

Autumn Raptor Migration Summary 2012

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Pennsylvania – the Eagle-watching State

Pennsylvania may be the best location in eastern North America for seeing migrating eagles, and autumn is definitely the best time. Autumn 2012 brought record Bald and Golden Eagle counts across Pennsylvania, with a state-wide total of 3988 eagles (2649 Bald and 1339 Golden) across sixteen watch sites. The state is also a leader in numbers of hawk and eagle watchers and days afield, with an impressive 8006 hours and 1164 days spent watching in autumn 2012 (Table 1). Perhaps a new state motto is in order, Pennsylvania: the eagle-watching state!

Total numbers of raptor were average to above-average for most of the watchsites, and a season full of memorable birding days. Across the state, 171,976 raptors were tallied, up 5% compared with 2011's above-average total of 163,984, and representing a respectable rate of 21 hawks per hour observed.

Notable increases from 2011 were recorded for Bald Eagle (up 17%), Northern Goshawk (up 157%), Red-shouldered Hawk (up 64%), Red-tailed Hawk (up 41%), and American Kestrel (up 24%). Particularly noteworthy days occurred across the state in mid-September when skies filled with Broad-winged Hawks, and southeastern watchsites saw record concentrations. By September's close, most sites had seen above-average totals of Broad-winged

Hawk. October showed a steady movement of accipiters and falcons statewide, with no huge flights reported but numbers that kept counters busy daily. In early November a torrent of Red-tailed Hawks, Northern Goshawks, and Golden Eagles collected along the Appalachian ridges following the passage of Hurricane Sandy. Many sites enjoyed an amazing three-day push of Golden Eagles with some daily totals at times exceeding some annual totals from years past. Rarities observed in 2012 included three Swainson's Hawks sighted at Militia Hill (light morph, 9 September), Hawk Mountain (light morph, 4 November), and Bake Oven Knob (light morph, 12 November), and a white Gyrfalcon spotted at Second Mountain 11 December. No kites were counted for the first time in several autumns, although Waggoner's Gap observed one that was chased back up ridge by a Broad-winged Hawk 12 August, rendering it uncountable.

Allegheny Front (Somerset/Bedford) – Allegheny Front recorded 22% fewer raptors than average during 832 hours and 114 days of counting (Table 1). Despite lower total counts, Bald Eagle numbers were 12% above average with 86, and Golden Eagle numbers 31% above average with 233. Peregrine Falcon, Northern Goshawk and Sharpshinned Hawk were slightly above average as well. 13 September brought the highest one-day count for the season

with 869 Broad-winged Hawks among 898 raptors (Table 2). This traditional site for Golden Eagle site did not disappoint, with counters tallying more than 20 on several days and a peak one-day count of 38 on 6 November. Peak counts of Red-tailed Hawk were early, when east winds brought 132 and 145 Redtails 17 and 18 October, among 239 and 258 total raptors observed.

Bake Oven Knob (Lehigh) – Bake Oven Knob tallied 17,186 total raptors during 769 hours of counting in 2012, a 14% increase over the ten-year average of 15,068 (Table 1). New season records of 300 Bald Eagles and 167 Golden Eagles were set. Other species migrating in above-average numbers were Sharpshinned Hawk (3832), Northern Goshawk (71), Broad-winged Hawk (7123), Red-tailed Hawk (2961), Red-shouldered Hawk (220), Merlin (106), and Peregrine Falcon (64). Both Turkey and Black vultures, Osprey, Northern Harrier, and Cooper's Hawk were observed in lower than average numbers (Table 1). Northern Goshawk and Red-shouldered Hawk counts were the highest in over a decade. A peak one-day flight of Broad-winged Hawks occurred 20 September, when 1538 Broadwings sailed south with seven Bald Eagles and the first Golden Eagle of the season. Bake Oven recorded the third highest one-day count of Golden Eagles 3 November (42), along with 515 Red-tailed Hawks, 10 Bald Eagles, and 27 Red-shouldered Hawks. The 42 Golden Eagles set a new one-day record for the site as well. One of the last highlights for the season was the light-morph Swainson's Hawk soaring south 12 November at 13:35, one of four recorded in the state this season.

Blue Mountain-Route 183 (Berks/Schuylkill) – Blue Mountain counters recorded 4388 total raptors in 133 hours and 24 days, an above-average count despite a slight dip in coverage (Table 1). Six migrants showed above-average counts including Bald Eagle (81), Red-shouldered (43), Broad-winged (1311), and Red-tailed Hawk (833), Golden Eagle (55), and American Kestrel (98). Peak Broad-winged Hawk count (698) was recorded 14 September (Table 2). The best eagle days occurred 5 September when 19 Bald Eagles flew past, and 4 November, post-Hurricane Sandy, when 23 Golden Eagles were tallied. On 16

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

Site	Br.-winged Hawk		Bald Eagle		Golden Eagle	
	Count	Date	Count	Date	Count	Date
Allegheny Front	869	9/13	11	9/20	38	11/6
Bake Oven Knob	1538	9/20	30	9/5	42	11/3
Blue Mtn./Rte. 183	698	9/14	19	9/5	23	11/4
Bucktoe Preserve	468	9/23	11	10/6	-	-
Pipersville (BW)	518	9/19	1	9/17	-	-
Council Cup	147	9/19	10	9/15	1	11/13
Hawk Mountain	1597	9/14	36	9/5	48	11/3
Jack's Mountain	1116	9/13	8	9/16,23	14	11/3
Little Gap	1985	9/17	47	9/5	21	11/3
Militia Hill	6420	9/16	19	9/16	1	several
Rocky Ridge Park*	-	-	-	-	-	-
Rose Tree Park	3642	9/16	18	9/30	1	several
Second Mountain	2621	9/14	16	9/10	16	11/3
Stone Mountain	207	9/17	17	9/5	19	11/9
Tuscarora Summit	1095	9/14	6	several	3	11/7
Tussey Mountain	1114	9/19	13	9/5	5	11/3
Waggoner's Gap	3377	9/14	29	9/19	50	11/5

Bold counts indicate top three totals by species

**daily count unreported*

October, Blue Mountain counters enjoyed a memorable 14-species day including all three accipiters, all three falcons, and both vultures moving through. The total one-day count of 468 was predominantly Sharp-shinned Hawks (314) and Red-tailed Hawks (92).

Broadwing SEPT, Pipersville (Bucks) – This Broad-winged Hawk watchsite tallied 791 migrating raptors in two days and 11 hours of coverage in September (Table 1). The 753 Broadwings composed 95% of the migrants. Other birds included 14 Black Vultures, 4 Osprey, 2 Bald Eagles, one Northern Harrier, 13 Sharp-shinned Hawk, one Cooper's Hawk, 2 Red-tailed Hawk, and one American Kestrel.

Bucktoe Preserve (Chester) – Bucktoe observers tallied 755 raptors in five days of counts during September and October (Table 1). A flight of 481 hawks passed high overhead 23 September, including 468 Broad-winged Hawks, the site's highest one-day count (Table 2). Other highlights for the season included 11 Bald Eagles, 10 Osprey, and 3 Peregrine Falcons among 74 total migrants 6 October.

Council Cup (Luzerne) – This Susquehanna corridor site recorded 1166 raptors in 97 hours and 16 days. Broad-winged Hawk (435), Red-tailed Hawk (377), and Peregrine Falcon (3), were above average, whereas most other species posted below average counts. The peak one-day count of 170 occurred 19 September when northwest wind gusts hurried 147 Broadwings, 4 Bald Eagles, 4 Osprey, 12 Sharp-shinned Hawks, 2 American Kestrels, and a lone Peregrine Falcon close past the lookout.

Hawk Mountain Sanctuary (Berks/Schuylkill) – Hawk Mountain counters recorded an above average total of 20,079 hawks during 1124 hours and 131 days and set a new season record for Golden Eagle at 173 (Table 1). Counts for Bald Eagle (365), Sharp-shinned Hawk (5222), Northern Goshawk (72), Broad-winged Hawk (8394), and American Kestrel (515) were above average, whereas below average counts were recorded for Turkey Vulture, Northern Harrier, and Cooper's Hawk (Table 1). A immature light-morph Swainson's Hawk flew past the lookout 4 November amid the post-Sandy torrent of migrants. The highest one-day count was recorded 14 September when 1597 Broad-winged Hawks were counted among a total of

1653 raptors. Hawk Mountain enjoyed the second-highest one-day count of Bald Eagles (36) on 5 September, the second-highest ever total recorded at Hawk Mountain and second-highest in the state for 2012. Counters also set a new one-day record for Golden Eagles with 48 on 3 November, also the second-highest one-day count for the state (Table 2). Both eagle flights followed storm events, the latter Hurricane Sandy. On 5 September, the first Bald Eagle glided by at 13:03 and the last at 17:15, and coincidentally, 36 Osprey accompanied the 36 Bald Eagles in the parade. 3 November was a busier day with 580 Red-tailed Hawks, 31 Red-shouldered Hawks, 23 Northern Goshawk, 12 Bald Eagles, and 46 Sharp-shinned Hawks among the total of 762 raptors. The goshawk season totals were the highest in more than a decade. December watches added eagles nearly daily including a notable late pulse of 15 Bald Eagles 19 December (Table 1).

Jack's Mountain (Mifflin) – Jack's Mountain counters increased their coverage in 2012 to 358 hours in 70 days and were rewarded with above average raptor counts and a season total of 5884 raptors, compared with the average of 5162. Increased numbers of Black Vulture (38), Bald Eagle (73), Broad-winged Hawk (4236), and a new record of 69 Golden Eagles were highlights (Table 1). The Broad-winged Hawk count was the second highest on record, surpassed only by 2002's count of 6844. The highest one-day count for the season occurred 13 September when 1116 Broadwings and 5 Bald Eagles sailed south among a total of 1148 hawks. Five September days exceeded 500 birds, providing a memorable early season at this mid-state watch.

Little Gap (Northampton) – Little Gap also increased coverage in 2012 to 714 hours over 111 days (Table 1). Total raptors were above average at 17,148, compared with a 10-year average of 14,332. Largest increases were seen for Black Vulture and Turkey Vulture, with 129 and 577, respectively, Bald Eagle (316), Sharp-shinned Hawk (4049), Broad-winged Hawk (7851), Golden Eagle (106), and Merlin (144). Little Gap recorded its peak Broad-winged Hawk flight of 1985 on 17 September. A new one-day record of 47 Bald Eagles was tallied 5 September, the highest one-day count across the state. Sharp-shinned Hawks were steady through October with many days exceeding 200 birds. Little Gap recorded 21 Golden Eagles 3

November, and 20 the prior day, for its top Golden Eagle days.

Militia Hill (Montgomery) – Militia Hill had a red-letter season, and set a new record for total hawks at 24,085, surpassing their prior high of 22,072 in 2010. Counters logged 61 days and 439 hours in September and October. New records were set for Broad-winged Hawk (20,550), Bald Eagle (175), Cooper's Hawk (200), and Peregrine Falcon (42). The all-time record for Golden Eagle was tied at 7 birds, and numbers of American Kestrel were above average at 306, compared with the average of 245, as were Merlin with 36 compared to the average of 20. For sites watching more than 400 hours, Militia Hill reported the highest rate of migration with 54 birds per hour. Counters recorded the highest one-day count for Broad-winged Hawks anywhere in the state with 6420 on 16 September. The same day brought the highest Bald Eagle count of 19 as well.

Rocky Ridge Park (York) – Rocky Ridge counters tallied 4200 hawks in 63 hours in September and October. The early-season focus for this site led to most their migrants coming in the form of Broad-winged Hawks, with 3945 representing 63% of their observations. Other raptors observed included 35 Osprey, 10 Bald Eagles, 8 Northern Harrier, 163 Sharp-shinned Hawks, and 26 American Kestrels. This southern Pennsylvania site benefits from easterly winds bring banner Broadwing flights some years, although in 2012 such winds appeared less frequent.

Rose Tree Park (Delaware) – Rose Tree watchers doubled their 10-year average of 7038, with 14,111 in 2012. Most of the increase can be attributed to a banner Broad-winged Hawk flight in the southeastern region. They recorded 10,536 Broadwings, including a new single-day record of 3642 on 16 September (Table 2). This one-day count was the second-highest for the state. Other species showing above average totals included Turkey Vulture (499), Bald Eagle (179), Osprey (266), Red-shouldered Hawk (255), and Red-tailed Hawk (498). Counters enjoyed a phenomenal Red-shouldered Hawk flight 4 November, when 63 birds sailed overhead along with 152 Red-tailed Hawks and a Golden Eagle among a total of 290 migrants. Northwest winds 30 September ushered in a one-day peak count of 18 Bald Eagles, along with a push of early Sharp-shinned Hawks and late

moving Broad-winged Hawks, with 73 and 128 respectively. All three falcons and all three accipiters showed below average totals, perhaps suggesting these October migrants were ridge-faithful this season (Table 1).

Second Mountain (Lebanon) – Second Mountain counters recorded 15,407 total hawks in 2012, a new season record and 56% above the 10-year average. Broad-winged Hawks were a key part of this total with a record-breaking 8493 passing over the site. Other species observed in above average numbers included Black Vulture (560), Turkey Vulture (997), Bald Eagle (215), Sharp-shinned Hawk (2827), Golden Eagle (106), and American Kestrel (154). The site enjoyed one of the best one-day counts for Broad-winged Hawks among the ridge sites, with 2621 on 14 September, including 1500 between 13:30 and 14:30 (Table 2). The post-Sandy flight brought 16 Golden Eagles past the lookout 3 November, accompanied by six Bald Eagles among 189 total raptors. 11 December brought the rarest raptor of the season barreling by the lookout, a white morph Gyrfalcon. At 14:30, the observer related that the bird flew fast out of the north toward the decoy owl then veered to the west, ten feet from the decoy before disappearing.

Stone Mountain (Huntingdon) – Stone Mountain counters tallied 4233 hawks in 64 days and 339 hours (Table 1). The 4648 total raptors were slightly below the 10-year average. The most numerous migrant was Broad-winged Hawk at 1520, with a peak count of 207, on 17 September. The site enjoyed the highest one-day Bald Eagle count of the season 5 September with 17 birds (Table 2) After Sandy cleared 3 November, Stone watchers recorded 13 Golden Eagles, a respectable one-day count but which was quickly surpassed 9 November by a flight of 19 Golden Eagles, predominantly adults. 2 and 7 December brought a push of late Golden Eagles, with 13 and 7 adult birds, respectively. Eagles ruled the skies in December with few other migrants joining their late season parade (Table 1).

Tuscarora Summit (Fulton) – Tuscarora Summit observers counted 5027 raptors in 301 hours over 56 days of hawkwatching, a 20% increase above the 10-year average of 4192 (Table 1). Similar to other sites, Broad-winged Hawks were a key contributor to the upswing, with observers recording 2746, compared to the average of 1801. A peak one-day count occurred 14 September

with 1095 Broadwings tallied (Table 2). Above-average or average total counts were recorded for most species in 2012. Few species showed below average numbers, including Osprey (74), Northern Harrier (45), Red-shouldered Hawk (20), and Red-tailed Hawk (305). In contrast to many sites, the Golden Eagle totals were slightly below average with just 34, compared to the 10-year average of 37.

Tussey Mountain (Centre) – Tussey Mountain saw 98 hours of counts on 25 days, recording 1402 raptors. These totals represent an increase in autumn coverage and raptors, compared with the 10-year averages of 26 hours and 433 hawks. This well-known spring Golden Eagle site contributed 19 if this species to the statewide total this autumn, including a peak one-day count of five eagles 3 November. The most numerous migrant was Red-tailed Hawk, with a one-day peak count of 181 also on 3 November. The 9.6 birds per hour suggested that greater coverage could yield interesting results for this north-central site.

Waggoner's Gap (Cumberland) – Waggoner's Gap led the sixteen reporting sites with a season total of 28,251 raptors in 140 days and 1116 hours (Table 1). The count total was the third highest in Waggoner's history. The counters also set a new season record for Bald Eagle at 534. A one-day record of 50 Golden Eagles was set 3 November, which also represented the highest one-day count in the state (Table 2). Broad-winged Hawks led species totals at the site with 11,708, including a peak day of 3377, the highest one-day count for a ridge site. Of note, the count of 438 American Kestrels was 28% above the 10-year average of 341, Perhaps an encouraging sign for this species. Most raptors showed above average counts, except for Osprey (457), Northern Harrier (205), Cooper's Hawk (690), Red-tailed Hawk (3158), and Merlin (95), which were all below average.

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Key to Table 1 headers

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
SWHA	Swainson's Hawk
Unid	unidentified

Table 2. Autumn 2012 count results for Pennsylvania watchsites.

ALLEGHENY FRONT (Bedford/Somerset) - Bob Stewart, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GEOA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	16	121	6	26	14	19	7	37	15	0	0	295	62	0	0	5	2	0	0	23	511
September	28	207	8	21	48	42	20	147	40	3	2	3323	128	0	0	18	2	8	0	47	3857
October	26	201	2	165	13	15	15	977	98	5	24	2	871	0	15	16	24	25	0	30	2297
November	28	210	0	30	0	8	6	14	13	4	13	0	287	3	188	0	4	1	0	12	583
December	16	94	0	1	0	2	0	1	0	0	0	0	22	0	30	0	0	0	0	0	57
Total	114	832	16	243	75	86	48	1176	166	12	39	3620	1370	3	233	39	32	35	0	112	7305
Total per hr			0.02	0.29	0.09	0.10	0.06	1.41	0.20	0.01	0.05	4.35	1.65	0.00	0.28	0.05	0.04	0.04	0.00	0.13	8.78
% of flight			0.2	3.3	1.0	1.2	0.7	16.1	2.3	0.2	0.5	49.6	18.8	0.0	3.2	0.5	0.4	0.5	0.0	1.5	100.0
Average last 10 yrs	111.4	804.8	24.4	494.0	110.6	77.0	66.0	1170.0	241.7	10.0	87.0	4702.0	1896.0	4.0	178.0	71.6	32.0	33.4	0.1	221.0	9419.0

BAKE OVEN KNOB (Lehigh) - Dan Kunkle, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GEOA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	18	130	45	134	32	38	7	32	11	0	2	170	53	0	0	23	7	3	0	37	594
September	28	228	67	201	254	134	21	1050	103	1	5	6934	115	0	4	94	45	8	0	92	9128
October	29	213	65	315	146	80	55	2607	211	14	78	19	1030	0	17	63	53	50	0	86	4889
November	25	198	61	152	4	48	20	143	12	56	135	0	1763	1	146	1	1	3	1	28	2575
Total	100	769	238	802	436	300	103	3832	337	71	220	7123	2961	1	167	181	106	64	1	243	17186
Total per hr			0.31	1.04	0.57	0.39	0.13	4.98	0.44	0.09	0.29	9.26	3.85	0.00	0.22	0.24	0.14	0.08	0.00	0.32	22.35
% of flight			1.4	4.7	2.5	1.7	0.6	22.3	2.0	0.4	1.3	41.4	17.2	0.0	1.0	1.1	0.6	0.4	0.0	1.4	100.0
Average last 10 yrs	101.1	787.8	262.5	899.3	565.8	187.6	166.2	3218.0	350.0	33.1	141.6	6204.5	2349.0	2.0	100.1	183.8	90.0	54.5	0.2	276.5	15068.4

BLUE MOUNTAIN Rt. 183 (Schuylkill and Berks) - Scott Fisher, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GEOA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	2	9	8	7	2	3	0	2	2	0	0	14	2	0	0	3	0	0	0	2	45
September	11	59	37	48	41	56	6	344	47	0	1	1296	40	0	0	68	2	2	0	9	1997
October	6	38	23	35	14	4	6	1139	83	4	13	1	263	0	9	27	5	5	0	10	1641
November	5	27	3	8	0	18	4	44	16	5	29	0	528	1	46	0	1	0	0	2	705
Total	24	133	71	98	57	81	16	1529	148	9	43	1311	833	1	55	98	8	7	0	23	4388
Total per hr			0.53	0.74	0.43	0.61	0.12	11.47	1.11	0.07	0.32	9.84	6.25	0.01	0.41	0.74	0.06	0.05	0.00	0.17	32.93
% of flight			1.6	2.2	1.3	1.8	0.4	34.8	3.4	0.2	1.0	29.9	19.0	0.0	1.3	2.2	0.2	0.2	0.0	0.5	100.0
Average last 5 yrs	35.0	189.4	83.0	137.3	75.0	57.5	22.5	1679.0	145.0	8.3	32.5	1237.5	636.5	0.5	34.8	84.8	16.0	8.5	0.0	31.5	4269.5

BUCKTOE PRESERVE (Chester) - Larry Lewis, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GEOA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	3	18	0	0	7	5	1	56	26	0	7	530	17	0	0	20	0	0	0	0	669
October	2	10	0	0	13	11	4	36	6	0	0	0	3	0	0	10	0	3	0	0	86
Total	5	28	0	0	20	16	5	92	32	0	7	530	20	0	0	30	0	3	0	0	755
Total per hr			0.00	0.00	0.71	0.57	0.18	3.29	1.14	0.00	0.25	18.93	0.71	0.00	0.00	1.07	0.00	0.11	0.00	0.00	26.96
% of flight			0.0	0.0	2.6	2.1	0.7	12.2	4.2	0.0	0.9	70.2	2.6	0.0	0.0	4.0	0.0	0.4	0.0	0.0	100.0

BW SEPT - Pipersville (Bucks) - Kirk Moulton, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GEOA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	2	11	14	0	4	2	1	13	1	0	0	753	2	0	0	1	0	0	0	0	791
Total	2	11	14	0	4	2	1	13	1	0	0	753	2	0	0	1	0	0	0	0	791
Total per hr			1.27	0.00	0.36	0.18	0.09	1.18	0.09	0.00	0.00	68.45	0.18	0.00	0.00	0.09	0.00	0.00	0.00	0.00	71.91
% of flight			1.8	0.0	0.5	0.3	0.1	1.6	0.1	0.0	0.0	95.2	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	100.0

COUNCIL CUP (Luzerne) - Donald Kapral, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	7	47	0	0	10	20	3	44	0	0	0	0	435	0	0	14	0	2	0	1	529
October	5	28	0	113	1	6	0	64	2	0	0	0	22	0	0	11	0	1	0	2	222
November	4	22	0	23	0	9	4	13	2	0	1	0	355	0	1	1	0	0	0	6	415
Total	16	97	0	136	11	35	7	121	4	0	1	435	377	0	1	26	0	3	0	9	1,166
Total per hr			0.00	1.40	0.11	0.36	0.07	1.25	0.04	0.00	0.01	4.48	3.89	0.00	0.01	0.27	0.00	0.03	0.00	0.09	12.02
% of flight			0.0	11.7	0.9	3.0	0.6	10.4	0.3	0.0	0.1	37.3	32.3	0.0	0.1	2.2	0.0	0.3	0.0	0.8	100.0
Average for 5 yrs	25.3	113.8	1.2	162.4	25.4	49.4	5.6	122.6	10.6	0.0	0.8	297.0	234.0	0.0	0.2	26.2	0.0	1.2	0.0	34.6	973.4

HAWK MOUNTAIN (Berks and Schuylkill) - Laurie Goodrich, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
July	2	10	0	0	0	5	0	0	0	0	0	2	5	0	0	1	0	0	0	0	13
August	21	176	4	8	57	24	14	30	20	0	5	282	26	0	0	56	16	1	0	15	558
September	28	301	20	46	355	177	53	1361	194	1	3	8086	92	0	3	309	59	10	0	65	10834
October	31	249	52	256	160	68	63	3633	338	12	87	24	937	0	19	148	83	43	0	93	6016
November	28	254	37	100	2	54	18	197	29	56	118	0	1766	0	137	1	7	0	1	14	2537
December/January	21	133	6	2	0	37	2	1	4	3	2	0	50	0	14	0	0	0	0	0	121
Total	131	1124	119	412	574	365	150	5222	585	72	215	8394	2876	0	173	515	165	54	1	187	20079
Total per hr			0.11	0.37	0.51	0.32	0.13	4.65	0.52	0.06	0.19	7.47	2.56	0.00	0.15	0.46	0.15	0.05	0.00	0.17	17.86
% of flight			0.6	2.1	2.9	1.8	0.7	26.0	2.9	0.4	1.1	41.8	14.3	0.0	0.9	2.6	0.8	0.3	0.0	0.9	100.0
Average last 10 yrs	124.0	1085.2	117.1	459.8	562.2	262.8	197.2	4550.0	706.2	40.4	206.1	7657.0	2845.0	3.6	126.8	435.6	165.3	56.1	0.4	167.2	18848.3

JACK'S MOUNTAIN (Mifflin) - Ron Singer, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	1	6	0	0	0	4	0	0	1	0	0	2	3	0	0	0	0	0	0	0	10
September	30	158	0	0	36	44	11	194	24	0	0	4233	73	0	0	36	6	0	0	7	4664
October	25	121	38	55	8	17	16	389	29	0	5	1	266	0	13	12	5	9	0	6	869
November	14	74	0	20	0	8	5	25	6	1	0	0	216	0	56	0	2	1	0	1	341
Total	70	358	38	75	44	73	32	608	60	1	5	4236	558	0	69	48	13	10	0	14	5884
Total per hr			0.11	0.21	0.12	0.20	0.09	1.70	0.17	0.00	0.01	11.83	1.56	0.00	0.19	0.13	0.04	0.03	0.00	0.04	16.44
% of flight			0.6	1.3	0.7	1.2	0.5	10.3	1.0	0.0	0.1	72.0	9.5	0.0	1.2	0.8	0.2	0.2	0.0	0.2	100.0
Average last 10 yrs	52.1	324.3	23.8	174.6	115.8	46.0	55.0	837.4	105.0	9.1	18.0	2946.7	659.6	0.5	25.2	87.2	17.2	10.7	0.1	30.8	5162.7

LITTLE GAP (Northampton) - Michael Schall, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	18	73	1	0	30	19	7	20	3	0	1	75	6	0	0	23	4	2	0	1	192
September	30	243	18	34	311	155	50	1563	115	0	3	7772	76	0	3	206	81	10	0	70	10467
October	31	203	73	492	213	70	55	2337	276	9	46	4	973	0	14	48	54	31	0	43	4738
November	24	151	20	47	1	48	16	129	32	35	84	0	1170	0	87	0	4	2	0	16	1691
December	8	44	8	4	0	24	1	0	1	0	1	0	17	0	2	1	1	0	0	0	60
Total	111	714	120	577	555	316	129	4049	427	44	135	7851	2242	0	106	278	144	45	0	130	17148
Total per hr			0.17	0.81	0.78	0.44	0.18	5.67	0.60	0.06	0.19	11.00	3.14	0.00	0.15	0.39	0.20	0.06	0.00	0.18	24.02
% of flight			0.7	3.4	3.2	1.8	0.8	23.6	2.5	0.3	0.8	45.8	13.1	0.0	0.6	1.6	0.8	0.3	0.0	0.8	100.0
Average last 10 yrs	92.6	580.4	63.9	419.9	427.4	137.2	135.0	3163.0	433.1	32.1	114.6	6611.1	2260.0	2.2	64.4	229.7	69.0	36.9	0.3	131.3	14331.5

MILITIA HILL (Montgomery) - Andy Fayer, Jamie Stewart, Rich Conroy, co-compilers

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	30	229	0	0	208	112	47	421	37	0	12	20399	6	0	1	200	11	10	1	16	21481
October	31	210	15	832	83	63	57	809	163	3	67	151	140	0	6	106	24	32	0	53	2604
Total	61	439	15	832	291	175	104	1230	200	3	79	20550	146	0	7	306	35	42	1	71	24085
Total per hr			0.03	1.90	0.66	0.40	0.24	2.80	0.46	0.01	0.18	46.81	0.33	0.00	0.02	0.70	0.08	0.10	0.00	0.16	54.86
% of flight			0.1	3.5	1.2	0.7	0.4	5.1	0.8	0.0	0.3	85.3	0.6	0.0	0.0	1.3	0.1	0.2	0.0	0.3	100.0
Average last 10 yrs	59.8	450.3	37.5	380.7	265.1	64.7	69.9	1010.9	143.9	1.7	45.6	7841.4	189.3	0.1	2.4	244.6	20.4	18.7	0.1	71.3	10408.5

ROCKY RIDGE (York) - Randy Phillips, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	8	56	0	0	32	10	6	159	0	0	0	3945	3	0	0	24	0	0	0	1	4180
October	1	7	0	0	3	0	2	4	0	0	1	0	6	0	0	2	1	1	0	0	20
Total	9	63	0	0	35	10	8	163	0	1	3945	9	9	0	0	26	1	1	0	1	4200
Total per hr			0.00	0.00	0.56	0.16	0.13	2.59	0.00	0.00	0.02	62.62	0.14	0.00	0.00	0.41	0.02	0.02	0.00	0.02	66.67
% of flight			0.0	0.0	0.8	0.2	0.2	3.9	0.0	0.0	0.0	93.9	0.2	0.0	0.0	0.6	0.0	0.0	0.0	0.0	100.0

ROSE TREE PARK (Delaware) - Holly Merker, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	29	210	0	0	163	111	27	441	33	0	3	10344	17	0	0	105	6	2	0	29	11281
October	31	167	19	299	100	56	30	723	118	0	75	192	109	0	0	53	10	6	0	24	1814
November	30	148	22	200	3	12	11	135	32	0	177	0	372	0	5	3	8	1	0	35	1016
Total	90	524	41	499	266	179	68	1299	183	0	255	10536	498	0	5	161	24	9	0	88	14111
Total per hr			0.08	0.95	0.51	0.34	0.13	2.48	0.35	0.00	0.49	20.11	0.95	0.00	0.01	0.31	0.05	0.02	0.00	0.17	26.93
% of flight			0.3	3.5	1.9	1.3	0.5	9.2	1.3	0.0	1.8	74.7	3.5	0.0	0.0	1.1	0.2	0.1	0.0	0.6	100.0
Average last 10 yrs	95.6	642.0	104.8	446.4	259.2	158.9	88.9	1504.8	240.5	5.8	180.1	3183.9	477.4	0.2	4.6	251.5	46.1	18.9	0.7	67.9	7038.0

SECOND MOUNTAIN (Lebanon) - David Schwenk, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	17	96	2	25	8	13	1	18	7	0	4	149	27	0	0	9	0	2	0	0	265
September	29	242	138	35	119	97	39	759	99	8	14	8335	120	0	5	97	13	8	0	31	9917
October	31	230	232	630	50	51	44	1972	144	8	62	9	541	0	12	47	27	16	0	43	3888
November	30	233	138	285	0	33	12	78	14	10	64	0	460	0	76	1	2	0	0	12	1185
December	18	84	50	22	0	21	0	0	0	0	1	0	42	2	13	0	0	0	0	0	152
Total	125	884	560	997	177	215	96	2827	264	26	145	8493	1190	2	106	154	42	26	0	86	15407
Total per hr			0.63	1.12	0.20	0.24	0.11	3.16	0.30	0.03	0.16	9.50	1.33	0.00	0.12	0.17	0.05	0.03	0.00	0.10	17.23
% of flight			3.6	6.5	1.1	1.4	0.6	18.3	1.7	0.2	0.9	55.1	7.7	0.0	0.7	1.0	0.3	0.2	0.0	0.6	100.0
Average last 10 yrs	139.6	1022.8	339.0	606.8	212.7	105.6	145.5	2200.4	287.7	56.2	142.8	3611.5	1417.9	3.1	81.5	129.917	46.5	28.5	0.7	74.3333	9491

*Includes one white morph gyrfalcon in December.

STONE MOUNTAIN (Huntingdon) - Greg Grove, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total	
August	3	4	0	0	1	0	0	0	1	0	0	2	0	0	0	3	0	0	0	0	0	7
September	23	133	0	0	49	64	15	280	37	1	4	1516	65	0	1	86	15	6	0	13	2152	
October	19	95	0	107	11	14	21	615	79	1	19	2	235	0	7	15	21	6	0	12	1165	
November	17	95	1	44	1	28	7	93	16	0	19	0	577	0	84	1	3	4	0	3	881	
December	2	13	0	0	0	7	0	0	0	0	0	0	1	0	20	0	0	0	0	0	28	
Total	64	339	1	151	62	113	43	988	133	2	42	1520	878	0	112	105	39	16	0	28	4233	
Total per hr.			0.00	0.45	0.18	0.33	0.13	2.91	0.39	0.01	0.12	4.48	2.59	0.00	0.33	0.31	0.12	0.05	0.00	0.08	12.49	
% of flight			0.0	3.6	1.5	2.7	1.0	23.3	3.1	0.0	1.0	35.9	20.7	0.0	2.6	2.5	0.9	0.4	0.0	0.7	100.0	
Average last 10 yrs	62.8	358.2	18.5	87.0	95.4	54.1	77.6	866.2	213.4	13.9	63.7	1580.6	1246.2	2.2	111.0	96.2	33.7	24.7	0.2	32	4648.1	

TUSCARORA SUMMIT (Fulton) - Dale Gearhart, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
September	25	147	11	0	62	41	16	374	36	0	0	2743	35	0	8	30	11	6	0	25	3398
October	25	133	10	428	12	22	26	682	66	0	15	3	248	0	21	15	10	13	0	28	1569
November	6	21	8	13	0	1	3	2	0	0	5	0	22	0	5	0	0	0	0	1	60
Total	56	301	29	441	74	64	45	1028	102	0	20	2746	305	0	34	45	21	19	0	54	5027
Total per hr.			0.10	1.47	0.25	0.21	0.15	3.42	0.34	0.00	0.07	9.12	1.01	0.00	0.11	0.15	0.07	0.06	0.00	0.18	16.70
% of flight			0.6	8.8	1.5	1.3	0.9	20.4	2.0	0.0	0.4	54.6	6.1	0.0	0.7	0.9	0.4	0.4	0.0	1.1	100.0
Average last 10 yrs	66.5	368.4	30.1	352.1	99.9	39.3	70.3	890.4	88.7	3.3	28.6	1800.9	615.6	0.6	36.5	37.7	8.9	19.4	0	73.9	4192.3

TUSSEY MOUNTAIN (Centre) - Dan Ombalski, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	6	19	2	0	3	2	1	0	0	0	0	42	7	0	0	2	1	0	0	0	60
September	8	32	1	0	6	34	6	37	9	0	0	283	38	0	0	27	3	1	0	4	449
October	5	25	3	4	4	9	3	105	11	0	3	5	200	0	2	21	4	3	0	3	380
November	4	15	5	23	0	8	5	21	5	0	2	0	403	0	12	0	0	1	0	1	486
December	2	7	14	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	27
Total	25	98	25	27	13	61	15	163	25	0	5	330	648	0	19	50	8	5	0	8	1402
Total per hr.			0.26	0.28	0.13	0.62	0.15	1.66	0.26	0.00	0.05	3.37	6.61	0.00	0.19	0.51	0.08	0.05	0.00	0.08	14.31
% of flight			1.8	1.9	0.9	4.4	1.1	11.6	1.8	0.0	0.4	23.5	46.2	0.0	1.4	3.6	0.6	0.4	0.0	0.6	100.0
Average last 10 yrs	26.6	26.6	2.9	24.2	3.4	8.7	2.5	47.1	7.4	0.3	1.7	73.0	229.8	0.1	9.9	10.4	0.4	6.4	0.0	9.5	432.6

WAGGONER'S GAP (Cumberland) - David Grove, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total
August	31	204	0	0	37	76	9	46	26	0	3	363	58	0	0	41	3	0	0	5	667
September	28	262	0	0	283	274	65	2935	230	0	14	11278	116	0	1	277	55	16	0	53	15597
October	28	236	48	1548	134	86	84	4853	400	8	130	67	1334	0	22	118	32	52	0	58	8974
November	30	258	31	301	3	63	37	360	31	75	103	0	1592	1	197	2	5	1	0	18	2820
December	23	157	19	25	0	35	10	4	3	4	2	0	58	0	32	0	0	0	0	1	193
Total	140	1116	98	1874	457	534	205	8198	690	87	252	11708	3158	1	252	438	95	69	0	135	28251
Total per hr.			0.09	1.68	0.41	0.48	0.18	7.35	0.62	0.08	0.23	10.49	2.83	0.00	0.23	0.39	0.09	0.06	0.00	0.12	25.31
% of flight			0.3	6.6	1.6	1.9	0.7	29.0	2.4	0.3	0.9	41.4	11.2	0.0	0.9	1.6	0.3	0.2	0.0	0.5	100.0
Average last 10 yrs	142	1134	105	1366	500	287	302	6896	878	79	290	6227	4088	7	226	341	104	59	0	184	21937

2012 TOTALS FOR ALL WATCHSITES

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	SWHA	Unid	Total ¹	
August	156	1,024	72	208	241	227	60	215	106	0	20	1,678	275	0	0	222	49	9	0	98	3,480	
September	347	2,581	314	385	1,988	1,378	387	10,178	1,031	14	68	92,205	943	0	26	1,612	309	89	1	463	111,391	
October	326	2,165	580	5,279	965	572	481	20,915	2,024	64	625	480	7,178	0	157	712	353	296	0	491	41,172	
November	245	1,705	326	1,246	14	338	148	1,254	208	242	750	0	9,511	6	1,040	10	37	14	2	149	15,295	
December	90	532	97	54	0	134	13	6	8	7	6	0	190	2	116	1	1	1	0	1	638	
Total	1164	8006	1389	7172	3208	2649	1089	32568	3377	327	1469	94363	18097	8	1339	2557	749	409	3	1202	171976	
Total per hr.			0.17	0.90	0.40	0.33	0.14	4.07	0.42	0.04	0.18	11.79	2.26	0.00	0.17	0.32	0.09	0.05	0.00	0.00	0.15	21.48
% of flight			0.8	4.2	1.9	1.5	0.6	18.9	2.0	0.2	0.9	54.9	10.5	0.0	0.8	1.5	0.4	0.2	0.0	0.7	100.0	
2011 totals	1198	7562	1258	9830	3120	2263	1006	34241	3302	127	897	89774	12790	12	1170	2056	688	406	3	1018	163984	
% change from 2011	-2.8%	5.9%	10.4%	-27.0%	2.8%	17.1%	8.3%	-4.9%	2.3%	157.5%	63.8%	5.1%	41.5%	-33.3%	14.4%	24.4%	8.9%	0.7%	0.0%	18.1%	4.9%	

¹Includes one white morph gyrfalcon.

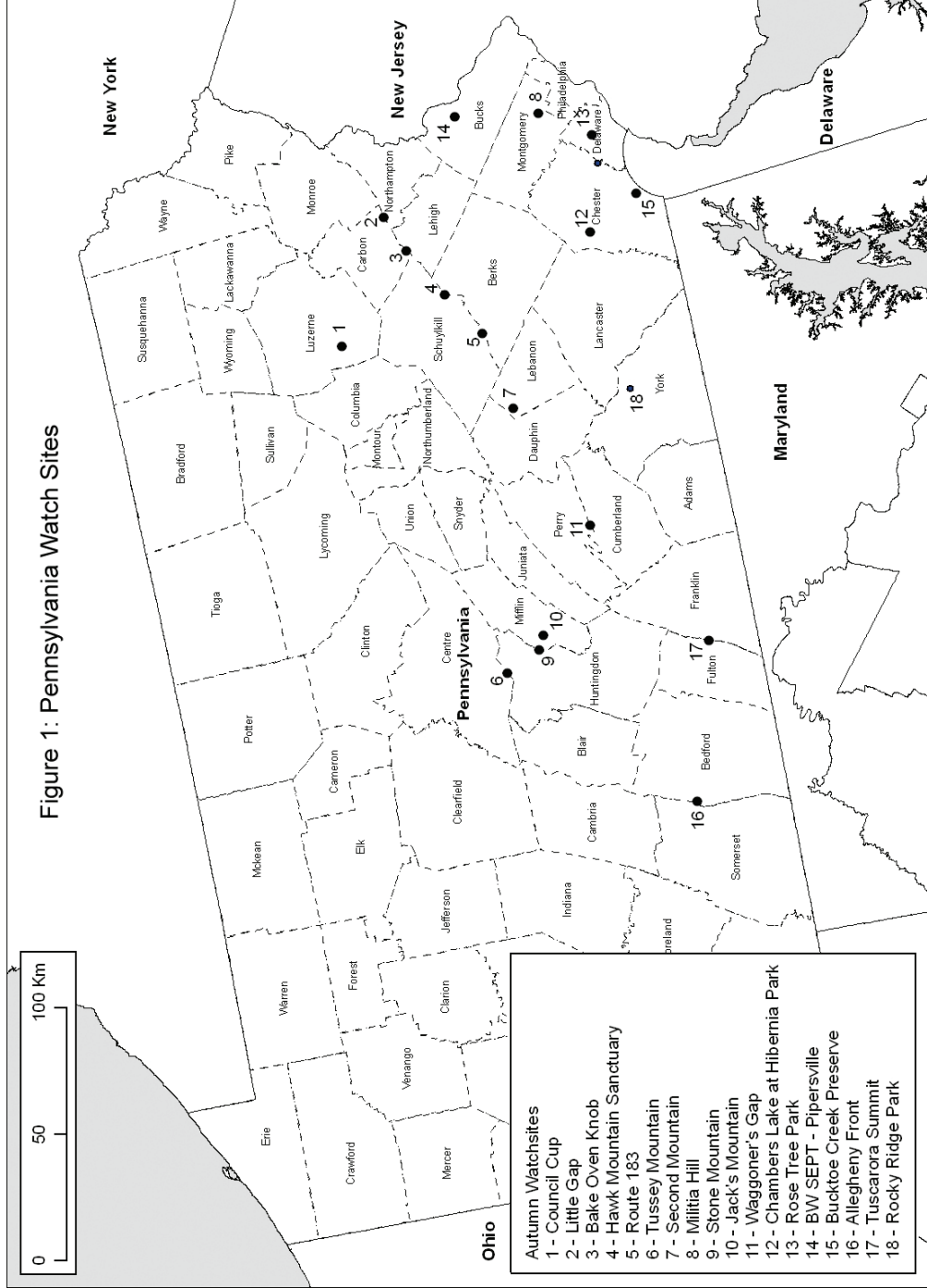


Figure 1: Pennsylvania Watch Sites