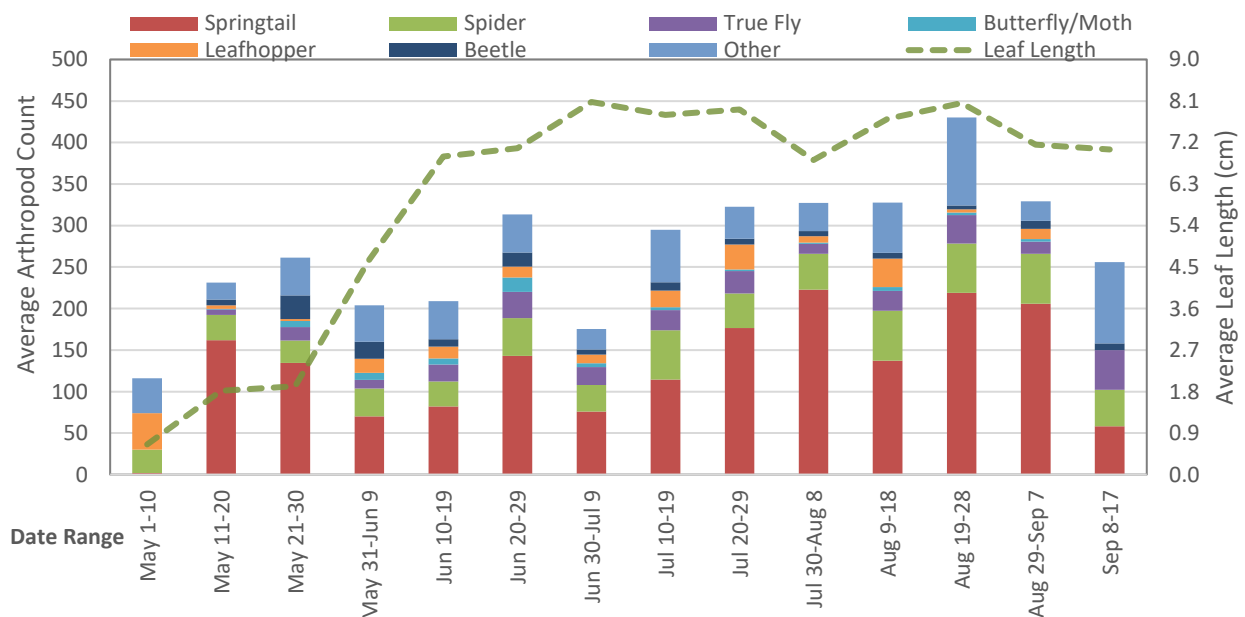


Figure 19. Average arthropod abundance and leaf length per *Caterpillars Count!* survey period, 2021-22.

Visitors and Education

Educating the public about avian ecology and the importance of research and monitoring is vital to fostering support for conservation initiatives. Visitors to banding operations have a unique opportunity to see birds in-the-hand, reinforcing connections between visitors and local wildlife. Through partnerships with the Lesser Slave Forest Education Society and Alberta Parks, we gain access to educators who help provide positive experiences for visitors while field staff maintain high standards for bird safety and data collection. Education staff lead tours of the migration monitoring station and develop new programming for delivery online, at schools, or at the Boreal Centre for Bird Conservation (BCBC).

Table 11. Visitors to the bird observatory during spring migration monitoring (spring), fall migration (fall), and owl banding (owl). “Other” includes tours not associated with schools and unscheduled drop-ins.

	On-site Programs	Adults	Children	Total
SPRING	Songbird Festival	60	56	116
	School programs	36	105	141
	Other	68	7	75
	Spring total	164	168	332
FALL	Bird Observatory Tours	69	59	128
	School programs	82	0	82
	Other	98	5	103
	Fall total	249	64	313
OWL	Family Owl Night	38	35	73
	School programs	5	22	27
	Other	21	8	29
	Owl total	64	65	129
	TOTAL	477	297	774
	Average*	470	331	831

*2011, 2020-21 omitted

As COVID-19 restrictions eased, visitors were again welcome to tour the station. In total, the LSLBO received 774 visitors (Table 11). While below average, 2022 was the busiest year since 2018 following interruptions from forest fires (2019) and a global pandemic (2020-21). School tours included Lakeview Outreach, C.J. Schurter grade 1, Ardrossan grade 9, N.A.I.T, and Concordia University. School tours brought 250 visitors, other tours brought 351 visitors, and 176 visitors dropped-in. Most visitors were Alberta residents, but some came from as far as Ontario, New York, New Mexico, California, and India.

In addition to on-site programming, we gave off-site presentations about the LSLBO's programs, and bird ecology and conservation to 909 people (Table 12). Audiences for these programs were frequently school children and families, but members of the forestry industry, town council,

and the general public were also reached. Lastly, the LSLBO publishes weekly blogs describing results and highlights of monitoring programs contextualized through facts about bird conservation and ecology. These articles are simultaneously published in the local newspaper, *The Lakeside Leader*, and shared to our website and Facebook pages. A total of 23 articles were written from May 4 to October 5.

Table 12. Audiences of LSLBO presentations and webinars, 2022.

Off-site Programs	Groups	Adults	Children	Total
LSLBO Avian Monitoring Program Updates	3	67	0	67
<i>Monitoring Birds of the Boreal Forest</i> presentation	3	51	0	51
<i>Surveying Recently Harvested Boreal Stands</i> presentation	1	24	0	24
<i>Nesting Birds of the Boreal Forest and Regulations</i> presentation	1	15	0	15
<i>What is a Bird?</i> curriculum-based school program	10	37	145	182
25 th Annual Songbird Festival	1	200	200	400
Guided Birding Walks	2	40	10	50
<i>Bird Songs of the Boreal Forest</i> presentation	1	20	5	25
<i>Oh, Canada</i> Day Camp Program - Loon program	2	12	57	69
Wildlife Discovery family program	2	12	14	26
TOTAL	26	478	431	909

Staff and Volunteers

Throughout all core monitoring and maintenance projects, the LSLBO accumulated 501 person-days between staff and volunteers (Table 13). Two full-time, fully permitted field staff managed monitoring operations with one field assistant – all with contracts of varying lengths. Robyn Perkins returned for her seventh season overall and fourth season as Bander-in-Charge, Bronwyn Robinson returned for her fourth season overall and first season as our Assistant Bander, and Nola Sheets joined us for her first season as Field Assistant. Education and school programs were delivered both on-site and off-site with help from Patti Campsall (LSLBO Executive Director) and staff shared with other organizations, including Laura Brandon (Boreal Educator), Danika Wack (Interpreter), Nina Vujakovic (Information Officer), and Donna Arseneau (Contract Educator). All education staff were frequently repurposed as scribes.

After two years of being unable to host new volunteers due to the COVID-19 pandemic, generally reduced restrictions and widespread vaccine uptake allowed us to train inexperienced volunteers once again. Across core monitoring programs (i.e. excluding winter monitoring), six returning volunteers and nine new volunteers contributed 58 person-days to monitoring activities – mostly during the fall. Dedicated LSLBO member Wayne Bowles joined the team on the Great Canadian Birdathon on May 18. On December 18, 24 volunteers helped census the region in the 27th Slave Lake Christmas Bird Count.

Maintenance tasks performed by staff included trail clearing, station set-up and tear-down, and net repair. Volunteers contributed almost half of all maintenance person-days through repairing the deck and solar panel frame after they sustained winter damage, clearing large debris from the trails with chainsaws (especially in the MAPS sites), crafting new bird bags, French-seaming the last of the old bird bags, and assisting with some data entry and proofing (staff data processing person-days are not tabulated).

Table 13. Staff and volunteer person-days contributing to the LSLBO's core monitoring projects, winter's Christmas Bird Count, and site and equipment maintenance tasks.

	Spring	MAPS	Fall	Owls	Winter	Total
Monitoring						
Total person-days (T)	120	52	191	66	26	455
Staff person-days (%T)	110 (91.7%)	50 (96.2%)	148 (77.5%)	63 (95.5%)	2 (7.7%)	373 (82.0%)
Volunteer person-days (%T)	10 (8.3%)	2 (3.8%)	43 (22.5%)	3 (4.5%)	24 (92.3%)	82 (18.0%)
Days operated	54	24	81	43	1	202
Maintenance						
Total person-days (M)	5	12	7	3	19	46
Staff person-days (%M)	4 (80.0%)	7 (58.3%)	6 (85.7%)	3 (100.0%)	5 (26.3%)	25 (54.3%)
Volunteer person-days (%M)	1 (20.0%)	5 (41.7%)	1 (14.3%)	0 (0.0%)	14 (73.7%)	21 (45.7%)
Grand total person-days (T+M)	125	64	198	69	45	501

Change-log

The following are notable changes to operations and equipment:

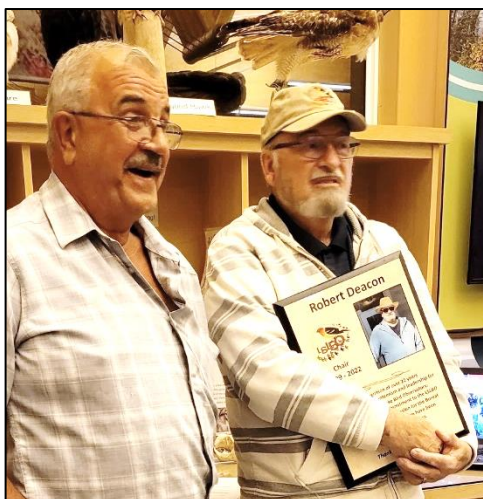
1. Had approximately 60 new bird bags donated and loose seams on old bags French-seamed so we no longer need to flip bags seam-side-out after washing.
2. Treated north-facing lab window with translucent tape to reduce window strikes (all windows now treated).

Acknowledgements

On April 3 we lost one of our most cherished members, **Aaron Lehman**. Though a former teacher and a writer by trade, his roots in biology and love of birding gave the region its first record of a White-winged Dove and his and Winifred's feeders continue to bolster Christmas Bird Counts. Aaron's calm and friendly presence frequently graced the migration monitoring program for a pleasant change of pace for our field staff. His absence has been deeply felt.



The LSLBO would like to thank the following people for their dedication and support:



LSLBO Board of Directors:

Special thank you to former chair Bob Deacon (pictured, right) for over 22 years of service!

Terry Kristoff (Chair – pictured, left)
 Nicole St. Jean (Vice-chair)
 Brandy Walters (Secretary Treasurer)
 Tyler Flockhart (Director of Field Research)
 Ronda Groom (Director at Large)
 Stuart Adkins (Director at Large)
 Edith Mackenzie (Director at Large)
 Todd Bailey (Director at Large)
 Melissa Chisholm (Director at Large)

LSLBO Executive Director: Patti Campsall

LSLBO Field Staff: Robyn Perkins (Bander-in-Charge), Bronwyn Robinson (Assistant Bander), and Nola Sheets (Field Assistant)

Boreal Centre Staff and Educators: Laura Brandon (Boreal Educator), Danika Wack (Interpreter), Nina Vujakovic (Information Officer), and Donna Arseneau (Contract Educator)

Alberta Parks Staff: Ceiridwen Robbins and Chad Dupris

Monitoring Volunteers: Melina Keurschner, Erika Seabrook, Paige Levasseur, Miles Tindal, Melissa Chisholm, Jon Von Arragon, Cory Cardinal, Nicole Krikun, Richard Krikun, Kirstin LaChance, Michelle MacMillan, Clara Boisclair, Sierra Jamieson, Julia Oliver, and Monica Dahl

Site Cleaning Crews: Slave Lake HAC Team

Our Good Friend: Wayne Bowles, Nicole and Richard Krikun for a successful Great Canadian Birdathon

Information about Migration Monitoring, MAPS, and Project OwlNet can be found at:

Canadian Migration Monitoring Network (Spring & fall monitoring) www.birdscanada.org/bird-science

Nature Counts (CMMN migration monitoring trend analysis) – www.naturecounts.ca

Institute for Bird Populations (MAPS) - www.birdpop.org

Project OwlNet (Northern Saw-whet Owl banding) - www.projectowl.net

Financial and in-kind support was provided by:



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Climate Change Canada

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**Government
of Alberta** ■

**Service
Canada** ■
Canada Summer
Jobs Program



& viewers like you!

Appendix I. Migration Occurrence Records

The following is a taxonomic summary of weekly occurrences for 33 family groups and 159 species (subspecies in quotation marks) identified throughout spring (S) and fall (F) migration monitoring in 2022. Family accounts are the summation of birds identified to species and those identified only to family. Dates are listed below each month. Weekly averages of daily counts (avg. per day) are followed by the number of days with at least one encounter (days observed). "Processed" summarizes captures in the format *band-return-repeat*. *Band* indicates a new individual banded, *return* is an individual banded in a previous year and recaptured this year, while *repeat* is an individual previously banded or recaptured within 2022. The first, last, and peak encounter dates are included with the number of individuals recorded in brackets. The peak is often the date with the maximum number of individuals recorded and may represent a dispersal event for resident species. The total number of encounters in each season is in black.

Goose (subfamily total including unidentified)

Anserinae sp. (excluding Cygnus sp.)

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	26.4	177.1	2107.7	2163.7	44.0	4.1	22.7	18.4	570.5				
Days observed	7	7	7	7	6	7	6	5	52				
First date: April 18 (9)			Peak date: May 12 (9,833)			Last date: June 10 (4)			31,913				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	2.0	3.4	2.4	39.3	1.0	352.0	178.6	20.9	301.8	75.1
Days observed	0	0	0	1	2	3	7	3	6	7	4	2	35
First date: August 3 (14)				Peak date: September 7 (1,551)				Last date: September 30 (240)				5,404	

"Lesser" Snow Goose

Anser caerulescens caerulescens

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	18.3	1408.9	95.7	0.0	0.0	0.0	0.0	190.4				
Days observed		0	4	4	3	0	0	0	0	11				
		First date: April 25 (3)			Peak date: May 5 (5,450)			Last date: May 12 (274)			10,660			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	272.5	22.7
Days observed		0	0	0	0	0	0	0	0	0	0	0	2	2
		First date: September 29 (850)			Peak date: September 29 (850)				Last date: September 30 (240)				1,090	

Greater White-fronted Goose

Anser albifrons

		APRIL		MAY					JUNE					
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	145.7	589.7	1820.9	17.7	0.0	0.0	0.0	321.8				
Days observed		0	5	4	4	1	0	0	0	14				
		First date: April 26 (2)			Peak date: May 12 (8,748)			Last date: May 16 (124)			18,018			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	198.9	132.7	5.9	2.5	29.0
Days observed		0	0	0	0	0	0	2	0	4	3	2	1	12
		First date: August 23 (5)			Peak date: September 7 (772)				Last date: September 29 (10)				2,432	

Canada Goose

Branta canadensis

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	26.4	8.9	36.6	129.1	20.6	4.1	22.7	18.4	33.4	
Days observed	7	7	7	7	6	7	6	5	52	
	First date: April 18 (9)		Peak date: May 12 (455)			Last date: June 10 (4)			1,831	

Canada Goose

Branta canadensis

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	2.0	3.4	2.4	29.9	1.0	59.4	33.9	14.3	8.0	12.9
Days observed	0	0	0	1	2	3	7	3	6	7	3	1	33
First date: August 3 (14)				Peak date: September 8 (174)				Last date: September 29 (32)					1,056

Swan (genus total including unidentified)

Cygnus sp.

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		25.7	11.3	8.7	0.9	0.4	0.0	0.0	0.0	5.9	
Days observed		3	6	2	2	1	0	0	0	14	
		First date: April 20 (3)			Peak date: April 23 (164)			Last date: May 16 (3)			329

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.3	0.8
Days observed	0	0	0	0	0	0	0	0	0	1	0	1	2
First date: September 19 (66)				Peak date: September 19 (66)				Last date: September 28 (1)					67

Trumpeter Swan

Cygnus buccinator

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.7	0.9	0.9	0.7	0.4	0.0	0.0	0.0	0.4	
Days observed		2	3	2	2	1	0	0	0	10	
		First date: April 20 (3)			Peak date: May 4 (5)			Last date: May 16 (3)			25

Tundra Swan

Cygnus columbianus

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		23.4	10.3	7.6	0.0	0.0	0.0	0.0	0.0	5.2	
Days observed		2	5	2	0	0	0	0	0	9	
		First date: April 23 (151)			Peak date: April 23 (151)		Last date: May 4 (32)			289	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.8
Days observed	0	0	0	0	0	0	0	0	0	1	0	0	1
First date: September 19 (66)				Peak date: September 19 (66)				Last date: September 19 (66)					66

Duck (subfamily total including unidentified)

Anatinae sp./Aythyinae sp.

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		1.6	154.4	144.0	59.3	114.1	51.3	52.6	53.2	78.8	
Days observed		5	7	7	7	7	7	7	5	52	
		First date: April 18 (1)			Peak date: April 29 (450)			Last date: June 10 (4)			4,307

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	8.6	3.1	12.4	10.6	9.9	70.3	22.1	21.3	8.4	6.4	5.4	13.3	16.0
Days observed	6	6	7	7	7	7	7	7	7	6	7	4	78
First date: July 12 (5)				Peak date: August 20 (388)				Last date: September 30 (4)					1,303

Teal (genus total including unidentified)

Sibirionetta sp./ Anas crecca

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.0	0.6	4.0	4.7	1.0	1.4	0.4	0.4	1.6
Days observed		0	1	5	4	4	1	1	1	17
		First date: April 30 (4)			Peak date: April 14 (0)		Last date: June 8 (2)			87

Blue-winged Teal*Spatula discors*

	APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.0	0.0	2.7	1.3	0.3	1.4	0.4	0.4	0.8
Days observed	0	0	3	3	2	1	1	1	11
First date: May 4 (2)			Peak date: May 7 (10)			Last date: June 8 (2)			45

Northern Shoveler*Spatula clypeata*

	APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.0	0.6	1.3	3.1	0.7	0.0	0.0	0.0	0.7
Days observed	0	1	2	4	2	0	0	0	9
First date: April 30 (4)			Peak date: May 14 (11)			Last date: May 21 (3)			40

Gadwall*Mareca strepera*

	APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	1	0	0	0	0	0	0	1
First date: May 1 (2)			Peak date: May 1 (2)			Last date: May 1 (2)			2

American Wigeon*Mareca americana*

	APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.0	5.1	37.6	1.3	0.6	0.0	0.0	0.0	5.6
Days observed	0	4	5	4	2	0	0	0	15
First date: April 28 (17)			Peak date: May 2 (117)			Last date: May 21 (2)			312

Mallard*Anas platyrhynchos*

		APRIL			MAY							JUNE					
	S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL
Avg. per day		0.9	98.1		41.0		5.7		2.9		1.3		1.6		3.2		19.3
Days observed		3	6		7		7		7		4		5		4		43
		First date: April 22 (3)					Peak date: April 29 (353)					Last date: June 9 (4)					1,076
		JULY			AUGUST					SEPTEMBER							
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL			
Avg. per day		0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.3	0.4	0.1	0.3	0.5	0.2			
Days observed		0	0	1	0	0	0	1	1	2	1	2	2	10			
		First date: July 27 (1)					Peak date: August 29 (3)					Last date: September 28 (1)					14

Northern Pintail*Anas acuta*

	APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	1	0	0	0	0	0	1
First date: May 2 (1)			Peak date: May 2 (1)			Last date: May 2 (1)			1

Green-winged Teal*Anas crecca*

	APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.0	0.3	16.3	0.0	0.3	0.1	0.0	0.0	2.1
Days observed	0	1	3	0	2	1	0	0	7
First date: April 29 (2)			Peak date: May 3 (69)			Last date: May 25 (1)			119

Ring-necked Duck*Aythya collaris*

	APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.1
Days observed	0	0	2	1	0	0	0	0	3
First date: May 2 (2)			Peak date: May 4 (3)			Last date: May 11 (2)			7

Scaup (genus total including Lesser, Greater, unidentified)***Aythya marila/affinis***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.4	0.0	0.3	0.0	0.1	
Days observed	0	0	0	0	1	0	1	0	2	
First date: May 20 (3)			Peak date: May 20 (3)			Last date: June 2 (2)			5	

Lesser Scaup***Aythya affinis***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1	
Days observed	0	0	0	0	1	0	0	0	1	
First date: May 20 (3)			Peak date: May 20 (3)			Last date: May 20 (3)			3	

Surf Scoter***Melanitta perspicillata***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	2.3	29.3	7.9	0.1	0.0	4.9	
Days observed	0	0	0	3	7	3	1	0	14	
First date: May 12 (3)			Peak date: May 21 (98)			Last date: May 30 (1)			277	

White-winged Scoter***Melanitta deglandi***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	1.9	0.1	0.0	0.0	0.3	
Days observed	0	0	0	0	1	1	0	0	2	
First date: May 21 (13)			Peak date: May 21 (13)			Last date: May 23 (1)			14	

Long-tailed Duck***Clangula hyemalis***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.7	18.3	3.1	1.0	0.0	2.9	
Days observed	0	0	0	1	5	4	2	0	12	
First date: May 14 (5)			Peak date: May 20 (75)			Last date: May 31 (2)			162	

Bufflehead***Bucephala albeola***

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL		
Avg. per day		0.0	0.1	0.7	0.0	1.4	0.0	0.0	0.0			0.3		
Days observed		0	1	2	0	4	0	0	0			7		
		First date: April 29 (1)			Peak date: May 16 (3)			Last date: May 22 (1)			16			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Days observed		0	0	0	0	0	0	0	0	0	0	1	0	1
		First date: September 25 (1)			Peak date: September 25 (1)			Last date: September 25 (1)			1			

Common Goldeneye***Bucephala clangula***

		APRIL			MAY						JUNE					
	S	Week 1: 18-24	2: 25-1		3: 2-8	4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10	TOTAL	
Avg. per day		0.6	10.3		10.4	12.9		25.6		11.3		8.3		2.8	10.3	
Days observed		2	7		7	7		7		7		6		4	47	
		First date: April 19 (1)				Peak date: May 21 (35)				Last date: June 9 (2)				569		
		JULY			AUGUST					SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL		
Avg. per day		2.3	1.1	2.7	0.0	0.6	0.0	0.6	0.1	0.1	0.0	0.4	4.8	1.1		
Days observed		5	2	5	0	2	0	2	1	1	0	1	2	21		
		First date: July 12 (2)				Peak date: September 29 (11)				Last date: September 29 (11)				75		

Hooded Merganser*Lophodytes cucullatus*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.1	
Days observed	0	0	0	1	1	0	0	0	2	
First date: May 14 (3)			Peak date: May 16 (3)			Last date: May 16 (3)			6	

Common Merganser*Mergus merganser*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	19.4	15.4	23.4	20.7	14.9	35.6	41.2	21.3	
Days observed	0	6	7	7	7	6	7	5	45	
First date: April 26 (5)			Peak date: May 30 (66)			Last date: June 10 (1)			1,112	

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	3.3	0.6	5.9	7.0	1.9	7.1	13.7	11.0	5.4	4.4	2.1	5.5	5.7
Days observed	2	2	3	5	4	5	5	4	6	3	3	3	45
	First date: July 13 (1)				Peak date: September 2 (41)				Last date: September 29 (1)				459

Red-breasted Merganser*Mergus serrator*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.7	0.9	4.9	2.3	1.3	0.0	1.3	
Days observed	0	0	3	3	6	4	2	0	18	
First date: May 3 (3)			Peak date: May 22 (10)			Last date: June 1 (6)			70	

Ruffed Grouse*Bonasa umbellus*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	2.1	1.9	1.4	1.9	1.7	1.3	1.1	1.4	1.6	
Days observed	7	7	7	7	7	7	7	5	54	
First date: April 18 (3)			Peak date: April 23 (4)			Last date: June 10 (1)			87	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.1	0.1	0.0	0.6	0.4	0.3	0.1	0.7	1.6	0.7	1.0	0.5
Days observed	0	1	1	0	3	2	1	1	4	7	3	3	26
	First date: July 22 (1)				Peak date: September 16 (4)				Last date: September 30 (1)				37

Red-necked Grebe*Podiceps grisegena*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	1.1	0.3	0.7	0.3	0.8	0.4	
Days observed	0	0	0	2	1	2	1	2	8	
First date: May 13 (6)			Peak date: May 13 (6)			Last date: June 9 (2)			21	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.9	0.9	1.1	3.1	0.6	0.6	0.1	0.0	0.6	1.3	0.8
Days observed	0	0	3	3	2	6	2	2	1	0	2	3	24
First date: July 27 (2)				Peak date: August 20 (11)				Last date: September 30 (2)					60

Western Grebe*Aechmophorus occidentalis*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	47.3	3.9	0.4	0.0	0.0	0.1	0.0	4.3
Days observed	0	0	0	0	0	4	4	1	0	0	1	0	10
First date: August 16 (3)				Peak date: August 20 (324)				Last date: September 26 (1)				362	

Mourning Dove***Zenaida macroura***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.1	
Days observed	0	0	2	1	0	0	0	0	3	
First date: May 4 (1)			Peak date: May 5 (1)			Last date: May 10 (1)			3	

Ruby-throated Hummingbird***Archilochus colubris***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.8	0.2	
Days observed	0	0	0	0	0	3	0	2	5	
First date: May 23 (2)			Peak date: June 7 (3)			Last date: June 9 (1)			7	

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	1	0	0	0	0	0	0	0	0	0	1
		First date: July 27 (1)				Peak date: July 27 (1)				Last date: July 27 (1)				1

Sora***Porzana carolina***

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	0	0	1	0	0	0	0	0	0	0	1
		First date: August 9 (1)				Peak date: August 9 (1)				Last date: August 9 (1)				1

Sandhill Crane***Antigone canadensis***

		APRIL			MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL			
Avg. per day		0.7	0.6	13.0	15.9	0.0	0.1	0.0	0.0			3.8			
Days observed		1	2	4	1	0	1	0	0			9			
		First date: April 24 (5)			Peak date: May 12 (111)			Last date: May 25 (1)					212		
		JULY			AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.7	0.0	258.8	21.7	
Days observed		0	0	0	0	0	0	0	1	0	1	0	3	5	
		First date: September 4 (1)			Peak date: September 29 (984)				Last date: September 29 (984)						1,048

Shorebird (suborder total including Plover, Sandpiper, Snipe, unidentified)***Scolopacidae sp./Charadriidae sp.***

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL		
Avg. per day		0.1	7.1	7.6	11.9	99.0	2.7	2.0	2.0			16.6		
Days observed		1	4	7	7	7	6	6	5			43		
		First date: April 23 (1)			Peak date: May 16 (552)			Last date: June 10 (1)					923	
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.6	1.1	3.4	2.3	3.9	4.3	2.9	2.9	0.3	0.0	0.0	0.0	1.8
Days observed		4	5	7	6	6	6	6	6	2	0	0	0	48
		First date: July 12 (1)			Peak date: August 11 (13)				Last date: September 12 (1)					151

Killdeer***Charadrius vociferus***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.3	0.6	0.0	0.3	0.0	0.0	0.0	0.1	
Days observed	0	1	4	0	2	0	0	0	7	
First date: May 1 (2)			Peak date: May 1 (2)			Last date: May 18 (1)			8	

Semipalmated Sandpiper*Calidris pusilla*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Days observed	0	0	0	0	0	0	0	0	1	0	0	0	1
First date: September 11 (1)				Peak date: September 11 (1)				Last date: September 11 (1)					1

Wilson's Snipe*Gallinago delicata*

		APRIL		MAY					JUNE	
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.7	0.1	0.1	0.1	0.0	0.0	0.0	0.1	
Days observed	0	3	1	1	1	0	0	0	6	
First date: April 28 (1)			Peak date: April 29 (3)			Last date: May 22 (1)			8	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	0	0	1	0	0	0	0	0	0	0	1
First date: August 11 (1)				Peak date: August 11 (1)				Last date: August 11 (1)					1

Spotted Sandpiper*Actitis macularius*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.1	0.4	1.6	12.0	2.7	1.9	2.0	2.6	
Days observed		0	1	3	6	6	6	6	5	33	
		First date: April 29 (1)			Peak date: May 18 (59)			Last date: June 10 (1)			141

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.6	0.9	2.6	0.9	1.7	2.3	2.4	2.4	0.0	0.0	0.0	0.0	1.1
Days observed	4	5	7	5	6	6	5	5	0	0	0	0	43
First date: July 12 (1)				Peak date: August 23 (9)				Last date: September 4 (6)					96

Solitary Sandpiper*Tringa solitaria*

		APRIL		MAY					JUNE	
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.2
Days observed		0	0	0	3	0	0	0	0	3
		First date: May 11 (7)			Peak date: May 11 (7)		Last date: May 14 (1)			9

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	1	1	0	0	0	0	0	0	0	0	2
First date: July 26 (1)				Peak date: August 6 (1)				Last date: August 6 (1)					2

Yellowlegs (genus total including Lesser, Greater, unidentified)*Tringa flavipes/melanoleuca*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.1	1.7	2.6	0.9	0.4	0.0	0.1	0.0	0.7	
Days observed		1	4	7	4	3	0	1	0	20	
		First date: April 23 (1)			Peak date: May 7 (7)			Last date: May 31 (1)			41

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.7	0.4	0.4	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Days observed	0	0	3	1	1	6	1	1	0	0	0	0	13
First date: July 28 (1)				Peak date: August 12 (3)				Last date: August 30 (1)					22

Lesser Yellowlegs***Tringa flavipes***

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.6	0.6	0.3	0.1	0.0	0.0	0.0	0.2				
Days observed		0	1	3	2	1	0	0	0	7				
		First date: April 29 (4)			Peak date: April 29 (4)			Last date: May 18 (1)			11			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.4	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Days observed		0	0	2	0	1	2	0	0	0	0	0	0	5
		First date: July 28 (1)			Peak date: August 12 (3)				Last date: August 22 (1)				8	

Greater Yellowlegs***Tringa melanoleuca***

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.9	0.6	0.0	0.1	0.0	0.0	0.0	0.2				
Days observed		0	2	3	0	1	0	0	0	6				
		First date: April 29 (3)			Peak date: April 29 (3)			Last date: May 19 (1)			11			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	0	0	1	0	0	0	0	0	0	0	1
		First date: August 12 (2)			Peak date: August 12 (2)				Last date: August 12 (2)				2	

Gull (family total including unidentified)***Laridae sp.***

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		7.4	17.7	43.7	68.3	26.0	6.7	1.3	4.0	21.9				
Days observed		3	7	7	7	7	7	4	4	46				
		First date: April 22 (2)			Peak date: May 11 (336)			Last date: June 9 (1)			1,218			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		197.0	143.4	11.0	167.4	119.4	14.3	149.3	222.6	37.0	57.3	78.0	3.8	100.0
Days observed		7	7	5	7	7	6	7	6	7	4	7	3	73
		First date: July 12 (299)			Peak date: August 31 (1,150)				Last date: September 30 (1)				8,392	

Bonaparte's Gull***Chroicocephalus philadelphia***

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	
Days observed		0	0	0	1	0	0	1	0	2	
		First date: May 10 (1)			Peak date: May 10 (1)			Last date: May 31 (1)			2

Franklin's Gull***Leucophaeus pipixcan***

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	9.4	17.6	51.6	17.3	3.1	0.0	0.0	12.4				
Days observed		0	1	3	4	5	4	0	0	17				
		First date: April 30 (66)			Peak date: May 11 (281)			Last date: May 26 (15)			693			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		181.3	119.6	0.4	137.0	40.1	6.7	125.3	179.6	0.3	8.6	38.7	0.0	69.8
Days observed		6	6	1	5	6	3	6	4	1	2	3	0	43
		First date: July 12 (277)			Peak date: August 31 (1,000)				Last date: September 22 (5)			5,863		

Short-billed (Mew) Gull*Larus brachyrhynchus*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.7	0.4	0.3	0.1	0.3	0.0	0.0	0.0	0.2	
Days observed	1	2	1	1	2	0	0	0	7	
First date: April 24 (5)			Peak date: April 24 (5)			Last date: May 18 (1)			13	

Ring-billed Gull*Larus delawarensis*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	1.0	0.0	1.6	2.1	3.6	0.9	0.6	2.2	1.5	
Days observed	3	0	2	3	3	3	2	3	19	
First date: April 22 (2)			Peak date: May 20 (20)			Last date: June 8 (2)			79	

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	6.4	18.4	8.7	21.3	22.0	3.3	8.0	1.9	5.1	1.9	12.9	2.8	9.4
Days observed	4	6	2	7	6	5	6	3	6	4	7	2	58
	First date: July 12 (13)				Peak date: August 7 (98)				Last date: September 30 (1)				780

California Gull*Larus californicus*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	
Days observed	0	0	0	0	1	0	0	0	1	
First date: May 20 (1)			Peak date: May 20 (1)			Last date: May 20 (1)			1	

Herring Gull*Larus argentatus*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	4.1	3.9	4.4	2.0	0.1	0.0	0.2	1.8	
Days observed	0	5	6	5	5	1	0	1	23	
First date: April 25 (7)			Peak date: May 4 (11)			Last date: June 7 (1)			103	

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.1	0.3	0.4	1.3	0.0	0.4	0.1	0.1	0.0	0.1	0.0	0.3
Days observed	1	1	2	1	2	0	2	1	1	0	1	0	12
	First date: July 15 (1)				Peak date: August 14 (8)				Last date: September 23 (1)				22

Tern (subfamily total including unidentified)*Sterna sp.*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.7	0.1	6.3	1.3	0.0	1.4	1.2	
Days observed	0	0	3	1	6	4	0	2	16	
First date: May 5 (1)			Peak date: May 17 (12)			Last date: June 9 (6)			66	

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	3.1	0.4	0.4	0.0	4.9	1.3	0.7	0.0	0.3	0.4	0.4	0.0	1.0
Days observed	5	2	2	0	2	4	1	0	2	2	1	0	21
	First date: July 13 (13)				Peak date: August 11 (32)				Last date: September 22 (3)				84

Black Tern*Chlidonias niger*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	
Days observed	0	0	0	0	1	0	0	0	1	
First date: May 18 (1)			Peak date: May 18 (1)			Last date: May 18 (1)			1	

Common Tern***Sterna hirundo***

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.0	0.0	0.0	0.1	4.0	0.6	0.0	0.0	0.6				
Days observed	0	0	0	1	4	1	0	0	6				
First date: May 13 (1)			Peak date: May 17 (12)			Last date: May 28 (4)			33				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.7	0.0	0.4	0.0	0.3	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.3
Days observed	2	0	2	0	1	4	1	0	0	0	0	0	10
First date: July 15 (4)				Peak date: August 26 (5)				Last date: August 26 (5)				24	

Forster's Tern***Sterna forsteri***

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.2				
Days observed		0	0	0	0	3	0	0	0	3				
First date: May 18 (2)				Peak date: May 21 (8)			Last date: May 21 (8)				13			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0	0.1
Days observed		0	0	0	0	0	0	0	0	0	1	1	0	2
First date: September 16 (2)					Peak date: September 22 (3)				Last date: September 22 (3)				5	

Common Loon***Gavia immer***

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.6	2.7	2.0	5.4	4.7	3.0	4.6	2.9				
Days observed		0	2	4	6	7	7	7	5	38				
		First date: April 28 (2)			Peak date: June 7 (12)			Last date: June 10 (2)			152			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		2.1	1.3	2.9	2.6	6.3	12.7	2.9	8.9	2.3	1.3	1.4	1.0	3.8
Days observed		6	5	7	7	7	7	5	6	5	6	6	4	71
		First date: July 12 (3)			Peak date: September 8 (1)				Last date: September 30 (1)				316	

Double-crested Cormorant***Nannopterum auritum***

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	1.4	2.7	0.0	0.0	0.0	0.5				
Days observed		0	0	0	1	1	0	0	0	2				
		First date: May 12 (10)			Peak date: May 21 (19)			Last date: May 21 (19)			29			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Days observed		0	0	0	0	0	0	0	0	1	0	0	0	1
		First date: September 8 (1)			Peak date: September 8 (1)				Last date: September 8 (1)				1	

American White Pelican***Pelecanus erythrorhynchos***

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.6	0.3	0.6	0.2	0.2	
Days observed		0	0	0	0	1	1	1	1	4	
		First date: May 20 (4)			Peak date: May 30 (4)		Last date: June 8 (1)			11	

American White Pelican*Pelecanus erythrorhynchos*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.4	0.1	0.6	0.9	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.2
Days observed	3	1	3	1	1	0	0	0	0	1	0	1	11
First date: July 14 (1)				Peak date: August 5 (6)				Last date: September 28 (1)					20

Great Blue Heron*Ardea herodias*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	
Days observed		0	0	1	1	0	0	1	0	3	
		First date: May 2 (1)			Peak date: May 14 (1)			Last date: June 4 (1)			3

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.1
Days observed	0	0	0	0	0	0	0	0	1	0	0	2	3
First date: September 8 (1)				Peak date: September 29 (1)				Last date: September 30 (1)					3

Raptor (Guild total including Hawks and Falcons)*Accipitridae sp./Falconidae sp.*

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		1.9	7.7	11.0	9.3	5.3	5.0	3.1	2.6	5.7
Days observed		5	7	7	7	7	7	7	5	52
		First date: April 18 (3)			Peak date: May 2 (24)		Last date: June 10 (1)			316

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	2.9	3.7	3.1	4.7	6.7	12.3	17.3	11.0	10.4	8.7	6.0	4.5	7.6
Days observed	7	7	7	7	7	7	7	7	7	7	7	4	81
First date: July 12 (3)				Peak date: August 26 (30)				Last date: September 30 (10)					626

Osprey*Pandion haliaetus*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	
Days observed		0	0	1	0	0	1	0	0	2	
		First date: May 7 (1)			Peak date: May 24 (1)			Last date: May 24 (1)			2

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	1.0	0.0	0.0	0.0	0.1
Days observed	0	0	0	0	0	0	2	1	5	0	0	0	8
First date: August 27 (2)				Peak date: September 8 (3)				Last date: September 12 (1)					12

Northern Harrier*Circus hudsonius*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.6	3.1	3.3	1.7	1.1	0.4	0.1	0.0	1.3	
Days observed		3	5	6	5	4	2	1	0	26	
		First date: April 21 (1)			Peak date: April 29 (10)			Last date: June 4 (1)			73

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.1	0.7	0.6	1.4	0.9	1.1	1.3	0.4	0.5	0.6
Days observed	0	0	0	1	3	3	5	3	6	5	3	1	30
First date: August 6 (1)				Peak date: September 3 (4)				Last date: September 30 (2)					48

Hawk (Unidentified Accipiter)*Accipiter sp.*

		APRIL		MAY						JUNE					
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL			
Avg. per day		0.1	1.4	1.0	1.9	0.1	0.1	0.1	0.0			0.6			
Days observed		1	4	4	4	1	1	1	0			16			
		First date: April 20 (1)			Peak date: May 11 (7)			Last date: June 5 (1)					34		
		JULY		AUGUST				SEPTEMBER							
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL	
Avg. per day		0.1	0.1	0.0	0.3	2.1	6.9	9.6	6.0	3.3	3.4	2.3	0.3	2.9	
Days observed		1	1	0	2	3	7	7	7	6	7	3	1	45	
		First date: July 17 (1)			Peak date: September 4 (16)				Last date: September 30 (1)						240

Sharp-shinned Hawk*Accipiter striatus*

	APRIL			MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.1	0.9	1.0	1.6	0.1	0.1	0.1	0.0	0.5				
Days observed	1	1	4	4	1	1	1	0	13				
Processed	0	0	0	1-0-0	0	1-0-0	0	0	2-0-0				
First date: April 20 (1)			Peak date: May 11 (7)			Last date: June 5 (1)			28				
	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.1	0.0	0.1	2.0	6.0	9.0	6.0	3.3	3.4	2.3	0.3	2.7
Days observed	1	1	0	1	3	7	7	7	6	7	3	1	44
Processed	0-1-0	0	0	0	1-0-0	3-0-0	7-0-0	3-0-0	1-0-0	0	0	0	15-1-0
First date: July 17 (1)				Peak date: September 4 (16)				Last date: September 30 (1)				228	

Cooper's Hawk*Accipiter cooperii*

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	0	1	0	1	0	0	0	0	0	0	2
		First date: August 7 (1)				Peak date: August 17 (1)				Last date: August 17 (1)				2

Northern Goshawk*Accipiter gentilis*

		APRIL			MAY						JUNE							
	S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL	
Avg. per day		0.0		0.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Days observed		0		1		0		0		0		0		0		0		1
		First date: April 25 (1)					Peak date: April 25 (1)					Last date: April 25 (1)					1	
		JULY			AUGUST					SEPTEMBER								
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL				
Avg. per day		0.0		0.0		0.0		0.0		0.1		0.1		0.1		0.0		0.0
Days observed		0		0		0		0		1		1		1		0		3
		First date: August 12 (1)					Peak date: August 22 (1)					Last date: August 25 (1)					3	

Bald Eagle*Haliaeetus leucocephalus*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.9	1.9	2.3	1.6	1.6	2.0	1.1	0.6	1.5				
Days observed		3	7	7	5	6	6	5	2	41				
		First date: April 18 (2)			Peak date: May 7 (4)			Last date: June 8 (2)			82			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		1.3	1.4	0.9	1.9	2.3	2.4	2.7	2.7	3.9	2.6	2.9	2.5	2.3
Days observed		6	7	4	6	7	7	7	7	7	6	7	4	75
		First date: July 12 (1)			Peak date: September 7 (6)				Last date: September 30 (4)				184	

Hawk (Unidentified Buteo)*Buteo sp.*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.1	0.1	2.4	1.6	0.1	0.3	0.0	0.2	0.6				
Days observed	1	1	4	4	1	2	0	1	14				
First date: April 18 (1)			Peak date: May 2 (10)			Last date: June 6 (1)			34				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.1	0.0	0.0	0.0	1.1	2.0	0.1	0.1	0.4	0.0	0.0	0.3
Days observed	0	1	0	0	0	3	3	1	1	2	0	0	11
First date: July 22 (1)			Peak date: August 26 (10)			Last date: September 15 (1)			28				

Broad-winged Hawk*Buteo platypterus*

		APRIL		MAY					JUNE						
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL						
Avg. per day	0.0	0.0	0.3	0.3	0.0	0.1	0.0	0.0	0.1						
Days observed	0	0	1	1	0	1	0	0	3						
First date: May 2 (2)			Peak date: May 11 (2)			Last date: May 26 (1)			5						
		JULY		AUGUST				SEPTEMBER							
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL		
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.6	1.3	0.1	0.0	0.1	0.0	0.0	0.2		
Days observed	0	0	0	0	0	1	2	1	0	1	0	0	5		
First date: August 21 (4)			Peak date: August 26 (8)			Last date: September 13 (1)			15						

Swainson's Hawk*Buteo swainsoni*

		APRIL		MAY					JUNE					
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0				
Days observed		0	0	0	1	0	0	0	0	1				
First date: May 14 (1)				Peak date: May 14 (1)			Last date: May 14 (1)				1			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	0	0	0	0	1	0	0	0	0	0	1
		First date: August 23 (1)			Peak date: August 23 (1)			Last date: August 23 (1)				1		

Red-tailed Hawk*Buteo jamaicensis*

APRIL										MAY						JUNE		
S	Week 1: 18-24		2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL	
Avg. per day	0.1		0.0		0.9		0.7		0.1		0.1		0.0		0.2		0.3	
Days observed	1		0		4		2		1		1		0		1		10	
First date: April 18 (1)					Peak date: May 12 (4)					Last date: June 6 (1)					15			
JULY										AUGUST				SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL					
Avg. per day	0.0	0.1	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.3	0.0	0.0	0.1					
Days observed	0	1	0	0	0	2	3	0	0	2	0	0	8					
First date: July 22 (1)					Peak date: August 22 (2)					Last date: September 15 (1)				11				

Rough-legged Hawk*Buteo lagopus*

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.1
Days observed		0	1	1	1	0	0	0	0	3
First date: April 25 (1)			Peak date: May 2 (3)				Last date: May 12 (1)		5	

Barred Owl*Strix varia*

		APRIL			MAY							JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL		
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0			0.0		
Days observed		0	0	0	0	0	1	0	0			1		
		First date: May 26 (1)			Peak date: May 26 (1)			Last date: May 26 (1)				1		
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.3	0.0	0.7	0.4	0.3	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.2
Days observed		2	0	3	2	1	1	1	0	0	1	0	0	11
		First date: July 12 (1)			Peak date: July 28 (2)				Last date: September 18 (1)				15	

Northern Saw-whet Owl*Aegolius acadicus*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Days observed		1	0	0	0	0	0	0	0	1	
		First date: April 18 (1)			Peak date: April 18 (1)			Last date: April 18 (1)			1

Belted Kingfisher*Megasceryle alcyon*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.7	1.1	0.6	1.1	1.1	0.8	0.7				
Days observed		0	0	4	5	3	5	6	4	27				
		First date: May 3 (1)			Peak date: May 12 (3)			Last date: June 10 (1)			37			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		1.1	0.6	1.4	1.4	0.7	0.7	0.0	0.6	0.4	0.0	0.0	0.0	0.6
Days observed		6	4	7	7	5	3	0	3	3	0	0	0	38
		First date: July 12 (1)			Peak date: August 19 (2)				Last date: September 11 (1)			49		

Woodpecker (family total including unidentified)*Picidae sp.*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		2.4	1.0	3.1	21.4	3.9	1.7	1.4	1.6	4.6				
Days observed		7	3	7	7	7	5	6	4	46				
		First date: April 18 (2)			Peak date: May 11 (68)			Last date: June 9 (2)			253			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		1.7	2.3	1.6	0.9	2.3	1.9	1.4	0.9	2.0	1.6	2.6	3.3	1.9
Days observed		7	5	4	4	5	7	5	4	4	5	5	4	59
		First date: July 12 (1)			Peak date: August 18 (5)				Last date: September 30 (3)				146	

Yellow-bellied Sapsucker*Sphyrapicus varius*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.3	6.3	1.4	0.9	0.3	0.6	1.2				
Days observed		0	0	2	5	7	5	2	3	24				
Processed		0	0	1-0-0	2-0-0	1-0-1	0-0-1	1-0-0	1-0-0	6-0-2				
		First date: May 2 (1)			Peak date: May 12 (16)			Last date: June 8 (1)			67			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.6	0.0	0.3	0.0	0.1
Days observed		0	0	0	0	1	1	0	0	2	0	1	0	5
Processed		0	0	0	0	1-0-0	0	0	0	1-0-0	0	1-0-0	0	3-0-0
		First date: August 9 (1)				Peak date: September 12 (3)			Last date: September 22 (2)				8	

American Three-toed Woodpecker*Picoides dorsalis*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	0	0	1	0	0	0	1	
First date: May 16 (1)			Peak date: May 16 (1)			Last date: May 16 (1)			1	

Downy Woodpecker*Dryobates pubescens*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.7	0.4	0.3	0.7	0.6	0.1	0.4	0.0	0.4				
Days observed	3	2	2	4	4	1	3	0	19				
Processed	1-0-0	0	0	0	0	0	0	0	1-0-0				
First date: April 18 (1)			Peak date: April 26 (2)			Last date: June 3 (1)			23				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	1.0	2.0	0.9	0.1	1.1	0.9	1.0	0.6	0.4	0.7	0.7	1.8	0.9
Days observed	6	5	4	1	5	6	4	3	3	3	3	4	47
Processed	1-0-0	2-0-3	0	0	1-0-0	0	0	0	0	2-0-0	0-0-1	1-0-0	7-0-4
First date: July 13 (1)			Peak date: July 23 (6)			Last date: September 30 (2)			73				

Hairy Woodpecker*Dryobates villosus*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	1.0	0.3	0.3	1.0	0.6	0.6	0.6	0.6	0.6				
Days observed	6	1	2	4	3	4	4	3	27				
Processed	0	0	0	0-1-0	0	0	0	0	0-1-0				
First date: April 18 (1)			Peak date: May 12 (2)			Last date: June 9 (1)			33				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.7	0.1	0.4	0.3	0.9	0.4	0.1	0.0	0.3	0.4	0.3	1.3	0.4
Days observed	4	1	2	2	4	2	1	0	2	3	2	4	27
Processed	0	0	0	0	1-0-0	0	0	0	0	0	0	0	1-0-0
First date: July 12 (1)				Peak date: August 9 (2)				Last date: September 30 (1)				33	

"Yellow-shafted" Flicker*Colaptes auratus auratus*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.3	0.3	2.0	12.1	0.6	0.0	0.0	0.0	1.9				
Days observed		1	1	5	7	3	0	0	0	17				
		First date: April 22 (2)		Peak date: May 11 (54)			Last date: May 19 (2)			107				
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.3	0.4	0.1	0.4	0.1	0.0	0.4	0.3	1.1	0.3	0.3
Days observed		0	0	1	3	1	2	1	0	3	2	4	1	18
Processed		0	0	0	0	0	0	0	0	0	0	2-0-1	0	2-0-1
		First date: July 26 (2)			Peak date: September 21 (4)			Last date: September 29 (1)			24			

Pileated Woodpecker*Dryocopus pileatus*

APRIL														MAY														JUNE																						
	S	Week 1: 18-24				2: 25-1				3: 2-8				4: 9-15				5: 16-22				6: 23-29				7: 30-5				8: 6-10				TOTAL																
Avg. per day		0.4				0.0				0.1				0.0				0.0				0.0				0.0				0.2				0.1																
Days observed		2				0				1				0				0				0				0				1				4																
First date: April 20 (1)										Peak date: April 22 (2)										Last date: June 9 (1)										5																				
JULY														AUGUST														SEPTEMBER																						
	F	1: 12-18				2: 19-25				3: 26-1				4: 2-8				5: 9-15				6: 16-22				7: 23-29				8: 30-5				9: 6-12				10: 13-19				11: 20-26				12: 27-30				TOTAL
Avg. per day		0.0				0.0				0.0				0.0				0.0				0.0				0.1				0.1				0.0				0.0				0.1				0.0				0.0
Days observed		0				0				0				0				0				0				1				1				0				0				1				0				3
First date: August 23 (1)										Peak date: August 31 (1)										Last date: September 26 (1)										3																				

Falcon (including unidentified)*Falconidae sp.*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1		3: 2-8	4: 9-15		5: 16-22		6: 23-29		7: 30-5	8: 6-10	TOTAL
Avg. per day		0.1	1.1		1.9	2.6		2.1		2.0		1.7	1.8	1.7
Days observed		1	5		7	7		7		7		7	5	46
		First date: April 21 (1)				Peak date: May 11 (4)				Last date: June 10 (1)				90
		JULY			AUGUST					SEPTEMBER				
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		1.4	2.0	2.3	2.4	1.6	0.9	0.7	1.1	1.0	1.0	0.4	1.3	1.3
Days observed		7	7	7	7	7	4	2	5	6	4	2	3	61
		First date: July 12 (2)				Peak date: August 3 (4)				Last date: September 30 (3)				109

American Kestrel*Falco sparverius*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
Days observed		0	0	0	1	0	0	0	0	1	
		First date: May 11 (2)			Peak date: May 11 (2)			Last date: May 11 (2)			2

Merlin*Falco columbarius*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1		3: 2-8	4: 9-15		5: 16-22		6: 23-29		7: 30-5	8: 6-10	TOTAL
Avg. per day		0.1	1.1		1.9	2.1		1.9		2.0		1.7	1.8	1.6
Days observed		1	5		7	7		7		7		7	5	46
		First date: April 21 (1)				Peak date: May 12 (3)				Last date: June 10 (1)				85
		JULY			AUGUST					SEPTEMBER				
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		1.4	2.0	2.3	2.4	1.6	0.9	0.7	0.9	1.0	0.7	0.4	1.0	1.3
Days observed		7	7	7	7	7	4	2	4	6	4	2	3	60
		First date: July 12 (2)				Peak date: August 3 (4)				Last date: September 30 (2)				104

Peregrine Falcon*Falco peregrinus*

		APRIL			MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL					
Avg. per day		0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.1					
Days observed		0	0	0	1	2	0	0	0	3					
First date: May 9 (1)				Peak date: May 18 (1)			Last date: May 20 (1)				3				
		JULY			AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	
Days observed		0	0	0	0	0	0	0	1	0	1	0	0	2	
First date: September 2 (1)					Peak date: September 17 (1)				Last date: September 17 (1)					2	

Passerine sp. (order total including unidentified)*Passeriformes sp.*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		378.6	434.3	666.9	633.3	415.1	569.1	227.9	206.4	441.4				
Days observed		7	7	7	7	7	7	7	5	54				
		First date: April 18 (104)			Peak date: May 26 (1,740)			Last date: June 10 (136)			24,308			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		221.3	176.9	412.4	250.1	407.4	750.9	1101.3	1031.6	595.3	307.7	204.4	100.3	463.3
Days observed		7	7	7	7	7	7	7	7	7	7	7	4	81
		First date: July 12 (150)			Peak date: September 4 (3,664)				Last date: September 30 (64)				38,616	

Flycatcher (family total including *Empidonax* sp., unidentified)*Tyrannidae* sp.

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.6	7.6	10.3	16.1	11.1	19.0	8.1
Days observed		0	0	4	6	7	7	7	5	36
First date: May 3 (1)				Peak date: June 7 (29)			Last date: June 10 (6)			415

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	6.4	2.9	11.6	12.6	15.7	14.1	15.3	3.9	2.7	0.0	0.1	0.0	7.1
Days observed	7	6	7	7	6	7	7	5	6	0	1	0	59
	First date: July 12 (7)				Peak date: August 5 (33)				Last date: September 20 (1)				597

Great Crested Flycatcher*Myiarchus crinitus*

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Days observed		0	0	0	0	0	0	1	0	1
First date: May 30 (1)				Peak date: May 30 (1)			Last date: May 30 (1)			1

Eastern Kingbird*Tyrannus tyrannus*

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.4	1.4	0.2	0.3
Days observed		0	0	0	1	0	3	1	1	6
First date: May 11 (1)				Peak date: May 31 (10)			Last date: June 9 (1)			15

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.0	0.1	0.3	1.1	6.0	8.4	0.6	0.0	0.0	0.0	0.0	1.4
Days observed	1	0	1	1	3	6	6	3	0	0	0	0	21
	First date: July 13 (1)				Peak date: August 23 (18)				Last date: September 4 (1)				117

Olive-sided Flycatcher*Contopus cooperi*

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	0	0	0	1	1	0	0	0	0	0	2
First date: August 17 (1)				Peak date: August 24 (1)					Last date: August 24 (1)				2

Western Wood-Pewee*Contopus sordidulus*

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	0	1	0	0	0	0	1
First date: May 12 (1)				Peak date: May 12 (1)			Last date: May 12 (1)			1

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Days observed	1	1	2	0	0	0	0	0	0	0	0	0	4
Processed	0	0	1-0-0	0	0	0	0	0	0	0	0	0	1-0-0
	First date: July 18 (1)				Peak date: July 29 (2)				Last date: July 30 (1)				5

Empidonax* Flycatcher (genus total including unidentified)**Empidonax* sp.**

	APRIL		MAY					JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	4.6	8.0	12.9	8.0	17.6	6.4
Days observed		0	0	0	4	6	7	7	5	29
		First date: May 12 (7)			Peak date: June 7 (28)			Last date: June 10 (4)		322

		JULY			AUGUST					SEPTEMBER				
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		5.1	2.6	10.3	11.3	14.0	5.6	5.9	3.1	2.6	0.0	0.1	0.0	5.0
Days observed		7	6	7	7	6	7	6	5	5	0	1	0	57
		First date: July 12 (5)				Peak date: August 5 (32)				Last date: September 20 (1)				424

Yellow-bellied Flycatcher***Empidonax flaviventris***

	APRIL		MAY					JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	0.2
Days observed		0	0	0	0	0	0	2	3	5
Processed		0	0	0	0	0	0	3-0-0	3-0-0	6-0-0
		First date: June 4 (1)			Peak date: June 8 (3)			Last date: June 9 (1)		8

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Days observed		0	0	0	1	1	1	0	0	1	0	0	0	4
Processed		0	0	0	0	0	1-0-0	0	0	1-0-0	0	0	0	2-0-0
		First date: August 3 (1)				Peak date: August 12 (1)				Last date: September 11 (1)				4

Alder Flycatcher***Empidonax alnorum***

	APRIL		MAY					JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	0.0	0.0	1.1	4.0	11.2	2.0
Days observed		0	0	0	0	0	5	6	5	16
Processed		0	0	0	0	0	4-0-0	16-0-0	27-0-0	47-0-0
		First date: May 23 (1)			Peak date: June 7 (22)			Last date: June 10 (2)		92

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	2.4	0.0	1.3	2.9	2.6	1.6	2.6	0.3	0.6	0.0	0.0	0.0	1.2
Days observed	6	0	6	6	5	6	5	1	3	0	0	0	38
Processed	5-0-0	0	7-0-0	15-0-0	18-0-0	10-0-0	15-0-0	2-0-0	4-0-0	0	0	0	76-0-0
	First date: July 12 (2)				Peak date: August 5 (11)				Last date: September 11 (1)				99

Least Flycatcher***Empidonax minimus***

	APRIL		MAY					JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	3.9	5.6	9.6	3.3	3.8	3.3
Days observed		0	0	0	4	6	7	7	5	29
Processed		0	0	0	6-0-0	13-0-0	23-0-0	4-0-0	5-0-0	51-0-0
		First date: May 12 (6)			Peak date: May 26 (19)			Last date: June 10 (2)		175

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		2.6	2.0	7.1	4.9	7.3	1.4	0.9	2.0	1.0	0.0	0.0	0.0	2.4
Days observed		7	6	7	7	5	4	2	3	2	0	0	0	43
Processed		3-0-0	7-0-1	23-0-1	11-0-3	15-0-0	2-0-0	2-0-0	7-0-0	4-0-0	0	0	0	74-0-5
		First date: July 12 (3)				Peak date: August 9 (22)				Last date: September 10 (2)				204

Eastern Phoebe*Sayornis phoebe*

APRIL														MAY														JUNE																					
S	Week 1: 18-24				2: 25-1				3: 2-8				4: 9-15				5: 16-22				6: 23-29				7: 30-5				8: 6-10				TOTAL																
Avg. per day	0.0				0.0				0.6				2.4				2.0				2.3				1.6				1.2				1.3																
Days observed	0				0				4				6				7				7				7				5				36																
Processed	0				0				0				1-0-0				1-0-0				2-0-0				0				0				4-0-0																
First date: May 3 (1)								Peak date: May 20 (5)								Last date: June 10 (2)								68																									
JULY														AUGUST								SEPTEMBER																											
F	1: 12-18				2: 19-25				3: 26-1				4: 2-8				5: 9-15				6: 16-22				7: 23-29				8: 30-5				9: 6-12				10: 13-19				11: 20-26				12: 27-30				TOTAL
Avg. per day	1.0				0.1				0.7				0.7				0.4				0.4				0.0				0.0				0.0				0.0				0.0				0.0				0.3
Days observed	6				1				2				3				2				3				0				0				0				0				0				0				17
Processed	0				0				3-0-0				1-0-0				0				0				0				0				0				0				0				0				4-0-0
First date: July 12 (2)								Peak date: July 26 (3)								Last date: August 19 (1)								24																									

Say's Phoebe*Sayornis saya*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1	
Days observed		0	0	0	2	1	0	0	0	3	
		First date: May 11 (1)			Peak date: May 14 (1)		Last date: May 17 (1)			3	

Vireo (family total including unidentified)*Vireonidae sp.*

		APRIL			MAY						JUNE						
	S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL
Avg. per day		0.0	0.0		0.0		0.6		0.9		3.7		8.0		10.6		3.0
Days observed		0	0		0		3		6		7		7		5		28
		First date: May 12 (1)					Peak date: June 7 (14)					Last date: June 10 (7)					145
		JULY			AUGUST					SEPTEMBER							
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL			
Avg. per day		10.7	9.3	8.3	8.9	14.9	5.6	3.6	3.1	4.0	2.4	0.1	0.0	5.9			
Days observed		7	7	7	7	7	7	6	4	7	3	1	0	63			
		First date: July 12 (6)					Peak date: August 9 (30)					Last date: September 20 (1)					496

Blue-headed Vireo*Vireo solitarius*

	APRIL			MAY					JUNE				
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.0	0.0	0.0	0.1	0.7	0.9	0.1	0.2	0.3				
Days observed	0	0	0	1	5	4	1	1	12				
First date: May 14 (1)			Peak date: May 27 (3)			Last date: June 6 (1)			14				
	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1
Days observed	0	1	0	0	0	1	0	0	1	1	1	0	5
Processed	0	1-0-0	0	0	0	1-0-0	0	0	0	1-0-0	1-0-0	0	4-0-0
First date: July 24 (1)			Peak date: September 6 (1)				Last date: September 20 (1)				5		

Philadelphia Vireo*Vireo philadelphicus*

		APRIL			MAY						JUNE														
S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL									
Avg. per day	0.0		0.0		0.0		0.0		0.0		0.0		1.1		1.0		0.3								
Days observed	0		0		0		0		0		0		6		4		10								
Processed	0		0		0		0		0		0		1-0-0		0		1-0-0								
First date: May 30 (1)					Peak date: June 4 (2)					Last date: June 9 (1)					13										
		JULY			AUGUST					SEPTEMBER															
F	1: 12-18	2: 19-25		3: 26-1		4: 2-8		5: 9-15		6: 16-22		7: 23-29		8: 30-5		9: 6-12		10: 13-19		11: 20-26		12: 27-30		TOTAL	
Avg. per day	1.0		1.3		2.1		2.3		5.4		1.1		0.6		0.4		0.3		0.1		0.0		0.0		1.2
Days observed	5		3		5		6		7		4		2		3		2		1		0		0		38
Processed	1-0-0		5-0-0		4-0-0		4-0-0		10-0-3		5-0-0		3-0-0		2-0-0		1-0-0		1-0-0		0		0		36-0-3
First date: July 12 (1)					Peak date: August 11 (9)					Last date: September 13 (1)					103										

Warbling Vireo***Vireo gilvus***

		APRIL			MAY							JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL		
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.6	0.4	0.0			0.1		
Days observed		0	0	0	1	0	2	3	0			6		
		First date: May 13 (1)			Peak date: May 27 (2)			Last date: June 5 (1)			8			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.1	0.0	0.4	2.3	1.9	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.4
Days observed		1	0	2	6	5	1	2	0	0	0	0	0	17
Processed		1-0-0	0	0	5-0-1	2-0-1	0	0	0	0	0	0	0	8-0-2
		First date: July 17 (1)			Peak date: August 9 (5)				Last date: August 28 (1)				36	

Red-eyed Vireo***Vireo olivaceus***

		APRIL			MAY						JUNE													
S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL								
Avg. per day	0.0	0.0		0.0		0.3		0.0		2.0		6.1		8.8		2.2								
Days observed	0	0		0		2		0		6		7		5		20								
Processed	0	0		0		0		0		2-0-0		8-0-0		8-0-0		18-0-0								
First date: May 12 (1)				Peak date: June 7 (12)				Last date: June 10 (6)						103										
		JULY			AUGUST					SEPTEMBER														
F	1: 12-18	2: 19-25		3: 26-1		4: 2-8		5: 9-15		6: 16-22		7: 23-29		8: 30-5		9: 6-12		10: 13-19		11: 20-26		12: 27-30		TOTAL
Avg. per day	9.1	7.9		5.7		4.1		7.6		3.6		2.4		2.7		3.6		2.1		0.0		0.0		4.1
Days observed	7	7		7		7		7		7		4		4		6		3		0		0		59
Processed	17-1-1	14-3-4		5-1-1		2-0-2		15-0-6		6-0-0		12-0-0		10-0-1		12-0-4		4-0-6		0		0		97-5-25
First date: July 12 (5)				Peak date: August 9 (16)				Last date: September 16 (3)						342										

Shrike (genus total including Loggerhead, Northern, unidentified)***Lanius ludovicianus/borealis***

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Days observed	0	0	0	0	1	0	0	0	0	0	0	0	1
	First date: August 12 (6)				Peak date: August 11 (0)				Last date: August 12 (6)				6

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

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1				
Days observed		0	0	0	0	0	0	1	2	3				
		First date: June 4 (1)			Peak date: June 7 (1)			Last date: June 8 (1)			3			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	1	0	0	0	0	0	0	0	0	0	0	1
		First date: July 25 (1)			Peak date: July 25 (1)				Last date: July 25 (1)				1	

Blue Jay***Cyanocitta cristata***

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.0	0.1	1.3	5.0	0.7	1.4	2.0	0.2	1.3
Days observed		0	1	2	7	4	6	7	1	28
Processed		0	0	0	1-0-0	0	0	1-0-0	0	2-0-0
		First date: May 1 (1)			Peak date: May 13 (9)		Last date: June 6 (1)			75

Blue Jay*Cyanocitta cristata*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.7	0.6	0.0	0.1	0.4	0.6	0.6	2.6	3.0	2.9	2.5	1.2
Days observed	0	4	2	0	1	2	3	3	7	7	7	4	40
Processed	0	0	0	0	0	0	0	0	2-0-0	3-0-0	3-0-1	0	8-0-1
First date: July 21 (1)				Peak date: September 16 (5)				Last date: September 30 (2)					90

Black-billed Magpie*Pica hudsonia*

	APRIL		MAY				JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	0.3	0.4	0.1	0.3	0.6	0.4	0.7	0.2	0.4
Days observed	2	3	1	2	2	3	2	1	16
First date: April 21 (1)			Peak date: May 21 (3)			Last date: June 9 (1)			21

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	1.4	0.9	2.0	0.0	0.1	4.1	0.6	0.3	0.6	0.5	0.9
Days observed	0	0	3	1	6	0	1	4	2	1	3	1	22
First date: July 27 (4)				Peak date: September 3 (13)				Last date: September 30 (2)					72

American Crow*Corvus brachyrhynchos*

	APRIL		MAY				JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	4.3	4.6	5.1	6.9	3.3	3.0	3.1	2.2	4.1
Days observed	7	7	7	7	7	7	7	5	54
First date: April 18 (9)			Peak date: May 11 (21)			Last date: June 10 (2)			223

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	2.0	2.1	2.6	3.1	4.6	6.1	5.7	22.0	5.9	1.1	8.3	0.5	5.3
Days observed	7	6	7	7	7	7	7	7	7	3	1	1	67
First date: July 12 (2)				Peak date: August 30 (58)				Last date: September 27 (2)					447

Common Raven*Corvus corax*

	APRIL		MAY				JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	1.9	1.1	1.4	1.6	1.6	1.7	1.7	1.2	1.5
Days observed	6	7	7	6	6	7	7	4	50
First date: April 18 (2)			Peak date: May 8 (4)			Last date: June 9 (2)			83

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	1.3	1.6	1.0	2.1	2.7	3.3	2.7	3.9	15.0	5.9	5.0	2.8	3.9
Days observed	6	6	5	5	6	7	7	7	7	7	7	4	74
First date: July 12 (2)				Peak date: September 10 (42)				Last date: September 30 (2)					322

Black-capped Chickadee*Poecile atricapillus*

	APRIL		MAY				JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day	3.9	2.9	2.7	2.1	2.0	2.0	1.3	0.4	2.2
Days observed	6	7	7	7	7	6	5	2	47
Processed	3-2-0	1-0-0	0-0-1	0	0	0	0	0	4-2-1
First date: April 18 (4)			Peak date: April 24 (9)			Last date: June 9 (1)			120

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	3.9	3.9	5.4	3.6	2.4	2.7	2.7	2.6	2.7	2.6	6.6	3.3	3.5
Days observed	7	6	7	6	6	5	7	5	6	5	7	4	71
Processed	3-0-0	4-0-0	2-0-1	0	0	0	0	1-0-0	0-0-1	0-0-3	10-2-1	0-0-1	20-2-7
First date: July 12 (4)				Peak date: September 26 (12)				Last date: September 30 (2)					286

Horned Lark*Eremophila alpestris*

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.6	12.3	2.1	0.4	0.0	0.1	0.0	0.0	1.9
Days observed		1	3	2	2	0	1	0	0	9
		First date: April 18 (4)			Peak date: April 29 (56)		Last date: May 25 (1)			109

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.5	0.1
Days observed	0	0	0	0	0	0	0	0	1	0	1	1	3
First date: September 11 (2)				Peak date: September 22 (2)				Last date: September 28 (2)					6

Swallow (family total including unidentified)*Hirundinidae sp.*

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.0	0.1	3.6	16.7	8.0	9.1	1.1	0.0	4.8
Days observed		0	1	3	4	4	2	2	0	16
		First date: May 1 (1)			Peak date: May 12 (112)		Last date: May 31 (7)			271

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	12.3	1.7	4.6	1.6	1.9	0.7	0.0	0.0	0.0	0.0	1.9
Days observed	0	0	3	2	4	4	3	2	0	0	0	0	18
First date: July 28 (5)				Peak date: July 31 (80)				Last date: September 3 (2)					159

Bank Swallow*Riparia riparia*

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.1	5.1	0.0	0.0	0.7
Days observed		0	0	0	0	1	1	0	0	2
		First date: May 18 (1)			Peak date: May 26 (36)		Last date: May 26 (36)			37

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	2.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.2
Days observed	0	0	0	0	3	3	1	0	0	0	0	0	7
First date: August 11 (8)				Peak date: August 11 (8)				Last date: August 26 (2)					20

Tree Swallow*Tachycineta bicolor*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	12.3	3.6	0.3	0.3	0.0	2.1	
Days observed		0	0	0	4	2	2	1	0	9	
		First date: May 11 (1)			Peak date: May 12 (82)			Last date: May 31 (2)			115

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	11.3	1.0	2.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	1.3
Days observed	0	0	3	1	2	1	1	0	0	0	0	0	8
First date: July 28 (3)				Peak date: July 31 (75)				Last date: August 23 (2)					107

Northern Rough-winged Swallow*Stelgidopteryx serripennis*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	0	1	0	0	0	0	0	0	0	0	1
First date: August 8 (1)				Peak date: August 8 (1)				Last date: August 8 (1)					1

Cliff Swallow*Petrochelidon pyrrhonota*

		APRIL			MAY							JUNE					
	S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL
Avg. per day		0.0	0.0		0.0		0.1		0.0		1.7		0.0		0.0		0.2
Days observed		0	0		0		1		0		1		0		0		2
		First date: May 12 (1)					Peak date: May 26 (12)					Last date: May 26 (12)					13
		JULY			AUGUST					SEPTEMBER							
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL			
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.1			
Days observed		0	0	0	0	0	0	1	0	0	0	0	0	1			
		First date: August 29 (7)					Peak date: August 29 (7)					Last date: August 29 (7)					7

Ruby-crowned Kinglet*Corthylio calendula*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.4	0.9	1.9	3.6	0.6	0.0	0.1	0.0	0.9				
Days observed	3	4	6	6	3	0	1	0	23				
Processed	0	2-0-0	2-0-0	2-0-0	0	0	1-0-0	0	7-0-0				
First date: April 19 (1)			Peak date: May 13 (9)			Last date: June 4 (1)			52				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.4	0.0	0.1	0.1	0.0	0.1	2.6	3.3	3.7	1.5	1.0
Days observed	0	0	2	0	1	1	0	1	6	6	6	3	26
Processed	0	0	2-0-0	0	0	0	0	0	2-0-0	7-0-0	7-0-0	0	18-0-0
First date: July 28 (2)			Peak date: September 20 (8)			Last date: September 29 (3)							79

Golden-crowned Kinglet*Regulus satrapa*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1				
Days observed	0	1	0	1	0	1	0	0	3				
First date: April 25 (1)			Peak date: May 14 (1)			Last date: May 25 (1)			3				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6	1.0	3.3	0.4
Days observed	0	0	0	0	0	0	0	1	1	3	4	4	13
Processed	0	0	0	0	0	0	0	0	0	0	1-0-0	4-0-0	5-0-0
First date: September 2 (1)			Peak date: September 30 (8)				Last date: September 30 (8)				26		

Bohemian Waxwing*Bombycilla garrulus*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Days observed		1	0	0	0	0	0	0	0	1	
		First date: April 19 (5)			Peak date: April 19 (5)		Last date: April 19 (5)			5	

Cedar Waxwing*Bombycilla cedrorum*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL		
Avg. per day		0.0	0.0	0.0	0.0	0.0	4.3	34.9	39.4			9.8		
Days observed		0	0	0	0	0	5	6	5			16		
		First date: May 25 (4)			Peak date: June 4 (126)			Last date: June 10 (55)					471	
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		10.7	12.3	15.3	12.6	31.9	107.0	147.0	69.0	45.3	18.1	4.3	1.0	39.5
Days observed		7	7	7	7	7	7	7	6	7	6	4	1	73
Processed		3-0-0	3-0-0	0	2-0-0	0	2-0-0	0	0	0	0	1-0-0	0	11-0-0
		First date: July 12 (14)				Peak date: August 26 (238)				Last date: September 27 (4)				3,318

Red-breasted Nuthatch*Sitta canadensis*

		APRIL			MAY						JUNE													
S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL								
Avg. per day	0.0	0.0		0.0		0.7		1.0		0.7		0.4		0.0		0.4								
Days observed	0	0		0		3		5		4		3		0		15								
First date: May 12 (1)				Peak date: May 15 (3)				Last date: June 3 (1)				20												
		JULY			AUGUST					SEPTEMBER														
F	1: 12-18	2: 19-25		3: 26-1		4: 2-8		5: 9-15		6: 16-22		7: 23-29		8: 30-5		9: 6-12		10: 13-19		11: 20-26		12: 27-30		TOTAL
Avg. per day	1.9	0.1		0.9		0.1		1.4		1.3		1.9		2.1		2.0		1.7		5.6		4.5		2.0
Days observed	7	1		4		1		5		6		5		6		7		5		7		4		58
Processed	1-0-0	0		1-0-0		0		0		0		1-0-0		3-0-0		3-0-0		2-0-0		9-0-1		4-0-0		24-0-1
First date: July 12 (1)				Peak date: September 26 (17)				Last date: September 30 (3)				151												

White-breasted Nuthatch*Sitta carolinensis*

	JULY			AUGUST					SEPTEMBER				
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Days observed	1	0	0	0	0	0	0	0	1	0	1	0	3
Processed	0	0	0	0	0	0	0	0	0	0	0	0	0
First date: July 15 (1)					Peak date: September 12 (1)				Last date: September 26 (1)				3

Brown Creeper*Certhia americana*

		APRIL			MAY						JUNE												
	S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL						
Avg. per day		0.0		0.0		0.0		0.0		0.0		0.1		0.0		0.0		0.0					
Days observed		0		0		0		0		0		1		0		0		1					
Processed		0		0		0		0		0		1-0-0		0		0		1-0-0					
		First date: May 28 (1)					Peak date: May 28 (1)					Last date: May 28 (1)					1						
		JULY			AUGUST						SEPTEMBER												
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL									
Avg. per day		0.0		0.0		0.1		0.0		0.0		0.0		0.1		0.6		0.0		0.3		0.1	
Days observed		0		0		1		0		0		0		0		1		2		0		1	5
Processed		0		0		1-0-0		0		0		0		0		1-0-0		1-0-0		0		0	3-0-0
		First date: July 27 (1)					Peak date: September 19 (2)					Last date: September 27 (1)					7						

Wren (family total including unidentified)*Troglodytidae sp.*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	1.3	1.3	1.1	1.9	1.0	0.6	0.9				
Days observed		0	0	4	7	6	6	5	3	31				
		First date: May 4 (3)			Peak date: May 23 (3)			Last date: June 9 (1)			49			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Days observed		4	2	1	0	0	0	0	1	0	0	0	0	8
		First date: July 12 (1)			Peak date: July 15 (2)				Last date: August 30 (1)				9	

House Wren*Troglodytes aedon*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.1	0.9	0.4	0.2	0.2	
Days observed		0	0	0	0	1	5	3	1	10	
Processed		0	0	0	0	0	3-0-0	1-0-0	0	4-0-0	
		First date: May 22 (1)			Peak date: May 28 (2)			Last date: June 8 (1)			11

House Wren***Troglodytes aedon***

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Days observed	1	1	0	0	0	0	0	1	0	0	0	0	3
Processed	0	1-0-0	0	0	0	0	0	0	0	0	0	0	1-0-0
First date: July 12 (1)				Peak date: July 22 (1)				Last date: August 30 (1)					3

Winter Wren***Troglodytes hiemalis***

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	1.3	1.1	1.0	1.0	0.6	0.4	0.7	
Days observed		0	0	4	7	6	5	4	2	28	
		First date: May 4 (3)			Peak date: May 8 (3)			Last date: June 9 (1)			37

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Days observed	3	1	1	0	0	0	0	0	0	0	0	0	5
Processed	2-0-0	0	0-0-1	0	0	0	0	0	0	0	0	0	2-0-1
First date: July 15 (2)				Peak date: July 15 (2)				Last date: July 28 (1)					6

Gray Catbird***Dumetella carolinensis***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	
Days observed	0	0	0	0	0	1	0	0	1	
Processed	0	0	0	0	0	1-0-0	0	0	1-0-0	
	First date: May 29 (1)		Peak date: May 29 (1)			Last date: May 29 (1)			1	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.3	0.8	0.2
Days observed	1	0	1	0	2	0	0	0	3	0	2	3	12
Processed	0	0	0	0	1-0-0	0	0	0	0	0	0	0	1-0-0
First date: July 17 (1)				Peak date: September 11 (1)				Last date: September 30 (1)					12

European Starling***Sturnus vulgaris***

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.4	1.3	0.1	0.0	0.2	
Days observed		0	0	0	0	2	3	1	0	6	
		First date: May 18 (1)			Peak date: May 26 (5)			Last date: May 31 (1)			13

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	0	0	0	1	0	0	0	0	0	0	1
First date: August 16 (1)				Peak date: August 16 (1)				Last date: August 16 (1)					1

Townsend's Solitaire***Myadestes townsendi***

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Days observed		1	0	0	0	0	0	0	0	1	
		First date: April 19 (4)			Peak date: April 19 (4)			Last date: April 19 (4)			4

Catharus Thrush (genus total including unidentified)**Catharus sp.**

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.4	0.7	6.7	18.7	15.6	8.4	3.8	6.8				
Days observed		0	2	5	7	7	7	7	5	40				
First date: April 30 (1)				Peak date: May 19 (49)			Last date: June 10 (2)				373			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		12.4	7.0	14.6	15.6	41.1	17.9	15.9	5.9	7.3	9.3	2.1	1.0	12.5
Days observed		7	7	7	7	7	7	7	7	7	6	6	4	79
First date: July 12 (10)					Peak date: August 11 (67)				Last date: September 30 (1)					1,047

Gray-cheeked Thrush**Catharus minimus**

		APRIL			MAY						JUNE						
	S	Week 1: 18-24	2: 25-1		3: 2-8	4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10	TOTAL		
Avg. per day		0.0		0.0		0.0		0.6		2.0		0.3		0.0		0.4	
Days observed		0		0		0		2		6		2		0		10	
Processed		0		0		0		1-0-0		9-0-0		1-0-0		0		11-0-0	
		First date: May 13 (1)					Peak date: May 19 (4)					Last date: May 25 (1)					20
		JULY			AUGUST					SEPTEMBER							
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL			
Avg. per day		0.0		0.0		0.0		0.0		0.1		0.3		0.6		0.1	
Days observed		0		0		0		0		1		1		3		5	
Processed		0		0		0		0		1-0-0		2-0-0		2-0-1		5-0-1	
		First date: August 30 (1)					Peak date: September 16 (2)					Last date: September 19 (1)					7

Swainson's Thrush**Catharus ustulatus**

		APRIL		MAY						JUNE															
S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL									
Avg. per day	0.0		0.1		0.1		4.1		12.7		13.3		8.4		3.8		5.3								
Days observed	0		1		1		6		6		7		7		5		33								
Processed	0		0		1-0-0		10-0-0		46-0-0		47-2-0		31-0-0		2-0-0		137-2-0								
First date: April 30 (1)					Peak date: May 19 (33)					Last date: June 10 (2)					291										
		JULY			AUGUST					SEPTEMBER															
F	1: 12-18	2: 19-25		3: 26-1		4: 2-8		5: 9-15		6: 16-22		7: 23-29		8: 30-5		9: 6-12		10: 13-19		11: 20-26		12: 27-30		TOTAL	
Avg. per day	11.6		6.7		14.3		14.9		38.3		13.7		13.9		5.3		6.4		6.7		1.4		0.3		11.1
Days observed	7		7		7		7		7		7		7		7		7		6		6		1		76
Processed	36-0-1		18-2-1		37-0-9		37-0-19		148-0-21		30-0-5		43-0-1		18-0-2		19-0-6		21-0-14		5-0-2		0		412-2-81
First date: July 12 (10)					Peak date: August 11 (62)					Last date: September 28 (1)					933										

Hermit Thrush**Catharus guttatus**

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL		
Avg. per day		0.0	0.3	0.6	0.6	0.1	0.0	0.0	0.0			0.2		
Days observed		0	1	4	2	1	0	0	0			8		
Processed		0	1-0-0	1-0-0	2-0-0	1-0-0	0	0	0			5-0-0		
		First date: May 1 (2)			Peak date: May 12 (3)			Last date: May 19 (1)			11			
		JULY		AUGUST					SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.7	0.3	0.1	0.0	0.3	0.3	0.1	0.0	0.1	1.3	0.4	0.8	0.4
Days observed		4	2	1	0	2	2	1	0	1	4	3	3	23
Processed		1-0-0	1-0-0	1-0-0	0	1-0-0	0	0	0	1-0-0	6-0-2	3-0-0	1-0-0	15-0-2
		First date: July 13 (1)				Peak date: September 13 (5)				Last date: September 30 (1)				29

American Robin*Turdus migratorius*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		11.7	80.6	137.3	90.7	5.9	4.4	8.0	8.4	43.4	
Days observed		6	7	7	7	7	7	7	5	53	
Processed		0	1-0-0	0	3-0-0	2-0-1	2-0-2	8-1-3	2-1-0	18-2-6	
		First date: April 18 (5)			Peak date: May 4 (578)			Last date: June 10 (7)			2,412

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	2.6	1.6	2.3	3.9	9.0	6.6	2.1	0.7	3.1	3.6	1.1	6.0	3.5
Days observed	7	4	7	7	7	7	7	3	4	4	3	3	63
Processed	2-0-0	1-0-0	0	1-0-0	6-0-0	0	0	0	0	0	0	0	10-0-0
First date: July 12 (2)				Peak date: September 29 (17)				Last date: September 29 (17)					280

American Pipit*Anthus rubescens*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		1.0	5.4	12.4	5.3	1.1	0.6	0.0	0.0	3.2	
Days observed		2	6	7	7	2	3	0	0	27	
		First date: April 23 (4)			Peak date: May 4 (36)		Last date: May 26 (1)			181	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	1.0	8.7	24.1	6.6	18.6	6.0	5.4
Days observed	0	0	0	0	0	0	2	6	7	7	5	4	31
First date: August 26 (1)				Peak date: September 21 (83)				Last date: September 30 (5)					437

Evening Grosbeak*Coccothraustes vespertinus*

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		1.3	1.1	7.6	6.0	2.4	0.9	0.4	0.0	2.5
Days observed		5	5	5	6	6	3	3	0	33
		First date: April 18 (1)		Peak date: May 12 (17)			Last date: June 3 (1)			138

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	2.0	0.6	0.3	0.7	0.3	0.4	0.3	0.4	0.0	0.3	0.5	0.5
Days observed	0	2	2	1	1	2	2	2	3	0	1	1	17
First date: July 23 (4)				Peak date: July 25 (10)				Last date: September 29 (2)					39

Finch (family total including unidentified)*Fringillidae sp.*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	144.9	54.6	39.9	123.7	30.7	30.7	15.7	12.8	56.6	
Days observed	8	10	13	14	14	14	14	8	95	
	First date: August 9 (60)		Peak date: April 24 (440)			Last date: November 17 (20)			3,145	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	25.0	9.3	25.9	21.6	68.7	93.1	42.7	13.4	33.4	85.7	32.3	19.3	39.2
Days observed	14	13	14	10	14	14	12	10	12	12	14	8	147
First date: January 22 (9)				Peak date: September 19 (512)				Last date: July 1 (6)					3,235

Purple Finch*Haemorhous purpureus*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.1	1.9	9.1	12.7	2.9	0.9	0.3	0.0	3.5	
Days observed		1	3	6	7	4	3	1	0	25	
		First date: April 22 (1)			Peak date: May 11 (37)			Last date: June 2 (2)			195

Purple Finch***Haemorhous purpureus***

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	1.0	0.3	3.4	3.4	12.0	15.1	10.4	2.7	0.3	0.3	0.4	0.0	4.1
Days observed	4	1	5	5	6	7	5	4	2	1	2	0	42
Processed	1-0-0	0	0	0	3-0-0	0	0	0	0	0	0	0	4-0-0
First date: July 13 (1)				Peak date: August 18 (34)				Last date: September 22 (1)					346

Common Redpoll***Acanthis flammea***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	144.6	50.0	21.3	88.0	0.0	0.0	0.0	0.0	38.0	
Days observed	7	7	7	4	0	0	0	0	25	
Processed	1-0-0	0	0	0	0	0	0	0	1-0-0	
	First date: April 18 (59)		Peak date: April 24 (440)			Last date: May 12 (8)			2,127	

Red Crossbill***Loxia curvirostra***

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.1
Days observed	0	0	0	0	0	0	1	0	0	0	0	0	1
Processed	0	0	0	0	0	0	0	0	0	0	0	0	0
First date: August 29 (6)				Peak date: August 29 (6)				Last date: August 29 (6)					6

White-winged Crossbill***Loxia leucoptera***

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	
Days observed		0	0	0	0	1	1	0	0	2	
		First date: May 19 (1)			Peak date: May 24 (1)			Last date: May 24 (1)			2

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	1.3	1.0	5.6	8.1	2.1	5.7	3.0	2.3	3.4	1.7	1.7	0.8	3.1
Days observed	5	3	7	5	4	6	5	5	2	3	5	2	52
First date: July 12 (1)				Peak date: August 8 (26)				Last date: September 30 (2)					255

Pine Siskin***Spinus pinus***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.4	0.0	4.6	12.3	14.3	6.0	4.6	5.3	
Days observed	0	1	0	4	7	7	7	4	30	
First date: May 1 (3)			Peak date: May 26 (57)			Last date: June 9 (8)			286	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	10.9	3.9	6.7	3.3	20.1	26.3	8.6	2.9	14.3	41.7	14.9	9.3	13.6
Days observed	7	6	7	4	7	7	6	4	6	6	7	4	71
Processed	0	1-0-0	0	0	0	0	0	0	0	0	0	0	1-0-0
First date: July 12 (4)				Peak date: September 19 (256)				Last date: September 30 (2)					1,111

American Goldfinch***Spinus tristis***

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.8	0.4	
Days observed		0	0	0	0	0	0	5	4	9	
		First date: May 31 (1)			Peak date: June 3 (4)		Last date: June 9 (2)			20	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.4	0.0	0.0	0.0	0.1
Days observed	0	0	0	0	0	1	1	0	1	0	0	0	3
First date: August 18 (1)				Peak date: September 11 (3)				Last date: September 11 (3)					5

Lapland Longspur*Calcarius lapponicus*

APRIL														MAY														JUNE																					
S	Week 1: 18-24				2: 25-1				3: 2-8				4: 9-15				5: 16-22				6: 23-29				7: 30-5				8: 6-10				TOTAL																
Avg. per day	0.7				3.0				1.7				0.4				0.0				0.0				0.0				0.0				0.7																
Days observed	3				3				5				3				0				0				0				0				14																
First date: April 18 (1)								Peak date: April 28 (18)								Last date: May 14 (1)								41																									
JULY														AUGUST								SEPTEMBER																											
F	1: 12-18				2: 19-25				3: 26-1				4: 2-8				5: 9-15				6: 16-22				7: 23-29				8: 30-5				9: 6-12				10: 13-19				11: 20-26				12: 27-30				TOTAL
Avg. per day	0.0				0.0				0.0				0.0				0.0				0.0				0.6				0.7				4.1				0.9				1.7				1.8				0.8
Days observed	0				0				0				0				0				0				1				1				5				4				4				2				17
First date: August 29 (4)								Peak date: September 11 (14)								Last date: September 30 (1)								63																									

Snow Bunting*Plectrophenax nivalis*

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		1.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Days observed		3	0	1	0	0	0	0	0	4
First date: April 19 (9)			Peak date: April 19 (9)				Last date: May 4 (1)		12	

Sparrow (family total including unidentified)*Passerellidae sp.*

		APRIL		MAY					JUNE				
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	205.7	161.9	135.6	59.3	77.9	285.7	25.1	20.8	121.5				
Days observed	7	7	7	7	7	7	7	5	54				
First date: April 18 (19)			Peak date: May 26 (1,144)			Last date: June 10 (14)			6,762				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	20.3	17.7	28.3	23.1	41.1	36.3	19.1	16.0	11.7	15.1	13.3	16.3	21.5
Days observed	7	7	7	7	7	7	7	7	7	7	6	4	80
First date: July 12 (16)				Peak date: August 12 (80)				Last date: September 30 (5)				1,760	

Lark Sparrow*Chondestes grammacus*

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	0	1	0	0	0	0	1
First date: May 13 (1)			Peak date: May 13 (1)				Last date: May 13 (1)		1	

Chipping Sparrow*Spizella passerina*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.7	2.9	7.0	124.7	1.4	1.8	17.3				
Days observed		0	0	2	7	7	7	6	4	33				
Processed		0	0	1-0-0	4-0-0	12-0-0	25-0-0	1-0-0	1-0-0	44-0-0				
First date: May 4 (2)				Peak date: May 26 (689)			Last date: June 10 (3)			966				
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		1.0	0.4	1.4	2.1	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Days observed		3	2	4	6	6	2	0	0	0	0	0	0	23
Processed		1-0-0	1-0-0	2-0-0	6-0-0	1-0-0	0	0	0	0	0	0	0	11-0-0
		First date: July 15 (1)			Peak date: August 12 (9)			Last date: August 18 (3)			71			

Clay-coloured Sparrow*Spizella pallida*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	1.1	5.6	30.0	5.0	3.6	5.7				
Days observed		0	0	0	4	7	7	7	5	30				
Processed		0	0	0	1-0-0	6-0-0	30-0-0	8-0-0	3-0-0	48-0-0				
First date: May 11 (1)				Peak date: May 26 (124)			Last date: June 10 (3)			310				
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.7	1.7	1.7	0.4	0.3	0.0	0.0	0.1	0.1	0.6	0.0	0.5
Days observed		0	4	6	6	2	2	0	0	1	1	1	0	23
Processed		0	2-0-0	1-0-0	1-0-0	1-0-0	2-0-0	0	0	1-0-0	0	1-0-0	0	9-0-0
First date: July 19 (1)					Peak date: August 1 (4)				Last date: September 20 (4)				40	

Fox Sparrow*Passerella iliaca*

		APRIL			MAY						JUNE			
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.1				
Days observed		0	1	1	0	0	0	0	0	2				
Processed		0	1-0-0	0	0	0	0	0	0	1-0-0				
First date: May 1 (6)				Peak date: May 1 (6)			Last date: May 3 (1)				7			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
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	0	0	1-0-0
First date: September 16 (1)					Peak date: September 15 (0)				Last date: September 16 (1)				1	

American Tree Sparrow*Spizelloides arborea*

	APRIL			MAY				JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	11.6	4.7	21.3	0.7	0.0	0.0	0.0	0.0	4.8	
Days observed	5	6	5	1	0	0	0	0	17	
Processed	3-0-0	1-0-0	41-0-0	0	0	0	0	0	45-0-0	
First date: April 18 (2)			Peak date: May 2 (94)				Last date: May 9 (5)		268	

Dark-eyed Junco (species total including unidentified subspecies)*Junco hyemalis*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	184.4	144.0	72.7	10.9	0.9	0.4	0.0	0.0	51.7				
Days observed	7	6	7	6	4	2	0	0	32				
First date: April 18 (17)			Peak date: April 19 (1,215)			Last date: May 27 (2)			2,893				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.3	3.1	6.3	0.9
Days observed	0	0	1	0	1	0	1	0	0	2	5	4	14
First date: July 31 (2)				Peak date: September 27 (17)				Last date: September 30 (3)				53	

"Slate-coloured" Junco*Junco hyemalis hyemalis*

	APRIL			MAY				JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	182.1	140.1	72.6	10.9	0.9	0.4	0.0	0.0	50.9	
Days observed	7	6	7	6	4	2	0	0	32	
Processed	0	50-0-0	76-0-0	3-0-0	0	0	0	0	129-0-0	
First date: April 18 (16)			Peak date: April 19 (1,200)				Last date: May 27 (2)		2,849	

"Slate-coloured" Junco*Junco hyemalis hyemalis*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.3	3.1	6.0	0.8
Days observed	0	0	1	0	1	0	1	0	0	2	5	4	14
Processed	0	0	1-0-0	0	0	0	0	0	0	0	2-0-0	5-0-0	8-0-0
First date: July 31 (2)				Peak date: September 27 (16)				Last date: September 30 (3)					52

"Oregon" Junco*Junco hyemalis oregonus*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Days observed	1	0	1	0	0	0	0	0	2	
Processed	0	0	1-0-0	0	0	0	0	0	1-0-0	
	First date: April 18 (1)			Peak date: April 18 (1)		Last date: May 5 (1)			2	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Days observed	0	0	0	0	0	0	0	0	0	0	0	1	1
Processed	0	0	0	0	0	0	0	0	0	0	0	1-0-0	1-0-0
First date: September 27 (1)				Peak date: September 27 (1)				Last date: September 27 (1)					1

White-throated Sparrow*Zonotrichia albicollis*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	2.4	17.9	18.9	18.6	10.9	10.8	9.9	
Days observed		0	0	5	7	7	7	7	5	38	
Processed		0	0	0	25-0-2	23-1-4	27-0-2	4-2-1	7-0-2	86-3-11	
		First date: May 2 (1)			Peak date: May 13 (35)			Last date: June 10 (6)			534

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	10.9	8.4	14.1	9.4	18.6	12.1	6.7	8.0	7.7	8.7	6.4	7.0	9.8
Days observed	7	7	7	7	7	7	6	7	7	7	5	4	78
Processed	10-0-8	6-0-0	15-1-5	2-0-1	25-0-3	2-0-1	1-0-0	4-0-2	7-0-1	4-0-6	11-0-4	6-0-0	93-1-31
First date: July 12 (11)				Peak date: August 12 (26)				Last date: September 30 (2)					806

"Gambel's" White-crowned Sparrow*Zonotrichia leucophrys gambelii*

		APRIL		MAY					JUNE	
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.0	0.1	2.4	3.9	1.4	0.4	0.0	0.0	1.0
Days observed		0	1	5	5	4	3	0	0	18
Processed		0	0	2-0-0	3-0-0	1-0-0	1-0-0	0	0	7-0-0
		First date: May 1 (1)			Peak date: May 10 (6)		Last date: May 27 (1)			58

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.3	0.0	0.0	0.1
Days observed	0	0	0	0	0	0	0	2	2	2	0	0	6
Processed	0	0	0	0	0	0	0	1-0-0	2-0-0	0	0	0	3-0-0
First date: September 2 (2)				Peak date: September 9 (3)				Last date: September 19 (1)					9

Vesper Sparrow*Poocetes gramineus*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	
Days observed		0	0	0	1	0	0	0	0	1	
		First date: May 9 (1)			Peak date: May 9 (1)		Last date: May 9 (1)			1	

LeConte's Sparrow***Ammospiza leconteii***

		APRIL			MAY						JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL			
Avg. per day		0.0	0.0	0.1	0.1	0.1	0.7	0.0	0.0	0.1			
Days observed		0	0	1	1	1	2	0	0	5			
Processed		0	0	0	0	1-0-0	1-0-0	0	0	2-0-0			
First date: May 6 (1)				Peak date: May 23 (3)			Last date: May 24 (2)				8		

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	1	0	0	1	0	0	0	0	0	0	2
Processed		0	0	1-0-0	0	0	0	0	0	0	0	0	0	1-0-0
First date: July 29 (1)					Peak date: August 21 (1)				Last date: August 21 (1)					2

Savannah Sparrow***Passerculus sandwichensis***

		APRIL			MAY						JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL	
Avg. per day		0.0	0.3	2.0	0.6	0.9	0.1	0.0	0.0			0.5	
Days observed		0	2	5	3	2	1	0	0			13	
Processed		0	0	3-0-0	0	2-0-0	1-0-0	0	0			6-0-0	
First date: April 30 (1)				Peak date: May 2 (5)			Last date: May 26 (1)						27

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	0	0	0	0	0	2	0	0	0	0	2
Processed		0	0	0	0	0	0	0	1-0-0	0	0	0	0	1-0-0
First date: September 4 (1)					Peak date: September 4 (1)				Last date: September 5 (1)					2

Song Sparrow***Melospiza melodia***

		APRIL			MAY						JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10			TOTAL	
Avg. per day		0.0	0.0	2.6	2.9	2.0	3.3	2.4	1.6			1.8	
Days observed		0	0	6	6	6	7	7	5			37	
Processed		0	0	1-0-0	3-0-0	1-0-0	3-0-2	1-0-0	0			9-0-2	
First date: May 2 (3)				Peak date: May 26 (7)			Last date: June 10 (1)						100

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		4.6	4.3	4.1	2.0	1.9	1.7	1.1	0.6	0.0	0.0	0.0	0.0	1.7
Days observed		7	7	7	6	5	6	5	2	0	0	0	0	45
Processed		4-0-0	1-1-0	2-0-0	0	2-0-0	0	0	0	0	0	0	0	9-1-0
First date: July 12 (3)				Peak date: July 14 (9)			Last date: September 3 (2)						142	

Lincoln's Sparrow***Melospiza lincolnii***

		APRIL			MAY						JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL			
Avg. per day		0.0	0.0	0.7	2.6	7.7	5.1	2.9	2.6	2.7			
Days observed		0	0	2	5	7	7	7	5	33			
Processed		0	0	1-0-0	5-0-0	9-0-6	5-0-4	1-0-2	0-0-1	21-0-13			
First date: May 4 (2)				Peak date: May 17 (11)			Last date: June 10 (1)				146		

		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		2.4	2.0	1.9	1.4	1.3	1.4	0.4	0.3	0.4	0.1	0.0	0.0	1.0
Days observed		7	6	6	5	4	4	3	2	2	1	0	0	40
Processed		7-0-0	5-0-1	6-0-0	1-0-1	2-0-1	3-0-0	0	1-0-0	1-0-0	1-0-0	0	0	27-0-3
First date: July 12 (2)					Peak date: July 26 (5)				Last date: September 13 (1)					82

Swamp Sparrow*Melospiza georgiana*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0				
Days observed	0	0	0	1	0	0	0	0	1				
First date: May 12 (1)			Peak date: May 12 (1)			Last date: May 12 (1)			1				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.4	0.4	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Days observed	0	3	2	1	0	1	1	0	0	0	0	0	8
Processed	0	2-0-0	2-0-0	1-0-0	0	1-0-0	0	0	0	0	0	0	6-0-0
First date: July 22 (1)				Peak date: July 26 (2)				Last date: August 23 (1)				9	

Blackbird (family total including unidentified)*Icteridae sp.*

		APRIL			MAY							JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10				TOTAL	
Avg. per day		0.1	70.4	203.1	160.1	111.3	35.3	17.1	8.8				75.8	
Days observed		1	5	7	7	7	7	7	5				46	
		First date: April 19 (1)			Peak date: May 4 (450)			Last date: June 10 (3)				4,227		
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		6.1	4.1	23.4	14.6	13.4	26.4	9.6	0.6	0.6	0.9	5.4	0.5	8.8
Days observed		7	6	6	4	7	7	5	2	2	2	4	1	53
		First date: July 12 (2)			Peak date: July 31 (88)			Last date: September 27 (2)				738		

Yellow-headed Blackbird*Xanthocephalus xanthocephalus*

		APRIL			MAY							JUNE					
	S	Week 1: 18-24	2: 25-1		3: 2-8		4: 9-15		5: 16-22		6: 23-29		7: 30-5		8: 6-10		TOTAL
Avg. per day		0.0	0.0		0.1		0.0		0.6		0.6		0.3		0.2		0.2
Days observed		0	0		1		0		2		1		1		1		6
		First date: May 8 (1)					Peak date: May 29 (4)					Last date: June 9 (1)					12
		JULY			AUGUST					SEPTEMBER							
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL			
Avg. per day		0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Days observed		0	0	1	0	0	1	0	0	0	0	0	0	2			
		First date: July 26 (1)					Peak date: August 18 (1)					Last date: August 18 (1)					2

Baltimore Oriole*Icterus galbula*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	0.1	0.6	2.0	1.0	1.6	0.7				
Days observed		0	0	0	1	4	6	5	4	20				
First date: May 13 (1)				Peak date: May 26 (5)			Last date: June 9 (2)			34				
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed		0	0	1	0	0	0	0	0	0	0	0	0	1
Processed		0	0	1-0-0	0	0	0	0	0	0	0	0	0	1-0-0
First date: July 29 (1)				Peak date: July 29 (1)				Last date: July 29 (1)				1		

Red-winged Blackbird*Agelaius phoeniceus*

	APRIL			MAY				JUNE		TOTAL
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	
Avg. per day		0.0	0.0	5.7	18.1	9.6	2.0	2.3	1.4	4.9
Days observed		0	0	6	7	7	7	7	5	39
First date: May 2 (1)			Peak date: May 13 (29)				Last date: June 10 (2)			271

Red-winged Blackbird*Agelaius phoeniceus*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	2.9	1.1	5.0	3.9	1.4	0.6	0.3	0.0	0.0	0.0	0.0	0.0	1.3
Days observed	7	5	6	2	3	1	2	0	0	0	0	0	26
Processed	0	0	0	1-0-0	0	0	0	0	0	0	0	0	1-0-0
First date: July 12 (2)				Peak date: August 6 (25)				Last date: August 26 (1)					106

Brown-headed Cowbird*Molothrus ater*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	2.4	2.3	7.6	3.3	2.9	2.8	2.7	
Days observed		0	0	3	4	7	7	7	5	33	
		First date: May 5 (4)			Peak date: May 18 (18)			Last date: June 10 (1)			143

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Days observed	1	0	1	0	0	0	0	0	0	0	0	0	2
First date: July 18 (1)				Peak date: July 31 (5)				Last date: July 31 (5)					6

Rusty Blackbird*Euphagus carolinus*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	2.0	6.0	4.4	0.4	0.0	0.0	0.0	1.6	
Days observed		0	2	5	3	3	0	0	0	13	
		First date: April 29 (6)			Peak date: May 9 (19)			Last date: May 20 (1)			90

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Days observed	0	0	0	0	0	0	0	0	0	0	1	0	1
First date: September 26 (2)				Peak date: September 26 (2)				Last date: September 26 (2)					2

Common Grackle*Quiscalus quiscula*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	2.9	17.4	13.1	3.9	2.7	0.4	0.2	5.1	
Days observed	0	2	5	5	7	5	1	1	26	
	First date: April 29 (16)		Peak date: May 4 (64)			Last date: June 8 (1)			284	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.0	0.1	0.0	3.1	3.6	2.3	0.6	0.6	0.0	0.7	0.0	0.9
Days observed	1	0	1	0	4	4	3	2	2	0	2	0	19
First date: July 18 (1)				Peak date: August 21 (11)				Last date: September 26 (2)					78

Warbler (family total including unidentified)*Parulidae sp.*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.7	28.1	100.6	143.4	140.9	140.9	90.0	82.0	90.8	
Days observed	2	6	7	7	7	7	7	5	48	
	First date: April 19 (1)		Peak date: May 18 (313)			Last date: June 10 (40)			4,922	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	121.0	99.7	258.3	119.3	157.3	458.7	839.7	873.4	439.6	187.3	105.9	36.8	308.1
Days observed	7	7	7	7	7	7	7	7	7	7	7	4	81
First date: July 12 (71)				Peak date: September 4 (3,480)				Last date: September 30 (27)					25,768

Ovenbird*Seiurus aurocapilla*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.0	0.0	0.0	3.1	6.7	11.0	7.1	6.2	4.3				
Days observed	0	0	0	4	7	7	7	5	30				
Processed	0	0	0	5-0-0	13-2-1	33-1-1	8-0-4	3-0-2	62-3-8				
First date: May 12 (4)			Peak date: May 25 (14)			Last date: June 10 (5)			227				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	3.9	4.4	4.6	1.4	4.6	1.3	0.3	1.0	0.0	0.1	0.0	0.0	1.8
Days observed	7	7	7	3	7	4	2	5	0	1	0	0	43
Processed	14-2-3	18-0-10	20-0-6	6-0-1	24-0-1	8-0-0	1-0-0	7-0-0	0	1-0-0	0	0	99-2-21
First date: July 12 (1)			Peak date: September 9 (0)			Last date: September 13 (1)			151				

Northern Waterthrush*Parkesia noveboracensis*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	1.9	6.3	2.1	1.9	1.4	1.7				
Days observed		0	0	0	3	7	6	7	4	27				
Processed		0	0	0	5-0-0	18-0-0	2-2-0	0	0	25-2-0				
First date: May 13 (2)				Peak date: May 19 (14)			Last date: June 10 (1)			92				
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		1.6	0.1	1.1	1.0	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Days observed		6	1	4	4	4	3	0	0	0	0	0	0	22
Processed		3-0-0	0	5-0-0	5-0-1	1-0-0	1-0-0	0	0	0	0	0	0	15-0-1
First date: July 12 (1)					Peak date: July 18 (6)			Last date: August 21 (1)					35	

Black-and-white Warbler*Mniotilta varia*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	6.6	8.3	9.4	6.6	5.0	4.5				
Days observed		0	0	0	5	7	7	7	5	31				
Processed		0	0	0	10-1-0	11-1-0	13-0-8	7-1-2	1-0-1	42-3-11				
		First date: May 11 (3)			Peak date: May 26 (15)			Last date: June 10 (4)			241			
		JULY		AUGUST				SEPTEMBER						
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		8.9	5.7	14.7	5.7	7.7	5.1	0.9	1.0	0.0	0.0	0.0	0.0	4.1
Days observed		7	6	7	6	7	7	4	4	0	0	0	0	48
Processed		26-1-7	15-1-2	37-0-8	14-0-3	13-0-1	3-0-0	0	4-0-0	0	0	0	0	112-2-21
		First date: July 12 (4)			Peak date: July 28 (25)				Last date: September 3 (1)				348	

Tennessee Warbler*Leiothlypis peregrina*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.0	0.0	0.0	1.1	2.0	9.7	12.6	9.2	4.3				
Days observed	0	0	0	3	5	5	7	5	25				
Processed	0	0	0	2-0-0	3-0-0	12-1-0	4-0-1	7-0-3	28-1-4				
First date: May 13 (2)			Peak date: May 27 (20)			Last date: June 10 (5)			224				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	15.9	8.3	5.1	6.0	9.1	11.6	2.4	3.3	2.3	0.9	0.9	0.0	5.5
Days observed	7	6	7	7	7	5	5	5	6	2	1	0	58
Processed	73-0-12	29-0-2	9-0-0	14-0-0	14-0-0	0	0	16-0-0	9-0-0	5-0-0	4-0-0	0	173-0-14
First date: July 12 (3)			Peak date: August 16 (28)			Last date: September 20 (6)			460				

Orange-crowned Warbler*Leiothlypis celata*

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.4	3.0	0.7	0.7	0.0	0.0	0.0	0.6	
Days observed	0	1	5	3	4	0	0	0	13	
Processed	0	1-0-0	3-0-0	1-0-0	2-0-0	0	0	0	7-0-0	
	First date: May 1 (3)		Peak date: May 2 (11)			Last date: May 22 (1)			34	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3	1.7	3.1	5.1	0.8	1.1
Days observed	0	0	0	0	0	0	1	2	4	6	2	2	17
Processed	0	0	0	0	0	0	2-0-0	0	5-0-0	13-0-1	24-0-0	1-0-0	45-0-1
First date: August 29 (5)				Peak date: September 20 (31)				Last date: September 30 (1)					87

Nashville Warbler*Leiothlypis ruficapilla*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	
Days observed		0	0	0	0	0	1	0	0	1	
		First date: May 26 (1)			Peak date: May 26 (1)			Last date: May 26 (1)			1

Connecticut Warbler*Oporornis agilis*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	
Days observed		0	0	0	0	0	0	1	0	1	
Processed		0	0	0	0	0	0	1-0-0	0	1-0-0	
		First date: June 4 (1)			Peak date: June 4 (1)			Last date: June 4 (1)			1

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	0	0	1	0	0	0	0	0	0	0	1
Processed	0	0	0	0	1-0-0	0	0	0	0	0	0	0	1-0-0
First date: August 12 (1)				Peak date: August 12 (1)				Last date: August 12 (1)					1

Mourning Warbler*Geothlypis philadelphia*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	6.6	8.2	1.8	
Days observed		0	0	0	0	0	0	7	5	12	
Processed		0	0	0	0	0	0	17-1-1	18-2-4	35-3-5	
		First date: May 30 (9)			Peak date: June 8 (11)			Last date: June 10 (3)			87

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	4.1	1.1	3.9	3.9	5.9	1.6	0.7	1.4	0.0	0.0	0.0	0.0	1.9
Days observed	7	6	7	5	6	6	4	5	0	0	0	0	46
Processed	11-0-6	1-0-2	9-1-3	13-0-3	28-0-3	7-0-0	1-0-0	7-0-1	0	0	0	0	77-1-18
First date: July 12 (8)				Peak date: August 9 (15)				Last date: September 4 (1)					158

Common Yellowthroat*Geothlypis trichas*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.1	0.3	2.0	4.0	2.8	1.2	
Days observed		0	0	0	1	2	6	7	5	21	
Processed		0	0	0	0	0	6-0-0	16-0-0	5-0-0	27-0-0	
		First date: May 12 (1)			Peak date: May 31 (8)			Last date: June 10 (2)			59

Common Yellowthroat*Geothlypis trichas*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	2.4	0.6	0.7	0.7	2.0	1.3	0.9	1.6	1.1	0.4	0.0	0.0	1.0
Days observed	6	3	2	5	7	4	3	6	4	2	0	0	42
Processed	4-0-0	1-0-0	2-0-0	0	5-0-0	1-0-0	1-0-0	1-0-0	2-0-1	0	0	0	17-0-1
First date: July 12 (5)				Peak date: August 30 (4)				Last date: September 14 (1)					82

American Redstart*Setophaga ruticilla*

		APRIL		MAY				JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL
Avg. per day		0.0	0.0	0.0	1.1	3.7	23.7	15.3	20.8	8.1
Days observed		0	0	0	3	6	7	7	5	28
Processed		0	0	0	0	1-0-0	46-1-0	47-3-1	33-5-3	127-9-4
		First date: May 12 (1)			Peak date: May 29 (49)		Last date: June 10 (7)			411

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	16.9	28.9	75.4	33.6	26.4	18.0	12.7	6.7	2.0	0.4	0.0	0.0	18.4
Days observed	7	7	7	7	7	7	6	7	6	3	0	0	64
Processed	36-0-13	91-1-22	240-2-50	56-0-13	63-1-11	15-1-8	4-0-4	10-1-0	4-0-1	1-0-1	0	0	520-6-123
First date: July 12 (11)				Peak date: July 28 (121)				Last date: September 15 (1)					1,547

Cape May Warbler*Setophaga tigrina*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.1	
Days observed		0	0	0	3	1	1	0	0	5	
Processed		0	0	0	0	0	1-0-0	0	0	1-0-0	
		First date: May 13 (1)			Peak date: May 14 (2)			Last date: May 27 (1)			6

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Days observed	0	0	1	0	1	0	0	0	0	0	0	0	2
Processed	0	0	1-0-0	0	0	0	0	0	0	0	0	0	1-0-0
First date: August 1 (1)				Peak date: August 1 (1)				Last date: August 9 (1)					2

Magnolia Warbler*Setophaga magnolia*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.1	2.4	3.1	1.8	0.9	
Days observed		0	0	0	0	1	5	6	3	15	
Processed		0	0	0	0	1-0-0	3-0-0	4-1-0	3-1-0	11-2-0	
		First date: May 20 (1)			Peak date: June 2 (4)			Last date: June 8 (3)			49

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	1.7	0.7	2.0	1.7	2.3	2.7	1.0	0.7	0.3	0.9	0.3	0.0	1.2
Days observed	7	4	6	3	6	6	5	3	2	4	2	0	48
Processed	2-0-2	1-0-2	5-0-0	7-0-0	12-0-0	4-0-0	2-0-0	3-0-0	1-0-0	5-0-0	2-0-0	0	44-0-4
First date: July 12 (2)				Peak date: August 19 (7)				Last date: September 22 (1)					100

Bay-breasted Warbler*Setophaga castanea*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	
Days observed		0	0	0	0	0	0	1	1	2	
		First date: May 30 (1)			Peak date: June 6 (2)			Last date: June 6 (2)			3

Bay-breasted Warbler*Setophaga castanea*

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.1	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.0	0.1
Days observed	1	1	0	0	0	2	0	2	0	0	0	0	6
Processed	1-0-0	1-0-0	0	0	0	1-0-0	0	4-0-0	0	0	0	0	7-0-0
First date: July 14 (1)				Peak date: September 2 (3)				Last date: September 3 (1)					10

Yellow Warbler*Setophaga petechia*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	6.7	7.3	13.7	4.3	7.6	5.0	
Days observed		0	0	0	4	7	7	7	5	30	
Processed		0	0	0	4-0-0	3-0-0	7-1-1	2-0-0	2-2-1	18-3-2	
		First date: May 12 (1)			Peak date: May 26 (30)			Last date: June 10 (5)			262

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	26.3	23.7	42.1	25.9	11.4	10.0	8.4	2.0	0.1	0.0	0.0	0.0	12.5
Days observed	7	7	7	7	5	6	6	3	1	0	0	0	49
Processed	94-2-11	85-1-18	131-1-21	57-0-8	13-0-5	1-0-0	8-0-0	4-0-0	0	0	0	0	393-4-63
First date: July 12 (17)				Peak date: July 23 (57)				Last date: September 12 (1)					1,050

Chestnut-sided Warbler*Setophaga pensylvanica*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	
Days observed		0	0	0	0	0	1	0	0	1	
		First date: May 23 (1)			Peak date: May 23 (1)			Last date: May 23 (1)			1

Blackpoll Warbler*Setophaga striata*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	
Days observed		0	0	0	0	0	0	1	0	1	
Processed		0	0	0	0	0	0	1-0-0	0	1-0-0	
		First date: June 5 (1)			Peak date: June 5 (1)			Last date: June 5 (1)			1

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.1	0.0	0.0	0.1
Days observed	0	0	0	0	0	0	1	1	0	1	0	0	3
Processed	0	0	0	0	0	0	1-0-0	7-0-0	0	1-0-0	0	0	9-0-0
First date: August 29 (1)				Peak date: September 2 (8)				Last date: September 15 (1)					10

"Western" Palm Warbler*Setophaga palmarum palmarum*

		APRIL		MAY					JUNE		
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day		0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.1	
Days observed		0	0	0	0	3	2	0	0	5	
Processed		0	0	0	0	3-0-0	0	0	0	3-0-0	
		First date: May 19 (2)			Peak date: May 22 (1)			Last date: May 27 (1)			6

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.4	0.7	0.5	0.2
Days observed	1	0	0	0	0	0	1	1	2	2	3	1	11
Processed	0	0	0	0	0	0	0	2-0-0	0	1-0-0	4-0-0	0	7-0-0
First date: July 17 (1)				Peak date: September 20 (3)				Last date: September 27 (2)					16

"Myrtle" Warbler*Setophaga coronata coronata*

		APRIL		MAY						JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day	0.7	25.7	82.6	96.1	62.4	31.9	10.1	5.6	39.4				
Days observed	2	6	7	7	7	7	7	5	48				
Processed	0	0	1-0-0	11-2-0	10-1-0	10-1-0	5-1-2	3-0-0	40-5-2				
First date: April 19 (1)			Peak date: May 7 (249)			Last date: June 10 (4)			2,195				
		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	27.7	17.7	70.3	13.9	36.7	297.7	642.6	787.6	400.7	172.0	95.4	33.0	216.3
Days observed	7	7	7	7	7	7	7	7	7	7	7	4	81
Processed	66-4-11	20-0-5	75-2-11	5-0-4	8-0-0	9-0-0	11-0-0	285-0-0	284-0-0	39-0-1	203-0-0	7-0-0	1012-6-32
First date: July 12 (9)				Peak date: September 4 (3,260)				Last date: September 30 (24)				18,068	

Black-throated Green Warbler*Setophaga virens*

		APRIL		MAY					JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL			
Avg. per day	0.0	0.0	0.0	0.1	0.7	0.9	0.0	0.2	0.2			
Days observed	0	0	0	1	3	5	0	1	10			
First date: May 14 (1)			Peak date: May 22 (2)			Last date: June 7 (1)			13			

		JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL	
Avg. per day	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Days observed	0	0	0	0	2	0	0	0	0	0	0	0	2	
Processed	0	0	0	0	1-0-0	0	0	0	0	0	0	0	1-0-0	
First date: August 9 (1)				Peak date: August 10 (1)				Last date: August 10 (1)				2		

Canada Warbler*Cardellina canadensis*

		APRIL		MAY						JUNE				
	S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL				
Avg. per day		0.0	0.0	0.0	0.0	0.0	4.4	15.3	10.0	3.7				
Days observed		0	0	0	0	0	6	7	5	18				
Processed		0	0	0	0	0	11-0-0	47-5-3	20-2-1	78-7-4				
		First date: May 23 (1)			Peak date: June 5 (32)			Last date: June 10 (3)			188			
		JULY			AUGUST				SEPTEMBER					
	F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day		6.3	2.9	12.9	12.7	14.9	5.1	1.6	0.3	0.0	0.0	0.0	0.0	4.7
Days observed		7	5	7	7	7	7	5	2	0	0	0	0	47
Processed		9-1-9	7-0-4	41-1-5	32-0-7	43-0-6	2-1-2	1-0-0	1-0-1	0	0	0	0	136-3-34
		First date: July 12 (9)			Peak date: August 9 (49)				Last date: September 4 (1)				396	

Wilson's Warbler*Cardellina pusilla*

		APRIL		MAY					JUNE			
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL			
Avg. per day	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0			
Days observed	0	0	0	0	1	0	1	0	2			
First date: May 19 (1)			Peak date: May 19 (1)			Last date: June 1 (1)			2			

		JULY		AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.0	0.0	0.0	0.0	0.1	0.6	0.7	0.1	1.1	0.4	0.4	0.0	0.3
Days observed	0	0	0	0	1	3	3	1	3	2	2	0	15
Processed	0	0	0	0	1-0-0	1-0-0	4-0-0	0	5-0-0	3-0-0	2-0-1	0	16-0-1
First date: August 13 (1)				Peak date: August 25 (3)				Last date: September 22 (1)				25	

Western Tanager***Piranga ludoviciana***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	0.7	1.1	2.6	1.7	1.2	0.9	
Days observed	0	0	0	3	3	7	5	4	22	
Processed	0	0	0	0	0	0	1-0-0	0	1-0-0	
	First date: May 9 (1)		Peak date: May 26 (5)			Last date: June 9 (3)			49	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	3.3	4.0	4.7	6.4	16.4	7.6	5.0	2.6	0.6	0.1	0.0	0.0	4.2
Days observed	7	5	7	6	6	7	5	6	3	1	0	0	53
Processed	4-0-0	9-0-0	4-0-0	14-0-1	14-0-2	1-0-0	1-0-0	3-0-0	1-0-0	0	0	0	51-0-3
	First date: July 12 (1)				Peak date: August 10 (34)				Last date: September 13 (1)				355

Rose-breasted Grosbeak***Pheucticus ludovicianus***

	APRIL		MAY					JUNE		
S	Week 1: 18-24	2: 25-1	3: 2-8	4: 9-15	5: 16-22	6: 23-29	7: 30-5	8: 6-10	TOTAL	
Avg. per day	0.0	0.0	0.0	4.6	6.1	9.1	2.9	0.4	2.9	
Days observed	0	0	0	4	6	7	6	1	24	
Processed	0	0	0	3-0-0	3-0-0	3-0-0	2-0-0	0	11-0-0	
	First date: May 12 (1)		Peak date: May 19 (18)			Last date: June 9 (2)			161	

	JULY			AUGUST				SEPTEMBER					
F	1: 12-18	2: 19-25	3: 26-1	4: 2-8	5: 9-15	6: 16-22	7: 23-29	8: 30-5	9: 6-12	10: 13-19	11: 20-26	12: 27-30	TOTAL
Avg. per day	0.7	1.3	2.7	5.1	7.4	3.4	2.3	0.6	0.0	0.1	0.0	0.0	2.0
Days observed	4	4	7	6	6	5	5	2	0	1	0	0	40
Processed	1-0-0	2-0-0	4-0-1	8-0-0	6-0-0	3-0-0	0	1-0-0	0	0	0	0	25-0-1
	First date: July 12 (1)				Peak date: August 10 (19)				Last date: September 15 (1)				166

Appendix II. To-date & 2022 Banding Totals

The following is a list of all species with banding records at the LSLBO in taxonomic order. All 2022 projects are summarized with annual averages of new bands across programs since standardized efforts began in 1995 (2011 excluded) and grand totals since trials in 1993. Subspecies are indicated with quotation marks.

Species	Migration		MAPS	Owls	2022 Total	Annual Average	Grand Total (1993-2022)
	Spring	Fall					
Sharp-shinned Hawk	2	15			17	28.3	800
Cooper's Hawk					0	0.2	5
Northern Goshawk					0	0.0	1
Northern Pygmy-Owl					0	0.1	2
Barred Owl				1	1	0.2	7
Long-eared Owl					0	0.0	1
Boreal Owl				1	1	0.6	15
Northern Saw-whet Owl				161	161	77.4	2,164
Belted Kingfisher					0	0.0	1
Yellow-bellied Sapsucker	6	3			9	8.7	245
American Three-toed Woodpecker					0	0.1	4
Downy Woodpecker	1	7	3 ^H		11	4.4	124
Hairy Woodpecker		1	1		2	3.9	107
"Yellow-shafted" Flicker		2			2	1.6	49
Pileated Woodpecker					0	0.4	12
American Kestrel					0	0.1	2
Eastern Kingbird					0	0.0	1
Olive-sided Flycatcher					0	0.1	2
Western Wood-Pewee		1			1	0.8	25
Yellow-bellied Flycatcher	6	2	1		9	3.3	99
Alder Flycatcher	47	76	2		125	85.3	2,609
Least Flycatcher	51	74	21 ^H		146	88.4	2,674
Eastern Phoebe	4	4			8	7.4	201
Blue-headed Vireo		4			4	3.8	108
Philadelphia Vireo	1	36 ^H	4		41 ^H	11.0	309
Warbling Vireo		8			8	3.1	90
Red-eyed Vireo	18	97 ^H	13		128 ^H	42.5	1,219
Northern Shrike					0	0.1	2
Canada (Gray) Jay					0	0.1	4
Blue Jay	2	8 ^H			10 ^H	3.0	87
Black-billed Magpie					0	0.1	2
Black-capped Chickadee	4	20	14		38	55.1	1,553
Boreal Chickadee					0	1.9	59
Ruby-crowned Kinglet	7	18	1		26	19.1	546
Golden-crowned Kinglet		5			5	4.3	118
Cedar Waxwing		11	2		13	8.3	265

Species	Migration		MAPS	Owls	2022 Total	Annual Average	Grand Total (1993-2022)
	Spring	Fall					
Red-breasted Nuthatch		24	1		25 ^H	6.6	183
White-breasted Nuthatch					0	0.4	14
Brown Creeper	1	3			4	3.2	88
House Wren	4	1			5	2.2	59
Winter Wren		2	5		7	3.7	99
Marsh Wren					0	0.1	3
Gray Catbird	1	1			2	0.4	13
Brown Thrasher					0	0.0	1
Northern Mockingbird					0	0.0	1
Townsend's Solitaire					0	0.2	5
Veery					0	0.3	9
Gray-cheeked Thrush	11	5			16	10.6	285
Swainson's Thrush	137	412	55		604	320.8	8,955
Hermit Thrush	5	15			20	25.7	720
American Robin	18	10	1		29	23.1	662
Varied Thrush					0	0.3	8
American Pipit					0	0.7	18
Evening Grosbeak					0	0.1	2
Purple Finch		4			4	4.4	129
Common Redpoll	1				1	0.2	5
Hoary Redpoll					0	0.0	1
White-winged Crossbill					0	0.0	1
Pine Siskin		1			1	5.8	189
American Goldfinch					0	0.1	2
Lapland Longspur					0	0.2	5
Chipping Sparrow	44	11			55	78.7	2,177
Clay-coloured Sparrow	48	9			57	44.9	1,234
Fox Sparrow	1	1			2	3.2	94
American Tree Sparrow	45				45	27.1	770
"Unidentified" Dark-eyed Junco					0	1.2	32
"Slate-coloured" Junco	129	8			137	81.9	2,305
"Oregon" Junco	1	1			2	0.8	23
Harris's Sparrow					0	191.3	8
White-throated Sparrow	86	93	64		243	21.8	5,354
"Gambel's" White-crowned Sparrow	7	3			10	0.3	601
Vesper Sparrow					0	0.1	3
LeConte's Sparrow	2 ^H	1			3 ^H	0.5	14
Savannah Sparrow	6	1			7	9.5	270
Song Sparrow	9	9			18	17.6	498
Lincoln's Sparrow	21	27	6		54	50.5	1,423
Swamp Sparrow		6			6	10.6	309

OCCURRENCES

Species	Migration		MAPS	Owls	2022 Total	Annual Average	Grand Total (1993-2022)
	Spring	Fall					
Baltimore Oriole		1			1	0.2	6
Red-winged Blackbird		1			1	0.4	10
Brown-headed Cowbird					0	0.4	10
Common Grackle					0	0.3	7
Ovenbird	62 ^H	99	35		196	203.9	5,751
Northern Waterthrush	25	15	4		44	36.8	1,031
Black-and-white Warbler	42	112	16		170	105.5	2,977
Tennessee Warbler	28	173	42		243	304.7	8,658
Orange-crowned Warbler	7	45			52	72.6	2,009
Nashville Warbler			1		1	0.8	21
Connecticut Warbler	1	1			2	1.3	34
MacGillivray's Warbler					0	0.1	2
Mourning Warbler	35	77	37		149	84.3	2,358
Common Yellowthroat	27	17	3		47	38.7	1,111
American Redstart	127	520	144 ^H		791	344.1	9,974
Cape May Warbler	1	1			2	7.4	215
Magnolia Warbler	11	44	27		82	48.7	1,388
Bay-breasted Warbler		7			7	9.6	261
Blackburnian Warbler					0	0.1	3
Yellow Warbler	18	393 ^H	28		439 ^H	174.1	4,980
Chestnut-sided Warbler					0	0.7	24
Blackpoll Warbler	1	9			10	14.7	406
"Western" Palm Warbler	3	7			10	12.4	344
"Myrtle" Warbler	40	1,012	24		1,076	618.3	17,202
"Audubon's" Warbler					0	0.1	2
Black-throated Green Warbler		1			1	5.6	155
Canada Warbler	78 ^H	136	41		255	155.3	4,410
Wilson's Warbler		16			16	21.4	658
Western Tanager	1	51 ^H	5		57 ^H	14.5	400
Rose-breasted Grosbeak	11 ^H	25	9		45	17.2	486
Lazuli Bunting					0	0.0	1
Total number of birds banded, 2022*	1,244	3,803	610	163	5,820	3,526.5	104,978
Average season banded total	937.4	2,280.6	236.5	108.7	3,526.5		
Banded species total, 2022	50	65	30	3	71	64.4	108
Average season species total	45.5	58.1	25.3	1.5	64.4		

*Record breaker: the highest (H) or lowest (L) number of individuals banded in a season/year since 1995

Appendix III. Banding Age Codes

The LSLBO uses age codes that are linked to the calendar year. This means that come January 1, the age code given to all birds changes despite the bird itself not changing at all over the night of December 31. These codes are:

Code	Expansion	Description
HY	Hatching Year	Hatched during the calendar year the bird was banded.
AHY	After Hatching Year	Hatched before the calendar year of banding, but exact year of hatching unknown.
SY	Second Year	Hatched the calendar year before the year of banding. For example, a bird hatched in June 2021 and banded in March 2022 is a SY (1 st calendar year = 2021, 2 nd = 2022), but is only 9 months old.
ASY	After Second Year	Hatched before the calendar year of banding, but exact year of hatching unknown. In other words, a bird that did not hatch in the previous calendar year, but it is unknown what year it did hatch in.
TY	Third Year	Hatched the calendar year two years before the year of banding. Now in its third calendar year of life (1 st calendar year = 2020, 2 nd = 2021, 3 rd = 2022).
ATY	After Third Year	Hatched prior to two years before the year of banding, now in <i>at least</i> its fourth calendar year of life, but exact age unknown.

Most adult songbird species moult (replace) all the feathers on their body after they have finished breeding such that we can no longer see any juvenile feathers that would indicate a younger bird. We can now only say that this bird is an adult, but we do not know exactly how old it is, unless it has been banded previously. In this case, we use the following age codes:

	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	
Hatches	HY						SY						First year of life
	↑ Fledging Fall Migration Wintering						Spring Migration ↑						
Turns 1 year old	SY		AHY				ASY						Second year of life
	↓ Breeding Moulting		Fall Migration Wintering				Spring Migration ↓						
Turns 2+ years old	ASY		AHY				ASY						Third+ year of life

For other species that have more complex moulting strategies, such as owls and woodpeckers, we can sometimes see more than two generations of feathers. This often allows us to use the following age codes:

	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	
Hatches	HY						SY						First year of life
	↑ Fledging Fall Migration Wintering						Spring Migration ↑						
Turns 1 year old	SY						TY						Second year of life
	↓ Breeding Moulting Fall Migration Wintering						Spring Migration ↓						
Turns 2+ years old	TY		ASY				ATY						Third+ year of life