

Pennsylvania Raptor Migration Summary – Spring 2016

Laurie Goodrich

A warmer than usual winter was followed by mild March weather in 2016. Favorable raptor flights followed as March migrants moved north using abundant thermals and southerly winds. Weather changed dramatically in April, bringing persistent rain, fog, snowstorms, and north winds. In response, raptor migration seemed to stall or disperse and many sites recorded below-average numbers, particularly for later migrating species.

Migration Summary

Five Pennsylvania spring watch sites tallied a below-average 16,573 total hawks in 1110 hours during 204 days of counting between 20 February and 15 May, for a statewide rate of 14.9 raptors per hour (Table 1). Stone Mountain, an autumn watch site in *Huntingdon* and *Mifflin*, logged nine hours on two days during, adding 25 migrants to statewide totals. Four regular spring sites - Allegheny Front, Hawk Mountain, Presque Isle, and Tussey Mountain - saw average to below-average hours of coverage, mostly due to stormy weather during April. Statewide count days for spring 2016 dipped by 20, 10% below average (Table 1).

Statewide, the total raptor count of 16,573 hawks was 13% below average, the lowest since 2008. Thirteen of the 16 regularly-recorded raptor species were below average. Exceptions were Turkey Vulture, with 11,733 tallied, 16% above the 10-year average of 10,093; Bald Eagle, for which the count of 250 was up 26% above the 10-year average of 198; and Merlin, with 29 counted, 15% above the average of 25 (Table 1). All three species have been increasing regionally in recent years.

The Broad-winged Hawk count was 1723, which is 58.8% below the ten-year average of 4184 and the lowest count in six years. One-day peak counts were below average as well, with Tussey Mountain sighting the most Broad-wings in one day, 413 on 21 April. Other sites reported unusually late peak flights with highest counts at two sites tallied in May (Table 2).

Another common migrant, the Sharp-shinned Hawk, was 34% below average. Statewide, 812 Sharp-shins were counted, compared to the average of 1229. Golden Eagles, a favorite at Pennsylvania watches, were 25% below-average, with 226 tallied compared to the average of 302. Osprey, a long-distance migrant, was 45 % below-average with 194 counted compared to the average of 350 (Table 1). Among the many species showing lower-than-average counts, the

Peregrine Falcon stood out with only 3 counted statewide compared to an average of 12.9 for last decade.

Presque Isle continued to lead Pennsylvania spring sites in raptor numbers, tallying 13,114 migrants, or 90.4 raptors per hour (Table 1). Tussey and Allegheny Front continued to lead the Golden Eagle counts tallying 221 of the 226 Golden Eagles spotted this spring. Both sites reported exciting mid-March eagle flights (Table 2).

The lower number of migrants statewide in 2016 possibly can be attributed to both weather and climate effects. Local weather was mercurial in April, with blustery winds blowing migrants away from Presque Isle at Lake Erie, (McWilliams, pers. comm.), while rain, fog, and below average temperatures limited counting and sightings at the ridge sites. The strong El Nino in 2015 led to a warmer than usual winter in 2015-2016 with low snow cover across the northeast, likely allowing short-distance migrants such as Sharp-shinned and Red-tailed Hawks and Golden Eagles, to winter farther north than usual (Bolgiano, pers. comm.). This suggestion is supported by the lower counts recorded during the fall watches in 2015.

Site Highlights

Allegheny Front (*Somerset/Bedford*) – Allegheny Front tallied 672 hawks in 374.5 hours and 56 days between 28 February and 3 May. Effort was essentially average at 6.5 hours less, but total migrant counts were 54% lower than the ten-year average of 1464 hawks. Sightings of all species, except Bald Eagle, were below average (Table 1). The Bald Eagle count of 23 was 15% above average. Although the Golden Eagle count of 65 was slightly low compared to the average of 72, the Allegheny counters recorded several good flights of eagles including 15 Golden Eagles on 1 March and 17 on 16 March (Table 1, 2). The Broad-winged Hawk count showed the largest deviation from average, with 168, which is 49% below the 10-year average of 333 (Table 1). Cold southeast winds on 1 March brought an exciting one-day peak count for the site including 15 Golden Eagles, 20 Turkey Vultures, 23 Red-tailed Hawk, 5 Bald Eagles, one

Table 2. Peak count dates for selected species at selected Pennsylvania watch sites.

Site	Golden Eagle		Br-winged Hawk	
	Count	Date	Count	Date
Allegheny Front	17	3/16	36	4/17
Hawk Mountain¹	-	-	78	5/5
Presque Isle	-	-	92	5/4
Stone Mtn.	5	3/11	3	4/12
Tussey Mtn	38	3/16	413	4/21

¹Site begins count in April.

Northern Goshawk, 3 Red-shouldered Hawks, and 2 Cooper's Hawks.

Hawk Mountain Sanctuary

(*Berks/Schuylkill*) – Hawk Mountain recorded 727 raptors in 195.6 hours and 42 days between 28 March and 15 May. Total raptors were 23% below the ten-year average (Table 1) and most species were below average except Bald Eagle (37) and Red-shouldered Hawk (12). Although Broad-winged Hawks were seen regularly in late April, the highest one-day count of 78 was tallied on 5 May, along with 17 Sharp-shinned Hawks, 14 Osprey, 2 Bald Eagles, and one Merlin, contributing to the total of 135 raptors for the day (Table 2). The late Broad-wing peak may reflect the challenging weather face by northbound migrants in April. One Hawk Mountain satellite-tagged Broad-wing did not return until the second week of May. Highlights from April included an Osprey carrying its fish dinner on 19 April and 45 Broad-wings and 2 Sharp-shins sailing north before a rainstorm 26 April, the second highest peak count for the site.

Presque Isle (*Erie*) – Presque Isle counters recorded 13,114 hawks during 145.1 hours and 50 days from 28 February to 11 May. Most migrants were recorded in March - the total of 10,260 included 9515 Turkey Vultures moving north along the lakeshore (Table 1). Inclement weather depressed daily counts and effort particularly in April (McWilliams, pers. comm.). The largest flight occurred on 24 March when winds shifted to southwest, carrying kettles of Turkey Vultures, numbering 2450, toward the lake, along with a stream of 66 fast-flying American Kestrels and 47 Red-tailed Hawks. Winds were unfavorable in April and May, resulting in lower-than-average counts. Broad-winged Hawks were particularly low – the total of 221 was 91% below the ten-year average.

Stone Mountain (*Huntingdon/Mifflin*) – Stone Mountain, a new site for spring watching, logged one day in March and one in April. Twenty-five hawks were

recorded in 9 hours of effort (Table 1). On 11 March, watchers tallied five Golden Eagles among 15 raptors in five hours of watching, hinting at what this new spring site could yield (Table 2). On the same date, Tussey Mountain, 10 miles to the northwest, had a similar day, recording 6 Golden Eagles.

Tussey Mountain (Huntingdon/Centre) – Counters at Tussey Mountain recorded 2045 hawks in 386 hours and 54 days of coverage from 25 February to 25 April, a rate of 5.3 hawks per hour. In contrast to the other spring sites this year, the season total at Tussey was 15% above the ten-year average of 1779 hawks (Table 1). Above-average counts were made for Turkey Vulture (184), Bald Eagle (49), Broad-winged Hawk (1004), American Kestrel (42), and Merlin (29). However, only 156 Golden Eagles were tallied, 31% below the ten-year average of 227 Golden Eagles, and the lowest count since 2007 (Table 1). The Golden Eagle passage in early March, normally the peak time

frame, was unusually light; however, mid-March brought the peak one-day count of 38 eagles moving north on southeast winds in the afternoon of 16 March, with another 29 moving the following morning, for a total of 67 in less than 24 hours (Table 2). N. Bolgiano (pers. comm.) suggested eagles may have left the ridge moving more north taking advantage of lift from warmer than usual weather conditions. After mid-April, Broad-wings were tallied in above-average numbers with a peak of 413 on 21 April, along with 37 Sharp-shinned Hawks and 7 Osprey (Table 2).

Conclusions

March brought eagle excitement although overall numbers were low. Inclement weather during April appeared to depress counts of most species to below-average levels. Late flights in early May, with some season high counts, suggested some migrants were delayed while others may have just dispersed. Despite bad weather and

depressed numbers, the spring 2016 raptor flights in Pennsylvania underlined our knowledge regarding increasing regional populations of Turkey Vulture, Bald Eagle, and Merlin.

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