

Spring Raptor Migration Summary 2005

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Five watchsites reported counts for spring 2005 (Tables 1 and 2). A total of 7,570 raptors representing 17 species was reported. The passage rate for all species for five sites ranged from 3.92 to 6.35 raptors per hour (average 6.0). Count effort (hours of observation) for the five watchsites totaled 1456 hours, ranging from 124 to 399 hours among sites. Comparing data among watchsites is difficult because of differences in count effort. Allegheny Front and Tussey Mountain counted for a week in February and throughout all of March, whereas Rose Tree Park and Tuscarora Summit counted only during late March, and Hawk Mountain counted only one day that month. All of the sites had good coverage in April, but only Allegheny Front and Hawk Mountain extended the counts into May.

Composition of the flight

Red-tailed Hawks (*Buteo jamaicensis*) made up 23% of the overall flight (range 13-28%), and their migration peaked in late March - early April. Red-tailed Hawk numbers were followed closely by Broad-winged Hawks (*Buteo platypterus*), which appeared at watchsites beginning in early April, peaking in the second half of the month, and making up 21% of the overall flight (range of 12-33%). Broadwings were the most common species at Hawk Mountain and Rose Tree Park, whereas Red-tails were the most abundant species at Allegheny Front and Tussey Mountain, and Turkey Vultures (*Cathartes aura*) were the most common species counted at Tuscarora Summit (47%).

Turkey Vultures were the third most abundant species overall, making up 19% of the total count (range of 1-47%). Vultures were seen as early as February, with most individuals passing in March (Table 2). Sharp-shinned Hawks (*Accipiter striatus*), whose migration peaked in March and April, were the only other species that made-up close to 10% of the overall flight (9%).

At all sites, Ospreys (*Pandion haliaetus*) were first seen in late March, with the earliest sighting at Rose Tree Park on March 21. Osprey numbers peaked in the middle of April. For watchsites that also conduct autumn

counts (i.e., all except Tussey Mountain), Ospreys and Northern Harriers (*Circus cyaneus*) are relatively more common in spring than they are in autumn, whereas Sharp-shinned Hawks are relatively less common in spring.

Nine of twelve Peregrine Falcons (*Falco peregrinus*) were reported between April 5 and 29 and seventeen of the thirty Merlins (*F. columbarius*) were seen in late March. More than 60% of American Kestrels (*F. sparverius*) were counted in April. Golden Eagles (*Aquila chrysaetos*) were the earliest migrants to arrive in spring; 5% of all Golden Eagles counted were detected in February, with Allegheny Front and Tussey Mountain accounting for all of these observations.

Seasonal Highlights

Allegheny Front (Bedford County) - The most common migrants this spring were Red-tailed Hawks (620), Broad-winged Hawks (442), Turkey Vultures (427), and Sharp-shinned Hawks (213). March 30th was the day to be at Allegheny this spring, when 10% of the overall flight passed (205 birds). Season highs on the 30th included Sharp-shinned Hawks (38), Cooper's Hawks (*Accipiter cooperii*) (24), Red-shouldered Hawks (*Buteo lineatus*; 11), and Merlins (3). Seventy percent of the Broadwing flight was observed between April 14 - 20th. Season record counts included 620 Red-tailed Hawks, 213 Sharp-shinned Hawks, 20 Black Vultures (*Coragyps atratus*), and 91 Cooper's Hawks. Allegheny had the highest overall count (among watchsites) for both Merlins (10) and Peregrine Falcons (8).

Hawk Mountain Sanctuary (Berks and Schuylkill Counties) - The peak of the spring flight was a 137-bird count (13% of the season's total) on April 24. Seventy-five percent of the birds counted on that day were Broadwings (104). One-hundred and thirty-four Ospreys were counted this season, 25% of which were detected on the 5th and 6th of May (23 and 10 birds, respectively). The peak period of migration during the official count (April 1 - May 15) was April 17 - 26, when nearly 75% of the season's Broad-winged Hawks passed, as did more than one-quarter of Ospreys and Northern

(Delaware County) - This spring resulted in the lowest total count and rate of passage (4.1 birds per hour versus average of 9.5 birds per hour) recorded in seven years, and brought below-average flights for Broadwings (270; 6 year average = 1435) and American Kestrels (82; 6 year average = 125), as well as Turkey Vultures (153) and Sharp-shinned Hawks (157). Almost one-third (24) of the American Kestrels were counted on April 6th. 55% of the Osprey flight occurred on March 30th, and 85% of the Broadwings were observed between April 17 and 21st. Other highlights for the season include record-breaking counts for Cooper's Hawks (80) and Bald Eagles (56), the highest of any other watchsite this season.

Tuscarora Summit (Fulton County) - March 26th was the biggest day, with a record-breaking 58 Red-tails, 10 Sharp-shins, and 156 Turkey Vultures. In fact, over 50% of the total flight for Turkey Vultures was observed on that day. This was the only site at which Turkey Vultures (226) made up more than 45% of the overall flight. Red-tails (104) were the second most common migrant, comprising 21% of the total flight composition. Only 61 Broadwings were counted this spring, and 60% of them passed through on the 18th and 19th of April. One Golden Eagle was spotted on April 21.

Tussey Mountain (Centre County) - Red-tailed Hawks (664), Turkey Vultures (607), and Broad-winged Hawks (462) were predominant at Tussey Mountain this spring. The peak period of migration for several species was March 29 - 31, including season high counts on March 30th of 149 Turkey Vultures, 89 Red-tailed Hawks, and 13 American Kestrels, and season high counts on the 31st for Sharp-shinned Hawks (38) and Cooper's Hawks (16). Tussey Mountain also had the highest count of Red-shouldered Hawks (82), 90% of which were counted in March. Peak flights of Golden Eagles occurred in mid-March (March 12 - 19), with an average of 11 eagles per day and a total of 178 for the season.

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Rose Tree Park

Table 1. Watchsites reporting for spring 2005.

Watchsite	County	Hours of observation
Allegheny Front	Bedford	399
Hawk Mountain	Berks-Schuylkill	230
Rose Tree Park	Delaware	291
Tuscarora Summit	Fulton	124
Tussey Mountain	Centre	413

Table 2. Count Results for Spring 2005 in Pennsylvania.

ALLEGHENY FRONT (Bedford)

Angelo Mincone, compiler

Month	Day	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid.	Total
February	6	20	3	4	0	1	2	0	0	0	1	0	6	0	2	0	0	0	0	19
March	31	148	10	218	4	10	17	77	39	3	56	0	264	1	35	21	6	1	38	800
April	30	184	7	205	43	7	28	130	49	0	15	416	345	0	13	12	4	7	78	1359
May	7	47	0	0	23	2	1	6	3	0	0	26	5	0	0	0	0	0	5	71
Total	74	399	20	427	70	20	48	213	91	3	72	442	620	1	50	33	10	8	121	2249
Total per hr			0.05	1.07	0.18	0.05	0.12	0.53	0.23	0.01	0.18	1.11	1.55	0.00	0.13	0.08	0.03	0.02	0.30	5.64
% of flight			0.89	18.99	3.11	0.89	2.13	9.47	4.05	0.13	3.20	19.55	27.57	0.04	2.22	1.47	0.44	0.36	5.38	100

HAWK MOUNTAIN SANCTUARY (Berks & Schuylkill)

Laurie Goodrich, compiler

Month	Day	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid.	Total
March	1	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
April	30	137	16	14	67	5	12	109	29	3	9	300	181	0	1	20	2	1	54	803
May	15	92	5	1	67	4	3	16	5	0	2	30	47	0	1	1	4	0	11	197
Total	46	230	21	15	134	9	15	126	34	3	11	330	209	0	2	21	6	1	64	1001
Total per hr			0.09	0.07	0.58	0.04	0.07	0.55	0.15	0.01	0.05	1.43	0.91	0.00	0.01	0.09	0.03	0.00	0.28	4.95
% of flight			2.10	1.50	13.37	0.90	1.50	12.57	3.39	0.30	1.10	32.93	20.86	0.00	0.20	2.10	0.60	0.10	6.39	100

One Mississippi Kite (*Ictinia mississippiensis*) was observed on April 21.

ROSE TREE PARK (Delaware)

Jim Lockyer, compiler

Month	Day	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid.	Total
March	18	101	23	104	36	14	8	34	25	0	9	0	50	0	0	10	4	1	6	301
April	30	190	15	49	75	42	35	123	55	0	17	270	99	0	1	72	3	2	32	890
Total	48	291	38	153	111	56	43	157	80	0	26	270	149	0	1	82	7	3	38	1191
Total per hr			0.13	0.53	0.38	0.19	0.15	0.54	0.27	0.00	0.09	0.93	0.51	0.00	0.00	0.28	0.02	0.01	0.13	4.09
% of flight			3.19	12.85	9.32	4.70	3.61	13.18	6.72	0.00	2.18	22.67	12.51	0.00	0.08	6.88	0.59	0.25	3.19	100

TUSCARORA SUMMIT (Fulton)

Dale L. Gearhart, compiler

Month	Day	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid.	Total
March	8	43	2	183	2	2	9	10	6	0	0	5	72	0	1	15	2	0	2	311
April	17	81	3	43	19	0	1	7	4	0	1	56	32	0	0	2	0	0	5	173
Total	25	124	5	226	21	2	10	17	10	0	1	61	104	0	1	17	2	0	7	484
Total per hr			0.04	1.83	0.17	0.02	0.08	0.14	0.08	0.00	0.01	0.49	0.84	0.00	0.01	0.14	0.02	0.00	0.06	3.92
% of flight			1.03	46.69	4.34	0.41	2.07	3.51	2.07	0.00	0.21	12.60	21.49	0.00	0.21	3.51	0.41	0.00	1.45	100

TUSSEY MOUNTAIN (Centre)

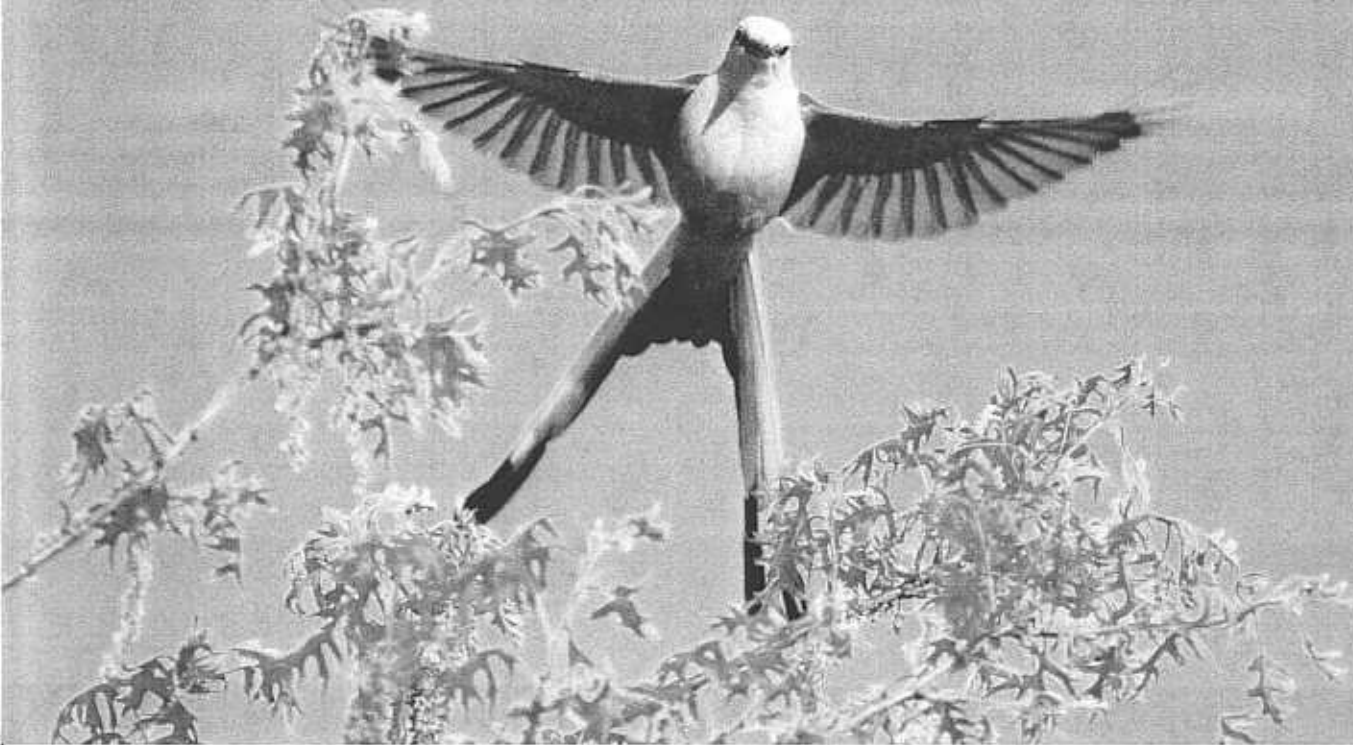
Dan Ombalski, compiler

Month	Day	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid.	Total
February	5	26	0	4	0	0	2	0	0	0	0	0	4	2	11	0	0	0	1	24
March	31	207	19	496	7	18	31	90	44	6	73	0	391	14	152	25	5	0	42	1413
April	26	180	3	107	82	4	26	78	62	0	9	482	269	2	15	20	0	0	44	1183
Total	62	413	22	607	89	22	59	168	106	6	82	482	664	18	178	45	5	0	87	2620
Total per hr			0.05	1.47	0.22	0.05	0.14	0.41	0.26	0.01	0.20	1.12	1.61	0.04	0.43	0.11	0.01	0.00	0.21	6.35
% of flight			0.84	23.17	3.40	0.84	2.25	6.41	4.05	0.23	3.13	17.63	26.34	0.89	6.79	1.72	0.19	0.00	3.32	100

TOTAL FOR ALL WATCHSITES

Month	Day	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid.	Total
February	11	46	3	8	0	1	4	0	0	0	1	0	10	2	13	0	0	0	1	43
March	89	500	54	1001	49	44	65	212	114	9	138	5	778	15	188	71	17	2	88	2850
April	133	772	44	418	286	58	102	447	199	3	51	1504	906	2	30	126	9	10	213	4408
May	22	139	5	1	90	6	4	22	8	0	2	56	52	0	1	1	4	0	16	268
Total	255	1456	106	1428	425	109	175	681	321	12	192	1565	1746	19	232	198	30	12	318	7570
Total per hr			0.07	0.98	0.29	0.07	0.12	0.47	0.22	0.01	0.13	1.07	1.20	0.01	0.16	0.14	0.02	0.01	0.22	5.20
% of flight			1.40	18.66	5.61	1.44	2.31	9.00	4.24	0.16	2.64	20.67	23.06	0.25	3.06	2.62	0.40	0.16	4.20	100

PENNSYLVANIA BIRDS



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