

2016 Migration Summary at Beamer Memorial CA

It was a record-breaking year for the Niagara Peninsula Hawkwatch at the Beamer Memorial Conservation Area in 2016. Unfortunately, the record broken was for the lowest count since we began full season coverage in 1980. We easily fell below the previous record from 1987 of 10,508 with only 10,066 birds. To achieve this discouraging result, we can clearly lay the blame on the month of April where the 4,500 birds counted represented less than half the long-term average of 9,079. Looking through the daily reports (Tables 1-4), there was not much in the way of highlights either; with no unusual species sightings, no particularly large daily counts of any species, and the best day for variety was the eleven species seen on April 14. The diversity that day was very good as there were only 138 birds in total.

The Season

After a much milder winter than the previous two and with a very low amount of snowfall, the watch began on the last Sunday in February under clear skies with very warm temperatures for the date. While a few birds passed by, the count was disappointingly low. The presence of a couple of Turkey Vultures that appeared to have taken up residence meant there were birds in the sky more often than twelve birds in five hours would suggest.

Conditions had normalized by the start of March so low counts were realized during the first week. On balance though, March was considerably warmer than normal with the average temperature being four degrees higher. Perhaps one result of that was an abnormally high amount of rain. Despite having only 60% of the normal snowfall, there was more than double the normal amount of precipitation including 17 days with some amount of rain. Fortunately it was most often during the early morning or evening so only four days' counts were wiped out. The result was the monthly count of 4,590 birds was slightly above our long-term average.

So, what about April? Well, temperatures averaged almost two degrees below normal making them very similar to March. Those of us shivering on the tower wondering where the sharpies and broad-wings were can relate to that. Total precipitation was slightly below normal but there was more than five times the usual April amount of snow! In contrast to March, only one days' count was dismal although most days were sub-standard for April with only one day, April 27th, having more than 300 birds. The result was the record low count for what is usually the most productive month.

The first part of May continued the trend from April with respect to cooler temperatures than normal. It wasn't until after the official count period was over that temperatures really rose so the mean temperature for the entire month was above normal. The absence of a counter on May first is unlikely to have affected the year's total because the temperature never exceeded 7 C and the site was shrouded in fog. Three other days had some impact from precipitation events. The count for the month of 942 was below the long-term average but above that of recent years. Over half the birds passed on May 4th.

Effort

A record low count cannot be blamed on a lack of effort on the part of the counters. Hours during the rainy March were slightly below normal, understandably so. In April though, the 228+ hours were more than ten above the long-term average. This produced a birds-per-hour rate for the month of 19.7 that was less than half the long-term average for April (see Table 5). May hours were the most since 2003 with counters hoping to see some of the birds that didn't come through during April. The fourth highest daily count of the season on May 4th helped but the rest of May was slow.

Species Accounts

The 4,862 **Turkey Vultures** counted was the lowest total since 2004. It represented a decline of 34% from last years' record count and is the first serious decline in their number since 1989. TVs have shown an amazing growth trend since 1980, seldom going more than a year or two between new record high counts. It will be interesting to see if their numbers rebound quickly again or whether they have reached some sort of saturation level.

The number of **Osprey** actually rose slightly from last year. The count of 45 birds was exactly equal to their long-term average although slightly lower than the recent five-year average. This was one of the few bright spots in 2016. The first Osprey was not counted until the first of April, rather surprising in light of the warmer weather in March. April 14 was the best day with eight.

The only species whose numbers have increased over the years at a rate comparable to Turkey Vultures is the **Bald Eagle**. In 2015 we counted 80, second highest total ever. This year there were only 35, the lowest total since 2001. My impression from reading the accounts was that we were not seeing full adult birds like we have been in recent years. Clearly though a decline of 56% from year to year means there were likely fewer birds of all ages.

Another species that fared a little better in 2016 than last year was **Northern Harrier**. The 84 birds counted represent the best total in the last five years but still was 36% below their long-term average.

The second lowest count ever of **Sharp-shinned Hawks** was recorded in 2016 at 1,039. That is little more than a third of the long-term average for the species and well below the recent five-year average of 1,394. The best day was May 4th with 138 while April 16 with 123 was the only other day with more than one hundred. In years past we had daily totals of more than a thousand sharpies at Beamer or what we saw in the entire 2016 year.

The number of migrating **Cooper's Hawks**, 119, was close to the recent five-year average but well below the long-term average of 188. Resident Cooper's Hawks were present near the watch again this year although not as much in evidence as they are in some years. These birds probably get counted a few times during the season although we try to avoid it. There seemed to be fewer of the slow wing beat display flights than usual, which might suggest that no nesting was conducted this year. There were also no reports of anyone seeing a Cooper's Hawk carrying food.

Two **Northern Goshawks** were recorded this year, doubling last year's count. This is unlikely to suggest resurgence in their numbers toward the long-term average of 19 birds a season. It may be noted that both Hawk Cliff and Holiday Beach watches in Ontario last fall had record low counts of Northern Goshawks.

The **Red-shouldered Hawk** count absolutely crashed in 2016. A record low total of 275 birds was tallied, well below the previous record of 395 set in 2014. The total represents just over 50% of the recent five-year average and only 38% of the long-term average for the species. The signature species for our watch that normally passes during late March was just not seen in its usual numbers despite our March counts being close to normal.

Broad-winged Hawks had a below average year. Only April 27th produced more than one thousand and only two other days had more than one hundred. On good days single kettles of these birds can have more than a hundred individuals. On many days during the latter half of April and early May, a group of these birds might consist of only two birds with many cases where only single birds were seen.

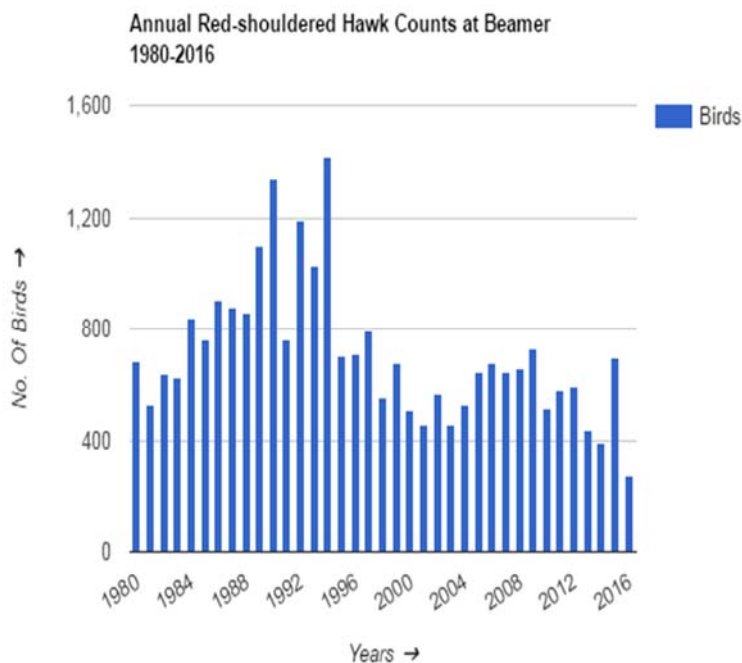
At least two pairs of **Red-tailed Hawks** had territories within view of the tower. Despite efforts to avoid counting these local birds, undoubtedly they were counted on numerous occasions when headed west. Despite this, the species total of 1,312 was the second lowest ever recorded at Beamer, ahead only of 2014. The count in March was near normal and there was a trickle of immatures through May but the early April numbers were missing. As this is when the adult females are usually passing, it doesn't auger well for the breeding season. No noticeably blacker birds were reported this year.

Another species with the second lowest total ever for Beamer was the **Rough-legged Hawk**. At least two of these birds spent the winter in the Grimsby area and the season got off to a good start with two birds on February 28 but thereafter only 24 passed by for a total count of 26. The record low is 22 in 2002. Hawk Cliff also experienced a low total for this species last fall.

It was a strange year for **Golden Eagles**. Only four were counted and none before April 28th. This is about half the long-term average and the lowest count since 1995. None of the other spring counts along Lakes Erie and Ontario had good numbers of Golden Eagles this year either and Derby Hill's count at the eastern end of Lake Ontario was well below their normal total.

American Kestrels have never been abundant at our watch site. Their long-term average has fallen to less than one hundred as a result of the overall decline in their numbers throughout the continent. Thus it is with some relief to report that for the second year in a row, their count increased at Beamer. The 56 birds were slightly above the recent five-year average although still just 61% of the long-term average.

At least one pair of **Merlins** was nesting in the Grimsby area in 2016. Their presence might account for the increase in their count at the watch site. The 21 birds counted is nearly double the long-term average for the species and about 50% above the recent five-year average. Similar increases were not seen at other watch sites around lakes Erie and Ontario this spring or last fall.



Only four **Peregrine Falcons** were seen in 2016. This is the lowest count since 2007 and while it is about the long-term average count, it is below the recent five-year average. With several nesting pairs in the Hamilton/Niagara area, I find it surprising that more are not seen at Beamer. In most cases it would be difficult to distinguish between a migrating and a resident bird. Clearly our counts are not skewed by local Peregrines.

Discussion

To illustrate how poor a year it was for shouldered, on the accompanying chart the year by year counts are shown since 1980. Numbers appeared to be in an upward trend for a while, peaking in 1994. A sharp decline occurred in the following year and the numbers have never recovered in subsequent years. 2015 was another relatively good year for the post-1994 period but the drop in 2016 was

proportionately like the drop in 1995. Bird Studies Canada and partners including Environment Canada recently reported on the status of all North American birds (The State of North America's Birds 2016 by the North American Bird Conservation Initiative). Red-shouldered Hawks were placed in the same category of risk as Red-winged Blackbirds and Blue Jays, a fact that seems very surprising in light of our yearly observations during spring migration.

None of this analysis is possible without the efforts of many people, not least of whom are the designated counters. This year they were; Bouwe Bergsma, John Black, Barry Cheriére, Sandy Darling, Chris Escott, Tim Foran, Gord Kozak, Bruce Mackenzie, Matt Mills, Brian Mishell, George Naylor, Darren Smillie, Bill Smith, John Stevens, Mike Street, Tom Thomas, and Phil Waggett. Our thanks go to all of you for helping with this fine example of citizen science. I would also like to thank Zakhar Husak for preparing the chart.

2016 NIAGARA PENINSULA HAWKWATCH MONTHLY COUNTS

Species	February	March	April	May	Totals
Black Vulture	0	0	0	0	0
Turkey Vulture	7	3146	1575	134	7730
Osprey	0	0	40	5	42
Bald Eagle	1	22	7	5	80
Northern Harrier	0	31	42	11	68
Sharp-shinned Hawk	0	150	671	218	1253
Cooper's Hawk	1	48	61	9	153
Northern Goshawk	0	0	2	0	1
Red-shouldered Hawk	0	264	10	1	698
Broad-winged Hawk	0	0	1651	491	2898
Swainson's Hawk	0	0	0	0	1
Red-tailed Hawk	1	867	369	75	1778
Rough-legged Hawk	2	18	5	1	46
Golden Eagle	0	0	1	3	14
American Kestrel	0	19	31	6	40
Merlin	0	6	14	1	9
Peregrine Falcon	0	1	2	1	6
Gyrfalcon	0	0	0	0	0
Unid. Accipiter	0	3	5	0	6
Unid. Buteo	0	6	3	1	37
Unid. Falcon	0	2	0	1	1
Unid. Eagle	0	0	1	0	2
Unid. Raptor	0	7	10	1	6
Total Raptors	12	4590	4500	964	10066
Hours Counted	5.0	188.2	228.7	102.9	524.8
Raptors/Hour	2.4	24.4	19.7	9.4	19.2