

Greenlaw Mountain Hawk Watch Fall 2012

Our fourth season of data collection has been completed. There were numerous exciting moments and our season total was the second highest on record. Single-day high counts, as well as season high counts for several species were recorded. Volunteer participation was stronger than ever with a total of 572.75 hours (up from 525.25 in 2011), a noticeable increase in the participants' general understanding of raptor migration as well as improved identification skills.

Raptors were counted on 45 days between August 17 and November 7 with a total of 257 observation hours logged. As in previous seasons, this year's counts were conducted on days with favourable winds and a lack of significant precipitation. Hawks moving east to west were generally considered to be migrants. Because of the presence of resident raptors, some species were watched more closely during parts of the count season to ensure accuracy of our counts. Partial and full year residents 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. Only 3 resident vultures were present this season, making this year's counts a little easier. Eagles were as challenging as ever. The other residents tend to leave during the last week of August or early September.

This season we encountered unusual weather. Nonetheless, we managed to record our second highest season count. Record-high season counts for 4 species were also recorded, while season counts for 6 species were down from the previous year.

A Quick Look at the Season

August

Early-season counts were fairly typical with Osprey being a noticeable exception. Their numbers were up, and Sharp-shinned Hawk numbers were a bit weak. The usual resident raptors were present providing many opportunities to observe interactions between them as well as between them and the migrants. These resident birds remained through the end of the month.

September

The first week of the month was fairly typical with average counts. The following week peaked with a strong movement on the 10th and 11th. One of those days produced this season's single-day high count for Broad-winged Hawk. Late day hours on the 10th were outstanding with many low birds passing directly over the watch. Another good movement on the 16th produced low birds. Most of them also flew directly over the watch. This is often a late-day flight pattern. Although, Broad-wings passed directly over us at low altitudes for nearly the entire day! With such good numbers occurring rather early in the month, it appeared that we might have another impressive season of Broad-wing flights. Unfortunately, weather conditions did not allow this to occur. The next largest movement of Broad-wings came on the 17th. One would expect the biggest flights of the year to occur on or near this date. However, wind conditions were not particularly good and counts were not as high as they could have been. Rather poor winds continued until the 27th when a good movement of smaller raptors occurred. This was the last good movement of the month. Despite this, Osprey counts for the month were higher than any of the previous years. Unfortunately, Sharp-shin numbers were lower than the two previous years.

October

October was one wet month! Despite the rain, we managed to count a good number of hawks. As a matter of fact, we had our busiest October on record with 1127 hawks counted as migrants. In addition, our all time single-day high counts for Osprey, Turkey Vulture and Red-tailed Hawk occurred this month. Other highlights include: a nice late season movement of low flying male Northern Harrier (most of these birds passed directly over the watch!); hundreds of other close hawks; a large movement of waterfowl on the 18th (5000 birds); 11 Snow Geese on the 22nd ; numerous sightings of Bohemian Waxwing, White-winged Crossbills (and a few Red Crossbill), Pine and Evening Grosbeak. Northern Shrikes were seen hunting the burnt area on the 23rd and 26th. Numerous raptors were also seen hunting amongst the snags. A very high number of raptors passed the watch with full crops. Numerous rainy days might have created a greater need for the birds to opportunistically hunt while migrating. Uncommon birds landing at the watch included: Horned Larks, Pine Grosbeaks, White-winged Crossbills, Bohemian Waxwings and an adult Coopers Hawk.

November

The season came to a close on the 7th. Raptor movement was light through the week. The last bird of the year was a Northern Goshawk that came in low and close.

As usual, the trails leading to the site produced a good assortment of migrants during August and much of September. The trails became relatively quiet toward the end of September. This seemed to be due to drought-related foliage loss.

Yearly Count Totals

| Species | Year | Year | Year | Year |
|---------------------|------|------|------|------|
| | 2012 | 2011 | 2010 | 2009 |
| Turkey Vulture | 239 | 144 | 90 | 99 |
| Osprey | 245 | 132 | 151 | 111 |
| Bald Eagle | 50 | 44 | 52 | 46 |
| Golden Eagle | 0 | 1 | 0 | 0 |
| Northern Harrier | 61 | 60 | 76 | 39 |
| Sharp-shinned Hawk | 602 | 848 | 661 | 593 |
| Cooper's Hawk | 13 | 11 | 14 | 11 |
| Northern Goshawk | 9 | 19 | 11 | 13 |
| Red-shouldered Hawk | 5 | 7 | 10 | 5 |
| Broad-winged Hawk | 2100 | 5835 | 2240 | 1457 |
| Red-tailed Hawk | 332 | 241 | 222 | 152 |
| Rough-legged Hawk | 0 | 0 | 0 | 0 |
| American Kestrel | 173 | 199 | 193 | 129 |
| Merlin | 48 | 33 | 43 | 38 |

| | | | | |
|--------------------------------|-------------|-------------|---------------|---------------|
| Peregrine Falcon | 23 | 24 | 24 | 13 |
| Gyrfalcon | 0 | 1 | 0 | 0 |
| Unidentified Accipiter | 3 | 2 | 5 | 1 |
| Unidentified Buteo | 2 | 4 | 5 | 3 |
| Unidentified Falcon | 4 | 2 | 3 | 1 |
| Unidentified Eagle | 1 | 0 | 1 | 3 |
| Unidentified Raptor | 69 | 65 | 88 | 55 |
| | | | | |
| Total | 3979 | 7672 | 3889 | 2769 |
| | | | | |
| Total Observation Hours | 257 | 258 | 266.25 | 256.75 |

Analysis of Flight Trends

Yearly flights can be strongly influenced by weather. This can be due to the resulting effect on breeding success, migration or both. Unfavourable wind conditions occurring during migration can cause raptors to move over a broad front. When this occurs, a smaller portion of the population will likely be counted. A thorough understanding of raptor migration is required to understand these effects. Deviation from “normal” weather during the breeding season can strongly affect reproductive success and the number of immature birds counted. The results can be favourable or adverse. Human influences can also impact flight trends. Typically, these trends can only be detected through long term monitoring.

Importance of Greenlaw Mountain Hawk Watch Data

Raptor populations can be negatively impacted by forestry practises, pesticide use, the placement of structures in migration routes and other human activities. The data collected through the project will contribute important information about raptor populations, migration routes and timing and, as such, supports efforts to identify species in decline and inform recovery efforts.

Species Accounts

Turkey Vulture

Earliest Observation: August 30

Latest Observation: November 7

Single Day High Count: 56 (October 7)*

*Peak**:* Early October

Season Total: 237*

This year's count totals were, by far, our highest on record showing a 65% increase over our previous record high. This likely reflects the effects of a mild winter and the expansion of their range.

Osprey

Earliest Observation: August 17

Latest Observation: October 24

Single Day High Count: 46 (October 2)*

Peak: Early September and early October.

(relatively poor conditions occurred for much of late September)

Season Total: 245*

Record high counts for the season were recorded showing a 62% increase over the previous record high. This likely reflects the effects of an easy winter and a summer drought (low water can make it easier for these birds to locate and capture fish.)

Bald Eagle

Earliest Observation: August 17

Latest Observation: November 7

Single Day High Count: 5 (September 10)

Peak: September/October

Season Total: 50

This year's counts were typical of previous years.

Golden Eagle

No records this season.

Northern Harrier

Earliest Observation: August 24

Latest Observation: November 5

Single Day High Count: 7 (October 23)

Peak: September/October

Season Total: 61

This year's counts seemed to be on average with previous years.

Sharp-shinned Hawk

Earliest Observation: August 17

Latest Observation: November 5

Single Day High Count: 58 (October 17)

Peak: Mid- September through Mid-October

Season Total: 602

Sharp-shins were counted on almost every day of the count season. This year's counts were similar to 2009 and 2010, but significantly lower than last year's.

Cooper's Hawk

Earliest Observation: September 10

Latest Observation: October 25

Single Day High: 2 (September 11)

Peak: Late September through Early October

Season Total: 13

This year's counts were similar to preceding years.

Northern Goshawk

Earliest Observation: September 28

Latest Observation: November 7

Single Day High Count: 2 (October 24 & 28)

Peak: Late October

Season Total: 9

Our lowest season total for this species.

Red-shouldered Hawk

Earliest Observation: September 16

Latest Observation: October 24

Single Day High Count: 1

Peak: Late Season

Season Total: 5

This year's counts were lower than the last two years.

Broad-winged Hawk

Earliest Observation: August 17

Latest Observation: October 9

Single Day High Count: 830 (September 11)

Peak: Mid-September

Season Total: 2100

Less than ideal conditions during mid to late September likely kept their numbers down to just under 2010 levels.

Red-tailed Hawk

Earliest Observation: August 24

Latest Observation: November 7

Single Day High Count: 76 (October 25)*

Peak: Late October

Season Total: 332*

Record season high counts for this species were recorded showing a 36% increase over the previous record high.

Rough-legged Hawk

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

American Kestrel

Earliest Observation: September 24
Latest Observation: October 27
Single Day High Count: 24 (September 27)
Peak: Late September to early October
Season Total: 173

This year's counts were lower than 2010 and 2011, but significantly higher than 2009.

Merlin

Earliest Observation: September 24
Latest Observation: November 5
Single Day High Count: 7 (September 27)
Peak: Early through mid- October
Season Total: 48*

Record season high count showing a 12% increase over the previous high count.

Peregrine Falcon

Earliest Observation: September 2
Latest Observation: October 27
Single Day High Count: 4 (October 8)
Peak: Early through mid-October
Season Total: 23

Counts similar to previous years.

Unidentified Accipiter

Season Total: 3

Unidentified Buteo

Season Total: 2

Unidentified Falcon

Season Total: 4

Unidentified Eagle

Season Total: 1

Unidentified Raptor

Season Total: 69

Combined Season Total For Migrating Raptors: 3979

* Denotes a record count.

** Peaks for each species listed above are for this year. Peaks can vary from one year to the next.

Conclusion

Feedback on this project is being sought. Please let us know your thoughts on the daily reports, flight forecasts, your experiences at the hawk watch or any other aspect of the project. We also welcome letters of support, as they help us in our pursuit of funding.

It is a privilege to be able to conduct this project and I am thrilled that we are generating so much knowledge of regional hawk migration and raptor populations. It is my intention to do all that I can to keep the project going and to further develop our regional understanding of and appreciation for birds of prey. Continuing to build our database will show important trends in raptor populations and their movements. The project is still very young and much more work needs to be done.

This project is supported by the New Brunswick Wildlife Trust Fund. Additional support comes from individual supporters and our volunteers.

Thanks and Recognition

Special thanks go out to all of the volunteers. If we were to issue an award for dedication, Laraine Townsend would have to be the recipient. She reliably participates throughout the season and has spotted many a raptor. Richard Tarn is also quite dedicated, frequently walking up from his camp on Chamcook Lake. I should also thank the hawk watch committee members. They have volunteered many an hour to the administration of this project. Hank Scarth chairs the committee and has been instrumental in our success. Additional thanks go out to the property owners and our supporters. We couldn't do this without you!

We hope to see everyone again next year!

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