

Greenlaw Mountain Hawk Watch Season Report - Fall 2019

Our eleventh season of fall observations has come to an end. Five species were recorded in record low numbers. Counts for two additional species were near record lows. The number of observation hours logged were on par with the years 2009 through 2015. Volunteer participation remained strong. As always, migrating raptors were observed in close, up high, out on the horizon and on occasion, moving below the watch.

Data was collected on 40 days between August 24 and November 11 with a total of 270.5 observation hours logged. Forty-two volunteer observers contributed a total of 479.5 hours of their time. The total number of migrating hawks counted for the season was 4510. A total of 14 raptor species were observed migrating past the site (species accounts can be found later in the report).

Count Protocols

As in previous seasons, most of this year's counts were conducted on days considered to have favorable winds and lacked significant precipitation. Hawks moving roughly east to west, or on occasion north to south, were considered migrants. The presence of resident raptors required some species to be watched more closely during certain portions of the season in order to ensure accuracy of our counts. Partial and full-year residents near the site included Bald Eagle, Broad-winged Hawk, Red-tailed Hawk, American Kestrel, Merlin, Osprey, Sharp-shinned Hawk, Northern Goshawk and Turkey Vulture. Eagles and vultures are typically the most difficult to monitor as the daily movements of these resident birds can be great. The official counter used 10x binoculars and 25x wide angle spotting scope for scanning and/or identification.

A Quick Look at the Season

August

Our observation season begins late in the month, so there is only a brief window of opportunity to observe migrant raptors. As is often the case, favourable conditions were in short supply during this period. This resulted in a record low number of migrating raptors.

Only 20 observation hours were logged.

September

Light movements were recorded during the first ten days of the month. The 12th day of the month brought a modest flight of raptors including 151 Broad-wings. The next day produced another 255 Broad-wings, in addition to modest numbers of

other migrating raptors. The 16th brought gusty NW winds. Broad-wings were in short supply into early afternoon. Eventually, several large kettles were observed, each containing 175 to 195 hawks. All were on the southern horizon, which is partially obscured by trees, suggesting that many of the hawks could have passed undetected. A total of 1043 hawks were counted. The following day was cloudy with showers and light NNE to NE winds. A good movement of Broad-wings was observed along the southern horizon during the 9AM hour (these birds likely spent the night on the peninsula). Unfortunately, shower activity soon developed and the number of migrating hawks greatly diminished. A total of 672 hawks were counted. The 20th brought another 523 hawks. Many of these birds passed directly overhead at low altitude. Another 348 were observed on the 21st with a single group containing 175 Broad-wings passing overhead. Completely cloudless skies made spotting very difficult for much of the day. The remainder of the month produced modest flights, plus an early push of Turkey Vultures and our fourth record of Swainson's Hawk (September 29). Within three days of sighting, Clarry Hill Maine recorded a Swainson's. Cape May New Jersey recorded one a few days later.

Resident Merlin, American Kestrel, and Sharp-shinned Hawk lingered longer than ever this year.

142.25 observation hours were logged, which was our second highest for the month of September.

October

This month came and went without any notable raptor migration events. Weather, as always, was a factor. However, on several occasions atmospheric conditions were conducive to hawk migration, yet relatively few migrating birds of prey were seen. Of course, with nearly 600 migrating birds of prey recorded for the month, there were some good viewing opportunities.

Songbird migration is usually quite evident from the hawk watch throughout the month. These movement are typically observed during the morning hours as numerous flocks of migrants pass over the base of the peninsula, as well as overhead. This year was notably different. Only a single push of much significance was observed. On this day, October 22, hundreds of crows, "blackbirds", smaller numbers of siskin and a large flock of bluebirds were seen. A record flight of cormorant (6841) was also observed on this day.

95.25 observation hours were logged, which was our lowest on record. The total number of migrating raptors for the month was our second lowest.

November

This month's observations began with a very modest flight on the 2nd. Another very modest movement was recorded on the 9th. The last day of data collection for the

season occurred on the 11th. It was a slow day. Additional counts were planned, however, strong fronts produced low temperatures and very high winds which would have made counting hawks quite challenging and very unpleasant.

Analysis of Flight Trends

Yearly flights are strongly influenced by weather. The number of birds counted in fall migration can directly reflect the weather's effect on wintering birds, spring migration, breeding success as well as its effect on daily flights during the fall months. Unfavourable wind conditions occurring during migration can cause raptors to move across a broader geographical area. When this occurs, detectability can be reduced. Deviation from 'normal' weather during the breeding season can strongly affect reproductive success and the number of immature birds counted during migration. These results can be favourable or adverse. Human influences can also impact flight trends. Typically, these trends can only be detected through long-term monitoring.

Extreme weather seems to be becoming the norm. Wet breeding seasons, post tropical events, draughts and major rain events have occurred repeatedly in recent years. Climatologists tell us that this will likely continue. Raptor populations could be adversely affected.

The 2019 season count totals for most species were low. While it is difficult to pinpoint the cause of such low counts, a few things should be considered. One is the long icy winter of 2018-19. Winter arrived early, stayed late and was icy throughout much of Eastern North America. Raptors wintering in this region might have struggled to stay warm and well fed. The wet summer of 2019 could also have been partly responsible for low counts. Breeding success for some species would likely have been adversely affected by wet weather. In addition, the fall months were wet. To make matters worse, winds with a northern component during the month of October were often more closely associated with the passing of low pressure than the arrival of strong high pressure. The clear, dry air of high pressure is far more conducive to flight than the moist air associated with low pressure.

The line graphs shown in the species accounts section shows that Osprey, Bald Eagle and Peregrine Falcon counts are holding steady or increasing. Perhaps coincidentally, these are the birds of prey that have received the greatest protections by government and the strongest efforts in helping them recover from the effects of DDT, sport hunting and persecution. Counts for nearly all of the other regularly occurring raptors are demonstrating a slow decline. We cannot draw any conclusions from these numbers. However, it might not be a coincidence that the most well protected species appear to be doing well, while others appear to be declining.

It is worth noting that songbird migration was very unusual this fall. Reports of

unusual patterns of migration as well as low counts were reported by many people throughout the Maritimes, New England and beyond. Observing such low numbers and atypical migratory behavior leads us to think that we should increase our efforts to monitor songbirds at the hawk watch. It is only at monitoring sites such as hawk watches, bird banding stations and through the use of certain sites of radar that we can get a clear picture of bird migration as a whole. During the 2020 season, we will attempt to better document the movements of non-raptor species.

The value of this project and its ability to detect trends increases significantly with the addition of each season's data.

Threats

Human caused threats to raptors include pesticide use, habitat destruction, invasive species (including cats), and collisions with structures and/or their support lines, as well as power-lines. Extreme weather and other aspects of climate change represent an increasing threat. Various studies are documenting major reductions and/or shifts of insect populations. Many birds of prey feed heavily on insects. Those that do not, often feed on other insect eating bird species.

Species Accounts

Black Vulture

Earliest Observation: None

Latest Observation: None

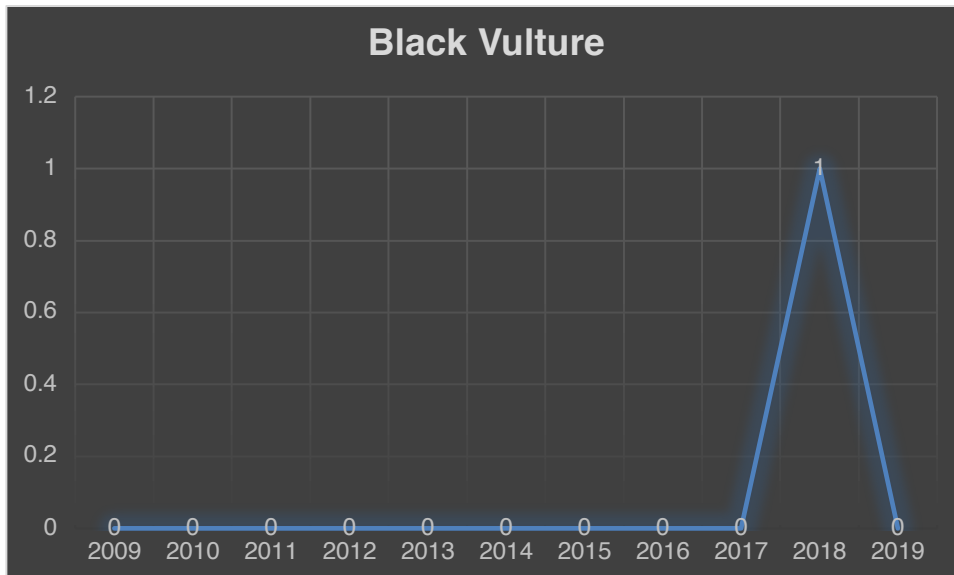
Single Day High Count: None

Peak: None

Season Total 0

Ten-year average: <1

Black Vultures are rarities in NB. At least two individuals were observed within the province this season. One lingering into November.



Turkey Vulture

Earliest Observation*: August 24

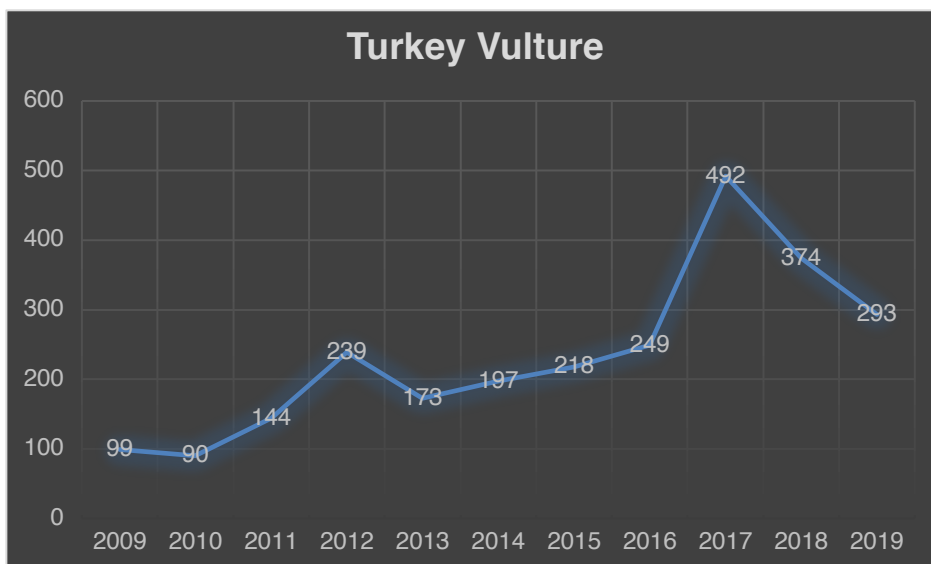
Latest Observation: November 2

Single Day High Count: 53 (September 30)

Peak: Late September

Season Total: 293

Ten-year average: 227



Osprey

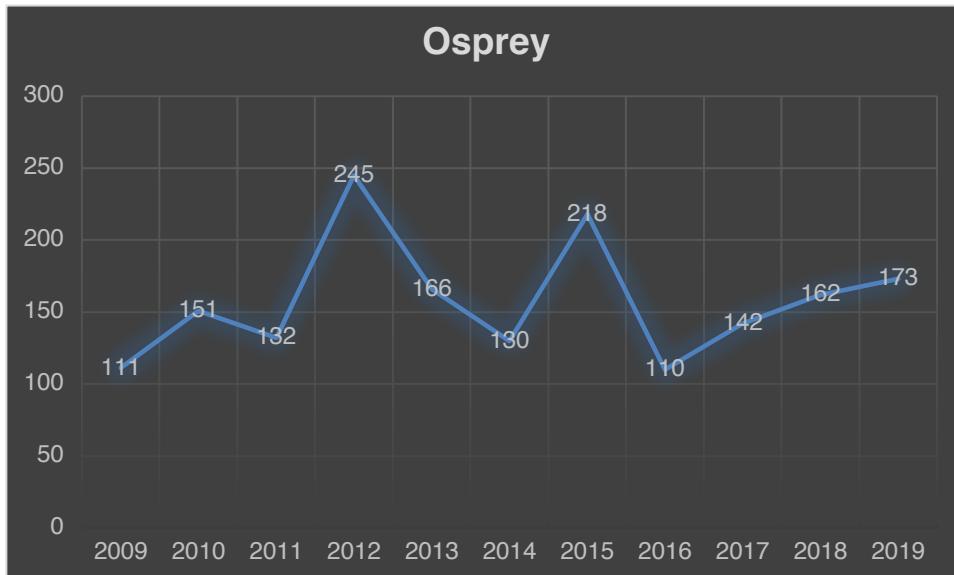
Earliest Observation: August 24

Latest Observation: October 20

Single Day High Count: 16 (September 08)

Peak: September

Season Total: 173
Ten-year average: 147



Bald Eagle

Earliest Observation: August 24

Latest Observation: November 2

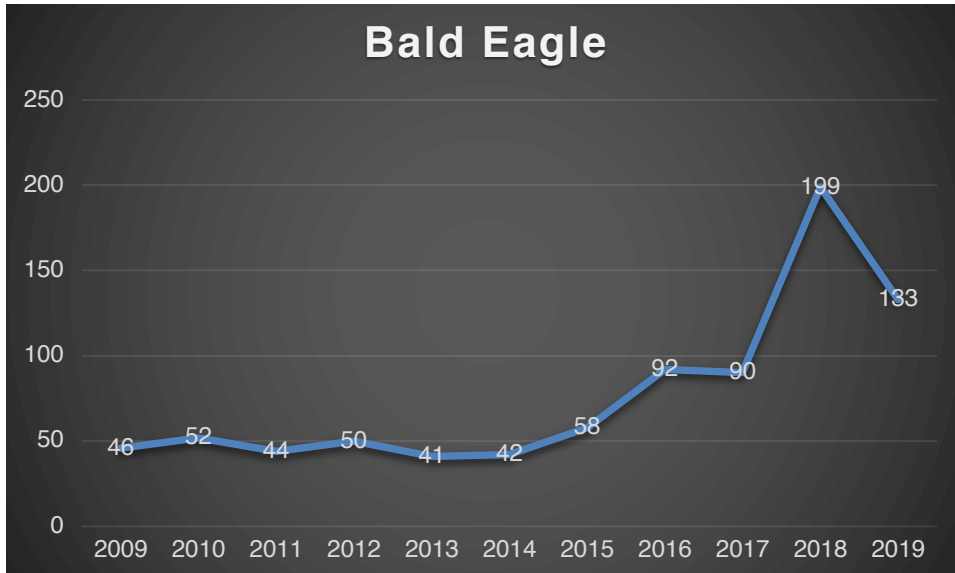
Single Day High Count: 11 (November 2)

Peak: Movements were somewhat consistent throughout the season.

Season Total: 133

Ten-year average 71

Note - For many years, we were intentionally overcautious while counting Bald Eagle. Only high-flying birds moving east to west were deemed migrants. We now have a better handle on their movements, which is allowing our counts to be more representative of the actual number of eagles passing the site. The spike occurring in 2016 represents the change in counting.



Northern Harrier

Earliest Observation: August 24

Latest Observation: November 11

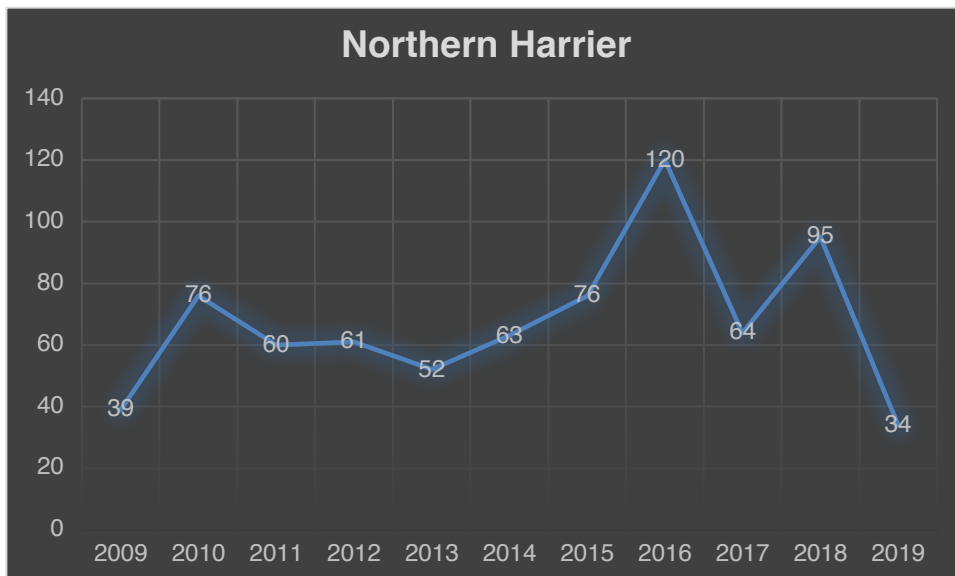
Single Day High Count: 4 (September 21)

Peak: September/October

Season Total: 34**

Ten-year average: 71

Harrier were largely absent throughout the season, resulting in a record low count.



Sharp-shinned Hawk

Earliest Observation: August 25

Latest Observation: November 11

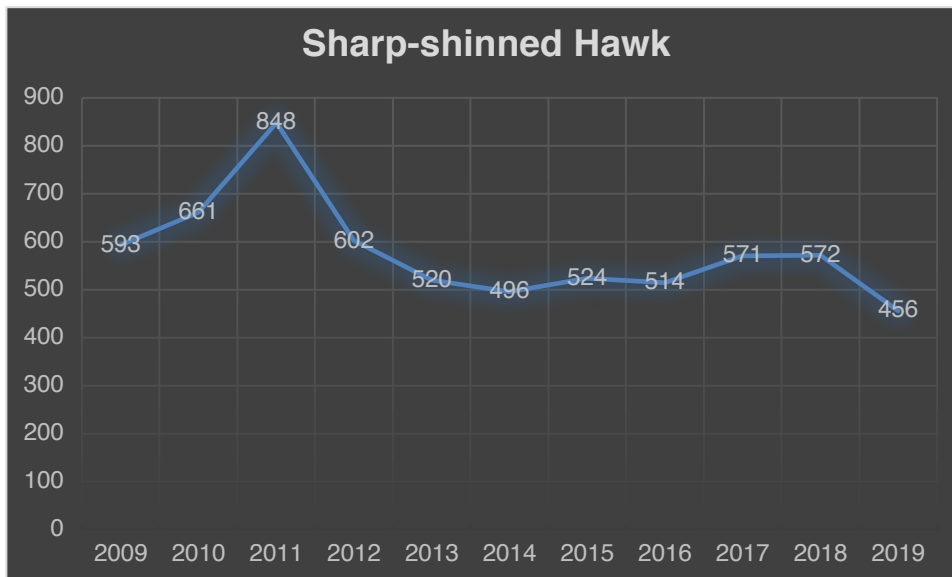
Single Day High Count: 32 (October 3)

Peak: September/October

Season Total: 456**

Ten-year average: 590

Flights typically dominated by immature birds during the month of September were typical for the species. These observations suggested that we would record similar numbers during the month of October. Flights during this month tend to be dominated by adults. Unfortunately, that did not record typical numbers. Instead, we recorded our second lowest count for the month resulting in our lowest season total which was well below the previous record low set in 2014 (496).



Cooper's Hawk

Earliest Observation: September 9

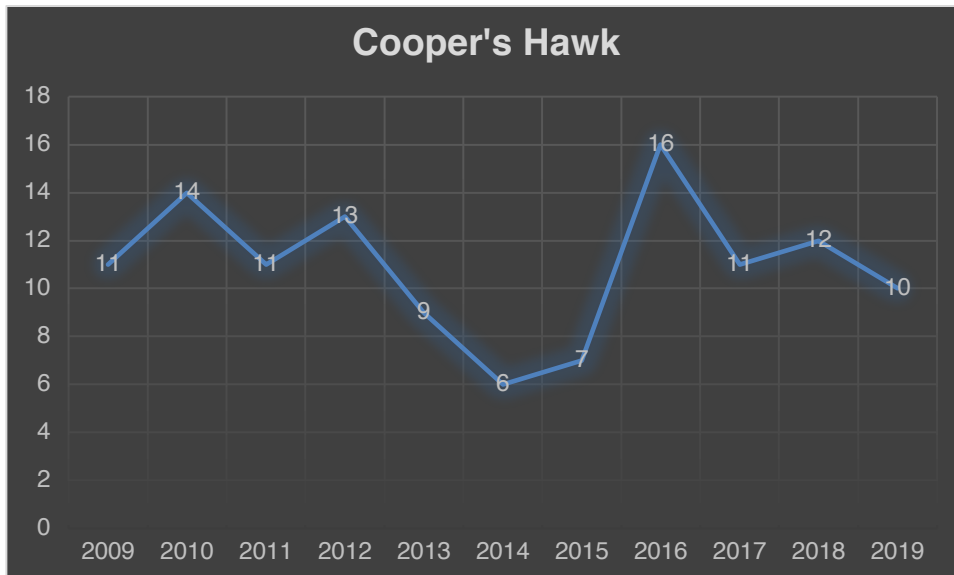
Latest Observation: October 22

Single Day High: 2 (October 9 & 10)

Peak: October

Season Total: 10

Ten-year average: 11



Northern Goshawk

Earliest Observation: September 17

Latest Observation: November 11

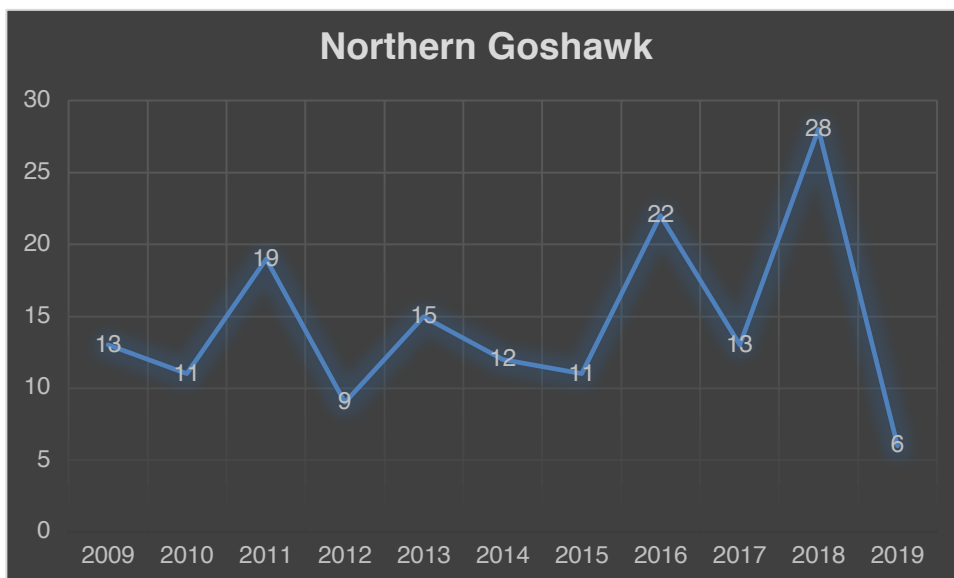
Single Day High Count: 1

Peak: October

Season Total: 6**

Ten-year average: 15

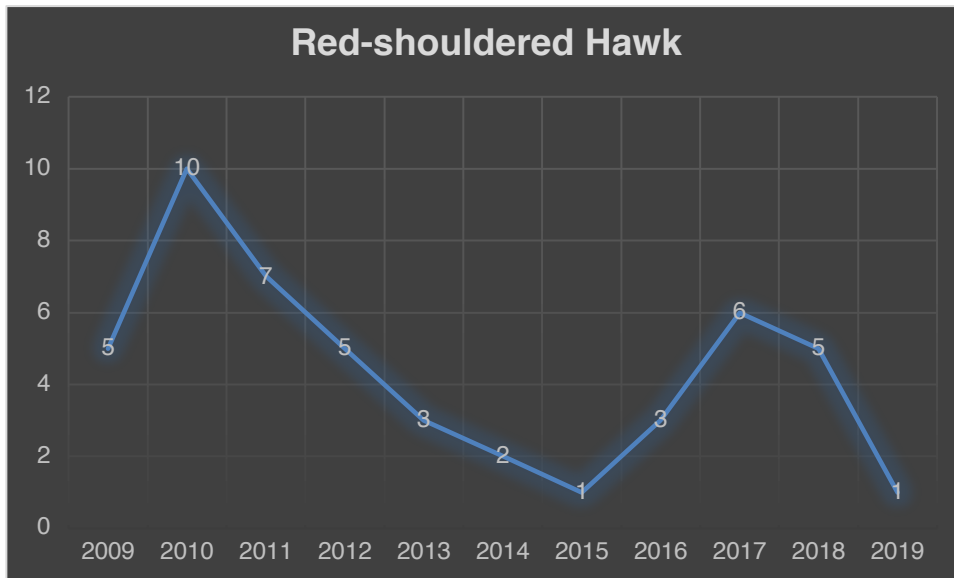
A record low count on the heels of a 2018 record high count of 28 (NOGO can be eruptive).



Red-shouldered Hawk

Earliest Observation: October 22

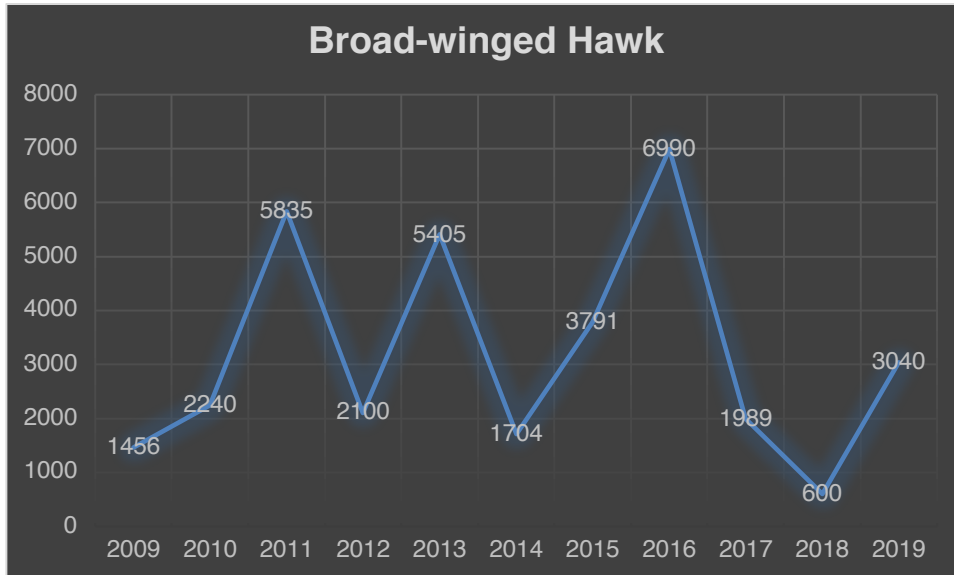
Latest Observation: October 22
Single Day High Count: 1
Peak: Late Season is typical for this species.
Season Total: 1**
Ten-year average: 5



Broad-winged Hawk

Earliest Observation: August 24
Latest Observation: October 20
Single Day High Count: 987 (September 16)
Peak: Mid-September
Season Total: 3040
Ten-year average: 3211

Coming on the heels of last year's astonishing low count, this year's average season total was very welcome.



Red-tailed Hawk

Earliest Observation: August 24

Latest Observation: November 11

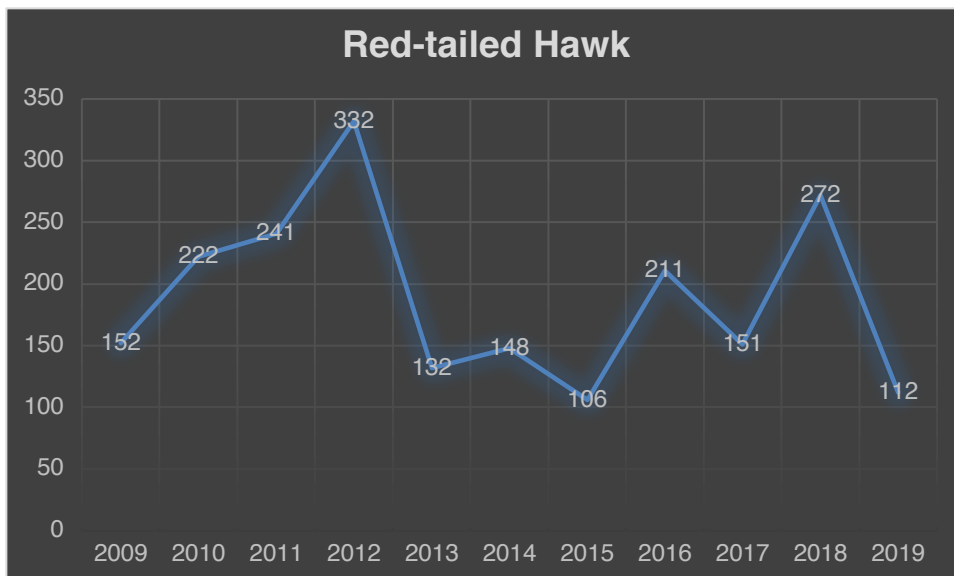
Single Day High Count: 17 (October 26)

Peak: Late October/early November

Season Total: 112

Ten-year average 198

Our second lowest count which nearly tied the 2015 record low of 106.



Swainson's Hawk

Earliest Observation: September 29

Latest Observation: September 29

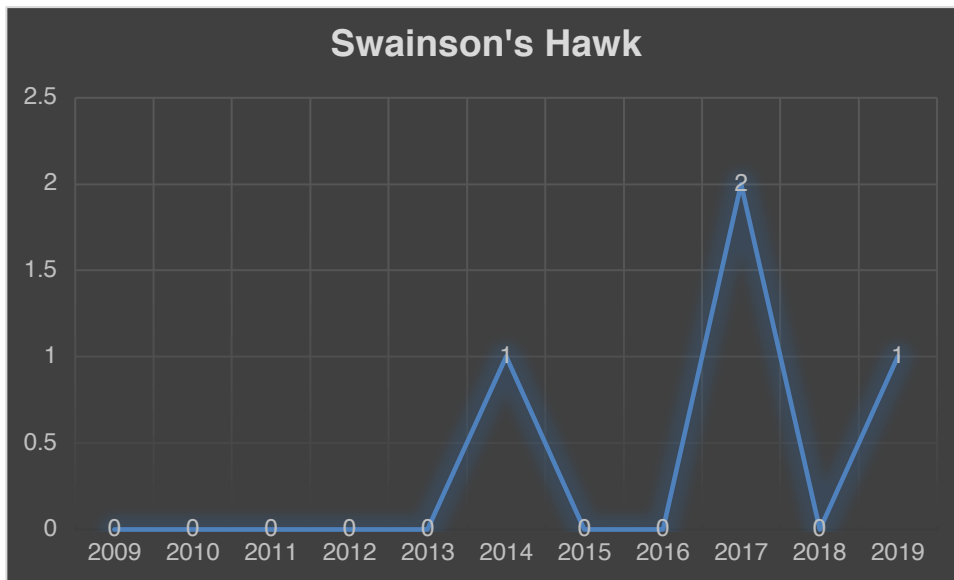
Single Day High Count: 1 September 29

Peak: single record

Season Total: 1

Ten-year average: <1 (records in 2014, 2017 and now, 2019)

Swainson's Hawk are rare in Eastern North America. This year's observation was our fourth record.



Rough-legged Hawk

Earliest Record: none

Latest Record: none

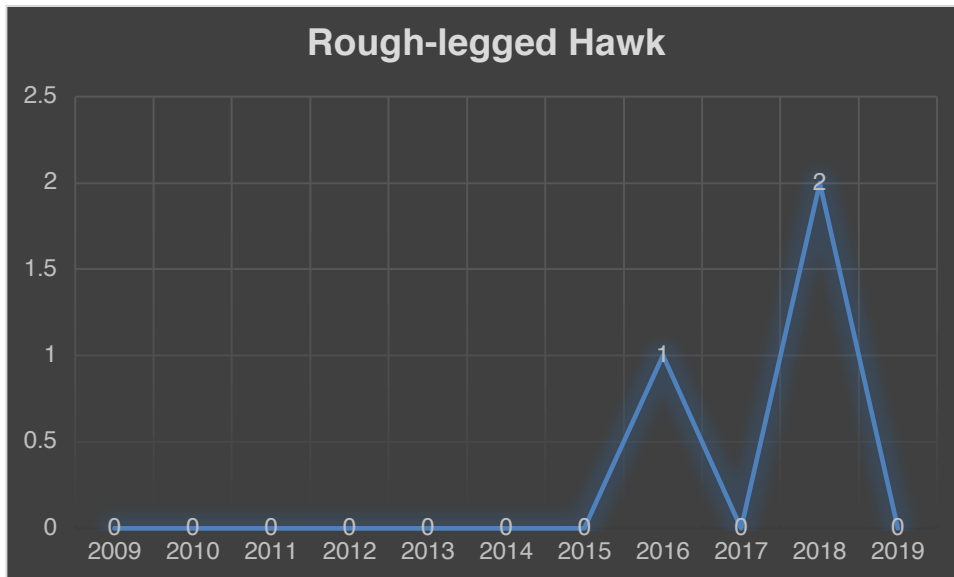
Single Day High Count: none

Peak: This species is known for late season movements.

Season Total: 0

Ten-year average: <1

An increasingly uncommon species at many hawk watches.



Golden Eagle

Earliest Observation: None

Latest Observation: None

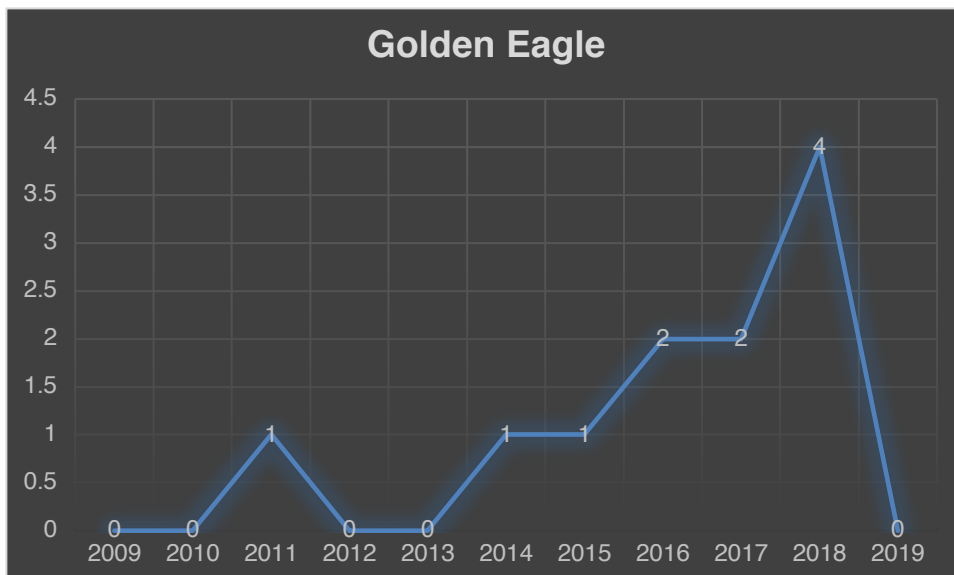
Single Day High Count: None

Peak: This species is known for being a late season mover throughout Eastern North America.

Season total: 0

Ten-year average: 1

In recent years, counts of this species have been increasing. Unfortunately, we didn't record any this year.



American Kestrel

Earliest Observation: September 5

Latest Observation: October 22

Single Day High Count: 24 (September 21, 29)

Peak: September – Late September

Season Total: 134

Ten-year average: 168

Kestrels began to move late this year. It was hoped that significant numbers would be recorded later in the season. Unfortunately, that did not occur resulting in our second lowest count, which nearly tied the 2009 record low of 129.



Merlin

Earliest Observation: September 15

Latest Observation: November 9

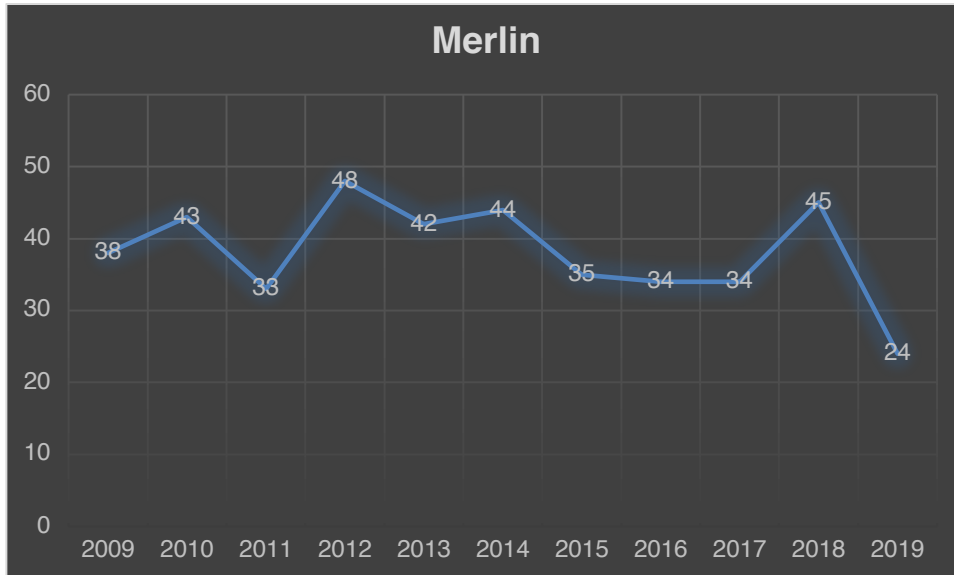
Single Day High Count: 5 (October 10)

Peak: October

Season Total: 24**

Ten-year average: 40

A record low count well under the previous record low of 33.



Peregrine Falcon

Earliest Observation: August 31

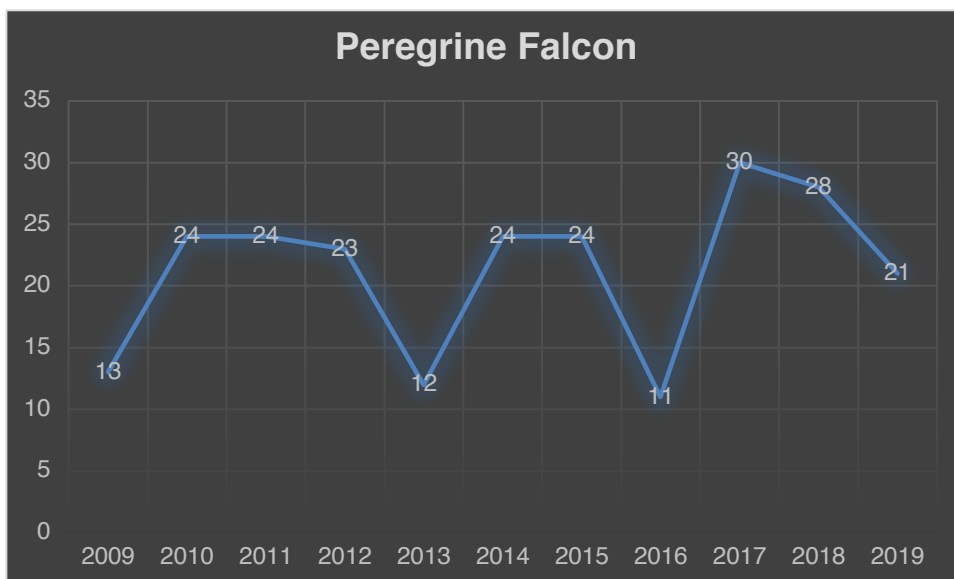
Latest Observation: October 20

Single Day High Count: 3 (October 20)

Peak: Late September - Early October

Season Total: 21

Ten-year average: 21



Unidentified Accipiter

Season Total: 5

Unidentified Buteo

Season Total: 3

Unidentified Falcon
Season Total: 4

Unidentified Eagle
Season Total: 1

Unidentified Raptor
Season Total: 59

Migrating Raptor Combined Season Total: 4510

* Earliest and latest observations, as well as totals refer only to hawks counted as migrants.

** A record high or low count.

Personal Notes

My enthusiasm for migration studies grows greater with every year. The privilege of working on this project continues to foster in me an ever-growing appreciation of the natural world and all of its complexities. I plan to continue as the official counter/co-ordinator working toward a greater understanding of and appreciation for birds of prey.

As always, I encourage readers of my posts, as well as participants to provide feedback on the project. It is helpful for me to know what people like, do not like, and/or do not understand. I am happy to answer questions on migration, identification and other topics. Responses might be slow on occasion (during data collection), but I will try to get back to anyone that writes.

I hope to see all of you on the mountain next year and thank you for your help!

Special thanks to all the volunteers including: Laraine Townsend, Mike Bamford, Hank, Hugh and Carolyn Scarth, Maria Boudreau, Virginia Noble, Alex Dalton, Chantal Vincent, Donna Smythe, Heather Dyble, Elaine Wilson, Rebecca Goreham, Richard Tarn, Bruce and Pam Henderson, Vicki Cowan, David Hey, Ron Harris, Wendy Rogers, Nicole Carter, Katie Holmes, Jim Wilson, Lori McGovern, Andrew Reed Miller, Don and Ann MacPhail, Kathleen King, Bil ?, Dave Putt, Jill Comeau, Chris Ward, Shanna Comeau, Brian Comeau, Robin Thurlow, Sharon McGladdery, Ian Stead, Hoby Haughn, Maria Recchia, Aoife Hand, Brandon, Theresa Johnson, and anyone that I might have missed. Thank you all!

Once again, the volunteer of the year was Laraine Townsend. Year after year, she visits the watch regularly contributing greatly to the success of the project.

We also thank the landowners who have granted permission for volunteers and the Official Counter to cross their land to reach the summit. As well, we thank Mr. Tom Beckerton for allowing us to locate the watch on his property.

Additional thanks to committee members Hank and Carolyn Scarth, Jim Wilson, Chuck Perry, Don MacPhail and Maureen Boone.

Support for this year's counts came from the **New Brunswick Wildlife Trust Fund** (NBWTF), private donors and our volunteers. I would also like to recognize the Peskotomukati First Nation for their interest in raptor conservation and thank them for their in-kind support of the Greenlaw Mountain Hawk Watch.

The NBWTF gets its money from the sale of hunting, trapping and fishing licenses as well as conservation license plates. Please consider supporting projects like the Greenlaw Mountain Hawk Watch through the purchase of conservation plates. Thank you!

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