

## **Greenlaw Mountain Hawk Watch Fall 2017**

Our ninth season of fall observations has come to an end. Record high counts for two species were recorded while counts for other species were at or near their averages. The number of observation hours logged were similar to 2016, which represents a 25% increase over earlier years. 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 49 days between August 25 and November 15 with a total of 325.25 observation hours logged. Thirty-seven volunteer observers contributed a total of 473.75 hours of their time. The number of participants and their hours fall in line with typical coverage at the watch. The total number of migrating hawks counted for the season was 3865. A total of 15 raptor species were observed migrating past the site (species accounts can be found at the end of the report).

### **Count Protocols**

As in previous seasons, most of this year's counts were conducted on days considered to have favourable winds and lacked significant precipitation. However, in order to match last year's effort we occasionally observed later in the day, during less than ideal conditions and observed into the third week of November. Southerly flows dominated a greater portion of the migration season than most years, forcing us to spend even more time observing under less than favourable conditions. 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 include Bald Eagle, Broad-winged Hawk, Red-tailed Hawk, American Kestrel, Merlin, Osprey, Sharp-shinned Hawk, Cooper's 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 8x binoculars and 25x wide angle spotting scope for scanning and/or identification.

### **A Quick Look at the Season**

#### **August**

The first day of counts occurred on the 25th. Favourable winds also occurred on the 26th. The 27th brought a strong early season movement of Broad-winged Hawks with 129 counted for the day, producing a new single day record for August. The number of resident Sharp-shins, Kestrels and Merlins as well as their activity levels over the site was lower than our first few years, but similar to more recent years. A total of 26 observation hours were logged. The number of hawks recorded was 232, which is a record high and well above average for the month.

#### **September**

The first eight days of the month were very slow. This was likely do to the rather poor conditions dominating the period. The first major event of the month occurred on the 9th. The start of this days counts were delayed by the presence of a large thunderhead sitting a few kilometres north of the watch. By early afternoon it became apparent that this storm wasn't going anywhere, so counts were started. Broad-wings were immediately observed moving around this large cumulonimbus cloud. Raptor movement was strong and rather exciting as hawks moved around this very active thunderhead. Unfortunately, rain cut off the flight path after only 3.5 hours of raptor movement resulting in a short day. The largest kettle of the day contained 140 Broad-wings. Migrating raptors that had been cut off by the showers moved early the next day. Good numbers moved until Noon. It then became quiet. A late day spike began to occur during the three o'clock hour, but once again, showers cut of the flight path. Total for the day was 648. Unorganized movement of Broad-Wings occurred the following morning. Sharp-shins moved in good numbers for the first half of the day. The afternoon skies were cloudy and few hawks were observed. However, a Sandhill Crane was seen. This individual slowly moved toward the watch, eventually soaring directly overhead for several minutes. A good movement of Sharp-shins was also recorded on the 12th. The 13th brought a modest flight that included a distant Golden Eagle. The next week brought poor conditions. Conditions improved on the 20th, but not until late in the afternoon. Cloud-cover began to break up and Broad-wings quickly took advantage of rapidly developing thermals. Unfortunately, this happened late in the day and to make matters worse, some of the raptors seemed to be moving between a low ceiling and higher clouds where they would be difficult to detect. The rest of the month passed without excitement do to an unseasonably long lasting southern flow. One bit of excitement was a distant **Swainson's Hawk** on the 30th. This was likely the bird observed by many in the Shepody Marsh area.

Resident Osprey, Merlin, American Kestrel, and Sharp-shinned Hawk lingered longer this year. At least one resident Merlin remained into the fourth week of the month, which is quite a bit later then usual for the individuals usual seen near the hawk watch. An immature Cooper's hawk was observed several times and seemed to be spending most its time along the hills north of the watch.

An average number of hours were logged for the month, but only by repeatedly counting during less than favourable conditions.

## **October**

The month started with poor conditions for the first ten days keeping daily counts low. Good winds arrived on the 11th. These northwest winds produced a record day for Turkey Vulture with 142 counted. Also recorded was a Red-shouldered Hawk, 5 Peregrine Falcons and a good assortment of other raptors. The 12th brought additional vultures, a good movement of Sharp-shined Hawks, 3 late Broad-winged Hawks, 1 Red-shouldered Hawk and a distant Golden Eagle. The next few days were slow, followed by north-northwest winds on the 17th. On this day, vultures moved

in good numbers along with a modest flight of Red-tails and other raptors. The 21st brought a nice flight of Sharp-shins (light winds), another good movement of vultures, and an adult Red-shoulder seen soaring overhead. The 22nd brought slightly lower numbers of vultures and an immature Red-shoulder that also soared overhead. The most exciting observation of the season also arrived on the 22nd, which was an **intermediate morph Swainson's Hawk** (immature) soaring almost directly over the watch. It seems likely that this was the individual observed at Miscou. Relatively few eastern hawk watches record Swainson's Hawks, so two in a season is quite a treat.

A pair of resident Northern Goshawks were repeatedly observed throughout much of the month as they displayed over their territory, hunted and escorted some migrants out of the airspace. An immature Northern Goshawk was also observed hanging around the area. On a couple occasions, they were seen together suggesting a family group.

Observation hours were above average, which was due to us having a higher target than during our first seven years. Raptor counts overall were representative of recent trends. The one exception was Turkey Vulture.

## **November**

Very modest flights of migrating raptors were recorded during the first week of the month. Observations on the 8th produced quite a rare sighting. A bird that could be described as a **pale extreme Red-tailed Hawk** was observed soaring north of the watch. This individual was in view for several minutes as it soared, was harassed by a resident goshawk and then headed west. Birds with the plumage characteristics of this individual are quite rare in eastern North America. A form of leucism might explain the plumage and it should be noted that Red-tails are known for showing signs of leucism. However, evidence of leucistic Red-tails showing plumage traits similar to this one had not been found by the time of this writing. This leads to the possibility of the bird being an immature Krider's Red-tailed Hawk. Sightings of these birds are extremely rare along the Atlantic Coast. Unfortunately, it is hard to nail this down with absolute certainty. Krider's appears to be the best fit, but some uncertainty remains.

The remainder of the month was uneventful.

## **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. Unfavourable wind conditions occurring during migration can cause raptors to move over a broader front. 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 2017 season count totals for most species were within their norms, which is encouraging. However, our 2016 and 2017 observation hours increased by approximately 25% over the 2009-2015 average. These additional hours occurred during conditions that were less favourable than our other hours. Fewer hawks per hour were observed during these conditions. Even so, such a substantial increase in observation hours should produce a higher number of hawks counted for the season.

## **Threats**

Human caused threats to raptors include pesticide use, habitat destruction, invasive species, and collisions with structures and/or their support lines as well as power-lines. Extreme weather, as well as, other aspects of climate change are an increasing threat. An increasing number of studies are documenting major reductions of insect populations. Many birds of prey feed heavily on insects.

## **Personal Notes**

My enthusiasm for raptor study 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!

## **Species Accounts**

### **Turkey Vulture**

Earliest Observation\*: September 11

Latest Observation: November 8

Single Day High Count: 142\*\* (October 11 )  
Peak: Mid-October  
Season Total: 492\*\*

A record high season count shattering the previous record (249, recorded during the 2016 season). The single day record also shattered the previous record (65, counted on October 19, 2015).

### **Osprey**

Earliest Observation: August 25  
Latest Observation: October 22  
Single Day High Count: 14 (September 28)  
Peak: September  
Season Total: 142

### **Bald Eagle**

Earliest Observation: August 25  
Latest Observation: November 14  
Single Day High Count: 9 (September 11)  
Peak: September  
Season Total: 90

Bald Eagle are quite hard to monitor at our site. Only the most obvious migrants are counted. The actual number of these birds migrating past the hawk watch is likely higher than our numbers indicate, perhaps much higher.

### **Golden Eagle**

Earliest Observation: September 13  
Latest Observation: October 12  
Peak: The numbers of these birds recorded here are too small to indicate a peak. However, this species is known for being a late season mover throughout North America.  
Season total: 2

### **Northern Harrier**

Earliest Observation: August 26  
Latest Observation: November 7  
Single Day High Count: 6 (September 20)  
Peak: September/October  
Season Total: 64

### **Sharp-shinned Hawk**

Earliest Observation: August 25  
Latest Observation: November 8  
Single Day High Count: 59 (September 11 and 12)  
Peak: September/October

Season Total: 571

**Cooper's Hawk**

Earliest Observation: August 25  
Latest Observation: October 22  
Single Day High: 2 (September 13 & October 10)  
Peak: Late September  
Season Total: 11

**Northern Goshawk**

Earliest Observation: September 28  
Latest Observation: November 4  
Single Day High Count: 2 (multiple dates)  
Peak: October  
Season Total: 13

**Red-shouldered Hawk**

Earliest Observation: September 30  
Latest Observation: October 22  
Single Day High Count: 1  
Peak: Late Season is typical for this species.  
Season Total: 6

**Broad-winged Hawk**

Earliest Observation: August 25  
Latest Observation: October 12  
Single Day High Count: 564 (September 9)  
Peak: Mid-September  
Season Total: 1989

Poor winds dominated the peak period of their movement resulting in a disappointing total for this species. Low ceilings as well as rain cutting off the flight path were issues on two of the best days.

**Red-tailed Hawk**

Earliest Observation: August 26  
Latest Observation: November 14  
Single Day High Count: 26 (October 17)  
Peak: Late October/early November  
Season Total: 151

This movements of this species are becoming somewhat unpredictable throughout much of Eastern North America. Counts have dropped and it seems that increasing numbers of this partial migrant are either moving late, not going very far or not migrating at all. Changing climate is a possible cause of this behavioural change.

### **Swainson's Hawk (rare)**

Earliest Observation: September 30

Latest Observation: October 22

Peak: Occurrences of Swainson's Hawks in eastern North America can take place at any point in the migration season. Mid-September to early November seems to be most typical.

Total: 2

Two Swainson's in a season is quite a treat. Many hawk watches operate for many years without ever seeing one. The bird observed on the 22nd was unmistakable as it soared nearby. The individual recorded on the 30th was distant. Even so, it was in the eyes of the observer, very identifiable as it slowly moved along the northern horizon (more complete descriptions of the accounts can be found at eBird). The presence of two individuals in the province was well documented and both birds seemed to have moved two or more days before each observation at the hawk watch, adding some weight to these records.

### **Rough-legged Hawk**

Season Total: 0

These birds are considered uncommon to rare at most sites in eastern North America. Most records occur from mid-October through November/December. It seems that individuals moving through SW New Brunswick probably stay well inland (fall migration), at the edge or perhaps beyond our range of detectability.

### **American Kestrel**

Earliest Observation: August 26

Latest Observation: November 4 (our first November record for this species)

Single Day High Count: 23 (September 29)

Peak: Mid-September through mid-October

Season Total: 166

### **Merlin**

Earliest Observation: September 9

Latest Observation: November 1

Single Day High Count: 7 (September 29)

Peak: Late September through October

Season Total: 34

A below average count likely due in part to poor winds during early October.

### **Peregrine Falcon**

Earliest Observation: August 27

Latest Observation: October 27

Single Day High Count: 7\*\* (September 29)

Peak: Early October

Season Total: 30\*\*

Record high single day, as well as season counts.

Unidentified Accipiter  
Season Total: 5

Unidentified Buteo  
Season Total: 10

Unidentified Falcon  
Season Total: 7

Unidentified Eagle  
Season Total: 5

Unidentified Raptor  
Season Total: 75

**Combined Season Total For Migrating Raptors: 3859**

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

\*\* A record high or low count.

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Once again, the volunteer of the year award goes to 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 including Dr. and Mrs. Goff and Dr. and Mrs. Wildish. As well, we thank Mr. Tom Beckerton for allowing us to locate the watch on his property.

Additional thanks to committee members Hank Scarth, Jim Wilson, Jan Riddell, Don MacPhail, Joanne Savage and Maureen Boone.



Support for this year's counts came from the **New Brunswick Wildlife Trust Fund** (NBWTF), the New Brunswick Environmental Damages Fund, private donors and our volunteers.

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

Feedback is welcomed.

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