

Raptor Migration Summary – Spring 2009

Laurie Goodrich

A cold, wet spring across Pennsylvania tested the resolve of hawk-watchers and migrants. The number of active spring sites decreased this year (Figure 1). Three traditional sites maintained count efforts and one new site in the northwest increased its hours. Two occasional sites reported one to three days of counts, and one formerly active spring site was unable to continue coverage. Despite challenges of weather, watchers donned extra clothing and enjoyed some amazing flights. Statewide, spring counts remained average to above-average for most species, and a few new records were set.

Migration Summary

A total of 19,789 migrant raptors of 17 species were recorded across Pennsylvania between 21 February and 20 May. The rarest was a Swallow-tailed Kite over the Presque Isle watch-site, Erie County, in a kettle of 50 Broad-winged Hawks on 21 April (see photo). This sighting represents one of earliest spring records of this species for the state (McWilliams & Brauning 2000), and adds to the growing number of kite reports for the region.

Table 1: Pennsylvania watch-sites reporting for spring 2009

Site	Hours	Total
Allegheny Front	412	2377
Council Cup	2	2
Hawk Mountain	221	643
Presque Isle	163	14365
Second Mountain	14	258
Tussey Mountain	428	2144
Total	1238	19789

Total hours (1238) were slightly higher than in 2008, due to increased coverage at Presque Isle and resumed full-season coverage at Tussey (Table 1). Of the six sites reporting, two counted for more than 400 hours each, and two for less than 20 hours. Three sites reported average passage rates of three to six birds per hour, while Presque Isle led the group with 88 birds per hour. Statewide counters recorded an average of 16 birds per hour. Watch-site coverage was consistent through March and April with more than 500 hours of counting per month statewide. Two sites counted

in February (Allegheny Front, Tussey), for 75 hours total; and, three sites covered days in May (Allegheny Front, Hawk Mountain, Presque Isle), including 91 hours total (Table 1).

Spring 2009 totals were up 60% compared to 2008 totals, primarily due to the impressive Broad-winged Hawk counts from Presque Isle. Broad-wings concentrate along the south shores of the Great Lakes in greater numbers than at other locations in the northeast as they try to avoid crossing these large bodies of water. The establishment of the Presque Isle watch-site allows Pennsylvania's hawkwatchers to enjoy this bounty of birds just as New York sites have for years. The additional count days from this Lake Erie site also have nudged up the Turkey Vulture and Sharp-shinned Hawk counts for the state (both up more than 25% compared to 2008). The most numerous migrants statewide were Turkey Vulture (6347), Broad-winged Hawk (8808), Red-tailed Hawk, (1410), and Sharp-shinned Hawk (1216).

Site Highlights

Allegheny Front (Bedford): Allegheny Front set a new season count record in 2009 with 2377 hawks in 412 hours of counting from 21 February to 6 May. The most numerous migrants were Broad-winged Hawk (854), Red-tailed Hawk (465), and Turkey Vulture (384). Broad-winged Hawk and American Kestrel counts of 39 each set new species records. Osprey (61) and Red-shouldered Hawks (36) were 50% and 44% below average, and Bald Eagle (32) and Golden eagle counts (81) were 68% and 15% above average. The many days of rain in March and April may have affected their migration patterns. Allegheny Front had the second highest total for Golden Eagles for the state (81), emphasizing again how important the western ridges of the Appalachians are for migrating goldens (Table 2, 3). The best Golden Eagle day occurred on March 17th when Bob Gorsuch counted 23 adults and one juvenile, between 1200 and 1630. Few birds flew before noon due to heavy morning fog, but when the fog lifted, winds shifted to the southeast and eagles began streaming past. Other notable Golden Eagle flights included 16 on 5 March. Eric Hall tallied the

highest Broad-winged Hawk one-day count for the site with 650 on 24 April, among 14 species for the day. He reported that most the birds passed during mid-day hours, often very low. A close-flying adult Peregrine Falcon and adult Northern Goshawk were especially exciting. In the last day of the season, 6 May, Rosemary McGlynn recorded an unusually late juvenile Golden Eagle, being escorted by a shrieking resident Red-tail.

Council Cup (Luzerne): Donald Kapral endured brisk northwest winds and -3° C temperatures on March 13th to count two migrant Turkey Vultures during four hours of coverage. No other counts were recorded for the site.

Hawk Mountain Sanctuary (Berks/Schuylkill): Hawk Mountain's spring count began 7 March with daily coverage by interns from 1 April to 15 May. The total of 643 raptors was low compared to the ten-year average of 1078. Despite the lowest total count in 10 years, several species counts were higher than average, including Bald Eagle (17), compared with an average of 12 birds in the prior 10 years. The 3 Peregrine Falcons was also above average, reflecting the continued increase of this species in the east.

Ten out of the 45 official count days were hampered by rain or fog and April count days often included strong westerly winds which may have pushed migrants off the ridge in greater numbers than usual. Broad-winged Hawks (273) were 38% below the 10-year average (443). Red-tailed Hawks, Ospreys, and Sharp shinned Hawks were also below average (Table 2).

March counts were sporadic but several volunteers hiked to the Lookout to record 43 migrants over several days, including 3 early-moving Bald Eagles and 21 Red-tailed Hawks. In April, the Mountain flight began to pick up. On 11 April after a storm cleared the region, Dave Hughes tallied 20 Osprey (including one carrying a fish), 5 Bald Eagles, and 16 Broad-winged Hawks among 59 total raptors. The peak flight of the season came on the 21 April, when Charles Showers, Mercy Muiriri, and Rob Feldman counted 91 raptors including 78 Broad-winged Hawks, for the highest one-day count of this species for the site (Table

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

Site	Br.-winged Hawk		Golden Eagle	
	Count	Date	Count	Date
Allegheny Front	650	4/24	24	3/17
Hawk Mountain	78	4/21	1	4/11
Presque Isle	3347	4/24	--	--
Second Mountain	84	4/19	--	--
Tussey Mountain	262	4/24	37	3/18

2). April 24th brought the second-highest Broad-wing total (58), and the highest one-day count of Bald Eagles (6). Numbers dwindled after this date, with 6 May bringing the last notable push of birds (32), including 14 Osprey, the high for this species for the season.

Presque Isle (Erie): Jerry McWilliams began counting on March 5th recording one of the highest one-day counts for Red-tailed Hawk for the site (36), and 4 Rough-legged Hawks, among a total of 55 migrants. A spectacular flight of 1037 Turkey Vultures was recorded 24 March on east-northeast winds. Twenty-six Red-tails joined the vulture parade. Following a heavy morning rain 1 April, another large flight of 1232 Turkey Vultures was made. Mid-April brought steady flights, including American Kestrels and Sharp-shinned Hawks in good numbers. On 21 April, winds switched to the southwest and migrants filled the skies. At 1310, a kettle of 50 Broad-winged Hawks swirled overhead joined by the bird of

the season, an adult Swallow-tailed Kite! The kite lingered long enough for a few photos before heading off. Soon thereafter, an albino Broad-winged Hawk was seen amidst 200 other Broad-wings. Albinos have been rarely reported in this species but have been spotted occasionally in recent years in Mexico and other large-volume sites. By the time the rain slowed the flight in mid-afternoon, 3264 Broad-wings had passed, along with 113 Sharp-shinned Hawks, 10 Osprey, and 2 Rough-legged Hawks among a total of 3514 migrants.

The season's peak count occurred 24 April when Don Snyder and Jerry McWilliams recorded 3347 Broad-wings, 63 American Kestrels, 193 Sharp-shinned Hawks, 280 Turkey Vultures, amid a total of 3951 raptor migrants (Table 2, 3). Daily totals decreased thereafter, but counters still recorded consistent days of 100 to 200 birds. The last notable count was 13 May, with 280 birds tallied including 15 Bald Eagles and an adult Peregrine Falcon, only the second peregrine for the spring. On the last day of the county, 20 May, eleven Bald Eagles soared north, and during the last four days of the count counters tallied 50%

of the total Bald Eagles. Migrating Bald Eagles are also a highlight of May migration flights at other eastern Great Lakes sites (e.g., Derby Hill and Braddock Bay), suggesting even another reason for a May birding trip to Presque Isle.

Tussey Mountain (Centre): Tussey Mountain set new site records for four species: Sharp-shinned Hawk (178), Broad-winged Hawk (661), American Kestrel (57), and Peregrine Falcon (4). Counters increased their effort to an above-average 427.5 hours, and tallied 2144 migrants, for 5.02 birds per hour of effort. The total was 18% above the long-term average and included 200 Golden Eagles, the second highest count in recent years.

The eagle flight gained momentum in early March. On 5 March, Chuck Widmann, Jon Kauffman, and Robert McLaughlin recorded 28 Golden Eagles, with 21 passing in late afternoon hours. Southeast winds on the 7 March brought another eagle push with 32 Golden and 3 Bald eagles. Two days later, 27 more Golden Eagles passed north and were joined by a lone American Kestrel. A season one-day peak count of 37 Golden was tallied 18 March, along with 3 Bald Eagles amidst a total of 80 raptors (Table 2). Jon Kauffman reported that several eagles were in the sky simultaneously most the afternoon.

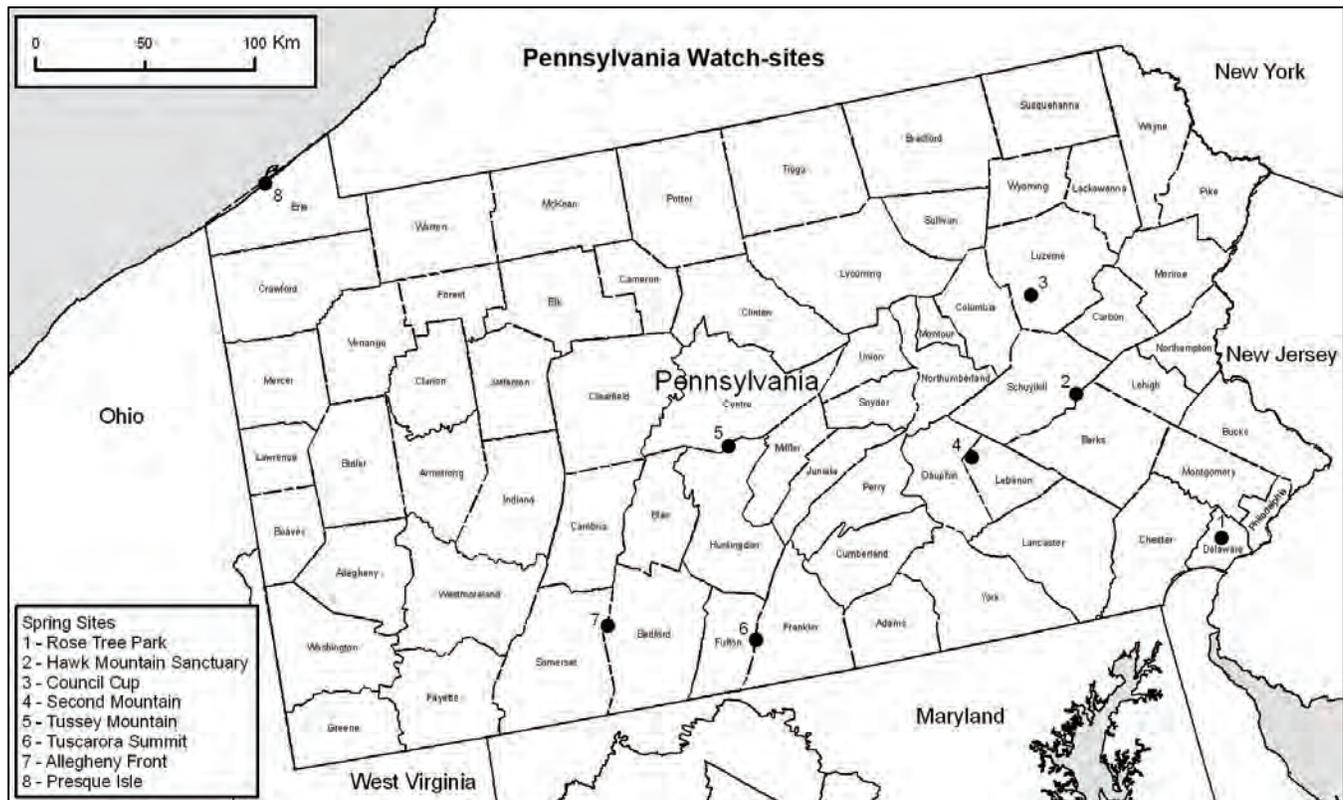




Plate 1. Swallow-tailed Kite over the Tom Ridge Environmental Education Center, Erie, 21 April 2009. (Jerry McWilliams)

In April as eagle counts waned, the other raptors picked up the pace. Broad-winged Hawks were first sighted 11 April. By 19 April their counts had increased, with 141 Broad-wings among 190 total migrants for the day. Chuck Widmann, Jon Kauffman, and Nick Bolgiano tallied the highest one-day count for the season 24 April, including 262 Broad-wings, 10 Sharp-shins, 9 Osprey, and the last Peregrine Falcon of the season among the 301 total raptors seen. On the last day of the season, 25 April, another 59 birds were sighted moving north.

Second Mountain (Lebanon): Second Mountain was covered for three days in mid-April. Counters chose the right days to visit the hawkwatch, tallying 258 migrants in 13.5 hours for 19.11 birds per hour of effort. Dave Schwenk, Brian Weaver, Gary Koppenhaver, and Tom McKinne recorded a peak one-day count on 19 April, with 84 Broad-winged Hawks, 13 Sharp-shinned Hawks, 9 Osprey, and 7 American Kestrels heading north on southerly winds (Table 2). Counts on the other two days totaled 34 and 106 respectively, with season totals including 24 Osprey, 2 Bald Eagles, one Northern Harrier, 35 Sharp-shinned Hawks, 2 Cooper's Hawk, 173 Broad-winged Hawks, 10 Red-tailed Hawks, 10 American Kestrels, and 1 Merlin.

Conclusion

Spring migration watching can be both physically challenging and highly rewarding. In 2009, both were particularly true. Frigid, rainy days were more frequent than usual, and temperatures delayed warming well into mid-April. Despite the weather,

new species were sighted, new records were set, and exciting moments were shared at every site. Presque Isle set a wide lead for the state Broad-winged Hawk, Turkey Vulture, and American Kestrel counts, however the western mountain sites continued to define their leadership in the monitoring of Golden Eagles in the eastern US. All but one of the Golden Eagles

counted this spring were seen at Allegheny Front and Tussey Mountain. All watchers at all full-season sites witnessed awe-inspiring flights. (For information on Pennsylvania watchsites, directions, contacts, and daily counts see <www.hawkcount.org>).

Literature Cited

McWilliams, J. and D. Brauning. 2000. *The Birds of Pennsylvania*. Cornell Univ. Press, Ithaca.

Acknowledgments

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*Laurie Goodrich
Hawk Mountain Sanctuary
Acopian Ctr. for Conservation Learning
410 Summer Valley Road
Orwigsburg, PA 17961
goodrich@hawkmtn.org*

Key to Species Headers for Table 3	
BLVU	Black Vulture
TUVU	Turkey Vulture
OSPR	Osprey
BAEA	Bald Eagle
NOHA	Northern Harrier
SSHA	Sharp-shinned Hawk
COHA	Cooper's Hawk
NOGO	Northern Goshawk
RSHA	Red-shouldered Hawk
BWHA	Broad-winged Hawk
RTHA	Red-tailed Hawk
RLHA	Rough-legged Hawk
GOEA	Golden Eagle
AMKE	American Kestrel
MERL	Merlin
PEFA	Peregrine Falcon
STKI	Swallow-tailed Kite
UNID	unidentified

Table 3. Spring 2009 count results for Pennsylvania watch sites.

ALLEGHENY FRONT (Bedford) - Che Mincone, compiler

Month	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	UNID.	STKI	TOTAL
February	35.5	0	1	0	0	0	0	0	0	0	0	8	0	7	0	0	0	1	0	17
March	201	1	294	4	18	14	91	27	3	32	1	230	0	68	28	2	1	16	0	830
April	159.5	8	89	49	14	14	127	28	4	4	849	227	0	5	11	7	2	69	0	1507
May	16	0	0	8	0	0	2	2	0	0	4	0	0	1	0	0	0	6	0	23
Total	412	9	384	61	32	28	220	57	7	36	854	465	0	81	39	9	3	92	0	2377
Total/hr.	0.02	0.93	0.15	0.08	0.07	0.53	0.14	0.02	0.02	0.09	2.07	1.13	0.00	0.20	0.09	0.02	0.01	0.22	0.00	5.77
% flight	0.38	16.15	2.57	1.35	1.18	9.26	2.40	0.29	0.16	1.51	35.93	19.56	0.00	3.41	1.64	0.38	0.13	3.87	0.00	100.00
Average	419.4	12.1	357.3	119.6	19.4	32.1	173.7	66.6	5.1	64.0	383.0	453.3	2.7	69.6	22.7	6.1	4.1	103.3	0.0	1894.9

HAWK MOUNTAIN (Berks/Schuylkill) - Zoe Smith, compiler

Month	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	UNID.	STKI	TOTAL
March	27.65	0	4	1	3	2	6	0	0	0	0	21	0	0	3	0	0	3	0	43
April	148	4	13	49	13	18	50	15	0	1	267	54	0	1	15	2	3	38	0	543
May	45.15	0	0	19	1	1	11	0	0	0	6	13	0	0	0	1	0	5	0	57
Total	220.8	4	17	69	17	21	67	15	0	1	273	88	0	1	18	3	3	46	0	643
Total/hr.	0.02	0.08	0.31	0.08	0.10	0.30	0.07	0.00	0.00	0.00	1.24	0.40	0.00	0.00	0.08	0.01	0.01	0.21	0.00	2.92
% flight	0.62	2.64	10.73	2.64	3.27	10.42	2.33	0.00	0.16	42.46	13.69	136.6	0.00	0.16	2.80	0.47	0.47	7.15	0.00	100.00
Average	10.5	20.5	117.5	11.8	28.9	135.3	34.3	0.6	9.8	443.1	136.6	0.0	1.1	37.3	5.7	1.6	0.0	0.0	1078.1	

TUSSEY MOUNTAIN (Centre) - Dan Ombalski, compiler

Month	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	UNID.	STKI	TOTAL
February	29.5	1	12	0	9	1	2	1	0	0	0	18	1	16	0	0	1	1	0	63
March	233	32	142	4	18	13	57	41	3	47	0	260	2	170	21	0	2	12	0	824
April	165	6	0	93	9	31	119	42	0	4	661	214	0	14	36	5	1	22	0	1257
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	427.5	39	154	97	36	45	178	84	3	51	661	492	3	200	57	5	4	35	0	2144
Total/hr.	0.09	0.36	0.23	0.08	0.11	0.42	0.20	0.01	0.12	0.12	1.55	1.15	0.01	0.47	0.13	0.01	0.01	0.08	0.00	5.02
% flight	1.82	7.18	4.52	1.68	2.10	8.30	3.92	0.14	2.38	30.83	22.95	136.6	0.14	9.33	2.66	0.23	0.19	1.63	0.00	100.00
Average	399.6	25.8	295.0	64.0	24.0	38.0	125.7	76.0	2.2	52.8	322.8	503.8	7.2	177.7	38.0	2.5	0.0	59.7	0.0	1815.2

PRESQUE ISLE (Erie) - Jerry McWilliams, compiler

Month	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	UNID.	STKI	TOTAL
February	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
March	47.5	0	2433	0	5	5	29	15	0	75	0	151	12	0	24	1	1	13	0	2764
April	85	0	2804	53	29	38	626	28	0	6	6743	170	10	0	212	6	0	26	1	10752
May	30	0	553	17	44	6	61	6	0	4	104	34	1	0	11	0	1	7	0	849
Total	162.5	0	5790	70	78	49	716	49	0	85	6847	355	23	0	247	7	2	46	1	14365
Total/hr.	0.00	35.63	0.43	0.48	0.30	4.41	0.30	0.00	0.00	0.52	42.14	2.18	0.14	0.00	1.52	0.04	0.01	0.28	0.01	88.40
% flight	0.00	40.31	0.49	0.54	0.34	4.98	0.34	0.00	0.00	0.59	47.66	2.47	0.16	0.00	1.72	0.05	0.01	0.32	0.01	100.00

TOTAL FOR ALL PENNSYLVANIA WATCHSITES

Month	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	UNID.	STKI	TOTAL
February	65.0	1	13	0	9	1	2	1	0	0	0	26	1	23	0	0	1	2	0	80
March	511.2	33	2875	9	44	34	183	83	6	154	1	662	14	238	76	3	4	44	0	4463
April	571.0	18	2906	268	67	102	957	115	4	15	8693	675	10	20	284	21	6	155	1	14317
May	91.2	0	553	44	45	7	74	8	0	4	114	47	1	1	11	1	1	18	0	929
Total	1238.4	52	6347	321	165	144	1216	207	10	173	8808	1410	26	282	371	25	12	219	1	19789
Total/hr.	0.04	5.13	0.26	0.13	0.12	0.98	0.17	0.01	0.01	0.14	7.11	1.14	0.02	0.23	0.30	0.02	0.01	0.00	0.00	15.98
% flight	0.3	32.1	1.6	0.8	0.7	6.1	1.0	0.1	0.1	0.9	44.5	7.1	0.1	1.4	1.9	0.1	0.1	0.0	0.0	100.0

Totals include 258 migrants from Second Mountain and 2 from Council Cup (see text for details).