

Greenlaw Mountain Hawk Watch Fall 2015

Another season has come to an end. Much was learned and volunteer participation remained strong. Migrating raptors were observed in close, up high, out on the horizon and on occasion, moving below the watch. Season counts for several species were at or near record highs while counts for other species were at or near record lows.

Data was collected on 42 days between August 27 and November 8 with a total of 264.75 observation hours logged. Volunteer observers (34 of them) contributed a total of 466.5 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 5225. This count total was our third highest on record. A total of 14 raptor species were observed migrating past the site.

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 on occasion 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, 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.

A Quick Look at the Season

August

Counts started on the 27th. Favourable winds also occurred on the 28th and 30th. Small numbers of raptors were recorded. All of the usual resident raptors were present. 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 19 observation hours were logged for the month (one week). This fell below our average of 24.5. The number of hawks recorded was 75 which is also below average.

September

The first ten days of the month were relatively uneventful with very modest counts of early season movers. Many of the resident raptors remained through this period. Things picked up on the 12th with a count of 201 raptors. The next front arrived on the 15th with cloudless skies and good flights of Broad-wings. A total of 841 raptors were counted. Most of these birds were observed during the

afternoon and spotting them was difficult. Conditions remained good the following day, September 16 producing our highest single day count of the season. A total of 1731 hawks were counted. Several large kettles were observed with the largest containing approximately 200 birds. Approximately 25% of the days birds were observed after 3:00PM. The counter was alone for this portion of the day and the skies remained cloudless, affecting detectability rates. A fairly strong but brief flight of mostly distant Broad-wings occurred the following morning. By day's end 269 hawks had been counted. Another movement of Broad-wings occurred on the 21st producing a count of 379. This was another cloudless day. The next good day came on the 24th. The morning was very slow, then over 400 Broad-wings arrived in just a few minutes. This push began with the passing of 100 Broad-wings in a kettle just before 1:00PM. Right behind them was another similarly sized kettle of Broad-wings. Then a tower of 200 Broad-wings was observed on the other side of the sky. This last group was formed by two loosely connecting kettles stacked on top of each other. Kettles of this size typically occur when there are thousands of Broad-wings moving. Only 10 of these buteos were seen before the kettles arrived and only another 16 during the remainder of the day. The counter worked hard to find more birds, but failed to find other groups in the cloudless skies. Folks in mid-Maine observed over 5000 Broad-wings the next day. They were alerted to the potential for this late and very impressive push of Broad-wings by our report. The last week of the month produced more modest flights. Observation hours for the month came in above average and so were the number of birds counted (a relatively high number of Broad-wings was responsible for the above average count).

October

The month started with strong winds and rather poor conditions through the first week. We usually see good numbers of Sharp-shinned Hawk and American Kestrel during this period, but their daily counts were quite low. A good push of Turkey Vulture began on the 6th and a few late Broad-wings were sighted. A single day count of 65 broke the record for Turkey Vulture on the 19th. Modest counts for most species dominated mid-month. Bald Eagle were quite active and remained so through month's end. On the 31st, a seasonally resident adult Goshawk was observed displaying quite close to the watch. The month came to a close with above average observation hours and below average raptor counts. Red-tailed Hawk movement was light throughout the period.

November

This month's observations began on the 2nd with mild temps, strong NW winds and scattered showers. Very few raptors passed the watch with only one Red-tailed Hawk making it into the day's counts. However, a well-observed immature Golden Eagle was seen. Better conditions occurred on the 4th, but very few hawks were counted. A brief attempt to find more birds was made on the 8th (2 hours of observation). Only one migrant was observed. This was our slowest

November on record.

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 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.

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

Season count totals for several species have dropped recently. Species with consistently low numbers from 2013 through 2015 include Red-tailed Hawk, Sharp-shinned Hawk and American Kestrel. Prior to their drop, these counts had been steady or increasing. It is too early to draw conclusions or for alarm, but we will be looking at counts for these species closely. It is possible, if not likely, that extreme weather has taken its toll on these raptor populations. The state of our forests is another concern. A bird cannot nest in a tree if the tree no longer stands. And we cannot ignore the overuse of pesticides.

Personal Notes

This season's most memorable moment for me came on September 24 when over 400 Broad-wings were observed in only a few minutes. Some of these birds formed a tower of 200 birds (two large kettles stacked on top of each other), which was very exciting to see. The sighting of the immature Golden Eagle on November 2 was another high point. The hawk watch at Clarry Hill Maine had been reporting above average numbers of these birds, so one or more sightings here seemed likely. The adult Goshawk sightings were certainly other high points. These birds are seen here every year, but some years are better than others.

My enthusiasm for raptor study is greater than ever. 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.

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 30

Latest Observation: November 2

Single Day High Count: 65 (October 19) **

Peak: mid-October

Season Total: 218

Our second highest season count for this species.

Osprey

Earliest Observation: August 27

Latest Observation: October 19

Single Day High Count: 20 (September 12)

Peak: September

Season Total: 132

Below average counts for this species.

Bald Eagle

Earliest Observation: August 28

Latest Observation: November 8

Single Day High Count: 6 (October 23)

Peak: October

Season Total: 58 **

Bald Eagle are quite hard to monitor for most of fall migration. Only the most obvious migrants are counted. The actual number of these birds migrating past the hawk watch is almost certainly higher.

Golden Eagle

Season total: 1

Date: November 2

Our third record for this species. The individual was an immature bird seen well as it passed over Chamcook Lake and then in front of Simpson Hill. It was visible for quite some time allowing excellent viewing.

Northern Harrier

Earliest Observation: August 27

Latest Observation: November 4

Single Day High Count: 6 (September 17 and October 19)

Peak: September/October
Season Total: 76

We tied our season high count.

Sharp-shinned Hawk
Earliest Observation: August 27
Latest Observation: November 4
Single Day High Count: 48 (September 16)
Peak: September/October
Season Total: 524

Numbers for this species bounced up slightly from the record lows of 2013 and 2014.

Cooper's Hawk
Earliest Observation: September 1
Latest Observation: October 31
Single Day High: 1
Peak: October
Season Total: 7

Our second lowest season count.

Northern Goshawk
Earliest Observation: September 8
Latest Observation: October 31
Single Day High Count: 3 (October 26)
Peak: October
Season Total: 11

A fairly average count for this species.

Red-shouldered Hawk
Earliest Observation: October 19
Latest Observation: October 19
Single Day High Count: 1
Peak: Late Season is typical for this species.
Season Total: 1

A record low count.

Broad-winged Hawk
Earliest Observation: August 27
Latest Observation: October 7
Single Day High Count: 1646 (September 16)

Peak: Mid-September
Season Total: 3791

Our third highest count for this species. It should be noted that detectability was an issue on all of the big days. Cloudless skies dominated and the counter was alone for two out of every three hours of heavy Broad-wing movement.

Red-tailed Hawk

Earliest Observation: September 3
Latest Observation: November 4
Single Day High Count: 17 (October 27)
One or more single day high counts of at least 40 are the norm.
Peak: Late October
Season Total: 106

Our lowest season count for this species. Counts have been at or near record lows for three years.

Rough-legged Hawk

A late season mover that has yet to be counted during the fall season. However, several have been observed moving past our site during spring migration.

American Kestrel

Earliest Observation: August 28
Latest Observation: October 19
Single Day High Count: 19 (September 15)
High counts in the thirties are typical.
Peak: September into the first days of October
Season Total: 158

Our third lowest count.

Merlin

Earliest Observation: August 27
Latest Observation: November 2
Single Day High Count: 4 (September 15)
Peak: The first half of October
Season Total: 35

Our second lowest count.

Peregrine Falcon

Earliest Observation: August 27
Latest Observation: October 26
Single Day High Count: 2 (several records)
Peak: October

Season Total: 24

This is the fourth record of 24 birds in seven years. Needless to say, this was an average count.

Unidentified Accipiter

Season Total: 6

Unidentified Buteo

Season Total: 1

Unidentified Falcon

Season Total: 6

Unidentified Eagle

Season Total: 2

Unidentified Raptor

Season Total: 68

Combined Season Total For Migrating Raptors: 5225 (Relatively high counts for our most abundant raptor, the Broad-winged Hawk, helped produce our third highest season total)

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

** A record count.

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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.

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Todd Watts
Project Co-ordinator and Official Counter
Greenlaw Mountain Hawk Watch
Saint John Naturalists' Club
buteobuz@gmail.com
506 529-4656

NatureNB guidelines <http://www3.nbnet.nb.ca/maryspt/nnbe.html>
Foire aux questions de NatureNB <http://www3.nbnet.nb.ca/maryspt/nnbf.html>

Greenlaw Mountain Hawk Watch – Yearly Count Totals

Species	Year 2015*	Year 2014	Year 2013	Year 2012	Year 2011	Year 2010	Year 2009	Average 2009-2015
Turkey Vulture	218	197	173	239	144	90	99	166
Osprey	132	130	166	245	132	151	111	152
Bald Eagle	58	42	41	50	44	52	46	47
Golden Eagle	1	1	0	0	1	0	0	<1
Northern Harrier	76	63	52	61	60	76	39	61
Sharp-shinned Hawk	524	496	520	602	848	661	593	606
Cooper's Hawk	7	6	9	13	11	14	11	10
Northern Goshawk	11	12	15	9	19	11	13	13
Red-shouldered Hawk	1	2	3	5	7	10	5	5
Broad-winged Hawk	3791	1704	5405	2100	5835	2240	1457	3219
Red-tailed Hawk	106	148	132	332	241	222	152	190
Rough-legged Hawk	0	0	0	0	0	0	0	0
Swainson's Hawk	0	1	0	0	0	0	0	<1
American Kestrel	158	155	200	173	199	193	129	172
Merlin	35	44	42	48	33	43	38	40
Peregrine Falcon	24	24	12	23	24	24	13	21
Gyrfalcon	0	0	0	0	1	0	0	<1
Snowy Owl	0	1	0	0	0	0	0	<1
Unidentified Accipiter	6	1	0	3	2	5	1	3
Unidentified Buteo	1	3	0	2	4	5	3	3
Unidentified Falcon	6	3	4	4	2	3	1	3
Unidentified Eagle	2	0	1	1	0	1	3	1
Unidentified Raptor	68	60	66	69	65	88	55	67
Unidentified Owl	0	1	0	0	0	0	0	<1
Total	5225	3094	6841	3979	7672	3889	2760	4781
Observation Hours	262.75	275.75	259.5	257	258	266.25	256.75	259.7