

Greenlaw Mountain Hawk Watch Fall 2014

Another season has come to an end. Much was learned, volunteer participation remained strong and several rarities were recorded including two new raptor species. Migrating raptors were observed in close, up high, out on the horizon and on occasion, moving below the watch. Counts overall were down; however, we recorded more species of raptor this year than any other.

Data was collected on 40 days between August 24 and November 8 with a total of 257.75 observation hours logged. Volunteer observers (34 of them) contributed a total of 499 hours of their time. These numbers fall right in line with our average coverage at the watch. The total number of migrating hawks counted for the season was 3094. This count total was our second lowest on record. A record season high was recorded with 16 raptor species migrating past the site. The addition of two new species (including one owl) brings our total number of raptor species recorded during spring and fall counts to 19 (17 species in the fall plus two additional species recorded during our very limited and sporadic spring counts). A 20th species was observed this fall (another owl species), but could not be positively identified to the species level and is not counted.

Count Protocols

As in previous seasons, this year's counts were conducted on days considered to have favourable winds and a general lack of significant precipitation. Hawks moving roughly east to west or north to south were considered migrants. Because of the presence of resident raptors, some species were watched more closely during certain portions of the season to ensure accuracy of our counts. Partial and full-year residents near the site include Bald Eagle, Broad-winged Hawk, American Kestrel, Merlin, Osprey, Sharp-shinned Hawk, and Turkey Vulture. Eagles and vultures are typically the most difficult to monitor as the daily movements of these resident birds can be great.

A Quick Look at the Season

August

Counts started on the 24th. Favourable conditions were lacking for much of the next week. The number of hawks recorded and the number of observation hours were low (second lowest on record). Resident raptors were present. However, their numbers and activity levels over and around the site were also low.

September

The first ten days of the month were relatively uneventful with very modest counts of early season movers. Things picked up on the 12th with a count of 207 raptors. A brief morning flight consisting mostly of Broad-winged Hawks on the 13th produced 391 birds. Most of them arrived in a 90 minute period. Only the official counter was present to observe this movement likely having a negative effect on the number of hawks recorded. A modest flight on September 18 produced a couple hundred hawks. One of these birds didn't match the appearance of our usual raptors. This bird was initially recorded as "unidentified" (caution was being taken), but later went in as a Swainson's Hawk (more details follow in "Species Accounts"). The biggest day of the month was September 19 with 566 hawks (a relatively low count for the date and conditions). Many people were on site that day and were able to see some good sized groups of hawks. The five o'clock hour produced the greatest number of birds. Major flight paths on this day took many of the birds well south of the watch through a portion of the sky that is very hard to view (or completely out of sight), thus producing the rather low count. A similar flight path was observed the day before likely affecting count numbers on that day, as well. Some smaller

movements of Broad-wings were recorded, but without any single event adding up to much more than one hundred birds. Favourable winds and the number of hours logged this month were on par with previous years. However, our second lowest number of hawks was recorded due largely to low numbers of Broad-winged Hawks (our second lowest ever). Sharp-shinned Hawk numbers were also down (our second lowest for this month). Volunteer participation was strong through the month.

October

It was a slow month compared to previous Octobers (another second lowest monthly record). Favourable winds were in short supply. Some effort was made to observe under conditions that in most years would not likely have produced good numbers of hawks. These efforts paid off and helped to keep counts from being even lower. Daily counts were modest at best, but there were raptors and other birds to enjoy and record. Exciting close birds were seen nearly every day. Highlights of the month included a migrating Sandhill Crane observed on the 9th, a Snowy Owl migrating at great heights on the 27th (more details later) and, much to the amazement of the official counter, the following day produced another migrating owl. The latter was extremely distant and could not be positively identified to the species level. In all likelihood, it was a Short-eared Owl, a rare sighting at just about any North American hawk watch (although not nearly as rare as a migrating Snowy Owl). We also recorded our first Black-backed Woodpecker (feeding at the site) and a Northern Shrike (an annual visitor). Many other on-raptor migrants were observed.

November

Once again, good conditions were in short supply. However, a good movement of raptors was recorded on the 4th with Red-tailed Hawks accounting for the majority of hawks. Some soared in a group directly overhead and the northern subspecies of this bird (*abieticola*) was observed. An immature Golden Eagle was also observed on this day. The last migrant of the year was a Turkey Vulture (Nov 8).

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 affect on wintering birds, spring migration, breeding success as well as its affect on daily flights. Unfavourable wind conditions occurring during migration can cause raptors to move over more of a broad front. When this occurs, detectability can be an issue (perhaps less so at our site). 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.

Sharp-shinned Hawk, American Kestrel and Red-tailed Hawk numbers were down. These birds winter in North America and had just come through the harsh winter of 2013/14 which occurred on the heels of the wet spring/summer of 2013. These factors along with the potentially negative effects of post tropical storm Arthur would likely account for the low numbers recorded. Generally poor winds during the second half of the season cannot be ignored, but conditions during September seemed to be on par with previous years and low numbers were also recorded during that month. Broad-winged Hawk numbers were also quite low, but analysis here is a bit tricky. The major flight path taken by these birds on "the big day" and the day before seemed to pass through the one portion of the sky that is not easily observed from our site (far south).

Personal Notes

It continues to be a privilege to conduct this project and generate so much information on birds of prey. My enthusiasm for this work increases every year. We had a bit of an off year, but documenting trends is part of our mission. The observation of owls in migration was eye opening (in more ways than one). As well, we are now working on documenting the presence of the Northern Red-tailed Hawk (*buteo jamaicensis abieticola*). This is exciting to me, in part, because I only recently became aware of the birds presence. Apparently, they are an uncommon resident of boreal forest across much of Canada. Several rarities were recorded this year. I feel privileged and quite lucky to have seen them. Future counts will certainly bring records of other seldom seen birds. Our list of raptors is getting long, but potential for other records exists. A Zone-tailed Hawk was recorded at two or more sites this fall (the same individual) demonstrating the potential for such sightings.

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

Species Accounts

Turkey Vulture

*Earliest Observation**: August 29

Latest Observation: November 8

Single Day High Count: 42 (October 12)

Peak: October

Season Total: 197

This year's counts were not our highest, but a clear upward trend remains evident.

Osprey

Earliest Observation: August 24

Latest Observation: October 27

Single Day High Count: 17 (September 23)

Peak: September

Season Total: 130

Our second lowest count for this species. Post tropical storm Arthur likely destroyed some nests and had other negative impacts on this bird. It is also worth noting that relatively low counts of this bird seem to coincide with high water levels during breeding season. Water levels were high earlier this year.

Bald Eagle

Earliest Observation: August 28

Latest Observation: November 8

Single Day High Count: 5 (September 7)

Peak: September

Season Total: 42

Our second lowest count for this species, but not far off totals from other seasons.

Golden Eagle

Season total: 1

Date: November 4

Our second record for this species. The individual was an immature bird seen well through a scope as it passed over Chamcook Mountain.

Northern Harrier

Earliest Observation: August 24

Latest Observation: October 28

Single Day High Count: 6 (October 2)

Peak: September/October

Season Total: 63

This year's counts were average.

Sharp-shinned Hawk

Earliest Observation: August 24

Latest Observation: November 4

Single Day High Count: 50 (October 19)

Peak: September/October

Season Total: 496

Our lowest count ever for this species (record lows two years running).

Cooper's Hawk

Earliest Observation: September 15

Latest Observation: October 31

Single Day High: 1

Peak: October

Season Total: 6

This year's counts were our lowest ever.

Northern Goshawk

Earliest Observation: October 2

Latest Observation: October 28

Single Day High Count: 3 (October 13)

Peak: October

Season Total: 12

About average counts for this species.

Red-shouldered Hawk

Earliest Observation: September 3

Latest Observation: October 12

Single Day High Count: 1

Peak: Late Season is typical for this species. However, our numbers are not adequate to represent a peak.

Season Total: 2

This year's counts were our lowest ever for this species..

Broad-winged Hawk

Earliest Observation: August 24

Latest Observation: October 9

Single Day High Count: 501 (September 19)

Peak: Mid-September

Season Total: 1704

Our second lowest count for this species. This seems do in part to low detectability on the big day.

Red-tailed Hawk

Earliest Observation: September 12

Latest Observation: November 4

Single Day High Count: 50 (November 4)

Peak: Late October/Early November

Season Total: 148

Our second lowest season count for this species.

Rough-legged Hawk

This raptor has yet to be counted during the fall season. Several have been observed moving past our site during spring migration.

Swainson's Hawk

Season total: 1

Date: September 18

A first for this site and rare at most sites in eastern North America. This bird was distant, viewed in a scope and going away as it passed on the south side of the watch. Do to the distance, it was not a particularly exciting bird to observe. However, it was interesting to the observer right from the start. The bird was studied at length with the bird gliding during its entire crossing of the Saint Croix. The wings were long, quite pointy and when seen heading away, were bowed, wing tips extended beyond the base of the wing (becoming visible as it slowly lost altitude during its river crossing). Its long and pointy wings left a strong image. Some characteristics of this bird matched some eastern birds of prey, but none were a complete match. At the time of observation, Broad-wings were building, so once this bird was out of sight, attention shifted back to finding other birds. The bird was initially recorded as an unidentified raptor with special notation next to it with the intent to get back to it when conditions allowed. After much thought and time, as well as a review of Swainson's Hawks in flight, it was determined that this was a Swainson's. The official counter has seen a few dozen of these birds in the Southwestern States and felt strongly enough to record this species even though it was too distant to

observe field marks. It simply didn't match the appearance of raptors regularly seen in this area and images of a Swainson in a glide matched perfectly. This is not the best way to record a rarity, but that is all we got.

American Kestrel

Earliest Observation: August 28

Latest Observation: October 30

Single Day High Count: 31 (September 27)

Peak: Late September into the first days of October

Season Total: 155

Our second lowest count.

Merlin

Earliest Observation: August 29

Latest Observation: October 25

Single Day High Count: 6 (October 2)

Peak: The first half of October

Season Total: 44

An average count.

Peregrine Falcon

Earliest Observation: September 4

Latest Observation: October 30

Single Day High Count: 4 (September 27 & October 2)

Peak: Late September through mid October

Season Total: 24

An average count.

Snowy Owl

Season total: 1

October 27

A first for our site and a very rare bird at North American hawk watches. This bird was observed moving north to south at high altitude. It was initially picked up with binoculars looking rather gull-like (a large, long winged, white bird moving mostly under powered flight and occasionally gliding on drooped wings). The counter got a scope on it and as it passed overhead was able to easily ID it as a Snowy. It was close enough to see that it was moderately marked. The most exciting bird of the season. This sighting goes to show that all unidentified birds should be studied. The initial appearance and flight path of this bird suggested gull. However, it was scoped anyway because something didn't look quite right.

Unidentified Owl

Season total: 1

This bird was observed on October 28 as it moved across the northern horizon. It was too far away for

observation of field marks, but was still very interesting to observe. The individual appeared somewhat harrier-like at times but was not a harrier. The flight behaviour observed didn't match other regularly seen raptors. It was quite a puzzle until it gained a little altitude showing movement like only one other bird known to the observer, a Short-eared Owl. However, the distance was so great that Long-eared Owl couldn't be ruled out. It will remain unidentified.

Unidentified Accipiter

Season Total: 1

Unidentified Buteo

Season Total: 3

Unidentified Falcon

Season Total: 3

Unidentified Eagle

Season Total: 0

Unidentified Raptor

Season Total: 60

Combined Season Total For Migrating Raptors: 3094 (our second lowest season total)

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

This project is supported by the New Brunswick Wildlife Trust Fund, private donors and our volunteers.

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