Lesser Slave Lake

# Bird Observatory

Slave Lake ▪ Alberta ▪ Canada

# 2019 Annual Report

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**www.lslbo.org**

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# 2019 Executive Summary

The Lesser Slave Lake Bird Observatory (LSLBO) completed its 26th year of avian population monitoring in the Lesser Slave Lake Provincial Park of northern Alberta (25th year of standardized efforts). Dedicated to bird conservation through research and education, the LSLBO manages four core monitoring programs that contribute to several national and international networks: spring migration monitoring, fall migration monitoring, Monitoring Avian Productivity and Survivorship (MAPS), and fall owl migration monitoring.

Spring migration monitoring took place from April 16 to June 10 for 51 out of a possible 56 days. Overall, monitoring efforts for spring migration this year were less than previous years because of poor weather and a five day evacuation caused by nearby forest fires. This year's average daily coverage code, standard and non-standard net-hours, and daily visual migration counts were all record lows. Approximately 56,000 birds of 144 identified species were encountered. Only 55.4% of possible net-hours were attained, banding a total of 591 birds of 44 species. There were an additional 101 recapture records, of which, the oldest known-aged bird was a 6+ year old Mourning Warbler. Total capture rates were below average with 26.8 birds per 100 net-hours (average 34.7 birds/100 net-hours).

Fall migration was monitored from July 12 to September 30 for 78 of 81 possible days. Monitoring was interrupted July 26 to 28 when heavy rains washed out roads and trails preventing safe access to the site. Despite this interruption, efforts were similar to past years. Daily censuses, visual migration counts, and incidental observations contributed to nearly 50,000 birds of 134 identified species being counted across monitoring methods, including the first Clark's Grebe in our monitoring history. Although poor weather resulted in below average mist-netting (only 67.4% of possible net-hours attained), this was the busiest season for fall banding in the LSLBO's history with 3,761 birds of 65 species banded. Many species beat their previous banding records. An additional 287 recaptures were collected with a Black-capped Chickadee estimated to be 7+ years old as the oldest known-aged bird. Total capture rates were almost double the fall average with 86.5 birds per 100 net-hours (average 51.5 birds/100 net-hours).

Four MAPS sites were run June 11 to August 4, completing our 26th year of MAPS contributions. Banding was above average with 357 birds of 36 species across stations, the highest species diversity of any year. Within an additional 189 recapture records, the oldest known-aged bird captured was a 7+ year old White-throated Sparrow. Of 67 detected species, 29 were confirmed to breed in at least one site.

Targeted fall owl migration monitoring was conducted for the 16th year on 37 nights, September 1 to October 31. A Northern Saw-whet Owl net array and a smaller Boreal Owl net array captured a combined 88 Saw-whet Owls and no Boreal Owls, the sixth slowest year yet.

A Sharp-shinned Hawk banded in 2018 was encountered in Northeast Mexico.

Additional projects included station maintenance tasks and noxious weed pulling. The second year of a three year collaborative research project with Vanderwell Contractors was planned, but had to be postponed due to fire activity in the sample area. We also joined as a partner on the "Managing Alberta's Forest Birds Through Provincial-scale Forestry Planning" collaborative project overseen by the University of Alberta.

Education and outreach projects allowed 468 visitors to observe LSLBO banding activities with 284 people attending 16 scheduled tours, 85 visiting with school groups from grade 1 to post-secondary, and 116 people in unscheduled drop-ins. The biggest events were the 24th annual Songbird Festival and our annual Family Owl Night. Visitor counts were lower than normal because evacuation alerts for communities affected by nearby forest fires led several schools to cancel field trips and poor weather throughout the summer decreased the number of campers. Additional outreach was supplied by 'off-site' presentations that were attended by 216 people and by weekly blog posts.

Summary of program timing in 2019:

| **Project** | April | May | June | July | Aug. | Sept. | Oct. |
|---|---|---|---|---|---|---|---|
| Spring Migration Monitoring | | | | | | | |
| MAPS | | | | | | | |
| Fall Migration Monitoring | | | | | | | |
| Owl Migration Monitoring | | | | | | | |
| Education | Year Round | | | | | | |

# Migration Monitoring

Migration monitoring estimates population trends central to the conservation of birds. 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 species can be obtained.

The LSLBO has been conducting migration monitoring over both spring and fall migration periods since 1994, with 2019 marking the 25$^{th}$ year of standardized data collection (since 1995). We are a full-member station of the Canadian Migration Monitoring Network - Réseau canadien de surveillance des migrations (CMMN-RCSM). Established in 1998, the CMMN is a unique network including Birds Canada, the Canadian Wildlife Service, and approximately 25 member stations working collaboratively to monitor avian migration across Canada.

Migration monitoring follows a standardized approach outlined in the Lesser Slave Lake Bird Observatory Station Manual (revised 2013). 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 banding. Census is performed once daily along a 700 m transect crossing the study site for thirty minutes during peak migration hours. Visual migration counts are five 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 observations to record species that migrate discretely and to gather morphometric measurements and demographic information from a subset of individuals that cannot be obtained otherwise. 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 with current staffing constraints. 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., mist-netting, # observers) |
|---|---|---|---|---|---|---|
| **0** | None | 0 | No | 0 | 0% | No Activity |
| **1** | Casual | 1 | Yes | 4 | ≥10% | One of the three counts (1+ class 2+ obs.) |
| **2** | Poor | 2 | Yes | 4 | ≥25% | Census, one of other counts (1+ class 2+ obs.) |
| **3** | Fair | 4 | Yes | 6 | ≥50% | Two counts (1+ class 2+ obs.) |
| **4** | Good | 6 | Yes | 7 | ≥50% | All (1+ class 1+ obs.) |
| **5** | Excellent | 10 | Yes | 8 | ≥90% | All (3+ class 1+ obs.) |

# Spring Migration Monitoring

Spring migration monitoring occurs for 7 to 8 weeks from mid-April to mid-June, depending on weather conditions. 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, such as American Tree-sparrow and Dark-eyed Junco, are not often captured by our spring monitoring. 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 frequently along with small numbers of late migrants.

Similar to 2016-18, spring migration monitoring took place from April 16 to June 10 (Table 2). Due to nearby forest fires prompting mandatory evacuations from May 31 to June 4, only 51 days out of a possible 56 were monitored. Despite this interruption, the number of days covered and those with census and visual migration counts (performed daily) were above average since coverage began on a relatively early date due to mild temperatures. Of the 51 days with monitoring, only 33 met our goal of 8 visual migration counts per day since high afternoon winds often forced monitoring hours to be reduced. Wind and rain completely prevented the nets from being opened on 8 days, while cold starts and late morning winds prevented full net-hours on an additional 32 days with only 11 days attaining full net-hours. Moderate volunteer activity contributed to higher than average person-days (see Staff and Volunteers, p. 26). Overall, monitoring efforts for spring migration this year were less than previous years because of the poor weather and the evacuation. This year's average daily coverage code, standard and non-standard net-hours, and daily visual migration counts were all record lows.

**Table 2. Summary of effort during spring migration monitoring.** Averages based on 1995 to 2019 data, except visual migration effort (2000-2019; standard observation time reduced from 10 to 5 minutes).

| | 2019 | Average | Max (Year) | Min (Year) |
|---|---|---|---|---|
| **Daily Coverage** | | | | |
| First day (2019, Avg, Latest, Earliest) | April 16 | April 22 | May 4 (1996, 98) | April 15 (2016) |
| Last day (…, Latest, Earliest) | June 10 | June 9 | June 17 (1997) | May 15 (2011)* |
| Number of days | 51** | 47 | 57 (2000, 01, 06) | 24 (2011)* |
| Person-days | 107 | 102 | 130 (2001) | 55 (2011)* |
| Average daily coverage code | 3.59** | 3.77 | 3.95 (2005) | 3.46 (2000) |
| **Banding** | | | | |
| Number of days | 43 | 43 | 54 (2001) | 23 (2011)* |
| Standard nets average daily net-hours (84 max) | 48.7** | 64.1 | 75.8 (2008) | 48.7 (2019) |
| Aerial nets average daily net-hours (14 max) | 5.6** | 9.0 | 10.7 (2015) | 5.6 (2019) |
| **Census** | | | | |
| Number of days | 51 | 46 | 57 (2001, 16) | 24 (2011)* |
| **Visual Migration Counts** | | | | |
| Number of days | 51 | 49 | 57 (2000, 01, 16) | 24 (2011)* |
| Average daily vis. migs. | 7.3** | 7.8 | 8.4 (2002) | 7.3 (2019) |

*2011: Monitoring site was evacuated due to large forest fires in May

** Monitoring site was evacuated due to nearby forest fires in June (excluded from averages)

# Spring Migration Daily Totals

A total of 56,354 birds from 144 identified species were recorded across counting methods. Census documented 8% of all birds encountered with a high diversity of 101 species including the only Greater Scaup recorded during spring migration monitoring. Visual migration counts similarly documented 11% of birds encountered with 44 species recorded including the only American Golden-Plover. Banding accounted for 1% of encounters. Despite being a relatively low source of observations, 44 species were banded, including the only records for spring migration monitoring of Swamp Sparrow and Oregon Junco. Incidental observations contributed the most individuals (80% of records) of 139 species, 32 of which were only encountered incidentally, including: Barred Owl, Rough-legged Hawk, Bonaparte's Gull, Mew Gull, Double-crested Cormorant, Western Grebe, Wilson's Snipe, Killdeer, Mourning Dove, White-breasted Nuthatch, White-winged Crossbill, and Western Wood-pewee.

Overall migration activity first peaked on April 22 with large flocks of Greater White-fronted Geese and Tundra Swans (Figure 1). Waterfowl migration was busiest in early May with sizeable groups of geese peaking at over 20,000 on May 5, but died down as smaller flocks of ducks began moving through. Songbird migration was more erratic with large flocks of American Robins and blackbirds early in the season being followed by groups of warblers and sparrows. The busiest day of songbird migration was May 3 due to the movements of Myrtle Warblers. After this, songbird migration slowed with a few peaks during favourable weather. For a brief weekly review of observations see Spring Migration Weekly Summary (p. 8). For a more detailed break-down of each species' abundance, as well as arrival, peak, and departure timing, see Appendix I. Migration Occurrence Records, 2019 (p. 31). Where applicable, data is divided into week-long sections as defined by the Weekly Summary.

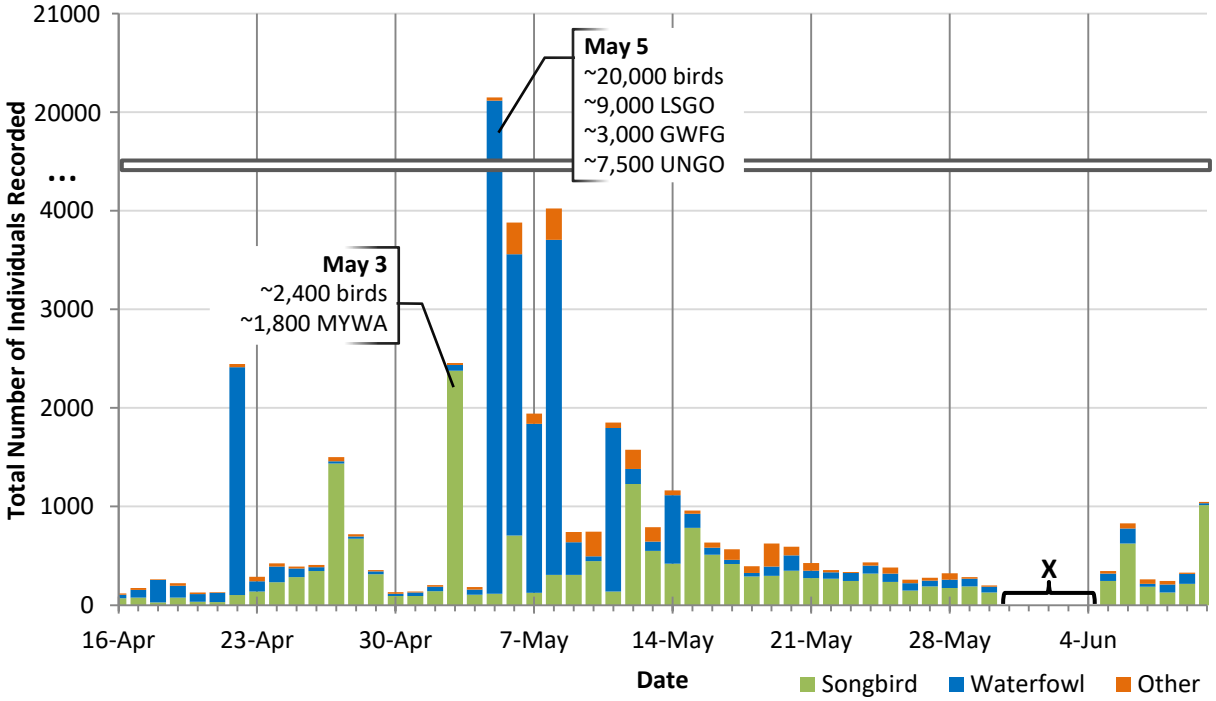


**Figure 1. Total number of individuals detected daily during spring migration across all methods, 2019.** *Codes: Myrtle Warbler (MYWA), Lesser Snow Goose (LSGO), Greater White-fronted Goose (GWFG), Unidentified Goose species (UNGO), no operations (X) May 31 to June 5.*

# Spring Migration Banding

A total of 2,769.3 net-hours were accumulated during spring migration monitoring, representing only 55.4% of all possible net-hours, excluding the five day long evacuation period. Twelve standard nets were set for a record low of 2,458.3 net-hours (58.0% of 4,284.0 possible net-hours), and well below the season average of 3,249.3 net-hours (2000-19, 2011 excluded). Two non-standard aerial nets accumulated 284.0 net-hours (39.8% of 714.0 possible net-hours). Non-standard net-hours were also record lows, falling below the average of 461.0 net-hours (2012-2019), despite the above average number of days monitored. This season was frequently plagued by cold early morning temperatures and high winds in which the nets could not be safely opened.

A total of 591 birds were banded during spring migration monitoring with an additional 101 recapture records. The banding total is far below the season average of 947 birds (1995-2019, 2011 excluded). Banding was slow overall because a cold start to the season and persistent high winds along with an evacuation often kept the nets closed. The first peak in capture rates occurred on April 27 with 32 birds banded even though the nets were mostly closed due to windy conditions (Figure 2). The busiest day of spring banding was May 16, when 55 birds of 7 species were banded, 21 of which were White-throated Sparrows. This peak occurred before the season average banding peak of May 21 to 25.

A total of 44 species were banded (average 45 species; 1995-2019, 2011 excluded). The five most frequently banded species accounted for 51% of all birds banded. These species were: White-throated Sparrow (125 banded), Swainson's Thrush (55), Alder Flycatcher (47), Slate-coloured Junco (41), and Ovenbird (31). All species' banding totals are listed in Appendix II. 2019 & To-date Banding Totals (p. 66).

Highlights were few with no species breaking previous record highs. The LSLBO's fourth Canada (Gray) Jay was banded (last banded in 2010). Two species did have records lows: Least Flycatcher (with 6 banded; spring average 44) and Myrtle Warbler (18 banded; average 123).

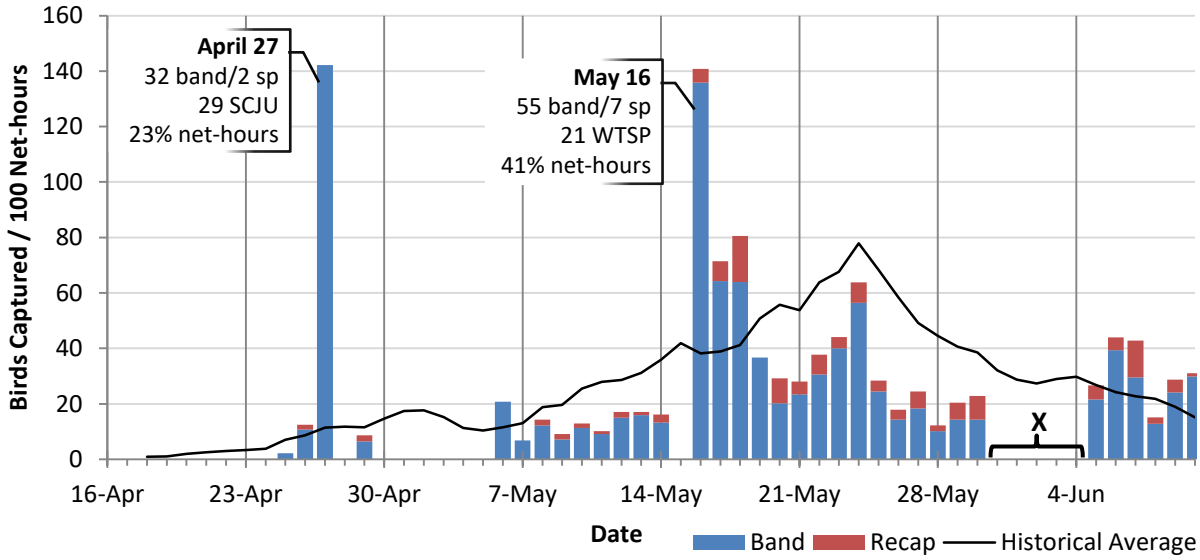


**Figure 2. Daily capture rates standardized to 100 net-hours during spring migration** for standard and non-standard banding with a three-day moving average for capture rates from 2000-2019. *Codes: species (sp), Slate-coloured Junco (SCJU), White-throated Sparrow (WTSP), no operations (X).*

# Spring Migration Net-Lane Productivity

The LSLBO operates 12 standard and 2 non-standard (aerial) nets during migration monitoring. Standard nets are labeled 1 to 12 and have been operated since 1995, with 7 hour monitoring periods being standardized in 2000. In 2011, two aerial nets (11X and 12X) were set-up alongside nets 11 and 12 for their first spring season. Being situated close to the shoreline, nets 6, 11, and 11X accumulated the fewest net-hours due to exposure to wind (Table 3). Nets 5, 12 and 12X similarly lost net-hours by being moderately exposed.

Across all nets, the capture rate for spring migration monitoring was 26.8 birds per 100 net-hours, which is below the season average of 34.7 birds per 100 net-hours (Table 3). Indeed, most individual nets saw below average capture rates, except nets 5, 6, 8, and 12X. Net 6, located in relatively short willow, achieved the highest capture rate of 84.1 birds per 100 net-hours and the greatest species diversity (32 species). The net with the lowest capture rate was net 7 (9.7 birds/100 net-hours) and the net with the lowest species diversity was net 10 (9 species). Both nets are in mature deciduous forest with a thinning understory. The aerial nets were productive again this year with these two nets capturing 15% of all birds captured during spring monitoring despite record low net-hours.

**Table 3.** Net-hours and capture rates per 100 net-hours for each net-lane during spring migration.

| Net-lane | Net-hours (Percent Coverage) | New Capture | Recapture | Total Capture of Total Species | Capture Rate* (1995-2019 Average) |
|---|---|---|---|---|---|
| **1** | 218.5 (61.2%) | 23 | 7 | 30 of 11 | 13.7 (26.6) |
| **2** | 217.0 (60.8%) | 21 | 3 | 24 of 11 | 11.1 (19.0) |
| **3** | 224.5 (62.9%) | 22 | 4 | 26 of 9 | 11.6 (22.4) |
| **4** | 215.8 (60.5%) | 29 | 6 | 35 of 16 | 16.2 (23.9) |
| **5** | 207.5 (58.1%) | 73 | 10 | 83 of 20 | 40.0 (34.9) |
| **6** | 170.0 (47.6%) | 124 | 19 | 143 of 32 | 84.1 (88.6) |
| **7** | 217.0 (60.8%) | 18 | 3 | 21 of 10 | 9.7 (20.9) |
| **8** | 217.0 (60.8%) | 45 | 2 | 47 of 21 | 21.7 (19.1) |
| **9** | 215.0 (60.2%) | 24 | 4 | 28 of 10 | 13.0 (16.4) |
| **10** | 215.0 (60.2%) | 20 | 10 | 30 of 9 | 14.0 (17.3) |
| **11** | 158.0 (44.3%) | 60 | 8 | 68 of 19 | 43.0 (63.9) |
| **12** | 210.0 (58.8%) | 44 | 12 | 56 of 17 | 26.7 (38.4) |
| **Total standard** | 2,485.3 (58.0%) | 503 | 88 | 591 of 41 | 25.4 (32.6) |
| **11X** | 126.0 (35.3%) | 39 | 5 | 44 of 16 | 34.9 (60.4) |
| **12X** | 158.0 (44.3%) | 49 | 8 | 57 of 14 | 36.1 (34.0) |
| **Total non-standard** | 284.0 (39.8%) | 88 | 13 | 101 of 21 | 35.5 (47.2) |
| **Grand total** | **2,769.3 (55.4%)** | **591** | **101** | **692 of 44** | **26.8 (34.7)** |

*Capture rates from 2011 are excluded from average.

# Spring Migration Weekly Summary

The following is a weekly summary of monitoring efforts, captures, and observations. For more detailed weekly totals, see Appendix I. Migration Occurrence Records (page 31).

**April 16 - April 22 (Week 1)**
Spring migration monitoring started on April 16 since the preceding week had been relatively warm and little snow remained. Regrettably, the weather did not continue cooperating and the last half of this week was windy. Although mist-netting was attempted on all days except one, only 37% of possible net-hours were accumulated due to cold starts becoming windy afternoons. No birds were captured. Songbird activity was low with small flocks of American Robin, Slate-coloured Junco, and Pine Siskin. Other activity consisted of American Crows building a nest behind the lab and of small waterfowl flocks. The busiest day was April 22, when over 1,300 Greater White-fronted Geese were joined with moderate flocks of Canada Geese, Tundra Swans, American Wigeons, Common Goldeneyes, and Common Mergansers. A few Trumpeter Swans, Ruby-crowned Kinglets, American Tree Sparrows, Purple Finches, and a White-breasted Nuthatch were also observed. Diversity was at its lowest for spring with 44 identified species.

**April 23 - April 29 (Week 2)**
The wind and cool temperatures conspired again to keep the nets closed. Similar to the previous week, mist-netting was attempted on 6 days, but only accumulated 35% of possible net-hours. However, the nets were more productive with 42 birds of 10 species banded. Over half of these bands were Slate-coloured Juncos (30 banded), with 29 Juncos banded on April 27 when a flock was captured in a single net while the rest of the nets were closed due to high winds. Persistent westerly winds pushed ice up to the shore, closing pockets of open water and reducing waterfowl counts. The busiest day of songbird migration was April 27 with large flocks of American Robin (450) and Slate-coloured Junco (500) among relatively small counts (around 100) of blackbirds and Myrtle Warbler. It is possible that heavy snow in Southern Alberta spurred this migration activity. The first Tree Swallow, Eastern Phoebe, Hermit Thrush, Myrtle Warbler, and Orange-crowned Warbler were seen within a total of 50 identified species.

**April 30 - May 6 (Week 3)**
The weather decided to mix it up a bit and throw some snow into the cold and windy mix. The nets could only be opened for short periods on two days, resulting in an abysmal 11% of possible net-hours being accumulated. All 10 birds of 7 species were banded on May 6, including one American Robin with a large cloacal protuberance, indicating the start of breeding season for our early arrivals. However, this was the busiest period for overhead migration with approximately 27,000 birds of 60 species recorded. The busiest day this spring for songbird migration was on May 3 with nearly 2,400 songbirds counted, mostly Myrtle Warbler (1,800). This period also saw the busiest day of overall migration this year (May 5) due to the movements of nearly 20,000 geese. Lesser Snow Geese (9,000), Greater White-fronted Geese (3,000), and Canada Geese (500) were counted in high numbers along with 7,300 geese that could not be identified to species since observers were new to identifying mixed flocks of geese. Observations of new species were many with the first Red-breasted Merganser, Greater Scaup, Bufflehead, Northern Pintail, Long-tailed Duck, Common Loon, Blue-winged Teal, Killdeer, Wilson's Snipe, Yellow-bellied Sapsucker, Golden-crowned Kinglet, White-crowned Sparrow, White-throated Sparrow, and Rose-breasted Grosbeak for the spring.

**May 7 - May 13 (Week 4)**
The weather began to loosen its grip and allowed for the nets to be open for 80% of possible net-hours. Banding became more consistent and 60 birds were banded from 17 species. Compared to week 3, overhead migration was quiet, but steady with less than half the number of individuals counted across the week (12,000). Diversity continued to rise with 85 identified species. Many of the new encounters were species taking advantage of the lake as it became completely ice-free such as Ring-necked Duck, Red-necked Grebe, White-winged Scoter, Surf Scoter, American Coot, American White Pelican, Double-crested Cormorant, California Gull, Mew Gull, Belted Kingfisher, Spotted Sandpiper, Lesser Yellowlegs, Solitary Sandpiper, and American Golden Plover. There were also songbird first encounters, including Cliff Swallow, Swainson's Thrush, Northern Waterthrush, Cape May Warbler, Lincoln's Sparrow, Chipping Sparrow, Yellow-headed Blackbird, Horned Lark, and relatively late Lapland Longspur. The highlight was an Audubon's Warbler – only the second recorded at the LSLBO.

**May 14 - May 20 (Week 5)**
Visible migration was quiet, yet erratic overall with only 5,000 encounters of 91 identified species, 7.6% of which were local breeders as the White-throated Sparrows and Lincoln's Sparrows began establishing territories alongside year-round resident species. Frequent high winds and a morning of rain kept the nets closed for much of the week with only 33% of possible net-hours attained to band 114 birds of 13 species. May 16 became the busiest day for banding this spring (55 birds banded) when White-throated Sparrow and Swainson's Thrush moved through in high numbers. Fanned by the winds, conditions overall were dry and the fire hazard was extreme. Two fires started approximately 30 km northeast of the station, which may have encouraged the birds to begin reverse migrating and foraging more frequently at the station. Very little northward migration was observed. Late Slate-coloured Juncos were spotted throughout the week with the last individual observed for the spring on May 20 (average last spring encounter May 11). Many warbler species arrived and first encounters included Blackpoll Warbler, Black-and-white Warbler, Western Palm Warbler, Yellow Warbler, American Redstart, Ovenbird, Tennessee Warbler, Common Yellowthroat, Magnolia Warbler, Red-tailed Hawk, Osprey, Forester's Tern, Common Tern, Ruby-throated Hummingbird, Eastern Kingbird, Least Flycatcher, Blue-headed Vireo, Red-eyed Vireo, Swamp Sparrow, and Western Tanager.

**May 21 – May 27 (Week 6)**
The weather was hot with light early morning breezes dying mid-morning. Smoke frequently drifted in from forest fires near High Level to the northwest or Wabasca to the northeast. Mist-netting was accomplished for 88% of possible net-hours with 187 birds from 25 species banded – the busiest and most diverse period for banding this spring. Overhead migration was again slow-steady with periods of heavy reverse migration. This was the most diverse period for observations with 98 identified species. Signs of breeding became more common with songs from many species filling the forest. Moreover, 24% of encounters were of probable known stopovers, several females were captured carrying eggs in their oviducts, and a Bald Eagle was seen carrying nesting material. The first Northern Goshawk, Western Grebe, Gadwall, Mourning Dove, Warbling Vireo, Philadelphia Vireo, Bank Swallow, House Wren, Cedar Waxwing, Canada Warbler, Mourning Warbler, Baltimore Oriole, and American Goldfinch were spotted along with a rare pair of Pacific Loons flying over. The highlight was a family of evacuees from the High Level fires walking their cats on leashes around the parking lot – ominous foreshadowing of what was to come for us in the next week.

**May 28 - June 3 (Week 7)**

Only three days in this period received any coverage. On May 30, strong winds from the north brought nearby forest fires within 25 km of the station. We were evacuated and could not return to operations until June 5. The days that received coverage at the start of the week were hot and smoky with conditions deteriorating to less than one kilometer of visibility throughout May 30. Banding for these three days was slow-steady with 34 birds banded of 13 species. Two days achieved full net-hours with the third cut short by dramatically increasing winds followed by an evacuation notice. Overhead migration was minimal with bouts of reverse migration. It is possible that the hot weather encouraged nocturnal migration activity that we cannot monitor. First encounters for this reduced period included Broad-winged Hawk, Canada (Gray) Jay, Alder Flycatcher, and LeConte's Sparrow. For a detailed description of conditions and strange bird activity associated with the heavy smoke on May 30, see below.

**Excerpt from Daily Narrative:** **May 30, 2019**

Left early due to an evacuation notice (2 hour alert) - area did get evacuated at 12:30.
It was very smoky first thing – so thick I wasn't confident to take the cloud cover during the first two weather checks. It would drizzle for about 5 minutes twice today, but the needed moisture was very short lived. Wabasca and surrounding communities were evacuated last night, but the wind would shift directions and come from the north, bringing with it thick smoke (visibility less than 1 km), which prompted the evacuation of the park and Marten Beach and an evacuation alert for Slave Lake to Smith as well. We managed to get nearly full net hours before we hurriedly shut down the station and pulled key equipment from the lab. A thin coat of ash fell throughout the morning.

Bird activity was erratic with some northward movement of warblers either through the canopy or very high in the sky such that only specks could be seen (but still within the smoke). Most of our breeders could still be heard singing, but with less effort than normal. Foraging efforts were low, but it was very dark with the smoke and the clouds combined and visibility was very poor. The loons and ducks seemed antsy with a flock of 12 Common Loons flying over the lake, over the lab and over the parking lot throughout the observation period, never settling down for any length of time. Across the board, bird activity was very low. Some Tree Swallows and ducks seemed to be reverse migrating.

**Robyn Perkins**

**June 4 - June 10 (Week 8)**

Thanks to rain on June 3 and 4 and calm winds, we were allowed to continue monitoring on June 5 under a 12 hour evacuation alert. This last week of spring migration monitoring was hot with frequent late-morning winds and overnight rains. Heavy helicopter and plane traffic occasionally made observations difficult. Migration was very slow except for large groups of Common Merganser and Cedar Waxwing and a trickle of Alder Flycatchers and warblers. Some Canada Geese were spotted on the lake with their goslings. Banding was steady with 144 birds banded from 24 species, with many showing characteristics of active breeding. First encounters included Western Wood-pewee, Yellow-bellied Flycatcher, and a Parasitic Jaeger passing overhead.

# Fall Migration Monitoring

Fall migration monitoring takes place over 12 weeks from mid-July to late September – a period that covers the migration window for most songbird species anticipated at the LSLBO as they move south for the winter. Unfortunately, the same species that receive poor coverage with 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. Abundances of individuals increase through July as more migrants are observed alongside local breeders. Come August, most encounters are of migrants which trickle into late September. Fall migration is erratic and busy banding days are remarkably difficult to predict.

Fall migration monitoring extended from July 12 to September 30 for 78 of a possible 81 days (Table 4). Monitoring was interrupted July 26 to 28 when heavy rains washed out roads and trails preventing safe access to the site. Despite the brief disruption, the number of days monitored and the number of days with banding and census were all at or above average. Census was performed daily and 57 days achieved the desired 8 daily visual migration counts. Wind and rain completely prevented the nets from opening on 8 days, while cold starts and late morning winds prevented full net-hours on 48 days. Only 22 days met full net-hours, and as a result, lower than average daily net-hours were accumulated. High winds frequently caused the early closure of the more exposed non-standard aerial nets, which collected the fewest daily net-hours since they were set-up in fall 2010. Moderately high volunteer activity and increased staff hours during early September allowed the number of person-days accumulated throughout the season to be above average (see Staff and Volunteers, p. 26). Overall, monitoring efforts for fall migration were similar to past years.

**Table 4. Summary of effort during fall migration monitoring.** Averages based on 1995 to 2019 data, except visual migration effort (2000-2019; standard observation time reduced from 10 to 5 minutes).

| | 2019 | Average | Max (Year) | Min (Year) |
|---|---|---|---|---|
| **Daily Coverage** | | | | |
| First day (…, Latest, Earliest) | July 12 | July 13 | Aug. 5 (1997) | July 7 (2000) |
| Last day (…, Latest, Earliest) | Sept. 30 | Sept. 29 | Oct. 6 (2000) | Sept. 22 (2001) |
| Number of days | 78* | 74 | 91 (2000) | 35 (1997) |
| Person-days | 167 | 143 | 207 (2000) | 45 (1997) |
| Average daily coverage code | 3.69* | 3.75 | 3.90 (2001) | 3.48 (2003) |
| **Banding** | | | | |
| Number of days | 70 | 70 | 89 (2000) | 33 (1997) |
| Standard nets average daily net-hours (84 max) | 58.7* | 65.1 | 76.3 (2008) | 34.3 (1996) |
| Aerial nets average daily net-hours (14 max) | 7.3* | 9.2 | 10.3 (2012) | 7.3 (2019) |
| **Census** | | | | |
| Number of days | 78 | 68 | 90 (2000) | 8 (1997) |
| **Visual Migration Counts** | | | | |
| Number of days | 78 | 79 | 91 (2000) | 69 (2001) |
| Average daily vis. migs. | 7.4* | 7.6 | 7.8 (2001) | 7.3 (2011) |

* Due to overland flooding, monitoring could not be performed for three days (excluded from averages)

# Fall Migration Daily Totals

A total of 49,692 birds of 134 identified species were recorded during fall migration monitoring between counting methods. Census accounted for 16% of all encounters with 101 species recorded, including the only Long-billed Dowitcher and Northern Shrike recorded during fall migration monitoring. Visual migration counts contributed 10% of encounters, recording 37 species including the only Peregrine Falcon. Banding contributed the fewest encounters (8%), but contributed more to total observations during fall than during spring migration monitoring (1%). There were 65 species banded, including the only Brown-headed Cowbird, Western Wood-pewee, Connecticut Warbler, Chestnut-sided Warbler, Fox Sparrow, and LeConte's Sparrow encountered. Incidental observations recorded the majority of birds (66%) and the highest species diversity (126 species) with 24 species only recorded incidentally. These species included: Broad-winged Hawk, Gadwall, White-winged Scoter, Clark's Grebe, Black Tern, Least Sandpiper, Ruby-throated Hummingbird, Olive-sided Flycatcher, Great Crested Flycatcher, Barn Swallow, Harris's Sparrow, and American Goldfinch.

Overall, songbird migration was erratic (Figure 3) possibly because of persistent heavy winds and poor overnight weather. A storm washed out access to the site and operations were halted July 26 to 28. In general, overhead migration was low while foraging activity was unusually high throughout the season. It is possible the large forest fires to the northeast created an additional funnelling effect pushing more birds toward the station as they moved southward. Observations started high with strong movements of Pine Siskin (July 17) being replaced by Myrtle Warblers that migrate through in two waves: the first July 21 to August 2 and the second August 27 to September 14. Throughout September there was an irruption of Black-capped Chickadees and Boreal Chickadees. For a more detailed summary of each week see Fall Migration Weekly Summary (p. 15). For a break-down of each species' abundance, as well as arrival, peak, and departure timing, see Appendix I (p. 31).

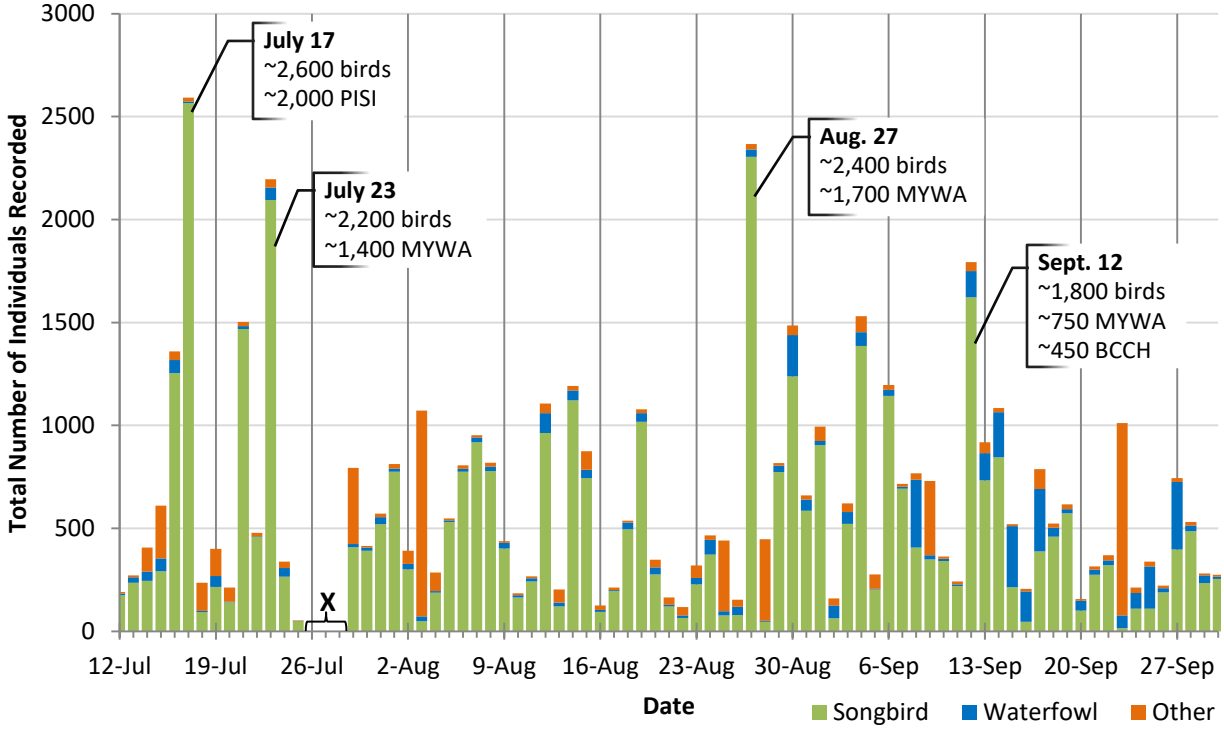


**Figure 3. Total number of individuals detected each day during fall migration across all methods, 2019.** *Codes: Pine Siskin (PISI), Myrtle Warbler (MYWA), Black-capped Chickadee (BCCH), no operations (X).*

# Fall Migration Banding

Fourteen mist-nets were set for a total of 5,148.5 net-hours, achieving 67.4% of 7,644 possible net-hours, excluding the three day evacuation period. Twelve standard nets were set for 4,580.0 net-hours (69.9% of 6,552.0 net-hours possible), which is below the season average of 5,437.2 net-hours (2000-2019). Non-standard netting was also below average (736.9 net-hours; 2010-2019) with 568.5 net-hours (52.1 % of 1,092.0 possible net-hours). Despite more days of fall migration monitored than average, inclement weather and frequent weasel and bear sightings often prevented mist-netting this fall.

A total of 3,761 birds were banded during fall migration monitoring with an additional 287 recapture records. This was the busiest fall season since operations began (season average of 2,078 birds; 1995-2019) due to high captures of warbler and chickadee species and most days experiencing a capture rate higher than the historical average. Banding began relatively steady in July and first peaked in capture rates on July 31 when 133 birds were banded (Figure 4). The busiest day of banding fell on August 7, when 364 birds were captured, but only 209 were banded since we lacked adequate man-power to safely process this volume. Although banding normally slows down mid to late September, 2019 remained busy due a chickadee irruption.

Species diversity was high with 65 species banded (average 58 species; 1995-2019), tying with 2000 for the highest fall species diversity. The five most frequently banded species accounted for 53% of all birds banded. These species were: Myrtle Warbler (672), Tennessee Warbler (408), Swainson's Thrush (351), Orange-crowned Warbler (293), and Black-capped Chickadee (273). Other species' totals are listed in Appendix II (p. 66).

Many species broke their previous banding records. These included: Black-capped Chickadee (with 273 banded; previous record 142 set in fall 2000), Boreal Chickadee (23; 7 in 1994), Orange-crowned Warbler (293; 83 in 2010), Cape May Warbler (26; 15 in 2010), Bay-breasted Warbler (38; 19 in 2006), and Rose-breasted Grosbeak (22; 21 in 2005/07).

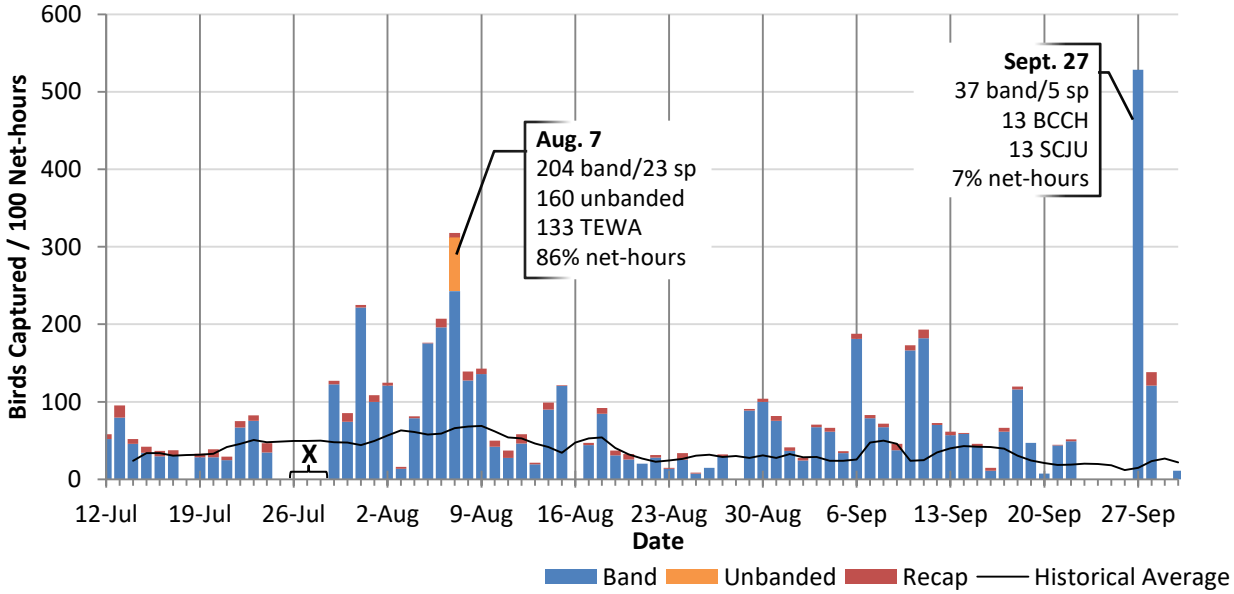


**Figure 4. Daily capture rates standardized to 100 net-hours during fall migration** for standard and non-standard banding with a three-day moving average for capture rates from 2000-2019. *Codes: Tennessee Warbler (TEWA), Black-capped Chickadee (BCCH), Slate-coloured Junco (SCJU), no operations (X).*

# Fall Migration Net-Lane Productivity

The same nets are used for fall migration monitoring as in the spring with 12 standard nets (coded 1 to 12) and two non-standard aerial nets (11X and 12X). Standard net-lanes were established in 1994 and 1995 with 7 hour standard monitoring periods beginning in 2000. Non-standard nets have been operated since fall 2010. Due to their high exposure to wind along the less vegetated shoreline, nets 6, 11, 11X, and 12X accumulated the fewest net-hours again this year (Table 5). Nets 9 and 10 were kept closed temporarily due to dangerous leaning trees created by an intense storm on July 25, obtaining fewer net-hours than similarly sheltered nets.

Across all nets, the capture rate for fall migration monitoring was over three times higher than this spring's capture rate and nearly double the average fall capture rate with 86.5 birds per 100 net-hours (average 51.5 birds per 100 net-hours, 1995-2019; Table 5). All nets experienced higher capture rates than average except for net 3 tucked away deep into mature mixed forest, which captured under half its average capture rate. This net has experienced dramatic changes in surrounding vegetative structure since operations began. Nets 6, 12, and 12X doubled their average capture rates, while nets 4, 5, and 8 nearly tripled their average capture rates. As usual, net 6 experienced the highest capture rate of 288.5 birds per 100 net-hours and caught the highest diversity (48 species). It is likely, however, that these values are somewhat inflated because the shoreline nets can only be operated in near-perfect weather conditions that are linked with higher migration rates. Similar to spring migration, the aerials caught 19% of all birds captured, despite their record low net-hours in 2019.

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

| Net-lane | Net-hours (Coverage) | New Band | Recapture | Aug. 7 Unbanded | Total Capture of Total Species | Capture Rate (Average) |
|---|---|---|---|---|---|---|
| **1** | 414.3 (75.9%) | 220 | 24 | 13 | 257 of 31 | 62.0 (61.1) |
| **2** | 413.3 (75.7%) | 116 | 14 | 17 | 147 of 19 | 35.6 (33.8) |
| **3** | 409.3 (75.0%) | 63 | 4 | 2 | 69 of 13 | 16.9 (31.1) |
| **4** | 405.3 (74.2%) | 242 | 18 | 3 | 263 of 31 | 64.9 (24.8) |
| **5** | 402.3 (73.7%) | 492 | 48 | 30 | 570 of 46 | 141.7 (56.1) |
| **6** | 319.3 (58.5%) | 841 | 30 | 50 | 921 of 48 | 288.5 (156.1) |
| **7** | 391.0 (71.6%) | 90 | 18 | 2 | 110 of 18 | 28.1 (21.6) |
| **8** | 391.0 (71.6%) | 196 | 17 | 6 | 219 of 32 | 56.0 (22.9) |
| **9** | 358.5 (65.7%) | 47 | 9 | 0 | 56 of 14 | 15.6 (16.7) |
| **10** | 358.5 (65.7%) | 70 | 11 | 0 | 81 of 23 | 22.6 (21.8) |
| **11** | 317.8 (58.2%) | 319 | 21 | 3 | 343 of 41 | 107.9 (69.0) |
| **12** | 399.8 (73.2%) | 362 | 29 | 18 | 409 of 42 | 102.3 (48.9) |
| **Total standard** | 4,580.0 (69.9%) | 3058 | 243 | 144 | 3445 of 62 | 78.5 (47.0) |
| **11X** | 259.8 (47.6%) | 335 | 14 | 14 | 363 of 42 | 139.7 (99.9) |
| **12X** | 308.8 (56.5%) | 368 | 30 | 2 | 400 of 41 | 129.6 (56.5) |
| **Total non-standard** | 568.5 (52.1%) | 703 | 44 | 16 | 763 of 51 | 134.7 (78.2) |
| **Grand total** | **5,148.5 (67.4%)** | **3761** | **287** | **160** | **4208 of 65** | **86.5 (51.5)** |

# Fall Migration Weekly Summary

The following is a weekly summary of monitoring efforts, captures, and observations. For more detailed weekly totals, see Appendix I. Migration Occurrence Records (page 31).

**July 12 - July 18 (Week 1)**
Fall migration monitoring began hot with sporadic breezy and rainy periods. Mist-netting was completed for 78% of possible net-hours for a relatively busy start to fall of 242 birds banded from 29 species. Many of these birds were fledglings or adults molting their flight feathers before they migrate. Some nets were closed as a precaution after a weasel had been repeatedly spotted in their vicinity. Of the 66 identified species, Pine Siskin would dominate as they moved south in a rare irruption, peaking on July 17 when nearly 2,000 Pine Siskin were counted. Migration began in earnest by the end of the week with Myrtle Warblers and some Tennessee Warblers. Other bird activity involved intermittently singing males, foraging family groups, and circling Cedar Waxwing and gull flocks. The highlight was a Mule Deer pronking along the shoreline setting himself apart from his far more locally common White-tailed Deer counterparts.

**July 19 - July 25 (Week 2)**
Overall, the weather was warm and humid with breezy and rainy periods. Migration started to pick up with 70 identified species encountered, including plenty of Myrtle Warblers (40% of all encounters), Tennessee Warblers, Yellow Warblers, Swainson's Thrush, and American Robins. The busiest day for migration this week (July 23) saw around 1,350 Myrtle Warblers with only a trickle of 26 Pine Siskin. In total, 221 birds of 29 species were banded with similar mist-netting coverage as the previous week (71% of possible). July 23 also saw the first of what may be a record number of black bear encounters this fall. After a storm blew in overnight, monitoring was cut short on July 25 due to concerns over our ability to exit the station as strong winds pushed trees down on the roads and trails. High rains occasionally lowered visibility to less than 200 m and filled wetlands that began to flood over roads. On this day, bird activity was predictably minimal with few birds seen foraging, including a Yellow Warbler feeding fledglings and a lone juvenile Red-necked Grebe being toppled in the high waves.

**July 26 - August 1 (Week 3)**
Migration monitoring efforts were interrupted because the 170 mm of rain that fell in the Marten Hills over the duration of the storm that began July 25 came down to wash out two culverts on Highway 88 and a bridge on the Trans-Canada Trail, blocking access to the station. On July 29, after three days of no operations, we were allowed back when a temporary bridge was placed over the washout on the highway. The netlanes weathered the storm well with no major damage and only light blowdown of willow. After the discovery of a leaning tree over nets 9 and 10, it was decided that these nets would remain closed until an expert could properly assess the danger and the ground was no longer saturated. Despite severely reduced net-hours (34% of possible), 316 birds from 28 species were banded as migration continued to increase. Migration came in surges of mostly Myrtle Warblers and Tennessee Warblers, but also saw good numbers of Swainson's Thrush, American Robin, Canada Warbler, American Redstart, White-throated Sparrow, Tree Swallow, and Western Tanager. Unusually high foraging activity was noted. At least two black bears were encountered around a dozen times eating berries along the shorelines. Some nets would be temporarily closed when these bears crossed the path toward them.

**August 2 - August 8 (Week 4)**
Although the days were warm and breezy and overhead migration was slow, this was a busy week for bird activity as birds took to foraging. A total of 75 identified species were recorded with Myrtle Warblers and Tennessee Warblers making up the majority of observations. Migration peaked for many species, including Swainson's Thrush, Tennessee Warbler, American Redstart, Magnolia Warbler, Canada Warbler, Bay-breasted Warbler, Western Tanager, and Rose-breasted Grosbeak. This was the busiest period for banding with 855 birds banded from 37 species (84% of possible net-hours) and five days doubling their historical average capture rates. Of these bands, 84% would be warblers, including 209 Tennessee Warblers, 95 American Redstarts, and 65 Canada Warblers. The busiest day for captures in years was on August 7 when 364 birds were captured and the nets had to be closed early due to concerns over bird safety. Occasional thunder could be heard to the north and it is possible this storm activity encouraged the burst of migration and foraging through the station. Of the birds captured, many were released at the net unbanded in the last check as nets were collapsed and 'only' 204 were banded. We were limited to two staff that could extract and band birds, but two volunteers trained as scribes were key to the quick processing and release of both banded and unbanded birds.

**August 9 - August 15 (Week 5)**
The weather was breezy, yet muggy with frequent overnight rains allowing for great mist-netting coverage (97% of possible net-hours). Tennessee Warblers and Myrtle Warblers were again the most prominent migrants along with subtle peaks in migration for Alder Flycatcher, Least Flycatcher, Red-eyed Vireo, Philadelphia Vireo, Mourning Warbler, Northern Waterthrush, and Purple Finch. Raptors began to move with numerous encounters of Sharp-shinned Hawk, Northern Harrier, Osprey, and Red-tailed Hawk. Among the 83 identified species were the last songbird clutches to leave the nest and fledgling American Robin, Red-eyed Vireo, Myrtle Warbler, White-throated Sparrow, and Song Sparrow were observed growing their flight feathers and being actively fed. Moreover, the Cedar Waxwings began foraging with their young in large flocks. Banding was steady overall with 466 birds banded from 39 species (the highest diversity banded this fall), including the first Wilson's Warbler, Connecticut Warbler, and Western Wood-pewee. The bears were busy again with numerous encounters of at least three individuals.

**August 16 - August 22 (Week 6)**
Persistent high winds and occasional rain stifled both overhead migration and banding (only 52% of possible net-hours). The usual lull in Myrtle Warbler migration was noted. Still, daily capture rates were close to their historical average and 172 birds were banded from 27 species, with a surge of Swainson's Thrush (50 banded). There was a brief peak in migration on August 19 with over 600 Myrtle Warblers (over half of the Myrtles recorded within the week) and a trickle of other warblers, Eastern Kingbirds, and American Crows. The last of many swallow species were observed this week amongst the 75 identified species, although the first Slate-coloured Junco and Least Sandpiper made an appearance. Although only one bear was spotted during the week's operations, reports of six bears foraging at the nearby campground forced its closure and kept us hypervigilant.

**August 23 - August 29 (Week 7)**
This week was again windy with periods of rain, both during monitoring and overnight. Hordes of mosquitoes made a late-season appearance. On August 27, the wind would let up and encourage strong overhead migration of Myrtle Warblers, starting the second Myrtle Warbler wave. Peaks in migration for Franklin's Gulls, Ring-billed Gulls, Common Terns, and Red-necked Grebes passed. Amongst the 77 identified species were the first Greater White-fronted Geese, American Pipits, and Orange-crowned Warblers. The Cedar Waxwings began to migrate in earnest and the last observations of Warbling Vireo, Yellow-bellied Flycatcher, and Bay-breasted Warbler were recorded. Banding was slow in general, but would pick up on the last day of the week with 159 birds banded from 28 species overall within 68% of possible net-hours. The only bear sighting was of a black bear and her two cubs, which quickly made themselves scarce (for which we were grateful).

**August 30 - September 5 (Week 8)**
The weather was warm with breezy periods and the mosquitoes continued to be unseasonably severe. Songbird migration was erratic with a low on September 2 (windy) and highs on August 31, September 1, and 3 with steady Myrtle Warbler movements as the peak of their second wave of migration took place. Of all birds encountered, 59% were Myrtle Warblers. A burst of Black-capped Chickadees dispersed down the shoreline moving south on September 4 and 5. The last of our summer breeders departed and only 3% of encounters were not actively migrating or dispersing. Diversity swelled to 87 identified species with the first Ring-necked Duck, Barn Swallow, Horned Lark, Golden-crowned Kinglet, Savannah Sparrow, Gambel's White-crowned Sparrow, and American Tree Sparrow. Peaks for fall migration occurred for Red-tailed Hawk, Cedar Waxwing, Common Yellowthroat, Blackpoll Warbler, Wilson's Warbler, and White-throated Sparrow. The highlight was a large pod of Western Grebes on the lake on August 30. Captures were steady with late morning rushes banding 361 birds from 38 species (85% of possible net-hours) – mostly Myrtle Warblers (131 banded).

**September 6 - September 12 (Week 9)**
This week began hot and breezy and ended windy. Songbird migration slowed down except for September 12 when flocks of Myrtle Warblers migrated overhead while hordes of Black-capped Chickadees irrupted through the canopy moving determinedly south. Species diversity was at its highest for the fall with 90 identified species, including the first Sandhill Crane, Bufflehead, Gray-cheeked Thrush, and Fox Sparrow. Meanwhile the last Eastern Phoebe, Red-eyed Vireo, Barn Swallow, House Wren, European Starling, Cape May Warbler, Canada Warbler, Ovenbird, Swamp Sparrow, Chipping Sparrow, Savannah Sparrow, Song Sparrow, and Western Tanager were spotted. Highlights included two Clark's Grebes circling each other on the lake – the first encounter of this species for our station. Mist-netting was attempted on all days for partial net-hours (71% of possible) to band 527 birds from 36 species – the second busiest week for banding this fall. Alongside the usual flocks of Myrtle Warblers (164 banded) were a rare Chestnut-sided Warbler and a shockingly high number of Orange-crowned Warblers (192 banded). In just this period, Orange-crowned Warblers more than doubled their previous banding record of 83 banded in the fall of 2010. The last black bears to worry our banders were spotted this week with at least five individuals around the station. A very unusual encounter was of a skunk behind the banding lab – another possible first.

**September 13 - September 19 (Week 10)**
With frequent overnight rains, the weather became cool, overcast, and breezy. The first day to experience a delayed opening due to the cold was September 18. Despite reduced mist-netting effort (66% of possible net-hours), banding was steady with 265 birds from 28 species, 71% of which were Black-capped Chickadees (188 banded), which continued to move south in a steady stream through the canopy. Bird activity would slump mid-week to pick up again near the end. Most encounters were of Myrtle Warblers (28% of all birds recorded) and Black-capped Chickadees (24%). Among the 74 identified species were the first Rough-legged Hawk and Lesser Snow Goose and the last Double-crested Cormorant, Least Flycatcher, Alder Flycatcher, Blue-headed Vireo, Winter Wren, Wilson's Warbler, Blackpoll Warbler, Common Yellowthroat, Mourning Warbler, Black-and-white Warbler, Clay-coloured Sparrow, Common Grackle, and somewhat late Eastern Kingbird, Tennessee Warbler, and Rose-breasted Grosbeak. Counts peaked for Black-capped Chickadees, Common Loons, Greater White-fronted Geese, and a second push of American Robins. Highlights included a Black-backed Woodpecker that settled in the area despite the habitat being poor for this species and a Great Crested Flycatcher that conveniently caught a dragonfly just as observers were wondering if they were capable of catching an insect so large.

**September 20 - September 26 (Week 11)**
On most days the wind was consistently strong, preventing mist-netting and thwarting bird activity. The nets suffered with only three days obtaining partial hours (33% of possible), catching more leaves than birds. A total of 88 birds were banded from 9 species; mostly Black-capped Chickadees (61 banded) and Slate-coloured Juncos (13 banded). Songbird migration slowed considerably with a trickle of Myrtle Warbler, Slate-coloured Junco, and American Tree Sparrow alongside the continued Black-capped Chickadee irruption. The proportion of Boreal Chickadees amongst the Black-capped Chickadees increased. Within the 59 identified species was a Harris's Sparrow, a flock of Greater Scaup, and the last American Kestrel, Northern Harrier, American White Pelican, Western Grebe, Spotted Sandpiper, Yellow-bellied Sapsucker, Philadelphia Vireo, Yellow Warbler, American Redstart, and Lincoln's Sparrow. Migration peaked for American Tree Sparrows. Most notable was September 23, which experienced heavy Sandhill Crane migration in spite of the high winds with over 900 moving through late morning.

**September 27 - September 30 (Week 12, 4 day-long period)**
The weather did not cooperate for the last four days of monitoring with cold mornings becoming windy afternoons. Although it remained too cold to attempt mist-netting on only one day, the other three days did not fare much better. Once temperatures climbed high enough to open the nets, they would quickly be closed again as the winds began to blow. Despite the nets only attaining 19% of possible net-hours, 89 birds from 10 species were banded. Black-capped Chickadees again made up most of the catch (43 banded), but were joined by decent numbers of Ruby-crowned Kinglets (14), Slate-coloured Juncos (13), and Boreal Chickadees (8). Capture rates peaked on September 27 when 37 birds were banded within only 7 net-hours since most nets were frozen shut. Black-capped Chickadees still moved through steadily among the highest counts of the fall for Boreal Chickadees, Slate-coloured Juncos, and Lesser Snow Geese, whose migration window we could not completely capture. Of the 48 identified species, the highlight was a Northern Shrike seen on September 28.

# Monitoring Avian Productivity and Survivorship (MAPS)

Coordinated by the Institute for Bird Populations (IBP), Monitoring Avian Productivity and Survivorship (MAPS) is a continent-wide program that aims to understand population changes in order 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 better address factors causing populations declines, for example, poor breeding success.

The LSLBO has contributed to MAPS since 1994, with this year marking the 26 year of participation. Four MAPS stations are operated: Far and Away (FAWA), Fern Gully (FEGU), Residential (RESI), and Roadside (ROAD). FAWA, FEGU, and ROAD are located in the mature deciduous forest near the migration station, while RESI is in a more diverse set of habitats near the Boreal Centre for Bird Conservation. FAWA and ROAD have operated yearly since 1994 (26 years). FEGU has operated from 1994 to 2000, then 2003 to 2019 (23 years), while RESI has operated since 2000 (20 years).

Each station is visited six times, once in each 10-day period (Table 6). Standardized mist-netting and observations are combined to determine species breeding statuses (Table 8). The LSLBO follows protocol for station activities outlined in the MAPS Manual (IBP, 2015).

**Table 6.** Dates of operation and net-hours completed within the intended periods for each MAPS site.

| | Station (Net-hours operated) | | | |
|---|---|---|---|---|
| **MAPS Period (Dates)** | **FAWA (360.0)** | **FEGU (358.0)** | **ROAD (359.5)** | **RESI (342.5)** |
| **5** (June 10 – 19) | June 14 (60.0) | June 12 (60.0) | June 12 (60.0) | June 11 (60.0) |
| **6** (June 20 – 29) | June 22 (60.0) | June 21 (60.0) | June 21 (59.5) | June 19 (58.5) |
| **7** (June 30 – July 9) | July 4 (60.0) | July 3 (60.0) | July 3 (60.0) | June 30 (54.0) |
| **8** (July 10 - 19) | July 12 (60.0) | July 11 (60.0) | July 11 (60.0) | July 10 (60.0) |
| **9** (July 20 – 29) | July 22 (60.0) | July 21 (58.0) | July 21 (60.0) | July 20 (56.0) |
| **10** (July 30 – Aug. 8) | August 4 (60.0) | August 2 (60.0) | August 1 (60.0) | July 31 (54.0) |

Each station operates 10 nets within a six hour period for a maximum of 60 net-hours in a period and 360 possible net-hours in a summer. FAWA achieved maximum net-hours this year (Table 6). ROAD lost half an hour while a net was replaced after a deer ran through the original net. Similarly, FEGU lost net-hours after a deer ran through one net and a broken trammel on another forced repairs in the field. RESI saw exposed nets closed during breezy periods and one net was not operated in period 10 due to severe flooding in the net-lane.

Banding was above the average of 236.5 birds per MAPS season with a total of 357 birds banded (Table 7). For only the third time in 26 years, ROAD banded the most birds with 110 individuals of 20 species (average 53.3 bands/year). RESI banded the highest diversity of birds with 99 individuals of 23 species (average 96.0 bands/year), while FEGU banded 77 birds of 16 species (average 75.7 bands/year), and FAWA banded 71 birds of 16 species (average 42.6 bands/year). Record numbers of Cedar Waxwing (4), Winter Wren (7), Swainson's Thrush (39), Magnolia Warbler (12), and Western Tanager (5) were banded. This year also had the highest diversity of species banded during MAPS with 34 species (average 25.4 species/year). The most interesting capture was a Barred Owl in ROAD – a first for our MAPS program.

There were an additional 189 recaptures of 18 species recorded by the MAPS program with ROAD recording the most recaptures (62 records; Table 7). From these recapture records, the oldest known age bird from the MAPS program was a White-throated Sparrow recaptured in RESI estimated to be 7 years old or older (see Recaptures, p. 23).

**Table 7.** Number of birds banded and recaptured at four MAPS stations (AOU 2019 taxonomic order).

| | FAWA | | FEGU | | ROAD | | RESI | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Species** | Band | Recap | Band | Recap | Band | Recap | Band | Recap | Band | Recap |
| Barred Owl | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Yellow-bellied Sapsucker | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 2 |
| Downy Woodpecker | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Hairy Woodpecker | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Alder Flycatcher | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 3 |
| Least Flycatcher | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| Blue-headed Vireo | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Red-eyed Vireo | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| Black-capped Chickadee | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 3 | 1 |
| Red-breasted Nuthatch | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Brown Creeper | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 |
| House Wren | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Winter Wren | 3 | 1 | 1 | 0 | 1 | 0 | 2 | 0 | 7 | 1 |
| Ruby-crowned Kinglet | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Swainson's Thrush | 3 | 0 | 12 | 4 | 16 | 7 | 8 | 1 | 39 | 12 |
| Hermit Thrush | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| American Robin | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| Cedar Waxwing | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 |
| Chipping Sparrow | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 |
| White-throated Sparrow | 16 | 14 | 12 | 12 | 22 | 19 | 16 | 9 | 66 | 54 |
| Song Sparrow | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lincoln's Sparrow | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 3 | 2 |
| Ovenbird | 2 | 0 | 7 | 3 | 13 | 9 | 8 | 0 | 30 | 12 |
| Black-and-white Warbler | 0 | 1 | 1 | 1 | 7 | 1 | 0 | 0 | 8 | 3 |
| Tennessee Warbler | 1 | 0 | 1 | 0 | 2 | 0 | 9 | 0 | 13 | 0 |
| Mourning Warbler | 9 | 11 | 7 | 5 | 5 | 5 | 12 | 5 | 33 | 26 |
| Common Yellowthroat | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 |
| American Redstart | 13 | 8 | 12 | 16 | 10 | 4 | 4 | 0 | 39 | 28 |
| Magnolia Warbler | 0 | 1 | 3 | 2 | 4 | 3 | 5 | 2 | 12 | 8 |
| Bay-breasted Warbler | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| Yellow Warbler | 3 | 0 | 4 | 0 | 2 | 0 | 1 | 0 | 10 | 0 |
| Myrtle Warbler | 5 | 2 | 2 | 0 | 3 | 5 | 6 | 0 | 16 | 7 |
| Black-throated Green Warbler | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Canada Warbler | 9 | 4 | 10 | 14 | 14 | 8 | 5 | 0 | 38 | 26 |
| Western Tanager | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 5 | 0 |
| Rose-breasted Grosbeak | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| **Total number of captures** | **71** | **42** | **77** | **61** | **110** | **62** | **99** | **24** | **357** | **189** |
| **Total number of species** | **16** | **8** | **16** | **11** | **20** | **10** | **23** | **8** | **34** | **18** |
| | **Grand Total** (Captures/Species) | | | | | | | | **546 / 36** | |

# MAPS Breeding Status

To assess the summer residency status of species observed during MAPS, each of the 67 species detected was given a breeding status code (Table 8). Observations were recorded within the station's boundaries during banding operations (Table 6). Confirmed breeding species (B) are those with at least one individual observed with an active nest, very young fledglings, 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.

**Table 8. Breeding status of species detected during MAPS, 2019.** "B" indicates a breeding species, "L" a likely breeding species, and "T" a transient species for each site (AOU 2019 taxonomic order).

| Species | FAWA | FEGU | ROAD | RESI | Species | FAWA | FEGU | ROAD | RESI |
|---|---|---|---|---|---|---|---|---|---|
| Canada Goose | | T | | T | Ruby-crowned Kinglet | | | L | T |
| Mallard | | | | T | Swainson's Thrush | L | B | B | B |
| Ruffed Grouse | L | T | B | B | Hermit Thrush | L | T | T | |
| Ruby-throated Hummingbird | | | | T | American Robin | T | T | L | B |
| Spotted Sandpiper | | T | | | Cedar Waxwing | L | L | L | L |
| Franklin's Gull | T | T | T | | Purple Finch | T | T | T | T |
| Ring-billed Gull | | T | | | White-winged Crossbill | T | | | T |
| Common Loon | T | T | T | T | Pine Siskin | T | T | T | T |
| Bald Eagle | T | T | T | | Chipping Sparrow | | | T | B |
| Barred Owl | T | L | L | L | Clay-colored Sparrow | | T | | T |
| Belted Kingfisher | T | | | T | White-throated Sparrow | B | B | B | B |
| Yellow-bellied Sapsucker | L | B | T | B | Song Sparrow | B | T | B | |
| Downy Woodpecker | L | L | L | | Lincoln's Sparrow | T | | T | B |
| Hairy Woodpecker | L | B | B | B | Swamp Sparrow | | | | T |
| Yellow-shafted Flicker | T | | | T | Red-winged Blackbird | T | | | |
| Pileated Woodpecker | | T | T | T | Brown-headed Cowbird | | | | T |
| Merlin | T | | | | Ovenbird | B | B | B | B |
| Western Wood-Pewee | | | | T | Black-and-white Warbler | B | B | B | B |
| Alder Flycatcher | B | T | L | B | Tennessee Warbler | B | B | B | B |
| Least Flycatcher | B | | T | B | Mourning Warbler | B | B | B | B |
| Eastern Phoebe | | B | B | | Common Yellowthroat | T | | | B |
| Blue-headed Vireo | | T | L | L | American Redstart | B | B | B | B |
| Philadelphia Vireo | T | | | | Magnolia Warbler | L | B | B | B |
| Warbling Vireo | | T | | T | Bay-breasted Warbler | | | | T |
| Red-eyed Vireo | B | B | B | B | Yellow Warbler | L | L | T | L |
| Canada (Gray) Jay | | | | L | Chestnut-sided Warbler | | | | T |
| Blue Jay | | | T | T | Myrtle Warbler | B | B | B | B |
| American Crow | L | T | B | L | Black-throated Green W. | | | T | B |
| Common Raven | T | T | | L | Canada Warbler | B | B | B | B |
| Black-capped Chickadee | B | B | B | B | Western Tanager | T | B | L | B |
| Boreal Chickadee | | | | L | Rose-breasted Grosbeak | T | L | L | L |
| Red-breasted Nuthatch | B | B | B | B | **TOTALS** | **FAWA** | **FEGU** | **ROAD** | **RESI** |
| White-breasted Nuthatch | | T | | | Breeding species (B) | 15 | 18 | 18 | 26 |
| Brown Creeper | L | T | L | B | Likely breeding sp. (L) | 11 | 5 | 11 | 9 |
| House Wren | | | T | | Transient species (T) | 18 | 21 | 15 | 19 |
| Winter Wren | B | B | L | B | **Total species detected** | **44** | **44** | **44** | **54** |

# Northern Saw-whet Owl & Boreal Owl Monitoring

The LSLBO contributes to Project Owlnet, a continent-wide network of Northern Saw-whet Owl banding stations. Along with understanding these owl's population trends, habitat quality of mature forests and population trends of small mammal species may be inferred. Targeted owl banding was performed when possible September 1 to October 31 to monitor the populations of migratory Northern Saw-whet Owls and potentially migratory Boreal Owls.

Two net arrays were operated during favourable weather conditions. The Saw-whet Owl net array consists of a line of four nets near the Boreal Centre for Bird Conservation in mature deciduous forest (since 2004). Another two nets in a nearby stand of conifers makes up the Boreal Owl net array (since 2016). Nets are opened one hour after sunset with standardized call playbacks specific to each species used to attract owls. This year was the 16 year of fall owl migration monitoring.

Owl banding was carried out on 37 out of 61 possible nights, below the average of 41 nights per season due to frequent stormy conditions. The Saw-whet array accumulated 578 net-hours (average 609.8 net-hours), while the Boreal array accumulated 293 net-hours (average 297.8 net-hours) to an average of 14.3 net-hours per night between the two arrays (6 nets). Despite the addition of the Boreal Owl array, this was the sixth slowest year for Northern Saw-whet Owl banding with 88 Northern Saw-whet Owls and no Boreal Owls banded. Of these owls, 78 were captured in the Saw-whet Owl array and 12 Saw-whets were captured in the Boreal Owl array. The capture rate was below average with 10.0 owls per 100 net-hours (15.5 owls/100 net-hours average; 2004-2019). The busiest night of owl banding, September 13, was somewhat earlier in the season than the normal peak of owl migration (Figure 5).

Two Saw-whet Owls were recaptured this year (Figure 5). One was banded earlier in the season, while the other was banded in 2018. Both individuals were originally banded by the LSLBO.

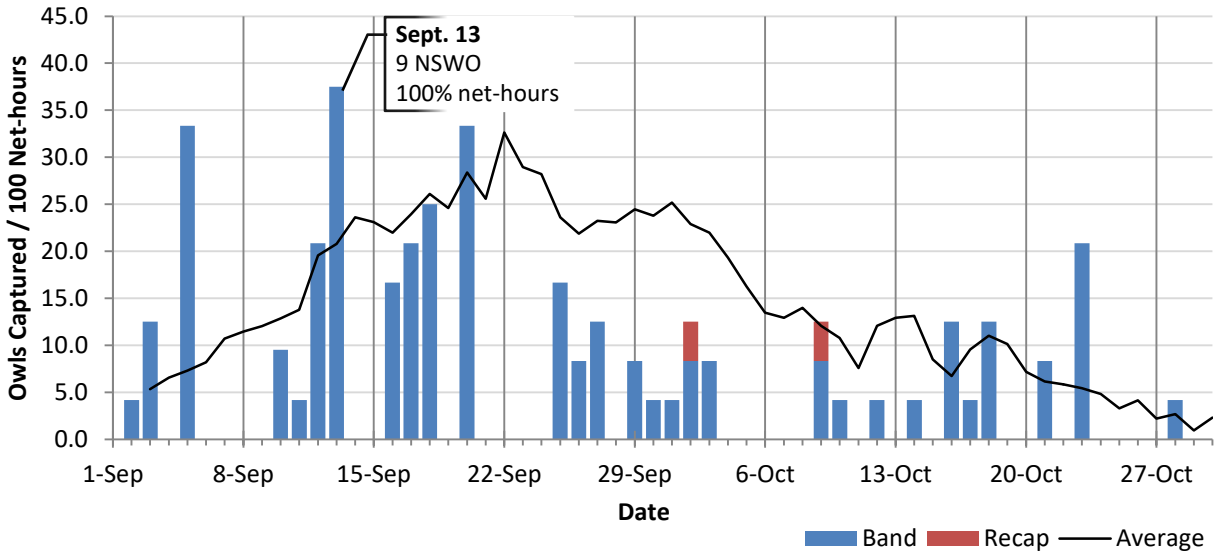


**Figure 5. Capture rates standardized to 100 net-hours during owl monitoring sessions** including both owl net arrays Sept. 1 to Oct. 31, 2019. Nightly average capture rates from 2004-2019 shown with a moving average of three day periods. *Codes: Northern Saw-whet Owl (NSWO)*

# Recaptures

Adult birds often cannot be given an exact age when banded. However, when the same bird is recaptured years later, we can better estimate its age. The LSLBO recorded 579 recaptures: 101 during spring migration, 287 during fall migration, 189 during MAPS, and 2 during owl banding. Local breeders are often recaptured multiple times in a year; thus, these 579 records represent 338 individuals of 32 species. Of these 338 individuals, 244 birds were originally banded this year and 55 were banded last year. There were 39 birds banded prior to 2018 (Table 9, next page). The oldest birds were both banded in 2014 and are estimated to be 7 years old or older. The White-throated Sparrow has been encountered at our MAPS site, RESI roughly every two years, while the Black-capped Chickadee has been encountered at the Migration Monitoring station yearly since 2014. See Appendix III. Banding Age Codes (p. 69) for help understanding assigned ages.

Although no birds banded outside of the LSLBO were encountered during our programs this year, one Sharp-shinned Hawk we banded on September 15, 2018 was reported over 3,700 km away on November 30, 2018 in Tamaulipas, Mexico (Figure 6). This bird had been shot for unknown reasons and was less than one year old.

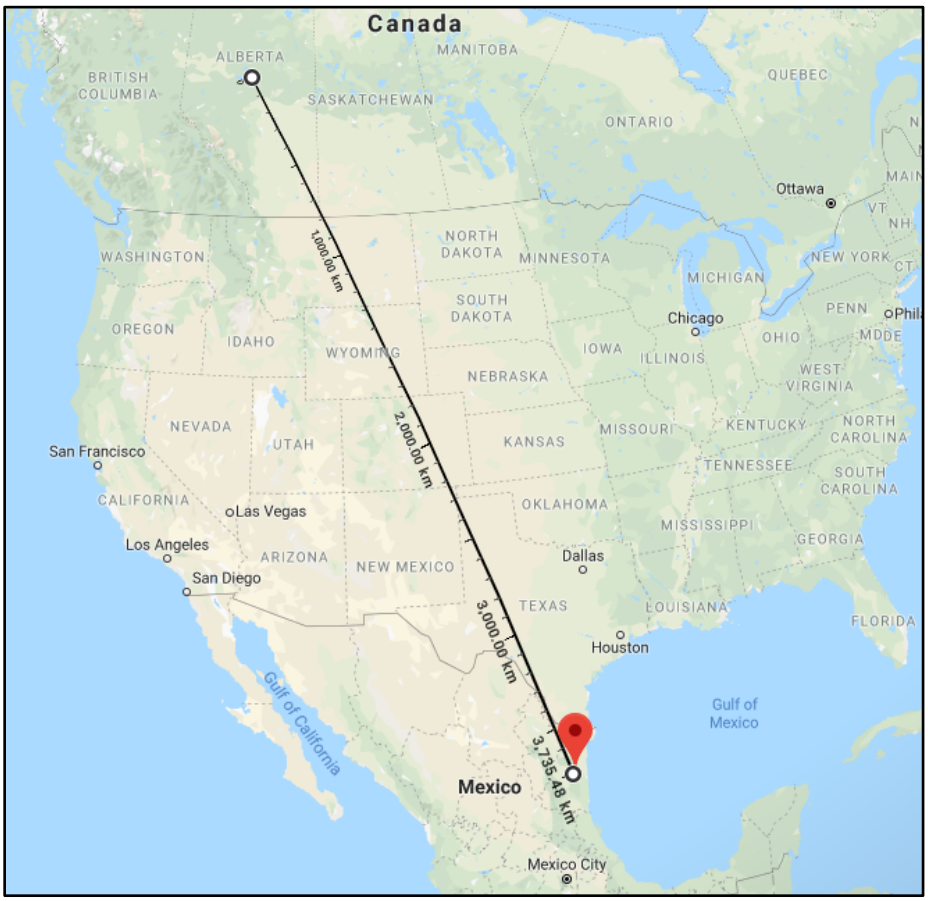


**Figure 6. Location of Sharp-shinned Hawk banding and band recovery** near Ejido Abasolo, Tamaulipas almost 11 weeks later, Google Earth imagery.

**Table 9.** Location (migration monitoring [MM], MAPS sites [FAWA, FEGU, ROAD, RESI], owl monitoring [OWL]) and approximate age of recaptured birds originally banded before 2018.

| Species | Band Number | Original Banding | | | Recapture | | Age (Years) |
|---|---|---|---|---|---|---|---|
| | | Date | Site | Age | Date (2019) | Site | |
| Black-and-white Warbler | 2740-83511 | July 28, 2016 | MM | HY | May 18 | MM | 3 |
| Myrtle Warbler | 2810-12288 | May 20, 2017 | MM | SY | June 21 | ROAD | 3 |
| Black-and-white Warbler | 2810-12360 | May 28, 2017 | MM | SY | June 7 | MM | 3 |
| Magnolia Warbler | 2570-15481 | May 31, 2017 | MM | SY | June 14 | FAWA | 3 |
| American Redstart | 2570-15506 | June 6, 2017 | MM | SY | July 23 | MM | 3 |
| Magnolia Warbler | 2570-15514 | June 9, 2017 | MM | SY | July 21 | MM | 3 |
| Canada Warbler | 2740-83920 | June 12, 2017 | ROAD | SY | July 20 | MM | 3 |
| White-throated Sparrow | 2661-72863 | June 25, 2017 | FAWA | SY | June 14 | FAWA | 3 |
| Mourning Warbler | 2740-83944 | June 30, 2017 | FAWA | SY | July 4 | FAWA | 3 |
| Canada Warbler | 2740-83941 | June 30, 2017 | FAWA | SY | June 14 | FAWA | 3 |
| Mourning Warbler | 2740-83986 | July 20, 2017 | RESI | SY | July 10 | RESI | 3 |
| Mourning Warbler | 2740-83965 | July 10, 2017 | RESI | AHY | June 30 | RESI | 3+ |
| Swainson's Thrush | 2661-72879 | July 10, 2017 | RESI | AHY | June 19 | RESI | 3+ |
| Canada Warbler | 2740-83970 | July 12, 2017 | FEGU | AHY | June 21 | FEGU | 3+ |
| Mourning Warbler | 2740-83974 | July 13, 2017 | FAWA | AHY | June 14 | FAWA | 3+ |
| Swainson's Thrush | 2741-70634 | July 22, 2017 | MM | AHY | Aug. 9 | MM | 3+ |
| Canada Warbler | 2710-93393 | July 29, 2015 | MM | HY | June 12 | FEGU | 4 |
| White-throated Sparrow | 2661-72976 | June 13, 2016 | ROAD | SY | June 12 | ROAD | 4 |
| American Redstart | 2550-83190 | July 3, 2016 | FEGU | SY | June 22 | FAWA | 4 |
| American Redstart | 2550-83188 | July 3, 2016 | FEGU | AHY | June 12 | FEGU | 4+ |
| Canada Warbler | 2740-83545 | Aug. 1, 2016 | MM | AHY | June 12 | FEGU | 4+ |
| Black-capped Chickadee | 2740-83767 | Aug. 14, 2016 | MM | AHY | May 10 | MM | 4+ |
| American Robin | 1152-62187 | June 3, 2017 | MM | ASY | April 29 | MM | 4+ |
| White-throated Sparrow | 2661-72852 | June 11, 2017 | FAWA | ASY | June 14 | FAWA | 4+ |
| Mourning Warbler | 2740-83948 | June 30, 2017 | FAWA | ASY | June 22 | FAWA | 4+ |
| White-throated Sparrow | 2661-72870 | July 1, 2017 | ROAD | ASY | July 21 | ROAD | 4+ |
| American Redstart | 2570-15531 | July 15, 2017 | MM | ASY | July 12 | FAWA | 4+ |
| American Redstart | 2570-15146 | Aug. 3, 2017 | ROAD | ASY | June 5 | MM | 4+ |
| Canada Warbler | 2740-83241 | May 31, 2016 | MM | ASY | July 3 | FEGU | 5+ |
| Mourning Warbler | 2710-93936 | June 12, 2016 | FAWA | ASY | June 14 | FAWA | 5+ |
| American Redstart | 2550-83172 | June 20, 2016 | FAWA | ASY | June 14 | FAWA | 5+ |
| Mourning Warbler | 2710-93971 | June 22, 2016 | RESI | ASY | July 20 | RESI | 5+ |
| American Redstart | 2550-83183 | July 3, 2016 | FEGU | ASY | June 12 | FEGU | 5+ |
| Ovenbird | 2351-35069 | July 2, 2014 | FEGU | SY | June 9 | MM | 6 |
| Mourning Warbler | 2710-93309 | June 6, 2015 | MM | ASY | June 6 | MM | 6+ |
| White-throated Sparrow | 2341-94161 | June 21, 2015 | FAWA | ASY | July 22 | FAWA | 6+ |
| Mourning Warbler | 2710-92952 | July 1, 2015 | FAWA | ASY | June 22 | FAWA | 6+ |
| Black-capped Chickadee | 2730-93082 | May 7, 2014 | MM | ASY | Aug. 17 | MM | 7+ |
| White-throated Sparrow | 2431-87780 | June 22, 2014 | RESI | ASY | June 19 | RESI | 7+ |

# Habitat Assessment & Stewardship

A storm in July blew down a few mature trees and willows in our monitoring sites. Luckily, most sites experienced low levels of blowdown that could be quickly cleaned, although nets 9 and 10 in the migration station were kept closed until the risks of a leaning tree could be assessed. The ground became saturated and in the MAPS site, RESI, water under net 7 kept it closed for the last period, yet the historically wet beaver disturbed area near net 5 remained dry. FAWA also saw large puddles on the trails around nets 1 and 9, but not enough to impair operations. We would like to thank Alberta Agriculture and Forestry, who lent us their manpower and expertise so that we could get all sites running safely and smoothly again.

Since we are located within a Provincial Park, we must minimize our impacts on the natural area. To assist in our responsible stewardship of monitoring sites, the High Prairie Junior Forest Rangers filled 8 large garbage bags full of hand-picked noxious weeds in August; mainly Canada Thistle (*Cirsium arvense*) and White Cockle (*Silene latifolia poiret ssp.).*

No habitat assessments were completed. Performed every five years, the next assessments for all sites are scheduled for 2022. MAPS site assessments are performed using MAPS vegetation monitoring protocols (Nott 2003), while the migration monitoring site uses methodology similar to the BBird Field Protocol (Martin et al. 1997), as outlined in Linfoot (2011).

Linfoot N. 2011. *Determining the effects of local habitat succession on abundance and species diversity of birds captured at the Lesser Slave Lake Bird Observatory over 18 years of standardized mist-netting.* LSLBO technical report: http://www.lslbo.org/monitoring-and-research/research-library/

Martin TE, Paine C, Conway CJ, Hochachka WM, Allen P, Jenkins W. 1997. *BBird Field Protocol.* Missoula, Montana: University of Montana.

Nott P, DeSante DF, Michel N. 2003. *Monitoring Avian Productivity and Survivorship (MAPS) Habitat Structure Assessment (HSA) Protocol.* Point Reyes Station, CA: The Institute for Bird Pop.

# Collaborative Projects

**Vanderwell Breeding Bird Surveys**

In 2018, the LSLBO was approached by Vanderwell Contractors (1971) Ltd. to establish a collaborative research project performing breeding bird surveys in post-harvest forests of various ages and cover types to determine associated avian species diversity and distributions. This year was the second of three anticipated years for this project. Unfortunately forest fires in June destroyed several sample sites and made surveys in other sites too dangerous. As a result, no sites were surveyed this year. New sample locations will be generated for the completion of this project in 2021.

**Managing Alberta's Forest Birds Through Provincial-scale Forestry Planning**

Coordinated by the University of Alberta, the LSLBO will be a collaborative partner on a new project with the goals of analyzing and filling gaps in existing data on birds' use of dynamic forest landscapes and creating novel standardized models. These efforts will be used to develop simulation tools for integration into forest management planning in Alberta.

# Staff and Volunteers

Throughout all monitoring and maintenance projects, the LSLBO accumulated 394 person-days between staff and volunteers (Table 10). Two full-time fully-permitted field staff operated monitoring projects with the support of a third full-time assistant. Robyn Perkins returned for her fourth season overall and first season as Bander-in-Charge. Laura Tabbakh joined us from Quebec as our Assistant Bander with prior experience from several banding stations across Canada. Coming from Ontario with experience at two eastern stations, Bronwyn Robinson was our Field Assistant.

Education programs were delivered with help from Patti Campsall (LSLBO Executive Director) and staff shared with other organizations, including Laura Brandon (Forest Educator), Lesley Haney (Boreal Interpreter), Kourtnee Burnett (Information Officer), Donna Arseneau (Contract Educator), Ceiridwen Robbins (LSLPP Visitor Services Coordinator), Katelynn Cook and Jonathan Farr (LSLPP Seasonal Interpreters).

Volunteer activity was again low for monitoring projects in 2019 with nine volunteers accumulating 49 person-days (13.5% of all monitoring person-days; Table 10). The majority of volunteer activity was contributed by Jonathan Farr, who spent many busy fall mornings scribing and whose efforts accounted for 30% of all volunteer monitoring days. Also of note were the efforts of Joel Van Riper, who had to cancel his spring visit due to the forest fire evacuation and was evacuated alongside our staff due to overland flooding during his first fall visit.

In contrast, volunteer contributions to station maintenance were high with fifteen people contributing over half of all maintenance-focused person-days (53.1% of 32 person-days; Table 10). These volunteers helped with tasks that included net-lane and trail cleaning, noxious weed removal, construction material clean up, door installation, and placing shingles on and making small repairs to the boardwalks beneath nets 8, 9, and 10.

**Table 10.** Staff and volunteer person-days during operation of the LSLBO's core monitoring projects.

| | Spring | MAPS | Fall | Owls | Total |
|---|---|---|---|---|---|
| **Monitoring** | | | | | |
| Total person-days (T) | 106 | 41 | 173 | 43 | 363 |
| Staff person-days (%T) | 99 (93.4%) | 41 (100.0%) | 136 (78.6%) | 38 (88.4%) | 314 (86.5%) |
| Volunteer person-days (%T) | 7 (6.6%) | 0 (0.0%) | 37 (21.4%) | 5 (11.6%) | 49 (13.5%) |
| Days operated | 51 | 24 | 78 | 37 | 190 |
| **Maintenance** | | | | | |
| Total person-days (M) | 7 | 5 | 17 | 2 | 31 |
| Staff person-days (%M) | 4 (57.1%) | 5 (100.0%) | 4 (23.5%) | 2 (100.0%) | 15 (46.9%) |
| Volunteer person-days (%M) | 3 (42.9%) | 0 (0.0%) | 13 (76.5%) | 0 (0.0%) | 17 (53.1%) |
| **Grand total person-days (T+M)** | **113** | **46** | **190** | **45** | **394** |

# Publications

One article was published which used capture and observation field data from the LSLBO's Spring Migration Monitoring program from 1994 to 2014:

Lehikoinen A, Lindén A, Karlsson M, Andersson A, Crewe TL, Dunn EH, Gregory G, et al. 2019. *Phenology of the avian spring migratory passage in Europe and North America: Asymmetric advancement in time and increase in duration*. Ecological Indicators. 101 (2019): 985–991.

# Visitors and Education

Educating the public about bird conservation and the importance of research and monitoring is vital to gathering support for conservation initiatives. Visitors to banding operations gain a unique opportunity to see birds in the hand, reinforcing connections between the visitor and local wildlife. Through our education partnerships with Alberta Parks at the Boreal Centre for Bird Conservation (BCBC) and the Lesser Slave Forest Education Society, we gain access to educators and interpreters who support our outreach initiatives, providing positive experiences for visitors while field staff maintain high standards for bird safety and data collection. In addition to many other programs, education staff lead school tours of the migration monitoring station, manage visitors at weekly drop-in programs, and run two major annual events (Songbird Festival and Family Owl Night).

**Table 11. Visitors to the bird observatory** during spring migration (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 | 46 | 14 | 60 |
| | School programs | 33 | 35 | 68 |
| | Other | 50 | 4 | 54 |
| | **Total** | **129** | **53** | **182** |
| FALL | Bird observatory tours | 89 | 44 | 133 |
| | Other | 66 | 30 | 96 |
| | **Total** | **155** | **74** | **229** |
| OWL | Family Owl Night | 30 | 25 | 55 |
| | School Programs | 2 | 0 | 2 |
| | Other | 3 | 14 | 17 |
| | **Total** | **35** | **39** | **57** |
| | **TOTAL** | **319** | **166** | **468** |
| | **Average (2001-19)** | **431** | **324** | **785** |

In total, the LSLBO received 468 visitors to observe banding operations, the third lowest visitor total since 2001 (Table 11). Many school groups cancelled tours during spring migration monitoring due to forest fire evacuation alerts. Poor weather and evacuations of campsites because of washed out roads in July similarly hampered visitor activity during fall migration monitoring.

Songbird Festival (May 25) attracted 60 visitors, with many more participating in other nature-related programing at the BCBC. Similarly, Family Owl Night (Sept. 21) attracted 55 visitors. A total of 85 people were associated with five school groups. Other tours included summer camps, Building Environmental Aboriginal Human Resources (BEAHR) classes, and West Fraser Woodlands supervisors. During fall migration monitoring, visitors are encouraged to see the bird observatory on Wednesdays and Saturdays with education staff present. During these scheduled drop-ins, we hosted 133 visitors. Most people were Alberta residents, but a few came from as far away as Ontario, Arizona, Belgium, the Netherlands, and Australia.

In addition to tours of the bird observatory and owl banding sessions, we gave presentations about bird ecology and conservation and the LSLBO's programs for audiences at other locations (Table 12). A total of 216 people from ten groups of adults and one mixed-age group listened to these presentations, including West Fraser Woodlands supervisors, BEAHR students, Tolko Woodlands staff, Slave Lake Forest Public Advisory Committee, Lesser Slave Watershed Council, Elk Island interpreters, and Edmonton Southside Primary Care Network.

**Table 12.** Audiences of LSLBO presentations and webinars, 2019.

| Off-site Programs | Groups | Adults | Children | Total |
|---|---|---|---|---|
| Monitoring Birds of the Boreal Forest | 2 | 27 | 0 | 27 |
| Songbird Festival Presentations | 2 | 22 | 5 | 27 |
| Birdsongs of the Boreal Forest Webinar | 2 | 41 | 0 | 41 |
| Migratory Bird Regulations Info Session | 1 | 11 | 0 | 11 |
| LSLBO Program Presentation | 3 | 88 | 0 | 88 |
| LSLBO Program Update | 1 | 22 | 0 | 22 |
| **TOTAL** | **11** | **211** | **5** | **216** |

Matthew Kristoff from *YourForest Podcast* interviewed LSLBO staff in two episodes: "Birds with Patti Campsall and Richard Krikun" (#55) and "May the Forest Be with You with MJ Munn-Kristoff and Patti Campsall" (#66).

Lastly, the LSLBO publishes weekly blogs describing the progression and notable events of our monitoring programs contextualized with facts about bird conservation and ecology. These blogs are simultaneously published in the local newspaper, *The Lakeside Leader*. A total of 22 articles were written describing our programs from April 16 to October 3. To view all of our past weekly blogs, visit our website: http://www.lslbo.org/category/weekly-banding-reports/ .

# Change-log

This year, the following were notable changes to operations and equipment:

- Added National Geographic's *Field Guide to the Birds of North America, 7th ed.* to the station's library because of its helpful subspecies maps.
- Rebar was added to one side of each MAPS net to make set-up easier on hard ground.
- Purchased pliers for Northern Saw-whet banding so raptor banding equipment does not need to be shared between Owl Banding and Migration Monitoring throughout Sept.
- Kept owls in a dark location indoors for a short period after processing to help their eyes readjust before placing them in a safe location outside. Initial results are promising since owls seemed less dazed upon release.

Changes to Annual Report:

- Added percentages to Net-hours column in Tables 3 and 5 to better contextualize values.
- Fixed capture rate averages in Table 5 (were low in 2017 and 2018).
- Removed unidentified species from species totals throughout report.
- Added unidentified species counts to Appendix I to better describe migration of families that are difficult to identify to species (for example, blackbirds).
- Expanded Visitors and Education section to include off-site programming.

# Acknowledgements

The LSLBO would like to thank the following people for their continued dedication and support, which made 2019 yet another successful year.

**LSLBO Board of Directors:**
Bob Deacon (Chair)
Terry Kristoff (Vice-chair)
Ronda Groom (Fund Raising Director)
Brandy Walters (Treasurer)
Tyler Flockhart (Director of Field Research)
Nelson Lutz (Director at Large)
Neal Knoot (Director at Large)
Allan Bell (Director at Large)
Todd Bailey (Director at Large)
Tracey Courser (Director at Large)

**LSLBO Executive Director:** Patti Campsall

**LSLBO Field Staff:** Robyn Perkins (Bander-in-Charge), Laura Tabbakh (Banding Assistant), and Bronwyn Robinson (Field Assistant)

**Boreal Centre Staff and Educators:** Laura Brandon (Forest Educator), Lesley Haney (Boreal Interpreter), Kourtnee Burnett (Information Officer), and Donna Arseneau (Contract Educator)

**Alberta Parks Staff:** Reg Arbuckle, Ceiridwen Robbins, Katelynn Cook, Jonathan Farr, and Shawn Kearney

**Banding Lab Volunteers:** Jonathan Farr, Laura Brandon, Joel Van Riper, Catherine Jarjour, Kourtnee Burnett, Michael Vance, Tallula Ash, Cory Cardinal, John Errington, Richard Krikun, Wayne Bowles, Shelley and Gordon Perkins

**Site Cleaning Crews:** Mike Turcotte (Alberta Agriculture and Forestry), HAC Crews, and High Prairie Junior Forest Rangers

**Our Good Friends:** Aaron Lehman, Wayne Bowles, and every friendly face we see every year!

**Information about Migration Monitoring, MAPS, and Project Owlnet can be found at:**
Canadian Migration Monitoring Network - www.bsc.org/cmmn.html
Nature Counts - www.naturecounts.ca
Institute for Bird Populations - www.birdpop.org
Project Owlnet - www.projectowlnet.org

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# Appendix I. Migration Occurrence Records, 2019

The following summarizes (in 2019 AOU taxonomic order) the weekly occurrences of 162 species and the weekly totals of 20 family groups identified throughout spring (S) and fall (F) migration monitoring in 2019. Dates are listed below each month with the associated week number in brackets. Average numbers of individuals recorded daily over each week 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 an individual banded, *return* indicates an individual banded in a previous year and recaptured this year, while *repeat* indicates an individual previously banded or recaptured within 2019. The first, last, and peak encounter dates are included with the number of individuals recorded for each in brackets. The peak is often the date with the maximum number of individuals recorded and may represent a dispersal event for resident species. Finally, the total number of encounters recorded are shown in black. Family accounts are the summation of birds identified to species with those that could only be identified to family.

**Goose (including unidentified)** ***Anserinae (excluding Cygnus sp.)***

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 231.7 | 6.6 | 3214.4 | 973.9 | 90.6 | 8.7 | 4.4 | 24.9 | 569.4 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 5 | 49 |
| | First date: April 16 (13) | | | Peak date: May 5 (19920) | | | Last date: June 10 (11) | | 31886 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 5.6 | 0.0 | 4.1 | 0.0 | 0.4 | 0.1 | 7.6 | 39.3 | 63.1 | 145.0 | 49.1 | 76.5 | 32.6 |
| Days observed | 2 | 0 | 1 | 0 | 2 | 1 | 5 | 5 | 6 | 7 | 6 | 1 | 36 |
| | First date: July 14 (11) | | | | Peak date: September 15 (279) | | | | Last date: September 27 (306) | | | | 2507 |

**Lesser Snow Goose** ***Anser caerulescens***

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 1340.3 | 145.1 | 5.1 | 0.0 | 0.0 | 0.0 | 186.3 |
| Days observed | 0 | 0 | 2 | 4 | 2 | 0 | 0 | 0 | 8 |
| | First date: May 5 (9150) | | | Peak date: May 5 (9150) | | | Last date: May 17 (1) | | 10434 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.3 | 2.4 | 67.8 | 6.8 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 4 |
| | First date: September 16 (24) | | | | Peak date: September 27 (271) | | | | Last date: September 27 (271) | | | | 367 |

**Greater White-fronted Goose** ***Anser albifrons***

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 204.9 | 0.0 | 705.9 | 613.0 | 59.6 | 0.0 | 0.0 | 0.0 | 197.9 |
| Days observed | 4 | 0 | 2 | 6 | 2 | 0 | 0 | 0 | 14 |
| | First date: April 17 (22) | | | Peak date: May 5 (3000) | | | Last date: May 17 (7) | | 11083 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 5.7 | 15.1 | 101.4 | 9.9 | 7.5 | 11.8 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | 4 | 1 | 13 |
| | First date: August 25 (10) | | | | Peak date: September 15 (229) | | | | Last date: September 27 (30) | | | | 965 |

**Canada Goose** ***Branta canadensis***

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 16.9 | 6.6 | 110.3 | 22.7 | 13.1 | 8.7 | 4.4 | 24.9 | 25.9 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 5 | 49 |
| | First date: April 16 (13) | | | Peak date: May 5 (475) | | | Last date: June 10 (11) | | 1453 |

## Canada Goose — *Branta canadensis*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 5.6 | 0.0 | 4.1 | 0.0 | 0.4 | 0.1 | 6.0 | 33.0 | 48.0 | 9.3 | 36.4 | 0.0 | 11.9 |
| Days observed | 2 | 0 | 1 | 0 | 2 | 1 | 3 | 5 | 6 | 5 | 3 | 0 | 28 |
| | First date: July 14 (11) | | | | Peak date: September 8 (306) | | | | Last date: September 25 (200) | | | | 1001 |

## Swan (including unidentified) — *Cygnus sp.*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 112.9 | 21.7 | 0.0 | 0.9 | 0.0 | 0.9 | 0.6 | 0.0 | 17.1 |
| Days observed | 4 | 3 | 0 | 2 | 0 | 3 | 2 | 0 | 14 |
| | First date: April 17 (16) | | | Peak date: April 22 (696) | | | Last date: May 29 (2) | | 958 |

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

## Trumpeter Swan — *Cygnus buccinator*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.4 | 0.3 | 0.0 | 0.9 | 0.0 | 0.9 | 0.6 | 0.0 | 0.5 |
| Days observed | 2 | 1 | 0 | 2 | 0 | 3 | 2 | 0 | 10 |
| | First date: April 19 (2) | | | Peak date: April 22 (8) | | | Last date: May 29 (2) | | 28 |

## Tundra Swan — *Cygnus columbianus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 105.0 | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.6 |
| Days observed | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | First date: April 17 (16) | | | Peak date: April 22 (655) | | | Last date: April 25 (49) | | 875 |

## Duck (including unidentified) — *Anatinae/Aythyinae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 69.1 | 30.1 | 66.9 | 58.3 | 58.3 | 39.0 | 12.6 | 5.9 | 42.5 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| | First date: April 16 (25) | | | Peak date: May 6 (285) | | | Last date: June 10 (6) | | 2381 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 4.0 | 0.1 | 0.7 | 2.1 | 4.7 | 2.1 | 1.0 | 3.4 | 1.9 | 3.1 | 8.3 | 14.3 | 3.8 |
| Days observed | 5 | 1 | 2 | 3 | 5 | 6 | 3 | 5 | 4 | 6 | 6 | 4 | 50 |
| | First date: July 13 (2) | | | | Peak date: September 23 (36) | | | | Last date: September 30 (4) | | | | 278 |

## Blue-winged Teal — *Spatula discors*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 1.1 | 2.6 | 0.0 | 3.1 | 0.0 | 0.0 | 0.9 |
| Days observed | 0 | 0 | 1 | 5 | 0 | 5 | 0 | 0 | 11 |
| | First date: May 6 (8) | | | Peak date: May 23 (13) | | | Last date: May 26 (4) | | 48 |

## Northern Shoveler — *Spatula clypeata*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.0 | 0.0 | 5.9 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Days observed | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 5 |
| | First date: April 22 (7) | | | Peak date: May 6 (41) | | | Last date: May 11 (2) | | 57 |

## Gadwall *Mareca strepera*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | First date: May 25 (4) | | | Peak date: May 25 (4) | | | Last date: May 25 (4) | | 4 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 12 (1) | | | | Peak date: August 12 (1) | | | | Last date: August 12 (1) | | | | 1 |

## American Wigeon *Mareca americana*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 6.7 | 0.0 | 10.7 | 3.6 | 0.3 | 0.1 | 0.9 | 0.0 | 2.8 |
| Days observed | 3 | 0 | 2 | 3 | 1 | 1 | 2 | 0 | 12 |
| | First date: April 18 (2) | | | Peak date: May 6 (73) | | | Last date: May 29 (2) | | 156 |

## Mallard *Anas platyrhynchos*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 28.6 | 12.0 | 6.3 | 6.4 | 2.9 | 4.4 | 1.7 | 2.0 | 8.0 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| | First date: April 16 (9) | | | Peak date: April 22 (60) | | | Last date: June 10 (1) | | 450 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.9 | 0.1 | 0.0 | 0.0 | 0.7 | 0.6 | 0.3 | 0.7 | 0.0 | 0.0 | 0.6 | 0.5 | 0.4 |
| Days observed | 3 | 1 | 0 | 0 | 1 | 3 | 2 | 3 | 0 | 0 | 1 | 1 | 15 |
| | First date: July 13 (1) | | | | Peak date: August 11 (5) | | | | Last date: September 28 (2) | | | | 29 |

## Northern Pintail *Anas acuta*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Days observed | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | First date: May 6 (16) | | | Peak date: May 6 (16) | | | Last date: May 6 (16) | | 16 |

## Green-winged Teal *Anas crecca*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.4 | 0.0 | 5.7 | 0.3 | 0.1 | 0.3 | 0.6 | 0.0 | 1.1 |
| Days observed | 2 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 8 |
| | First date: April 21 (7) | | | Peak date: May 6 (40) | | | Last date: May 29 (4) | | 59 |

## Ring-necked Duck *Aythya collaris*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 2.7 | 0.7 | 0.0 | 0.0 | 0.0 | 0.4 |
| Days observed | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| | First date: May 7 (12) | | | Peak date: May 7 (12) | | | Last date: May 14 (5) | | 24 |

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

## Greater Scaup — *Aythya marila*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.3 | 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 6 (2) | | | Peak date: May 6 (2) | | | Last date: May 6 (2) | | 2 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.7 | 0.0 | 0.4 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | First date: September 23 (33) | | | | Peak date: September 23 (33) | | | | Last date: September 23 (33) | | | | 33 |

## Surf Scoter — *Melanitta perspicillata*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 11.4 | 34.4 | 5.0 | 0.0 | 0.0 | 6.4 |
| Days observed | 0 | 0 | 0 | 4 | 5 | 2 | 0 | 0 | 11 |
| | First date: May 9 (29) | | | Peak date: May 20 (107) | | | Last date: May 22 (5) | | 356 |

## White-winged Scoter — *Melanitta deglandi*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 1.6 | 0.3 | 0.3 | 0.0 | 0.0 | 0.3 |
| Days observed | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 5 |
| | First date: May 8 (4) | | | Peak date: May 10 (7) | | | Last date: May 21 (2) | | 15 |

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

## Long-tailed Duck — *Clangula hyemalis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 4.1 | 3.7 | 2.3 | 2.4 | 0.6 | 0.0 | 1.6 |
| Days observed | 0 | 0 | 1 | 3 | 2 | 5 | 2 | 0 | 13 |
| | First date: May 6 (29) | | | Peak date: May 6 (29) | | | Last date: May 29 (2) | | 92 |

## Bufflehead — *Bucephala albeola*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 2.1 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | 0.4 |
| Days observed | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| | First date: May 6 (15) | | | Peak date: May 6 (15) | | | Last date: May 22 (1) | | 20 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.7 | 0.9 | 6.0 | 0.6 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 4 | 9 |
| | First date: September 9 (1) | | | | Peak date: September 29 (10) | | | | Last date: September 30 (4) | | | | 36 |

## Common Goldeneye — *Bucephala clangula*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 26.4 | 16.7 | 25.4 | 17.6 | 12.9 | 15.0 | 6.7 | 3.9 | 15.6 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 5 | 50 |
| | First date: April 16 (16) | | | Peak date: April 23 (44) | | | Last date: June 10 (5) | | 872 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.3 | 0.0 | 0.3 | 0.3 | 2.3 | 0.9 | 0.3 | 0.3 | 0.1 | 2.1 | 2.1 | 7.8 | 1.5 |
| Days observed | 3 | 0 | 2 | 1 | 4 | 5 | 1 | 1 | 1 | 5 | 5 | 3 | 31 |
| | First date: July 13 (1) | | | | Peak date: September 27 (15) | | | | Last date: September 29 (6) | | | | 101 |

## Merganser (including unidentified) — *Lophodytes sp./Mergus sp.*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 6.7 | 9.0 | 8.3 | 18.4 | 23.3 | 13.6 | 6.4 | 30.0 | 14.5 |
| Days observed | 4 | 7 | 7 | 7 | 7 | 7 | 3 | 5 | 47 |
| | First date: April 18 (7) | | | Peak date: June 6 (113) | | | Last date: June 9 (20) | | 810 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 10.7 | 12.7 | 2.3 | 6.4 | 10.4 | 3.0 | 3.0 | 4.3 | 2.7 | 4.6 | 3.9 | 7.5 | 6.0 |
| Days observed | 5 | 4 | 3 | 6 | 7 | 5 | 5 | 7 | 5 | 6 | 5 | 4 | 62 |
| | First date: July 12 (6) | | | | Peak date: July 19 (47) | | | | Last date: September 30 (5) | | | | 478 |

## Common Merganser — *Mergus merganser*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 6.7 | 8.1 | 8.1 | 17.0 | 21.4 | 13.6 | 6.4 | 30.0 | 13.9 |
| Days observed | 4 | 7 | 7 | 7 | 7 | 7 | 3 | 5 | 47 |
| | First date: April 18 (7) | | | Peak date: June 6 (113) | | | Last date: June 9 (20) | | 780 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 10.7 | 12.7 | 2.3 | 6.4 | 10.4 | 3.0 | 3.0 | 4.3 | 2.7 | 4.6 | 3.9 | 7.5 | 6.0 |
| Days observed | 5 | 4 | 3 | 6 | 7 | 5 | 5 | 7 | 5 | 6 | 5 | 4 | 62 |
| | First date: July 12 (6) | | | | Peak date: July 19 (47) | | | | Last date: September 30 (5) | | | | 478 |

## Red-breasted Merganser — *Mergus serrator*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.1 | 1.3 | 1.9 | 0.0 | 0.0 | 0.0 | 0.4 |
| Days observed | 0 | 0 | 1 | 3 | 2 | 0 | 0 | 0 | 6 |
| | First date: May 4 (1) | | | Peak date: May 15 (9) | | | Last date: May 15 (9) | | 23 |

## Ruffed Grouse — *Bonasa umbellus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 2.0 | 2.0 | 2.0 | 2.0 | 1.7 | 1.4 | 0.3 | 0.7 | 1.5 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 4 | 48 |
| | First date: April 16 (2) | | | Peak date: April 30 (3) | | | Last date: June 10 (1) | | 85 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.3 | 0.1 | 0.1 | 0.1 | 0.0 | 0.3 | 0.0 | 1.1 | 0.3 | 1.6 | 2.8 | 0.6 |
| Days observed | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 4 | 2 | 5 | 4 | 21 |
| | First date: July 20 (1) | | | | Peak date: September 27 (8) | | | | Last date: September 30 (1) | | | | 39 |

## Grebe (including unidentified) — *Podicipedidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 3.9 | 1.7 | 6.7 | 2.3 | 0.0 | 1.8 |
| Days observed | 0 | 0 | 0 | 6 | 4 | 6 | 3 | 0 | 19 |
| | First date: May 7 (2) | | | Peak date: May 24 (20) | | | Last date: May 30 (4) | | 102 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 5.3 | 8.0 | 2.4 | 4.4 | 13.0 | 10.6 | 17.4 | 16.9 | 7.6 | 6.3 | 2.6 | 1.3 | 8.0 |
| Days observed | 4 | 3 | 4 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 3 | 2 | 62 |
| | First date: July 13 (2) | | | | Peak date: August 24 (62) | | | | Last date: September 28 (3) | | | | 666 |

## Red-necked Grebe — *Podiceps grisegena*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 3.9 | 1.6 | 4.9 | 2.3 | 0.0 | 1.6 |
| Days observed | 0 | 0 | 0 | 6 | 4 | 6 | 3 | 0 | 19 |
| | First date: May 7 (2) | | | Peak date: May 8 (12) | | | Last date: May 30 (4) | | 88 |

## Red-necked Grebe — *Podiceps grisegena*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 5.3 | 8.0 | 2.3 | 3.4 | 12.6 | 10.1 | 16.6 | 11.3 | 7.3 | 6.3 | 2.0 | 1.3 | 7.2 |
| Days observed | 4 | 3 | 4 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 3 | 2 | 61 |
| | First date: July 13 (2) | | | | Peak date: August 24 (62) | | | | Last date: September 28 (3) | | | | 601 |

## Western Grebe — *Aechmophorus occidentalis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.2 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| | First date: May 24 (12) | | | Peak date: May 24 (12) | | | Last date: May 27 (1) | | 13 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 0.7 | 5.6 | 0.0 | 0.0 | 0.3 | 0.0 | 0.6 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 0 | 0 | 2 | 0 | 10 |
| | First date: August 9 (1) | | | | Peak date: August 30 (38) | | | | Last date: September 22 (1) | | | | 50 |

## Clark's Grebe — *Aechmophorus clarkii*

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

## Mourning Dove — *Zenaida macroura*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| | First date: May 22 (1) | | | Peak date: June 7 (1) | | | Last date: June 7 (1) | | 2 |

## Ruby-throated Hummingbird — *Archilochus colubris*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 |
| | First date: May 20 (1) | | | Peak date: June 7 (1) | | | Last date: June 9 (1) | | 3 |

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

## American Coot — *Fulica americana*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 8 (1) | | | Peak date: May 8 (1) | | | Last date: May 8 (1) | | 1 |

## Sandhill Crane — *Antigone canadensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.3 | 4.1 | 0.0 | 20.4 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 |
| Days observed | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 5 |
| | First date: April 22 (2) | | | Peak date: May 10 (127) | | | Last date: May 11 (16) | | 174 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 52.9 | 5.7 | 131.4 | 0.0 | 15.8 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 2 | 0 | 7 |
| | First date: September 8 (21) | | | | Peak date: September 23 (918) | | | | Last date: September 23 (918) | | | | 1330 |

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

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 0.7 | 13.6 | 22.6 | 5.0 | 2.7 | 0.9 | 2.1 | 6.0 |
| Days observed | 0 | 3 | 1 | 6 | 6 | 5 | 3 | 6 | 30 |
| | First date: April 26 (2) | | | Peak date: May 6 (82) | | | Last date: June 10 (1) | | 334 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 3.3 | 2.3 | 1.1 | 1.3 | 2.3 | 1.1 | 2.0 | 0.6 | 0.9 | 0.1 | 0.6 | 0.0 | 1.3 |
| Days observed | 5 | 5 | 4 | 3 | 6 | 5 | 6 | 3 | 4 | 1 | 1 | 0 | 43 |
| | First date: July 12 (3) | | | | Peak date: July 16 (11) | | | | Last date: September 24 (4) | | | | 109 |

## American Golden-Plover *Pluvialis dominica*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 | 1 | 0 | 0 | 0 | 0 | 1 |
| | First date: May 12 (9) | | | Peak date: May 12 (9) | | | Last date: May 12 (9) | | 9 |

## Killdeer *Charadrius vociferus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| | First date: May 6 (1) | | | Peak date: May 9 (1) | | | Last date: May 16 (1) | | 3 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 21 (1) | | | | Peak date: July 21 (1) | | | | Last date: July 21 (1) | | | | 1 |

## Least Sandpiper *Calidris minutilla*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 20 (1) | | | | Peak date: August 20 (1) | | | | Last date: August 20 (1) | | | | 1 |

## Long-billed Dowitcher *Limnodromus scolopaceus*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 12 (1) | | | | Peak date: September 12 (1) | | | | Last date: September 12 (1) | | | | 1 |

## Wilson's Snipe *Gallinago delicata*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 6 (1) | | | Peak date: May 6 (1) | | | Last date: May 6 (1) | | 1 |

## Spotted Sandpiper *Actitis macularius*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 1.1 | 1.7 | 1.9 | 0.9 | 2.0 | 0.9 |
| Days observed | 0 | 0 | 0 | 5 | 4 | 5 | 3 | 6 | 23 |
| | First date: May 7 (1) | | | Peak date: May 15 (8) | | | Last date: June 10 (1) | | 53 |

## Spotted Sandpiper — *Actitis macularius*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 3.1 | 2.0 | 1.0 | 0.7 | 1.3 | 0.9 | 0.7 | 0.4 | 0.3 | 0.0 | 0.6 | 0.0 | 0.9 |
| Days observed | 5 | 5 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 0 | 1 | 0 | 35 |
| | First date: July 12 (3) | | | | Peak date: July 16 (11) | | | | Last date: September 24 (4) | | | | 77 |

## Solitary Sandpiper — *Tringa solitaria*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Days observed | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| | First date: May 8 (14) | | | Peak date: May 8 (14) | | | Last date: May 12 (1) | | 15 |

## Yellowlegs (Lesser, Greater, unidentified) — *Tringa flavipes/T. melanoleuca*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 0.1 | 1.9 | 0.4 | 0.1 | 0.1 | 0.0 | 0.1 | 0.4 |
| Days observed | 1 | 1 | 2 | 3 | 1 | 1 | 0 | 1 | 10 |
| | First date: April 22 (1) | | | Peak date: May 6 (12) | | | Last date: June 6 (1) | | 21 |

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

## Lesser Yellowlegs — *Tringa flavipes*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 |
| Days observed | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| | First date: May 9 (1) | | | Peak date: May 14 (1) | | | Last date: June 6 (1) | | 4 |

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

## Greater Yellowlegs — *Tringa melanoleuca*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 0.1 | 1.9 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Days observed | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 6 |
| | First date: April 22 (1) | | | Peak date: May 6 (12) | | | Last date: May 8 (1) | | 17 |

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

## Gull (including unidentified) — *Laridae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 8.6 | 11.0 | 35.0 | 105.4 | 73.3 | 21.3 | 8.1 | 14.4 | 34.6 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| | First date: April 16 (6) | | | Peak date: May 8 (240) | | | Last date: June 10 (5) | | 1940 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 74.4 | 35.1 | 52.4 | 161.9 | 19.1 | 11.4 | 108.0 | 33.9 | 1.1 | 2.1 | 4.9 | 0.0 | 42.0 |
| Days observed | 6 | 7 | 4 | 6 | 7 | 6 | 7 | 7 | 4 | 5 | 6 | 0 | 65 |
| | First date: July 13 (9) | | | | Peak date: August 3 (988) | | | | Last date: September 26 (3) | | | | 3531 |

## Bonaparte's Gull — *Chroicocephalus philadelphia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.3 | 0.6 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| | First date: April 24 (2) | | | Peak date: May 6 (4) | | | Last date: May 13 (2) | | 8 |

## Franklin's Gull — *Leucophaeus pipixcan*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 27.0 | 75.3 | 62.7 | 14.4 | 4.6 | 9.9 | 24.2 |
| Days observed | 0 | 0 | 1 | 7 | 7 | 7 | 2 | 6 | 30 |
| | First date: May 6 (189) | | | Peak date: May 19 (197) | | | Last date: June 10 (3) | | 1357 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 61.4 | 20.1 | 34.7 | 112.9 | 7.3 | 3.4 | 93.1 | 25.9 | 0.7 | 0.3 | 0.1 | 0.0 | 30.0 |
| Days observed | 6 | 4 | 1 | 3 | 2 | 4 | 4 | 5 | 2 | 1 | 1 | 0 | 33 |
| | First date: July 13 (2) | | | | Peak date: August 3 (732) | | | | Last date: September 22 (1) | | | | 2520 |

## Mew Gull — *Larus canus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | First date: May 11 (3) | | | Peak date: May 11 (3) | | | Last date: May 11 (3) | | 3 |

## Ring-billed Gull — *Larus delawarensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 3.6 | 7.0 | 1.4 | 8.4 | 4.4 | 3.9 | 2.6 | 1.3 | 4.1 |
| Days observed | 7 | 7 | 4 | 6 | 4 | 5 | 3 | 2 | 38 |
| | First date: April 16 (2) | | | Peak date: May 13 (21) | | | Last date: June 8 (5) | | 228 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 9.1 | 10.4 | 15.3 | 15.6 | 8.1 | 4.4 | 10.4 | 4.4 | 0.3 | 0.9 | 2.9 | 0.0 | 6.8 |
| Days observed | 6 | 6 | 3 | 6 | 5 | 3 | 6 | 6 | 2 | 3 | 5 | 0 | 51 |
| | First date: July 13 (6) | | | | Peak date: July 29 (94) | | | | Last date: September 26 (3) | | | | 573 |

## California Gull — *Larus californicus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 10 (1) | | | Peak date: May 10 (1) | | | Last date: May 10 (1) | | 1 |

## Herring Gull — *Larus argentatus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.1 | 1.4 | 2.4 | 5.4 | 0.1 | 0.4 | 0.4 | 0.3 | 1.5 |
| Days observed | 3 | 4 | 5 | 6 | 1 | 2 | 2 | 2 | 25 |
| | First date: April 19 (3) | | | Peak date: May 7 (15) | | | Last date: June 10 (1) | | 82 |

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

## Tern (including unidentified) *Sterna sp.*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 3.6 | 0.3 | 1.7 | 0.9 |
| Days observed | 0 | 0 | 0 | 0 | 5 | 6 | 1 | 4 | 16 |
| | First date: May 15 (2) | | | Peak date: May 21 (10) | | | Last date: June 10 (1) | | 52 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.1 | 1.0 | 0.6 | 0.3 | 3.9 | 2.6 | 7.0 | 3.0 | 0.0 | 11.0 | 1.3 | 0.0 | 2.6 |
| Days observed | 2 | 5 | 2 | 1 | 4 | 4 | 2 | 2 | 0 | 1 | 2 | 0 | 25 |
| | First date: July 14 (6) | | | | Peak date: September 17 (77) | | | | Last date: September 23 (1) | | | | 222 |

## Black Tern *Chlidonias niger*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 | 1 | 0 | 0 | 0 | 0 | 1 |
| | First date: August 30 (2) | | | | Peak date: August 30 (2) | | | | Last date: August 30 (2) | | | | 2 |

## Common Tern *Sterna hirundo*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 2.0 | 0.3 | 1.3 | 0.5 |
| Days observed | 0 | 0 | 0 | 0 | 2 | 6 | 1 | 3 | 12 |
| | First date: May 16 (1) | | | Peak date: May 21 (5) | | | Last date: June 10 (1) | | 28 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.9 | 1.0 | 0.3 | 0.3 | 3.3 | 2.0 | 7.0 | 0.7 | 0.0 | 7.9 | 0.3 | 0.0 | 2.0 |
| Days observed | 1 | 5 | 1 | 1 | 4 | 4 | 2 | 2 | 0 | 1 | 2 | 0 | 23 |
| | First date: July 14 (6) | | | | Peak date: September 17 (55) | | | | Last date: September 23 (1) | | | | 165 |

## Forster's Tern *Sterna forsteri*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.7 | 0.0 | 0.1 | 0.2 |
| Days observed | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 1 | 6 |
| | First date: May 15 (2) | | | Peak date: May 22 (2) | | | Last date: June 8 (1) | | 9 |

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

## Pacific Loon *Gavia pacifica*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | First date: May 21 (2) | | | Peak date: May 21 (2) | | | Last date: May 21 (2) | | 2 |

## Common Loon *Gavia immer*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 1.3 | 2.1 | 1.9 | 4.3 | 5.3 | 3.9 | 2.3 |
| Days observed | 0 | 0 | 6 | 6 | 5 | 7 | 3 | 6 | 33 |
| | First date: May 1 (2) | | | Peak date: May 30 (23) | | | Last date: June 10 (4) | | 131 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 5.1 | 3.7 | 1.9 | 4.9 | 7.6 | 3.6 | 4.1 | 2.1 | 0.7 | 6.3 | 1.4 | 1.5 | 3.6 |
| Days observed | 7 | 5 | 4 | 7 | 7 | 6 | 6 | 4 | 3 | 6 | 6 | 3 | 64 |
| | First date: July 12 (1) | | | | Peak date: August 12 (32) | | | | Last date: September 30 (1) | | | | 296 |

## Double-crested Cormorant *Phalacrocorax auritus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Days observed | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| | First date: May 13 (1) | | | Peak date: May 24 (1) | | | Last date: May 24 (1) | | 2 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.4 | 0.7 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 4 |
| | First date: August 9 (1) | | | | Peak date: September 14 (5) | | | | Last date: September 14 (5) | | | | 10 |

## American White Pelican *Pelecanus erythrorhynchos*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.3 | 0.9 | 0.9 | 0.0 | 1.6 | 0.4 |
| Days observed | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 3 | 7 |
| | First date: May 11 (2) | | | Peak date: May 14 (6) | | | Last date: June 8 (1) | | 25 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.3 | 0.7 | 0.1 | 0.1 | 0.3 | 1.3 | 0.6 | 0.4 | 0.1 | 0.1 | 0.1 | 0.0 | 0.4 |
| Days observed | 2 | 3 | 1 | 1 | 2 | 5 | 3 | 3 | 1 | 1 | 1 | 0 | 23 |
| | First date: July 15 (1) | | | | Peak date: August 18 (4) | | | | Last date: September 23 (1) | | | | 30 |

## Great Blue Heron *Ardea herodias*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Days observed | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| | First date: May 9 (1) | | | Peak date: May 9 (1) | | | Last date: May 24 (1) | | 2 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.1 | 0.0 | 0.0 | 0.6 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| | First date: July 12 (1) | | | | Peak date: August 3 (3) | | | | Last date: August 31 (1) | | | | 7 |

## Hawk (Accipiter, Buteo, unidentified) *Accipiter sp.*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 4.1 | 6.1 | 5.3 | 6.6 | 2.6 | 3.3 | 1.3 | 2.4 | 4.0 |
| Days observed | 7 | 6 | 7 | 7 | 7 | 6 | 2 | 6 | 48 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 1-0-0 | 0 | 1-0-0 | 3-0-0 |
| | First date: April 16 (1) | | | Peak date: April 23 (14) | | | Last date: June 10 (2) | | 222 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.9 | 1.6 | 1.3 | 4.9 | 6.6 | 7.6 | 8.0 | 8.6 | 9.6 | 8.0 | 6.0 | 4.0 | 5.7 |
| Days observed | 6 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 75 |
| Processed | 1-0-0 | 0 | 0 | 1-0-0 | 5-0-0 | 3-0-0 | 5-0-0 | 2-0-0 | 2-0-0 | 3-0-0 | 0 | 0 | 22-0-0 |
| | First date: July 12 (3) | | | | Peak date: September 12 (23) | | | | Last date: September 30 (3) | | | | 463 |

## Osprey *Pandion haliaetus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 0.1 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 4 |
| | First date: May 14 (1) | | | Peak date: May 27 (1) | | | Last date: May 28 (1) | | 4 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.1 | 0.0 | 0.0 | 0.6 | 0.3 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| Days observed | 1 | 0 | 0 | 3 | 2 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 10 |
| | First date: July 17 (1) | | | | Peak date: August 28 (2) | | | | Last date: September 24 (1) | | | | 12 |

## Northern Harrier *Circus hudsonius*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.6 | 2.7 | 2.6 | 2.4 | 0.9 | 0.4 | 0.0 | 0.0 | 1.2 |
| Days observed | 1 | 4 | 5 | 6 | 5 | 3 | 0 | 0 | 24 |
| | First date: April 19 (4) | | | Peak date: April 23 (10) | | | Last date: May 25 (1) | | 67 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.1 | 0.3 | 0.1 | 1.1 | 1.1 | 0.6 | 1.0 | 0.4 | 2.7 | 0.9 | 0.9 | 0.0 | 0.8 |
| Days observed | 1 | 2 | 1 | 3 | 3 | 3 | 4 | 2 | 7 | 4 | 4 | 0 | 34 |
| | First date: July 14 (1) | | | | Peak date: September 9 (6) | | | | Last date: September 25 (1) | | | | 65 |

## Sharp-shinned Hawk *Accipiter striatus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.4 | 0.4 | 0.3 | 0.6 | 0.0 | 0.4 | 0.1 | 0.1 | 0.3 |
| Days observed | 2 | 3 | 2 | 1 | 0 | 3 | 1 | 1 | 13 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 1-0-0 | 0 | 1-0-0 | 3-0-0 |
| | First date: April 20 (1) | | | Peak date: May 10 (4) | | | Last date: June 5 (1) | | 17 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.1 | 0.1 | 0.0 | 1.0 | 3.7 | 4.9 | 4.0 | 4.7 | 5.0 | 4.1 | 0.9 | 1.3 | 2.5 |
| Days observed | 1 | 1 | 0 | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 3 | 54 |
| Processed | 1-0-0 | 0 | 0 | 1-0-0 | 5-0-0 | 3-0-0 | 5-0-0 | 2-0-0 | 2-0-0 | 3-0-0 | 0 | 0 | 22-0-0 |
| | First date: July 15 (1) | | | | Peak date: September 12 (15) | | | | Last date: September 29 (1) | | | | 205 |

## Cooper's Hawk *Accipiter cooperii*

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

## Northern Goshawk *Accipiter gentilis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 24 (1) | | | Peak date: May 24 (1) | | | Last date: May 24 (1) | | 1 |

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

## Bald Eagle *Haliaeetus leucocephalus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 2.7 | 2.7 | 2.1 | 3.4 | 1.3 | 1.9 | 0.9 | 2.3 | 2.2 |
| Days observed | 7 | 5 | 7 | 7 | 5 | 6 | 2 | 6 | 45 |
| | First date: April 16 (1) | | | Peak date: May 9 (6) | | | Last date: June 10 (2) | | 121 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.4 | 1.1 | 1.1 | 2.1 | 1.1 | 1.7 | 1.7 | 2.4 | 1.1 | 2.1 | 3.4 | 2.0 | 1.8 |
| Days observed | 5 | 5 | 4 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 7 | 4 | 68 |
| | First date: July 12 (3) | | | | Peak date: September 25 (6) | | | | Last date: September 30 (3) | | | | 145 |

## Broad-winged Hawk — *Buteo platypterus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 |
| | First date: May 28 (1) | | | Peak date: May 28 (1) | | | Last date: May 28 (1) | | 1 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.4 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 7 |
| | First date: August 17 (1) | | | | Peak date: August 24 (1) | | | | Last date: September 12 (1) | | | | 7 |

## Red-tailed Hawk — *Buteo jamaicensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| | First date: May 19 (1) | | | Peak date: May 21 (2) | | | Last date: May 21 (2) | | 3 |

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

## Rough-legged Hawk — *Buteo lagopus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 19 (1) | | | Peak date: April 19 (1) | | | Last date: April 19 (1) | | 1 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 0.5 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 5 |
| | First date: September 19 (1) | | | | Peak date: September 28 (2) | | | | Last date: September 28 (2) | | | | 6 |

## Barred Owl — *Strix varia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.3 | 0.1 |
| Days observed | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 5 |
| | First date: April 18 (1) | | | Peak date: June 5 (1) | | | Last date: June 7 (1) | | 5 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.3 | 0.6 | 1.0 | 0.6 | 0.4 | 0.1 | 0.0 | 0.3 | 0.4 | 0.1 | 0.0 | 0.3 | 0.3 |
| Days observed | 2 | 4 | 3 | 3 | 2 | 1 | 0 | 2 | 3 | 1 | 0 | 1 | 22 |
| | First date: July 14 (1) | | | | Peak date: July 31 (5) | | | | Last date: September 29 (1) | | | | 28 |

## Belted Kingfisher — *Megaceryle alcyon*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.7 | 0.9 | 0.6 | 0.4 | 0.4 | 0.4 |
| Days observed | 0 | 0 | 0 | 4 | 4 | 2 | 2 | 3 | 15 |
| | First date: May 9 (1) | | | Peak date: May 19 (2) | | | Last date: June 10 (1) | | 21 |

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

## Yellow-bellied Sapsucker *Sphyrapicus varius*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.6 | 2.0 | 1.7 | 2.0 | 0.9 | 1.1 | 1.0 |
| Days observed | 0 | 0 | 2 | 7 | 6 | 7 | 3 | 6 | 31 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 1-0-0 | 0 | 0 | 2-0-0 |
| | First date: May 5 (1) | | | Peak date: May 9 (3) | | | Last date: June 10 (1) | | 58 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.6 | 0.7 | 0.1 | 0.1 | 0.3 | 0.1 | 0.0 | 0.1 | 0.4 | 0.6 | 0.1 | 0.0 | 0.3 |
| Days observed | 2 | 3 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 15 |
| Processed | 0 | 0 | 0 | 1-0-0 | 1-0-0 | 0 | 0 | 0-0-1 | 0 | 1-0-0 | 0 | 0 | 3-0-1 |
| | First date: July 14 (2) | | | | Peak date: September 18 (2) | | | | Last date: September 21 (1) | | | | 23 |

## Black-backed Woodpecker *Picoides arcticus*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 1.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 5 |
| | First date: September 17 (1) | | | | Peak date: September 28 (3) | | | | Last date: September 30 (1) | | | | 7 |

## Downy Woodpecker *Dryobates pubescens*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.3 | 0.1 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 |
| Days observed | 2 | 1 | 3 | 1 | 1 | 0 | 0 | 1 | 9 |
| | First date: April 16 (1) | | | Peak date: May 3 (1) | | | Last date: June 7 (1) | | 9 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.9 | 0.7 | 0.7 | 1.0 | 1.1 | 0.0 | 1.0 | 1.7 | 2.0 | 2.9 | 1.3 | 2.0 | 1.3 |
| Days observed | 4 | 2 | 4 | 4 | 6 | 0 | 4 | 6 | 7 | 6 | 5 | 4 | 52 |
| Processed | 1-0-0 | 3-0-0 | 0 | 0 | 0 | 0 | 2-0-0 | 0 | 0 | 3-0-0 | 0 | 0 | 9-0-0 |
| | First date: July 12 (1) | | | | Peak date: September 18 (5) | | | | Last date: September 30 (1) | | | | 101 |

## Hairy Woodpecker *Dryobates villosus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.6 | 0.6 | 0.3 | 0.7 | 0.4 | 0.6 | 0.3 | 0.7 | 0.5 |
| Days observed | 4 | 4 | 2 | 4 | 3 | 4 | 2 | 4 | 27 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 1-0-0 |
| | First date: April 17 (1) | | | Peak date: June 7 (2) | | | Last date: June 9 (1) | | 29 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.7 | 1.1 | 1.0 | 0.7 | 0.3 | 0.0 | 0.1 | 0.7 | 0.6 | 0.6 | 0.6 | 1.8 | 0.7 |
| Days observed | 3 | 4 | 3 | 3 | 2 | 0 | 1 | 4 | 3 | 3 | 2 | 4 | 32 |
| Processed | 1-0-0 | 1-0-0 | 1-0-0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 0 | 6-0-0 |
| | First date: July 14 (2) | | | | Peak date: July 21 (4) | | | | Last date: September 30 (2) | | | | 52 |

## Yellow-shafted Flicker *Colaptes auratus auratus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 2.0 | 3.7 | 2.7 | 0.7 | 0.4 | 0.0 | 0.4 | 1.3 |
| Days observed | 0 | 4 | 7 | 7 | 4 | 2 | 0 | 3 | 27 |
| | First date: April 26 (1) | | | Peak date: May 2 (6) | | | Last date: June 7 (1) | | 70 |

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

## Pileated Woodpecker — *Dryocopus pileatus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.3 | 1.3 | 1.3 | 1.7 | 1.1 | 1.3 | 0.7 | 0.6 | 1.2 |
| Days observed | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 4 | 48 |
| | First date: April 16 (2) | | | Peak date: May 9 (2) | | | Last date: June 9 (1) | | 65 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.1 | 0.0 | 0.4 | 0.4 | 0.3 | 0.1 | 0.1 | 0.4 | 0.0 | 0.3 | 0.1 | 0.5 | 0.2 |
| Days observed | 1 | 0 | 2 | 3 | 2 | 1 | 1 | 3 | 0 | 2 | 1 | 2 | 18 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 1-0-0 |
| | First date: July 13 (1) | | | | Peak date: July 31 (2) | | | | Last date: September 30 (1) | | | | 19 |

## Falcon (including unidentified) — *Falconidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 0.4 | 0.1 | 0.7 | 0.3 | 0.6 | 0.1 | 0.3 | 0.3 |
| Days observed | 1 | 2 | 1 | 4 | 2 | 3 | 1 | 2 | 16 |
| | First date: April 20 (1) | | | Peak date: May 10 (2) | | | Last date: June 9 (1) | | 19 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.4 | 0.3 | 0.6 | 0.7 | 1.4 | 0.9 | 1.6 | 1.9 | 1.3 | 0.4 | 0.5 | 0.8 |
| Days observed | 0 | 2 | 2 | 3 | 4 | 5 | 5 | 5 | 6 | 6 | 2 | 2 | 42 |
| | First date: July 21 (1) | | | | Peak date: September 4 (4) | | | | Last date: September 30 (1) | | | | 68 |

## American Kestrel — *Falco sparverius*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 | 0.1 | 0.3 | 0.0 | 0.1 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 6 |
| | First date: August 16 (1) | | | | Peak date: September 7 (2) | | | | Last date: September 21 (1) | | | | 8 |

## Merlin — *Falco columbarius*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 0.4 | 0.1 | 0.6 | 0.3 | 0.6 | 0.1 | 0.3 | 0.3 |
| Days observed | 1 | 2 | 1 | 3 | 2 | 3 | 1 | 2 | 15 |
| | First date: April 20 (1) | | | Peak date: May 10 (2) | | | Last date: June 9 (1) | | 18 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.4 | 0.3 | 0.6 | 0.7 | 1.0 | 0.6 | 1.4 | 1.4 | 1.1 | 0.3 | 0.3 | 0.7 |
| Days observed | 0 | 2 | 2 | 3 | 4 | 3 | 3 | 5 | 5 | 5 | 2 | 1 | 35 |
| | First date: July 21 (1) | | | | Peak date: August 19 (4) | | | | Last date: September 30 (1) | | | | 56 |

## Peregrine Falcon — *Falco peregrinus*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 6 (1) | | | | Peak date: September 6 (1) | | | | Last date: September 6 (1) | | | | 1 |

## Flycatcher (including *Empidonax* sp., unidentified) — *Tyrannidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.1 | 1.4 | 1.7 | 5.1 | 5.6 | 2.3 | 18.9 | 4.4 |
| Days observed | 0 | 1 | 5 | 7 | 4 | 7 | 3 | 6 | 33 |
| Processed | 0 | 0 | 0 | 0 | 0 | 6-0-0 | 3-0-0 | 51-0-0 | 60-0-0 |
| | First date: April 24 (1) | | | Peak date: June 6 (10) | | | Last date: June 10 (15) | | 246 |

## Flycatcher (including *Empidonax* sp., unidentified) — *Tyrannidae*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 7.1 | 6.0 | 6.0 | 6.7 | 12.7 | 4.9 | 10.7 | 2.1 | 1.4 | 0.7 | 0.0 | 0.0 | 4.9 |
| Days observed | 6 | 4 | 2 | 4 | 4 | 5 | 4 | 2 | 1 | 2 | 0 | 0 | 34 |
| Processed | 9-0-0 | 5-1-0 | 4-0-0 | 13-0-0 | 24-0-0 | 12-0-0 | 16-0-0 | 8-0-0 | 7-0-0 | 2-0-0 | 0 | 0 | 100-1-0 |
| | First date: July 12 (5) | | | | Peak date: August 27 (20) | | | | Last date: September 14 (1) | | | | 409 |

## Great Crested Flycatcher — *Myiarchus crinitus*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 |
| | First date: September 13 (1) | | | | Peak date: September 13 (1) | | | | Last date: September 13 (1) | | | | 1 |

## Eastern Kingbird — *Tyrannus tyrannus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.3 | 2.9 | 0.4 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 6 | 8 |
| | First date: May 19 (1) | | | Peak date: June 10 (10) | | | Last date: June 10 (10) | | 23 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.4 | 0.0 | 0.0 | 4.1 | 1.9 | 4.6 | 0.6 | 0.0 | 0.1 | 0.0 | 0.0 | 1.0 |
| Days observed | 0 | 1 | 0 | 0 | 4 | 4 | 4 | 2 | 0 | 1 | 0 | 0 | 16 |
| | First date: July 23 (3) | | | | Peak date: August 27 (18) | | | | Last date: September 14 (1) | | | | 82 |

## Olive-sided Flycatcher — *Contopus cooperi*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 4 (1) | | | | Peak date: August 4 (1) | | | | Last date: August 4 (1) | | | | 1 |

## Western Wood-Pewee — *Contopus sordidulus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| | First date: June 6 (1) | | | Peak date: June 7 (1) | | | Last date: June 9 (1) | | 3 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 |

## *Empidonax* Flycatcher (including unidentified) — *Empidonax sp.*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 3.3 | 1.1 | 12.7 | 2.5 |
| Days observed | 0 | 0 | 0 | 0 | 6 | 7 | 3 | 6 | 22 |
| Processed | 0 | 0 | 0 | 0 | 0 | 3-0-0 | 3-0-0 | 51-0-0 | 57-0-0 |
| | First date: May 15 (2) | | | Peak date: June 6 (32) | | | Last date: June 10 (13) | | 140 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 4.1 | 4.3 | 5.6 | 5.7 | 6.9 | 2.9 | 5.7 | 1.4 | 1.3 | 0.4 | 0.0 | 0.0 | 3.2 |
| Days observed | 7 | 6 | 4 | 6 | 7 | 5 | 7 | 4 | 5 | 3 | 0 | 0 | 54 |
| Processed | 6-0-0 | 5-1-0 | 4-0-0 | 13-0-0 | 23-0-0 | 12-0-0 | 16-0-0 | 8-0-0 | 6-0-0 | 2-0-0 | 0 | 0 | 95-1-0 |
| | First date: July 12 (1) | | | | Peak date: August 1 (10) | | | | Last date: September 17 (1) | | | | 268 |

## Yellow-bellied Flycatcher *Empidonax flaviventris*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4-0-0 | 4-0-0 |
| | First date: June 6 (1) | | | Peak date: June 7 (3) | | | Last date: June 10 (1) | | 6 |

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

## Alder Flycatcher *Empidonax alnorum*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 9.1 | 1.2 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 7 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 45-0-0 | 47-0-0 |
| | First date: May 29 (2) | | | Peak date: June 6 (28) | | | Last date: June 10 (11) | | 66 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.4 | 1.6 | 1.1 | 1.9 | 2.6 | 1.7 | 2.0 | 0.6 | 0.7 | 0.3 | 0.0 | 0.0 | 1.2 |
| Days observed | 7 | 6 | 4 | 4 | 5 | 4 | 5 | 3 | 4 | 2 | 0 | 0 | 44 |
| Processed | 5-0-0 | 3-0-1 | 1-0-0 | 8-0-0 | 14-0-0 | 11-0-0 | 11-0-0 | 4-0-0 | 5-0-0 | 2-0-0 | 0 | 0 | 64-0-1 |
| | First date: July 12 (1) | | | | Peak date: August 7 (6) | | | | Last date: September 14 (1) | | | | 104 |

## Least Flycatcher *Empidonax minimus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 3.3 | 0.9 | 2.0 | 1.1 |
| Days observed | 0 | 0 | 0 | 0 | 6 | 7 | 3 | 6 | 22 |
| Processed | 0 | 0 | 0 | 0 | 0 | 3-0-0 | 1-0-0 | 2-0-0 | 6-0-0 |
| | First date: May 15 (2) | | | Peak date: May 24 (7) | | | Last date: June 10 (1) | | 63 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.3 | 1.3 | 3.0 | 3.0 | 3.3 | 0.4 | 2.7 | 0.7 | 0.6 | 0.1 | 0.0 | 0.0 | 1.4 |
| Days observed | 5 | 3 | 4 | 5 | 6 | 2 | 6 | 2 | 1 | 1 | 0 | 0 | 35 |
| Processed | 1-0-0 | 2-0-0 | 3-0-0 | 5-0-0 | 9-0-0 | 1-0-0 | 4-0-0 | 4-0-0 | 1-0-0 | 0 | 0 | 0 | 30-0-0 |
| | First date: July 13 (1) | | | | Peak date: July 31 (9) | | | | Last date: September 17 (1) | | | | 115 |

## Eastern Phoebe *Sayornis phoebe*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.1 | 1.4 | 1.7 | 1.7 | 2.3 | 0.9 | 1.6 | 1.2 |
| Days observed | 0 | 1 | 5 | 7 | 4 | 7 | 3 | 6 | 33 |
| Processed | 0 | 0 | 0 | 0 | 0 | 3-0-0 | 0 | 0 | 3-0-0 |
| | First date: April 24 (1) | | | Peak date: May 20 (4) | | | Last date: June 10 (2) | | 68 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.7 | 1.0 | 0.4 | 0.9 | 0.9 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 |
| Days observed | 6 | 4 | 2 | 4 | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 21 |
| Processed | 3-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 4-0-0 |
| | First date: July 12 (5) | | | | Peak date: August 12 (5) | | | | Last date: September 9 (1) | | | | 44 |

## Northern Shrike *Lanius borealis*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 |
| | First date: September 28 (1) | | | | Peak date: September 28 (1) | | | | Last date: September 28 (1) | | | | 1 |

## Vireo (including unidentified) *Vireonidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 3.4 | 1.3 | 5.4 | 1.4 |
| Days observed | 0 | 0 | 0 | 0 | 5 | 7 | 3 | 6 | 21 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3-0-0 | 3-0-0 |
| | First date: May 15 (2) | | | Peak date: June 9 (10) | | | Last date: June 10 (6) | | 78 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 6.0 | 7.6 | 4.7 | 7.9 | 10.4 | 1.7 | 1.9 | 1.7 | 0.7 | 0.1 | 0.1 | 0.0 | 3.6 |
| Days observed | 7 | 7 | 4 | 6 | 7 | 3 | 3 | 4 | 3 | 1 | 1 | 0 | 46 |
| Processed | 6-0-0 | 8-0-0 | 2-0-0 | 8-0-0 | 22-0-0 | 5-0-0 | 1-0-0 | 4-0-0 | 2-0-0 | 1-0-0 | 0 | 0 | 59-0-0 |
| | First date: July 12 (6) | | | | Peak date: August 15 (18) | | | | Last date: September 20 (1) | | | | 300 |

## Blue-headed Vireo *Vireo solitarius*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 1.0 | 0.1 | 0.0 | 0.2 |
| Days observed | 0 | 0 | 0 | 0 | 3 | 5 | 1 | 0 | 9 |
| | First date: May 15 (2) | | | Peak date: May 22 (2) | | | Last date: May 29 (1) | | 13 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.9 | 0.3 | 0.3 | 0.3 | 1.0 | 0.0 | 0.4 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 |
| Days observed | 5 | 2 | 2 | 2 | 4 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 19 |
| Processed | 0 | 0 | 0 | 0 | 2-0-0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 3-0-0 |
| | First date: July 13 (1) | | | | Peak date: August 14 (3) | | | | Last date: September 13 (1) | | | | 24 |

## Philadelphia Vireo *Vireo philadelphicus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 25 (1) | | | Peak date: May 25 (1) | | | Last date: May 25 (1) | | 1 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.3 | 0.0 | 0.9 | 1.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.0 | 0.1 | 0.0 | 0.4 |
| Days observed | 0 | 1 | 0 | 6 | 3 | 2 | 2 | 2 | 2 | 0 | 1 | 0 | 19 |
| Processed | 0 | 2-0-0 | 0 | 2-0-0 | 7-0-0 | 2-0-0 | 0 | 2-0-0 | 0 | 0 | 0 | 0 | 15-0-0 |
| | First date: July 22 (2) | | | | Peak date: August 15 (6) | | | | Last date: September 20 (1) | | | | 30 |

## Warbling Vireo *Vireo gilvus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | First date: May 22 (2) | | | Peak date: May 22 (2) | | | Last date: May 22 (2) | | 2 |

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

## Red-eyed Vireo *Vireo olivaceus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 2.0 | 1.1 | 5.4 | 1.1 |
| Days observed | 0 | 0 | 0 | 0 | 2 | 7 | 3 | 6 | 18 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3-0-0 | 3-0-0 |
| | First date: May 18 (1) | | | Peak date: June 9 (10) | | | Last date: June 10 (6) | | 62 |

## Red-eyed Vireo *Vireo olivaceus*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 5.0 | 6.7 | 4.4 | 6.4 | 7.9 | 1.3 | 0.9 | 1.1 | 0.4 | 0.0 | 0.0 | 0.0 | 2.8 |
| Days observed | 7 | 7 | 4 | 6 | 7 | 3 | 2 | 2 | 3 | 0 | 0 | 0 | 41 |
| Processed | 6-0-0 | 6-0-0 | 2-0-0 | 5-0-0 | 13-0-0 | 3-0-0 | 1-0-0 | 2-0-0 | 2-0-0 | 0 | 0 | 0 | 40-0-0 |
| | First date: July 12 (6) | | | | Peak date: August 12 (14) | | | | Last date: September 12 (1) | | | | 239 |

## Canada (Gray) Jay *Perisoreus canadensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 1-0-0 |
| | First date: May 28 (1) | | | Peak date: May 28 (1) | | | Last date: June 6 (1) | | 2 |

## Blue Jay *Cyanocitta cristata*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 0.1 | 0.3 | 1.0 | 1.6 | 1.6 | 0.3 | 0.7 | 0.7 |
| Days observed | 1 | 1 | 1 | 5 | 6 | 6 | 2 | 4 | 26 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 1-0-0 |
| | First date: April 16 (1) | | | Peak date: May 20 (3) | | | Last date: June 10 (1) | | 40 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.1 | 0.3 | 1.0 | 1.9 | 2.7 | 4.1 | 4.4 | 2.7 | 2.3 | 1.3 | 1.8 | 1.9 |
| Days observed | 0 | 1 | 2 | 4 | 6 | 7 | 7 | 7 | 7 | 6 | 5 | 3 | 55 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 0 | 0 | 0 | 0 | 2-0-0 |
| | First date: July 23 (1) | | | | Peak date: August 24 (8) | | | | Last date: September 30 (2) | | | | 153 |

## Black-billed Magpie *Pica hudsonia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.6 | 0.7 | 0.0 | 0.4 | 1.7 | 0.3 | 0.1 | 0.1 | 0.5 |
| Days observed | 3 | 3 | 0 | 3 | 6 | 2 | 1 | 1 | 19 |
| | First date: April 17 (1) | | | Peak date: May 27 (0) | | | Last date: June 5 (1) | | 28 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.4 | 0.3 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 0 | 5 |
| | First date: August 30 (1) | | | | Peak date: September 17 (3) | | | | Last date: September 24 (1) | | | | 7 |

## American Crow *Corvus brachyrhynchos*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 11.7 | 9.6 | 7.1 | 6.3 | 6.1 | 5.9 | 2.0 | 4.7 | 6.7 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| | First date: April 16 (10) | | | Peak date: April 17 (28) | | | Last date: June 10 (6) | | 374 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 3.7 | 2.9 | 1.6 | 3.1 | 3.7 | 5.3 | 2.6 | 2.4 | 2.3 | 1.3 | 2.9 | 0.5 | 2.7 |
| Days observed | 7 | 6 | 4 | 6 | 7 | 7 | 4 | 7 | 6 | 6 | 4 | 2 | 66 |
| | First date: July 12 (2) | | | | Peak date: September 21 (14) | | | | Last date: September 29 (1) | | | | 224 |

## Common Raven *Corvus corax*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.1 | 1.3 | 1.3 | 2.0 | 1.7 | 1.6 | 0.1 | 0.9 | 1.3 |
| Days observed | 6 | 5 | 6 | 7 | 6 | 6 | 1 | 5 | 42 |
| | First date: April 16 (1) | | | Peak date: May 8 (3) | | | Last date: June 10 (1) | | 70 |

## Common Raven — *Corvus corax*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.6 | 1.4 | 1.1 | 3.1 | 1.7 | 7.4 | 4.9 | 9.7 | 4.1 | 5.7 | 6.0 | 13.3 | 4.9 |
| Days observed | 4 | 5 | 4 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 4 | 71 |
| | First date: July 12 (1) | | | | Peak date: August 20 (29) | | | | Last date: September 30 (27) | | | | 374 |

## Horned Lark — *Eremophila alpestris*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.9 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| | First date: May 10 (6) | | | Peak date: May 10 (6) | | | Last date: May 20 (1) | | 8 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.6 | 0.1 | 0.0 | 0.5 | 0.2 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 1 | 6 |
| | First date: August 30 (1) | | | | Peak date: September 9 (9) | | | | Last date: September 27 (2) | | | | 15 |

## Swallow (including unidentified) — *Hirundinidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 2.7 | 4.0 | 42.4 | 9.6 | 0.1 | 0.7 | 2.0 | 7.7 |
| Days observed | 0 | 2 | 1 | 5 | 3 | 1 | 1 | 2 | 15 |
| | First date: April 23 (5) | | | Peak date: May 10 (214) | | | Last date: June 10 (2) | | 431 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.9 | 19.3 | 29.0 | 17.1 | 7.6 | 0.6 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 6.4 |
| Days observed | 3 | 4 | 3 | 3 | 4 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 22 |
| | First date: July 15 (3) | | | | Peak date: August 1 (119) | | | | Last date: September 12 (1) | | | | 537 |

## Bank Swallow — *Riparia riparia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| | First date: May 23 (1) | | | Peak date: June 5 (7) | | | Last date: June 5 (7) | | 8 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.6 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | First date: July 21 (2) | | | | Peak date: July 24 (2) | | | | Last date: August 17 (1) | | | | 6 |

## Tree Swallow — *Tachycineta bicolor*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.3 | 0.0 | 33.7 | 4.1 | 0.0 | 0.6 | 0.1 | 4.9 |
| Days observed | 0 | 2 | 0 | 5 | 2 | 0 | 1 | 1 | 11 |
| | First date: April 23 (1) | | | Peak date: May 10 (185) | | | Last date: June 5 (1) | | 272 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.0 | 13.1 | 21.7 | 2.6 | 4.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 |
| Days observed | 2 | 4 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| | First date: July 15 (3) | | | | Peak date: August 1 (94) | | | | Last date: August 18 (1) | | | | 308 |

## Barn Swallow — *Hirundo rustica*

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

## Cliff Swallow — *Petrochelidon pyrrhonota*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 |
| Days observed | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| | First date: May 13 (3) | | | Peak date: May 13 (3) | | | Last date: June 5 (3) | | 6 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.1 | 4.7 | 0.3 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| Days observed | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | First date: July 17 (1) | | | | Peak date: July 23 (33) | | | | Last date: August 8 (3) | | | | 39 |

## Black-capped Chickadee — *Poecile atricapillus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 4.9 | 3.7 | 4.4 | 5.7 | 4.4 | 4.3 | 1.6 | 2.4 | 3.9 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| Processed | 0 | 1-0-1 | 0 | 0-1-0 | 1-0-0 | 0 | 0 | 0 | 2-1-1 |
| | First date: April 16 (5) | | | Peak date: May 1 (8) | | | Last date: June 10 (4) | | 220 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 10.4 | 6.0 | 4.7 | 7.6 | 5.3 | 3.6 | 7.7 | 19.9 | 75.3 | 151.4 | 88.6 | 154.8 | 44.6 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 78 |
| Processed | 10-0-0 | 0 | 2-0-0 | 2-0-0 | 1-0-0 | 0-1-0 | 6-0-0 | 8-0-1 | 22-0-6 | 118-0-3 | 61-0-2 | 43-0-7 | 273-1-19 |
| | First date: July 12 (11) | | | | Peak date: September 12 (431) | | | | Last date: September 30 (50) | | | | 3282 |

## Boreal Chickadee — *Poecile hudsonicus*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.3 | 1.3 | 6.6 | 3.4 | 36.3 | 4.1 |
| Days observed | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 6 | 6 | 4 | 22 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 1-0-0 | 8-0-0 | 4-0-0 | 8-0-0 | 23-0-0 |
| | First date: July 19 (1) | | | | Peak date: September 29 (74) | | | | Last date: September 30 (25) | | | | 235 |

## Red-breasted Nuthatch — *Sitta canadensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.3 | 1.9 | 1.7 | 1.9 | 1.6 | 1.6 | 0.4 | 0.6 | 1.4 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 3 | 48 |
| Processed | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 |
| | First date: April 16 (2) | | | Peak date: April 26 (4) | | | Last date: June 7 (1) | | 76 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.7 | 0.9 | 0.9 | 1.1 | 0.9 | 0.7 | 0.3 | 0.1 | 1.1 | 0.7 | 0.1 | 0.3 | 0.7 |
| Days observed | 5 | 5 | 4 | 5 | 4 | 3 | 2 | 1 | 4 | 3 | 1 | 1 | 38 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 0 | 0 | 0 | 2-0-0 |
| | First date: July 12 (1) | | | | Peak date: September 12 (3) | | | | Last date: September 27 (1) | | | | 54 |

## White-breasted Nuthatch — *Sitta carolinensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 17 (1) | | | Peak date: April 17 (1) | | | Last date: April 17 (1) | | 1 |

## Brown Creeper — *Certhia americana*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | First date: June 10 (1) | | | Peak date: June 10 (1) | | | Last date: June 10 (1) | | 1 |

## Brown Creeper — *Certhia americana*

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

## House Wren — *Troglodytes aedon*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Processed | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 1-0-0 | 0 | 3-0-0 |
| | First date: May 22 (1) | | | Peak date: May 24 (1) | | | Last date: May 28 (1) | | 3 |

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

## Winter Wren — *Troglodytes hiemalis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.1 | 1.0 | 0.7 | 0.1 | 0.9 | 0.4 |
| Days observed | 0 | 0 | 0 | 1 | 5 | 4 | 1 | 4 | 15 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 1-0-0 |
| | First date: May 13 (1) | | | Peak date: May 14 (3) | | | Last date: June 10 (1) | | 20 |

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

## Golden-crowned Kinglet — *Regulus satrapa*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| | First date: May 3 (3) | | | Peak date: May 3 (3) | | | Last date: May 21 (1) | | 4 |

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

## Ruby-crowned Kinglet — *Regulus calendula*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.6 | 2.1 | 2.1 | 2.0 | 2.1 | 1.6 | 0.4 | 0.3 | 1.4 |
| Days observed | 2 | 4 | 6 | 7 | 7 | 7 | 3 | 2 | 38 |
| Processed | 0 | 1-0-0 | 1-0-0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 |
| | First date: April 17 (2) | | | Peak date: April 28 (5) | | | Last date: June 7 (1) | | 79 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.4 | 0.0 | 0.3 | 0.3 | 0.6 | 0.4 | 1.9 | 2.0 | 2.1 | 1.1 | 10.0 | 1.6 |
| Days observed | 0 | 2 | 0 | 2 | 2 | 1 | 1 | 5 | 4 | 5 | 4 | 4 | 30 |
| Processed | 0 | 1-0-0 | 0 | 1-0-0 | 0 | 2-0-0 | 2-0-0 | 7-0-0 | 3-0-0 | 5-0-0 | 1-0-0 | 14-0-0 | 36-0-0 |
| | First date: July 22 (1) | | | | Peak date: September 28 (18) | | | | Last date: September 30 (3) | | | | 104 |

## Thrush (including unidentified) *Turdidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 16.3 | 208.9 | 39.4 | 25.4 | 24.6 | 13.1 | 2.9 | 5.7 | 42.0 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| Processed | 0 | 1-1-0 | 1-0-0 | 7-0-0 | 41-0-0 | 24-0-0 | 3-0-0 | 6-0-0 | 83-1-0 |
| | First date: April 16 (13) | | | Peak date: April 27 (457) | | | Last date: June 10 (8) | | 2354 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 10.9 | 18.6 | 20.9 | 21.1 | 21.1 | 16.3 | 10.0 | 9.4 | 10.9 | 12.0 | 0.7 | 13.3 | 13.8 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 4 | 73 |
| Processed | 21-0-1 | 39-0-3 | 63-0-0 | 64-1-1 | 50-2-8 | 51-0-5 | 18-1-0 | 31-0-1 | 31-0-2 | 4-0-0 | 0 | 2-0-0 | 374-4-21 |
| | First date: July 12 (8) | | | | Peak date: July 31 (46) | | | | Last date: September 30 (32) | | | | 1116 |

## Gray-cheeked Thrush *Catharus minimus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.1 | 0.0 | 0.0 | 0.7 | 0.6 | 0.0 | 0.0 | 0.2 |
| Days observed | 0 | 1 | 0 | 0 | 3 | 2 | 0 | 0 | 6 |
| Processed | 0 | 0 | 0 | 0 | 4-0-0 | 4-0-0 | 0 | 0 | 8-0-0 |
| | First date: April 28 (1) | | | Peak date: May 16 (3) | | | Last date: May 24 (3) | | 10 |

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

## Swainson's Thrush *Catharus ustulatus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 1.0 | 10.7 | 5.9 | 1.1 | 2.6 | 2.7 |
| Days observed | 0 | 0 | 0 | 1 | 6 | 7 | 3 | 5 | 22 |
| Processed | 0 | 0 | 0 | 3-0-0 | 26-0-0 | 18-0-0 | 3-0-0 | 5-0-0 | 55-0-0 |
| | First date: May 11 (7) | | | Peak date: May 16 (25) | | | Last date: June 10 (2) | | 149 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 7.3 | 11.7 | 12.9 | 17.1 | 14.4 | 13.3 | 5.9 | 7.7 | 7.7 | 1.1 | 0.3 | 1.0 | 8.4 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 2 | 2 | 69 |
| Processed | 20-0-1 | 35-0-3 | 54-0-0 | 64-1-1 | 47-2-8 | 50-0-5 | 18-1-0 | 30-0-1 | 30-0-2 | 3-0-0 | 0 | 0 | 351-4-21 |
| | First date: July 12 (6) | | | | Peak date: August 7 (32) | | | | Last date: September 30 (1) | | | | 700 |

## Hermit Thrush *Catharus guttatus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.3 | 1.4 | 1.4 | 4.1 | 1.7 | 0.0 | 0.1 | 1.1 |
| Days observed | 0 | 1 | 4 | 5 | 5 | 6 | 0 | 1 | 22 |
| Processed | 0 | 0 | 0 | 1-0-0 | 11-0-0 | 1-0-0 | 0 | 0 | 13-0-0 |
| | First date: April 28 (2) | | | Peak date: May 16 (16) | | | Last date: June 10 (1) | | 64 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.6 | 1.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.1 | 0.0 | 0.8 | 0.3 |
| Days observed | 4 | 5 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 17 |
| Processed | 0 | 2-0-0 | 1-0-0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 1-0-0 | 0 | 2-0-0 | 7-0-0 |
| | First date: July 14 (1) | | | | Peak date: July 23 (3) | | | | Last date: September 30 (1) | | | | 22 |

## American Robin — *Turdus migratorius*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 16.3 | 208.4 | 38.0 | 22.9 | 6.7 | 4.7 | 1.7 | 2.9 | 37.7 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| Processed | 0 | 1-1-0 | 1-0-0 | 3-0-0 | 0 | 1-0-0 | 0 | 1-0-0 | 7-1-0 |
| | First date: April 16 (13) | | | Peak date: April 27 (457) | | | Last date: June 10 (4) | | 2111 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.6 | 5.3 | 7.7 | 3.7 | 6.6 | 2.9 | 3.3 | 1.3 | 2.3 | 10.6 | 0.3 | 10.8 | 4.8 |
| Days observed | 7 | 6 | 4 | 6 | 7 | 5 | 4 | 4 | 6 | 5 | 1 | 4 | 59 |
| Processed | 1-0-0 | 2-0-0 | 8-0-0 | 0 | 3-0-0 | 1-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 15-0-0 |
| | First date: July 12 (2) | | | | Peak date: July 29 (21) | | | | Last date: September 30 (30) | | | | 368 |

## European Starling — *Sturnus vulgaris*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.4 | 0.0 | 0.0 | 1.3 | 0.4 | 0.0 | 0.0 | 0.3 |
| Days observed | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 5 |
| | First date: April 23 (3) | | | Peak date: May 15 (7) | | | Last date: May 27 (1) | | 15 |

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

## Cedar Waxwing — *Bombycilla cedrorum*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 204.3 | 25.7 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 7 |
| | First date: May 27 (9) | | | Peak date: June 10 (837) | | | Last date: June 10 (837) | | 1439 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 26.7 | 22.4 | 9.3 | 14.7 | 36.1 | 23.3 | 33.6 | 24.7 | 13.7 | 12.9 | 0.9 | 0.8 | 18.3 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 3 | 1 | 67 |
| Processed | 0 | 1-0-0 | 0 | 2-0-0 | 6-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9-0-0 |
| | First date: July 12 (17) | | | | Peak date: August 15 (98) | | | | Last date: September 29 (3) | | | | 1531 |

## American Pipit — *Anthus rubescens*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.6 | 9.1 | 4.1 | 6.1 | 13.0 | 0.6 | 0.1 | 0.0 | 4.2 |
| Days observed | 2 | 6 | 3 | 6 | 2 | 2 | 1 | 0 | 22 |
| | First date: April 19 (2) | | | Peak date: May 14 (89) | | | Last date: May 28 (1) | | 236 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 11.4 | 24.1 | 4.1 | 2.3 | 0.5 | 3.9 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 6 | 7 | 5 | 1 | 29 |
| | First date: August 27 (16) | | | | Peak date: September 6 (76) | | | | Last date: September 27 (2) | | | | 327 |

## Finch (including unidentified) — *Fringillidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 11.7 | 10.1 | 3.9 | 9.7 | 6.9 | 10.3 | 3.9 | 3.4 | 7.5 |
| Days observed | 7 | 7 | 5 | 7 | 6 | 7 | 3 | 6 | 48 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 1-0-0 |
| | First date: April 16 (23) | | | Peak date: April 19 (42) | | | Last date: June 10 (1) | | 419 |

## Finch (including unidentified) *Fringillidae*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 443.3 | 81.1 | 16.1 | 20.6 | 34.1 | 11.1 | 16.0 | 14.9 | 6.0 | 4.1 | 0.4 | 15.3 | 55.3 |
| Days observed | 7 | 6 | 4 | 6 | 7 | 5 | 5 | 5 | 4 | 6 | 2 | 4 | 61 |
| Processed | 9-0-0 | 2-0-0 | 2-0-0 | 2-0-0 | 0 | 3-0-0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 19-0-0 |
| | First date: July 12 (19) | | | | Peak date: July 17 (2029) | | | | Last date: September 30 (30) | | | | 4596 |

## Evening Grosbeak *Coccothraustes vespertinus*

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.3 | 0.9 | 1.1 | 1.7 | 0.7 | 0.1 | 0.0 | 0.6 | 0.8 |
| Days observed | 4 | 5 | 2 | 4 | 3 | 1 | 0 | 1 | 20 |
| | First date: April 18 (1) | | | Peak date: April 19 (6) | | | Last date: June 6 (4) | | 45 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.4 | 1.3 | 0.6 | 1.6 | 1.3 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.0 | 0.8 | 0.6 |
| Days observed | 1 | 2 | 3 | 4 | 4 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 21 |
| | First date: July 17 (3) | | | | Peak date: August 6 (6) | | | | Last date: September 30 (3) | | | | 48 |

## Purple Finch *Haemorhous purpureus*

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.6 | 8.1 | 2.7 | 8.0 | 1.9 | 0.7 | 0.0 | 0.4 | 2.8 |
| Days observed | 2 | 7 | 5 | 7 | 5 | 3 | 0 | 2 | 31 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 1-0-0 |
| | First date: April 21 (1) | | | Peak date: April 27 (25) | | | Last date: June 8 (2) | | 157 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.4 | 5.0 | 9.0 | 6.3 | 10.9 | 3.1 | 6.1 | 4.0 | 1.0 | 0.4 | 0.0 | 0.5 | 4.0 |
| Days observed | 4 | 5 | 4 | 6 | 7 | 3 | 4 | 4 | 3 | 3 | 0 | 1 | 44 |
| Processed | 0 | 2-0-0 | 2-0-0 | 2-0-0 | 0 | 3-0-0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 10-0-0 |
| | First date: July 12 (1) | | | | Peak date: August 12 (26) | | | | Last date: September 30 (2) | | | | 333 |

## Common Redpoll *Acanthis flammea*

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Days observed | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | First date: April 16 (18) | | | Peak date: April 16 (18) | | | Last date: April 21 (2) | | 20 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 | 0.0 | 0.0 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | First date: January 0 (0) | | | | Peak date: January 0 (0) | | | | Last date: January 0 (0) | | | | 0 |

## White-winged Crossbill *Loxia leucoptera*

| | APRIL | | MAY | | | | | JUNE | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.1 |
| Days observed | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 |
| | First date: April 17 (2) | | | Peak date: May 30 (2) | | | Last date: May 30 (2) | | 5 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.6 | 0.3 | 1.6 | 1.3 | 0.4 | 1.0 | 0.3 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.5 |
| Days observed | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 14 |
| | First date: July 15 (2) | | | | Peak date: July 30 (8) | | | | Last date: September 12 (1) | | | | 39 |

## Pine Siskin *Spinus pinus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 6.4 | 0.9 | 0.0 | 0.0 | 4.3 | 9.1 | 3.4 | 0.4 | 3.1 |
| Days observed | 4 | 3 | 0 | 0 | 6 | 7 | 3 | 2 | 25 |
| | First date: April 16 (5) | | | Peak date: April 19 (36) | | | Last date: June 9 (1) | | 172 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 440.7 | 74.6 | 5.0 | 11.3 | 21.0 | 6.9 | 9.1 | 9.4 | 4.6 | 3.3 | 0.4 | 14.0 | 50.0 |
| Days observed | 7 | 6 | 3 | 4 | 6 | 5 | 5 | 5 | 3 | 6 | 2 | 4 | 56 |
| Processed | 9-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9-0-0 |
| | First date: July 12 (18) | | | | Peak date: July 17 (2021) | | | | Last date: September 30 (25) | | | | 4160 |

## American Goldfinch *Spinus tristis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 2.0 | 0.3 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 7 |
| | First date: May 26 (1) | | | Peak date: June 5 (7) | | | Last date: June 10 (1) | | 16 |

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

## Sparrow (including unidentified) *Passerellidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 9.6 | 105.4 | 64.6 | 58.9 | 107.6 | 61.6 | 14.1 | 18.6 | 55.0 |
| Days observed | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 51 |
| Processed | 0 | 36-0-0 | 6-0-0 | 41-0-3 | 62-0-9 | 73-0-19 | 10-0-6 | 8-0-10 | 236-0-47 |
| | First date: April 16 (11) | | | Peak date: April 27 (579) | | | Last date: June 10 (17) | | 3082 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 24.6 | 25.3 | 17.6 | 16.4 | 23.9 | 15.9 | 19.0 | 25.9 | 40.0 | 32.1 | 43.9 | 71.3 | 29.6 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 78 |
| Processed | 26-3-11 | 28-5-9 | 37-0-3 | 22-0-0 | 30-0-4 | 6-0-2 | 12-0-2 | 48-0-3 | 43-0-4 | 43-0-5 | 15-0-1 | 14-0-0 | 324-8-44 |
| | First date: July 12 (26) | | | | Peak date: September 27 (147) | | | | Last date: September 30 (76) | | | | 2276 |

## Lapland Longspur *Calcarius lapponicus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 9 (1) | | | | Peak date: September 9 (1) | | | | Last date: September 9 (1) | | | | 1 |

## Chipping Sparrow *Spizella passerina*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 1.3 | 19.6 | 8.4 | 0.7 | 1.1 | 3.9 |
| Days observed | 0 | 0 | 0 | 2 | 7 | 7 | 3 | 5 | 24 |
| Processed | 0 | 0 | 0 | 3-0-0 | 2-0-0 | 7-0-0 | 0 | 0 | 12-0-0 |
| | First date: May 11 (2) | | | Peak date: May 19 (39) | | | Last date: June 10 (2) | | 218 |

## Chipping Sparrow *Spizella passerina*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.6 | 0.3 | 0.0 | 0.3 | 1.1 | 0.7 | 0.9 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.4 |
| Days observed | 3 | 2 | 0 | 2 | 3 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 17 |
| Processed | 2-0-0 | 1-0-0 | 0 | 2-0-0 | 3-0-0 | 0 | 2-0-0 | 1-0-0 | 0 | 0 | 0 | 0 | 11-0-0 |
| | First date: July 14 (1) | | | | Peak date: August 15 (5) | | | | Last date: September 6 (3) | | | | 33 |

## Clay-colored Sparrow *Spizella pallida*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | 9.3 | 1.0 | 1.9 | 2.8 |
| Days observed | 0 | 0 | 0 | 0 | 5 | 7 | 3 | 5 | 20 |
| Processed | 0 | 0 | 0 | 0 | 4-0-0 | 8-0-0 | 0 | 3-0-0 | 15-0-0 |
| | First date: May 16 (1) | | | Peak date: May 19 (35) | | | Last date: June 10 (1) | | 157 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.3 | 1.0 | 0.6 | 0.0 | 0.3 | 0.4 | 0.0 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.4 |
| Days observed | 5 | 3 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 1 | 0 | 0 | 19 |
| Processed | 4-0-0 | 0 | 2-0-0 | 0 | 2-0-0 | 0 | 0 | 1-0-0 | 2-0-0 | 0 | 0 | 0 | 11-0-0 |
| | First date: July 12 (2) | | | | Peak date: July 20 (4) | | | | Last date: September 13 (2) | | | | 31 |

## Fox Sparrow *Passerella iliaca*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 2.7 | 3.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| Days observed | 0 | 4 | 5 | 1 | 0 | 0 | 0 | 0 | 10 |
| Processed | 0 | 1-0-0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 2-0-0 |
| | First date: April 26 (2) | | | Peak date: May 1 (6) | | | Last date: May 7 (1) | | 44 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 1-0-0 |
| | First date: September 12 (1) | | | | Peak date: September 12 (1) | | | | Last date: September 12 (1) | | | | 1 |

## American Tree Sparrow *Spizelloides arborea*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 4.1 | 3.1 | 0.3 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 |
| Days observed | 5 | 5 | 1 | 3 | 0 | 0 | 0 | 0 | 14 |
| Processed | 0 | 2-0-0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 3-0-0 |
| | First date: April 17 (15) | | | Peak date: April 17 (15) | | | Last date: May 9 (7) | | 65 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 0.4 | 5.3 | 3.5 | 0.8 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 6 | 4 | 15 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 1-0-0 | 1-0-0 | 2-0-0 | 0 | 6-0-0 |
| | First date: August 31 (1) | | | | Peak date: September 26 (21) | | | | Last date: September 30 (2) | | | | 57 |

## Slate-colored Junco *Junco hyemalis hyemalis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 4.6 | 86.9 | 50.3 | 6.6 | 3.1 | 0.0 | 0.0 | 0.0 | 18.9 |
| Days observed | 6 | 7 | 7 | 6 | 4 | 0 | 0 | 0 | 30 |
| Processed | 0 | 30-0-0 | 2-0-0 | 9-0-0 | 0 | 0 | 0 | 0 | 41-0-0 |
| | First date: April 16 (11) | | | Peak date: April 27 (527) | | | Last date: May 20 (1) | | 1060 |

## Slate-colored Junco — *Junco hyemalis hyemalis*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 6.1 | 11.4 | 30.4 | 58.3 | 8.9 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 7 | 7 | 4 | 24 |
| Processed | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 2-0-0 | 13-0-0 | 13-0-0 | 13-0-0 | 42-0-0 |
| | First date: August 18 (1) | | | | Peak date: September 27 (128) | | | | Last date: September 30 (60) | | | | 571 |

## Oregon Junco — *Junco hyemalis oreganus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Processed | 0 | 3-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 3-0-0 |
| | First date: April 27 (3) | | | Peak date: April 27 (3) | | | Last date: April 27 (3) | | 3 |

## Gambel's White-crowned Sparrow — *Zonotrichia leucophrys gambelii*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.3 | 1.1 | 0.3 | 0.1 | 0.0 | 0.0 | 0.2 |
| Days observed | 0 | 0 | 1 | 4 | 1 | 1 | 0 | 0 | 7 |
| Processed | 0 | 0 | 2-0-0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 |
| | First date: May 6 (2) | | | Peak date: May 12 (3) | | | Last date: May 27 (1) | | 13 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 4.3 | 0.4 | 0.4 | 0.0 | 0.5 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 3 | 3 | 0 | 15 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 12-0-0 | 3-0-0 | 0 | 0 | 17-0-0 |
| | First date: August 30 (2) | | | | Peak date: September 6 (10) | | | | Last date: September 25 (1) | | | | 42 |

## Harris's Sparrow — *Zonotrichia querula*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | First date: September 20 (1) | | | | Peak date: September 20 (1) | | | | Last date: September 20 (1) | | | | 1 |

## White-throated Sparrow — *Zonotrichia albicollis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.1 | 7.6 | 33.6 | 30.7 | 7.4 | 9.3 | 11.1 |
| Days observed | 0 | 0 | 1 | 6 | 7 | 7 | 3 | 6 | 30 |
| Processed | 0 | 0 | 0 | 16-0-0 | 45-0-7 | 55-0-9 | 7-0-3 | 2-0-4 | 125-0-23 |
| | First date: May 6 (1) | | | Peak date: May 18 (56) | | | Last date: June 10 (9) | | 621 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 12.0 | 12.0 | 12.0 | 9.4 | 12.0 | 7.6 | 8.3 | 14.6 | 13.3 | 11.7 | 1.7 | 3.5 | 9.8 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 3 | 74 |
| Processed | 13-3-11 | 18-5-4 | 29-0-0 | 15-0-0 | 20-0-2 | 4-0-2 | 9-0-2 | 28-0-3 | 12-0-4 | 21-0-5 | 0-0-1 | 1-0-0 | 170-8-34 |
| | First date: July 12 (14) | | | | Peak date: September 15 (26) | | | | Last date: September 30 (8) | | | | 816 |

## LeConte's Sparrow — *Ammospiza leconteii*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 |
| | First date: May 29 (1) | | | Peak date: May 29 (1) | | | Last date: May 29 (1) | | 1 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 30 (1) | | | | Peak date: July 30 (1) | | | | Last date: July 30 (1) | | | | 1 |

## Savannah Sparrow *Passerculus sandwichensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.3 | 0.9 | 1.6 | 0.9 | 0.3 | 0.0 | 0.0 | 0.5 |
| Days observed | 0 | 1 | 1 | 5 | 3 | 2 | 0 | 0 | 12 |
| | First date: April 23 (2) | | | Peak date: May 6 (6) | | | Last date: May 22 (1) | | 27 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 2.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 0 | 0 | 0 | 9 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8-0-0 | 2-0-0 | 0 | 0 | 0 | 10-0-0 |
| | First date: August 30 (3) | | | | Peak date: September 8 (4) | | | | Last date: September 12 (3) | | | | 22 |

## Song Sparrow *Melospiza melodia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.3 | 1.3 | 3.6 | 6.7 | 7.0 | 5.3 | 2.3 | 3.1 | 3.7 |
| Days observed | 2 | 5 | 6 | 7 | 7 | 7 | 3 | 6 | 43 |
| Processed | 0 | 0 | 2-0-0 | 3-0-1 | 0 | 1-0-3 | 1-0-0 | 1-0-1 | 8-0-5 |
| | First date: April 21 (1) | | | Peak date: May 8 (11) | | | Last date: June 10 (2) | | 207 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 5.3 | 4.7 | 2.0 | 3.1 | 2.1 | 0.6 | 0.1 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 1.5 |
| Days observed | 7 | 7 | 4 | 6 | 7 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 36 |
| Processed | 1-0-0 | 2-0-4 | 2-0-2 | 3-0-0 | 2-0-1 | 1-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 11-0-7 |
| | First date: July 12 (5) | | | | Peak date: August 6 (7) | | | | Last date: September 12 (1) | | | | 128 |

## Lincoln's Sparrow *Melospiza lincolnii*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 3.4 | 6.3 | 4.4 | 1.6 | 2.4 | 2.3 |
| Days observed | 0 | 0 | 0 | 5 | 7 | 7 | 3 | 6 | 28 |
| Processed | 0 | 0 | 0 | 8-0-2 | 10-0-2 | 2-0-7 | 1-0-3 | 1-0-5 | 22-0-19 |
| | First date: May 9 (5) | | | Peak date: May 16 (16) | | | Last date: June 10 (3) | | 127 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.9 | 3.1 | 1.1 | 0.6 | 2.0 | 0.7 | 0.4 | 1.0 | 1.9 | 1.0 | 0.3 | 0.0 | 1.3 |
| Days observed | 7 | 7 | 3 | 4 | 7 | 4 | 2 | 3 | 4 | 4 | 1 | 0 | 46 |
| Processed | 4-0-0 | 5-0-1 | 3-0-1 | 1-0-0 | 0-0-1 | 0 | 1-0-0 | 5-0-0 | 10-0-0 | 5-0-0 | 0 | 0 | 34-0-3 |
| | First date: July 12 (3) | | | | Peak date: September 8 (7) | | | | Last date: September 20 (2) | | | | 105 |

## Swamp Sparrow *Melospiza georgiana*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| Processed | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 1-0-0 | 1-0-0 | 3-0-0 |
| | First date: May 18 (1) | | | Peak date: May 28 (1) | | | Last date: June 6 (1) | | 3 |

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

## Blackbird (including unidentified) *Icteridae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 1.3 | 71.4 | 70.9 | 120.6 | 84.1 | 36.1 | 8.3 | 6.6 | 49.9 |
| Days observed | 2 | 7 | 7 | 7 | 7 | 7 | 2 | 6 | 45 |
| | First date: April 16 (3) | | | Peak date: May 13 (208) | | | Last date: June 10 (7) | | 2795 |

## Blackbird (including unidentified) — *Icteridae*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 20.1 | 51.4 | 7.7 | 10.4 | 8.6 | 4.7 | 6.9 | 1.4 | 2.7 | 4.4 | 0.1 | 0.5 | 9.9 |
| Days observed | 7 | 7 | 4 | 7 | 4 | 3 | 3 | 4 | 5 | 6 | 1 | 1 | 52 |
| 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: January 0 (0) | | | | Last date: September 28 (2) | | | | 832 |

## Yellow-headed Blackbird — *Xanthocephalus xanthocephalus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.4 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 3 |
| | First date: May 13 (3) | | | Peak date: May 28 (0) | | | Last date: May 29 (1) | | 5 |

## Baltimore Oriole — *Icterus galbula*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 0.4 | 0.1 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 6 |
| | First date: May 25 (1) | | | Peak date: May 12 (0) | | | Last date: June 9 (1) | | 6 |

## Red-winged Blackbird — *Agelaius phoeniceus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.1 | 4.1 | 12.3 | 12.9 | 18.7 | 7.9 | 0.9 | 0.7 | 7.2 |
| Days observed | 1 | 5 | 5 | 7 | 7 | 7 | 2 | 3 | 37 |
| | First date: April 19 (1) | | | Peak date: May 6 (65) | | | Last date: June 7 (2) | | 403 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 3.0 | 14.3 | 4.0 | 0.1 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 |
| Days observed | 4 | 6 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| | First date: July 12 (1) | | | | Peak date: July 21 (36) | | | | Last date: August 14 (3) | | | | 155 |

## Brown-headed Cowbird — *Molothrus ater*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 1.1 | 1.6 | 7.1 | 6.0 | 6.4 | 1.6 | 0.3 | 3.0 |
| Days observed | 0 | 2 | 1 | 5 | 7 | 7 | 2 | 2 | 26 |
| | First date: April 27 (2) | | | Peak date: May 12 (30) | | | Last date: June 10 (1) | | 169 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 |
| | First date: August 5 (1) | | | | Peak date: August 5 (1) | | | | Last date: August 5 (1) | | | | 1 |

## Rusty Blackbird — *Euphagus carolinus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 2.9 | 1.9 | 0.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.7 |
| Days observed | 0 | 5 | 1 | 2 | 0 | 1 | 0 | 0 | 9 |
| | First date: April 23 (1) | | | Peak date: May 6 (13) | | | Last date: May 26 (1) | | 37 |

## Brewer's Blackbird — *Euphagus cyanocephalus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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: April 27 (2) | | | Peak date: April 27 (2) | | | Last date: April 27 (2) | | 2 |

## Common Grackle — *Quiscalus quiscula*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.3 | 18.6 | 8.0 | 3.3 | 4.7 | 4.3 | 0.9 | 0.7 | 5.1 |
| Days observed | 1 | 6 | 2 | 5 | 6 | 7 | 2 | 3 | 32 |
| | First date: April 19 (2) | | | Peak date: April 28 (47) | | | Last date: June 9 (1) | | 285 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 4.0 | 2.3 | 0.1 | 2.3 | 3.0 | 3.1 | 4.4 | 0.6 | 1.6 | 0.3 | 0.0 | 0.0 | 1.8 |
| Days observed | 5 | 3 | 1 | 3 | 4 | 3 | 2 | 3 | 3 | 2 | 0 | 0 | 29 |
| | First date: July 12 (1) | | | | Peak date: August 27 (21) | | | | Last date: September 17 (1) | | | | 152 |

## Warbler (including unidentified) — *Parulidae*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 53.1 | 309.4 | 138.4 | 154.4 | 82.9 | 30.0 | 66.1 | 104.3 |
| Days observed | 0 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 44 |
| Processed | 0 | 2-0-0 | 2-0-0 | 8-0-1 | 10-1-1 | 79-1-10 | 17-1-5 | 72-4-7 | 190-7-24 |
| | First date: April 23 (14) | | | Peak date: May 3 (1911) | | | Last date: June 10 (90) | | 5841 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 134.4 | 419.6 | 166.1 | 354.7 | 358.9 | 222.0 | 428.4 | 566.0 | 487.7 | 218.6 | 6.0 | 22.0 | 282.0 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 76 |
| Processed | 157-10-12 | 131-9-16 | 190-0-1 | 714-2-4 | 316-0-6 | 89-0-2 | 97-0-3 | 244-0-3 | 411-0-2 | 75-0-0 | 5-0-0 | 7-0-0 | 2436-21-49 |
| | First date: July 12 (75) | | | | Peak date: August 27 (2007) | | | | Last date: September 30 (10) | | | | 23625 |

## Ovenbird — *Seiurus aurocapilla*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 9.4 | 3.0 | 4.4 | 2.5 |
| Days observed | 0 | 0 | 0 | 0 | 6 | 7 | 3 | 6 | 22 |
| Processed | 0 | 0 | 0 | 0 | 3-0-1 | 22-1-3 | 3-0-1 | 3-1-1 | 31-2-6 |
| | First date: May 15 (1) | | | Peak date: May 24 (13) | | | Last date: June 10 (4) | | 138 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 4.7 | 3.6 | 3.0 | 3.1 | 3.0 | 0.6 | 1.0 | 2.6 | 0.1 | 0.0 | 0.0 | 0.0 | 1.8 |
| Days observed | 6 | 6 | 4 | 6 | 6 | 3 | 3 | 3 | 1 | 0 | 0 | 0 | 38 |
| Processed | 16-1-0 | 12-0-1 | 18-0-0 | 18-0-0 | 18-0-0 | 4-0-0 | 6-0-1 | 13-0-0 | 1-0-0 | 0 | 0 | 0 | 106-1-2 |
| | First date: July 12 (6) | | | | Peak date: August 14 (6) | | | | Last date: September 7 (1) | | | | 152 |

## Northern Waterthrush — *Parkesia noveboracensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.1 | 0.7 | 1.1 | 0.3 | 0.3 | 0.3 |
| Days observed | 0 | 0 | 0 | 1 | 3 | 3 | 2 | 2 | 11 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 2-0-0 | 0 | 0 | 3-0-0 |
| | First date: May 13 (1) | | | Peak date: May 25 (4) | | | Last date: June 6 (1) | | 18 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.3 | 0.1 | 0.3 | 0.1 | 0.7 | 0.3 | 0.3 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Days observed | 1 | 1 | 2 | 1 | 3 | 2 | 2 | 3 | 0 | 0 | 0 | 0 | 15 |
| Processed | 1-0-0 | 0 | 2-0-0 | 1-0-0 | 4-0-0 | 2-0-0 | 2-0-0 | 3-0-0 | 0 | 0 | 0 | 0 | 15-0-0 |
| | First date: July 15 (2) | | | | Peak date: August 14 (3) | | | | Last date: September 2 (1) | | | | 19 |

## Black-and-white Warbler — *Mniotilta varia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 | 9.9 | 3.4 | 4.9 | 3.2 |
| Days observed | 0 | 0 | 0 | 0 | 6 | 7 | 3 | 6 | 22 |
| Processed | 0 | 0 | 0 | 0 | 5-1-0 | 11-0-5 | 3-0-4 | 3-1-2 | 22-2-11 |
| | First date: May 15 (8) | | | Peak date: May 25 (13) | | | Last date: June 10 (5) | | 178 |

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

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 6.7 | 7.1 | 6.3 | 12.4 | 5.1 | 1.1 | 0.7 | 0.1 | 0.3 | 0.1 | 0.0 | 0.0 | 3.3 |
| Days observed | 7 | 7 | 4 | 6 | 7 | 4 | 3 | 1 | 1 | 1 | 0 | 0 | 41 |
| Processed | 10-1-1 | 15-0-0 | 18-0-0 | 50-0-0 | 6-0-0 | 2-0-0 | 1-0-0 | 0 | 0 | 1-0-0 | 0 | 0 | 103-1-1 |
| | First date: July 12 (3) | | | | Peak date: August 6 (26) | | | | Last date: September 15 (1) | | | | 281 |

## Tennessee Warbler *Leiothlypis peregrina*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 8.6 | 3.6 | 8.0 | 2.6 |
| Days observed | 0 | 0 | 0 | 0 | 2 | 7 | 3 | 6 | 18 |
| Processed | 0 | 0 | 0 | 0 | 0 | 11-0-0 | 6-1-0 | 7-0-0 | 24-1-0 |
| | First date: May 15 (1) | | | Peak date: May 24 (18) | | | Last date: June 10 (10) | | 143 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 12.4 | 12.7 | 16.9 | 81.4 | 36.0 | 16.7 | 5.7 | 2.3 | 0.7 | 0.6 | 0.0 | 0.0 | 15.5 |
| Days observed | 7 | 7 | 4 | 6 | 7 | 6 | 3 | 3 | 2 | 3 | 0 | 0 | 48 |
| Processed | 31-2-1 | 24-1-0 | 38-0-0 | 209-0-0 | 77-0-0 | 9-0-0 | 6-0-0 | 6-0-0 | 4-0-0 | 4-0-0 | 0 | 0 | 408-3-1 |
| | First date: July 12 (14) | | | | Peak date: August 7 (189) | | | | Last date: September 18 (2) | | | | 1298 |

## Orange-crowned Warbler *Leiothlypis celata*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.1 | 4.6 | 5.3 | 6.4 | 0.3 | 0.0 | 0.0 | 2.1 |
| Days observed | 0 | 1 | 3 | 7 | 6 | 2 | 0 | 0 | 19 |
| Processed | 0 | 1-0-0 | 1-0-0 | 4-0-0 | 1-0-0 | 2-0-0 | 0 | 0 | 9-0-0 |
| | First date: April 29 (1) | | | Peak date: May 15 (23) | | | Last date: May 24 (1) | | 117 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 14.4 | 68.0 | 16.9 | 0.9 | 2.3 | 8.9 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 7 | 6 | 4 | 3 | 29 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 3-0-0 | 35-0-0 | 192-0-0 | 55-0-0 | 3-0-0 | 5-0-0 | 293-0-0 |
| | First date: August 27 (17) | | | | Peak date: September 6 (140) | | | | Last date: September 30 (1) | | | | 738 |

## Connecticut Warbler *Oporornis agilis*

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

## Mourning Warbler *Geothlypis philadelphia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 6.1 | 0.8 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 6 | 9 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19-1-3 | 19-1-3 |
| | First date: May 24 (1) | | | Peak date: June 7 (11) | | | Last date: June 10 (4) | | 46 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.4 | 2.1 | 2.1 | 6.4 | 6.6 | 2.3 | 2.1 | 1.1 | 0.1 | 0.1 | 0.0 | 0.0 | 2.1 |
| Days observed | 5 | 6 | 4 | 5 | 7 | 5 | 6 | 4 | 1 | 1 | 0 | 0 | 44 |
| Processed | 6-0-4 | 2-3-9 | 12-0-0 | 25-0-0 | 28-0-0 | 11-0-0 | 9-0-0 | 5-0-0 | 0 | 1-0-0 | 0 | 0 | 99-3-13 |
| | First date: July 12 (5) | | | | Peak date: August 7 (21) | | | | Last date: September 19 (1) | | | | 179 |

## Common Yellowthroat — *Geothlypis trichas*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.1 | 1.1 | 3.6 | 0.8 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 5 | 3 | 6 | 15 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12-0-0 | 12-0-0 |
| | First date: May 17 (1) | | | Peak date: June 10 (9) | | | Last date: June 10 (9) | | 42 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.9 | 1.6 | 0.7 | 1.3 | 3.0 | 0.7 | 3.1 | 3.7 | 3.0 | 1.1 | 0.0 | 0.0 | 1.8 |
| Days observed | 6 | 5 | 2 | 4 | 7 | 3 | 6 | 6 | 6 | 6 | 0 | 0 | 51 |
| Processed | 6-0-0 | 2-0-0 | 1-0-0 | 6-0-0 | 9-0-0 | 1-0-0 | 5-0-0 | 8-0-2 | 10-0-0 | 1-0-0 | 0 | 0 | 49-0-2 |
| | First date: July 12 (2) | | | | Peak date: August 30 (9) | | | | Last date: September 19 (1) | | | | 148 |

## American Redstart — *Setophaga ruticilla*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 11.0 | 2.4 | 6.3 | 2.7 |
| Days observed | 0 | 0 | 0 | 0 | 5 | 7 | 3 | 6 | 21 |
| Processed | 0 | 0 | 0 | 0 | 0 | 18-0-1 | 0 | 10-1-0 | 28-1-1 |
| | First date: May 16 (3) | | | Peak date: May 21 (20) | | | Last date: June 10 (6) | | 153 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 11.7 | 10.0 | 10.1 | 25.0 | 10.4 | 6.0 | 2.9 | 2.6 | 4.0 | 1.6 | 0.3 | 0.0 | 7.0 |
| Days observed | 7 | 7 | 4 | 6 | 7 | 7 | 6 | 6 | 6 | 4 | 2 | 0 | 62 |
| Processed | 22-4-4 | 19-3-2 | 34-0-1 | 95-1-2 | 32-0-0 | 15-0-0 | 8-0-1 | 10-0-1 | 15-0-1 | 3-0-0 | 1-0-0 | 0 | 254-8-12 |
| | First date: July 12 (13) | | | | Peak date: August 7 (38) | | | | Last date: September 26 (1) | | | | 592 |

## Cape May Warbler — *Setophaga tigrina*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 |
| Days observed | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| | First date: May 12 (2) | | | Peak date: May 20 (2) | | | Last date: May 20 (2) | | 4 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 3.0 | 0.9 | 0.3 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 |
| Days observed | 0 | 0 | 0 | 5 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 10 |
| Processed | 0 | 0 | 0 | 18-0-0 | 6-0-0 | 0 | 0 | 1-0-0 | 1-0-0 | 0 | 0 | 0 | 26-0-0 |
| | First date: August 2 (3) | | | | Peak date: August 5 (7) | | | | Last date: September 6 (1) | | | | 31 |

## Magnolia Warbler — *Setophaga magnolia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 2.4 | 0.7 | 1.3 | 0.6 |
| Days observed | 0 | 0 | 0 | 0 | 1 | 7 | 3 | 6 | 17 |
| Processed | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 0 | 1-0-0 | 3-0-0 |
| | First date: May 20 (1) | | | Peak date: May 24 (5) | | | Last date: June 10 (3) | | 32 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 2.1 | 2.6 | 1.3 | 5.1 | 1.1 | 0.9 | 0.6 | 1.0 | 1.1 | 0.1 | 0.0 | 0.3 | 1.4 |
| Days observed | 6 | 5 | 3 | 5 | 6 | 3 | 2 | 5 | 3 | 1 | 0 | 1 | 40 |
| Processed | 2-0-0 | 4-1-2 | 5-0-0 | 18-0-0 | 3-0-1 | 2-0-1 | 1-0-1 | 6-0-0 | 5-0-0 | 1-0-0 | 0 | 1-0-0 | 48-1-5 |
| | First date: July 12 (1) | | | | Peak date: August 6 (11) | | | | Last date: September 28 (1) | | | | 113 |

## Bay-breasted Warbler — *Setophaga castanea*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 7.0 | 0.6 | 0.3 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| Days observed | 0 | 0 | 0 | 7 | 3 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 16 |
| Processed | 0 | 0 | 0 | 32-0-0 | 4-0-0 | 1-0-0 | 1-0-0 | 0 | 0 | 0 | 0 | 0 | 38-0-0 |
| | First date: August 2 (1) | | | | Peak date: August 7 (13) | | | | Last date: August 29 (1) | | | | 62 |

## Yellow Warbler — *Setophaga petechia*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 | 2.3 | 0.9 | 1.1 | 0.9 |
| Days observed | 0 | 0 | 0 | 0 | 5 | 6 | 3 | 5 | 19 |
| Processed | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 1-0-0 | 1-0-0 | 3-0-0 |
| | First date: May 15 (1) | | | Peak date: May 17 (8) | | | Last date: June 10 (2) | | 49 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 10.0 | 15.7 | 7.9 | 9.9 | 10.3 | 1.7 | 1.7 | 1.9 | 0.9 | 0.0 | 0.1 | 0.0 | 5.0 |
| Days observed | 7 | 7 | 4 | 6 | 7 | 4 | 3 | 6 | 4 | 0 | 1 | 0 | 49 |
| Processed | 32-0-0 | 25-0-0 | 9-0-0 | 26-0-0 | 21-0-0 | 4-0-0 | 3-0-0 | 5-0-0 | 1-0-0 | 0 | 1-0-0 | 0 | 127-0-0 |
| | First date: July 12 (11) | | | | Peak date: August 7 (22) | | | | Last date: September 21 (1) | | | | 420 |

## Chestnut-sided Warbler — *Setophaga pensylvanica*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | 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 |
| Processed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 1-0-0 |
| | First date: September 7 (1) | | | | Peak date: September 7 (1) | | | | Last date: September 7 (1) | | | | 1 |

## Blackpoll Warbler — *Setophaga striata*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 14 (1) | | | Peak date: May 15 (9) | | | Last date: May 16 (3) | | 13 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.1 | 1.1 | 1.3 | 1.1 | 0.1 | 0.0 | 0.0 | 0.4 |
| Days observed | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 2 | 1 | 0 | 0 | 12 |
| Processed | 0 | 0 | 0 | 1-0-0 | 2-0-0 | 1-0-0 | 3-0-0 | 8-0-0 | 6-0-0 | 1-0-0 | 0 | 0 | 22-0-0 |
| | First date: August 7 (1) | | | | Peak date: September 6 (4) | | | | Last date: September 13 (1) | | | | 30 |

## Western Palm Warbler — *Setophaga palmarum palmarum*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 1.7 | 0.0 | 0.0 | 0.6 |
| Days observed | 0 | 0 | 0 | 0 | 6 | 5 | 0 | 0 | 11 |
| | First date: May 15 (5) | | | Peak date: May 18 (7) | | | Last date: May 27 (1) | | 33 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.4 | 0.1 | 1.9 | 0.1 | 0.0 | 1.8 | 0.4 |
| Days observed | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 1 | 6 | 1 | 0 | 2 | 15 |
| Processed | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 1-0-0 | 0 | 2-0-0 | 1-0-0 | 0 | 0 | 5-0-0 |
| | First date: August 4 (1) | | | | Peak date: September 9 (6) | | | | Last date: September 28 (5) | | | | 27 |

## Myrtle Warbler — *Setophaga coronata coronata*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 52.3 | 285.1 | 59.3 | 55.6 | 18.9 | 5.1 | 4.6 | 60.1 |
| Days observed | 0 | 7 | 7 | 7 | 7 | 7 | 3 | 6 | 44 |
| Processed | 0 | 1-0-0 | 1-0-0 | 3-0-1 | 1-0-0 | 8-0-1 | 4-0-0 | 0 | 18-0-2 |
| | First date: April 23 (14) | | | Peak date: May 3 (1780) | | | Last date: June 10 (11) | | 3366 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 53.1 | 294.9 | 75.6 | 131.1 | 211.1 | 148.9 | 333.1 | 479.0 | 369.1 | 183.3 | 3.0 | 16.3 | 191.5 |
| Days observed | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 76 |
| Processed | 26-0-1 | 20-0-0 | 26-0-0 | 146-0-0 | 78-0-1 | 32-0-0 | 42-0-0 | 131-0-0 | 164-0-1 | 6-0-0 | 0 | 1-0-0 | 672-0-3 |
| | First date: July 12 (12) | | | | Peak date: August 27 (1713) | | | | Last date: September 30 (8) | | | | 16041 |

## Audubon's Warbler — *Setophaga coronata auduboni*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | 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 |

## Black-throated Green Warbler — *Setophaga virens*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.3 | 1.3 | 0.4 | 0.1 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Days observed | 0 | 0 | 1 | 4 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 11 |
| Processed | 0 | 0 | 2-0-0 | 3-0-0 | 2-0-0 | 0 | 0 | 1-0-0 | 0 | 0 | 0 | 0 | 8-0-0 |
| | First date: July 31 (2) | | | | Peak date: August 8 (3) | | | | Last date: August 30 (2) | | | | 18 |

## Canada Warbler — *Cardellina canadensis*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 2.0 | 7.1 | 1.3 |
| Days observed | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 6 | 13 |
| Processed | 0 | 0 | 0 | 0 | 0 | 2-0-0 | 0 | 16-0-1 | 18-0-1 |
| | First date: May 21 (1) | | | Peak date: June 6 (10) | | | Last date: June 10 (7) | | 72 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 3.6 | 4.4 | 7.1 | 19.3 | 7.4 | 1.3 | 0.7 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 3.7 |
| Days observed | 7 | 6 | 4 | 7 | 7 | 2 | 3 | 2 | 1 | 0 | 0 | 0 | 39 |
| Processed | 5-2-1 | 8-1-2 | 25-0-0 | 65-1-2 | 24-0-4 | 4-0-1 | 2-0-0 | 1-0-0 | 1-0-0 | 0 | 0 | 0 | 135-4-10 |
| | First date: July 12 (4) | | | | Peak date: August 7 (29) | | | | Last date: September 10 (1) | | | | 311 |

## Wilson's Warbler — *Cardellina pusilla*

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.4 | 1.4 | 3.1 | 2.4 | 0.1 | 0.0 | 0.0 | 0.7 |
| Days observed | 0 | 0 | 0 | 0 | 2 | 2 | 5 | 6 | 5 | 1 | 0 | 0 | 21 |
| Processed | 0 | 0 | 0 | 0 | 1-0-0 | 1-0-0 | 4-0-0 | 10-0-0 | 8-0-0 | 1-0-0 | 0 | 0 | 25-0-0 |
| | First date: August 12 (1) | | | | Peak date: September 5 (7) | | | | Last date: September 14 (1) | | | | 55 |

## Western Tanager — *Piranga ludoviciana*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 2.4 | 0.3 | 0.4 | 0.7 |
| Days observed | 0 | 0 | 0 | 0 | 5 | 6 | 2 | 3 | 16 |
| | First date: May 14 (4) | | | Peak date: May 20 (4) | | | Last date: June 10 (1) | | 39 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.1 | 3.1 | 8.0 | 10.3 | 4.9 | 0.6 | 1.4 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 2.5 |
| Days observed | 4 | 5 | 4 | 7 | 7 | 3 | 3 | 1 | 1 | 0 | 0 | 0 | 35 |
| Processed | 0 | 1-0-0 | 10-0-0 | 12-0-0 | 3-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26-0-0 |
| | First date: July 12 (1) | | | | Peak date: August 7 (24) | | | | Last date: September 12 (1) | | | | 210 |

## Rose-breasted Grosbeak — *Pheucticus ludovicianus*

| | APRIL | | MAY | | | | JUNE | | |
|---|---|---|---|---|---|---|---|---|---|
| S | 16-22 (1) | 23-29 (2) | 30-6 (3) | 7-13 (4) | 14-20 (5) | 21-27 (6) | 28-3 (7)[1] | 4-10 (8)[2] | TOTAL |
| Avg. per day | 0.0 | 0.0 | 0.1 | 0.0 | 3.3 | 3.3 | 0.6 | 1.4 | 1.1 |
| Days observed | 0 | 0 | 1 | 0 | 6 | 7 | 2 | 6 | 22 |
| Processed | 0 | 0 | 0 | 0 | 0 | 1-0-0 | 0 | 0 | 1-0-0 |
| | First date: May 6 (1) | | | Peak date: May 22 (8) | | | Last date: June 10 (1) | | 61 |

| | JULY | | | AUGUST | | | | SEPTEMBER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 12-18 (1) | 19-25 (2) | 26-1 (3)[3] | 2-8 (4) | 9-15 (5) | 16-22 (6) | 23-29 (7) | 30-5 (8) | 6-12 (9) | 13-19 (10) | 20-26 (11) | 27-30 (12) | TOTAL |
| Avg. per day | 1.0 | 2.0 | 4.9 | 6.9 | 2.6 | 0.4 | 0.3 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 1.5 |
| Days observed | 4 | 3 | 4 | 6 | 6 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 30 |
| Processed | 1-0-0 | 1-0-0 | 5-0-0 | 11-0-0 | 4-0-0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22-0-0 |
| | First date: July 14 (1) | | | | Peak date: August 7 (16) | | | | Last date: September 18 (1) | | | | 130 |

# Appendix II. To-date & 2019 Banding Totals

The following is an alphabetical listing by common name of all species with banding records at the LSLBO. All projects of 2019 are summarized with annual averages across programs since standardized efforts began in 1995 (2011 excluded) and grand totals since trials started in 1993. Subspecies are indicated with quotation marks.

| | Migration | | | | 2019 | Annual | Grand Total |
|---|---|---|---|---|---|---|---|
| **Species** | **Spring** | **Fall** | **MAPS** | **Owls** | **Total** | **Average** | **(1993-2019)** |
| Alder Flycatcher | 47 | 64 | 2 | | 113 | 83.4 | 2,307 |
| American Goldfinch | | | | | 0 | 0.1 | 2 |
| American Kestrel | | | | | 0 | 0.1 | 2 |
| American Pipit | | | | | 0 | 0.8 | 18 |
| American Redstart | 28 | 254 | 39 | | 321 | 301.5 | 7,919 |
| American Robin | 7 | 15 | 1 | | 23 | 22.6 | 581 |
| American Three-toed Woodpecker | | | | | 0 | 0.1 | 3 |
| American Tree Sparrow | 3 | 6 | | | 9 | 26.7 | 678 |
| "Audubon's" Warbler | | | | | 0 | 0.1 | 2 |
| Baltimore Oriole | | | | | 0 | 0.2 | 5 |
| Barred Owl* | | | 1[H] | | 1 | 0.2 | 5 |
| Bay-breasted Warbler* | | 38[H] | 1 | | 39[H] | 7.5 | 184 |
| Belted Kingfisher | | | | | 0 | 0.0 | 1 |
| Black-and-white Warbler | 22 | 103 | 8 | | 133 | 94.7 | 2,402 |
| Black-billed Magpie | | | | | 0 | 0.1 | 2 |
| Blackburnian Warbler | | | | | 0 | 0.1 | 2 |
| Black-capped Chickadee* | 2 | 273[H] | 3 | | 278[H] | 56.5 | 1,421 |
| Blackpoll Warbler | | 22 | | | 22 | 15.6 | 384 |
| Black-throated Green Warbler | | 8 | | | 8 | 5.6 | 140 |
| Blue Jay | 1 | 2 | | | 3 | 2.5 | 67 |
| Blue-headed Vireo | | 3 | 1 | | 4 | 3.6 | 92 |
| Boreal Chickadee* | | 23[H] | | | 23[H] | 2.0 | 56 |
| Boreal Owl | | | | | 0 | 0.5 | 12 |
| Brown Creeper | | 5 | 3 | | 8 | 3.1 | 76 |
| Brown Thrasher | | | | | 0 | 0.0 | 1 |
| Brown-headed Cowbird | | 1 | | | 1 | 0.4 | 10 |
| Canada (Gray) Jay | 1 | | | | 1 | 0.2 | 4 |
| Canada Warbler | 18 | 135 | 38 | | 191 | 139.4 | 3,563 |
| Cape May Warbler* | | 26[H] | | | 26[H] | 6.6 | 194 |
| Cedar Waxwing* | | 9 | 4[H] | | 13 | 7.2 | 212 |
| Chestnut-sided Warbler | | 1 | | | 1 | 0.8 | 23 |
| Chipping Sparrow | 12 | 11 | 3 | | 26 | 84.9 | 2,090 |
| Clay-colored Sparrow | 15 | 11 | | | 26 | 45.1 | 1,105 |
| Common Grackle | | | | | 0 | 0.3 | 6 |
| Common Redpoll | | | | | 0 | 0.2 | 4 |

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

| Species | Migration Spring | Migration Fall | MAPS | Owls | 2019 Total | Annual Average | Grand Total (1993-2019) |
|---|---|---|---|---|---|---|---|
| Common Yellowthroat | 12 | 49 | 5 | | 66 | 36.0 | 930 |
| Connecticut Warbler | | 2 | | | 2 | 1.3 | 31 |
| Cooper's Hawk | | | | | 0 | 0.2 | 4 |
| Downy Woodpecker | | 9 | 1 | | 10 | 4.3 | 108 |
| Eastern Kingbird | | | | | 0 | 0.0 | 1 |
| Eastern Phoebe | 3 | 4 | | | 7 | 7.7 | 186 |
| Evening Grosbeak | | | | | 0 | 0.1 | 2 |
| Fox Sparrow | 2 | 1 | | | 3 | 3.4 | 89 |
| "Gambell's" White-crowned Sparrow | 2 | 17 | | | 19 | 23.1 | 567 |
| Golden-crowned Kinglet | | 5 | | | 5 | 4.3 | 104 |
| Gray Catbird | | | | | 0 | 0.3 | 7 |
| Gray-cheeked Thrush | 8 | 1 | | | 9 | 10.5 | 252 |
| Hairy Woodpecker | 1 | 6 | 1 | | 8 | 4.0 | 97 |
| Harris's Sparrow | | | | | 0 | 0.3 | 8 |
| Hermit Thrush | 13 | 7 | 1 | | 21 | 26.8 | 669 |
| Hoary Redpoll | | | | | 0 | 0.0 | 1 |
| House Wren | 3 | 1 | 1 | | 5[H] | 2.0 | 47 |
| Lapland Longspur | | | | | 0 | 0.2 | 5 |
| Lazuli Bunting | | | | | 0 | 0.0 | 1 |
| Least Flycatcher* | 6[L] | 30 | 2 | | 38 | 85.4 | 2,336 |
| LeConte's Sparrow | | 1 | | | 1 | 0.4 | 10 |
| Lincoln's Sparrow | 22 | 34 | 3 | | 59 | 50.4 | 1,270 |
| Long-eared Owl | | | | | 0 | 0.0 | 1 |
| MacGillivray's Warbler | | | | | 0 | 0.1 | 2 |
| Magnolia Warbler* | 3 | 48 | 12[H] | | 63 | 43.6 | 1,120 |
| Marsh Wren | | | | | 0 | 0.1 | 3 |
| Mourning Warbler | 19 | 99 | 33 | | 151 | 72.0 | 1,809 |
| "Myrtle" Warbler* | 18[L] | 672 | 16 | | 706 | 579.4 | 14,414 |
| Nashville Warbler | | | | | 0 | 0.4 | 9 |
| Northern Goshawk | | | | | 0 | 0.0 | 1 |
| Northern Mockingbird | | | | | 0 | 0.0 | 1 |
| Northern Pygmy-Owl | | | | | 0 | 0.1 | 2 |
| Northern Saw-whet Owl | | | | 88 | 88 | 68.1 | 1,708 |
| Northern Shrike | | | | | 0 | 0.1 | 2 |
| Northern Waterthrush | 3 | 15 | | | 18 | 33.6 | 845 |
| Olive-sided Flycatcher | | | | | 0 | 0.1 | 2 |
| Orange-crowned Warbler* | 9 | 293[H] | | | 302[H] | 72.3 | 1,784 |
| "Oregon" Junco* | 3[H] | | | | 3 | 0.8 | 20 |
| Ovenbird | 31 | 106 | 30 | | 167 | 190.5 | 4,817 |
| Philadelphia Vireo | | 15 | | | 15 | 8.4 | 213 |
| Pileated Woodpecker | | 1 | | | 1 | 0.5 | 12 |

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

| Species | Migration Spring | Migration Fall | MAPS | Owls | 2019 Total | Annual Average | Grand Total (1993-2019) |
|---|---|---|---|---|---|---|---|
| Pine Siskin | | 9 | | | 9 | 6.0 | 178 |
| Purple Finch* | 1 | 10 | | | 11$^{H}$ | 4.6 | 120 |
| Red-breasted Nuthatch | 1 | 2 | 1 | | 4 | 5.8 | 145 |
| Red-eyed Vireo | 3 | 40 | 3 | | 46 | 34.9 | 909 |
| Red-winged Blackbird | | | | | 0 | 0.3 | 8 |
| Rose-breasted Grosbeak* | 1 | 22$^{H}$ | 2 | | 25 | 15.0 | 381 |
| Ruby-crowned Kinglet | 2 | 36 | 1 | | 39 | 18.6 | 475 |
| Savannah Sparrow | | 10 | | | 10 | 10.0 | 255 |
| Sharp-shinned Hawk | 3 | 22 | | | 25 | 29.6 | 745 |
| "Slate-coloured" Junco | 41 | 42 | | | 83 | 80.2 | 2,021 |
| Song Sparrow | 8 | 11 | | | 19 | 17.2 | 436 |
| Swainson's Thrush* | 55 | 351 | 39$^{H}$ | | 445 | 282.5 | 7,075 |
| Swamp Sparrow | 3 | 10 | | | 13 | 10.2 | 268 |
| Tennessee Warbler | 24 | 408 | 13 | | 445 | 249.3 | 6,415 |
| Townsend's Solitaire | | | | | 0 | 0.2 | 4 |
| Varied Thrush | | | | | 0 | 0.3 | 6 |
| Veery | | | | | 0 | 0.3 | 8 |
| Vesper Sparrow | | | | | 0 | 0.1 | 3 |
| Warbling Vireo | | 1 | | | 1 | 2.8 | 73 |
| Western Tanager* | | 26$^{H}$ | 5$^{H}$ | | 31$^{H}$ | 10.1 | 272 |
| Western Wood-Pewee | | 1 | | | 1 | 0.9 | 24 |
| "Western" Palm Warbler | | 5 | | | 5 | 13.0 | 321 |
| White-breasted Nuthatch | | | | | 0 | 0.3 | 11 |
| White-throated Sparrow | 125 | 170 | 66 | | 361 | 177.0 | 4,436 |
| White-winged Crossbill | | | | | 0 | 0.0 | 1 |
| Wilson's Warbler | | 25 | | | 25 | 22.4 | 619 |
| Winter Wren* | 1 | 3$^{H}$ | 7$^{H}$ | | 11$^{H}$ | 3.4 | 82 |
| Yellow Warbler | 3 | 127 | 10 | | 140 | 151.5 | 3,916 |
| Yellow-bellied Flycatcher | 4 | 1 | | | 5 | 3.3 | 87 |
| Yellow-bellied Sapsucker | 2 | 3 | 1 | | 6 | 9.0 | 226 |
| “Yellow-shafted” Flicker | | | | | 0 | 1.7 | 46 |
| **Total number of birds banded, 2019*** | **591** | **3,761$^{H}$** | **357** | **88** | **4,797** | **3,405.5** | **86,629** |
| Average season banded total | 952.9 | 2,088.4 | 236.5 | 107.4 | 3,405.5 | | |
| **Banded species total, 2019*** | **44** | **65$^{H}$** | **34$^{H}$** | **1** | **69** | **63.9** | **107** |
| Average season species total | 45.2 | 57.7 | 25.4 | 1.5 | 63.9 | | |

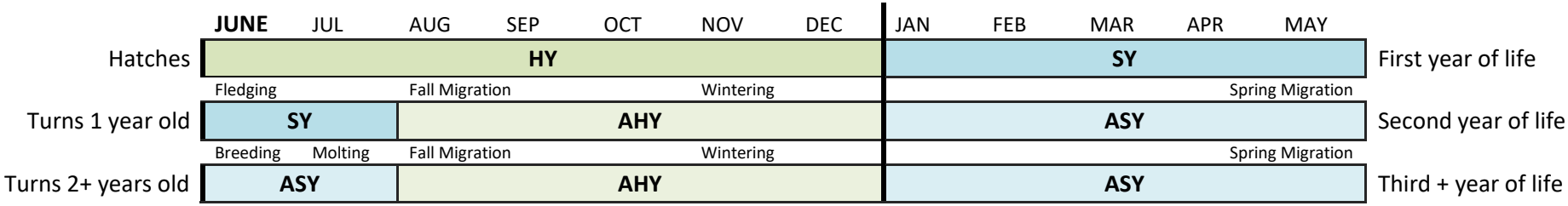
***Record breaker: the highest (**H**) or lowest (**L**) number of individuals banded in a season/year since 1995

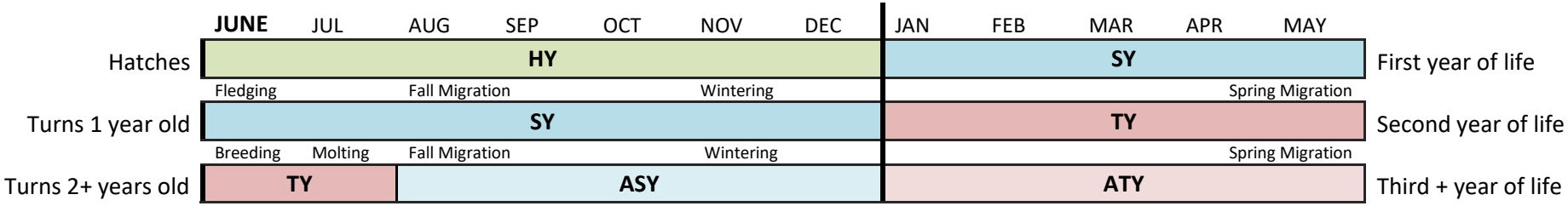
# Appendix III. Banding Age Codes

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:

| | | |
|---|---|---|
| **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 2018 and banded in March 2019 is a SY (1st calendar year = 2018, 2nd = 2019), 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 (1st calendar year = 2017, 2nd = 2018, 3rd = 2019). |
| **ATY** | After Third Year | Hatched prior to two years before the year of banding, now in *at least* its fourth calendar year of life, but exact age unknown. |

Most songbird species molt (replace) all of the feathers on their body after they have finished breeding, and 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:




For other species that have more complex molting 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: