

Hawk Ridge Bird Observatory 2025 Fall Count Summary



Introduction

The Hawk Ridge Bird Observatory conducted its 54th consecutive fall migration count from August 15th until November 30th. All counts of migrating birds were conducted from the platform at Hawk Ridge Nature Reserve. Standardized counts began at sunrise and continued until the end of the flight, following scenario two outlined in the Hawk Ridge Research Portfolio. The contribution of long term raptor data from Hawk Ridge is particularly valuable for the Raptor Population Index, with more than 50 years of data! Non-raptor counts began in 2007, and both illustrate the incredible magnitude of migration along Lake Superior and shed light on irruptive movements of northern species.

Coverage

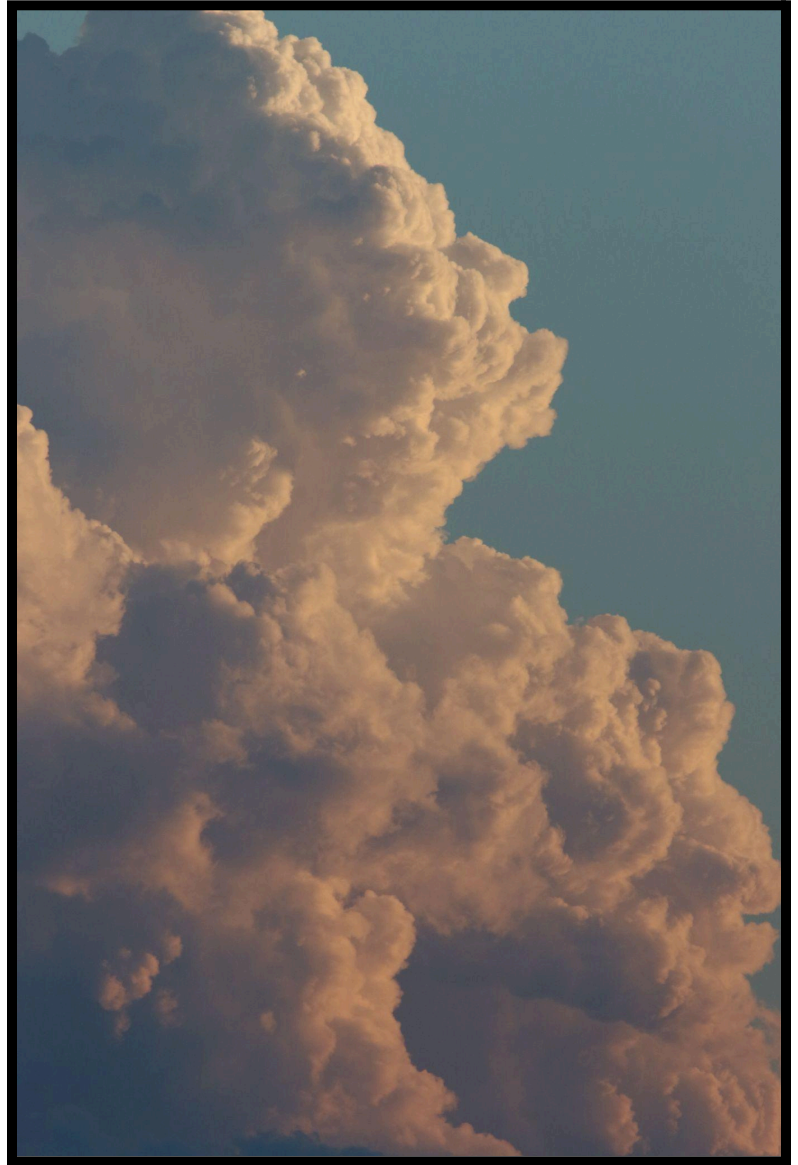
The Hawkwatch was staffed for 108 days and 951.93 hours in 2025. Counts began near sunrise and continued until the flight of birds stopped or inclement weather began. Observation hours at Hawk Ridge have increased, particularly after 1990 and 2007. Morning flight counts continue for the 19th year. Another dry fall allowed for counts on every day of the official season. Counts were conducted by at least one trained counter, and whenever possible during the peak period, two counters and other volunteer spotters. Using multiple observers is an effective way to increase detection and avoid counter fatigue (Bildstein et al., 2007). Many thanks to all our great spotters!



Weather and Climate

An important part of hawkwatching is weather watching. Accurate records of weather data from the count site contribute to our understanding of how birds migrate using winds, thermals and other variables. Hourly weather is recorded from the hawkwatch, using weather data from the Duluth International Airport's National Weather Service station (DIA). Wind speed and direction, temperature, air pressure, humidity, cloud cover, precipitation and visibility are recorded each hour. Cloud cover is recorded based on the counters best judgement in factors of eighths, and visibility is gauged on the clearness of landmarks with known distances (Stoney Point, Moose Mountain, Lester River Golf Course, the lakeshore).

The season was dry, with spells of warmth and cooler days. Drought persisted throughout most of the fall. Cold fronts arrived every 5-10 days, bringing temps well below average for several days in August. Small amounts of measurable rain were recorded in early September, followed by a string of extremely foggy days in mid-September. October maintained the pattern of a balmy fall, with only four days falling into below average low temperatures. One day in November soared to record high, 53°F on November 24th. Temperatures finally plummeted at the end of the month, along with an overnight snowfall of nearly 10 inches at the Ridge!





Duluth MN - Sep 2025

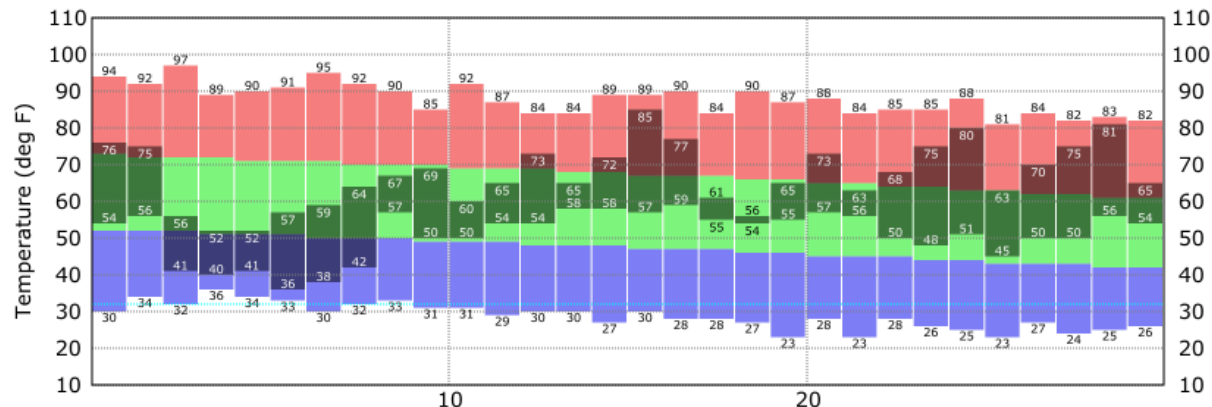


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Duluth MN - Oct 2025

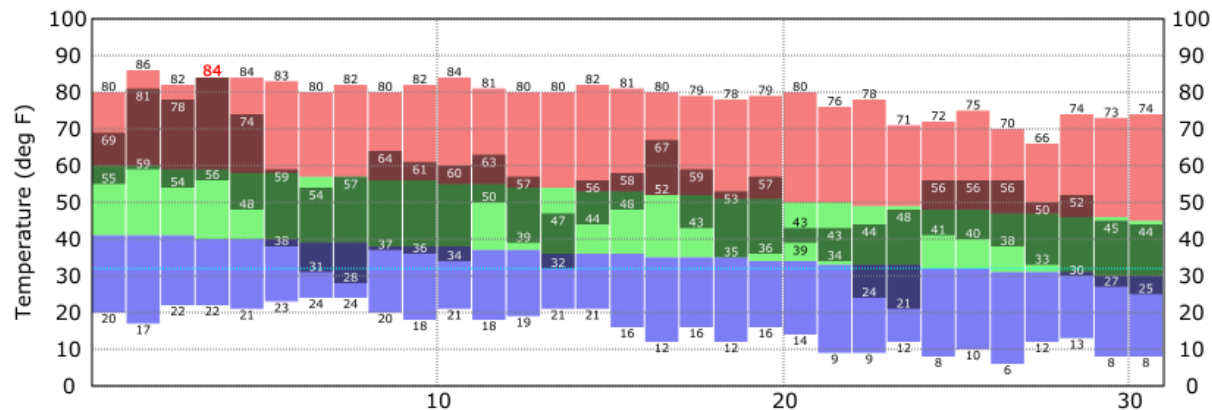


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Duluth MN - Nov 2025

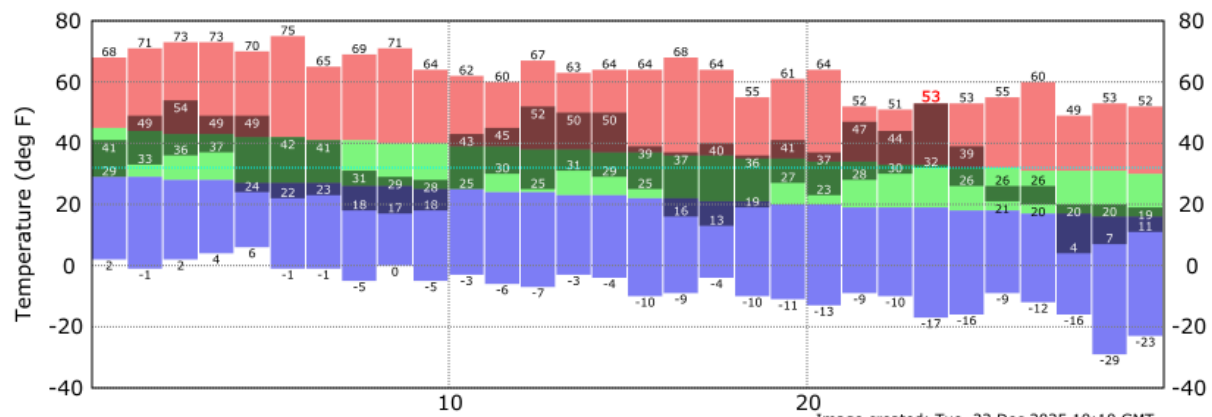


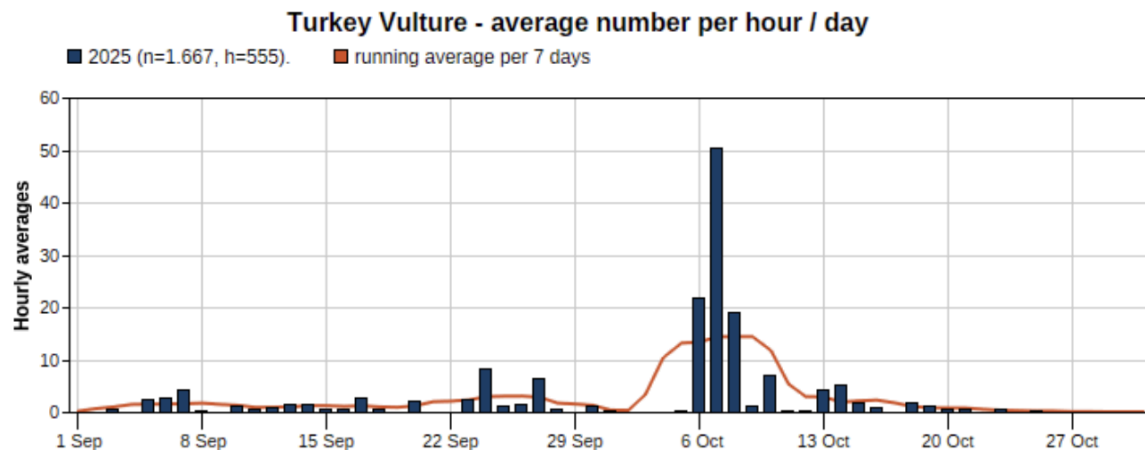
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Raptor Count Summary

Between August 15th and November 30th, 41,886 total raptors were recorded in active migration past Hawk Ridge. This season was the highest seasonal total for Merlin, and Bald Eagles were near record high. Below, each raptor species counted at Hawk Ridge this season will be stated along with the total number of birds, status of *Above Average*, *Below Average* or *Average* in comparison to the 54 year data set at Hawk Ridge. Additionally, there will be a brief summary of the species and a figure included of birds counted per hour throughout the season (figures provided by Trektellen.org). A species name with an asterisk (*) indicates a seasonal high count.

Turkey Vulture - 1,702

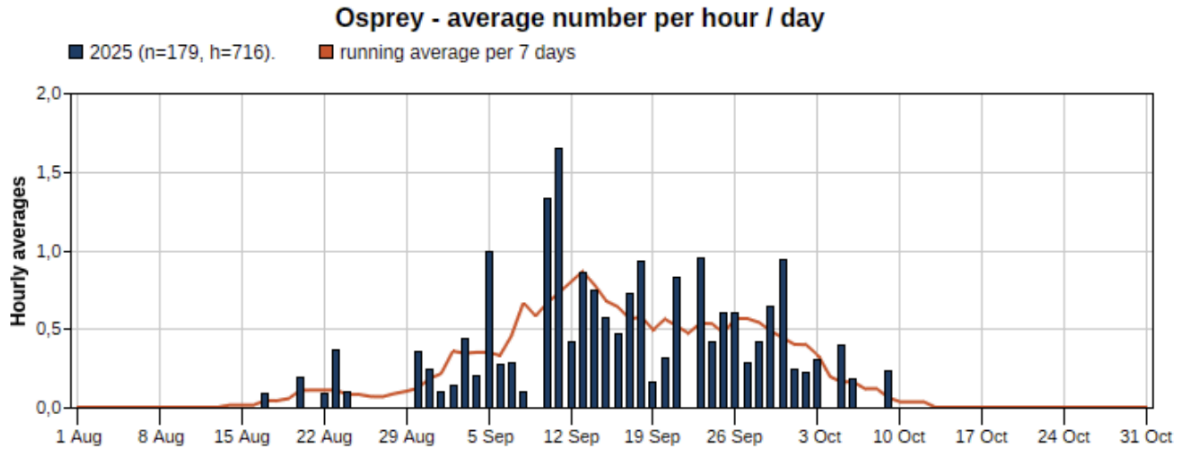
Above Average



Turkey Vultures continue a northerly expansion, as numbers have been increasing since the 1990s. Vultures are one of the only birds that are seen in higher numbers during spring migration in Duluth. This past spring, the West Skyline Hawk Count observed record numbers of Turkey Vultures (5,753); however, this large flight did not correlate to a huge fall flight. Many raptors migrate in accordance to their age, young birds moving south first, followed by adults (Mueller et al. 2000). We observed that Turkey Vultures appear to move in reverse, adults followed by hatch-year birds. We hope to further document this pattern at Hawk Ridge and other Great Lakes watch sites.



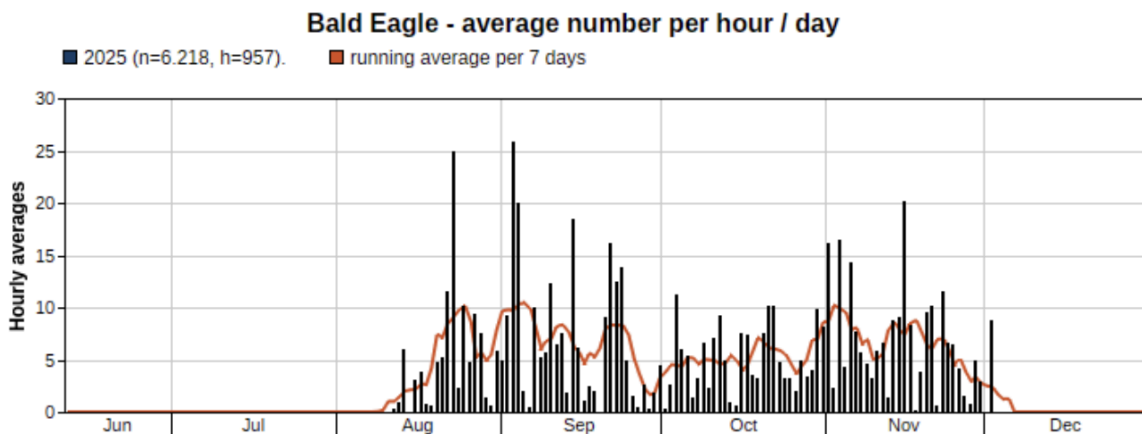
Osprey - 179
Below Average



This year's Osprey count once again falls below the long term average (246) and the 10-year average (213). The season high count was achieved on September 10, with just 14 recorded. Nearly all Great Lakes hawkwatches that contribute to the Raptor Population show significant declines in Osprey over the last 10 years, while coastal sites like Cape May and Kiptopeke show slight increases over the same time period (RPI).



Bald Eagle - 6,177
Above Average

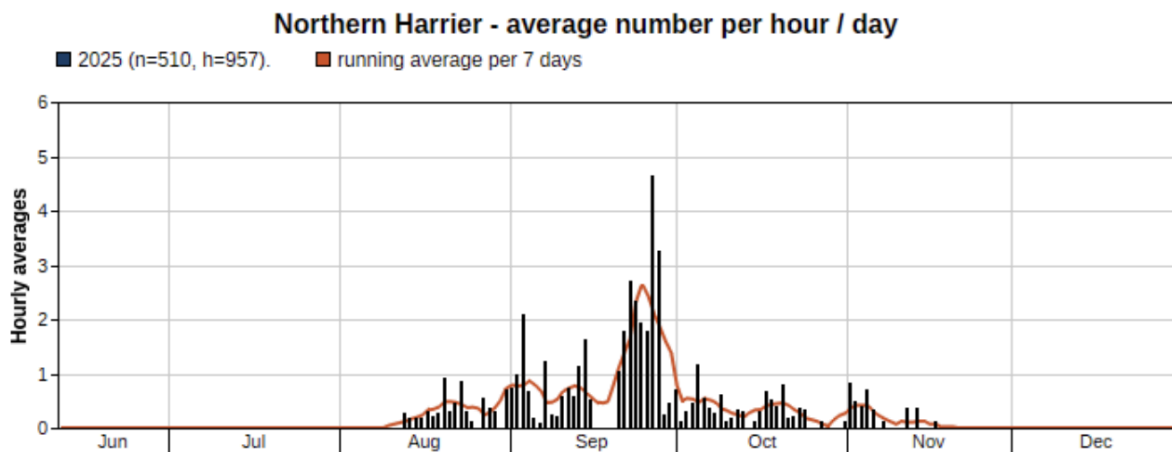


The 2025 fall season tied the second highest Bald Eagle total, the exact same count as 2019. One pattern that has emerged in recent seasons is the increase of significant flights of eagles in late August and early September. In fact, this season's two highest single day Bald Eagle flights were in the early season: August 26 and September 6. On September 6th, counters identified 160 adult Bald Eagles among the total of 284 migrant eagles. It is still largely unknown where these adults are headed, and how many represent true "southern" Bald Eagles (breeding below 40°N). Bald Eagle migration is protracted, and migrants will often carry on into mid to late December. Bald Eagles are also our most frequently observed raptor migrant, recorded on 98% of count days this season.



Northern Harrier - 510

Above Average



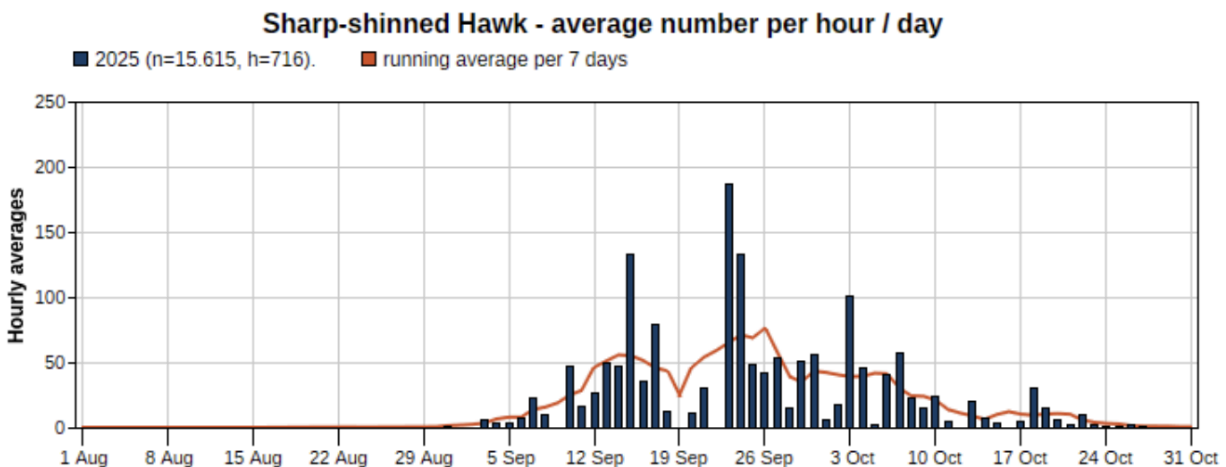
Northern Harriers are birds of open tundra, prairie, and wetlands, and are frequently observed at Hawk Ridge in a wide range of weather conditions. One of the few raptors that will routinely fly through rain and stiff winds, or may even be seen crossing the lake. Harriers peaked in late September, trickling out into late October.

One of the more notable pulses of harriers occurred in early November. The 34 harriers that month tied the highest November total. Harriers remain stable in the Great Lakes RPI, but show significant declines in the Appalachian and Atlantic corridors.



Sharp-shinned Hawk - 15,687

Above Average

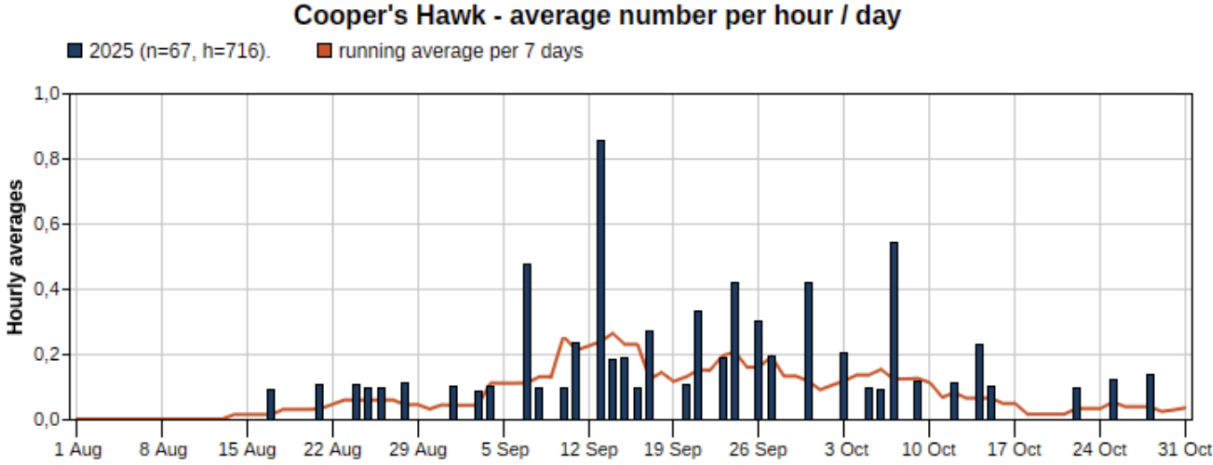


2025 was another excellent year for Sharp-shinned Hawk migration along the north shore. After a period of foggy days in late September, a break-out flight of nearly 2,000 Sharp-shins on September 23rd was the 4th highest in project history! Sharp-shinned Hawks have a complicated and unclear status at North American hawkwatches. Huge numbers were recorded in the early 1970s and 80s at eastern sites like Hawk Mountain and Cape May. However, in the last 25 years, Sharp-shinned Hawks have declined at a rapid rate in the eastern Great Lakes, Appalachia and the Atlantic coast. Hawk Ridge and Whitefish Point are two of the only sites that count large

numbers of Sharpies without signs of decline. Sharp-shin populations are likely associated with Spruce Budworm outbreaks, which can result in elevated populations of some new world warbler species and finches (Bolgiano, 2004). It is still unclear why Sharp-shinned counts have not declined at Hawk Ridge like other North American hawkwatches.



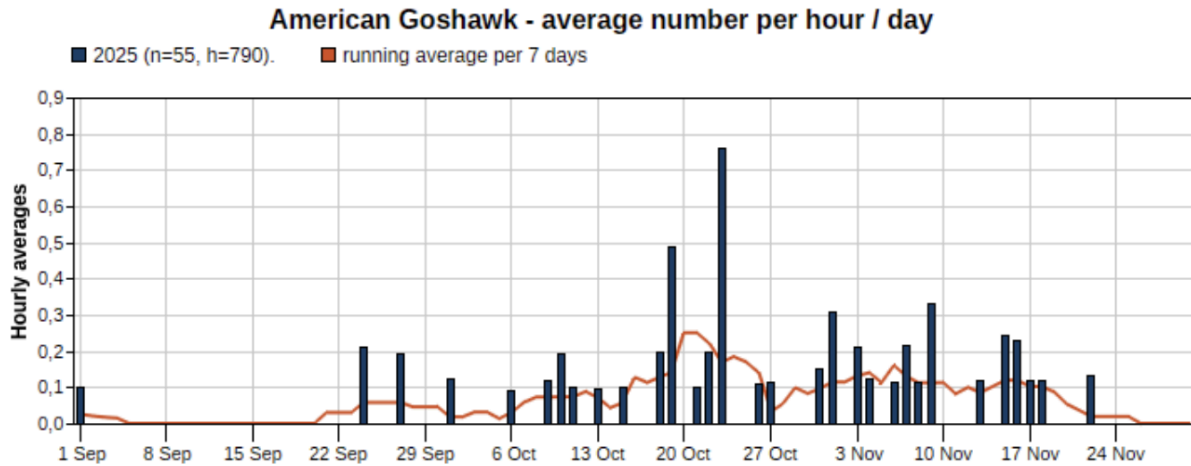
Cooper's Hawk - 68
Below Average



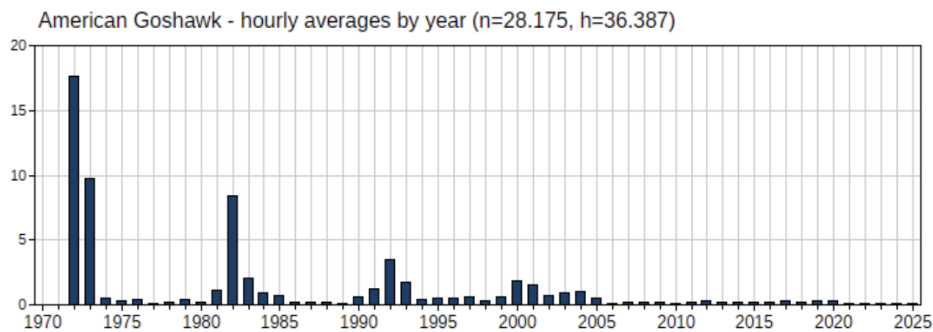
Cooper's Hawks were consistent, peaking with a count of 6 on September 13th. Despite routinely counting over 10,000 Sharp-shinned Hawks a season, the Cooper's Hawk long-term average sits just below 100.

American Goshawk - 55

Below Average

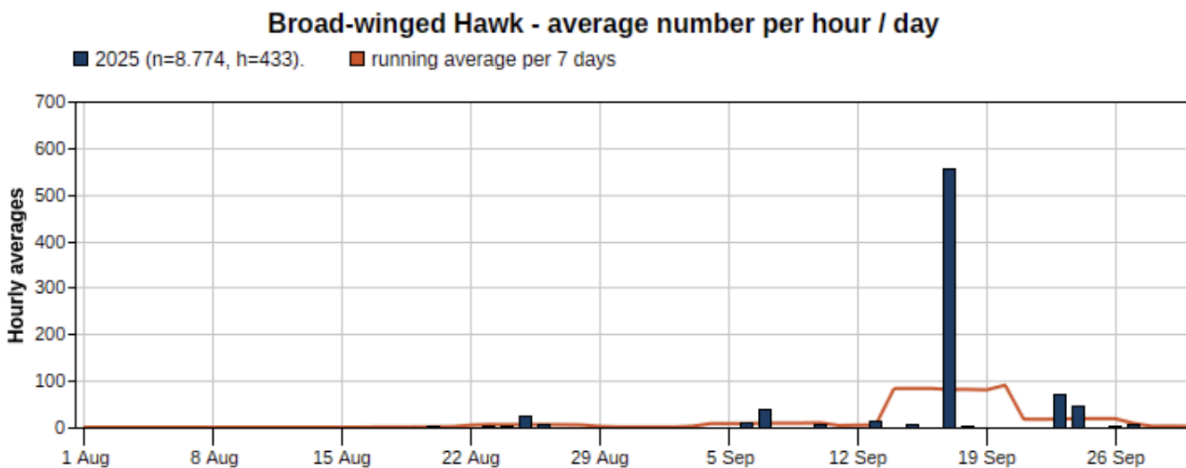


Extremely low numbers of American Goshawks continue for another year. One of the highlights in the Goshawk migration was an early adult, counted on September 27, that gave a brief glimmer of hope for an oncoming invasion. Unfortunately, this excitement did not last long as a meager trickle of Goshawks followed in October. The last major invasion of Goshawks occurred 2000-2002, and have remained at low levels ever since. Below is a figure detailing the disappearance of the famed irruptions.



Broad-winged Hawk - 8,799

Below Average



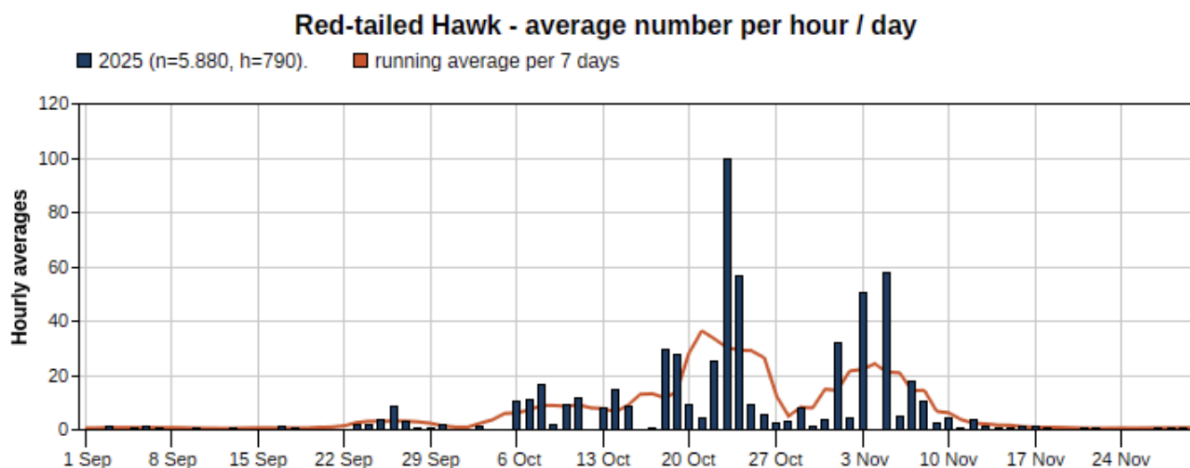
A record low season for Broad-winged Hawks. The aforementioned fog in mid-September aligned perfectly with the peak for soaring buteos, effectively ruining the chances of any large flights. The only 4-digit flight of the season was on September 17 (6,110). While low Broad-winged Hawk

numbers are disappointing here, there is assurance that these birds simply take other routes. Our colleagues at the Detroit River Hawk Watch recorded 51,922 Broad-wings this fall, and Veracruz's two raptor sites tallied over 1 million.



Red-tailed Hawk - 5,907

Below Average

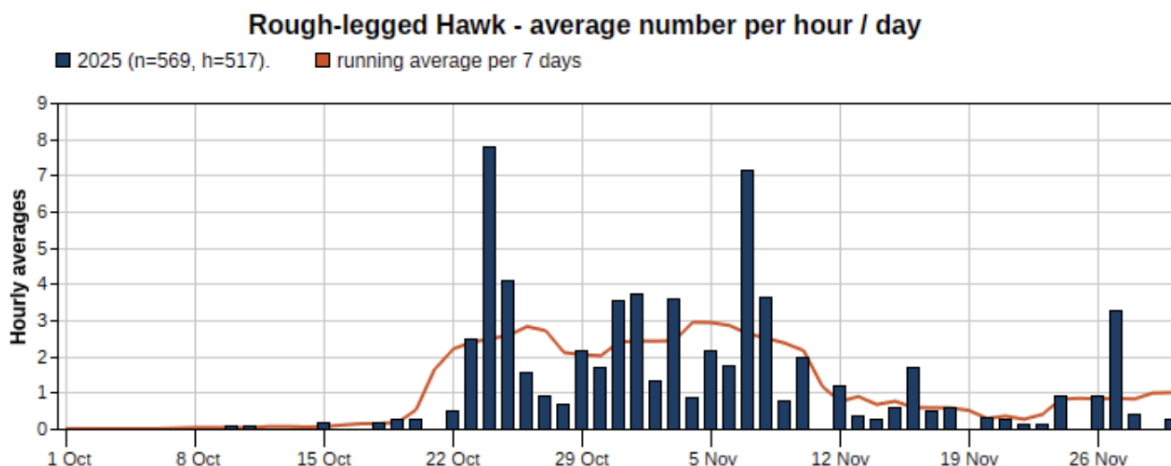


A widespread species that shows mixed signals across the continent in terms of increases and decreases in population. The Red-tailed Hawk flight was lackluster until late October, when it quickly became excellent. October 23-24 accumulated over 1,500 Red-tails, bringing counts closer to the 10-year average. The final major exodus of Red-tails for the fall was split between November 3rd and 5th, with over 1,000 in two days. This November Red-tail flight also situated the month with one of its highest total raptor counts ever.



Rough-legged Hawk - 569

Above Average



We welcomed Neil Paprocki as our Hawk Weekend speaker this fall, and during an excellent presentation on the Rough-legged Hawk Project, he projected a below average flight for this species this fall. We were pleasantly surprised to count an above average number of Rough-legged Hawks this season. The majority of ageable birds were adults (340) over juveniles (35). Closer birds were scrutinized closely, and numerous second-year birds were identified. We believe that many of the young from 2024 returned this year as adult birds.



Swainson's Hawk - 4

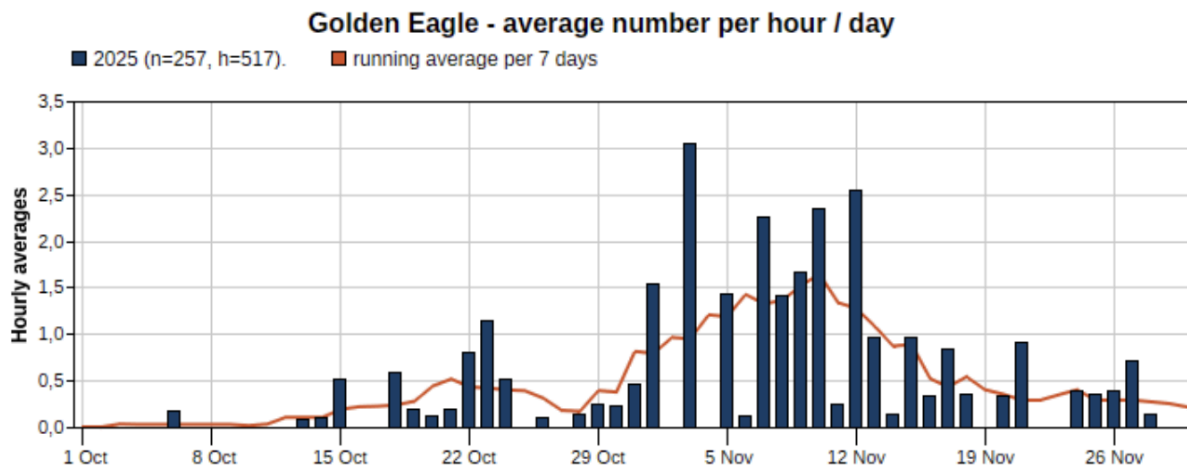
Below Average

A casual vagrant from the west, the first three Swainson's Hawks were counted in two days, September 5th and 7th. The last Swainson's was over a month later, on October 15th! This is the more typical time for Swainson's to appear as vagrants in the east, so it is possible that this fourth bird came from a very different part of the country than the first three.

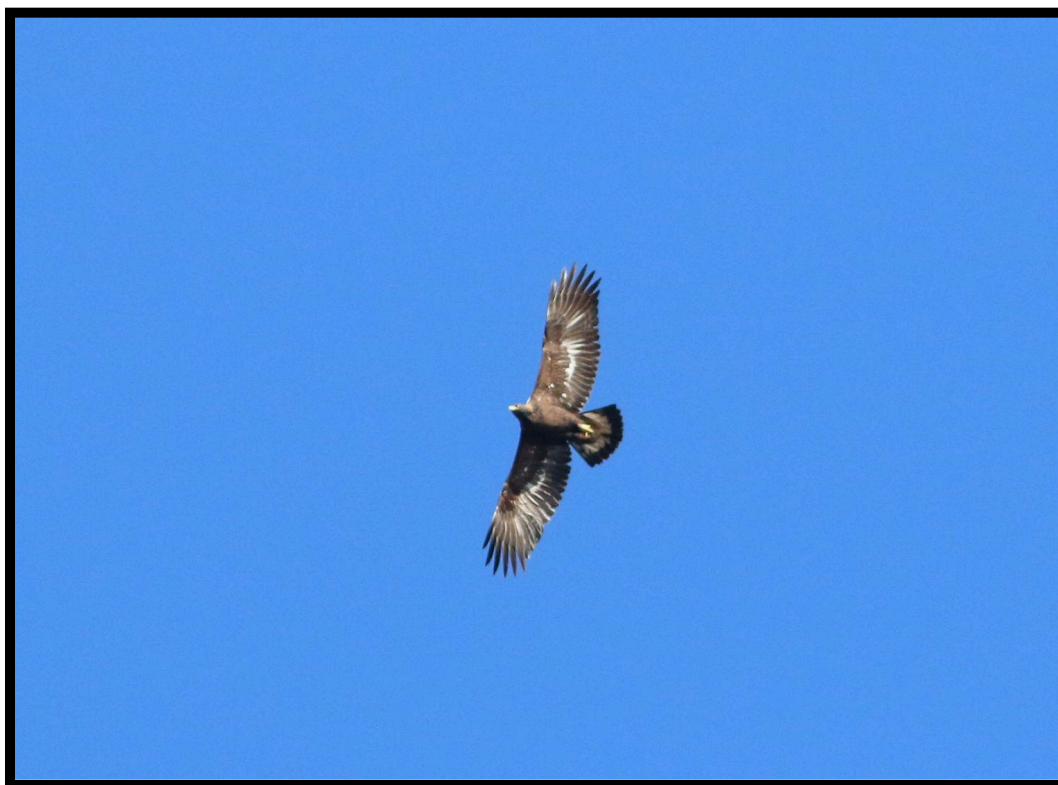


Golden Eagle - 257

Above Average

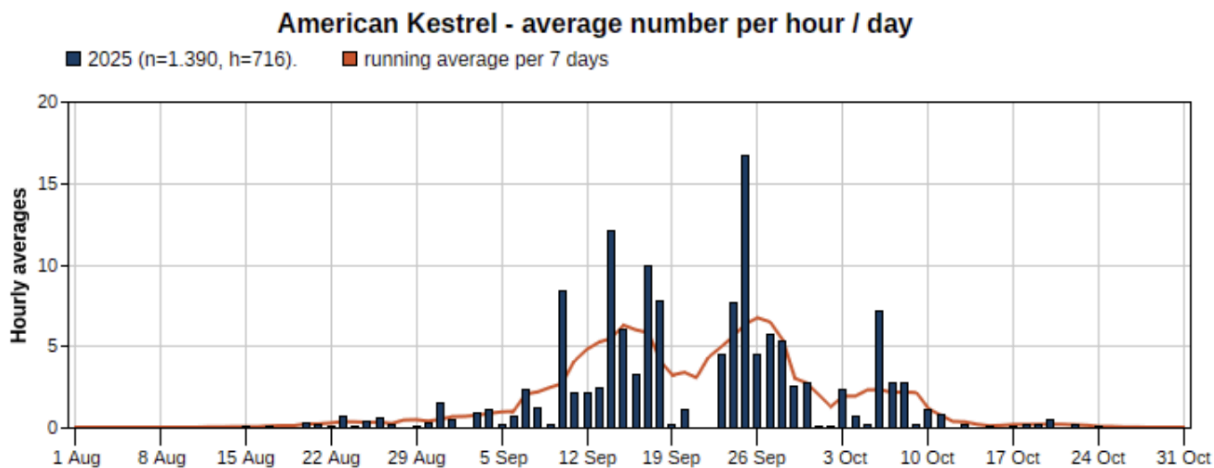


2025 was another stellar season for Golden Eagle migration in Duluth! The peak day November 3 (29) was closely followed by November 12 (21)! Golden Eagles really hit their stride in the final month of the season, and this year was only the second year ever with over 200 in November. The most productive week of the season began on November 5; the following 8 days accumulated 106 Golden Eagles!



American Kestrel - 1,391

Above Average

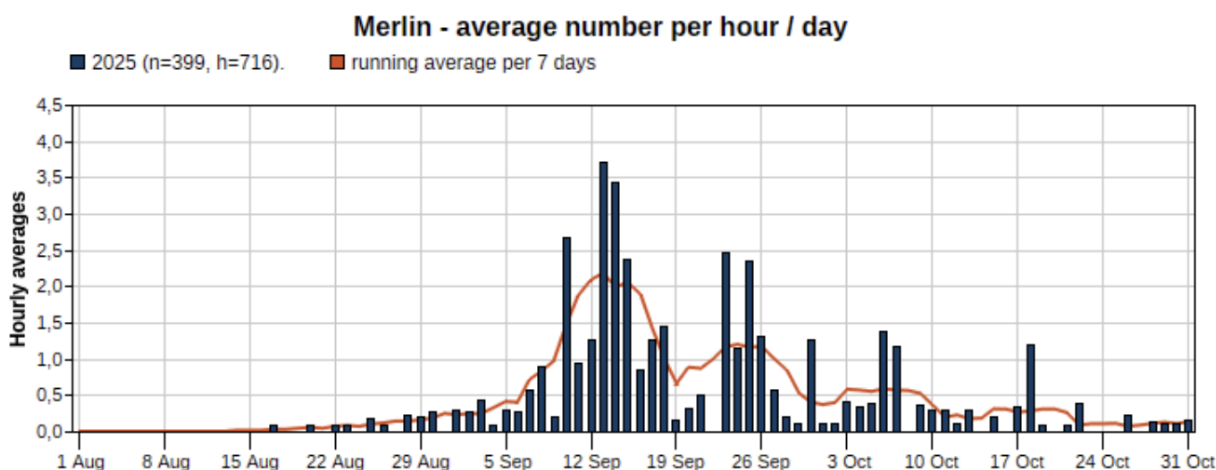


American Kestrels remain a welcome daily sight throughout September and early October, especially on warm, late afternoons with southwest winds. The period of dense fog and easterly winds is quite noticeable on this figure, a missing chip out of the bell curve. Kestrels reached their peak on September 25 (192), and a second excellent flight on September 14 (130).



Merlin* - 402

Above Average

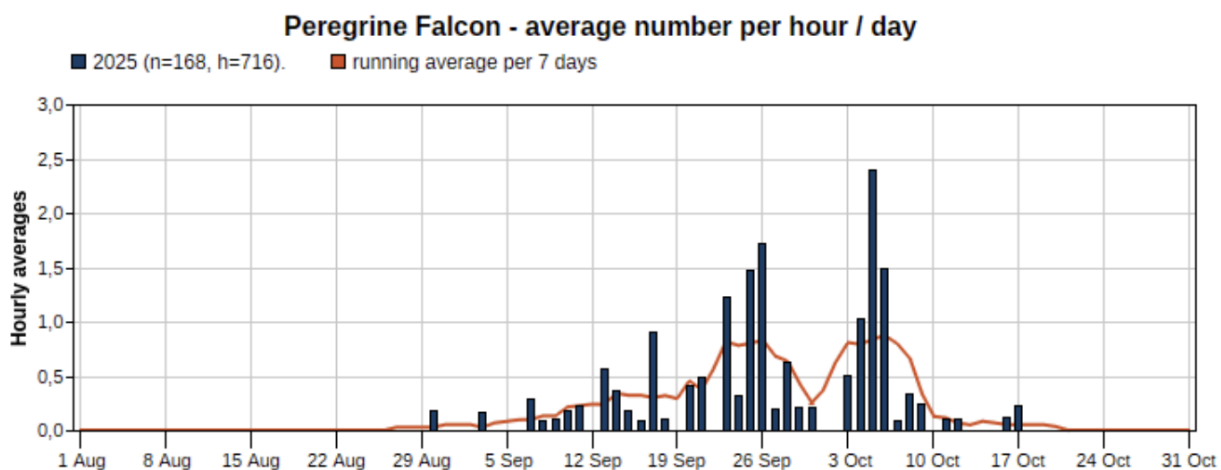




Record high season for Merlin! A consistent and abundant early September flight ballooned the counts above the average quickly, and the race was shortly on for the record. Consistency was the name of the game. The largest flight of the season on September 25 (27) was only the 19th highest daily count. Steady, daily flights of 10+ Merlin powered the count to over 400 for the first time ever!

Peregrine Falcon - 169

Above Average



The second highest Peregrine Falcon count, for the second year in a row! The expected falcon week of early October did not disappoint. Between October 3-9, counters recorded 60 Peregrine Falcons, 35% of the season's total. As winds shift, days with southerly components have increased, which may actually benefit our ability to detect Peregrines. Southerly and southwesterly winds remain the best condition to spot Peregrine Falcons!



Mississippi Kite - 1

For the fourth consecutive year, a Mississippi Kite was spotted from Hawk Ridge. This year's bird was observed on Aug 31. In somewhat typical Kite fashion, this bird was spotted distantly to the west and was only seen for a short time above the distant treeline.

Unknowns

Unknown Accipiter - 2

Unknown Buteo - 1

Unknown Falcon - 1

Unknown Raptor - 5

Non-raptor Count Summary

Hawk Ridge completed its 19th consecutive season of non-raptor counts alongside the raptor count. The high volume of diurnal, active migrants along the North Shore is one of the most unique parts of Hawk Ridge. There is reasonable evidence that population trends and migration pattern shifts can be ascertained from counts at Hawk Ridge, particularly in comparison to historical counts from the Lake Superior shoreline and Lakewood Pumping Station (Bardon, 2012; Eckert, 1990). Additionally, there are a number of non-raptor migrants that pass through Duluth in greater numbers than any known location in the world (Rusty Blackbird, Common Nighthawk).



Highlights started early this season, especially Common Nighthawks. On August 22, 17,870 Nighthawks streamed down the shore in massive kettles and rivers, boiling into a frenzy by late afternoon. We recorded 23 species of warblers in active morning flight. Yellow-rumped Warblers (11,510), Tennessee Warbler (686), Palm Warbler (551) and Nashville Warbler (489) were the most numerous. A new county high count was set for Canada Goose, 3,073 on September 3, and a new state high count for Blue Jay, 15,280, on September 10! The Blue Jay tally (72,277) was the second highest in project history. Common Ravens (1,384) were spotted in above average numbers, especially early in the season. October specialties, American Robin (32,387) and Rusty Blackbird (8,493) were slightly below average. Rusty Blackbirds are the most common blackbird migrant on the North Shore, and have been in consistent decline over the last 10 years. There was a modest incursion of Bonaparte's Gulls in late October, and small flocks were spotted racing out towards the lake. Bohemian Waxwings (320) and Boreal Chickadees (12) were excellent counts for both species. Many Boreal Chickadees were seen alongside migrant Black-capped Chickadee flocks. The finch flight at Hawk Ridge illuminates the status of northern birds and seed crops, one of the only migration sites in the country where large numbers of finches are counted every year. Purple Finches (6,599), American Goldfinch (1,935), Redpoll (4,764), Pine Siskin (2,062) and crossbills were below average counts. The finch that was spotted in exceptional numbers were Pine Grosbeaks (1,500). Small flocks of these graceful finches were seen daily from late October through the end of November.

2025 Non-Raptor Totals

Species	Count	Species	Count	Species	Count
Canada Goose	9257	Red-headed Woodpecker	11	Purple Finch	6599
Cackling Goose	57	Red-bellied Woodpecker	6	House Finch	32
Ross/Snow Goose	1	Yellow-bellied Sapsucker	107	Redpoll	4764
Snow Goose	73	Black-backed Woodpecker	15	Red Crossbill	41
Goose sp.	5	Downy Woodpecker	10	White-winged Crossbill	140
Trumpeter Swan	72	Hairy Woodpecker	26	American Goldfinch	1,935

Tundra/Trumpeter Swan	18	Northern Flicker	224	Pine Siskin	2,062
Tundra Swan	110	Pileated Woodpecker	5	Lapland Longspur	104
Wood Duck	4	Woodpecker sp.	2	Snow Bunting	230
Blue-winged Teal	9	Eastern Phoebe	2	Chipping Sparrow	80
American Wigeon	17	Olive-sided Flycatcher	18	Fox Sparrow	17
Mallard	375	Eastern Wood-Pewee	1	American Tree Sparrow	34
Northern Pintail	23	Alder Flycatcher	1	Dark-eyed Junco	455
Dabbling duck sp.	49	Least Flycatcher	10	White-crowned Sparrow	7
Duck sp.	721	Empidonax sp.	5	White-throated Sparrow	5
Redhead	2	Eastern Kingbird	16	Savannah Sparrow	17
Ring-necked Duck	31	Flycatcher sp.	4	Song Sparrow	1
Greater Scaup	23	Red-eyed Vireo	29	Lincoln's Sparrow	1
Lesser Scaup	2	Philadelphia Vireo	1	Sparrow sp.	52
Aythya	59	Blue-headed Vireo	4	Bobolink	100
Greater/Lesser Scaup	32	Northern Shrike	32	Red-winged Blackbird	503
Common Goldeneye	63	Blue Jay	72,277	Rusty Blackbird	8493

Hooded Merganser	7	American Crow	6,650	Blackbird sp.	14
Common Merganser	58	Common Raven	1,384	Common Grackle	5,574
Red-breasted Merganser	101	Bohemian Waxwing	320	Ovenbird	2
Common Nighthawk	18,352	Cedar Waxwing	6,688	Northern Waterthrush	22
Chimney Swift	191	Boreal Chickadee	12	Golden-winged Warbler	1
Ruby-throated Hummingbird	143	Black-capped Chickadee	81	Black-and-white Warbler	40
Mourning Dove	32	Horned Lark	99	Tennessee Warbler	686
Sandhill Crane	348	Bank Swallow	3	Orange-crowned Warbler	1
Red-necked Grebe	3	Tree Swallow	16	Nashville Warbler	489
American Golden-Plover	14	Purple Martin	20	Connecticut Warbler	1
Killdeer	5	Barn Swallow	222	Common Yellowthroat	1
Wilson's Snipe	22	Cliff Swallow	390	American Redstart	366
Solitary Sandpiper	16	Swallow sp.	35	Cape May Warbler	236
Lesser Yellowlegs	2	Ruby-crowned Kinglet	5	Northern Parula	52
Greater Yellowlegs	6	Golden-crowned Kinglet	15	Magnolia Warbler	61
Greater/Lesser Yellowlegs	1	White-breasted Nuthatch	3	Bay-breasted Warbler	28

Shorebird sp.	6	Red-breasted Nuthatch	433	Blackburnian Warbler	16
Small Shorebird sp.	8	Brown Creeper	2	Yellow Warbler	4
Baird's Sandpiper	9	European Starling	241	Chestnut-sided Warbler	50
Least Sandpiper	6	Eastern Bluebird	720	Blackpoll Warbler	37
Pectoral Sandpiper	3	Townsend's Solitaire	2	Bay-breasted/Blackpoll Warbler	35
Bonaparte's Gull	119	Swainson's Thrush	73	Palm Warbler	551
Ring-billed Gull	156	Hermit Thrush	3	Yellow-rumped Warbler	11,510
American Herring Gull	182	Catharus sp.	41	Black-throated Green Warbler	16
Large Gull sp.	3	Gray-cheeked Thrush	5	Canada Warbler	5
Common Loon	122	Veery	2	Wilson's Warbler	9
Double-crested Cormorant	497	American Robin	32,387	Scarlet Tanager	14
Great Egret	1	American Pipit	321	Rose-breasted Grosbeak	86
Great Blue Heron	44	Finch sp.	86	Dickcissel	1
American White Pelican	807	Evening Grosbeak	39	Indigo Bunting	5
Belted Kingfisher	22	Pine Grosbeak	1500	Warbler sp.	5,079
				Passerine sp.	192

Acknowledgments

A huge THANK YOU to all of our members and supporters for keeping up with the count this year. It is an honor and an absolute joy to keep the count here at Hawk Ridge, and we truly could not do it without the unwavering support of all of you: HRBO trainees and Staff, volunteers and regulars! The HRBO Count Staff thanks you all for your good spotting, your deliveries of treats and baked goods, and your unwavering passion for raptor migration! Each year in Duluth, I am continually inspired by the powerful community of dedicated individuals who give their heart and soul to this place. To name and thank just a few: Frank and Kate Nicoletti, Erik Bruhnke, Steve Kolbe, Ralph Larson, John Edwards, Mark Mathison, Ed Longhway, Al Odean, Russ Edmonds, Emily Pavlovic, Dick Green, Larry Snyder, Jan and Larry Kraemer and Joe Beck.

Sean McLaughlin, Marie Hosch and Peter Mundale, 2025 Count Staff

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