NorthEast Hawk Watch
2018 Hawk Migration Report

Red-tailed Hawk by Brian Rusnica.

2018 NorthEast Hawk Watch Sites

Greenlaw Mtn.
Cooper
ME
Cadillac Mtn.
Clarry Hill
Bradbury Mtn.
Harpswell
Mt. Philo SP
NH
Interlakes School
VT
Carter Hill
Concord School
Plum Island
Pack Monadnock
Putney Mtn.
NY
Mt. Watatic
Pinnacle Rock
Pilgrim Heights
Wachusett Mtn.
Barre Falls
MA
Helderberg
Shatterack Mtn.
Blueberry Hill
Munn Brook
RI
Poquonock
CT
Middle School
Johnnycake Mtn.
Chestnut Hill
White Memorial
Mohonk
Botsford Hill
Lighthouse Point
Hook Mtn.
Bear Mtn.
Chestnut Ridge
Mt. Peter
Quaker Ridge
Purple Chickadee
Lenoir Wildlife Preserve
State Line
Alley Creek
Wildcat Ridge
Montclair
Fire Island
Fort Tilden
Scott's Mtn.
Washington Valley
NJ

2018 Report Contents:

NorthEast Hawk Watch

The *NorthEast Hawk Watch* promotes the systematic study of migrating hawks in New England, southeastern New York and northeast New Jersey. Membership is open to anyone. Annual dues are $10 payable to "NEHW" c/o treasurer: Joe Wojtanowski, PO Box 142, Poquonock, CT 06064.

Visit the website of *NorthEast Hawk Watch* at www.battaly.com/nehw/ to download a membership application, view seasonal site totals at all sites and daily counts at selected sites, download PDFs of previous reports, and find directions to hawkwatch sites in the northeast.

All counts can be easily reported online through a free service offered by the Hawk Migration Association of North America (HMANA). To sign up, visit www.hawkcount.org and click on "Account Request" link. To receive daily reports from all sites using the hawkcount program, subscribe to BIRDHAWK, which is also free and can be done by visiting the HMANA homepage at www.hmana.org and following the simple instructions there.

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From the Editor:

Once again you counted hawks at watch sites across the NorthEast, and many of you saw more hawks in 2018 than in the two years before. Thankfully, in addition to enjoying the wonder of each raptor flying by, you also kept the records, documenting how many hawks you counted on each day. You then submitted the data to hawkcount.org. Thanks to Jason Sodergren for maintaining this database, which facilitates access to your data. Your data provides the substance of this 2018 Report, and is included here in daily counts, summary tables, and graphs to help us visualize trends. Also included is an update to the centerfold of trends for 16 species of hawks and some interpretation of the data and the trends. If any of you have comments about the data or the interpretation, please let me know. Also, please consider writing an article about your site for our next Report.

Drew's column continues to explore source regions for our Peregrine Falcons, using six hawk watches in the metropolitan New York region. He does pair-wise comparisons among the sites and includes Cape May and Hawk Mountain. Searching for climate change impacts, he explores seasonal distributions at Fire Island, Lighthouse Point, and Cape May. Check out his unexpected results.

I am encouraged by an increase in the number of hawk watch sites for the 2018 seasons. In 2017 we had 9 Spring and 34 Fall migration sites. For 2018, this jumped up to 13 Spring and 41 Fall sites. Our history data has been updated where needed so comparisons remain appropriate. We welcome all your data—new sites, and old! It helps us to get a better sample of our migrants, and enables a better understanding of migration.

Be sure to check out the Fall Broadwing Table for Sep 22, 2018. That was our peak day, and there were 15 sites that each counted over 1000 Broadwings! The Broadwings were spread through the NorthEast, and we needed all those sites plus an equal number that counted hundreds that day to get that documented. You were part of a big day of more than 41,000 Broadwings, and we need all of you!

May you see lots more hawks, and enjoy the magic of their flight!

Trudy Battaly, Hawk Migration Report Editor
merlin@pipeline.com

Note: For analyses in this Report, the correlation coefficient, r, measures the strength of the linear relationship between two variables, eg: year and species counts. The p-value measures the probability that the outcome will occur, assuming r=0. A strong significance occurs when r is closer to +1 or -1 and p is closer to 0.

From the President:

Thank you to everyone who contributed data for the 2018 NEHW Hawk Migration Report. This insightful report from Trudy Battaly could not have been prepared without the data from hundreds of volunteer observers and counters over decades of effort. This year Trudy added several new watch sites from our western boundary to the report and her analysis.

I also want to thank everyone who attended the 11th NEHW Regional Hawk Migration Conference and made it a resounding success. What a wonderful day with so many amazing informative presentations on the

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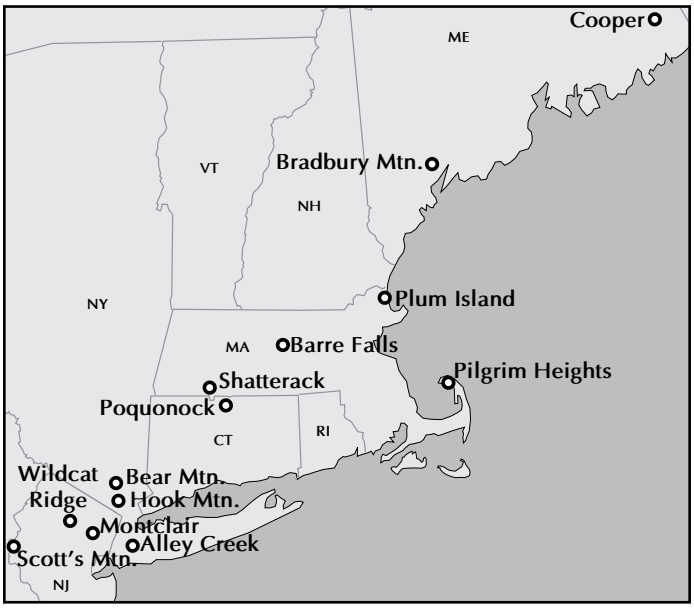
2018 Northeast Spring Season

Sites

During Spring of 2018, hawk watchers at 13 sites across the Northeast counted 18 species of hawks. The sites were spread across the Northeast from Cooper, near Big Inlet in Maine, to Montclair, on the First Watchung Mountain in New Jersey. Although Kerrs Ridge in New Brunswick did not have coverage in 2018, there were more sites reporting in 2018 than 2017, with five sites not included in 2017. Two of the five sites resumed spring watching, having done so in the past. These include Shatterack Mountain in Massachusetts and Poquonock in Connecticut. Another two sites include Bear Mountain in New York, a fall regular where they tried a couple of spring days, and Scott's Mountain, a new addition on our western New Jersey boundary. At Scott's Mountain they did an annual single day spring outing for their fall watchers. The fifth addition to the 2018 lineup is Alley Creek in Queens, New York. Alley Creek is a new site situated on the northern shore of Long Island at the border between urban New York City and the wetlands of Alley Park, on the shore of Little Neck Bay. This site offers insight into migration over urban sprawl, and may help to fill some of the gap in our data since the absence of Sandy Hook, 24 miles SW at the entrance to New York Harbor. The other eight sites contributing to the 2018 Spring Season included our regulars: Cooper and Bradbury Mountain in Maine; Plum Island, Pilgrim Heights, and Barre Falls in Massachusetts; Hook Mountain in New York; and Wildcat Ridge and Montclair in New Jersey.



The additional sites this season provide us with better coverage over the Northeast, and a better representation of spring migration across our region. Shatterack and Poquonock help to fill the gap in Connecticut and western Massachusetts, but we still need data from Vermont and New Hampshire. Thanks to all who counted! You are helping to monitor the breeding populations of our Northeastern hawks.

Coverage

Coverage in 2018 varied substantially by watch site, from one to 60 days and eight to 452 hours. The collective total for all sites was 279 days and 1618 hours. In comparison to other years, this represents 27% more hours of coverage than in 2017, and about the same as our average hours since 1989.

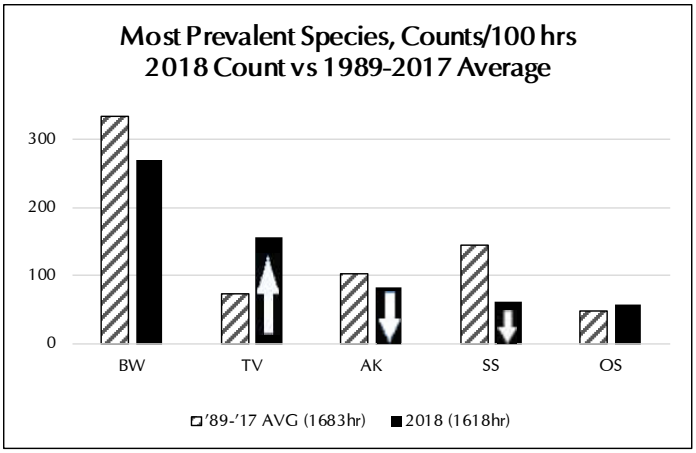
Our two full-season sites with more than 400 hours were Bradbury Mountain in the north and Montclair in the south. Together, these two sites accounted for 56% of the total hours, 55% of the total hawks, and an average of 59 hawks/day. The two other sites with more than 100 hours of coverage were Plum Island and Pilgrim Heights. Together, they represent 21% of the hours, 22% of the hawks, and an average of 41 hawks/day. The remaining sites—Cooper, Barre Falls, Hook Mountain, Alley Creek, Shatterack Mountain, Poquonock, Bear Mountain, Wildcat Ridge, and Scott's Mountain—represent 23% of the hours, 23% of the hawks, and 29 hawks/day.

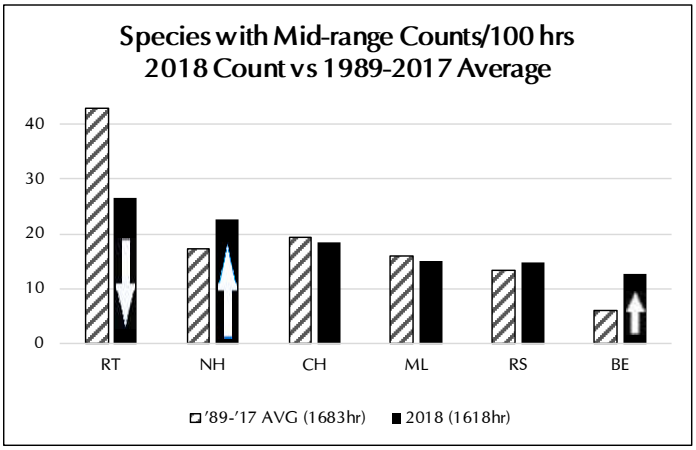
The Count

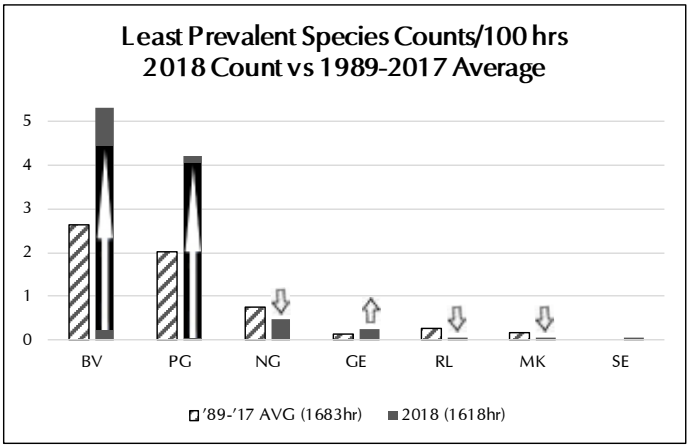
The Spring 2018 Season brought 18 raptor species, with a total of 12,365 hawks and one Short-eared Owl. This was a refreshing increase over the 2017 season (+43%), and almost reached our 29 year average (-12%). Thirteen species had counts above those in 2017, and seven species had counts above the 29 year average. The big question: "Did you actually see more hawks at your site, or is this the result of greater effort across the region?" There were four more sites than in 2017, adding 34 days and 133 hours. This is an increase in hours of 27%. With hawks increasing 43%, the quick answer is "You saw more hawks in 2018 than 2017!" But, we need to qualify that a bit: five of the eight sites covered in both years saw a substantial increase in numbers. The other three sites had about the same number or less.

Much of the increase in hawk numbers can be attributed to two of the four species with counts above 1000 - Broad-winged Hawk (4474) and Turkey Vulture (2526). The Broadwing count alone is double the 2017 count of 2228! Turkey Vultures were up by 569, an increase of 29%. The other two species with counts greater than 1000 were American Kestrel (1332) and Sharp-shinned Hawk (1019). Their counts were modest increases over 2017, but both are still well below average, -23% and -58%, respectively. Nevertheless, four species with counts above 1000 is up from three species in 2017, and two species in 2016.

To gain additional perspective, we use hawks per 100 hours to compare 2018 species prevalence to the 29 year average. In ranking our hawks in 2018, the most prevalent species retained their relative positions, being the same as in 2017—Broadwings 1st, Turkey Vultures 2nd, Kestrels 3rd and Sharpies 4th. So, there were no surprises this year, no spin of the roulette wheel. It does appears that Sharpies have lost their earlier historic rankings. Sharpies moved from 3th place in 2015 to 2nd pace in 2016, then to 4th place in 2017, and remain in 4th in 2018.







Osprey, our 5th ranked species with a count of 950, is the only species with a mid-range count between 500 and 1000. Six species had counts between 100 and 500, including Red-tailed Hawk (429), Northern Harrier (368), Cooper's Hawk (299), Merlin (245), Red-shouldered Hawk (241), and Bald Eagle (207). While Coops and Merlins exchanged ranks, the big shift in the mid-range species was Red-shouldered Hawk, which dropped from 8th to 10th. Red-shoulders, however, are still above average, and have no significant trend.

Our least prevalent species, with counts under 100, include Black Vulture (86), Peregrine Falcon (69), Northern Goshawk (8), Golden Eagle (3), Rough-legged Hawk (1), Mississippi Kite (1) and Short-eared Owl (1). No Swallowtail Kite was reported.

The 2018 Spring Migration Table shows the counts for each watch site, the totals, and the prior 29 year average for each species. The sites are organized by degrees latitude, from north to south.

Region 43+ contains Cooper (at 45 degrees) and Bradbury Mountain. Cooper had one of the three Golden Eagles recorded this Spring, and continues to count one Bald Eagle for every three hawks of another species. Bradbury Mountain had the greatest effort, the 2nd highest single day, and high counts for Total Hawks, Osprey, Bald Eagle, Sharpie, Goshawk (all 8), Broadwing, and Redtail. It also had the 2nd highest count for Harrier, Coop, Kestrel, and Merlin.

Region 42 has four sites: Plum Island, Barre Falls, Shatterack Mountain, and Pilgrim Heights. Plum Island had the only Rough-legged Hawk of the Season and the highest counts for four species: Harrier, Kestrel, Merlin, and Peregrine. Their Kestrel and Merlin numbers were twice that of any other site. Barre Falls had two Golden Eagles, and twice the number of Osprey as 2017, but fewer buteos. Shatterack counted eight species, mostly Broadwings, and proportionally more Osprey than most sites. Pilgrim Heights had the only Mississippi Kite of the season, and the 2nd highest Turkey Vultures.

Region 41 includes Poquonock, Bear Mountain, and Hook Mountain. Poquonock documented 10 raptor species, including our northern-most Black Vultures. Bear Mountain documented nine species, half of which were Red-tailed Hawks. Hook Mountain had the highest single day, the 2nd highest counts for both Broadwings and Peregrine Falcon, and also had the 2nd highest hawks/day.

Region 40 includes Wildcat Ridge, Montclair, Alley Creek, and Scott's Mountain. Wildcat Ridge documented 10 hawk species, including the 2nd highest Black Vulture count. Montclair had the only Short-eared Owl of the Season and the highest counts for Black Vulture, Turkey Vulture, Cooper's Hawk, and Red-shouldered Hawk. They also had the 2nd highest counts for Osprey, Bald Eagle, Sharp-shinned Hawk, and Red-tailed Hawk. Alley Creek documented 12 raptor species in the midst of urban sprawl, with Turkey Vulture and Osprey topping the list. Scott's Mountain, on its single count day, documented eight raptor species, and the highest hawks/day for the Season—they picked a good day.

Species with Above Average Counts

The Spring Migration Table shows higher than average counts for five species—Black Vulture, Turkey Vulture, Bald Eagle, Northern Harrier, and Peregrine Falcon. When we standardized the data to counts per 100 hours, all five species are more than 30% above average, and Golden Eagle is above 20%. Counts for four species more than doubled their average, including both vultures, Bald Eagle, and Peregrine Falcon. Harrier was 35% above average. This is the fourth year in a row for above average numbers for Bald Eagle, the third year for Harrier and Peregrine, and the second year for Turkey Vulture.

Northeast Spring 2018 Seasonal Totals																									
	SITE	Days	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	MK	SE	TOTAL	Hk/Dy	Max
43+	Cooper	17	64	0	19	0	9	3	1	0	0	0	1	0	0	1	3	0	0	0	0	0	**37**	2	7
	Bradbury Mountain	**60**	**452**	0	564	**342**	**76**	85	**469**	77	**8**	80	**1645**	**190**	0	0	321	56	11	**43**	0	0	**3967**	66	674
42	Plum Island	26	173	0	126	66	7	**191**	173	19	0	1	0	12	**1**	0	**653**	**103**	**15**	21	0	0	**1388**	53	351
	Barre Falls	20	69	0	12	40	10	0	15	6	0	1	107	28	0	**2**	12	0	0	4	0	0	**237**	12	50
	Shatterack Mountai	7	28	0	0	24	1	2	13	2	0	0	90	0	0	0	1	0	1	3	0	0	**137**	20	41
	Pilgrim Heights	40	172	0	678	106	6	16	68	33	0	15	154	68	0	0	117	22	11	5	**1**	0	**1300**	33	148
41	Poquonock	5	12	4	0	5	2	0	1	1	0	0	35	2	0	0	1	1	1	0	0	0	**53**	11	42
	Bear Mountain	2	8	0	0	1	4	1	1	4	0	0	6	18	0	0	1	0	2	0	0	0	**38**	19	50
	Hook Mountain	15	65	5	21	47	10	12	63	25	0	19	1344	7	0	0	44	6	14	2	0	0	**1619**	108	**772**
40	Wildcat Ridge	13	48	15	0	2	6	0	8	1	0	2	54	13	0	0	2	1	0	3	0	0	**107**	8	42
	Montclair	54	446	**62**	**857**	227	51	35	177	**115**	0	**121**	861	75	0	0	149	47	9	23	0	**1**	**2810**	52	290
	Alley Creek	19	77	**0**	249	78	9	18	18	4	0	2	3	1	0	0	20	9	5	2	0	0	**418**	22	185
	Scott's Mountain	1	8	0	0	12	16	5	12	12	0	0	174	15	0	0	8	0	0	1	0	0	**255**	**255**	255
	TOTALS	**279**	**1618**	**86**	**2526**	**950**	**207**	**368**	**1019**	**299**	**8**	**241**	**4474**	**429**	**1**	**3**	**1332**	**245**	**69**	**107**	**1**	**1**	12366	44	
	Average,1989-2017		1683	44	1246	829	102	291	2425	325	13	226	5610	720	5	3	1730	270	34	194	2.9	0.2	14090		

BV: Black Vulture, TV: Turkey Vulture, OS: Osprey, BE: Bald Eagle, NH: Northern Harrier, SS: Sharp-shinned Hawk, CH: Cooper's Hawk, NG: Northern Goshawk, RS: Red-shouldered Hawk, BW: Broad-winged Hawk, RT: Red-tailed Hawk, RL: Rough-legged Hawk, GE: Golden Eagle, AK: American Kestrel, ML: Merlin, PG: Peregrine Falcon, UR: Unidentified Raptor, MK: Mississippi Kite, SE: Short-eared Owl.

Your counts are keeping track of these increases, and helping to show which species are succeeding in today's climate. Thanks to all of you!

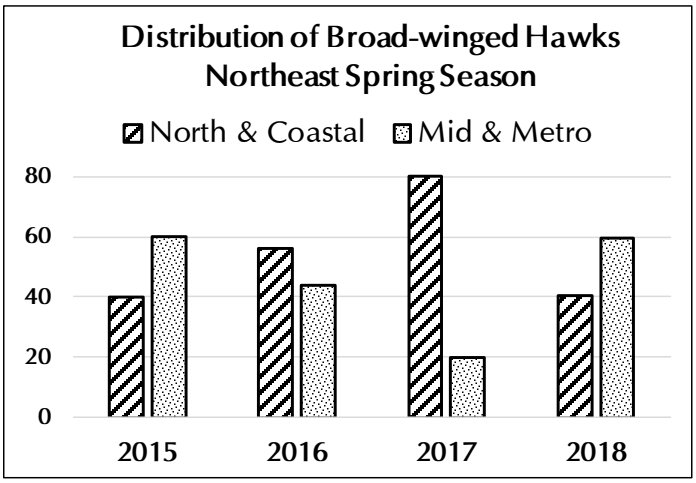
Species with Below Average Counts

Species with counts at least 30% below average (per 100 hours) include Sharp-shinned Hawk (-58%), Northern Goshawk (-37%), Red-tailed Hawk (-40%), and Rough-legged Hawk (-78%). Sharpies have been below average for the last four years. Mississippi Kite was also well below average at -65%. This species first appeared as a spring migrant in the Northeast in 2000, with two flying past Pilgrim Heights in May that year. It has since been recorded in all but three years, and averages 4.6 per year. Counts for Mississippi Kites across these 19 years has shown no trend, so a random year of only one may not mean much. Nevertheless, since 2015 we have gone from 10 to 4 to 2 to 1. If the count continues more or less randomly, we should return to a higher count next year. In contrast, Swallowtail Kite was missed again this year. This species first appeared as a spring migrant in the Northeast in 2009, with one flying past Pilgrim Heights on May 31st that year. It has since been recorded in only four years, for a total of four birds.

The Species

Broad-winged Hawk—Returns to the Whole Northeast!

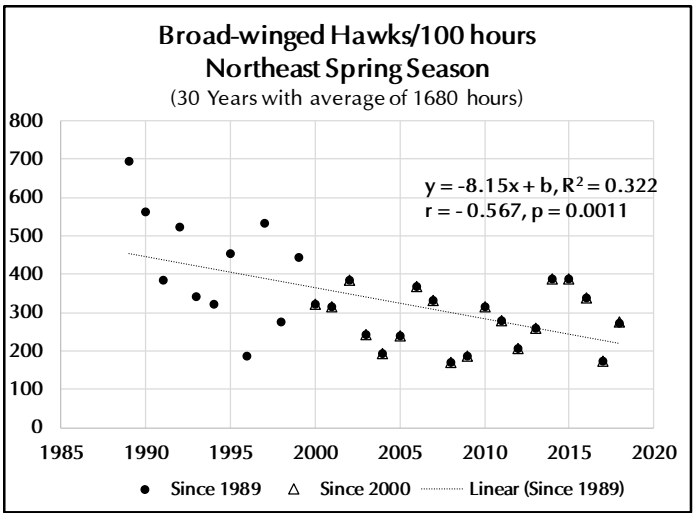
In Spring 2017 the big topic with Broad-winged Hawks was: "Why weren't Broadwings seen in the mid and metro regions of the Northeast?" In 2018 they were seen! … and in good numbers. The total Broadwing count of 4474 was double the 2017 total of 2228! And, 59% of the 4474 were counted in the mid and metro regions! Because the additional sites this year added to the mid and metro regions, a comparison was also done using only those sites reporting in 2017, and the percentage is a very close 57%. Basically, this is the same distribution we had in 2015, even though there were fewer Broadwings in 2018 than in 2015.



In 2017 we found an inverse relationship between the number of Broadwings and the average April temperatures in Hartford CT for the years 2011 to 2017, with 2017 being the warmest and having the lowest Broadwing count. In 2018 the average April temperature of 44.3F was definitely lower than in 2017. In fact, it was far below all the average temperatures in the years 2011 to 2017, which ranged from 47.9F to 53.6F. If the model could be used outside that range, the 44.3F should have been associated with an even bigger Broadwing count, one above the average of 292 per 100 hours in those years. Our 2018 count was 276 per 100 hours, falling well short of the model. So, we are left wondering why. Were the winds a larger part of the count in 2018? Unfortunately, the currently available weather history is for a different weather station, making comparison to our earlier wind data inappropriate at this time.

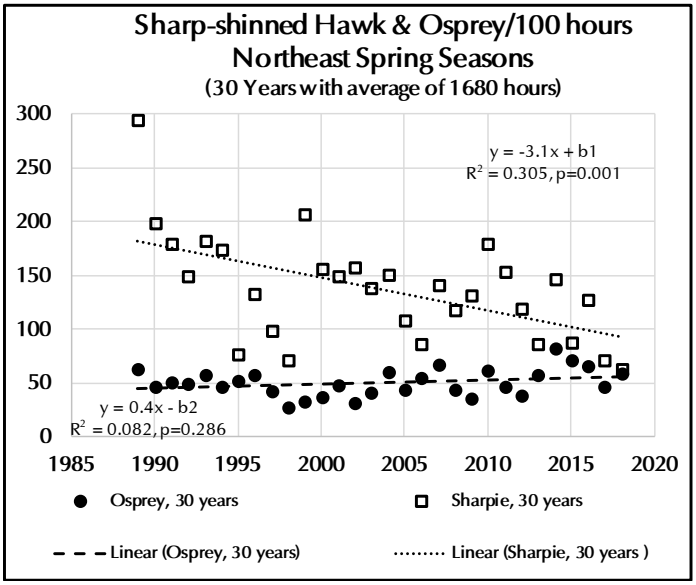
Our Spring Broadwing trend since 1989 is still in significant decline (r= - 0.567, p=0.001). However, since the year 2000, the data is more or less randomly distributed, with no real trend (r= - 0.057, p=0.408). If we had no idea what happened before 2000, we would expect the Spring Broadwings to continue to fluctuate about the average count since 2000, 283 Broadwings /100 hours or 5022 a season. So, we have two opposing scenarios of what will happen to our Spring Broadwings, one

that is highly significant mathematically (a decline) and one that is not (random fluctuation). No doubt, we all root for the one that is not—we want our Broadwings to remain in their current naturally random and variable migration. And, to find out which scenario wins, we get to count more Broadwings!



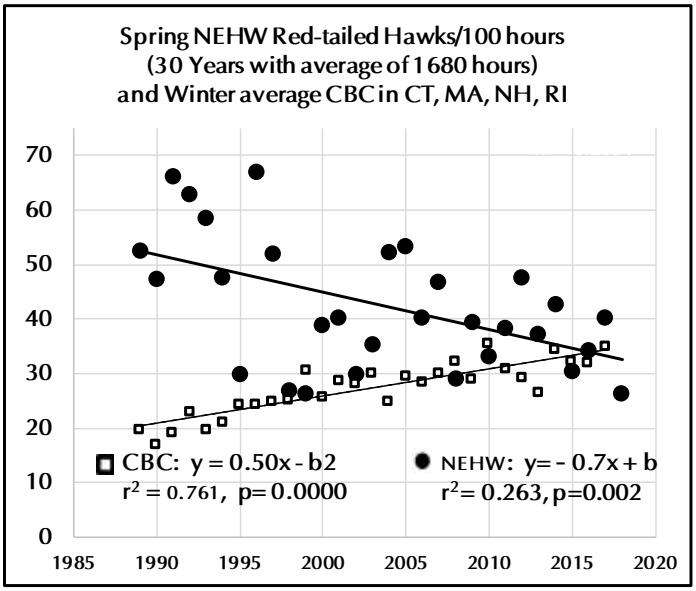
Sharp-shinned Hawk—Another Record Low

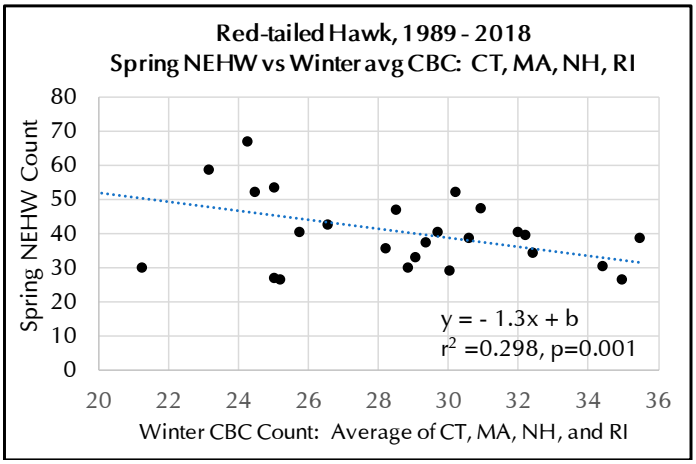
While our Sharp-shinned count of 1019 is not our lowest actual count, when standardized to Sharpies per 100 hours, it is once again a record low. Ranking 4th for the second year in a row, and the third time since 1989, Sharpies appear to be declining steadily and may even lose 4th place in the years ahead. Sharpies traded ranks with Turkey Vultures in 2017, and seem to have skipped right past Kestrels. This season Sharpies were less than 4 hawks per 100 hours ahead of Osprey, the closely ranked 5th species. On the graph, the 2018 points for Sharpie and Osprey are so close they overlap. The trends suggest that Osprey will catch up to Sharpies in the future. However, while the trend line for Sharpie is significant (r =- 0.552, p = 0.001), the Osprey trend is not (r =0.286, p =0.286). So, it is difficult to predict if and when any switch in ranks might occur. We will have to wait and continue counting to find out.



Red-tailed Hawk—Ties Record Low, Adjusts to Climate Change

Our 429 Red-tailed Hawks this season is our 3rd lowest actual spring count. When converted to hawks per 100 hours, it is tied with our lowest count in 1999. Although the trend shows a significant decline (r = - 0.513, p = 0.002), our experiences with increasing Red-tails in winter suggest that this is not a population issue, and is more likely a change in migration and over-wintering behavior. Back in the 1980s Drew Panko would say that Red-tails don't migrate until there is substantial snow cover and food gets scarce. He had recognized their adaptive behavior, and may even have predicted this outcome if asked.





Data from the Audubon Christmas Bird Counts (CBC) substantiate this change. CBC data, standardized to party hour, was available for four states wholly within the NEHW boundary: Connecticut, Rhode Island, Massachusetts, and New Hampshire. (http://netapp.audubon.org/CBCObservation/) An average of these data was computed and converted to hawks per 100 hours for comparison to our spring counts. The CBC

counts for each state, and their average, show a significant increase in Red-tails on these winter counts (average: r = +0.872, p =0.0000). Also, when the winter CBC counts are compared to the NEHW counts for the following spring, the inverse relationship is strong (r = - 0.546, p=0.001), with higher CBC counts indicating lower spring migration counts. Apparently, the Red-tails are finding sufficient food to overwinter successfully.

Thanks to your data we are monitoring the change in Red-tail behaviors as they respond to climate change. Great job! That is exactly what we hope to do with our migration counts—document current trends in raptor ecology.

Data for these analyses are noted on the Spring Historical Summary, which follows. Also included are the daily counts at the thirteen spring watch sites for 2018.

NEHW SPRING HISTORICAL SUMMARY PER 100 HOURS: 1989-2018

YEAR	SITES	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	MK	SK	TOT
1989	15	1608	0.0	68.3	63.2	1.9	30.2	294.2	20.1	1.2	13.7	695.3	52.5	0.2	0.1	167.7	15.4	1.2	20.0	0.0	0.0	1413.7
1990	20	1927	0.1	45.7	46.4	1.7	14.7	198.0	12.1	1.3	12.6	564.4	47.5	0.3	0.1	116.0	14.5	1.5	27.2	0.0	0.0	1097.4
1991	21	1957	0.7	45.3	50.3	1.5	17.6	179.4	13.1	1.9	14.6	385.7	66.3	0.7	0.3	88.8	14.6	1.6	24.0	0.0	0.0	891.5
1992	21	1638	0.0	38.0	48.9	1.6	17.9	149.3	12.6	1.3	15.1	523.4	62.9	0.7	0.1	174.9	14.5	2.1	16.4	0.0	0.0	1079.9
1993	22	1780	0.0	47.9	57.3	1.7	19.0	181.8	22.4	0.9	19.8	342.4	58.5	0.1	0.3	145.8	17.5	1.4	7.5	0.0	0.0	979.9
1994	33	1564	2.5	68.7	45.7	1.5	17.8	173.0	28.5	1.1	15.3	320.8	47.8	0.4	0.2	132.9	13.9	1.2	14.5	0.0	0.0	903.8
1995	26	914	2.7	84.5	52.0	1.2	13.5	76.8	5.7	0.1	11.1	454.7	29.9	0.0	0.1	187.4	7.1	0.7	9.1	0.0	0.0	936.4
1996	20	1061	2.3	63.7	56.9	2.5	19.4	132.0	8.2	0.4	17.4	187.7	67.1	0.4	0.1	193.4	9.8	1.9	9.9	0.0	0.0	773.0
1997	25	1253	2.6	66.6	42.1	2.2	13.6	98.7	10.1	1.0	7.9	534.5	52.0	0.1	0.3	73.6	5.5	0.3	22.6	0.0	0.0	933.5
1998	21	1235	2.1	59.3	26.9	1.7	11.3	70.4	9.5	0.7	8.1	276.1	27.0	0.0	0.0	101.7	4.6	1.0	11.1	0.0	0.0	611.3
1999	8	1758	2.0	59.2	32.2	3.3	18.1	206.5	23.5	0.5	17.1	444.8	26.4	0.0	0.1	133.2	16.0	1.6	13.1	0.0	0.0	997.6
2000	14	1824	1.3	69.5	35.9	7.9	10.9	155.8	23.7	0.6	9.7	323.1	38.9	0.1	0.1	138.4	22.2	2.7	10.9	0.1	0.0	850.6
2001	10	1881	2.8	88.8	47.3	3.2	17.3	149.2	18.8	0.3	11.2	315.8	40.3	0.0	0.1	132.9	22.3	1.8	13.3	0.0	0.0	866.3
2002	9	1886	2.7	66.0	31.4	3.2	12.5	157.6	30.5	0.7	9.3	383.9	30.1	0.0	0.1	66.8	16.1	2.0	4.4	0.6	0.0	819.7
2003	7	2021	2.5	73.3	41.0	4.2	10.2	137.6	20.4	0.2	10.2	242.0	35.5	0.2	0.2	54.9	17.5	1.4	7.8	0.0	0.0	658.4
2004	8	1803	2.2	99.4	60.5	4.7	19.6	149.8	31.9	0.7	11.0	193.2	52.4	0.4	0.3	73.0	21.5	1.8	7.8	0.3	0.0	730.8
2005	7	1419	3.1	89.9	43.4	4.4	9.6	108.5	20.7	0.8	11.8	240.6	53.3	0.2	0.1	41.9	7.1	1.3	10.6	0.1	0.0	647.1
2006	8	1466	3.0	58.3	54.6	3.5	7.3	85.9	12.8	0.1	8.0	368.1	40.5	0.1	0.2	52.0	7.8	1.5	9.6	0.1	0.0	713.7
2007	12	1711	3.6	80.5	66.7	9.0	14.8	140.9	22.6	0.5	11.8	331.3	46.9	0.6	0.2	68.5	11.8	2.5	8.6	0.6	0.0	821.0
2008	11	2288	2.2	72.6	44.0	7.7	18.1	116.7	17.4	0.7	9.6	170.5	29.3	0.7	0.0	85.4	19.9	3.4	7.5	0.2	0.0	612.5
2009	9	2313	4.2	89.5	35.6	6.5	17.1	130.5	24.4	0.5	18.0	188.0	39.5	0.3	0.2	96.8	13.9	2.9	7.0	0.0	0.0	675.1
2010	14	2329	8.4	106.0	61.1	7.4	16.4	179.6	23.5	0.6	12.5	316.6	33.2	0.0	0.2	64.9	26.3	3.0	8.8	0.4	0.0	869.3
2011	13	2061	5.7	70.1	45.6	13.1	19.2	152.7	21.7	0.8	14.3	278.5	38.6	0.2	0.1	144.4	28.4	2.3	10.0	0.5	0.0	846.3
2012	11	2107	4.0	86.9	38.5	11.5	19.8	119.4	25.7	1.0	11.5	206.3	47.6	0.0	0.2	85.8	17.8	2.3	10.9	0.0	0.0	689.9
2013	11	1576	1.5	69.0	56.6	10.3	21.8	85.9	12.4	1.3	17.8	258.6	37.4	0.4	0.1	98.0	13.1	1.5	9.4	0.3	0.0	695.4
2014	8	1320.92	3.2	73.4	81.2	15.1	23.9	145.9	17.9	0.8	27.0	388.8	42.8	0.3	0.2	97.1	18.6	3.3	9.8	0.5	0.2	949.7
2015	11	1386.25	2.2	92.1	71.1	15.3	21.1	86.9	17.2	0.4	18.1	387.7	30.6	0.6	0.1	68.2	13.4	2.4	11.0	0.7	0.1	839.1
2016	11	1430	3.0	65.5	66.0	14.1	23.0	127.5	15.4	0.2	10.1	339.1	34.3	0.1	0.1	67.3	16.2	2.7	7.2	0.3	0.0	792.0
2017	10	1272	2.7	153.1	46.7	12.1	28.1	70.4	12.5	0.9	18.4	174.7	40.4	0.7	0.2	95.1	13.8	3.1	6.8	0.2	0.1	680.1
2018	13	1618.25	5.3	156.1	58.7	12.8	22.7	63.0	18.5	0.5	14.9	276.5	26.5	0.1	0.2	82.3	15.1	4.3	6.6	0.1	0.0	764.2
Ave	14.3	1680	2.6	76.9	50.3	6.2	17.5	137.5	18.5	0.7	13.6	337.1	42.5	0.3	0.2	104.3	15.2	2.0	11.4	0.2	0.0	838.0

Daily Counts at the 13 Northeastern Watch Sites, Spring 2018

COOPER, ME

Karen E. Holmes

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
4/7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/9	3	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	**3**
4/11	6.75	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	**11**
4/12	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
4/13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/18	3.25	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
4/21	2.5	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
4/22	8	0	5	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	**7**
4/23	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/24	7.0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**5**
4/25	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/28	6	0	2	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	**5**
TOTAL	**64**	**0**	**19**	**0**	**9**	**3**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**37**
8YrAv	54.2	0.5	14	3.1	11	1.9	4.4	1.3	0	0.3	4.5	0.5	0	0.3	2.8	0.8	0.1	3.5	48.1

BRADBURY MOUNTAIN, POWNAL, ME

Zane Baker, Derek Lovitch, Jeannette Lovitch, Dave Fensore, Tom Downing, others

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
3/15	8	0	14	0	14	0	0	3	1	2	0	10	0	0	0	0	0	0	**44**
3/16	8	0	4	0	6	0	0	3	0	0	0	2	0	0	0	0	0	1	**16**
3/17	8	0	3	0	3	0	0	2	1	0	0	3	0	0	0	1	0	0	**13**
3/18	8	0	3	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	**6**
3/19	8	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
3/20	8	0	16	0	3	0	0	3	0	1	0	3	0	0	0	0	0	0	**26**
3/21	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
3/22	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3/23	8	0	0	0	3	0	0	2	1	1	0	8	0	0	0	0	0	0	**15**
3/24	7.8	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	**4**
3/25	8	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**17**
3/26	8	0	3	0	0	0	2	1	0	6	0	11	0	0	0	0	0	1	**24**
3/27	8	0	17	0	6	0	0	1	0	4	0	7	0	0	0	1	0	0	**36**
3/28	8	0	64	0	6	0	5	4	0	21	0	30	0	0	1	0	0	1	**132**
3/29	8	0	39	0	3	2	6	1	0	9	0	13	0	0	0	0	0	0	**73**
3/30	5.8	0	0	0	1	0	3	0	0	1	0	1	0	0	0	0	0	0	**6**
3/31	9	0	22	0	5	1	5	0	0	1	0	12	0	0	8	1	0	1	**56**
4/1	8.1	0	264	2	0	1	21	1	0	10	0	33	0	0	3	2	0	0	**337**
4/2	8	0	47	1	2	1	1	2	0	1	0	0	0	0	0	1	0	0	**56**
4/3	8	0	17	0	1	3	7	2	0	2	0	6	0	0	0	0	0	0	**38**
4/4	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/5	8	0	4	2	1	0	1	0	0	0	0	1	0	0	0	0	0	0	**9**
4/6	7	0	9	5	1	3	2	0	0	0	0	2	0	0	1	0	0	0	**23**
4/7	8	0	0	2	1	1	2	2	0	1	0	1	0	0	0	0	0	0	**10**
4/8	8	0	5	3	2	3	1	1	1	1	0	2	0	0	0	2	0	2	**23**
4/9	8	0	3	2	3	1	1	0	0	0	0	2	0	0	0	0	0	0	**12**
4/10	8	0	1	2	1	1	5	3	0	1	0	2	0	0	0	1	0	0	**17**
4/11	8	0	6	24	3	3	8	1	0	0	0	5	0	0	5	5	0	1	**61**
4/12	8	0	2	32	0	11	30	6	0	3	5	5	0	0	18	2	1	2	**117**
4/13	8	0	0	18	0	6	15	1	0	1	3	2	0	0	8	0	0	2	**56**
4/14	8	0	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**5**
4/17	2.5	0	0	14	0	2	6	2	0	0	3	1	0	0	7	0	0	0	**35**
4/18	8	0	0	23	0	5	34	8	0	4	94	7	0	0	9	1	0	4	**189**
4/19	8	0	0	8	0	5	17	1	1	2	64	1	0	0	1	0	0	0	**100**
4/20	8	0	0	10	0	0	2	0	0	0	14	2	0	0	0	0	0	0	**28**
4/21	8	0	0	25	0	1	8	0	0	0	78	2	0	0	5	1	0	1	**121**
4/22	8.3	0	0	15	2	2	10	3	0	0	134	1	0	0	1	1	0	4	**173**
4/23	8	0	2	29	1	10	31	1	0	1	244	0	0	0	42	7	0	0	**368**
4/24	8.8	0	0	19	0	7	58	1	0	1	467	2	0	0	112	3	0	4	**674**
4/25	6	0	0	2	0	0	2	0	0	0	3	0	0	0	0	0	0	0	**7**
4/26	5	0	0	9	0	3	13	5	0	0	53	1	0	0	3	0	1	3	**91**
4/27	7	0	0	5	0	1	12	2	1	0	9	0	0	0	3	2	0	1	**36**
4/28	8	0	0	11	2	2	31	6	0	2	52	3	0	0	12	3	0	1	**125**
4/29	7	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	**3**
4/30	8	0	0	8	0	2	1	0	0	0	5	0	0	0	3	1	0	0	**20**
5/1	8	0	0	16	0	1	21	4	0	1	118	2	0	0	15	4	0	2	**184**
5/2	9	0	0	9	1	0	31	2	1	0	164	1	0	0	24	1	0	8	**242**
5/3	5	0	0	2	0	1	27	0	0	1	31	0	0	0	16	2	0	1	**81**
5/4	8	0	0	9	0	2	25	0	0	0	28	0	0	0	10	1	0	0	**75**
5/5	9	0	0	1	0	0	3	0	1	0	10	2	0	0	2	1	1	1	**22**
5/6	8	0	0	1	0	0	10	0	0	0	1	0	0	0	0	2	0	0	**14**
5/7	8	0	0	9	0	0	1	0	0	0	6	0	0	0	0	2	0	0	**18**
5/8	8	0	0	0	0	0	3	0	0	0	13	0	0	0	5	1	0	1	**23**
5/9	7.8	0	0	5	0	1	1	1	0	0	14	1	0	0	3	2	3	0	**31**
5/10	6.3	0	0	2	0	1	1	1	0	0	1	0	0	0	0	2	0	0	**8**
5/11	8	0	0	4	0	0	0	0	0	0	2	0	0	0	0	0	0	0	**6**
5/12	8	0	0	1	0	0	0	0	0	1	3	0	0	0	2	0	0	0	**7**
5/13	8	0	0	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0	**5**
5/14	8	0	0	3	0	0	1	0	0	0	3	0	0	0	0	1	3	0	**11**
5/15	7	0	0	4	0	1	2	0	0	0	22	0	0	0	1	1	2	1	**34**
TOTAL	**452**	**0**	**564**	**342**	**76**	**85**	**469**	**77**	**8**	**80**	**1645**	**190**	**0**	**0**	**321**	**56**	**11**	**43**	**3967**
15YrAv	364	0.7	241	359	60	85	575	58	5.7	70	1356	200	0.8	0.3	308	54	4.3	39	3415

PLUM ISLAND, NEWBURYPORT, MA

Ted Mara, Mark Schoene, Paul Roberts, Brian Rusnica, Ursula Goodine, Craig Jackson, others

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
3/31	8	0	32	1	0	5	1	1	0	0	0	5	0	0	19	6	0	0	**70**
4/1	9	0	33	1	2	10	2	0	0	1	0	0	1	0	39	6	1	1	**97**
4/3	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
4/5	9.0	0	5	0	0	27	0	0	0	0	0	0	0	0	54	5	0	2	**93**
4/6	4.5	0	0	0	0	7	0	2	0	0	0	1	0	0	0	0	0	0	**10**
4/7	10	0	28	2	1	13	0	0	0	0	0	0	0	0	19	2	0	0	**65**
4/9	9.5	0	2	0	0	11	0	0	0	0	0	0	0	0	11	7	0	1	**32**
4/12	2	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	**2**
4/13	6.3	0	0	0	0	2	0	1	0	0	0	0	0	0	20	1	1	1	**26**
4/14	2.5	0	0	0	1	0	0	0	0	0	0	0	0	0	5	1	0	0	**7**
4/17	10	0	2	11	2	15	1	2	0	0	0	0	0	0	33	7	2	1	**76**
4/18	12	0	7	4	0	33	6	1	0	0	0	0	0	0	35	8	0	1	**95**
4/20	6.25	0	0	1	0	10	2	0	0	0	0	0	0	0	1	2	1	0	**17**
4/21	8.8	0	4	3	0	13	6	1	0	0	0	0	0	0	62	22	2	1	**114**
4/22	7	0	4	6	1	15	9	1	0	0	0	0	0	0	48	9	1	0	**94**
4/24	7	0	0	9	0	2	0	0	0	0	0	1	0	0	10	1	3	2	**28**
4/26	6	0	0	5	0	3	1	0	0	0	0	1	0	0	22	4	1	5	**42**
4/27	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
4/28	3.75	0	0	0	0	0	2	0	0	0	0	0	0	0	7	1	1	0	**11**
4/30	5.5	0	0	8	0	6	3	0	0	0	0	2	0	0	11	0	0	1	**31**
5/1	7.0	0	0	6	0	3	1	0	0	0	0	1	0	0	13	1	0	0	**25**
5/2	11	0	8	5	0	11	119	0	0	0	0	0	0	0	190	13	1	4	**351**
5/3	7.0	0	0	1	0	2	15	6	0	0	0	0	0	0	30	1	1	0	**56**
5/5	9.0	0	0	1	0	0	4	3	0	0	0	1	0	0	20	4	0	1	**34**
5/11	7.5	0	0	1	0	1	0	0	0	0	0	0	0	0	3	2	0	0	**7**
5/15	2.5	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**
TOTAL	**173**	**0**	**126**	**66**	**7**	**191**	**173**	**19**	**0**	**1**	**0**	**12**	**1**	**0**	**653**	**103**	**15**	**21**	**1388**
13YrAve	134	0	60	37	4	106	141	16	0	0	1	7	1	0	532	66	9	15	996

BARRE FALLS, BARRE, MA

Donna Schilling, David Grant, Jim Emerton

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
3/27	1.5	0	4	0	0	0	0	0	0	0	0	6	0	0	0	0	0	1	**11**
3/31	4.25	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0	**4**
4/3	1.5	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	**2**
4/5	2.5	0	2	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	**5**
4/8	3	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**3**
4/9	5	0	0	2	0	0	4	1	0	0	0	5	0	0	0	0	0	0	**12**
4/11	4	0	0	7	2	0	3	0	0	0	0	4	0	1	1	0	0	1	**19**
4/12	4	0	4	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	**9**
4/13	4	0	0	1	1	0	2	0	0	0	3	0	0	0	0	0	0	0	**7**
4/14	3	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0	0	0	**7**
4/17	4	0	0	5	0	0	1	1	0	0	4	0	0	0	2	0	0	0	**13**
4/18	2	0	0	0	0	0	1	0	0	0	10	0	0	0	0	0	0	0	**11**
4/20	4.5	0	0	7	0	0	1	0	0	0	11	0	0	0	3	0	0	0	**22**
4/21	4.5	0	0	9	1	0	0	2	0	0	33	1	0	0	4	0	0	0	**50**
4/22	2	0	0	2	0	0	0	0	0	0	6	0	0	0	0	0	0	0	**8**
4/23	2.5	0	0	0	0	0	0	0	0	1	3	0	0	0	1	0	0	0	**5**
4/24	6	0	0	3	0	0	2	0	0	0	11	1	0	0	1	0	0	0	**18**
4/28	5	0	0	1	0	0	0	1	0	0	6	1	0	0	0	0	0	2	**11**
5/3	1.5	0	0	0	1	0	0	1	0	0	6	0	0	0	0	0	0	0	**8**
5/5	4	0	0	1	4	0	0	0	0	0	7	0	0	0	0	0	0	0	**12**
TOTAL	**69**	**0**	**12**	**40**	**10**	**0**	**15**	**6**	**0**	**1**	**107**	**28**	**0**	**2**	**12**	**0**	**0**	**4**	**237**
17YrAv	117	0	52	91	16	12	109	13	1	14	604	83	0	1	43	5	1	13	1056

SHATTERACK MOUNTAIN, RUSSELL, MA

Tom Swochak

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
4/13	4	0	0	4	0	2	2	0	0	0	1	0	0	0	0	0	0	2	**11**
4/18	4.5	0	0	7	0	0	5	0	0	0	29	0	0	0	0	0	0	0	**41**
4/20	4	0	0	3	1	0	0	0	0	0	10	0	0	0	0	0	0	0	**14**
4/21	4	0	0	5	0	0	0	0	0	0	22	0	0	0	0	0	0	0	**27**
4/22	3	0	0	1	0	0	4	0	0	0	11	0	0	0	1	0	0	0	**17**
4/26	4	0	0	1	0	0	1	1	0	0	7	0	0	0	0	0	0	0	**10**
4/28	4.25	0	0	3	0	0	1	1	0	0	10	0	0	0	0	0	0	1	**17**
TOTAL	**28**	**0**	**0**	**24**	**1**	**2**	**13**	**2**	**0**	**0**	**90**	**0**	**0**	**0**	**1**	**0**	**1**	**3**	**137**
5YrAv	18	0	0	18	2	1	20	1	0	0	201	0	0	0	6	0	0	3	252.8

POQUONOCK, POQUONOCK, CT

Joseph Wojtanowski

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
4/11	2.17	4	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	7
4/17	4	0	0	2	1	0	1	0	0	0	35	1	0	0	0	1	1	0	**42**
4/29	3.5	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
5/1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
5/6	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
TOTAL	**12**	**4**	**0**	**5**	**2**	**0**	**1**	**1**	**0**	**0**	**35**	**2**	**0**	**0**	**1**	**1**	**1**	**0**	**53**
4YrAv	105	8	62	20	8	4	29	10	1	11	177	43	0	1	8	2	1	7	389.5

PILGRIM HEIGHTS, TRURO, MA

Donald Manchester, Michael Brokenshire, Bob & Maryellen Stone, Melissa Lowe, Will Sprauve

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
4/1	3	0	5	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0	**9**
4/5	5	0	11	0	0	0	0	1	0	0	0	4	0	0	0	0	0	0	**16**
4/11	5	0	20	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	**25**
4/12	4	0	12	0	0	0	0	0	0	0	0	3	0	0	2	0	0	0	**17**
4/13	2	0	11	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	**13**
4/14	4	0	10	0	0	2	1	2	0	0	0	3	0	0	2	1	1	0	**22**
4/18	5	0	20	0	0	0	2	1	0	0	2	3	0	0	2	0	0	0	**30**
4/20	4	0	11	1	0	1	1	0	0	0	0	3	0	0	1	0	0	0	**18**
4/21	6.5	0	35	1	0	2	1	2	0	1	1	5	0	0	2	0	0	0	**50**
4/22	6	0	43	1	1	0	4	0	0	0	0	1	0	0	3	1	0	0	**54**
4/23	5	0	19	3	0	0	1	0	0	0	0	4	0	0	3	1	1	0	**32**
4/24	5	0	41	6	0	0	3	4	0	0	8	1	0	0	13	1	1	0	**78**
4/26	3	0	8	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	**12**
4/27	3	0	16	4	0	0	2	0	0	0	2	0	0	0	0	0	0	0	**24**
4/28	4	0	12	2	0	1	5	1	0	0	3	3	0	0	6	1	0	0	**34**
4/30	3	0	7	3	0	0	1	0	0	0	1	1	0	0	4	1	0	0	**18**
5/1	4	0	2	5	1	0	1	0	0	0	0	4	0	0	0	1	1	0	**15**
5/2	7	0	23	9	1	0	6	5	0	0	11	3	0	0	31	4	2	0	**95**
5/3	5	0	6	2	1	0	5	3	0	2	35	4	0	0	11	1	1	1	**72**
5/5	8	0	90	10	0	6	5	2	0	5	20	3	0	0	3	3	1	0	**148**
5/7	4	0	9	5	0	1	2	3	0	0	4	5	0	0	2	0	0	1	**32**
5/8	3	0	18	0	0	0	0	1	0	0	1	3	0	0	7	0	0	0	**30**
5/9	4	0	9	1	0	0	0	0	0	0	0	0	0	0	8	4	0	1	**23**
5/11	2	0	11	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	**15**
5/14	5	0	18	4	0	0	9	3	0	0	7	3	0	0	9	0	0	0	**53**
5/16	4	0	7	1	0	0	0	0	0	0	0	0	0	0	3	0	1	0	**12**
5/21	8	0	32	6	0	0	7	2	0	5	6	3	0	0	0	2	1	0	**64**
5/22	4	0	26	5	0	0	1	0	0	0	8	0	0	0	2	0	0	0	**42**
5/23	4	0	18	8	0	0	1	1	0	0	2	1	0	0	0	0	0	0	**31**
5/24	4	0	11	3	0	0	1	0	0	0	1	1	0	0	0	0	0	0	**17**
5/25	3	0	3	1	1	0	1	0	0	0	1	1	0	0	0	1	0	0	**9**
5/26*	5	0	1	3	0	0	1	0	0	0	7	0	0	0	0	0	0	0	**13**
5/30	4	0	37	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**39**
5/31	4	0	8	3	1	0	1	0	0	0	4	0	0	0	1	0	0	0	**18**
6/7	3	0	7	1	0	0	2	0	0	0	8	0	0	0	0	0	0	0	**18**
6/8	5	0	10	3	0	0	1	0	0	0	4	0	0	0	0	0	0	0	**18**
6/12	3	0	9	5	0	0	1	1	0	0	1	0	0	0	0	0	0	0	**17**
6/13	3	0	10	3	0	0	0	0	0	0	7	0	0	0	0	0	0	0	**20**
6/16	4	0	9	2	0	0	0	0	0	0	1	0	0	0	0	0	1	0	**13**
6/20	4	0	23	4	0	0	0	0	0	0	7	0	0	0	0	0	0	0	**34**
TOTAL	**172**	**0**	**678**	**106**	**6**	**16**	**68**	**33**	**0**	**15**	**154**	**68**	**0**	**0**	**117**	**22**	**11**	**5**	**1300**
21YrAve	252	2	566	129	15	25	298	49	2	10	254	90	1	0	176	46	11	21	1698

*5/26 - includes a Mississippi Kite

BEAR MOUNTAIN, BEAR MOUNTAIN, NY

Gerhard Patsch, Tracy Patsch, Doris Metraux

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
4/13	2	0	0	1	1	1	0	3	0	0	0	18	0	0	0	0	1	0	**25**
4/23	5.5	0	0	0	3	0	1	1	0	0	6	0	0	0	1	0	1	0	**13**
TOTAL	**7.5**	**0**	**0**	**1**	**4**	**1**	**1**	**4**	**0**	**0**	**6**	**18**	**0**	**0**	**1**	**0**	**2**	**0**	**38**

HOOK MOUNTAIN, ROCKLAND LAKE, NY

Ajit Antony, Liza Antony, Steve Sachs, Steve Walter, Felicia Napier

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
3/11	3	3	2	0	0	0	0	1	0	1	0	2	0	0	0	0	0	1	**10**
4/5	2.5	0	7	1	1	0	0	1	0	0	3	0	0	0	0	0	0	0	**13**
4/6	2.75	0	0	2	1	4	7	5	0	10	2	3	0	0	9	0	1	1	**45**
4/7	3	0	0	0	0	1	1	1	0	1	5	0	0	0	0	0	1	0	**10**
4/9	2	0	0	1	0	0	1	1	0	3	0	1	0	0	0	0	0	0	**7**
4/11	3.25	0	0	1	0	1	2	1	0	2	1	0	0	0	2	0	0	0	**10**
4/12	3.75	0	0	0	0	1	0	2	0	0	4	1	0	0	0	0	2	0	**10**
4/13	5	0	0	5	0	1	12	2	0	1	54	0	0	0	22	1	1	0	**99**
4/17	4.75	0	0	6	3	0	0	0	0	0	59	0	0	0	1	0	0	0	**69**
4/18	5.25	0	0	6	1	2	6	0	0	0	93	0	0	0	0	0	1	0	**109**
4/20	6	0	0	10	0	0	4	0	0	0	129	0	0	0	1	0	0	0	**144**
4/21	8	2	10	4	0	1	10	2	0	1	214	0	0	0	2	5	2	0	**253**
4/22	5.5	0	2	8	4	1	17	7	0	0	723	0	0	0	5	0	5	0	**772**
4/23	4.25	0	0	2	0	0	1	0	0	0	54	0	0	0	2	0	0	0	**59**
4/26	5.5	0	0	1	0	0	2	2	0	0	3	0	0	0	0	0	1	0	**9**
TOTAL	**65**	**5**	**21**	**47**	**10**	**12**	**63**	**25**	**0**	**19**	**1344**	**7**	**0**	**0**	**44**	**6**	**14**	**2**	**1619**
13YrAv	27	2	17	24	8	7	60	12	0	16	682	19	0	0	31	4	3	5	888

WILDCAT RIDGE, HIBERNIA, NJ

Frank Budney, Mike Leone

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
3/6	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3/31	3.5	5	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	1	**10**
4/5	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
4/7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/11	4	4	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	**7**
4/14	3.5	4	0	0	4	0	0	0	0	0	0	4	0	0	0	0	0	0	**12**
4/18	4	1	0	1	0	0	1	0	0	0	7	0	0	0	0	0	0	1	**11**
4/21	3	0	0	0	0	0	1	0	0	2	7	0	0	0	0	0	0	0	**10**
4/22	5	0	0	0	2	0	1	0	0	0	37	0	0	0	1	1	0	0	**42**
4/24	5	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	**2**
4/26	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	**2**
5/7	5	1	0	1	0	0	1	0	0	0	2	2	0	0	0	0	0	0	**7**
5/11	3.5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
TOTAL	**48**	**15**	**0**	**2**	**6**	**0**	**8**	**1**	**0**	**2**	**54**	**13**	**0**	**0**	**2**	**1**	**0**	**3**	**107**
17YrAv	186	8	14	37	8	6	90	22	0	10	396	55	0	0	23	1	1	11	683

MONTCLAIR, NJ

Beth Olsen, Alex Bernzweig

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
3/16	8.5	0	8	0	0	0	2	5	0	1	0	0	0	0	0	0	0	0	**16**
3/17	9	0	4	0	0	0	0	8	0	11	0	5	0	0	0	1	0	3	**32**
3/18	8.5	4	4	0	0	0	0	3	0	4	0	1	0	0	0	1	1	0	**18**
3/19	8	3	3	2	2	0	2	2	0	6	0	1	0	0	0	0	0	1	**22**
3/20	6	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3/22	8	0	8	2	0	0	0	2	0	5	0	2	0	0	1	0	0	0	**20**
3/23	7	0	4	0	0	0	1	4	0	9	0	2	0	0	0	0	1	1	**22**
3/24	8	3	4	0	1	0	1	4	0	3	0	1	0	0	1	1	0	1	**20**
3/25	8	1	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**5**
3/26	8	7	108	6	1	0	1	3	0	3	0	4	0	0	0	2	0	0	**135**
3/27	6	0	61	1	0	0	0	2	0	9	0	1	0	0	0	0	0	0	**74**
3/28	8	0	6	0	1	0	0	1	0	3	0	2	0	0	0	0	0	0	**13**
3/30	6.5	1	188	33	1	4	9	14	0	12	0	1	0	0	25	1	0	1	**290**
3/31	8.5	1	196	4	2	0	2	4	0	14	0	4	0	0	3	0	0	1	**231**
4/1	7	1	17	2	1	0	9	2	0	0	0	1	0	0	1	0	0	0	**34**
4/3	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/5	8.5	0	58	10	5	5	10	3	0	5	0	4	0	0	5	0	1	1	**107**
4/6	6.5	5	35	10	2	8	9	10	0	14	4	4	0	0	5	1	0	1	**108**
4/7	8.5	1	12	5	0	1	2	1	0	0	4	0	0	0	4	0	0	1	**32**
4/8	8	0	2	3	0	0	0	3	0	0	2	0	0	0	6	1	0	0	**17**
4/9	8	0	11	0	0	0	0	1	0	4	0	1	0	0	0	0	0	0	**17**
4/10	8	0	1	1	0	0	0	0	0	3	1	0	0	0	0	0	0	0	**6**
4/11	7.5	2	10	7	1	0	6	1	0	1	2	0	0	0	0	0	0	0	**30**
4/12	8	2	6	10	1	3	4	0	0	3	5	2	0	0	6	2	0	1	**45**
4/13	8.5	4	10	13	0	2	5	7	0	4	21	4	0	0	16	1	0	4	**91**
4/14	8.75	11	10	23	2	2	5	9	0	1	23	4	0	0	17	2	0	2	**111**
4/15	7	0	3	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	**6**
4/16	4.25	0	0	8	1	0	1	0	0	0	1	0	0	0	3	1	0	0	**15**
4/17	8	0	0	5	0	0	2	0	0	1	50	0	0	0	0	1	0	0	**59**
4/18	8	0	1	5	0	1	2	1	0	0	49	0	0	0	0	1	0	0	**60**
4/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4/20	9.5	1	1	6	3	3	7	4	0	0	135	1	0	0	9	7	0	1	**178**
4/21	9	0	4	2	1	1	10	4	0	1	186	1	0	0	5	0	0	1	**216**
4/22	9	0	3	1	0	0	1	1	0	0	67	1	0	0	3	2	0	0	**79**
4/23	9	0	8	2	1	0	3	0	0	1	22	0	0	0	9	1	0	0	**47**
4/24	8.25	0	5	1	2	0	2	0	0	0	0	0	0	0	3	2	0	0	**15**
4/26	9.5	0	2	3	0	0	0	1	0	0	7	0	0	0	2	0	2	0	**17**
4/28	10	0	1	25	1	1	3	2	0	0	3	1	0	0	6	6	1	2	**52**
4/29	9.5	0	1	2	4	3	17	1	0	1	103	1	0	0	12	1	0	0	**146**
4/30	6	0	2	3	1	0	9	1	0	0	33	0	0	0	1	0	0	0	**50**
5/1	10.3	8	7	5	6	0	43	3	0	0	95	3	0	0	4	3	0	1	**178**
5/2	12	0	10	2	3	0	4	0	0	0	9	1	0	0	2	1	0	0	**32**
5/3	11	1	4	1	1	1	2	0	0	1	3	1	0	0	0	0	0	0	**15**
5/4	11	0	10	2	0	0	1	0	0	0	3	0	0	0	0	0	0	0	**16**
5/5	11	0	9	4	1	0	1	0	0	0	4	2	0	0	0	0	0	0	**21**
5/6	7.5	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	**3**
5/7	11	0	0	4	1	0	0	0	0	1	2	7	0	0	0	4	0	0	**19**
5/8	11	0	2	2	0	0	0	1	0	0	1	0	0	0	0	0	1	0	**7**
5/9	11	0	6	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	**9**
5/10	11.5	0	3	3	0	0	0	0	0	0	6	3	0	0	0	2	1	0	**18**
5/11	11.5	0	2	3	2	0	1	4	0	0	12	6	0	0	0	0	0	0	**30**
5/14	9.5	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	1	0	**5**
5/15	8.5	6	5	2	1	0	0	1	0	0	5	0	0	0	0	0	0	0	**20**
TOTAL	**446**	**62**	**857**	**227**	**51**	**35**	**177**	**115**	**0**	**121**	**861**	**75**	**0**	**0**	**149**	**47**	**9**	**23**	**2810**
30YrAv	335	24	355	183	15	40	407	59	0	62	1528	132	0	0	260	24	5	36	3135

*4/7 includes 1 Short-eared Owl

ALLEY CREEK, QUEENS, NY

Steve Walter

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
3/31	3.5	0	176	4	0	1	0	1	0	0	0	0	0	0	2	0	0	1	**185**
4/1	3.5	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**5**
4/5	3.5	0	4	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	**10**
4/6	3.5	0	4	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**15**
4/7	4.5	0	2	9	0	0	2	0	0	0	0	0	0	0	0	1	0	0	**14**
4/8	3.5	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
4/9	5	0	12	1	4	0	1	0	0	0	0	0	0	0	0	1	0	1	**20**
4/10	3	0	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
4/11	5	0	6	7	1	0	1	0	0	0	1	0	0	0	1	1	0	1	**19**
4/12	4.5	0	10	4	0	0	2	0	0	0	0	0	0	0	1	3	1	0	**21**
4/13	6	0	21	12	1	10	2	1	0	2	0	0	0	0	7	0	1	0	**57**
4/14	6	0	1	1	0	0	4	0	0	0	0	0	0	0	7	1	1	0	**15**
4/17	4	0	3	9	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**13**
4/18	5	0	2	5	1	1	1	0	0	0	0	0	0	0	0	2	0	0	**12**
4/20	4.5	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	**3**
4/22	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	**2**
4/29	4	0	2	2	1	1	0	0	0	0	2	1	0	0	0	0	0	0	**9**
4/30	2.5	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
5/1	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
TOTAL	**77**	**0**	**249**	**78**	**9**	**18**	**18**	**4**	**0**	**2**	**3**	**1**	**0**	**0**	**20**	**9**	**5**	**2**	**418**

SCOTT'S MOUNTAIN, MCR HARMONY TWP. NJ

Paul Murray, Christina Hagen, Matt Domanski, Norann Hein, Paul Shanahan

2018	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
4/14	8.25	0	0	12	16	5	12	12	0	0	174	15	0	0	8	0	0	1	**255**
TOTAL	**8.3**	**0**	**0**	**12**	**16**	**5**	**12**	**12**	**0**	**0**	**174**	**15**	**0**	**0**	**8**	**0**	**0**	**1**	**255**
3YrAv	7	0	0	7	10	2	8	6	0	0	68	13	0	0	3	0	0	2	119

2018 NorthEast Fall Season

In 2018 hawk watchers at 41 sites counted 191,288 hawks across the NorthEast from New Brunswick to New Jersey. Collectively, our counters tallied 9511 hours on 1584 days of coverage. Their efforts resulted in an average of 121 hawks/day, a big increase over the 98 hawks/day in 2017 and the 87 hawks/day in 2016. With 7 more sites than in 2017, an increase in hawks is expected, but the sites that reported in both 2017 and 2018 had a similar increase, averaging 118 hawks/day in 2018. So, Fall 2018 is a season to celebrate—we had more hawks than we did in both 2017 and 2016.

We welcome reports from the eight sites not included in 2017: Mt. Philo in Vermont, Munn Brook and Blueberry Hill in Massachusetts, Poquonock in Connecticut, Lenoir and Fort Tilden in New York, and Purple Chickadee and Scott's Mountain in New Jersey. Mt. Philo, Munn Brook, and Purple Chickadee are new sites. Blueberry Hill and Lenoir renewed counting after a couple of years hiatus. Poquonock's data was inadvertently missed in 2017. It was also active in six other years, 2013 and earlier. Scott's Mountain, on our southwestern boundary, has been included in our analysis to help us better understand migration patterns across our region.

The watch sites are organized into six regions, named for their southern-most latitudes. Region 44 includes sites north of latitude N 44, Region 43 north of latitude N 43, Region 42 north of latitude N 42, etc. Region CO is the southern Coastal Region. Region 44 has six sites, Region 43 has five sites, Region 42 has eight sites, Region 41 has 13 sites, and Region 40 has six sites. Region CO has three sites along the southern coastline, overlapping Regions 40 and 41. The summary table for Seasonal Totals is arranged by Region with the sites listed from north to south.

NorthEast Fall 2018 Seasonal Totals

Reg	Site	Days	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	Total	XBV
44	Greenlaw Mt NB	48	342	1	374	162	199	95	572	12	28	5	600	272	2	4	164	45	28	100	2663	1688
	Cooper ME	16	89	0	32	0	13	0	0	0	0	0	4	0	0	0	1	1	1	1	53	17
	Cadillac Mt ME	60	270	0	133	102	75	79	544	18	7	2	429	20	0	0	495	24	33	139	2100	1538
	Mt. Philo SP VT	3	19	10	28	1	5	1	1	11	0	14	190	29	3	0	2	0	3	49	347	119
	Clarry Hill ME	36	286	0	884	231	468	95	1014	71	6	27	2358	316	3	8	216	33	34	28	5792	2550
	Harpswell Pen ME	57	288	0	112	79	14	61	744	25	6	14	71	33	1	1	124	166	43	29	1523	1340
43	Interlakes School NH	2	10	0	28	1	5	0	1	1	0	0	76	8	0	0	0	1	0	5	126	22
	Concord School NH	5	20	0	16	0	3	1	7	0	0	0	63	4	0	0	1	0	1	6	102	23
	Carter Hill NH	2	10	0	10	1	0	0	15	3	0	0	0	2	0	0	5	4	0	0	40	30
	Pack Monadnock NH	66	455	0	98	181	176	64	668	124	11	126	6756	246	2	22	171	58	31	108	8842	1988
	Putney Mt VT	70	508	0	514	148	144	77	1840	147	23	43	12045	588	2	16	298	56	30	0	15971	3412
42	Mount Watatic MA	12	84	1	11	52	52	8	176	33	0	4	3874	3	0	0	39	9	4	25	4291	405
	Helderberg NY	12	78	42	110	15	33	9	24	41	0	0	951	59	0	0	18	7	11	35	1357	254
	Wachusett Mt MA	47	258	6	267	100	135	17	281	132	0	13	5042	65	0	1	121	44	21	82	6327	1012
	Pinnacle Rock MA	24	136	0	19	13	22	15	276	69	0	4	9	20	0	0	17	12	5	66	547	519
	Barre Falls MA	49	219	0	156	45	58	13	341	65	1	11	1134	148	0	4	55	20	4	35	2090	800
	Shatterack Mt MA	33	175	0	336	38	54	15	321	51	0	38	3080	116	0	4	44	10	5	14	4126	710
	Munn Brook MA	5	7	0	4	7	12	0	27	4	0	0	1134	12	0	0	3	0	0	0	1203	65
	Blueberry Hill, MA	13	52	0	104	5	5	8	107	27	1	11	1108	58	0	0	28	8	2	14	1486	274
41	Poquonock CT	33	133	7	25	11	7	2	9	9	0	2	51	32	0	3	7	3	3	5	176	93
	Middle School CT	9	43	0	0	7	3	1	3	9	0	1	1419	0	0	0	6	1	0	12	1462	43
	Johnnycake Mt CT	4	26	4	44	21	20	5	33	19	0	0	1708	9	0	0	17	3	3	0	1886	130
	Mohonk NY	32	161	3	108	81	100	30	751	108	1	34	4453	170	0	3	78	29	15	6	5970	1406
	Chestnut Hill CT	9	40	0	0	6	17	1	47	6	0	0	2818	0	0	0	16	0	2	4	2917	99
	White Memorial CT	2	5	0	2	0	0	1	0	6	0	1	36	4	0	0	0	1	1	0	52	14
	Botsford Hill CT	11	53	0	0	17	12	4	63	4	0	0	2571	0	0	0	10	1	0	9	2691	120
	Bear Mountain NY	45	238	0	0	55	66	8	374	56	0	16	1217	86	0	5	48	11	12	28	1982	765
	Mount Peter NY	66	419	79	504	134	112	35	1469	176	2	213	5071	508	0	6	159	15	23	24	8530	2876
	Chestnut Ridge NY	84	578	86	3414	314	159	103	1932	346	2	272	4278	454	0	3	446	84	27	151	12071	4293
	Hook Mountain NY	69	415	127	780	166	159	112	2337	204	5	439	3279	200	0	8	217	94	37	3	8167	3981
	Quaker Ridge CT	96	674	62	1344	592	317	142	2456	489	4	648	9342	271	0	8	628	133	32	73	16541	5793
	Purple Chickadee NJ	32	170	1	142	13	13	13	201	139	1	12	971	45	0	4	49	11	7	23	1645	531
40	State Line NJ	76	467	26	3388	956	373	98	1794	572	1	388	3210	634	0	1	685	124	86	73	12409	5785
	Lenoir Wildlife NY	25	95	39	621	211	114	18	267	61	0	45	3115	75	0	0	146	12	16	2	4742	967
	Wildcat Ridge NJ	31	166	31	0	49	32	14	280	83	2	7	3031	43	0	0	24	9	3	38	3646	584
	Montclair NJ	91	600	80	1863	272	160	53	1090	340	2	347	5442	174	0	1	324	92	45	9	10294	2909
	Scott's Mountain NJ	87	582	0	0	217	259	72	2018	273	11	152	8466	598	0	15	195	58	50	114	12498	4032
	Washington Val NJ	37	200	4	33	86	155	60	1105	198	2	249	3188	99	0	4	304	82	10	0	5579	2354
CO	Lighthouse Pt CT	103	631	4	239	1630	342	439	3634	2272	3	243	225	409	1	3	1717	475	215	589	12440	11972
	Fire Island NY	75	452	0	0	496	14	248	480	84	0	0	0	1	0	0	964	1589	172	3	4051	4051
	Fort Tilden NY	7	59	0	17	30	6	103	708	105	0	5	12	9	0	0	1210	332	16	0	2553	2524
	Totals	**1584**	**9511**	**613**	**15760**	**6545**	**3913**	**2120**	**28010**	**6393**	**119**	**3386**	**102827**	**5820**	**14**	**124**	**9052**	**3657**	**1031**	**1902**	**191288**	**72088**

BV Black Vulture, TV Turkey Vulture, OS Osprey, BE Bald Eagle, NH Northern Harrier, SS Sharp-shinned Hawk, CH Cooper's Hawk, NG Northern Goshawk, RS Red-shouldered Hawk, BW Broad-winged Hawk, RT Red-tailed Hawk, RL Rough-legged Hawk, GE Golden Eagle, AK American Kestrel, ML Merlin, PG Peregrine Falcon, UR Unidentified Raptor, XBWV Total without Broad-winged Hawks and Vultures

Region 44

6.5% of hawks, 10% of XBV, 57 hawks/day, 32 XBV/day, 10 hawks/hour

[Note: XBV=Total Hawks minus Broadwinged Hawks and both vultures]

Region 44 includes Greenlaw Mountain in New Brunswick; Cooper, Cadillac Mountain, Clarry Hill, and Harpswell Peninsula in Maine; and Mount Philo in Vermont. This region counted 6.5% of the hawks in the NorthEast, averaging 57 hawks/day, both a bit lower than in 2017. It counted 10% of Hawks without Broadwings and vultures (XBV), averaging a higher 32 XBV/day, and the same average 10 hawks/hour as last year.

Greenlaw Mountain had multiple records—a record high effort in hours resulted in a record low count for Broad-winged Hawk (600) and Total Hawks (2663). But this was accompanied by their first Black Vulture and record highs for four species—Bald Eagle (199), Northern Goshawk (28), Rough-legged Hawk (2), and Golden Eagle (4). The Goshawk count was the highest for the season in the NorthEast, and accounts for 24% of all Goshawks. **Cooper** counted for the seventh year, documented mostly Turkey Vultures (32) and Bald Eagles (13), and recorded their first Peregrine Falcon. **Cadillac Mountain** had above average counts for Turkey Vulture (133), Bald Eagle (75), and Peregrine Falcon (33), but below average counts for Osprey (102), Northern Harrier (79), Broadwing (429), and Redtail (20). They had record low counts for both Sharp-shinned Hawk (544) and Merlin (24). **Mount Philo** counted 13 species in three days, including a high for the NorthEast of three Rough-legged Hawks and the highest Black Vulture (10) count north of Massachusetts. **Clarry Hill** had two high counts for the NorthEast which were also site records, one tying Mount Philo with three Roughlegs, and the other a high of 468 Bald Eagles. Other site records include Turkey Vulture (884), Sharp-shinned Hawk (1014), and American Kestrel (216). They also counted 8 Golden Eagles, not a record. They had one record low, 2358 Broad-winged Hawks. **Harpswell Peninsula** had a record high count for Turkey Vulture (112), and above average counts for Northern Goshawk (6), Red-shouldered Hawk (14), and Merlin (166). They also counted a Roughleg and a Golden Eagle, but had below average counts for Osprey (79), Bald Eagle (14), Broadwing (71), and Kestrel (124). Region 44 accounted for 64% of our Roughlegs and 39% of our Goshawks in 2018.

Region 43

13% of hawks, 8% of XBV, 173 hawks/day, 38 XBV/day, 25 hawks/hour

Region 43 includes Interlakes School, Concord School, Carter Hill, and Pack Monadnock in New Hampshire; and Putney Mt. in Vermont. This region counted 13% of the hawks of the NorthEast, averaging 173 hawks/day—more hawks per day than any other region. The region also counted 8% of XBV, averaging 38 XBV/day, and 25 hawks/hour, also the highest for the region.

Interlakes School documented eight raptor migrant species on their typical two days counting, and had a record high for Redtails (8). They also had above average Turkey Vultures and Bald Eagles. **Concord School** had a good showing of raptors this season, including above average Broad-winged Hawks, Sharp-shinned Hawks, and Bald Eagles. They also counted their first Peregrine Falcon and second Northern Harrier since beginning their watch. **Carter Hill** had a much reduced season of only two days compared with their average of 61 days. Yet, they documented seven species of hawks, with Sharpshins being most prevalent. **Pack Monadnock** counted 22 Golden Eagles, the highest for the NorthEast and a site record. They also had site records for Bald Eagle (176) and Rough-legged Hawk (2). However, they had below average counts for Sharp-shinned Hawk (668), Northern Goshawk (11), Turkey Vulture (98), and Merlin (58). **Putney Mountain** counted 12,045 Broad-winged Hawks, the highest for the NorthEast, and a new record for the site. They also had record highs for two additional species, Sharp-shinned Hawk (1840) and Golden Eagle (16). Other species with above average counts include Turkey Vulture (514), Bald Eagle (144), and Merlin (298).

Region 42

11% of hawks, 6% of XBV, 110 hawks/day, 21 XBV/day, 21 hawks/hour

Region 42 includes Helderberg in New York and seven sites in Massachussetts—Mount Watatic, Wachusett Mountain, Pinnacle Rock, Barre Falls, Shatterack Mountain, Munn Brook Meadow, and Blueberry Hill. This region counted 11% of the hawks of the NorthEast, averaging 110 hawks/day and 6% of XBV, averaging 21 XBV/day, and 21 hawks/hour.

Mount Watatic counted their first Black Vulture and above average Bald Eagles (52). Their counts for most other species was about average, except for Red-tailed Hawk (3), which was below average. **Helderberg** had record high counts for six species—Black Vulture (42), Northern Harrier (9), Cooper's Hawk (41), Red-tailed Hawk (59), Merlin (7), and Peregrine Falcon (11). Their Broadwing count was below average. **Wachusett** had record high counts for three species—Black Vulture (6), Cooper's Hawk (132), and Merlin (44), and above average counts for five others—Turkey Vulture (267), Bald Eagle (135), Red-shouldered Hawk (13), Red-tailed Hawk (65), and American Kestrel (44). They had below average counts for Osprey (100) and Broad-winged Hawk (5042). At **Pinnacle Rock** they increased coverage by 50% and were rewarded with record high counts for two species, Bald Eagle (22) and Cooper's Hawk (69). They also had above average counts for all other species except Osprey (13), which was about average. At **Barre Falls** coverage was slightly less than average, yet they had good numbers of eagles—four Golden Eagles, twice their average, and an average 58 Bald Eagles. All other species were below average.

Shatterack Mountain had record highs for four species—Bald Eagle (54), Cooper's Hawk (51), Red-shouldered Hawk (38), and Golden Eagle (4). They also had above average counts for Turkey Vulture (336) and Red-tailed Hawk (116). Prior to this year, **Munn Brook Meadow** had only 1 day of coverage, in 2013. This season, with five days of coverage, it contributed 1203 hawks of nine species. The most prevalent species was Broad-winged Hawk (1134). **Blueberry Hill** returned as an active site this season, but with reduced coverage. It counted 1486 hawks of 13 species, including mostly Broadwings (1108), and a Northern Goshawk.

Region 41

34% of hawks, 28% of XBV, 130 hawks/day, 41 XBV/day, 22 hawks/hour

Region 41 has 13 sites, seven in Connecticut, five in New York, and one in New Jersey. The Connecticut sites include Poquonock, Middle School, Johnnycake, Chestnut Hill, White Memorial, Botsford Hill, and Quaker Ridge. The New York sites include Mohonk, Bear Mountain, Mount Peter, Chestnut Ridge, and Hook Mountain. The single New Jersey site is Purple Chickadee. This region counted 34% of the hawks of the NorthEast, averaging 130 hawks/day, and 28% of XBV, averaging 41 XBV/day, and 22 hawks/hour. These percentages are the largest for the Northeast, consistent with the number of sites reporting.

Poquonock recorded 14 species of hawks, even with less coverage this season. Their highlight was three Golden Eagles. **Middle School** also had less coverage. They counted nine species, including more Broadwings (1419) than in the last several years. **Johnnycake** had above average counts for two species, Turkey Vulture (44) and Cooper's Hawk (19). Their Broadwing count (1708) was also better than the last several years. **Mohonk** had a good season with all species at or above average. Species with counts more than double average include Osprey (81), Bald Eagle (100), Sharp-shinned Hawk (751), Cooper's Hawk (108), Red-shouldered Hawk (34), Broad-winged Hawk (4453), American Kestrel (78), and Merlin (29). They also counted one Goshawk and three Golden Eagles. **Chestnut Hill** had reduced coverage, but still had average counts for Sharp-shinned Hawks (47) and American Kestrel (16). Their Osprey count (6) was well below average. **White Memorial** had reduced coverage, but still managed to document eight species, including six Cooper's Hawks. **Botsford Hill** counted more Broad-winged Hawks than in the last couple of years, but generally had below average counts. An exception was an average four Northern Harriers. **Bear Mountain** had a good season, with above average counts for six species—Sharp-shinned Hawk (374), Cooper's Hawk (56), Red-shouldered Hawk (16), American Kestrel (48), Merlin (11), and Peregrine Falcon (12). They topped off their season with five Golden Eagles. **Mount Peter** had record high counts for two species, Cooper's Hawk (176) and Red-shouldered Hawk (213). They had above average counts for Turkey Vulture (504) and Bald Eagle (112); and they also counted two Goshawks and six Goldens. **Chestnut Ridge** had the highest Turkey Vulture (3414) count in the NorthEast. This was not a site record, but they did have a record high count for Bald Eagle (159). Other species with above average counts were Black Vulture (86), Red-tailed Hawk (454), American Kestrel (446), and Merlin (84). Additionally, they counted two Goshawks and three Goldens. **Hook Mountain** had the highest NorthEast count for Black Vulture (127), with 61 counted on a single day. This was one of three site records. The other two species with record high counts were Turkey Vulture (780) and Red-shouldered Hawk (439). Above average counts included Red-tailed Hawk (200), Merlin (94), and Sharp-shinned Hawk (2337). The Sharpshin count doubled the counts of the last two years. **Quaker Ridge** had the highest NorthEast counts for hours of coverage (674), Red-shouldered Hawk (648), and Total Hawks (16541). While none of these were site records, they did have record highs for two species, Black Vulture (62) and Bald Eagle (317). They had above average counts for American Kestrel (628) and Merlin (133), and they counted four Goshawks and 8 Goldens. **Purple Chickadee** is new to our NorthEast region. It documented 15 species of hawks, mostly Broadwings (971), followed by Sharpshins (201). They also had one Goshawk and 4 Goldens.

Region 40

26% of hawks, 23% of XBV, 142 hawks/day, 48 XBV/day, 23 hawks/hour

Region 40 has one site in New York, Lenoir Wildlife Sanctuary, and five sites in New Jersey—State Line, Wildcat Ridge, Montclair, Scott's Mountain, and Washington Valley. This region counted 26% of the hawks of the NorthEast, averaging 142 hawks/day, and 23% of XBV, averaging 48 XBV/day, and 23 hawks/hour.

State Line had the highest count in the NorthEast for Red-tailed Hawk (634). This was one of seven record high counts for the site. The other six records were Turkey Vulture (3388), Osprey (956), Bald Eagle (373), Cooper's Hawk (572), American Kestrel (685), and Merlin (124). They also counted one Goshawk and one Golden. Note that Turkey Vulture counts have been higher than Broadwing counts at this site for the last three years. **Lenoir** reactivated their watch site and were rewarded with two record high counts, for Bald Eagle (114) and Broadwings (3115). They also had above average counts for Black Vulture (39), Osprey (211), Northern Harrier (18), American Kestrel (146), and Peregrine Falcon (16). In spite of record low coverage, **Wildcat Ridge** documented 13 species, including two Northern Goshawks. Most species were below average, but Black Vultures (31), Northern Harrier (14), and Merlin (9) had average counts. **Montclair** had average Total Hawks (10294) and average counts for most species. After three years of low counts, even Broad-winged Hawks (5442) returned to average. Two species were slightly above average, Turkey Vulture (1863) and Red-shouldered Hawk

(347). They also counted two Goshawks and one Golden. **Scott's Mountain**, though new to our NorthEast region, has been counting hawks for 17 years. Their Harriers (72) and Broadwings (8466) were below average, while their Peregrines (50) and Cooper's Hawks (273) were above average. Most other species were near average, including their 11 Goshawks and 15 Goldens. For **Washington Valley**, this was the 2nd year under its new name, and the counts for most species doubled those in 2017. These include Sharp-shinned Hawk (1105), Cooper's Hawk (198), and Broad-winged Hawk (3188). It also counted two Goshawks and 4 Goldens.

Region CO

10% of hawks, 26% of XBV, 103 hawks/day, 100 XBV/day, 17 hawks/hour

Region CO include three coastal sites, Lighthouse Point in Connecticut, and Fire Island and Fort Tilden in New York. These three sites counted 10% of the hawks of the NorthEast, averaging 103 hawks/day, and 26% of XBV, averaging 100 XBV/day, and 17 hawks/hour. All of these measures of hawk activity are larger than in 2017, indicating that these sites accounted for a larger proportion of the NorthEast count this season.

Lighthouse Point covered more days than any other year, and was rewarded with the highest counts in the NorthEast for six species—Osprey (1630), Northern Harrier (439), Sharp-shinned Hawk (3634), Cooper's Hawk (2272), American Kestrel (1717), and Peregrine Falcon (215). At 36% of all the NorthEast, their Cooper's Hawk count was a new site record, as was Bald Eagle (342). Their Merlin (475) count was above average, but they had below average counts for both vultures and for Broad-winged Hawks (225). **Fire Island** once again had the highest Merlin (1589) count in the NorthEast, accounting for 43% of all the Merlins in the NorthEast! It also had site records for two species, Bald Eagle (14) and Cooper's Hawk (84), and above average counts for Sharp-shinned Hawk (480), American Kestrel (964), and Northern Harrier (248). **Fort Tilden** submitted their first data this season, recording 12 species, and getting the 2nd highest American Kestrel (1210) count for the NorthEast and the 3rd highest Merlin (332) count.

The Count

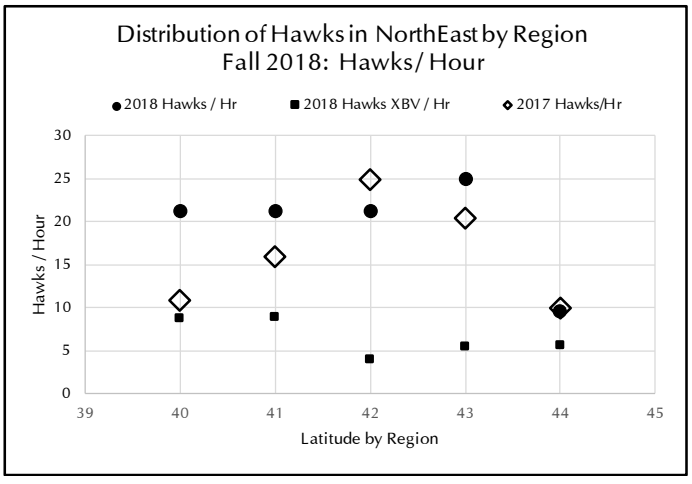
Our total of 191,288 hawks in 2018 is 30,378 more than the 2017 count, adjusted for our new sites. Furthermore, this total is above our 39 year average of 184,000, near our 20 year average of 209,000, and only 19% below our 10 year average of 235,000. That's fantastic news! We actually got back to recent average…..and we saw hawks! But, did we really count more on average in the last 10 years than in the last 20 years, and more in the last 20 years than in the last 39 years? Yes, we did. However, these are total hawks over those years. When we adjust for increasing effort and look at these same comparisons in hawks per hour, we see generally the same results. We counted 20.1 hawks/hour in 2018, compared with the 10 year average of 21.9 hawks/hour, the 20 year average of 22.1 hawks/hour, and the 39 year average of 29.9 hawks/hour. So, we are near the 10 year and 20 year averages, but 33% below the 39 year average. Compare this to 2017 when we counted 15.7 hawks/hour, which was 47% below the 39 year average. So, yes we can celebrate a return to near recent average!

Distribution of Hawks Across the Northeast

With a closer look at the hawks/hour across the regions, we can see which regions actually saw more hawks. The distribution graph shows 2018 as a solid circle and 2017 as an open diamond. Regions 40, 41, and 43 all had more hawks/hour than in 2017, and Region 44 had about the same. Only Region 42 had fewer hawks/hour in 2018, dropping from 25 to 21 hawks/hour. Clearly, the winner in 2018 is Region 40. Our southern-most region saw almost twice as many hawks in 2018 as in 2017! What a relief to see these improved counts!

The small solid squares on the graph represents the hourly 2018 Hawks without Broadwings and Vultures (XBV). For each region, the further the circle is from the square the higher the proportion of Broadwings and Vultures. So, Region 42 had a higher proportion of Broadwings and Vultures than Region 41. Also, Region 43 has the highest Total Hawks/hr in the NorthEast, but has about the same hourly count of XBV as region 44.

For the distribution of individual species across the regions, we use hawks per 100 hours to avoid fractions for most species. For several species, numbers increase from north (Region 44) to south (Region CO). This is most obvious for Cooper's Hawk, but is also true to a lesser extent for Osprey and Sharp-shinned Hawk. Two species, Northern Goshawk and Rough-legged Hawk, show a reverse pattern, decreasing from north to south. Harriers and Falcons continue to be most prevalent in the coastal region, where there are 2 to 10 times more than in other regions. Broadwings spread out through all the middle latitudes this season. Redtails and Bald eagles continue throughout all regions, with an interesting Bald Eagle increase this season in Region 44. Which is your favorite hawk species? Does the distribution above fit your experience?



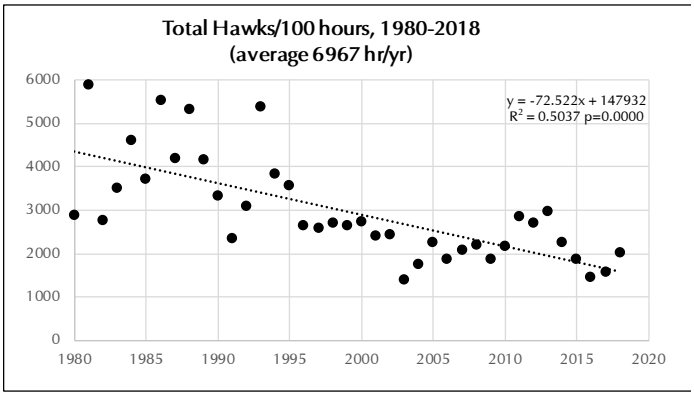
NorthEast Fall 2018 Distribution: Hawks / 100 Hours by Region

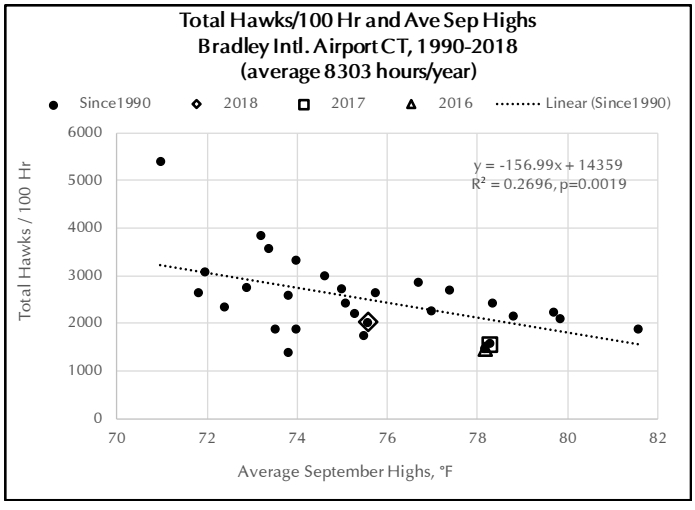
Reg	Sites	Days	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	Total	XBV
44	6	220	1293	1	121	44	**60**	26	222	11	**3.6**	5	282	52	**0.7**	1.0	78	21	11	27	965	561
43	5	145	1003	0	66	33	33	14	252	27	3.4	17	**1889**	**85**	0.4	**3.8**	47	12	6	12	**2501**	546
42	8	195	1009	5	100	27	37	8	154	42	0.2	8	1619	48	0.0	0.9	32	11	5	27	2124	400
41	13	492	2955	**12**	215	48	33	15	327	53	0.5	**55**	1259	60	0.0	1.4	57	13	5	11	2169	682
40	6	347	2109	9	**280**	85	52	15	311	72	0.9	**56**	1254	77	0.0	1.0	80	18	10	11	2331	789
CO	3	185	1143	0	22	**189**	32	**69**	**422**	**215**	0.3	22	21	37	0.1	0.3	**341**	**210**	**35**	52	1667	**1623**
NorthEast	1584	9511		6	166	69	41	22	295	67	1.3	36	1081	61	0.1	1.3	95	38	11	20	2011	758

BV Black Vulture, TV Turkey Vulture, OS Osprey, BE Bald Eagle, NH Northern Harrier, SS Sharp-shinned Hawk, CH Cooper's Hawk, NG Northern Goshawk, RS Red-shouldered Hawk, BW Broad-winged Hawk, RT Red-tailed Hawk, RL Rough-legged Hawk, GE Golden Eagle, AK American Kestrel, ML Merlin, PG Peregrine Falcon, UR Unidentified Raptor, XBWV Total without Broad-winged Hawks and Vultures *Species numbers are counts per 100 hours to account for effort and enable whole numbers.*

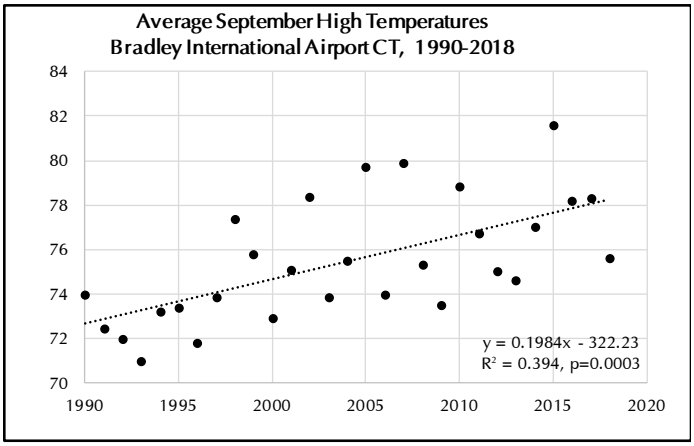
Trends for Total Hawks—declining with time and heat

As noted above, our Total Hawks, both actual numbers and Hawks/100 hours, were higher than the previous two years, but are nonetheless near recent average. Therefore, this season does not change any trends. Our Total Hawks/100 Hours continue to decline significantly (r= - 0.710, p=0.0000). The correlation suggests that we have lost 72.5 hawks/100 hours/ year since 1980, for an average of 7032 hours/year, or about 5,000 hawks a year.



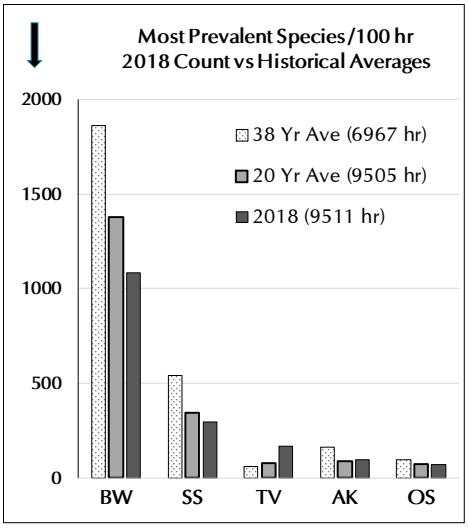


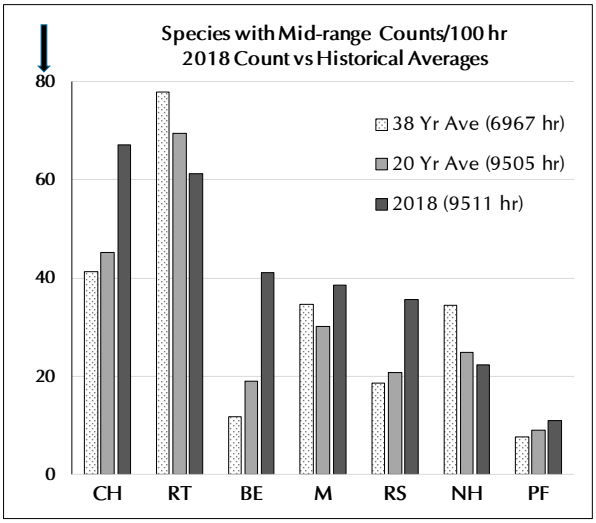
An effort to compare the 2018 September temperatures to those used in the last two Reports met a big wrinkle. The site reporting historical weather data for Hartford CT now reports historical data for Bradley International Airport. So, this year's graph has different data. Nevertheless, the pattern is the same. Our Total Hawks/100 Hours continues to be inversely correlated with average September high temperatures, but this time at Bradley (r= - 0.519, p=0.0019). The average September high in 2018 was 75.6°F. This puts 2018, shown on the graph as a diamond shape, right in the midst of data points. For comparison, 2017 is shown as a square and 2016 is shown as a triangle, both slightly above 78°F . This inverse correlation suggests that for each one degree increase in temperature there is a reduction of 157.0 hawks/100 hours, for the average of 8303 hours/year since 1990. That's a drop of about 13,000 hawks per degree. The graph of the average September high temperatures in Bradley shows a significant increase of 0.2°F/ year for each year since 1990. That's a 5.8°F increase over that time, and puts us at a drop of about 75,000 migrating hawks since 1990. But, why? Are higher temperatures impacting the health of breeding populations directly? Is it part of a larger climate issue that involves shifting thermals and winds, causing birds to choose different flyways? Adding to the problem, the actual cause may be different for different species. What are your thoughts and experiences about this? Send your comments to merlin@pipeline.com and I will include them in the next Report.

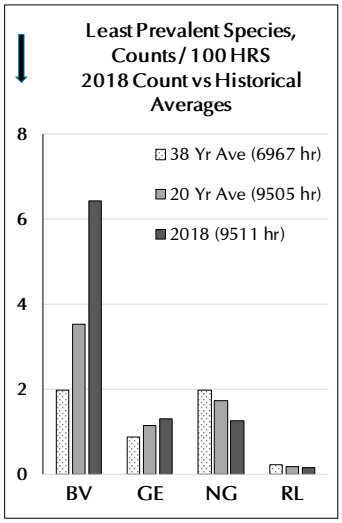


The Species—2018 and Species Trends

Our Species Prevalence charts are arranged from most prevalent to least prevalent. The species rankings for the most prevalent species remains the same as last year, which is very good news for American Kestrel. Kestrel returned to 4th rank in 2017, and held it this season by a substantial margin. For the species at Mid-range Counts, Redtail and Cooper's Hawk







switched ranks, and Red-shouldered dropped two ranks. For the Least Prevalent species, Golden Eagles edged out Goshawks this season, for the first time.

The charts provide a quick visual display of the trends for each species. Those that are steadily declining over the years since 1980 show a pattern with a larger 38 year average than 20 year average, and a larger 20 year average than the 2018 count. These include Broadwings, Sharpshins, Redtails, Harriers, and Goshawks. Those species that are increasing over the years show a reverse pattern, with 38 year average less than the 20 year average, and the 20 year average less than the 2018 count. These species include Turkey Vulture, Cooper's Hawk, Bald Eagle, Red-shouldered Hawk, Peregrine Falcon, Black Vultures, and Golden Eagle. The species that do not fit either pattern are Kestrel, Osprey, and Roughleg. These species have declined from the long term 38 year average, but had a 2018 count near the 20 year average.

The data for the 20 year average is included on The Fall Regional Totals Table. it contains the counts/100 hours for each species for the 20 years prior to 2018, along with the 2018 counts, the 20 year average, and the percent difference of the 2018 count from that average.

NORTHEAST FALL REGIONAL TOTALS, 1998-2018

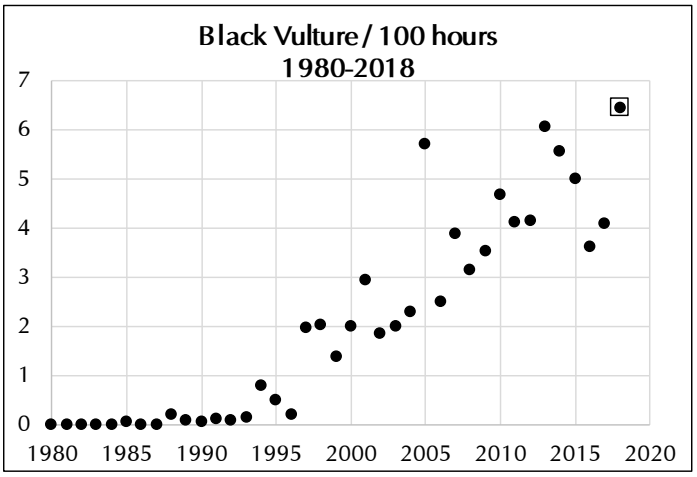
			COUNTS PER 100 HOURS																		
YEAR	Sites	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOT	XBWV
1998	28	7613	2.0	56.4	102.0	9.0	44.7	466.5	42.6	1.8	18.4	1636.2	62.3	0.3	1.2	173.7	41.9	8.0	22	2689	994
1999	30	7479	1.4	79.4	103.6	10.5	37.5	477.8	49.8	3.4	24.7	1470.2	139.8	0.4	1.4	172.2	43.8	10.4	25	2651	1100
2000	31	7869	2.0	64.6	74.9	10.3	22.6	367.3	39.5	1.7	12.7	1907.5	56.4	0.2	1.0	122.1	27.9	7.1	23	2741	767
2001	32	7846	2.9	63.4	68.7	9.2	26.9	435.6	38.4	1.8	17.0	1485.0	73.0	0.1	0.8	126.3	32.4	8.6	18	2408	857
2002	38	7812	1.8	59.0	86.6	11.8	24.8	365.4	38.9	1.4	13.0	1576.6	66.4	0.2	0.9	119.6	33.2	7.9	20	2426	789
2003	40	7901	2.0	56.8	77.7	12.9	35.0	380.0	45.8	1.6	15.7	493.4	98.9	0.4	1.1	92.0	31.5	8.4	20	1378	826
2004	39	8073	2.3	57.9	67.1	15.5	19.7	358.8	44.1	1.4	17.2	943.3	68.4	0.2	1.1	92.8	29.5	7.1	19	1745	742
2005	43	8605	5.7	64.1	69.3	15.4	20.7	364.9	52.1	1.5	16.2	1378.1	100.3	0.1	1.3	86.1	34.4	8.9	23	2242	794
2006	44	9572	2.5	66.0	80.5	15.5	30.2	392.2	50.6	1.7	19.9	1000.6	70.7	0.1	1.9	83.4	32.7	9.4	19	1876	807
2007	43	10077	3.9	65.2	75.3	16.3	35.2	397.4	54.1	2.3	17.9	1204.7	65.3	0.2	0.9	86.8	31.6	9.2	20	2086	813
2008	45	10607	3.1	83.0	70.9	16.9	20.4	271.6	45.1	1.3	16.1	1498.8	61.9	0.3	1.2	54.8	24.1	10.9	16	2197	612
2009	52	11274	3.5	66.3	55.7	19.0	17.3	308.5	43.7	1.8	16.8	1164.0	60.6	0.1	1.1	65.8	26.6	10.8	20	1877	643
2010	42	10391	4.7	62.6	70.6	23.3	33.4	406.1	56.5	2.2	20.9	1226.2	67.9	0.2	1.3	96.3	39.7	12.6	29	2153	860
2011	45	10292	4.1	113.9	71.5	21.9	18.9	377.4	58.1	1.5	15.3	1968.2	54.1	0.1	1.2	70.6	26.9	10.9	21	2844	758
2012	46	10482	4.2	85.2	81.4	30.9	20.5	348.4	55.7	2.3	30.9	1679.6	84.9	0.1	1.2	84.9	29.2	10.7	24	2708	939
2013	43	11177	6.1	81.4	51.8	24.9	16.7	248.1	33.6	1.3	24.6	2338.0	53.7	0.1	1.3	53.8	22.2	7.3	18	2983	557
2014	41	10727	5.6	108.9	59.2	28.6	22.1	302.5	47.4	1.5	38.4	1447.6	68.8	0.1	1.2	66.5	25.1	9.6	22	2255	693
2015	44	11449	5.0	121.0	60.5	27.6	18.4	235.1	34.9	1.2	20.2	1270.2	42.9	0.1	1.1	43.5	22.7	5.9	15	1868	472
2016	38	10630	3.6	84.7	50.2	28.9	16.2	183.4	35.0	2.0	22.6	900.1	48.3	0.1	0.7	35.9	22.6	7.1	15	1456	468
2017	37	10228	4.1	140.4	51.8	30.0	14.4	183.7	39.4	0.8	34.9	919.2	45.4	0.1	0.8	55.0	24.9	9.8	18	1573	509
2018	41	9511	6.4	165.7	68.8	41.1	22.3	294.5	67.2	1.3	35.6	1081.1	61.2	0.1	1.3	95.2	38.5	10.8	20	2011	758
20yrAv	40	9505	4	79	71	19	25	344	45	2	21	1375	69	0.2	1	89	30	9.0	20	2208	778
% diff,	2	0	83	110	-4	117	-10	-14	49	-28	72.2	-21	-12	-16	14	7	28	20	-2	-9	-3

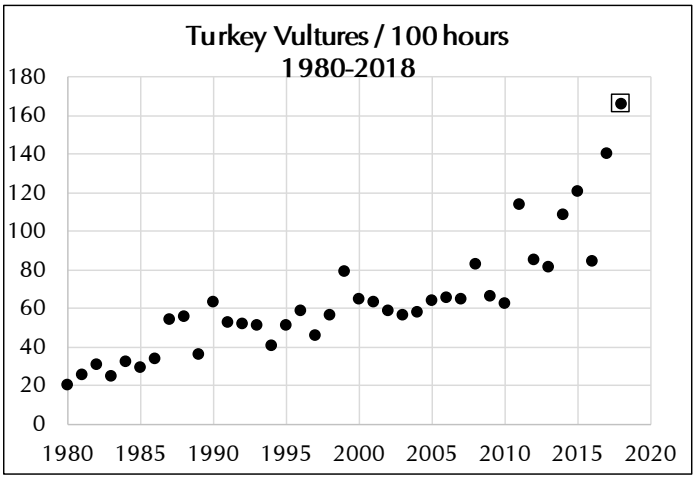
BV Black Vulture, TV Turkey Vulture, OS Osprey, BE Bald Eagle, NH Northern Harrier, SS Sharp-shinned Hawk, CH Cooper's Hawk, NG Northern Goshawk, RS Red-shouldered Hawk, BW Broad-winged Hawk, RT Red-tailed Hawk, RL Rough-legged Hawk, GE Golden Eagle, AK American Kestrel, ML Merlin, PG Peregrine Falcon, UR Unidentified Raptor, XBWV Total without Broad-winged Hawks and Vultures

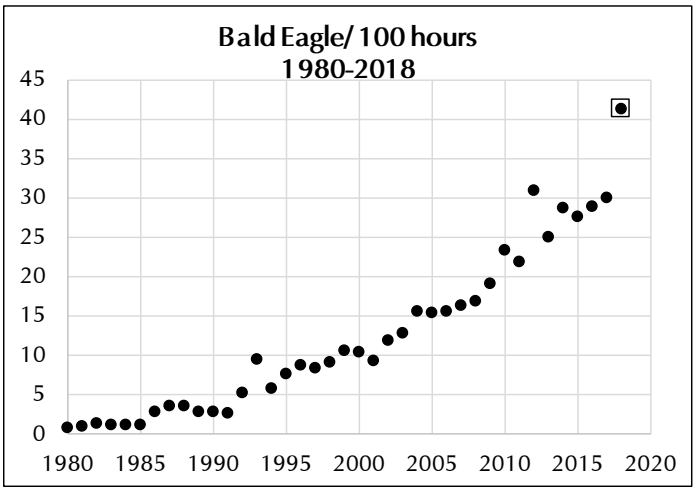
*To find the original counts, divide by 100 and multiple by the hours. Eg: AK totals for 2016 = 35.9/100 * 10630 = 3816*

The Species—Record High for Three and a Battle for 8th

Along with our return to near average for Total Hawks, the 2018 season brought no record low counts for any species this year, either for actual counts or hawks/100 hours. Likewise there were no record highs for actual counts either. There were, however, record high counts for three species using hawks/100 hours: Black Vulture, Turkey Vulture, and Bald Eagle. This comes as no surprise to our counters who have been watching Black Vultures spread into northern regions and Turkey Vulture and Bald Eagle counts continue to increase.

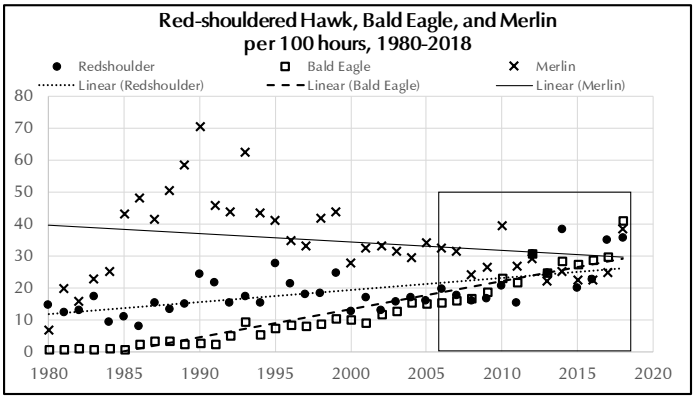


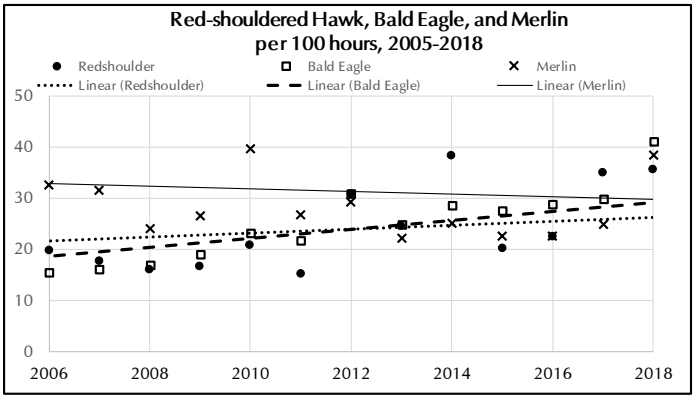




Graphs of the trends for these species clearly show the continued increase for each. The 2018 count is noted on the graphs as a square. We can see that the 2018 high count is furthest from other years for the Bald Eagle. This record high Bald Eagle count is also associated with a rise in the species rank to 8th most prevalent, displacing Red-shouldered Hawk.

So the question arises—have Bald Eagles and Red-shoulders traded ranks in previous years? Historically, back in the 70's and 80's, when Bald Eagles were a rarity, Red-shoulders were easily the more prevalent. A look back over the last decade reveals that these two species have counts in the range of 20 to 40 hawks/100 hours, as do Merlins, and have switched ranks several times.





A graph of these three species helps us to visualize what is happening. The Bald Eagles (squares) are steadily increasing. The Red-shoulders (circles) were increasing until 2000, dropped slightly, and then started increasing again in 2012. Merlins (x's) rose to a peak in the decade around 1990, then dropped slowly but steadily, seeming to level out. All three species tend to merge, with similar counts, beginning in 2008 (see separate graph). From 2008 to 2011 the counts for Merlin were highest. Then, in 2012 and 2013 the counts for all three species overlap. From this point on, the counts begin to trade ranks from year to year, suggesting a period of equilibrium. Since the Bald Eagle trend is the strongest, in that it is least variable and steadily increasing, it is easy to predict that the Bald Eagle will win this battle and surpass both Red-shoulders and Merlins in the NorthEast. It will be interesting to see which species ranks next, Red-shouldered or Merlin, or will it be a

juggling match for the years ahead? While we watch and count for the next few years, remember that your counts are what lets us see into the window of hawk migration. Some observations from your data include: 1. Bald Eagles have become regular and almost common. 2. Merlins have declined since the 1990s, and may be entering a period of stability. 3. Red-shoulders are increasing, but show substantial variation, so we can expect up and down counts in the years ahead.

Declining Species—No Record Lows

Not only were there no record lows in 2018, but every species had a higher count than in 2017, and some had counts equivalent to several years ago. This was a truly refreshing change from the previous two years. I could actually sit atop Hook Mountain and not feel like I was in that hot-rock oven of 2016 and 2017. And, while the temperatures were refreshing, the hawks flying by were a delight! There were hawks again! That average September high of 75.6°F was lower than 10 other Septembers since 1990 and it seemed to bring the hawks! In fact, the Sharpie count at Hook was the best since 2006. What a relief!

So, I am happy to report that, with no record lows, there are no new species to add to the NEHW Watch List, and all the species previously listed are in better status than last year. The 2018 count for Sharp-shinned Hawks ranked 6th, with 5 years since 1980 having lower counts. Northern Goshawk ranked 4th, with 3 years of lower counts, and American Kestrel ranked 15th, with 14 years of lower counts! The Northern Harrier count was the 'jump up' predicted last year, bringing Harriers to the 14th rank. The Watch List value, WL, is a simple sum of the annual status for the four years since 2015. The annual status is either a record low year (check), valued at one, or the rank in that year above the record low. Even though our Watch List species have 2018 values that vary from 4 to 15, the WL values still remain in the same order as in 2017. Sharpies remain our most-at-risk species.

NEHW **W**atch **L**ist: Declining Species

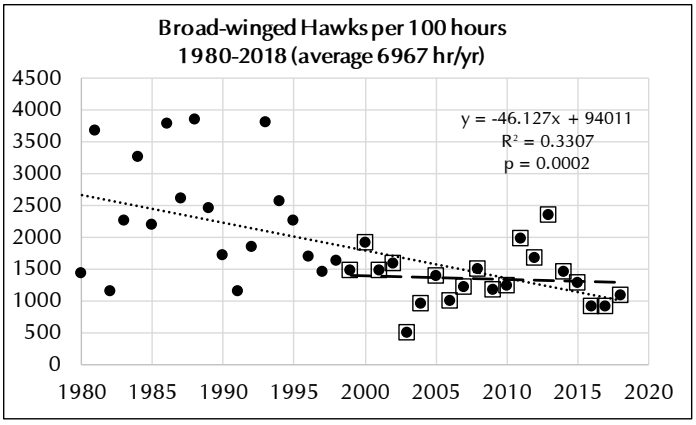
	2015	2016	2017	2018	WL	Status
Sharp-shinned Hawk	✓	✓	✓	6	9	M
Northern Harrier	4	✓	✓	14	20	M
American Kestrel	✓	✓	5	15	22	M
Northern Goshawk	4	20	✓	4	29	R
Red-tailed Hawk	✓	2	2	9	14	xCS
Osprey	3	✓	3	9	16	xFS

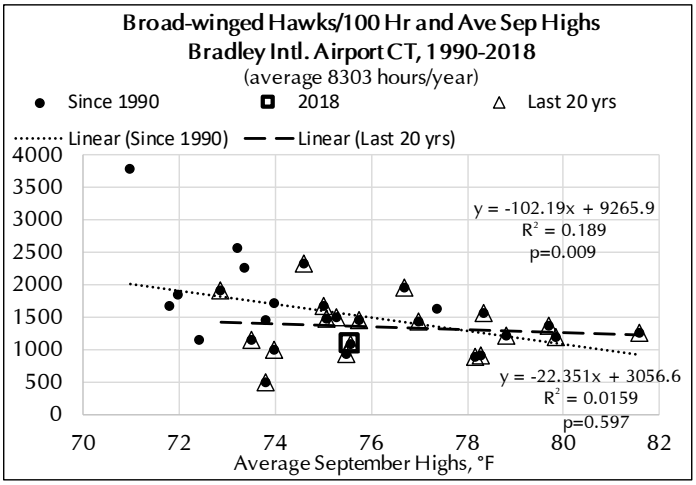
Check mark indicates a Record Low year. The numbers indicate the rank above record low when record low = 1. WL= sum of all years: The lowest possible count = number of years. Species with lower WL are at greater risk of continued declines in migration counts. Status: M=migrant, R=resident, x=population not threatened, CS=climate shift, FS=flyway shift

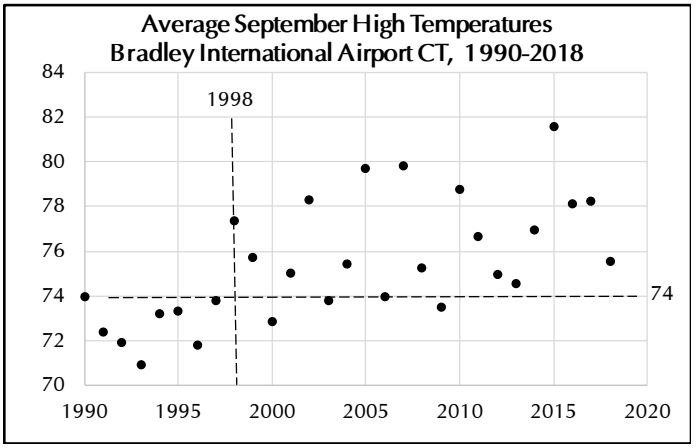
Trends for all the species on the Watch List are still declining. One year of better counts is not enough to change the trend. Still, the Sharpie count brought us back past the record lows to 2014, the Harriers to 2014, and the Kestrels to 2010. So, we can approach the 2019 season knowing that the hawks broke the pattern of record lows. Moreover, our 2018 experience tells us that we can expect other seasons ahead with more hawks to count!

Broad-winged Hawks—more hawks…or not?

In 2018, we counted 102,827 Broad-winged Hawks, 8805 more than our 2017 count! After two years of the 2nd and 3rd lowest counts on record, this is definitely a welcome change. It gets us headed back on a track toward our 20 year average. This is only 11% below the average for actual counts and 21% below the average of hawks /100 hours. Our Broadwings are still in decline, since 1980 (r = - 0.573, p=0.0002), but when we look at the last 20 years, we see a random distribution with no significant trend (r = - 0.075, p=0.376). If this is a new status quo, we may be looking forward to our Broadwing seasons fluctuating about an average of 1300 Broadwings/100 hours, or about 120,000 Broadwings/year. Now, I could live with that! But, how realistic is it?

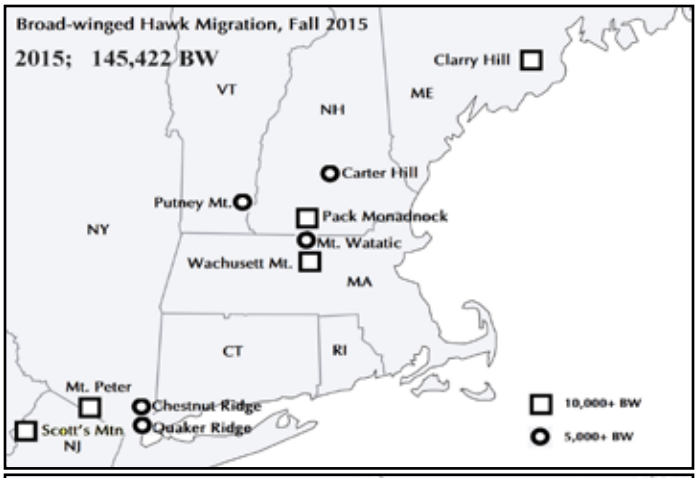


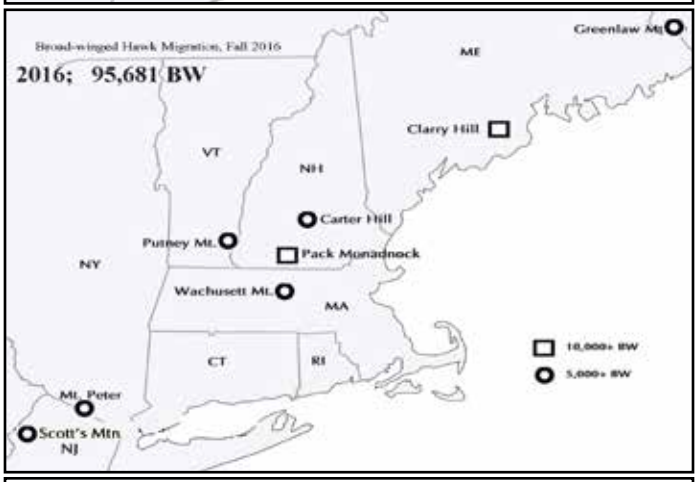


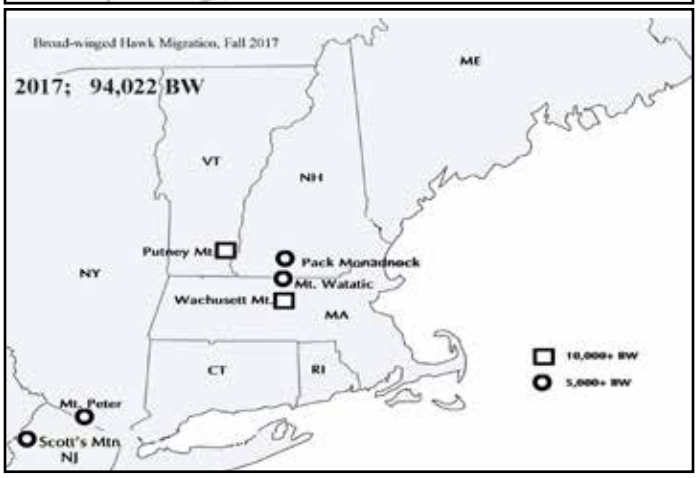


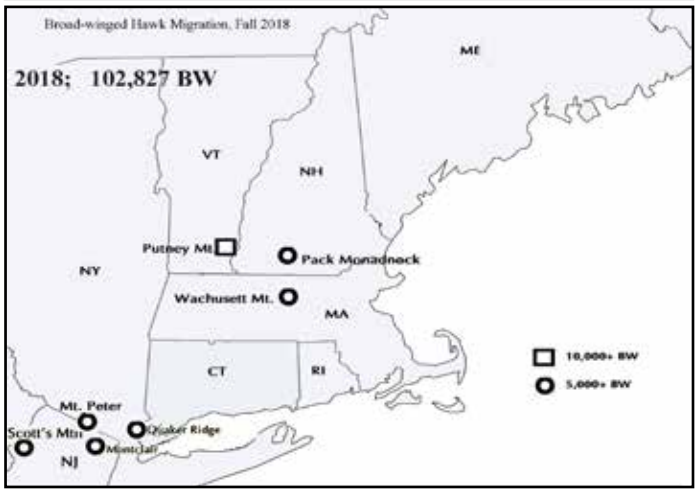
In previous analysis we have seen that Total Hawks vary inversely with average high temperatures. Is that true for Fall Broadwings? A comparison of Broadwings to the average September high temperatures at Bradley International Airport since 1990 shows a significant inverse correlation (r= - 0.435, p=0.009). 2018 is marked on the graph with a square, which is in the middle of the temperature ranges at Bradley. So, it appears that temperatures will impact our counts. If that is true, and knowing that the Broadwings have somewhat stabilized in the last 20 years, does that mean that the temperatures are not effectively changing over the last 20 years? The trend noted above is for 29 years, since 1990. On inspection of the annual temperature graph, we see that 1998 was the first year with an average high above 74°F. After 1998 there were only 2 years with an average high below 74F. In fact, similar to the lack of a significant decline for Broadwings over the last 20 years, there is also no significant correlation of Broadwings to temperature for the last 20 years (r= - 0.126, p=0.597, triangles on the graph). So, when the temperature was not rising, the Broadwings were also not declining. Unfortunately, this suggests that as our temperatures continue to rise, as expected with global warming, our Broadwing counts will again decline. In 2018 we had a reprieve, and for now we can enjoy that.

With an increase in Broadwings in 2018, we expect an increase in the number of high count sites, those sites with more than 10,000 Broadwings, and also sites with more than 5,000. We have gone from ten such sites in 2015 (5 above 10,000 + 5 above 5,000), to eight sites in 2016 (2 + 6), to six in 2017 (2 + 4). In 2018 we had only one site, Putney Mt, (12,045), with more than 10,000! But we had six additional sites with more than 5000—Quaker Ridge (9342), Scott's Mountain (8466), Pack Monadnack (6756), Montclair (5442), Mount Peter (5071) and Wachusett (5042). So, the extra 8805 Broadwings got us one more high count site than 2017. The maps of our high count sites are shown for the years since 2015, with 2018 outlined to denote this season. View the maps not only for the number of sites with concentrations of Broadwings, but also for their locations. The total Broadwing count is noted in the top left of each map. The first thing to note is that 2015 had the most hawks and also had the most wide-spread concentrations. Note also that 2015 and 2016 have concentrations further north and east, while 2017 and 2018 have concentrations further south and west. The question now: Should we expect this pattern of south and west to continue in 2019 and beyond? We can only hope that the Broadwings do not get too far west and leave our region!









Broadwing Distribution—The Good News: Seen by More Sites…It Takes 30!

In 2018 the Broadwings were less concentrated than in previous years, so hawk watchers at more sites in the NorthEast saw more Broadwings! Now, that's good news! And, not only were the Broadwings spread across the NorthEast geographically, but they were also spread across more days.

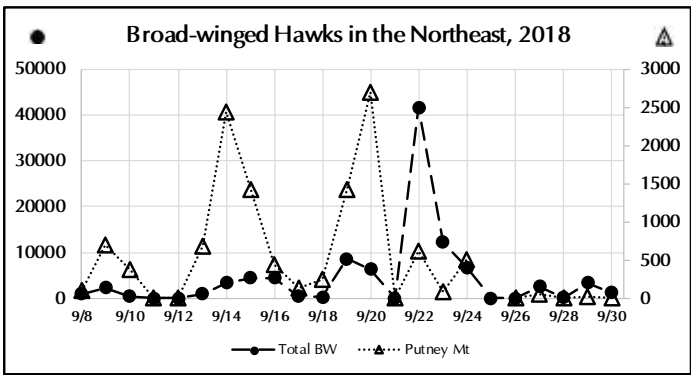
BROAD-WINGED HAWK COMPARATIVE COUNTS DURING FLIGHT PERIOD, FALL 2018

	Site (total BW>50)	9/8	9/9	10-12	9/13	9/14	9/15	9/16	17-18	9/19	9/20	9/21	9/22	9/23	9/24	25-26	9/27	9/28	9/29	9/30
	Greenlaw Mt NB	101	1	79			9		9	45	2	20	55	71	4	3		22	0	3
	Cadillac Mt ME	28	27	4	6	1	1	0	0	0	0	0	293	1	2	0	0	0	9	0
44	Mt. Philo SP VT	141					43													
	Clarry Hill ME	**254**	196	11	15	29	15	20	1	128	10		896	244	346	0	77		12	29
	Harpswell Pen ME	0	0	0	0	0	0	0	0	8	0	1	30	4	0	0	0	0	2	9
	Interlakes School NH			5	71															
43	Concord School NH					3				45		0			15					
	Pack Monadnock NH	99	**975**	15	2	322	72	607	68	0	188	4	926	657	**2239**	0	376	**73**	26	7
	Putney Mt VT	111	694	**371**	**678**	**2445**	**1418**	443	**383**	**1418**	**2692**	0	620	90	512	0	58	0	29	5
	Mount Watatic MA	70	97		14	189	24	221	105		450	1	895	**1766**						
	Helderberg NY	135	94	31	21	15	86	20	14	269	58		191	17						
	Wachusett Mt MA	27	52	0	0	215	29	32	4	0	577	0	2782	950	44	0	49		103	26
42	Barre Falls MA	8	11	0	12	22	30	15	5	3	191	0	584	63	34	0	2		137	7
	Shatterack Mt MA		161	2		1	201	7	11	286	910		626		772	0	71		31	
	Munn Brook MA												1112				4		16	
	Blueberry Hill, MA									402			678	6	13				9	
	Middle School CT						15	2		354	86		959	2	0	0	1			
	Johnnycake Mt CT												1243				64		331	70
	Mohonk NY	4		54		37	1260	525	50	1076			541	8	681	0	176			
	Chestnut Hill CT			3	1		186	58	2	177	27		2048	316						
	Botsford Hill CT			0		0	78	20	0	134	97	0	1061	974	143	0	64			
41	Bear Mountain NY	0		0	44	0	65	8	64	109	122	4	314	420	17	0	18		0	14
	Mount Peter NY	2	0	1	21	3	297	**887**	17	504	298	17	1257	296	807	7	512	1	47	14
	Chestnut Ridge NY	2	7	0	7	9	156	121	1	49	78	0	2389	952	29	0	32	13	272	70
	Hook Mountain NY	3	7	0	0	0	97	49	0	402	96	0	1709	601		0	100		76	106
	Quaker Ridge CT	0	0	1	11	19	27	94	2	320	47	0	**5907**	1508	115	0	51	1	**815**	246
	Purple Chickadee NJ						22		0	81	8	0	341	0	254	0	249	0	2	
	State Line NJ	2	0	1	0	49	50	143	8	84	12	0	1618	669	38	0	7	1	304	149
	Lenoir Wildlife NY	0		0		0	2	2	0	45	26		2464	53					501	16
40	Wildcat Ridge NJ	0		0			254	240	12	445		8	1129	891	6	0			46	
	Montclair NJ	0	0	0	1	0	27	269	0	732	16	0	3035	454	13	0	30	7	432	**347**
	Scott's Mountain NJ	1		3	28	5	35	631	14	1250	369	39	3676	945	583	2	**585**	65	59	91
	Washington Val NJ	0					19	22	0	281			2247	280	35		21	8	165	93
CO	Lighthouse Pt CT	1	0	0	0	3	0	0	0	7	1	0	79	0	15	0	8	4	3	4
	TOTAL	**992**	**2322**	**581**	**932**	**3367**	**4534**	**4436**	**770**	**8661**	**6361**	**94**	**41718**	**12242**	**6765**	**12**	**2555**	**195**	**3427**	**1307**

There were 12 days, from Sep 9 to Sep 30, when the daily Broadwing count across the NEHW area was 1000 or more.

Unlike the last three years, there is only one high peak this season, Sep 22, along with two other comparatively minor peaks of three days around Sep 15 and two days, Sep 19 and 20. On the high peak day, Sep 22, there were 41,718 Broadwings counted! That's 41% of our total Broadwings! And they were seen throughout the NorthEast! Check out the table – all the sites in Region 40 and almost all the sites in Region 41 had over 1000 Broadwings that day, and most of the other sites had hundreds. It was a Saturday, and enjoyed by many hawk watchers. This shows how important all of the watch sites are to the count—it took 30 sites to get that total. Thank you, all of you!

On the graph of Broadwings in the NorthEast, Total Broadwings is represented by the filled circles, and the left axis applies. You can see the single high peak at Sep 22. Putney Mt, with more than 10,000 Broadwings is represented on the graph by open triangles, and the right axis is used to see the daily counts. Putney had an extraordinary season, with the highest count on five of the big days. It is interesting to see that Putney had two high peaks, on Sep 14 and Sep 20, and that neither of these was Sep 22, the 41,718 day. Also, the table tells us that on Sep 14 and 20 there were few other sites with Broadwings, either to the northeast or the south. And, the two more southerly sites, Mohonk and Mount Peter, that had Broadwings on the two days after Sep 14 are both along our western border. This suggests that we may be missing birds that are moving further west.



The Percentage of Broadwing Flight table summarizes the flight by region, as percentages of each day's flight. For example, for Sep 19, we see that Region 41 counted 37% of the total for that day, whereas Region 40 counted 33%. This view helps us to see that the flight was in the northern regions from Sep 8 to Sep 14. Then the flight moved mostly to lower latitudes, with an occasional northern pulse.

Also included on the table are percentages of seasonal totals for this season and for 2015 to 2017. This section is important because it helps to put the 2018 season in perspective. With different numbers of watch sites in the regions, percentages on any single day may be biased toward regions with more sites. However, with the historical data adjusted to include the new sites, the annual distributions provide a good year-to-year comparison. We see that Broadwings were more evenly distributed across the regions in 2015 and 2016 than they were in 2017 and 2018. Comparing 2018 to earlier years, Broadwing distribution is further south than in the other years. This substantiates for all sites what we saw in the Broadwing maps for high count sites. Region 41 counted about one third of all Broadwings for the last two years, while Region 44 is missing Broadwings for these same years.

So, a big question looms over us. Is the Broadwing flyway really shifting west, as it seems to be doing? We have very good data from our full season sites in Region 44, and the Broadwings simply did not fly past those sites in 2018. Are those hawks flying too far west to be counted? To find answers to these questions, we need to investigate further, possibly even the weather in Canada. But, we definitely need to continue watching and counting hawks. We need more inland sites in that region to find out if the hawks are there! Perhaps we can infect some northerners with our love of hawk watching; tell them about the fun we have each migration season observing the kettles high overhead; and explain how important our efforts are to the understanding of raptors and their migration behavior.

PERCENTAGE OF BROAD-WINGED HAWK FLIGHT, FALL 2018

	9/8	9/9	0-12	9/13	9/14	9/15	9/16	17-18	9/19	9/20	9/21	9/22	9/23	9/24	25-26	9/27	9/28	9/29	9/30	2018	2017	2016	2015
44	53	10	16	2	1	1	0	1	2	0	22	3	3	5	25	3	11	1	3	3	7	24	16
43	21	72	67	81	82	33	24	59	17	45	4	4	6	41	0	17	37	2	1	19	27	23	21
42	24	18	6	5	13	8	7	18	11	34	1	16	23	13	0	5	0	9	3	16	22	14	20
41	1	1	10	9	2	49	40	18	37	14	22	43	41	30	58	50	8	45	40	36	31	22	28
40	0	0	1	3	2	9	29	4	33	7	50	34	27	10	17	25	42	44	53	26	13	16	15
CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

RECENT YEARS for MAJOR SITES, 2008-2017 AVERAGES, and % CHANGE in 2018

REGION 44

Greenlaw Mountain - St. Andrews, New Brunswick (ave for 2009-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	TOT	XTOT	PH	XPH
2013	49	259.5	0	173	166	41	52	520	9	15	3	5405	132	0	0	200	42	12	71	6841	1263	26	4.9
2014	40	257.8	0	197	130	42	63	496	6	12	2	1704	148	0	1	155	44	24	70	3094	1193	12	4.6
2015	42	264.8	0	218	132	58	76	524	7	11	1	3791	106	0	1	158	35	24	83	5225	1216	20	4.6
2016	46	324.3	0	249	110	92	120	514	16	22	3	6990	211	1	2	147	34	11	87	8609	1370	27	4.2
2017	49	325.3	0	492	142	90	64	571	11	13	6	1989	151	0	2	166	34	30	102	3865	1384	12	4.3
2018	48	342	1	374	162	199	95	572	12	28	5	600	272	2	4	164	45	28	100	2663	1688	8	4.9
ave 9	*46*	*274*	*0*	*211*	*147*	*57*	*67.9*	*592*	*10.9*	*14*	*4.7*	*3501*	*188*	*0.1*	*0.78*	*168.9*	*39*	*21*	*81.1*	*5104.8*	*1392*	*19*	*5.1*
%chg	*4*	*25*		*77*	*11*	*248*	*40*	*-3*	*10*	*102*	*7*	*-83*	*44*		*414*	*-3*	*15*	*36*	*23*	*-48*	*21*	*-58*	*-4*

Cooper - Cooper, Maine (ave for 2012-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	2	12	0	2	0	1	0	0	0	0	0	48	0	0	0	1	1	0	0	53	3	4.4	0.3
2014	2	18	0	10	0	4	0	4	0	0	0	5	0	0	0	10	0	0	8	41	26	2.3	1.4
2015	7	40	0	8	0	2	8	1	1	0	0	0	0	0	0	4	0	0	0	24	16	0.6	0.4
2016	12	57	0	31	3	15	4	6	6	0	0	20	0	0	1	6	3	0	0	95	44	1.7	0.8
2017	24	133.5	0	82	1	8	2	2	1	0	0	0	0	0	0	3	2	0	0	101	19	0.8	0.1
2018	16	88.5	0	32	0	13	0	0	0	0	0	4	0	0	0	1	1	1	1	53	17	0.6	0.2
ave 6	*8.3*	*45.4*	*0*	*24.8*	*1*	*5*	*2.33*	*2*	*1.3*	*0*	*0*	*12.8*	*0*	*0*	*0.17*	*4.8*	*1*	*0*	*1.33*	*56.5*	*18.8*	*2.2*	*0.7*
%chg	*92*	*95*		*29*	*-100*	*160*	*-100*	*-100*	*-100*			*-69*			*-100*	*-79*	*0*		*-25*	*-6*	*181*	*-66*	*-78*

REGION 44 continued

Cadillac Mountain - Acadia National Park, Maine (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	39	174	0	27	125	53	124	1007	9	5	1	1865	43	0	1	262	39	10	88	3659	1767	21.0	10.2
2014	63	315	0	148	143	73	94	762	16	8	1	646	40	1	0	481	62	31	99	2605	1811	8.3	5.8
2015	67	281	0	79	150	27	137	1127	25	5	3	360	15	0	0	613	96	18	100	2755	2316	9.8	8.2
2016	42	192	0	49	126	57	80	582	25	3	1	1490	37	0	1	330	54	17	55	2907	1368	15.1	7.1
2017	60	255	0	92	109	113	75	683	18	2	3	585	63	0	0	395	55	37	130	2360	1683	9.3	6.6
2018	60	269.5	0	133	102	75	79	544	18	7	2	429	20	0	0	**495**	24	33	139	2100	1538	7.8	5.7
ave10	*55*	*251*	*0*	*77*	*159*	*53*	*127*	*1097*	*22*	*10*	*1*	*925*	*67*	*1*	*0*	*552*	*74*	*25*	*86*	*3374*	*2340*	*14*	*9*
%chg	*9*	*7*		*74*	*-36*	*41*	*-38*	*-50*	*-19*	*-31*	*57*	*-54*	*-70*	*-100*	*-100*	*-10*	*-67*	*30*	*51*	*-30*	*-28*	*-34*	*-30*

Clarry Hill - Union, Maine (ave for 2011-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	23	174	0	504	220	180	81	547	36	3	31	13314	150	0	2	91	15	21	14	15209	1391	87.4	8.0
2014	27	227	0	422	245	192	113	749	84	4	40	8650	254	0	2	155	37	39	39	11025	1953	48.6	8.6
2015	35	248	0	569	215	334	126	792	59	7	47	17369	369	0	9	113	27	20	20	20076	2138	81.0	8.6
2016	39	296	0	594	310	313	89	597	67	4	27	12526	280	1	8	178	38	30	26	15089	1969	51.0	6.7
2017	44	328	0	716	228	315	102	760	49	7	34	3969	370	1	6	211	31	25	31	6855	2170	20.9	6.6
2018	36	286	0	884	231	468	95	1014	71	6	27	2358	316	3	8	216	33	34	28	5792	2550	20.3	8.9
ave7	*32*	*241*	*0*	*459*	*240*	*221*	*87*	*651*	*57*	*5*	*34*	*10386*	*245*	*1*	*4*	*130*	*29*	*24*	*22*	*12594*	*1750*	*55*	*7*
%chg	*12*	*19*		*93*	*-4*	*112*	*9*	*56*	*25*	*31*	*-21*	*-77*	*29*	*425*	*81*	*66*	*15*	*43*	*25*	*-54*	*46*	*-63*	*21*

Harpswell Peninsula - Casco Bay, Maine (ave for 2006, 2009-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	TOT	XBWV	PH	XPH
2013	63	90.25	0	17	113	21	35	436	20	0	1	1724	13	0	0	84	53	13	26	2556	815	28.3	9.03
2014	59	107	0	36	40	8	35	504	11	0	5	43	17	0	0	77	59	15	53	903	824	8.5	7.7
2015	66	130	0	63	16	7	37	464	7	0	8	10	20	0	0	81	41	12	27	793	720	6.1	5.6
2016	42	98	0	32	44	17	51	351	14	1	3	1695	12	0	0	83	73	15	32	2423	696	24.8	7.1
2017	50	350	0	6	55	9	12	262	15	0	3	250	9	0	0	88	62	13	18	802	546	2.3	1.6
2018	57	288.3	0	112	79	14	61	744	25	6	14	71	33	1	1	124	166	43	29	1523	1340	5.3	4.6
ave10	*56*	*154*	*0*	*45*	*113*	*25*	*60*	*802*	*31*	*3*	*9*	*551*	*35*	*0*	*0*	*206*	*115*	*38*	*38*	*2072*	*1477*	*16*	*10*
%chg	*2*	*87*		*151*	*-30*	*-43*	*1*	*-7*	*-18*	*88*	*51*	*-87*	*-5*	*400*	*150*	*-40*	*44*	*12*	*-24*	*-27*	*-9*	*-66*	*-55*

REGION 43

Interlakes School - Meredith, New Hampshire (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	TOT	XBWV	PH	XPH
2013	3	9.8	0	25	6	3	0	3	1	0	0	53	0	0	0	2	0	1	6	100	22	10.2	2.24
2014	2	6	0	2	1	1	0	2	2	0	0	49	0	0	0	0	0	0	1	58	7	9.7	1.2
2015	2	11	0	15	3	1	0	13	2	0	1	68	1	0	0	0	0	0	4	108	25	9.8	2.3
2016	2	6	0	10	2	5	0	5	0	0	0	163	0	0	0	0	0	0	7	192	19	32.0	3.2
2017	2	10	0	12	1	4	0	12	0	0	0	123	1	0	0	0	1	2	2	158	23	15.8	2.3
2018	2	9.5	0	28	1	5	0	1	1	0	0	76	8	0	0	0	1	0	5	126	22	13.3	2.3
ave10	*2*	*9*	*0*	*20*	*3*	*3*	*0*	*12*	*2*	*0*	*0*	*154*	*1*	*0*	*0*	*2*	*1*	*0*	*5*	*201*	*28*	*21*	*3*
%chg	*-9*	*1*		*40*	*-67*	*85*	*-100*	*-92*	*-41*		*-100*	*-50*	*700*			*-100*	*100*	*-100*	*4*	*-37*	*-20*	*-37*	*-20*

Concord School - Concord, New Hampshire (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	TOT	XBWV	PH	XPH
2013	7	24	0	42	2	1	1	4	3	0	0	81	6	0	0	1	0	0	19	160	37	6.7	1.54
2014		11	0	9	0	1	0	1	0	0	0	39	2	0	0	0	0	0	7	59	11	5.6	1.0
2015	6	19	0	22	2	1	0	4	0	0	0	31	5	0	0	2	0	0	23	90	37	4.7	1.9
2016	6	8	0	15	0	0	0	2	0	0	0	24	2	0	0	0	0	0	5	48	9	5.8	1.1
2017	6	24	0	41	2	0	0	1	0	0	0	19	1	0	0	2	0	0	6	72	12	3.0	0.5
2018	5	20	0	16	0	3	1	7	0	0	0	63	4	0	0	1	0	1	6	102	23	5.0	1.1
ave 7	*7*	*19*	*0*	*23*	*1*	*0*	*0*	*2*	*1*	*0*	*0*	*30*	*4*	*0*	*0*	*1*	*0*	*0*	*14*	*77*	*23*	*4*	*1*
%chg	*-25*	*9*		*-32*	*-100*	*600*	*600*	*227*	*-100*	*-100*	*-100*	*107*	*-3*			*17*			*-57*	*32*	*-2*	*13*	*-10*

REGION 43 continued

Carter Hill - Concord, New Hampshire (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	75	490	0	333	165	94	66	1197	137	18	59	8915	356	0	0	307	78	17	154	11896	2648	24.3	5.4
2014	73	471	0	170	202	82	87	1151	124	14	25	4237	221	0	0	243	64	36	222	6878	2471	14.6	5.2
2015	71	553.8	0	299	134	91	81	1164	140	21	45	6274	345	0	3	171	41	23	55	8887	2314	16.0	4.2
2016	71	526.8	0	244	90	98	71	551	130	12	28	5045	169	1	3	172	62	22	130	6828	1539	13.0	2.9
2017	71	513	0	429	131	96	53	868	108	6	87	3842	224	1	5	242	51	21	114	6278	2007	12.2	3.9
2018	2	10	0	10	1	0	0	15	3	0	0	0	2	0	0	5	4	0	0	40	30	4.2	3.2
ave10	*61*	*400*	*0*	*252*	*125*	*79*	*53*	*733*	*140*	*14*	*37*	*4778*	*183*	*1*	*2*	*178*	*53*	*22*	*231*	*6881*	*1850*	*17*	*5*
%chg	*-97*	*-98*	*-100*	*-96*	*-99*	*-100*	*-100*	*-98*	*-98*	*-100*	*-100*	*-100*	*-99*	*-100*	*-100*	*-97*	*-92*	*-100*	*-100*	*-99*	*-98*	*-76*	*-31*

Pack Monadnock - Peterboro, New Hampshire (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	79	575	0	142	193	101	100	1254	146	25	118	8221	378	1	11	166	89	48	37	11030	2667	19	4.64
2014	71	497	0	99	213	120	85	1094	126	22	123	11043	348	1	7	112	80	39	53	13565	2423	27	4.88
2015	78	586.9	0	137	201	132	125	1443	115	48	141	16593	546	1	13	118	120	54	58	19845	3115	34	5.31
2016	70	527	0	322	242	136	92	1126	163	48	117	10530	294	1	5	167	96	49	78	13466	2614	26	4.96
2017	72	515.3	0	324	219	163	82	1179	142	16	181	8744	341	2	7	166	106	64	68	11804	2736	23	5.31
2018	66	455.3	0	98	181	176	64	668	124	11	126	6756	246	2	22	171	58	31	108	8842	1988	19	4.37
ave10	*68*	*515*	*0*	*159*	*239*	*100*	*92*	*1224*	*148*	*36*	*124*	*9457*	*372*	*1*	*8*	*163*	*93*	*45*	*71*	*12331*	*2715*	*24*	*5*
%chg	*-4*	*-12*		*-38*	*-24*	*77*	*-31*	*-45*	*-16*	*-70*	*2*	*-29*	*-34*	*186*	*182*	*5*	*-38*	*-31*	*51*	*-28*	*-27*	*-20*	*-18*

Putney Mountain - Putney, Vermont (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	75	501	0	262	157	60	51	1193	106	22	35	3772	414	8	4	122	34	24	0	6264	2230	12	4
2014	68	477	0	357	131	74	76	1560	176	28	31	2297	580	1	6	219	44	43	0	5623	2969	12	6
2015	73	554	0	603	149	109	81	1624	129	19	28	5831	482	5	10	122	36	22	0	9250	2816	17	5
2016	69	554	4	425	120	132	73	1385	101	46	30	6434	590	3	7	146	36	25	0	9557	2694	17	5
2017	71	562	2	460	139	151	51	1456	105	7	32	11728	428	1	5	181	45	32	0	14823	2633	26	5
2018	70	508	0	514	148	144	77	1840	147	23	43	12045	588	2	16	298	56	30	0	15971	3412	31	7
ave10	*65*	*471*	*1*	*289*	*162*	*83*	*62*	*1367*	*128*	*24*	*35*	*5130*	*487*	*3*	*8*	*174*	*41*	*33*	*1*	*8028*	*2608*	*17*	*6*
%chg	*8*	*8*	*-100*	*78*	*-8*	*73*	*23*	*35*	*15*	*-4*	*22*	*135*	*21*	*-39*	*113*	*72*	*36*	*-9*	*-100*	*99*	*31*	*86*	*20*

REGION 42

Mount Watatic - Ashby, Massachusetts (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	TOT	XBWV	PH	XPH
2013	4	30	0	4	22	17	1	19	11	0	0	3776	0	0	0	0	0	0	1	3851	71	###	2.3
2014	4	23	0	0	8	12	3	32	0	0	8	3388	17	0	0	13	0	1	4	3486	98	###	4.3
2015	16	107	0	11	72	60	8	282	79	0	2	5723	4	0	0	38	45	8	28	6360	626	59.4	5.9
2016	14	92	0	168	75	51	7	157	24	0	1	3040	2	0	0	30	6	2	30	3593	385	39.2	4.2
2017	11	85	0	1	51	41	14	178	33	0	0	5039	0	0	0	68	22	1	33	5481	441	64.9	5.2
2018	12	84.25	1	11	52	52	8	176	33	0	4	3874	3	0	0	39	9	4	25	4291	405	50.9	4.8
ave10	*10*	*71*	*0*	*23*	*58*	*29*	*9*	*178*	*28*	*0*	*5*	*4586*	*23*	*0*	*1*	*36*	*12*	*2*	*17*	*5006*	*397*	*80*	*5*
%chg	*18*	*19*		*-53*	*-10*	*81*	*-7*	*-1*	*19*	*-100*	*-23*	*-16*	*-87*	*-100*	*-100*	*9*	*-27*	*82*	*45*	*-14*	*2*	*-36*	*-8*

Helderberg Escarpment - Voorheesville, New York (ave for 2007-09, 2011-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	7	52	29	26	23	25	4	17	3	1	0	2164	7	0	0	5	2	2	14	2322	103	45	2.0
2014	15	109	7	0	21	29	5	30	2	2	0	2600	4	0	0	4	1	4	65	2774	167	25	1.5
2015	15	104	0	0	16	35	7	27	10	0	0	1714	20	0	0	9	2	1	49	1890	176	18	1.7
2016	13	115	0	0	15	12	2	7	4	0	0	652	5	0	0	8	0	0	38	743	91	6.5	0.8
2017	12	75	26	40	8	17	6	12	7	0	1	907	21	0	0	5	3	4	40	1097	124	15	1.7
2018	12	78	42	110	15	33	9	24	41	0	0	951	59	0	0	18	7	11	35	1357	254	18	3.3
ave10	*13*	*100*	*9*	*29*	*19*	*18*	*4*	*22*	*4*	*1*	*1*	*1577*	*9*	*0*	*0*	*10*	*3*	*2*	*32*	*1739*	*124*	*19*	*1.23*
%chg	*-7*	*-22*	*372*	*278*	*-19*	*88*	*125*	*8*	*876*	*-100*	*-100*	*-40*	*556*		*-100*	*75*	*150*	*371*	*10*	*-22*	*105*	*-7.2*	*34.6*

Wachusett - Princeton, Massachusetts (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	TOT	XBWV	PH	XPH
2013	44	269.8	1	99	169	102	30	350	75	3	5	35070	46	1	0	125	29	24	100	36229	1059	134	3.93
2014	48	324	5	157	239	189	29	573	115	8	12	16750	50	1	3	157	35	39	113	18475	1563	57	4.82
2015	49	319	2	62	205	159	23	406	86	0	18	11205	52	0	5	121	30	34	81	12489	1220	39	3.82
2016	42	260.8	3	215	166	163	17	451	106	0	18	6962	64	0	0	107	32	35	125	8465	1285	32	4.93
2017	57	327.8	1	293	144	117	23	322	121	1	14	10348	99	0	0	132	19	37	118	11789	1147	36	3.5
2018	47	258.1	6	267	100	135	17	281	132	0	13	5042	65	0	1	121	44	21	82	6327	1012	25	3.92
ave10	*35*	*213*	*2*	*83*	*149*	*91*	*17*	*297*	*73*	*1*	*7*	*10162*	*32*	*0*	*1*	*86*	*19*	*19*	*113*	*11151*	*905*	*48*	*4*
%chg	*36*	*21*	*275*	*223*	*-33*	*49*	*0*	*-5*	*82*	*-100*	*78*	*-50*	*106*	*-100*	*11*	*41*	*132*	*12*	*-28*	*-43*	*12*	*-49*	*-8*

Pinnacle Rock - Medford, Massachusetts (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	M	PF	UR	TOT	XBWV	PH	XPH
2013	18	72.5	0	4	3	0	0	67	13	0	0	0	14	0	0	2	4	1	7	115	111	1.6	1.5
2014	22	99.25	0	8	9	5	4	146	28	0	3	0	11	0	0	8	5	4	20	251	243	2.5	2.4
2015	14	41.25	0	5	4	1	1	40	10	0	0	14	9	0	1	3	3	0	2	93	74	2.3	1.8
2016	18	71.5	0	6	6	10	5	103	42	0	1	9	0	0	0	6	6	1	10	205	190	2.9	2.7
2017	20	96.83	0	2	9	7	9	95	29	0	1	0	2	0	0	6	1	4	19	184	182	1.9	1.9
2018	24	136	0	19	13	22	15	276	69	0	4	9	20	0	0	17	12	5	66	547	519	4.0	3.8
ave10	*19*	*87*	*0*	*6*	*16*	*5*	*6*	*111*	*27*	*1*	*2*	*4*	*15*	*0*	*0*	*9*	*6*	*3*	*21*	*231*	*222*	*3*	*2*
%chg	*27*	*57*		*233*	*-19*	*378*	*134*	*149*	*155*	*-100*	*122*	*131*	*35*		*-100*	*81*	*103*	*56*	*219*	*137*	*134*	*56*	*57*

Barre Falls - Barre, Massachusetts (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	41	192.3	0	150	110	47	12	431	89	3	16	16112	59	0	1	76	15	13	27	17161	899	89.3	4.7
2014	51	238.5	0	141	75	73	20	484	84	6	25	6839	151	0	1	82	17	11	46	8055	1075	33.8	4.5
2015	53	234.8	0	94	62	48	20	273	55	3	4	3131	113	0	3	38	11	9	23	3887	662	16.6	2.8
2016	55	243	0	290	45	43	27	267	60	1	10	1123	145	0	0	36	22	8	49	2126	713	8.7	2.9
2017	54	256	2	334	39	52	8	192	63	1	16	2159	153	0	1	41	11	6	34	3112	617	12.2	2.4
2018	49	219.3	0	156	45	58	13	341	65	1	11	1134	148	0	4	55	20	4	35	2090	800	9.5	3.6
ave10	*51*	*254*	*0*	*250*	*123*	*60*	*29*	*699*	*109*	*5*	*28*	*5275*	*212*	*0*	*2*	*116*	*28*	*13*	*39*	*6986*	*1462*	*29*	*6*
%chg	*-4*	*-14*	*-100*	*-38*	*-63*	*-3*	*-55*	*-51*	*-40*	*-80*	*-61*	*-79*	*-30*		*100*	*-53*	*-27*	*-69*	*-10*	*-70*	*-45*	*-67*	*-35*

Shatterack Mountain - Russell, Massachusetts (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	28	141.9	0	76	45	28	13	293	37	2	13	3216	19	0	0	47	10	8	24	3831	539	27	3.8
2014	32	169.3	0	170	63	15	27	517	47	2	20	8942	78	0	0	58	13	16	21	9989	877	59	5.18
2015	43	203	0	176	32	40	19	467	34	2	23	3009	110	0	3	47	19	5	19	4005	820	20	4.04
2016	39	190.3	0	491	46	15	8	299	38	3	33	1755	132	0	1	32	11	5	12	2882	636	15	3.34
2017	25	131.5	0	100	17	20	12	189	28	1	21	1904	58	0	0	34	11	2	5	2402	398	18	3.03
2018	33	174.8	0	336	38	54	15	321	51	0	38	3080	116	0	4	44	10	5	14	4126	710	24	4.06
ave10	*28*	*145*	*0*	*165*	*57*	*21*	*17*	*371*	*29*	*1*	*15*	*2943*	*73*	*0*	*1*	*44*	*10*	*7*	*14*	*3766*	*658*	*27*	*5*
%chg	*20*	*20*		*104*	*-33*	*163*	*-11*	*-13*	*77*	*-100*	*155*	*5*	*59*		*471*	*0*	*4*	*-26*	*-1*	*10*	*8*	*-12*	*-10*

Blueberry Hill - Granville, Massachusetts (ave for 2007-2016, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2012	48	315	1	199	128	23	28	623	67	7	30	2158	168	0	4	247	21	6	35	3745	1387	12	4.4
2013	70	277	1	226	94	39	34	357	51	5	31	6346	124	0	1	142	21	6	25	7503	930	27	3.36
2014	44	212	0	128	49	32	49	373	77	1	40	4658	224	0	2	128	10	5	30	5804	1018	27	4.8
2015	47	205	0	190	46	32	28	327	39	1	24	1694	87	0	5	111	13	4	7	2608	724	13	3.53
2016	9	44.25	0	59	3	5	2	12	8	0	3	3	17	0	1	8	0	0	2	123	61	2.8	1.38
2018	13	51.5	0	104	5	5	8	107	27	1	11	1108	58	0	0	28	8	2	14	1486	274	29	5.32
ave10	*60*	*325*	*0*	*223*	*118*	*40*	*55*	*586*	*76*	*6*	*35*	*3633*	*215*	*1*	*4*	*220*	*22*	*8*	*31*	*5272*	*1416*	*16*	*4*
%chg	*-78*	*-84*	*-100*	*-53*	*-96*	*-88*	*-86*	*-82*	*-64*	*-82*	*-68*	*-69*	*-73*	*-100*	*-100*	*-87*	*-63*	*-76*	*-54*	*-72*	*-81*	*85*	*32*

REGION 41

Poquonock - Poquonock, Connecticut (ave for 5 years from 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2008		348.0	1	70	21	21	19	57	29	5	30	1275	111	5	1	21	4	11	19	1700	354	4.9	1.0
2009	126	900.0	48	203	36	65	27	135	36	8	40	951	158	3	8	43	21	22	45	1849	647	2.1	0.7
2011	71	162.8	2	39	16	15	8	30	17	0	3	20	69	0	4	8	4	4	10	249	188	1.5	1.2
2012	8	18.5	0	0	2	0	0	0	0	0	0	107	0	0	0	1	1	0	0	111	4	6.0	0.2
2017	13	30.0	6	10	6	1	0	1	1	0	3	732	1	0	0	2	2	1	0	766	18	25.5	0.6
2018	33	133.2	7	25	11	7	2	9	9	0	2	51	32	0	3	7	3	3	5	176	93	1.3	0.7
ave5	*55*	*292*	*11*	*64*	*16*	*20*	*11*	*45*	*17*	*3*	*15*	*617*	*68*	*2*	*3*	*15*	*6*	*8*	*15*	*935*	*242*	*8*	*1*
%chg	*-39*	*-54*	*-39*	*-61*	*-32*	*-66*	*-81*	*-80*	*-46*	*-100*	*-87*	*-92*	*-53*	*-100*	*15*	*-53*	*-53*	*-61*	*-66*	*-81*	*-62*	*-83*	*-6*

Middle School - Torrington, Connecticut (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	16	72.0	0	0	13	13	0	23	11	0	0	8987	0	0	0	7	3	1	14	9072	85	###	1.2
2014	17	53.8	4	0	4	7	0	13	10	0	2	2185	1	0	0	4	2	0	10	2242	53	41.7	1.0
2015	15	49.8	2	7	9	7	0	4	2	0	1	1409	1	0	0	2	0	0	7	1451	33	29.2	0.7
2016	18	77.5	1	0	9	1	1	7	7	0	0	277	0	0	0	3	3	0	17	326	48	4.2	0.6
2017	13	51.5	6	0	6	7	1	5	6	0	0	890	0	0	0	6	0	0	5	932	36	18.1	0.7
2018	9	43.0	0	0	7	3	1	3	9	0	1	1419	0	0	0	6	1	0	12	1462	43	34.0	1.0
ave10	*17*	*68*	*3*	*1*	*15*	*7*	*2*	*24*	*11*	*0*	*2*	*2617*	*2*	*0*	*0*	*7*	*3*	*0*	*16*	*2711*	*90*	*39*	*1*
%chg	*-46*	*-37*	*-100*	*-100*	*-53*	*-59*	*-47*	*-87*	*-15*	*-100*	*-57*	*-46*	*-100*			*-17*	*-71*		*-25*	*-46*	*-52*	*-13*	*-21*

Johnnycake Mountain - Burlington, Connecticut (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	11	49	0	8	59	37	0	58	3	0	0	3895	0	0	1	19	4	2	0	4086	183	83	4
2014	13	59	24	67	59	50	10	81	8	0	1	3239	6	0	0	63	2	0	0	3610	280	62	5
2015	14	58	2	4	59	40	2	58	9	0	5	1430	0	0	2	49	1	3	2	1666	230	29	4
2016	15	66	35	109	48	49	2	56	42	0	5	1010	18	0	0	46	2	2	0	1424	270	22	4
2017	6	30	13	5	27	15	3	13	5	0	2	1144	4	0	0	9	0	0	0	1240	78	42	3
2018	4	26	4	44	21	20	5	33	19	0	0	1708	9	0	0	17	3	3	0	1886	130	73	5
ave10	*9*	*43*	*9*	*19*	*45*	*29*	*3*	*67*	*11*	*0*	*1*	*2922*	*3*	*0*	*1*	*31*	*2*	*2*	*0*	*3145*	*195*	*78*	*5*
%chg	*-57*	*-40*	*-55*	*128*	*-53*	*-31*	*52*	*-51*	*68*	*-100*	*-100*	*-42*	*221*		*-100*	*-45*	*58*	*88*	*-100*	*-40*	*-33*	*-7*	*3*

Mohonk Preserve - New Paltz, New York (ave for 2006-2012, 2015-2017, % change in 2018)

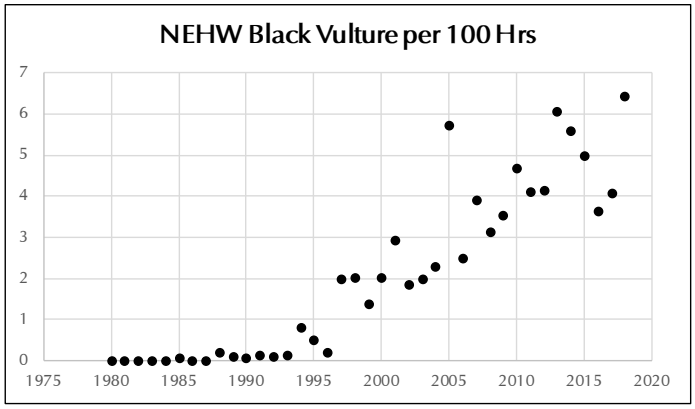
YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2011	1	4	0	0	0	1	0	20	4	0	1	1	1	0	0	1	0	2	0	31	30	7.8	7.5
2012	3	11.3	0	0	6	1	2	12	3	0	0	353	3	0	0	3	0	0	0	383	30	34.0	2.7
2015	39	150.0	0	0	46	36	12	221	20	0	10	2307	47	0	2	46	16	2	43	2808	501	18.7	3.3
2016	67	303	17	236	94	106	48	740	137	3	35	3776	250	0	1	74	32	33	16	5598	1569	18.5	5.2
2017	59	314	11	471	79	105	43	645	115	2	52	4059	305	1	7	50	28	20	19	6012	1471	19.2	4.7
2018	32	161	3	108	81	100	30	751	108	1	34	4453	170	0	3	78	29	15	6	5970	1406	37.1	8.7
ave10	28	125	3	91	37	28	19	259	40	1	11	1316	88	0	1	28	9	9	20	1959	549	15	4
%chg	14	29	-6	19	120	255	56	190	171	11	209	239	93		114	175	241	76	-69	205	156	141	110

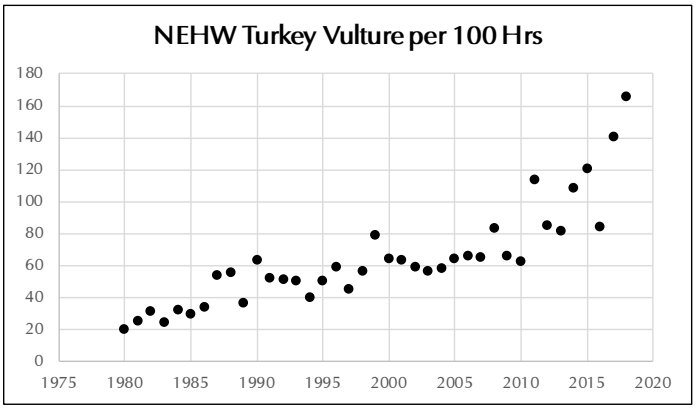
Chestnut Hill - Litchfield, Connecticut (ave for 2008-2017, % change in 2018)

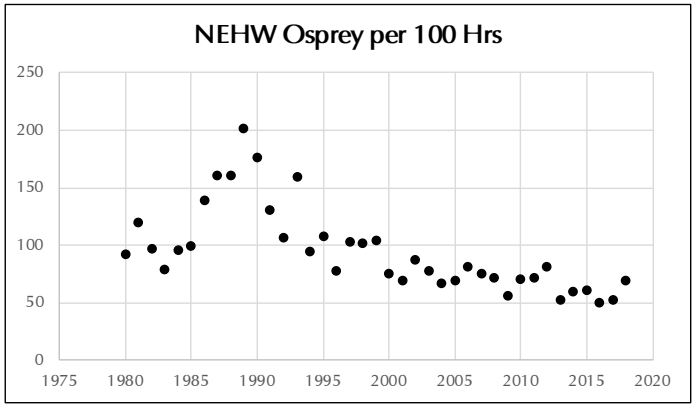
YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	15	58	0	1	26	22	0	25	3	0	0	5603	13	0	0	4	0	0	14	5711	107	98.5	1.8
2014	14	64	0	0	34	12	7	49	9	2	0	7712	12	0	1	8	1	0	10	7857	145	###	2.3
2015	19	89	0	2	20	39	5	39	8	0	0	4011	6	0	1	9	1	0	15	4156	143	46.7	1.6
2016	19	83.25	0	0	18	36	2	59	5	0	0	1509	1	0	0	24	0	1	16	1671	162	20.1	1.9
2017	16	74	0	0	10	17	1	27	0	0	0	1631	0	0	0	14	1	0	3	1704	73	23.0	1.0
2018	9	39.75	0	0	6	17	1	47	6	0	0	2818	0	0	0	16	0	2	4	2917	99	73.4	2.5
ave10	*14*	*64*	*0*	*0*	*24*	*19*	*2*	*46*	*5*	*0*	*0*	*3681*	*3*	*0*	*0*	*12*	*1*	*0*	*10*	*3804*	*123*	*63*	*2*
%chg	*-37*	*-37*		*-100*	*-75*	*-9*	*-58*	*3*	*15*	*-100*		*-23*	*-100*			*36*	*-100*	*900*	*-60*	*-23*	*-19*	*17*	*26*

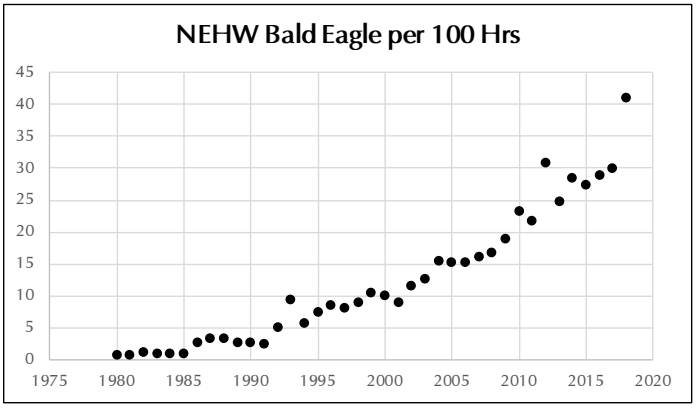
Continued on page 26

NorthEast Hawk Watch Fall Migration Trends, 1980–2018: Vultures, Osprey, Bald Eagle

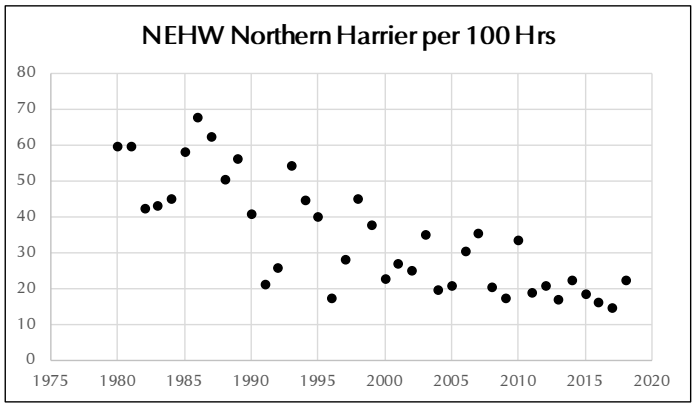


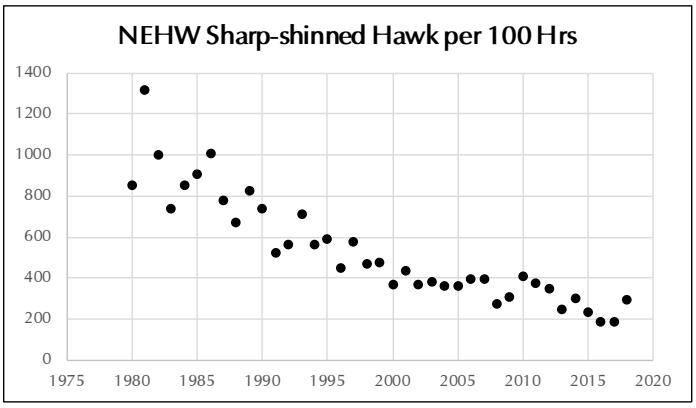


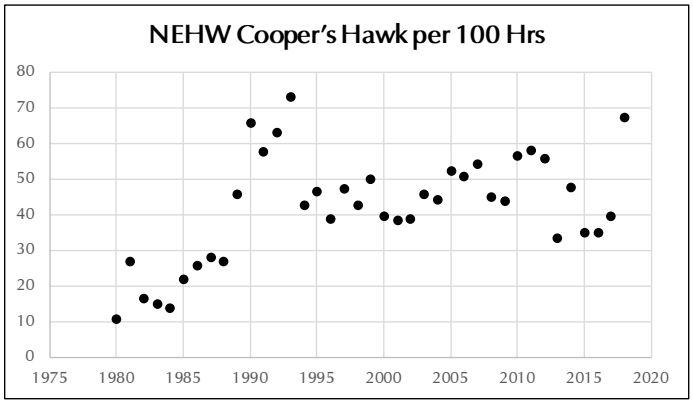


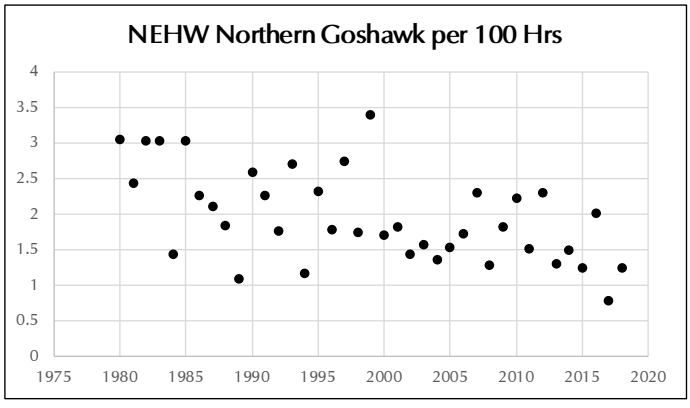


Harrier, Accipiters



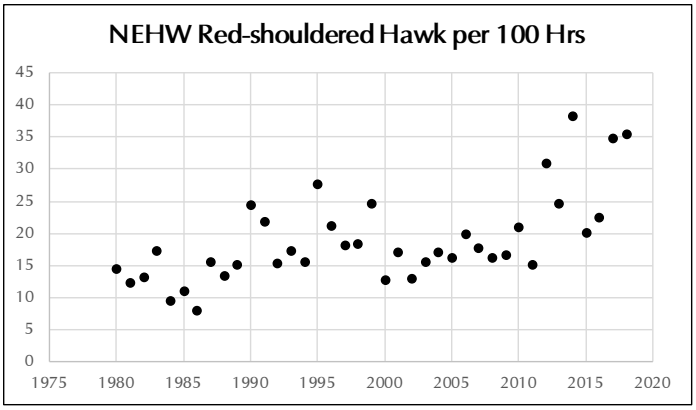


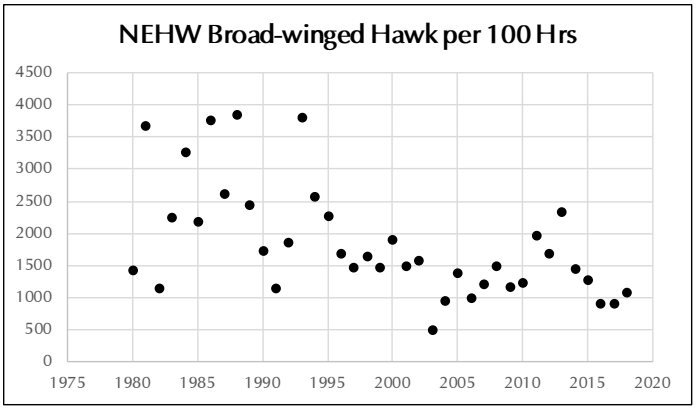


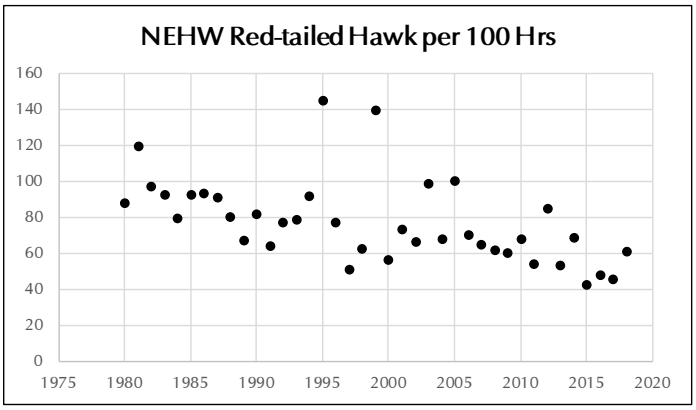


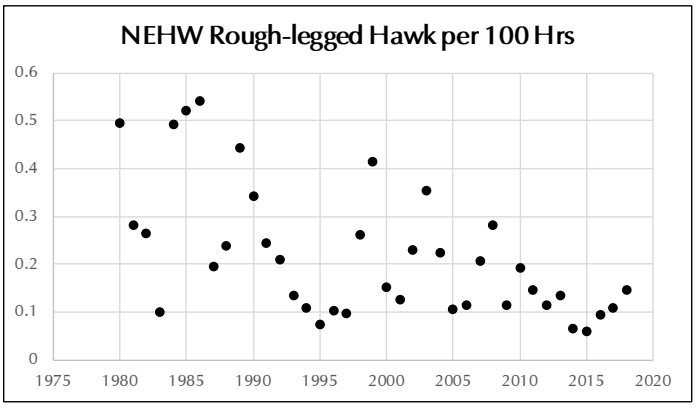
NorthEast Hawk Watch Fall Migration Trends, 1980–2018:

Buteos

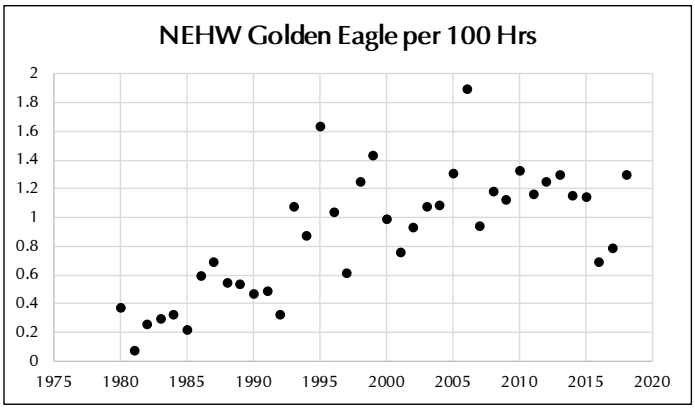


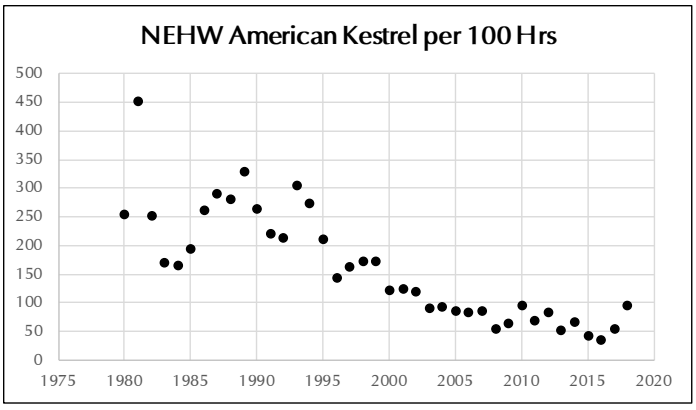


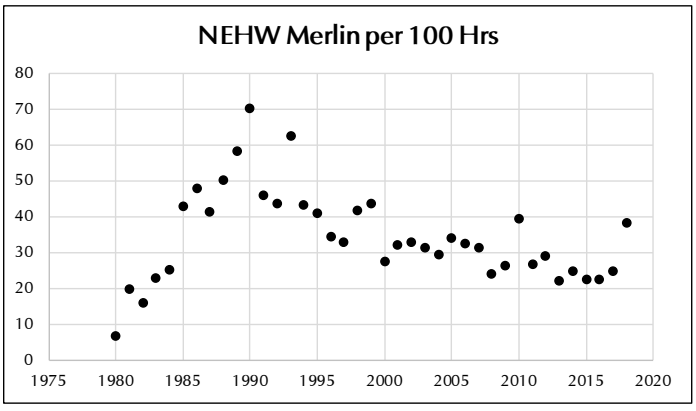


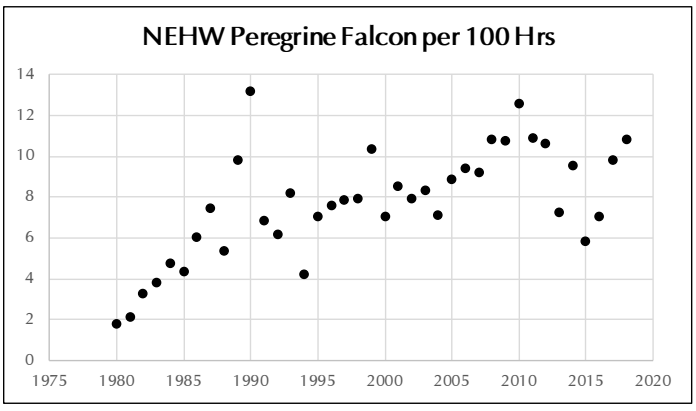


Golden Eagle, Falcons









White Memorial - Litchfield, Connecticut (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	18	51.84	7	49	17	25	4	9	9	3	15	3704	10	0	0	6	37	5	17	3917	157	75.6	3.0
2014	13	23.03	0	34	8	12	0	7	21	1	23	1253	5	0	0	4	2	0	8	1378	91	59.8	4.0
2015	11	22	1	51	4	16	0	5	7	2	23	33	4	0	0	2	0	1	5	154	69	7.0	3.1
2016	12	20.42	0	0	4	7	2	7	18	0	27	15	4	0	1	7	4	0	1	97	82	4.8	4.0
2017	10	13.58	0	2	1	0	1	1	6	0	12	98	3	0	0	1	2	0	9	136	36	10.0	2.7
2018	2	4.5	0	2	0	0	1	0	6	0	1	36	4	0	0	0	1	1	0	52	14	12	3.11
ave10	*13*	*34*	*4*	*21*	*15*	*13*	*3*	*15*	*13*	*1*	*13*	*917*	*5*	*0*	*0*	*7*	*8*	*1*	*5*	*1044*	*102*	*30*	*3*
%chg	*-85*	*-87*	*-100*	*-91*	*-100*	*-100*	*-71*	*-100*	*-55*	*-100*	*-92*	*-96*	*-26*			*-100*	*-88*	*-23*	*-100*	*-95*	*-86*	*-61*	*1*

Botsford Hill - Bridgewater, Connecticut (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	19	79	0	0	24	23	1	75	10	0	0	11167	0	0	0	16	4	0	18	11338	171	###	2.2
2014	16	68	0	0	28	21	7	74	12	0	0	3993	0	0	0	7	4	0	22	4168	175	61.1	2.6
2015	14	66	0	0	20	16	5	101	1	0	0	2778	0	0	0	4	5	1	7	2938	160	44.5	2.4
2016	13	54	0	0	14	9	3	51	4	0	0	885	0	0	0	7	5	0	11	989	104	18.5	1.9
2017	11	44	0	0	19	12	2	60	4	0	0	1264	1	0	0	15	6	0	10	1393	129	32.0	3.0
2018	11	53	0	0	17	12	4	63	4	0	0	2571	0	0	0	10	1	0	9	2691	120	51	2.25
ave10	*16*	*67*	*0*	*0*	*37*	*17*	*4*	*111*	*11*	*0*	*0*	*3387*	*0*	*0*	*0*	*17*	*3*	*0*	*16*	*3603*	*215*	*51*	*3*
%chg	*-29*	*-21*			*-55*	*-27*	*11*	*-43*	*-63*		*-100*	*-24*	*-100*			*-41*	*-69*		*-42*	*-25*	*-44*	*0*	*-29*

Bear Mountain - Fort Montgomery, New York (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	62	357	0	0	27	74	11	290	42	3	44	2208	126	0	1	42	13	3	7	2900	692	8.1	1.9
2014	62	335	0	0	29	76	7	287	25	0	9	727	69	2	7	40	12	1	8	1299	572	3.9	1.7
2015	70	400	0	0	56	81	10	262	27	3	9	421	102	0	7	29	5	7	17	1036	615	2.6	1.5
2016	63	338	0	0	46	142	5	141	27	1	6	333	40	0	4	35	7	11	11	809	476	2.4	1.4
2017	40	215	0	0	42	108	6	117	28	2	0	1828	9	0	0	23	2	11	13	2189	361	10.2	1.7
2018	45	237.5	0	0	55	66	8	374	56	0	16	1217	86	0	5	48	11	12	28	1982	765	8.3	3.2
ave10	*60*	*338*	*0*	*0*	*75*	*84*	*10*	*271*	*29*	*1*	*11*	*1206*	*112*	*0*	*4*	*33*	*7*	*6*	*14*	*1864*	*657*	*6*	*2*
%chg	*-24*	*-30*			*-27*	*-22*	*-21*	*38*	*94*	*-100*	*50*	*1*	*-23*		*28*	*48*	*64*	*90*	*106*	*6*	*16*	*46*	*67*

Mount Peter - Warwick, New York (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	74	479.3	104	121	124	119	51	1028	64	0	118	7611	582	0	5	112	14	15	37	10105	2269	21.1	4.7
2014	72	467.8	232	570	111	79	46	1119	122	1	136	5685	658	0	10	139	23	12	69	9012	2525	19.3	5.4
2015	71	464.5	107	292	114	70	28	1017	74	0	85	11256	289	0	5	75	24	11	34	13481	1826	29.0	3.9
2016	69	487.8	84	337	98	95	35	1104	94	0	104	5894	478	0	3	52	15	13	42	8448	2133	17.3	4.4
2017	74	479.8	96	320	111	85	26	841	121	1	122	6874	232	0	4	83	18	26	36	8996	1706	18.8	3.6
2018	66	419	79	504	134	112	35	1469	176	2	213	5071	508	0	6	159	15	23	24	8530	2876	20.4	6.9
ave10	*69*	*445*	*84*	*248*	*143*	*82*	*42*	*1196*	*106*	*1*	*96*	*7440*	*431*	*0*	*5*	*131*	*20*	*15*	*49*	*10088*	*2317*	*23*	*5*
%chg	*-4*	*-6*	*-5*	*103*	*-6*	*36*	*-16*	*23*	*67*	*186*	*123*	*-32*	*18*		*18*	*22*	*-25*	*50*	*-51*	*-15*	*24*	*-11*	*31*

Chestnut Ridge - Bedford, New York (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	109	747	72	2429	255	104	86	1824	258	6	499	12239	213	0	16	367	46	25	113	18552	3812	24.8	5.1
2014	93	628	102	2804	289	96	156	2216	276	6	341	6100	434	0	13	260	24	31	105	13254	4248	21.1	6.8
2015	103	702.5	119	2717	362	100	82	1532	290	4	319	6138	216	0	8	225	26	28	103	12269	3295	17.5	4.7
2016	100	670.4	64	1308	104	47	39	473	148	7	78	945	129	0	2	85	22	14	90	3555	1238	5.3	1.8
2017	84	589.1	29	3098	263	149	90	1270	373	1	494	2133	265	0	13	334	120	32	343	9007	3747	15.3	6.4
2018	84	578.2	86	3414	314	159	103	1932	346	2	272	4278	454	0	3	446	84	27	151	12071	4293	20.9	7.4
ave10	*97*	*672*	*65*	*2304*	*341*	*97*	*107*	*1923*	*359*	*7*	*246*	*6606*	*312*	*0*	*8*	*324*	*51*	*26*	*182*	*12958*	*3983*	*19*	*6*
%chg	*-13*	*-14*	*32*	*48*	*-8*	*63*	*-4*	*0*	*-4*	*-71*	*11*	*-35*	*45*		*-64*	*38*	*66*	*3*	*-17*	*-7*	*8*	*7*	*24*

REGION 41 continued

Hook Mountain - Nyack, New York (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	82	506.5	48	163	272	162	125	2048	182	0	180	4933	127	0	8	208	67	39	20	8582	3438	16.9	6.8
2014	77	448	69	288	213	170	131	1910	185	3	308	5428	148	0	6	239	73	32	8	9211	3426	20.6	7.6
2015	76	432	32	416	319	197	97	1433	161	3	130	2296	79	0	10	210	82	28	12	5505	2761	12.7	6.4
2016	77	461	46	245	353	194	91	1424	207	19	165	2777	159	0	5	156	81	30	22	5974	2906	13.0	6.3
2017	72	411.5	55	124	236	190	69	1161	149	1	94	4952	55	0	3	196	65	59	6	7415	2284	18.0	5.6
2018	69	415.3	127	780	166	159	112	2337	204	5	439	3279	200	0	8	217	94	37	3	8167	3981	19.7	9.6
ave10	*74*	*434*	*50*	*275*	*290*	*148*	*105*	*1740*	*198*	*5*	*149*	*5174*	*137*	*0*	*5*	*208*	*63*	*36*	*19*	*8605*	*3105*	*20*	*7*
%chg	*-6*	*-4*	*152*	*184*	*-43*	*7*	*6*	*34*	*3*	*4*	*194*	*-37*	*46*		*51*	*4*	*50*	*4*	*-84*	*-5*	*28*	*-3*	*34*

Quaker Ridge - Greenwich, Connecticut (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	92	760.8	15	928	470	177	165	2147	424	6	425	16188	223	0	10	484	83	33	171	21949	4818	28.9	6.3
2014	98	812	61	1661	586	210	202	3319	564	7	1046	7046	528	1	14	536	103	36	219	16139	7371	19.9	9.1
2015	102	821	47	1469	594	191	156	2160	403	4	406	5745	228	0	17	374	101	40	141	12076	4815	14.7	5.9
2016	98	732.8	24	673	461	159	104	1600	343	8	566	3484	197	0	7	284	75	28	62	8075	3894	11.0	5.3
2017	97	719.8	24	1743	321	172	86	1532	378	2	1006	3008	304	0	8	418	93	21	74	9191	4416	12.8	6.1
2018	96	674.3	62	1344	592	317	142	2456	489	4	648	9342	271	0	8	628	133	32	73	16541	5793	24.5	8.6
ave10	*90*	*693*	*27*	*1093*	*548*	*186*	*159*	*2776*	*445*	*6*	*508*	*10180*	*278*	*0*	*11*	*452*	*98*	*29*	*103*	*16898*	*5599*	*25*	*8*
%chg	*7*	*-3*	*131*	*23*	*8*	*70*	*-10*	*-12*	*10*	*-34*	*28*	*-8*	*-2*		*-27*	*39*	*35*	*9*	*-29*	*-2*	*3*	*-3*	*4*

REGION 40

State Line - Alpine, New Jersey (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	71	455	196	1126	423	93	71	1656	164	1	190	4896	304	0	4	372	37	37	155	9725	3507	21.4	7.7
2014	73	451.8	15	2428	447	78	126	2221	299	5	512	2654	634	0	1	468	59	56	185	10188	5091	22.6	11.3
2015	77	478	127	2278	857	151	86	1433	284	0	144	1613	395	0	1	333	49	52	128	7931	3913	16.6	8.2
2016	82	450	60	1311	856	160	74	1258	239	5	353	1010	539	1	1	227	61	61	106	6322	3941	14.0	8.8
2017	76	444.8	45	1628	448	219	71	818	266	2	286	1216	431	0	0	288	70	57	97	5942	3053	13.4	6.9
2018	76	467	26	3388	956	373	98	1794	572	1	388	3210	634	0	1	685	124	86	73	12409	5785	26.6	12.4
ave10	*54*	*330*	*53*	*992*	*408*	*90*	*56*	*1220*	*187*	*2*	*172*	*2201*	*297*	*0*	*1*	*270*	*40*	*44*	*112*	*6146*	*2900*	*20*	*9*
%chg	*40*	*42*	*-51*	*242*	*134*	*314*	*75*	*47*	*206*	*-57*	*126*	*46*	*113*		*-9*	*153*	*210*	*95*	*-35*	*102*	*99*	*33*	*41*

Lenoir Wildlife Sanctuary - Yonkers, New York (ave for 2005-2009, 2011-2015, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2011	43	148.5	59	923	62	44	17	355	69	0	29	562	117	0	2	47	13	15	1	2315	771	15.6	5.2
2012	30	94	53	856	151	80	20	216	54	1	38	1585	77	0	0	61	9	6	9	3216	722	34.2	7.7
2013	41	123.3	61	606	78	78	7	143	19	0	30	794	53	0	0	53	2	9	7	1940	479	15.7	3.9
2014	23	62.5	12	223	40	58	8	120	19	0	30	61	75	0	0	25	2	0	2	675	379	10.8	6.1
2015	23	69	23	481	33	56	7	51	28	0	39	10	51	0	1	7	5	4	0	796	282	11.5	4.1
2018	25	94.5	39	621	211	114	18	267	61	0	45	3115	75	0	0	146	12	16	2	4742	967	50.2	10.2
ave10	*40*	*135*	*26*	*672*	*105*	*56*	*14*	*301*	*57*	*1*	*41*	*875*	*102*	*0*	*1*	*61*	*18*	*9*	*5*	*2344*	*771*	*17*	*6*
%chg	*-38*	*-30*	*52*	*-8*	*101*	*105*	*30*	*-11*	*8*	*-100*	*10*	*256*	*-26*		*-100*	*139*	*-34*	*80*	*-63*	*102*	*25*	*188*	*78*

Wildcat Ridge - Hibernia, New Jersey (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	48	266	28	0	84	59	11	474	71	1	22	4314	62	0	4	49	10	8	11	5208	866	19.6	3.3
2014	47	277.5	0	0	76	72	20	409	121	1	17	6465	52	0	0	77	7	5	18	7340	875	26.5	3.2
2015	54	321	11	0	82	66	15	418	107	0	16	2332	56		0	39	13	3	6	3164	821	9.9	2.6
2016	62	316	15	0	62	62	6	313	100	3	15	1264	60	0	1	32	9	2	0	1944	665	6.2	2.1
2017	40	188.5	26	0	40	23	3	129	43	0	2	502	20	0	1	14	7	6	16	832	304	4.4	1.6
2018	31	166.3	31	0	49	32	14	280	83	2	7	3031	43	0	0	24	9	3	38	3646	584	21.9	3.5
ave10	*50*	*291*	*30*	*56*	*106*	*61*	*17*	*597*	*110*	*1*	*14*	*3995*	*55*	*0*	*1*	*56*	*9*	*6*	*8*	*5121*	*1040*	*17*	*3*
%chg	*-38*	*-43*	*2*	*-100*	*-54*	*-47*	*-16*	*-53*	*-25*	*186*	*-49*	*-24*	*-21*		*-100*	*-57*	*-4*	*-52*	*369*	*-29*	*-44*	*27*	*0*

REGION 40 continued

Montclair Hawk Lookout - Montclair, New Jersey (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	85	556.8	51	775	200	117	41	1178	161	0	157	8383	145	0	5	259	74	25	46	11617	2408	20.9	4.3
2014	79	534	45	757	414	182	77	1749	288	3	472	6192	165	0	1	415	87	61	21	10929	3935	20.5	7.4
2015	91	590.2	56	2067	302	120	39	1259	289	1	239	1223	118	0	1	207	107	55	59	6142	2796	10.4	4.7
2016	83	571.8	21	1044	182	102	31	671	167	2	174	1074	75	0	1	127	53	23	24	3771	1632	6.6	2.9
2017	88	670	61	2866	251	184	51	1187	321	1	418	2396	298	0	1	296	126	82	44	8583	3260	12.8	4.9
2018	91	600.1	80	1863	272	160	53	1090	340	2	347	5442	174	0	1	324	92	45	9	10294	2909	17.2	4.8
ave10	*85*	*570*	*67*	*1433*	*345*	*137*	*67*	*1467*	*297*	*2*	*275*	*5361*	*270*	*0*	*2*	*308*	*90*	*49*	*66*	*10236*	*3375*	*18*	*6*
%chg	*7*	*5*	*20*	*30*	*-21*	*17*	*-21*	*-26*	*14*	*0*	*26*	*2*	*-35*		*-50*	*5*	*2*	*-8*	*-86*	*1*	*-14*	*-6*	*-18*

Scott's Mountain - MCR Harmony Twp., New Jersey (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	88	600.3	0	0	197	224	84	1712	187	11	135	13758	707	0	14	166	66	37	122	17421	3663	29.0	6.1
2014	86	607.5	0	0	238	247	101	2273	238	7	184	11808	980	0	13	262	93	43	163	16650	4842	27.4	8.0
2015	89	610.5	0	0	198	204	121	1800	176	6	146	15050	544	0	7	169	79	34	136	18671	3621	30.6	5.9
2016	88	604.3	0	0	148	240	80	1168	158	10	96	10431	586	1	8	97	43	40	116	13222	2791	21.9	4.6
2017	89	624.3	0	0	169	274	81	1460	242	13	228	6786	477	1	13	167	54	61	96	10123	3337	16.2	5.3
2018	87	581.8	0	0	217	259	72	2018	273	11	152	8466	598	0	15	195	58	50	114	12498	4032	21.5	6.9
ave10	*85*	*568*	*0*	*0*	*235*	*228*	*110*	*1998*	*223*	*9*	*156*	*12344*	*762*	*0*	*14*	*188*	*64*	*38*	*146*	*16518*	*4173*	*29*	*7*
%chg	*2*	*2*			*-8*	*14*	*-35*	*1*	*22*	*17*	*-3*	*-31*	*-22*		*5*	*4*	*-10*	*31*	*-22*	*-24*	*-3*	*-27*	*-7*

Washington Valley (fromerly Chimney Rock) - Martinsville, New Jersey (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	92	644.8	0	0	423	189	108	1948	300	2	298	17895	249	0	22	596	227	31	21	22309	4414	34.6	6.8
2014	76	613.3	0	0	362	220	164	2591	255	2	367	6472	291	0	21	880	268	3	34	11930	5458	19.5	8.9
2015	73	623	0	0	242	210	118	2083	204	0	186	2420	44	1	7	428	181	0	25	6149	3729	9.9	6.0
2016	75	614.3	0	0	272	234	73	1350	149	7	347	1807	188	0	8	316	188	0	21	4960	3153	8.1	5.1
2017	33	172.3	0	108	41	94	17	427	52	0	154	1224	63	1	5	152	35	6	0	2379	1047	13.8	6.1
2018	37	199.5	4	33	86	155	60	1105	198	2	249	3188	99	0	4	304	82	10	0	5579	2354	28.0	11.8
ave10	*70*	*547*	*7*	*69*	*387*	*194*	*131*	*2100*	*295*	*3*	*245*	*7986*	*195*	*1*	*11*	*623*	*200*	*64*	*22*	*12532*	*4470*	*22*	*8*
%chg	*-47*	*-64*	*-45*	*-52*	*-78*	*-20*	*-54*	*-47*	*-33*	*-39*	*2*	*-60*	*-49*	*-100*	*-64*	*-51*	*-59*	*-84*	*-100*	*-55*	*-47*	*24*	*46*

REGION CO

Lighthouse Point - New Haven, Connecticut (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	95	681.8	39	416	715	173	282	3077	843	6	209	2676	486	3	10	906	393	147	459	10840	7709	15.9	11.3
2014	101	729.5	17	373	1190	290	403	3706	1548	9	259	475	518	0	4	1046	389	232	566	11025	10160	15.1	13.9
2015	78	631	6	696	1027	164	291	2325	849	0	62	133	186	0	4	428	250	61	297	6779	5944	10.7	9.4
2016	96	610.8	10	496	764	234	294	2434	1013	7	155	213	433	1	3	460	305	148	344	7314	6595	12.0	10.8
2017	91	588.3	12	527	1084	181	263	2136	1080	2	298	441	243	2	0	1070	277	124	377	8120	7140	13.8	12.1
2018	103	631.3	4	239	1630	342	439	3634	2272	3	243	225	409	1	3	1717	475	215	589	12440	11972	19.7	19.0
ave10	*95*	*626*	*11*	*494*	*1049*	*179*	*335*	*3858*	*1228*	*6*	*206*	*1191*	*494*	*1*	*5*	*1037*	*316*	*169*	*392*	*10973*	*9277*	*18*	*15*
%chg	*9*	*1*	*-63*	*-52*	*55*	*91*	*31*	*-6*	*85*	*-50*	*18*	*-81*	*-17*	*-29*	*-40*	*66*	*50*	*27*	*50*	*13*	*29*	*12*	*27*

Fire Island - Islip, New York (ave for 2008-2017, % change in 2018)

YR	DYS	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PF	UR	TOT	XBWV	PH	XPH
2013	68	451.3	0	1	337	5	136	111	28	0	1	0	1	2	0	484	916	156	9	2187	2186	4.8	4.8
2014	68	420	0	0	423	5	144	187	34	0	0	0	2	0	1	500	1010	177	6	2489	2489	5.9	5.9
2015	65	409.5	0	0	378	6	164	220	41	0	0	0	1	0	0	344	1064	73	2	2293	2293	5.6	5.6
2016	75	474.8	2	1	349	10	159	195	55	2	0	0	6	0	0	300	1016	121	8	2224	2221	4.7	4.7
2017	74	457	0	0	836	11	144	92	52	0	1	0	1	1	0	712	1177	216	6	3249	3249	7.1	7.1
2018	75	452.3	0	0	496	14	248	480	84	0	0	0	1	0	0	964	1589	172	3	4051	4051	9.0	9.0
ave10	*66*	*433*	*0*	*0*	*440*	*5*	*202*	*258*	*47*	*1*	*0*	*0*	*1.8*	*0*	*0*	*674*	*1251*	*206*	*9*	*3097*	*3096*	*7*	*7*
%chg	*13*	*4*	*-100*	*-100*	*13*	*186*	*23*	*86*	*79*	*-100*	*-100*	*-100*	*-44*			*43*	*27*	*-17*	*-67*	*31*	*31*	*25*	*25*

Daily Counts at Northeastern Watch Sites, Fall 2018

Greenlaw Mountain, Fall 2018 - St. Andrews, New Brunswick

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/22	4.0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8/29	8.0	0	0	10	1	0	4	0	0	0	6	0	0	0	0	1	0	0	22
8/30	8.0	0	0	1	6	2	12	1	0	0	51	0	0	0	10	2	0	0	85
9/3	8.0	0	0	7	5	3	9	0	0	1	17	0	0	0	2	0	0	5	49
9/5	3.5	0	0	2	1	1	13	0	0	0	27	0	0	0	4	0	0	0	48
9/6	6.0	0	0	6	2	0	10	0	0	0	4	0	0	0	0	1	0	2	25
9/7	9.0	0	0	19	2	6	19	0	0	0	68	0	0	0	12	0	0	8	134
9/8	9.0	0	0	1	4	1	26	0	0	1	101	0	0	0	6	0	0	8	148
9/9	3.5	0	0	2	0	0	15	0	0	0	1	0	0	0	0	0	0	1	19
9/11	8.0	0	0	22	0	0	11	0	0	0	44	0	0	0	0	0	0	2	79
9/12	8.0	0	0	3	0	0	20	0	0	0	35	1	0	0	9	2	0	3	73
9/15	8.5	0	0	15	1	1	16	1	0	0	9	1	0	0	12	0	0	2	58
9/18	4.0	0	0	4	0	1	2	0	0	0	9	1	0	0	2	0	1	0	20
9/19	9.0	0	0	4	0	11	17	0	0	0	45	1	0	0	11	1	0	3	93
9/20	3.0	0	0	3	0	0	4	0	0	0	2	0	0	0	1	0	0	1	11
9/21	9.0	0	0	5	5	1	2	0	0	0	20	0	0	0	0	0	0	3	36
9/22	9.0	0	0	6	6	1	8	0	0	0	55	2	0	0	1	1	0	3	83
9/23	10.5	0	13	2	5	2	8	0	0	0	71	5	0	0	3	4	0	3	116
9/24	2.0	0	5	3	0	0	1	0	1	0	4	2	0	0	0	0	0	3	19
9/26	9.0	0	5	8	3	4	38	0	1	0	3	6	0	0	11	3	2	3	87
9/28	9.0	0	8	3	6	2	16	0	0	0	22	2	0	0	5	0	3	1	68
9/29	7.0	0	0	8	0	5	27	1	1	0	0	3	0	0	3	2	3	2	55
9/30	8.5	0	14	7	1	7	15	0	0	0	3	1	0	0	3	2	6	2	61
10/2	4.5	0	1	0	0	0	21	0	0	0	1	4	0	1	0	2	2	2	34
10/4	9.0	0	77	0	4	3	28	1	1	0	0	11	0	0	41	4	3	12	185
10/5	7.5	0	12	0	5	0	31	0	6	0	2	5	0	1	5	1	1	4	73
10/6	5.8	0	2	1	0	2	12	1	1	0	0	3	0	0	2	2	0	2	28
10/7	6.5	0	32	10	0	2	18	0	1	0	0	2	0	0	4	3	2	3	77
10/12	3.5	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	4
10/13	9.0	0	44	3	25	2	23	0	2	0	0	7	0	0	4	1	0	1	112
10/14	5.3	0	29	2	0	0	14	2	2	0	0	0	0	0	1	0	2	0	52
10/15	3.8	0	4	1	9	0	0	0	2	0	0	1	0	0	0	0	1	0	18
10/17	8.0	0	4	1	2	0	5	0	0	0	0	9	0	0	1	0	0	1	23
10/18	8.5	0	50	0	2	4	25	0	3	0	0	22	0	0	0	0	0	3	109
10/20	9.0	0	11	0	8	8	39	2	2	0	0	32	0	0	6	4	0	3	115
10/21	8.5	0	18	1	21	3	10	0	2	1	0	26	0	0	3	0	1	2	88
10/24	9.0	0	1	1	5	3	9	0	1	0	0	9	0	0	0	0	0	0	29
10/25	8.8	0	18	0	4	1	5	1	0	0	0	6	1	0	0	3	0	1	40
10/26	7.0	0	1	0	1	4	17	0	0	1	0	16	0	0	2	0	0	1	43
10/29	8.0	0	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0	4
10/30	8.0	0	18	0	5	3	8	0	0	0	0	10	0	0	0	2	0	3	49
10/31	6.5	1	1	0	1	4	2	1	0	0	0	10	0	0	0	1	0	0	21
11/3	8.0	0	0	0	26	1	0	0	0	0	0	6	0	0	0	0	0	1	34
11/4	6.3	0	0	0	0	3	7	1	0	0	0	8	1	0	0	1	0	0	21
11/7	7.0	0	0	0	10	1	0	0	1	1	0	8	0	0	0	0	1	0	22
11/8	7.8	0	5	0	3	2	2	0	1	0	0	33	0	1	0	1	0	2	50
11/10	6.5	0	0	0	8	0	1	0	0	0	0	2	0	1	0	0	0	3	15
11/11	7.0	0	0	0	9	0	0	0	0	0	0	14	0	0	0	1	0	1	25
48	**342.0**	**1**	**374**	**162**	**199**	**95**	**572**	**12**	**28**	**5**	**600**	**272**	**2**	**4**	**164**	**45**	**28**	**100**	**2663**

Cooper Fall 2018 - Cooper, Maine

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/30	4.0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	3
8/31	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
9/1	5.0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9/2	6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/3	6.0	0	6	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	9
9/4	7.0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9/5	8.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/6	6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/7	7.0	0	8	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	11
9/8	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/9	4.0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
9/10	5.0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
9/12	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/13	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/16	7.0	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6
9/22	3.5	0	2	0	1	0	0	0	0	0	4	0	0	0	1	0	0	0	8
16	**88.5**	**0**	**32**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**53**

Cadillac Mountain 2018 - Acadia National Park,Maine

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/17	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/18	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/19	5.0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	2	10
8/20	5.5	0	0	0	0	0	6	0	0	0	0	3	0	0	0	0	0	1	10
8/21	5.5	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
8/22	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/23	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/24	4.0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8/25	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8/26	5.3	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8/27	5.8	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5
8/28	5.3	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
8/29	5.5	0	8	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	11
8/31	5.3	0	0	8	3	1	24	2	0	0	33	2	0	0	14	0	1	10	98
9/1	5.5	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4
9/2	4.3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9/3	5.5	0	1	0	2	1	1	0	0	0	0	0	0	0	0	0	0	8	13
9/4	7.5	0	5	17	3	11	26	1	0	0	9	1	0	0	106	2	0	4	185
9/5	6.0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	4
9/6	4.0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	3
9/7	6.0	0	1	9	2	3	54	0	0	0	5	0	0	0	59	2	0	13	148
9/8	7.8	0	11	17	5	8	65	0	0	0	28	0	0	0	119	2	1	9	265
9/9	7.0	0	3	5	19	6	82	2	0	2	27	5	0	0	48	1	1	10	211
9/10	5.0	0	2	1	1	1	2	0	0	0	3	0	0	0	3	0	0	6	19
9/12	6.0	0	4	1	2	0	19	1	0	0	1	0	0	0	4	0	3	4	39
9/13	5.0	0	1	5	2	3	13	1	0	0	6	0	0	0	6	0	3	4	44
9/14	4.0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	4	7
9/15	5.0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	3
9/16	7.0	0	1	1	0	2	15	4	0	0	0	0	0	0	14	1	2	7	47
9/17	5.3	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
9/18	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cadillac Mountain 2018 - Acadia National Park,Maine

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/19	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/20	5.3	0	2	8	0	5	21	0	0	0	0	0	0	0	3	0	0	13	52
9/21	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
9/22	8.5	0	3	4	5	8	11	0	0	0	293	0	0	0	35	3	1	3	366
9/23	6.8	0	3	0	2	0	10	0	0	0	1	0	0	0	1	0	1	1	19
9/24	6.5	0	8	5	6	3	20	1	0	0	2	1	0	0	13	0	2	14	75
9/25	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3
9/26	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/27	7.0	0	0	2	1	1	43	0	0	0	0	0	0	0	2	2	7	0	58
9/28	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/29	6.8	0	4	0	5	2	22	1	0	0	9	1	0	0	7	0	1	4	56
9/30	6.3	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	3
10/2	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/3	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/5	5.0	0	29	4	4	6	34	2	0	0	3	1	0	0	17	1	2	10	113
10/6	5.3	0	9	0	5	4	5	0	0	0	1	0	0	0	2	0	0	2	28
10/7	5.8	0	0	3	0	3	4	0	2	0	5	0	0	0	0	1	2	0	20
10/8	5.5	0	12	3	5	0	6	2	3	0	0	1	0	0	2	1	1	1	37
10/9	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/10	4.0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	3
10/11	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/12	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/13	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/14	5.3	0	1	0	0	1	2	0	0	0	0	0	0	0	3	0	0	0	7
10/15	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/18	4.5	0	2	1	0	2	2	0	0	0	0	0	0	0	10	2	3	2	24
10/21	5.5	0	8	0	0	1	27	0	1	0	0	0	0	0	18	2	1	2	60
10/22	2.0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
10/26	4.5	0	0	0	1	4	11	0	1	0	0	5	0	0	1	2	0	1	26
60	**269.5**	**0**	**133**	**102**	**75**	**79**	**544**	**18**	**7**	**2**	**429**	**20**	**0**	**0**	**495**	**24**	**33**	**139**	**2100**

Mt. Philo State Park 2018 - Charlotte, Vermont

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/19	4.0	10	14	0	4	1	1	8	0	8	6	11	2	0	0	0	0	28	93
9/8	5.0	0	1	1	0	0	0	1	0	5	141	4	0	0	2	0	1	9	165
9/15	4.5	0	13	0	1	0	0	2	0	1	43	14	1	0	0	0	2	12	89
3	**13.5**	**10**	**28**	**1**	**5**	**1**	**1**	**11**	**0**	**14**	**190**	**29**	**3**	**0**	**2**	**0**	**3**	**49**	**347**

Clarry Hill Fall 2018 - Concord, New Hampshire

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/20	6.5	0	0	5	3	0	1	1	0	0	7	1	0	0	0	0	0	0	18
8/30	9.0	0	0	18	7	0	6	1	0	0	3	0	0	0	0	0	2	1	38
8/31	8.5	0	0	13	6	0	13	1	0	0	18	1	0	0	4	3	0	0	59
9/4	8.0	0	0	8	6	1	7	3	0	1	9	0	0	0	2	1	0	0	38
9/7	10.0	0	0	13	8	2	30	0	0	0	37	1	0	0	15	1	0	0	107
9/8	10.0	0	0	10	3	2	42	0	0	1	254	1	0	0	5	2	0	3	323
9/9	10.0	0	0	12	13	0	57	4	0	1	196	0	0	0	14	0	1	0	298
9/12	10.0	0	0	11	5	2	26	6	0	0	11	1	0	0	5	0	1	0	68
9/13	10.0	0	0	20	8	9	42	9	0	0	15	0	0	0	10	2	1	3	119
9/14	9.5	0	0	9	0	0	12	3	1	0	29	1	0	0	2	0	0	0	57
9/15	9.5	0	0	6	1	0	13	1	0	0	15	0	0	0	3	1	0	0	40
9/16	8.5	0	0	9	6	3	41	3	0	0	20	0	0	0	23	4	2	0	111
9/18	3.5	0	0	8	1	0	6	0	0	0	1	0	0	0	1	1	0	0	18
9/19	9.5	0	0	14	4	5	37	4	0	0	128	3	0	0	11	0	1	0	207
9/20	9.5	0	0	11	6	4	36	0	0	0	10	1	0	0	0	1	1	0	70
9/22	9.5	0	0	8	19	2	11	2	0	0	896	1	0	0	4	0	0	0	943
9/23	9.5	0	41	15	28	5	33	2	0	0	244	0	0	1	3	1	1	2	376
9/24	9.0	0	35	3	12	3	53	3	0	0	346	4	0	0	4	3	1	0	467
9/27	10.0	0	57	19	10	3	75	5	0	0	77	0	0	0	16	1	13	0	276
9/29	10.0	0	125	7	11	3	26	3	1	0	12	4	0	0	5	2	1	6	206
9/30	9.0	0	64	1	5	1	28	1	1	1	29	3	0	0	4	1	1	0	140
10/3	8.0	0	130	4	5	8	61	5	0	0	1	7	0	0	18	0	2	0	241
10/5	11.0	0	83	1	4	13	83	3	2	3	0	7	0	0	21	3	1	0	224
10/7	8.5	0	145	3	7	7	86	1	0	2	0	12	0	0	27	4	3	3	300
10/12	5.0	0	58	1	1	2	3	3	0	2	0	2	0	0	3	0	0	0	75
10/14	7.5	0	66	1	32	2	12	1	0	2	0	20	0	0	0	0	1	2	139
10/18	4.0	0	12	0	9	0	4	0	0	0	0	18	0	0	0	0	1	0	44
10/21	7.0	0	14	0	10	2	91	3	0	11	0	33	0	1	8	2	0	3	178
10/23	4.0	0	3	1	0	4	22	1	0	0	0	14	0	0	3	0	0	0	48
10/25	6.5	0	12	0	45	2	15	0	0	2	0	32	0	0	2	0	0	2	112
10/26	2.0	0	0	0	3	3	1	0	0	0	0	3	0	0	0	0	0	0	10
10/30	7.5	0	14	0	24	2	14	0	0	0	0	40	0	3	2	0	0	0	99
11/4	7.5	0	19	0	97	3	18	0	0	0	0	44	3	3	1	0	0	3	191
11/8	6.5	0	1	0	24	0	1	0	0	0	0	22	0	0	0	0	0	0	48
11/9	6.0	0	2	0	15	1	5	2	1	1	0	13	0	0	0	0	0	0	40
11/12	6.0	0	3	0	30	1	3	0	0	0	0	27	0	0	0	0	0	0	64
36	**286.0**	**0**	**884**	**231**	**468**	**95**	**1014**	**71**	**6**	**27**	**2358**	**316**	**3**	**8**	**216**	**33**	**34**	**28**	**5792**

Harpswell Peninsula Fall 2018 - Casco Bay, Maine

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/6	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9/7	7.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9/8	7.0	0	0	6	0	1	10	1	0	0	0	0	0	0	6	0	0	0	24
9/9	7.0	0	0	1	0	0	6	0	0	0	0	0	0	0	1	0	0	0	8
9/10	7.0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
9/11	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/12	5.0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
9/13	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9/14	5.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9/15	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/16	5.0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
9/17	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/19	4.5	0	0	8	7	1	16	1	0	0	8	1	0	0	6	1	0	1	50
9/20	5.0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
9/21	4.5	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4
9/22	7.8	0	1	24	1	16	93	1	0	0	30	2	0	0	30	31	6	3	238
9/23	5.0	0	0	2	0	0	13	1	0	0	4	0	0	0	0	2	2	2	26
9/24	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9/25	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
9/26	5.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
9/27	4.3	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
9/28	5.0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6

Harpswell Peninsula Fall 2018 - Casco Bay, Maine

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/29	5.3	0	0	6	0	2	26	0	0	0	2	0	0	0	3	6	8	6	59
9/30	5.0	0	0	1	0	1	7	0	0	0	9	0	0	0	0	0	1	0	19
10/1	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/2	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/3	5.0	0	1	0	0	0	3	0	0	0	2	0	0	0	0	1	0	0	7
10/4	5.0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	1	1	0	5
10/5	5.0	0	3	0	1	0	7	1	0	1	0	2	0	0	1	0	0	2	18
10/6	5.0	0	1	1	0	1	6	1	0	0	0	0	0	0	1	0	1	0	12
10/7	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
10/8	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
10/9	5.0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	3
10/10	5.0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	1	3	0	10
10/11	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/12	5.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
10/13	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/14	5.0	0	2	1	0	0	5	1	0	0	0	0	0	0	0	1	0	0	10
10/15	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
10/16	6.5	0	14	9	0	6	39	4	1	2	6	2	0	0	12	17	3	2	117
10/17	5.3	0	0	1	0	2	2	0	0	0	0	0	0	0	0	1	0	0	6
10/18	7.5	0	44	4	1	11	202	5	0	0	6	3	0	1	22	34	6	6	345
10/19	4.3	0	0	0	0	1	3	0	0	0	0	0	0	0	1	0	1	0	6
10/20	2.5	0	1	0	0	0	4	0	0	0	0	0	0	0	1	0	3	0	9
10/21	6.8	0	9	1	1	9	213	7	3	1	2	7	0	0	32	52	1	5	343
10/22	5.0	0	1	0	0	0	11	1	0	2	0	2	0	0	1	1	1	0	20
10/24	5.0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10/25	4.3	0	5	0	0	3	32	0	1	0	0	4	0	0	3	4	0	1	53
10/26	4.0	0	22	0	0	2	7	0	0	5	0	6	0	0	0	3	0	0	45
10/27	4.0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10/28	3.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	4
10/29	4.0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10/30	4.8	0	6	0	2	2	21	1	0	3	1	1	0	0	1	3	0	0	41
10/31	4.0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2
11/1	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/2	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/3	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
57	**288.3**	**0**	**112**	**79**	**14**	**61**	**744**	**25**	**6**	**14**	**71**	**33**	**1**	**1**	**124**	**166**	**43**	**29**	**1523**

Interlakes Elementary School Fall 2018 - Meredith, New Hampshire

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/12	4.5	0	4	1	1	0	1	1	0	0	5	2	0	0	0	1	0	0	16
9/13	5.0	0	24	0	4	0	0	0	0	0	71	6	0	0	0	0	0	5	110
2	**9.5**	**0**	**28**	**1**	**5**	**0**	**1**	**1**	**0**	**0**	**76**	**8**	**0**	**0**	**0**	**1**	**0**	**5**	**126**

Concord School Fall 2018 - New Hampshire

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/14	60.0	0	1	0	2	0	2	0	0	0	3	1	0	0	1	0	0	1	11
9/17	345.0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
9/19	300.0	0	0	0	0	1	1	0	0	0	45	1	0	0	0	0	0	2	50
9/21	210.0	0	1	0	1	0	3	0	0	0	0	0	0	0	0	0	0	1	6
9/24	300.0	0	12	0	0	0	1	0	0	0	15	2	0	0	0	0	0	2	32
5	**20.3**	**0**	**16**	**0**	**3**	**1**	**7**	**0**	**0**	**0**	**63**	**4**	**0**	**0**	**1**	**0**	**1**	**6**	**102**

Carter Hill Fall 2018 - Concord, New Hampshire

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
10/16	5.0	0	5	1	0	0	12	3	0	0	0	1	0	0	4	4	0	0	30
10/24	1.5	0	5	0	0	0	3	0	0	0	0	1	0	0	1	0	0	0	10
2	**6.5**	**0**	**10**	**1**	**0**	**0**	**15**	**3**	**0**	**0**	**0**	**2**	**0**	**0**	**5**	**4**	**0**	**0**	**40**

Pack Monadnock Fall 2018 - Peterborough, New Hampsire

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/1	9.0	0	0	2	4	1	1	0	0	0	3	0	0	0	1	0	0	1	13
9/2	8.5	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	1	5
9/3	8.0	0	0	3	4	0	3	1	0	0	4	0	0	0	2	1	0	0	18
9/4	8.0	0	0	3	7	1	6	2	0	1	13	0	0	0	5	2	0	1	41
9/5	8.0	0	0	8	1	0	1	1	0	0	1	0	0	0	3	0	0	2	17
9/6	5.5	0	0	1	0	0	2	2	0	0	11	0	0	0	2	0	0	0	18
9/7	8.5	0	0	10	0	2	6	3	0	1	20	0	0	0	4	2	1	3	52
9/8	8.0	0	0	7	11	2	15	2	0	0	99	0	0	0	6	0	0	4	146
9/9	10.0	0	0	6	22	4	24	1	0	0	975	0	0	0	6	0	2	0	1040
9/10	5.3	0	0	3	1	0	2	0	0	0	14	0	0	0	0	1	1	1	23
9/11	3.5	0	0	2	0	1	2	1	0	0	1	0	0	0	0	0	0	0	7
9/13	5.8	0	0	4	1	0	5	1	0	0	2	0	0	0	0	0	0	1	14
9/14	9.3	0	0	9	3	3	64	5	1	0	322	1	0	0	3	2	1	7	421
9/15	8.5	0	0	3	3	0	27	3	0	4	72	0	0	0	6	7	1	5	131
9/16	10.0	0	0	5	3	2	37	8	0	0	607	0	0	0	13	6	1	1	683
9/17	9.0	0	0	6	1	0	9	0	0	0	58	0	0	0	2	0	0	0	76
9/18	3.0	0	0	6	2	1	14	5	0	0	10	0	0	0	1	1	1	0	41
9/19	7.5	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
9/20	6.0	0	0	10	4	0	22	2	0	1	188	0	0	0	2	0	1	2	232
9/21	8.0	0	0	3	0	0	1	0	0	0	4	0	0	0	1	0	0	2	11
9/22	9.3	0	2	14	8	2	72	5	0	0	926	8	0	0	8	2	5	2	1054
9/23	8.0	0	0	12	7	0	11	2	0	2	657	1	0	0	1	1	1	0	695
9/24	8.8	0	3	16	23	5	26	5	0	2	2239	1	0	0	13	0	1	2	2336
9/26	8.0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	4
9/27	8.8	0	2	2	7	4	16	10	0	2	376	6	0	0	6	4	1	1	437
9/28	8.0	0	0	15	3	2	14	5	0	1	73	1	0	0	0	0	2	0	116
9/29	8.8	0	2	3	3	2	62	12	0	4	26	3	0	0	30	3	1	4	155
9/30	8.0	0	1	4	5	0	12	3	1	2	7	4	0	0	3	1	0	0	43
10/1	2.5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10/3	4.0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
10/4	8.0	0	0	4	0	0	2	0	0	0	0	0	0	0	0	0	0	1	7
10/5	8.0	0	7	2	8	2	44	16	1	25	42	4	0	0	7	2	1	15	176
10/6	8.0	0	3	11	1	3	19	4	0	1	1	1	0	0	3	1	3	3	54
10/9	5.0	0	1	1	0	0	2	0	0	0	0	0	0	0	5	2	0	0	11
10/10	7.5	0	27	0	3	2	8	1	0	5	0	4	0	0	14	3	2	7	76
10/12	7.8	0	0	0	3	4	20	5	1	1	0	6	0	0	7	6	0	10	63
10/13	3.0	0	1	1	0	0	4	0	0	0	0	0	0	0	0	1	0	0	7
10/14	12.0	0	5	2	7	0	37	6	1	6	2	7	0	0	10	3	1	1	88
10/15	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/16	8.0	0	12	0	1	0	1	1	1	0	0	6	0	3	1	0	1	4	31
10/17	8.8	0	2	0	0	2	3	0	1	0	0	2	0	2	1	0	0	2	15
10/18	8.0	0	3	0	4	2	10	0	0	1	0	5	0	2	2	2	0	4	35
10/19	8.0	0	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0	4
10/20	8.0	0	3	1	0	0	3	1	0	0	0	1	0	2	0	1	0	1	13
10/21	8.8	0	4	0	2	0	15	0	0	2	0	4	0	1	0	0	0	1	29
10/22	7.0	0	0	0	1	0	10	0	0	3	0	2	0	0	0	0	0	0	16
10/23	6.5	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
10/24	3.0	0	0	0	0	4	2	1	0	0	0	1	0	0	0	0	0	1	9
10/25	8.0	0	2	0	6	0	6	0	0	3	0	23	1	0	1	2	0	3	47
10/26	8.0	0	1	0	2	1	4	3	3	16	0	18	0	0	0	0	0	7	55
10/28	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/30	8.0	0	0	0	0	3	2	1	0	0	0	10	0	6	0	0	2	1	25
10/31	8.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
11/1	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/3	1.0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
11/4	8.0	0	11	0	1	0	4	1	0	8	0	52	0	1	0	0	0	3	81
11/7	7.3	0	3	0	2	0	2	2	0	1	0	8	0	0	0	0	0	0	18
11/8	7.0	0	0	0	3	2	4	0	0	2	0	11	0	1	1	0	0	1	25
11/9	7.5	0	0	0	0	2	3	1	1	6	0	6	0	0	1	0	0	1	21
11/10	4.5	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
11/11	7.5	0	0	0	4	0	0	2	0	2	0	30	0	2	0	0	0	0	40
11/12	7.0	0	1	0	1	0	0	0	0	6	0	10	0	1	0	0	0	0	19
11/15	6.8	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	4
11/16	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/17	6.8	0	0	0	3	0	0	0	0	0	0	2	1	0	0	0	0	0	6
11/18	7.0	0	0	0	1	0	0	0	0	15	0	3	0	1	0	0	0	1	21
66	**455.3**	**0**	**98**	**181**	**176**	**64**	**668**	**124**	**11**	**126**	**6756**	**246**	**2**	**22**	**171**	**58**	**31**	**108**	**8842**

Putney Mountain Fall 2018 - Putney, Vermont

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/24	4.0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
8/25	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/26	4.0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8/27	4.0	0	0	1	0	0	2	0	0	0	3	0	0	0	1	0	0	0	7
8/28	3.5	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	0	0	4
8/29	3.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8/30	6.5	0	0	2	4	0	1	0	0	0	4	0	0	0	0	0	0	0	11
8/31	6.5	0	0	1	1	2	1	0	0	0	14	0	0	0	0	0	0	0	19
9/1	5.8	0	0	1	2	0	0	0	0	0	2	0	0	0	1	0	0	0	6
9/2	7.0	0	0	1	2	1	0	1	0	0	2	0	0	0	2	0	0	0	9
9/3	6.5	0	0	1	0	1	2	0	0	0	3	0	0	0	4	1	0	0	12
9/4	8.3	0	0	0	0	1	3	0	0	0	9	0	0	0	0	0	0	0	13
9/5	8.3	0	0	2	0	0	0	1	0	0	9	0	0	0	6	1	0	0	19
9/6	6.5	0	0	4	0	1	8	3	0	0	1	0	0	0	15	2	0	0	34
9/7	8.5	0	0	4	2	0	7	0	0	0	27	0	0	0	1	0	0	0	41
9/8	8.5	0	0	8	7	1	10	1	0	0	111	0	0	0	1	0	0	0	139
9/9	8.5	0	0	2	6	1	10	0	0	0	694	0	0	0	3	0	0	0	716
9/10	5.8	0	0	1	3	1	8	0	0	0	371	0	0	0	2	0	0	0	386
9/11	2.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/12	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/13	10.0	0	0	6	8	2	42	1	0	0	678	0	0	0	4	0	0	0	741
9/14	10.0	0	0	3	6	2	47	4	0	0	2445	0	0	0	8	0	1	0	2516
9/15	9.5	0	0	5	4	0	77	5	0	0	1418	0	0	0	7	2	1	0	1519
9/16	9.0	0	0	3	0	3	16	2	0	0	443	0	0	0	3	0	0	0	470
9/17	7.0	0	0	1	1	0	15	2	0	1	133	0	0	0	2	1	0	0	156
9/18	6.5	0	0	1	2	1	24	6	0	1	250	0	0	0	7	2	0	0	294
9/19	9.5	0	0	16	1	2	68	4	1	0	1418	4	0	2	7	1	0	0	1524
9/20	9.8	0	0	11	1	2	15	1	0	1	2692	0	0	0	2	0	0	0	2725
9/21	7.3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9/22	9.8	0	5	17	13	1	86	5	0	1	620	7	0	0	14	0	1	0	770
9/23	8.0	0	0	2	3	0	35	1	0	2	90	7	0	0	2	0	0	0	142
9/24	8.5	0	15	6	7	3	34	0	0	0	512	2	0	1	1	0	1	0	582
9/26	6.5	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3
9/27	9.0	0	15	2	9	1	61	4	3	1	58	5	0	0	5	1	0	0	165
9/28	8.0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5
9/29	9.3	0	21	13	7	2	110	8	1	1	29	9	0	0	43	6	2	0	252
9/30	8.8	0	15	2	1	2	35	3	0	0	5	7	0	0	3	0	1	0	74
10/1	2.0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10/3	10.0	0	22	7	0	0	18	0	0	0	0	0	0	0	2	0	0	0	49
10/4	8.0	0	0	1	0	2	7	0	0	0	0	0	0	0	0	0	0	0	10
10/5	10.0	0	24	4	3	3	73	5	0	0	2	13	0	0	3	1	2	0	133
10/6	8.0	0	5	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	18
10/7	6.3	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4
10/9	9.5	0	58	3	1	9	62	3	0	0	0	4	0	0	5	1	2	0	148
10/10	9.5	0	27	5	11	2	58	12	1	2	0	8	0	0	11	0	1	0	138
10/12	10.8	0	38	2	7	4	210	5	1	3	0	23	0	0	52	7	10	0	362
10/13	9.3	0	9	1	1	1	21	1	0	0	0	11	0	0	1	0	1	0	47
10/14	9.8	0	51	1	2	2	104	16	1	7	1	43	0	0	21	5	1	0	255
10/16	9.8	0	61	1	3	0	131	8	0	4	0	42	0	1	17	10	2	0	280
10/17	6.8	0	31	2	0	1	54	6	0	0	0	13	0	2	3	0	2	0	114
10/18	9.5	0	28	2	1	1	55	3	1	3	0	28	0	1	9	2	1	0	135
10/19	8.8	0	21	0	2	1	35	3	1	0	0	11	0	0	3	5	0	0	82
10/20	8.0	0	19	0	1	1	37	3	2	1	0	7	0	0	7	1	0	0	79
10/21	8.5	0	2	0	2	1	30	2	3	0	0	32	0	0	2	2	0	0	76
10/22	8.5	0	10	0	3	2	31	3	2	1	0	23	0	0	0	0	0	0	75
10/23	4.8	0	0	0	0	0	30	2	0	0	0	0	0	0	0	0	0	0	32
10/24	9.5	0	11	0	3	8	45	4	1	3	0	35	1	1	8	1	0	0	121
10/25	8.5	0	6	0	2	3	22	4	1	0	0	30	1	2	2	3	0	0	76
10/26	9.0	0	6	0	0	0	23	5	3	6	0	59	0	3	1	0	0	0	106
10/28	2.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10/30	9.0	0	0	0	3	2	28	3	1	3	0	40	0	2	2	0	0	0	84
10/31	8.0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
11/1	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/2	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/3	2.0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
11/4	8.0	0	2	0	5	1	13	5	0	2	0	73	0	0	0	0	0	0	101
11/5	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11/7	8.3	0	4	0	2	1	10	0	0	0	0	19	0	0	2	0	0	0	38
11/8	7.0	0	0	0	1	1	2	2	0	0	0	27	0	1	0	0	1	0	35
11/9	5.0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
70	**508.3**	**0**	**514**	**148**	**144**	**77**	**1840**	**147**	**23**	**43**	**12045**	**588**	**2**	**16**	**298**	**56**	**30**	**0**	**15971**

Mount Watatic Fall 2018 - Ashby, Massachusetts

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/1	5.0	0	0	2	4	0	2	0	0	1	42	0	0	0	0	0	1	0	52
9/8	7.5	0	0	13	3	1	6	7	0	0	70	0	0	0	4	0	1	4	109
9/9	7.5	1	0	4	13	0	10	3	0	0	97	0	0	0	7	1	1	10	147
9/13	7.0	0	0	2	1	1	9	2	0	0	14	0	0	0	0	0	0	2	31
9/14	8.0	0	0	3	8	0	27	2	0	1	189	1	0	0	8	0	0	2	241
9/15	8.0	0	0	1	3	1	10	1	0	0	24	0	0	0	5	1	0	2	48
9/16	7.5	0	0	8	1	0	22	8	0	0	221	1	0	0	12	2	0	1	276
9/17	6.5	0	0	1	1	1	15	3	0	0	105	0	0	0	0	2	0	0	128
9/20	7.0	0	0	4	3	1	20	2	0	0	450	0	0	0	1	2	1	0	484
9/21	4.3	0	11	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	14
9/22	8.0	0	0	6	10	1	33	4	0	2	895	1	0	0	1	1	0	4	958
9/23	8.0	0	0	6	5	2	22	1	0	0	1766	0	0	0	1	0	0	0	1803
12	**84.3**	**1**	**11**	**52**	**52**	**8**	**176**	**33**	**0**	**4**	**3874**	**3**	**0**	**0**	**39**	**9**	**4**	**25**	**4291**

Helderberg Escarpment Fall 2018 - Voorheesville, New York																		
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/8	8.0	0	0	1	5	0	3	6	0	0	135	4	0	0	0	0	4	5	163
9/9	6.0	1	0	1	6	1	2	0	0	0	94	1	0	0	1	1	0	1	109
9/12	9.0	0	0	0	0	0	1	1	0	0	31	0	0	0	0	0	0	2	35
9/13	5.5	1	0	0	1	3	4	3	0	0	21	3	0	0	1	2	1	5	45
9/14	2.0	0	11	1	0	0	0	1	0	0	15	2	0	0	1	0	0	0	31
9/15	9.0	6	13	0	1	0	0	4	0	0	86	16	0	0	0	2	1	3	134
9/16	5.0	2	27	0	0	0	1	0	0	0	20	6	0	0	0	0	0	2	58
9/17	5.0	0	15	0	0	0	1	0	0	0	14	0	0	0	2	0	0	0	32
9/19	7.0	18	1	6	1	1	3	11	0	0	269	9	0	0	12	1	1	5	338
9/20	4.0	10	27	0	1	0	1	2	0	0	58	3	0	0	0	0	0	5	107
9/22	10.0	4	9	5	14	3	7	11	0	0	191	13	0	0	0	0	4	6	267
9/23	7.0	0	7	1	4	1	1	2	0	0	17	2	0	0	1	1	0	1	38
12	**77.5**	**42**	**110**	**15**	**33**	**9**	**24**	**41**	**0**	**0**	**951**	**59**	**0**	**0**	**18**	**7**	**11**	**35**	**1357**

Wachusett Fall 2018 - Princeton, Massachusetts																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/17	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/20	3.5	0	0	3	0	0	6	0	0	0	4	0	0	0	0	0	0	0	13
8/23	5.3	0	0	2	0	0	0	0	0	0	9	0	0	0	0	0	0	0	11
8/27	6.0	0	0	4	2	1	0	0	0	0	47	0	0	0	0	0	0	0	54
8/30	5.0	1	0	0	2	0	0	0	0	0	6	0	0	0	0	0	0	0	9
8/31	6.0	0	0	3	1	0	1	0	0	0	7	1	0	0	0	1	0	0	14
9/1	7.0	0	0	1	0	0	1	2	0	0	10	0	0	0	0	0	2	0	16
9/2	5.3	0	0	2	1	0	0	0	0	1	14	0	0	0	0	0	0	0	18
9/4	5.5	0	0	1	3	0	4	0	0	0	20	0	0	0	1	3	0	3	35
9/5	4.0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	0	0	0	4
9/6	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/7	5.0	0	0	1	0	0	1	0	0	0	9	0	0	0	2	0	0	0	13
9/8	7.0	0	0	7	4	2	7	0	0	0	27	0	0	0	5	4	1	6	63
9/9	7.0	0	0	8	19	1	12	7	0	0	52	0	0	0	12	8	0	12	131
9/10	4.0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
9/12	1.3	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	3
9/13	2.5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3
9/14	8.0	0	0	10	6	0	21	10	0	0	215	0	0	0	5	0	2	7	276
9/15	8.0	0	0	6	5	0	21	7	0	0	29	0	0	0	1	0	3	0	72
9/16	9.0	4	0	1	4	3	7	3	0	1	32	0	0	0	5	2	0	3	65
9/17	4.0	0	0	5	0	0	0	0	0	0	4	0	0	0	0	0	0	0	9
9/19	4.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/20	8.0	0	0	10	10	0	21	10	0	0	577	1	0	0	4	2	1	4	640
9/21	3.8	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9/22	8.0	0	3	10	19	1	37	14	0	2	2782	3	0	0	30	3	0	1	2905
9/23	5.0	0	0	5	6	0	5	1	0	0	950	0	0	0	2	0	2	2	973
9/24	7.0	0	1	4	5	1	12	14	0	1	44	0	0	0	4	0	0	3	89
9/27	7.0	0	0	7	8	0	16	16	0	0	49	2	0	0	4	2	3	8	115
9/29	7.5	0	0	3	10	0	35	4	0	2	103	1	0	0	11	2	0	7	178
9/30	8.0	0	2	2	4	1	8	6	0	0	26	0	0	0	2	1	0	3	55
10/1	5.5	0	4	0	0	0	11	0	0	0	0	0	0	0	5	0	1	0	21
10/3	3.0	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	5
10/4	7.0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
10/5	7.0	0	153	2	7	3	30	21	0	1	24	4	0	0	10	9	1	9	274
10/6	4.0	0	2	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	5
10/7	4.0	0	17	0	1	0	1	2	0	1	0	1	0	0	5	0	1	2	31
10/9	3.0	0	7	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	10
10/12	6.5	0	13	0	0	0	4	2	0	1	0	0	0	0	2	0	0	2	24
10/14	7.0	0	23	1	8	0	5	5	0	0	0	1	0	1	1	1	0	2	48
10/16	6.0	0	13	0	1	0	4	3	0	0	0	3	0	0	1	4	1	0	30
10/17	3.0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	5
10/19	6.0	0	3	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	7
10/20	4.5	0	6	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	8
10/21	7.3	0	10	0	0	0	7	1	0	0	0	3	0	0	3	1	1	3	29
10/25	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
10/26	6.0	0	4	0	3	0	0	2	0	1	0	22	0	0	0	0	0	3	35
11/4	5.0	0	3	0	1	0	0	1	0	2	0	17	0	0	0	1	1	0	26
47	**258.1**	**6**	**267**	**100**	**135**	**17**	**281**	**132**	**0**	**13**	**5042**	**65**	**0**	**1**	**121**	**44**	**21**	**82**	**6327**

Pinnacle Rock Fall 2018 - Medford, Massachusetts																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/22	6.5	0	0	3	0	0	8	0	0	0	9	0	0	0	1	0	0	4	25
9/23	4.3	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
9/29	10.0	0	2	2	5	1	10	2	0	0	0	0	0	0	4	2	1	6	35
9/30	8.8	0	0	2	1	1	2	3	0	0	0	0	0	0	1	0	0	0	10
10/5	4.8	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	7
10/6	1.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	0	5
10/12	4.8	0	0	0	0	3	35	2	0	0	0	0	0	0	1	0	0	8	49
10/13	2.5	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6
10/14	6.5	0	0	1	3	0	32	13	0	0	0	0	0	0	1	2	0	8	60
10/16	8.0	0	5	2	2	3	34	9	0	0	0	0	0	0	4	0	0	9	68
10/17	5.3	0	0	0	1	2	5	6	0	0	0	0	0	0	0	0	1	5	20
10/18	9.3	0	1	1	0	3	28	6	0	1	0	0	0	0	1	1	0	8	50
10/20	5.8	0	2	0	0	1	9	4	0	0	0	0	0	0	0	0	0	1	17
10/21	6.8	0	0	0	4	0	76	8	0	1	0	0	0	0	4	1	0	10	104
10/22	5.3	0	0	0	1	0	7	3	0	0	0	0	0	0	0	1	0	2	14
10/24	2.5	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	2	6
10/25	6.0	0	3	0	1	0	3	1	0	2	0	0	0	0	0	0	0	0	10
10/26	4.3	0	3	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	9
10/30	6.3	0	0	0	2	1	8	1	0	0	0	5	0	0	0	2	0	1	20
11/4	7.0	0	2	0	0	0	4	2	0	0	0	2	0	0	0	1	0	1	12
11/7	6.3	0	0	0	1	0	2	2	0	0	0	5	0	0	0	0	0	0	10
11/8	6.3	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	4
11/10	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/11	5.3	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	3
24	**136.0**	**0**	**19**	**13**	**22**	**15**	**276**	**69**	**0**	**4**	**9**	**20**	**0**	**0**	**17**	**12**	**5**	**66**	**547**

Barre Falls, Fall 2018 - Barre, Massachusetts																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/31	2.0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
9/2	4.0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	3
9/8	5.5	0	0	3	0	1	3	1	0	0	8	0	0	0	1	0	0	0	17
9/9	6.0	0	0	1	6	0	2	0	0	0	11	0	0	0	0	0	0	0	20
9/13	5.5	0	0	2	3	1	3	2	0	0	12	0	0	0	1	0	0	0	24
9/14	5.5	0	0	1	0	0	1	0	0	0	22	0	0	0	0	0	0	0	24
9/15	6.0	0	0	2	2	0	2	2	0	0	30	0	0	0	2	0	0	0	40
9/16	5.0	0	0	1	1	0	1	0	0	0	15	0	0	0	4	2	0	2	26
9/17	3.0	0	0	0	0	0	2	2	0	0	5	0	0	0	0	0	0	0	9
9/19	5.0	0	0	8	0	0	3	0	0	0	3	0	0	0	0	1	0	1	16
9/20	6.0	0	0	1	7	0	3	2	0	0	191	0	0	0	0	1	0	0	205
9/21	3.0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
9/22	7.0	0	0	7	4	0	15	4	0	1	584	0	0	0	7	3	1	0	626
9/23	5.0	0	0	1	0	1	9	3	0	0	63	0	0	0	0	0	0	0	77

Barre Falls, Fall 2018 - Barre, Massachusetts																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/24	4.5	0	0	0	5	0	25	0	0	0	34	2	0	0	1	1	0	1	69
9/26	2.0	0	0	1	0	0	3	0	0	0	0	0	0	0	1	0	0	0	5
9/27	6.5	0	0	1	6	0	8	3	0	2	2	0	0	0	0	1	0	1	24
9/29	6.0	0	0	3	0	0	12	2	0	0	137	5	0	0	8	2	0	0	169
9/30	6.0	0	0	0	3	0	12	4	1	0	7	0	0	0	2	1	0	2	32
10/1	4.5	0	0	0	0	0	10	0	0	0	0	0	0	0	2	0	0	0	12
10/4	5.0	0	0	3	0	2	7	2	0	0	0	0	0	0	0	1	1	2	18
10/5	6.0	0	13	1	2	1	28	9	0	0	5	8	0	0	2	0	0	4	73
10/6	4.5	0	2	2	0	1	3	0	0	0	0	0	0	0	1	0	1	0	10
10/7	5.0	0	45	2	2	2	4	2	0	0	0	1	0	1	2	3	0	0	64
10/8	3.0	0	4	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	7
10/9	4.5	0	23	0	0	0	6	0	0	0	0	0	0	0	4	0	0	0	33
10/10	6.0	0	4	0	0	0	40	6	0	0	0	8	0	0	5	1	1	1	66
10/12	4.5	0	3	0	0	0	11	2	0	0	0	1	0	1	3	1	0	4	26
10/14	5.5	0	28	1	1	0	11	1	0	0	0	4	0	0	2	0	0	1	49
10/16	4.5	0	1	2	0	0	8	2	0	0	0	3	0	0	2	0	0	2	20
10/17	4.5	0	7	0	1	1	18	3	0	1	0	2	0	0	1	1	0	2	37
10/19	4.0	0	2	0	0	1	4	0	0	0	0	1	0	0	0	0	0	1	9
10/20	4.0	0	1	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	6
10/21	2.5	0	5	1	0	0	10	0	0	0	0	0	0	0	0	0	0	2	18
10/22	3.5	0	0	0	3	0	8	0	0	0	0	4	0	0	0	0	0	0	15
10/24	3.0	0	2	0	0	0	5	0	0	0	0	3	0	1	0	1	0	0	12
10/25	4.5	0	0	0	1	1	15	4	0	0	0	11	0	0	2	0	0	1	35
10/26	5.0	0	5	0	3	0	18	1	0	1	0	45	0	0	0	0	0	2	75
10/30	5.0	0	6	1	2	0	18	2	0	1	0	13	0	0	2	0	0	0	45
10/31	5.0	0	0	0	0	0	9	1	0	0	0	2	0	0	0	0	0	1	13
11/4	5.5	0	2	0	1	0	0	1	0	0	0	11	0	0	0	0	0	1	16
11/5	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	4.0	0	1	0	2	0	0	0	0	0	0	5	0	0	0	0	0	1	9
11/8	5.0	0	2	0	0	0	0	0	0	1	0	9	0	0	0	0	0	3	15
11/9	2.5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11/10	2.5	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	3
11/11	3.0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
11/12	3.8	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	3
11/17	3.5	0	0	0	0	0	0	1	0	0	0	6	0	0	0	0	0	0	7
TOTAL	**219.3**	**0**	**156**	**45**	**58**	**13**	**341**	**65**	**1**	**11**	**1134**	**148**	**0**	**4**	**55**	**20**	**4**	**35**	**2090**

Shatterack Mountain Fall 2018 - Russell, Massachusetts																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/9	5.5		0	3	2	1	3	0	0	0	161	0	0	0	2	0	0	0	172
9/11	3.0		0	1	0	0	5	0	0	0	2	0	0	0	0	0	0	0	8
9/14	5.5		0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3
9/15	6.8		0	1	2	0	12	0	0	0	201	0	0	0	2	0	0	0	218
9/16	5.8		0	0	0	1	1	0	0	0	7	0	0	0	2	0	0	0	11
9/17	5.8		0	2	0	0	4	0	0	0	11	0	0	0	1	0	0	0	18
9/19	7.0		0	3	1	0	18	5	0	0	286	0	0	0	0	1	0	0	314
9/20	7.5		0	4	1	0	11	0	0	0	910	0	0	0	1	0	0	0	927
9/22	7.5		0	4	1	0	16	0	0	2	626	0	0	0	3	0	1	0	653
9/24	6.0		0	0	1	3	5	0	0	0	772	0	0	0	0	0	0	0	781
9/26	3.3		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9/27	5.8		18	2	1	0	11	1	0	0	71	1	0	0	0	0	0	3	108
9/29	6.0		3	4	3	0	14	4	0	0	31	1	0	0	4	1	0	0	65
10/1	6.0		0	0	0	0	7	4	0	0	1	5	0	0	1	0	0	0	18
10/3	5.8		1	4	1	0	11	4	0	0	0	0	0	0	0	0	1	0	22
10/5	5.3		1	0	1	0	7	2	0	2	0	1	0	0	2	0	0	2	18
10/6	5.0		1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10/7	6.0		9	4	0	2	18	1	0	0	0	1	0	0	3	1	0	0	39
10/9	4.5		10	0	0	1	7	4	0	1	0	5	0	0	3	0	0	0	31
10/12	5.3		18	0	1	0	23	1	0	3	0	1	0	0	8	2	0	0	57
10/13	3.0		0	1	3	0	3	0	0	0	0	3	0	0	0	0	0	0	10
10/14	6.3		38	0	1	2	24	3	0	2	0	11	0	0	2	0	0	0	83
10/16	5.8		35	1	3	0	24	4	0	0	0	1	0	0	2	0	0	0	70
10/17	5.5		73	2	13	0	12	3	0	1	0	10	0	0	3	1	2	0	120
10/18	4.3		20	0	1	0	8	3	0	3	0	7	0	0	2	0	0	0	44
10/19	4.5		11	0	1	0	16	2	0	0	0	1	0	1	0	0	0	0	32
10/21	5.8		38	0	4	1	13	3	0	5	0	14	0	1	2	2	1	3	87
10/22	4.3		9	0	2	0	14	1	0	2	0	4	0	0	0	0	0	0	32
10/24	5.0		29	0	4	1	11	3	0	2	0	3	0	0	0	0	0	0	53
10/25	3.5		2	0	3	0	10	0	0	6	0	11	0	1	1	0	0	2	36
10/28	4.0		2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
10/30	4.0		1	0	2	1	9	2	0	5	0	16	0	0	0	1	0	1	38
11/4	6.0		17	0	2	2	2	1	0	4	0	20	0	1	0	0	0	2	51
33	**174.8**		**336**	**38**	**54**	**15**	**321**	**51**	**0**	**38**	**3080**	**116**	**0**	**4**	**44**	**10**	**5**	**14**	**4126**

Munn Brook Meadow 2018 - Southwick, Massachusetts																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/22	3.0	0	0	6	5	0	6	1	0	0	1112	0	0	0	1	0	0	0	1131
9/27	1.0	0	0	0	1	0	7	2	0	0	4	0	0	0	0	0	0	0	14
9/29	1.5	0	0	1	3	0	13	1	0	0	16	0	0	0	2	0	0	0	36
10/3	0.8	0	2	0	1	0	1	0	0	0	2	3	0	0	0	0	0	0	9
10/14	1.0	0	2	0	2	0	0	0	0	0	0	9	0	0	0	0	0	0	13
5	**7.3**	**0**	**4**	**7**	**12**	**0**	**27**	**4**	**0**	**0**	**1134**	**12**	**0**	**0**	**3**	**0**	**0**	**0**	**1203**

Blueberry Hill 2018 - Southwick, Massachusetts																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/19	6.0	0	0	1	0	0	27	2	1	0	402	0	0	0	8	3	1	1	446
9/22	7.0	0	0	4	0	2	21	0	0	0	678	0	0	0	11	0	0	1	717
9/23	3.0	0	0	0	0	1	0	0	0	0	6	0	0	0	1	0	0	0	8
9/24	2.5	0	6	0	1	1	4	1	0	0	13	0	0	0	3	0	0	0	29
9/29	6.0	0	0	0	0	1	15	4	0	0	9	0	0	0	0	1	0	1	31
10/14	3.8	0	16	0	0	0	7	4	0	0	0	4	0	0	0	0	0	1	32
10/17	3.0	0	21	0	0	0	3	2	0	0	0	1	0	0	0	1	1	1	30
10/18	5.3	0	23	0	4	1	17	3	0	4	0	11	0	0	1	0	0	6	70
10/22	2.3	0	5	0	0	1	1	2	0	1	0	1	0	0	1	2	0	0	14
10/24	3.8	0	23	0	0	0	6	2	0	3	0	5	0	0	3	0	0	2	44
10/30	4.0	0	6	0	0	1	6	4	0	3	0	33	0	0	0	1	0	1	55
10/31	2.0	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
11/8	3.0	0	3	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	6
13	**51.5**	**0**	**104**	**5**	**5**	**8**	**107**	**27**	**1**	**11**	**1108**	**58**	**0**	**0**	**28**	**8**	**2**	**14**	**1486**

Poquonock Fall 2018 - Poquonock, Connecticut																			
Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/8	6.0	0	0	2	2	0	1	0	0	0	3	1	0	0	1	0	1	0	11
9/9	6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9/10	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/11	8.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
9/12	2.5	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	4
9/13	2.8	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
9/14	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Poquonock Fall 2018 - Poquonock, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/15	8.0	0	0	3	0	0	0	1	0	0	16	0	0	0	0	0	0	1	21
9/16	6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/17	7.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/18	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/19	2.8	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
9/20	3.8	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9/22	5.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9/23	2.0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
9/24	6.5	4	0	4	0	0	0	1	0	1	19	0	0	0	0	0	0	0	29
9/27	3.5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9/29	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/30	3.7	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
10/7	5.0	0	2	0	2	1	0	2	0	0	6	5	0	1	0	0	0	1	20
10/9	3.5	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
10/13	3.8	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
10/16	8.0	0	17	0	1	0	3	2	0	0	1	8	0	0	1	0	0	0	33
10/20	3.5	0	2	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	5
10/21	6.0	0	0	0	2	1	2	1	0	0	0	5	0	0	3	1	0	0	15
10/23	1.0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10/24	4.0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	4
10/25	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
10/26	4.7	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2
10/28	2.3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10/31	3.5	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	3
11/3	1.3	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
11/4	3.3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
33	**133.2**	**7**	**25**	**11**	**7**	**2**	**9**	**9**	**0**	**2**	**51**	**32**	**0**	**3**	**7**	**3**	**3**	**5**	**176**

Middle School Fall 2018 - Torrington, Connecticcccut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/15	6.3	0	0	0	2	0	0	4	0	0	15	0	0	0	1	0	0	4	26
9/16	7.0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	1	4
9/17	2.5	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
9/19	6.0	0	0	0	0	0	1	3	0	0	354	0	0	0	1	0	0	1	360
9/20	4.0	0	0	2	0	0	1	0	0	0	86	0	0	0	2	0	0	1	92
9/22	6.0	0	0	3	0	0	0	0	0	0	959	0	0	0	1	0	0	3	966
9/23	4.5	0	0	1	0	1	1	0	0	0	2	0	0	0	0	1	0	0	6
9/24	2.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/27	4.0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	0	2	6
9	**43.0**	**0**	**0**	**7**	**3**	**1**	**3**	**9**	**0**	**1**	**1419**	**0**	**0**	**0**	**6**	**1**	**0**	**12**	**1462**

Johnnycake Mountain Fall 2018 - Burlington, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/22	8.0	0	0	10	5	1	10	3	0	0	1243	0	0	0	3	1	0	0	1276
9/27	7.0	3	8	4	2	2	9	12	0	0	64	5	0	0	6	1	1	0	117
9/29	6.0	1	16	1	3	0	5	3	0	0	331	4	0	0	6	0	1	0	371
9/30	5.0	0	20	6	10	2	9	1	0	0	70	0	0	0	2	1	1	0	122
4	**26.0**	**4**	**44**	**21**	**20**	**5**	**33**	**19**	**0**	**0**	**1708**	**9**	**0**	**0**	**17**	**3**	**3**	**0**	**1886**

Mohonk Preserve Fall 2018 - New Paltz, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/23	2.5	0	0	0	2	0	0	0	0	0	9	0	0	0	1	0	0	0	12
8/28	1.5	0	0	1	0	0	0	1	0	0	2	1	0	0	0	0	0	0	5
8/29	4.0	0	0	2	1	1	0	0	0	0	3	0	0	0	2	0	0	0	9
9/1	6.0	0	4	2	0	0	0	0	0	0	8	1	0	0	0	0	0	0	15
9/2	5.0	0	0	2	1	1	0	1	0	0	2	0	0	0	0	0	0	0	7
9/5	6.5	3	4	0	1	1	3	2	0	0	6	1	0	0	2	0	0	1	24
9/6	2.5	0	1	0	0	0	0	1	0	0	3	0	0	0	5	0	0	0	10
9/8	6.0	0	0	3	5	0	1	1	0	0	4	1	0	0	2	0	0	0	17
9/11	7.0	0	0	8	1	0	9	2	0	0	54	1	0	0	0	0	0	0	75
9/14	8.3	0	0	9	5	0	25	3	0	0	37	1	0	0	5	4	0	0	89
9/15	7.0	0	0	5	7	3	42	9	0	0	1260	2	0	0	11	0	0	0	1339
9/16	7.5	0	0	2	4	0	17	1	0	0	525	2	0	0	2	1	0	0	554
9/17	4.0	0	0	4	1	0	5	5	0	0	50	1	0	1	4	0	2	0	73
9/19	6.3	0	0	9	8	0	32	2	0	1	1076	0	0	0	14	0	1	0	1143
9/22	7.5	0	0	9	6	2	19	4	0	1	541	2	0	0	8	1	0	0	593
9/23	5.0	0	0	2	0	0	8	0	0	0	8	0	0	0	1	1	2	1	23
9/24	4.5	0	0	4	4	2	19	5	0	2	681	0	0	0	0	0	4	0	721
9/27	7.0	0	0	4	2	0	9	3	0	1	176	3	0	0	5	0	1	1	205
10/1	5.8	0	0	1	8	1	48	7	0	0	6	0	0	0	2	0	0	0	73
10/3	7.5	0	0	8	4	1	5	1	0	0	0	1	0	0	4	1	2	0	27
10/5	3.0	0	0	0	0	0	4	1	0	0	0	6	0	0	3	0	0	2	16
10/9	6.0	0	0	0	2	1	29	2	0	0	0	2	0	0	0	1	1	1	39
10/13	5.5	0	0	0	3	2	126	5	0	1	0	0	0	0	4	8	2	0	151
10/16	6.8	0	71	4	3	9	155	20	0	10	1	15	0	0	1	3	0	0	292
10/17	5.0	0	0	2	10	1	94	12	0	3	1	11	0	0	0	3	0	0	137
10/18	4.5	0	7	0	1	0	15	5	0	5	0	28	0	0	0	3	0	0	64
10/19	6.0	0	6	0	0	3	54	7	0	0	0	10	0	0	2	1	0	0	83
10/25	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/30	2.8	0	0	0	1	2	4	0	0	0	0	9	0	0	0	0	0	0	16
10/31	4.0	0	5	0	8	0	22	4	0	1	0	19	0	1	0	1	0	0	61
11/4	4.0	0	10	0	7	0	2	3	1	8	0	39	0	0	0	1	0	0	71
11/7	2.0	0	0	0	5	0	4	1	0	1	0	14	0	1	0	0	0	0	26
32	**161.0**	**3**	**108**	**81**	**100**	**30**	**751**	**108**	**1**	**34**	**4453**	**170**	**0**	**3**	**78**	**29**	**15**	**6**	**5970**

Chestnut Hill Fall 2018 - Litchfield, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/11	2.0	0	0	0	1	1	3	0	0	0	3	0	0	0	1	0	0	0	9
9/13	1.0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	2	0	6
9/15	6.0	0	0	2	7	0	8	2	0	0	186	0	0	0	5	0	0	0	210
9/16	5.0	0	0	3	2	0	4	1	0	0	58	0	0	0	3	0	0	0	71
9/17	2.3	0	0	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	5
9/19	6.3	0	0	0	0	0	15	0	0	0	177	0	0	0	3	0	0	0	195
9/20	5.8	0	0	0	0	0	1	1	0	0	27	0	0	0	1	0	0	0	30
9/22	7.0	0	0	1	7	0	7	2	0	0	2048	0	0	0	2	0	0	1	2068
9/23	4.5	0	0	0	0	0	3	0	0	0	316	0	0	0	1	0	0	3	323
9	**39.8**	**0**	**0**	**6**	**17**	**1**	**47**	**6**	**0**	**0**	**2818**	**0**	**0**	**0**	**16**	**0**	**2**	**4**	**2917**

White Memorial Fall 2018 - Litchfield, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/19	2.5		2	0	0	1	0	0	0	1	7	1	0	0	0	1	0	0	13
9/24	2.0		0	0	0	0	0	6	0	0	29	3	0	0	0	0	1	0	39
2	**4.5**	**0**	**2**	**0**	**0**	**1**	**0**	**6**	**0**	**1**	**36**	**4**	**0**	**0**	**0**	**1**	**1**	**0**	**52**

Botsford Hill Fall 2018 - Bridgewater, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/14	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
9/15	6.3	0	0	0	1	0	10	0	0	0	78	0	0	0	4	0	0	0	93
9/16	5.5	0	0	1	4	0	4	0	0	0	20	0	0	0	1	0	0	1	31
9/19	7.0	0	0	2	1	1	2	0	0	0	134	0	0	0	4	0	0	0	144
9/20	6.3	0	0	8	1	2	13	1	0	0	97	0	0	0	0	0	0	3	125
9/21	1.5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
9/22	6.8	0	0	2	1	0	9	0	0	0	1061	0	0	0	0	0	0	1	1074
9/23	5.8	0	0	2	3	0	6	1	0	0	974	0	0	0	0	0	0	0	986
9/24	6.0	0	0	1	0	0	8	2	0	0	143	0	0	0	0	0	0	0	154
9/26	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/27	5.0	0	0	1	1	1	10	0	0	0	64	0	0	0	1	1	0	2	81
11	**53.3**	**0**	**0**	**17**	**12**	**4**	**63**	**4**	**0**	**0**	**2571**	**0**	**0**	**0**	**10**	**1**	**0**	**9**	**2691**

Bear Mountain Fall 2018 - Fort Montgomery, New York

Days	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/3	4.0	0	0	0	2	0	0	0	0	0	4	0	0	0	0	0	0	1	7
9/4	3.5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
9/5	2.0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3
9/8	4.0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
9/13	5.5	0	0	1	5	0	7	1	0	0	44	0	0	0	3	1	0	1	63
9/14	2.5	0	0	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	6
9/15	7.5	0	0	4	6	1	13	1	0	0	65	0	0	0	1	1	0	1	93
9/16	6.0	0	0	0	1	0	9	0	0	0	8	0	0	0	6	1	0	0	25
9/17	7.0	0	0	3	0	0	21	1	0	1	64	0	0	0	1	1	1	0	93
9/19	8.5	0	0	1	12	0	11	2	0	0	109	0	0	0	3	0	0	1	139
9/20	7.0	0	0	8	4	0	30	1	0	0	122	0	0	0	1	0	1	0	167
9/21	4.0	0	0	4	2	0	2	0	0	1	4	1	0	0	1	0	0	0	15
9/22	7.5	0	0	6	7	0	11	4	0	0	314	0	0	0	2	0	1	2	347
9/23	7.0	0	0	3	3	0	9	1	0	0	420	0	0	0	0	0	0	0	436
9/24	7.0	0	0	2	10	0	9	0	0	0	17	0	0	0	1	0	6	0	45
9/26	4.0	0	0	0	0	0	2	0	0	0	0	1	0	0	2	0	0	1	6
9/27	7.0	0	0	3	0	0	2	2	0	0	18	1	0	0	2	1	0	1	30
9/29	6.5	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	1	8
9/30	7.0	0	0	7	1	0	25	4	0	0	14	0	0	0	4	0	1	0	56
10/1	6.5	0	0	1	0	0	8	1	0	1	0	0	0	0	2	0	0	2	15
10/3	6.0	0	0	0	0	0	7	0	0	0	0	0	0	0	1	0	0	1	9
10/4	3.5	0	0	0	1	1	2	1	0	0	1	0	0	0	3	0	0	0	9
10/5	4.0	0	0	1	1	3	7	5	0	2	1	1	0	1	1	0	0	2	25
10/9	3.5	0	0	0	1	1	7	3	0	0	0	0	0	0	1	0	0	0	13
10/10	6.0	0	0	1	0	0	17	4	0	0	8	0	0	0	2	0	0	4	36
10/12	6.5	0	0	2	0	1	22	2	0	0	0	0	0	0	2	0	0	0	29
10/14	5.0	0	0	0	1	0	28	6	0	0	0	0	0	0	3	0	0	0	38
10/16	6.5	0	0	2	0	0	16	3	0	3	0	2	0	0	0	0	0	2	28
10/17	3.0	0	0	1	1	0	13	2	0	0	0	4	0	0	2	0	0	3	26
10/18	5.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10/19	5.5	0	0	1	0	1	41	3	0	0	0	0	0	0	2	4	1	0	53
10/21	2.0	0	0	0	2	0	7	4	0	3	0	1	0	0	0	0	0	0	17
10/22	5.5	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	3
10/23	6.0	0	0	1	0	0	10	0	0	0	0	10	0	0	0	1	0	1	23
10/24	5.5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10/26	4.0	0	0	1	2	0	11	1	0	4	0	19	0	1	0	0	0	0	39
10/30	4.5	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	3
10/31	5.0	0	0	0	2	0	10	2	0	0	0	19	0	2	0	0	1	0	36
11/1	6.5	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
11/4	5.0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3
11/7	5.5	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
11/8	5.5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11/9	4.0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	5
11/11	5.0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11/12	5.0	0	0	0	1	0	0	0	0	1	0	13	0	1	0	1	0	2	19
45	**237.5**	**0**	**0**	**55**	**66**	**8**	**374**	**56**	**0**	**16**	**1217**	**86**	**0**	**5**	**48**	**11**	**12**	**28**	**1982**

Mount Peter Fall 2018 - Warwick, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/1	6.0	0	0	0	0	0	2	0	0	0	13	0	0	0	0	0	0	0	15
9/2	6.0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
9/3	5.0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
9/4	6.3	0	0	1	2	0	0	0	0	0	9	0	0	0	0	0	0	0	12
9/5	7.0	0	0	5	1	0	1	0	0	0	32	0	0	0	6	0	0	0	45
9/6	5.5	0	0	3	2	0	0	0	0	0	7	0	0	0	0	0	0	0	12
9/7	2.5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
9/8	5.0	0	0	4	0	0	0	1	0	0	2	0	0	0	0	0	0	0	7
9/9	6.5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9/11	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/12	8.0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	4
9/13	6.5	0	0	4	0	0	6	0	0	0	21	0	0	0	1	0	0	0	32
9/14	7.5	0	0	1	0	0	3	1	0	0	3	0	0	0	1	0	1	0	10
9/15	8.0	0	0	9	6	0	11	0	0	2	297	0	0	0	5	1	0	0	331
9/16	8.5	0	0	2	2	1	18	5	0	0	887	0	0	0	3	0	1	0	919
9/17	7.0	0	0	10	1	1	32	1	0	0	17	0	0	0	2	0	0	1	65
9/19	9.0	0	0	16	2	0	47	2	0	0	504	0	0	0	7	0	3	0	581
9/20	8.0	0	0	19	1	0	51	0	0	0	298	0	0	0	1	0	3	0	373
9/21	8.0	0	0	2	0	0	2	0	0	0	17	0	0	0	1	0	0	0	22
9/22	8.0	0	0	7	2	0	32	3	0	1	1257	0	0	0	3	1	0	1	1307
9/23	7.3	0	0	1	1	1	13	1	0	0	296	0	0	0	0	0	0	1	314
9/24	8.0	0	0	12	3	1	35	2	0	0	807	0	0	0	6	0	0	1	867
9/26	5.5	0	0	0	0	0	5	1	0	0	7	0	0	0	0	0	0	0	13
9/27	7.0	0	0	4	4	0	15	2	0	0	512	0	0	0	2	0	0	0	539
9/28	3.5	0	0	0	0	0	5	0	0	0	1	0	0	0	0	0	0	0	6
9/29	8.0	0	0	3	4	1	50	6	0	2	47	3	0	0	6	0	0	1	123
9/30	7.5	0	0	3	3	3	40	6	0	0	14	0	0	0	4	3	1	0	77
10/1	6.0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
10/2	5.0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4
10/3	7.0	0	0	7	4	0	54	14	0	0	11	0	0	0	9	0	1	0	100
10/4	5.0	0	0	2	0	2	10	0	0	0	0	0	0	0	1	0	0	0	15
10/5	7.5	0	0	2	3	1	36	5	0	3	0	0	0	0	0	0	1	0	51
10/7	5.0	0	16	3	0	1	32	0	0	2	0	1	0	0	4	0	2	0	61
10/10	6.0	0	0	4	3	0	53	3	0	1	0	0	0	0	7	1	2	0	74
10/12	8.5	4	88	0	7	0	173	15	0	12	0	4	0	0	41	2	0	0	346
10/13	5.3	0	12	1	3	2	47	3	0	3	0	4	0	0	4	2	1	1	83
10/14	7.5	0	0	2	1	0	34	1	0	0	0	2	0	0	1	0	1	0	42
10/15	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/16	7.8	4	27	0	4	1	52	17	0	3	0	24	0	0	2	0	0	0	134
10/17	7.5	2	19	0	6	0	65	6	1	0	0	11	0	0	6	0	0	0	116
10/18	7.0	0	36	1	1	2	27	0	0	3	0	34	0	0	2	0	0	0	106
10/19	7.5	8	7	1	2	3	52	9	0	5	0	1	0	0	0	2	0	2	92
10/20	8.0	1	16	1	5	2	40	13	0	1	0	8	0	1	1	1	1	0	91
10/21	7.8	4	76	0	4	0	57	7	0	19	0	47	0	0	10	0	0	1	225
10/22	7.0	1	6	0	0	0	41	3	0	3	0	6	0	1	0	0	0	0	61

Mount Peter Fall 2018 - Warwick, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
10/23	7.3	2	3	0	0	0	64	5	0	6	0	6	0	0	4	0	0	6	96
10/24	8.0	3	44	1	4	3	54	7	0	24	0	51	0	0	13	1	1	0	206
10/25	7.0	17	20	0	5	1	22	0	0	10	0	14	0	0	1	0	0	0	90
10/26	7.8	2	9	0	1	1	51	6	0	28	0	2	0	0	1	1	1	0	103
10/28	5.0	0	0	0	1	0	11	0	0	4	0	2	0	0	0	0	0	0	18
10/29	7.0	0	4	0	1	0	10	4	0	3	0	7	0	1	1	0	0	0	31
10/30	7.5	9	50	0	3	1	40	4	0	19	0	48	0	1	1	0	0	5	181
10/31	6.3	3	12	0	2	1	21	2	0	2	0	13	0	0	0	0	0	0	56
11/1	5.5	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
11/2	5.5	1	6	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	11
11/3	5.0	9	0	0	2	0	10	3	0	1	0	13	0	0	0	0	0	0	38
11/4	7.0	0	5	0	1	0	11	2	0	25	0	32	0	0	0	0	0	1	77
11/5	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	5.5	2	5	0	7	1	8	8	0	3	0	31	0	0	1	0	0	0	66
11/8	6.5	2	23	0	0	0	7	1	0	3	0	30	0	0	0	0	0	0	66
11/9	3.0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	3
11/10	7.0	0	10	0	3	1	3	1	0	4	0	34	0	1	0	0	1	3	61
11/11	7.0	2	5	0	2	0	0	3	0	9	0	48	0	1	0	0	0	0	70
11/12	6.0	2	1	0	0	3	3	0	0	9	0	12	0	0	0	0	1	0	31
11/14	5.5	1	3	0	1	0	1	0	1	0	0	19	0	0	0	0	0	0	26
11/15	4.0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	3
66	**419.0**	**79**	**504**	**134**	**112**	**35**	**1469**	**176**	**2**	**213**	**5071**	**508**	**0**	**6**	**159**	**15**	**23**	**24**	**8530**

Chestnut Ridge Fall 2018 - Bedford, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/25	8.0	0	0	4	3	0	0	0	0	1	0	1	0	0	0	0	0	0	9
8/26	7.0	4	1	2	2	0	0	0	0	0	0	1	0	0	0	0	0	0	10
8/27	7.0	0	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4
8/28	7.0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
8/29	7.0	3	5	3	0	0	0	0	0	1	0	2	0	0	0	0	0	0	14
8/30	7.0	0	1	3	0	0	0	0	0	0	1	4	0	0	0	0	0	0	9
8/31	6.6	0	1	7	0	0	0	1	0	0	0	2	0	0	4	0	0	1	16
9/1	7.0	0	0	7	1	0	0	2	0	0	1	3	0	0	1	0	0	0	15
9/2	6.0	0	0	7	1	0	0	0	0	0	3	0	0	0	0	0	0	0	11
9/3	7.0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5
9/4	7.3	0	2	7	0	0	0	0	0	0	5	2	0	0	1	0	0	0	17
9/5	8.0	0	3	10	1	0	0	0	0	1	11	3	0	0	5	0	1	2	37
9/6	7.3	0	2	3	2	0	1	0	0	0	0	0	0	0	3	1	0	0	12
9/7	7.5	0	0	4	0	1	0	0	0	0	1	0	0	0	1	3	0	0	10
9/8	4.9	0	2	0	0	0	0	0	0	0	2	0	0	0	4	1	0	0	9
9/9	7.8	0	0	14	11	0	2	0	0	0	7	0	0	0	17	0	0	3	54
9/11	7.8	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
9/12	1.4	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4
9/13	8.0	1	0	1	3	1	5	1	0	0	7	2	0	0	12	1	1	1	36
9/14	8.0	0	0	4	1	0	6	1	0	0	9	2	0	0	6	2	0	1	32
9/15	9.0	0	2	41	13	1	66	3	0	1	156	2	0	0	72	6	0	3	366
9/16	7.8	0	0	40	6	2	79	0	0	0	121	0	0	0	41	4	0	3	296
9/17	7.3	0	0	10	0	1	25	3	0	1	1	2	0	0	10	1	1	2	57
9/18	2.7	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	0	0	7
9/19	8.0	0	0	8	4	0	30	5	0	1	49	2	0	0	4	2	0	5	110
9/20	8.0	0	1	14	0	0	20	4	0	0	78	0	0	0	7	2	0	1	127
9/21	8.0	0	0	6	1	0	7	1	0	0	0	1	0	0	0	3	0	0	19
9/22	8.3	0	1	8	4	0	16	1	0	0	2389	6	0	0	19	3	2	3	2452
9/23	8.0	0	0	12	9	2	85	3	0	0	952	0	0	0	17	0	0	2	1082
9/24	8.0	0	6	1	2	1	13	6	0	1	29	2	0	0	4	0	1	1	67
9/26	8.0	0	3	2	0	0	3	0	0	0	0	2	0	0	0	0	2	0	12
9/27	8.0	0	2	3	3	1	26	7	0	0	32	5	0	0	5	1	1	4	90
9/28	8.0	0	0	0	0	0	2	3	0	0	13	2	0	0	0	0	0	0	20
9/29	7.5	0	12	0	7	0	22	3	0	3	272	1	0	0	3	2	4	2	331
9/30	7.8	0	32	8	4	1	100	18	0	0	70	0	0	0	27	1	3	11	275
10/1	8.0	1	26	0	1	0	14	2	0	0	2	0	0	0	1	1	1	1	50
10/2	4.3	5	1	1	0	1	10	0	0	0	6	3	0	0	3	0	0	0	30
10/3	8.0	6	4	2	4	1	22	4	0	0	5	1	0	0	12	3	1	3	68
10/4	7.4	1	0	0	0	0	22	8	0	0	4	3	0	0	3	0	1	1	43
10/5	8.0	9	50	11	3	1	48	20	0	1	22	14	0	0	14	2	0	3	198
10/6	6.0	0	27	3	1	3	21	2	0	0	0	0	0	0	3	2	0	0	62
10/7	5.6	0	5	1	0	0	10	1	0	1	0	0	0	0	3	0	1	0	22
10/8	1.3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10/9	6.5	0	44	5	0	6	32	7	0	1	1	0	0	0	2	2	1	1	102
10/10	7.5	0	88	27	2	7	47	37	0	0	17	1	0	0	16	2	2	7	253
10/11	2.4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
10/12	8.0	0	27	4	4	4	85	5	0	2	4	21	0	0	28	3	0	4	191
10/13	5.0	1	27	1	2	4	62	3	0	1	0	1	0	0	6	1	1	4	114
10/14	8.0	0	57	4	3	2	140	18	0	4	6	2	0	0	7	1	0	4	248
10/15	5.3	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2
10/16	8.0	4	191	0	4	0	70	17	0	5	0	10	0	0	7	1	0	3	312
10/17	8.0	0	183	5	2	4	111	24	0	4	0	3	0	0	13	5	1	6	361
10/18	8.0	0	185	3	0	2	72	14	0	4	0	8	0	0	5	6	0	8	307
10/19	8.0	1	287	1	1	5	74	9	0	12	0	12	0	0	2	0	0	2	406
10/20	7.8	2	403	1	2	7	75	20	0	6	1	20	0	1	12	5	0	11	566
10/21	8.0	0	131	0	2	4	100	8	0	7	0	8	0	0	13	6	0	5	284
10/22	8.0	5	150	1	5	4	94	5	0	2	0	8	0	1	12	0	0	3	290
10/23	7.9	5	112	1	1	1	50	9	0	7	0	13	0	0	4	1	0	0	204
10/24	8.0	7	83	0	3	0	47	6	0	5	0	8	0	0	4	2	0	4	169
10/25	8.0	4	77	0	2	4	33	8	0	4	0	11	0	0	1	0	0	3	147
10/26	8.0	0	283	0	3	0	35	7	1	44	0	43	0	0	0	2	0	5	423
10/28	5.8	3	144	0	4	1	31	5	0	16	0	5	0	0	3	1	0	2	215
10/29	8.0	0	91	0	2	8	10	7	0	2	0	5	0	0	0	0	0	2	127
10/30	7.4	0	87	0	3	6	39	5	0	11	0	12	0	0	2	0	0	7	172
10/31	8.0	0	28	0	4	2	27	5	0	9	0	28	0	0	0	1	0	3	107
11/1	8.0	0	30	0	2	0	4	3	0	2	0	7	0	0	1	2	0	0	51
11/2	7.4	0	3	0	0	0	2	1	0	0	0	0	0	0	0	1	0	0	7
11/3	4.3	0	41	0	5	0	2	2	0	2	0	14	0	0	0	0	1	0	67
11/4	8.0	0	24	0	0	0	2	2	0	7	0	14	0	0	0	0	1	1	51
11/5	1.0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3
11/7	8.0	16	49	0	0	2	8	2	0	4	0	23	0	0	1	0	0	1	106
11/8	7.9	2	68	0	1	0	1	0	0	6	0	14	0	0	0	0	0	1	93
11/9	5.8	0	42	0	0	1	3	4	0	11	0	10	0	0	0	0	0	2	73
11/10	8.0	4	54	0	3	1	1	0	0	0	0	13	0	0	1	0	0	0	77
11/11	6.3	0	50	0	1	1	2	1	1	19	0	16	0	1	0	0	0	2	94
11/12	7.0	0	60	0	0	1	0	2	0	11	0	13	0	0	0	0	0	1	88
11/13	3.3	0	15	0	0	0	1	2	0	0	0	4	0	0	0	0	0	0	22
11/14	7.0	0	30	0	2	1	3	2	0	2	0	6	0	0	0	0	0	1	47
11/15	5.6	0	12	0	1	1	1	1	0	2	0	5	0	0	0	0	0	0	23
11/16	5.0	0	10	0	1	2	0	1	0	0	0	4	0	0	0	0	0	0	18
11/17	7.0	0	28	0	3	1	1	2	0	1	0	13	0	0	2	0	0	2	53
11/18	5.8	0	4	0	2	3	1	1	0	45	0	5	0	0	0	0	0	3	64
11/19	7.0	0	8	0	0	0	3	0	0	1	0	1	0	0	0	1	0	0	14
11/20	6.1	0	14	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	17
84	**578.2**	**86**	**3414**	**314**	**159**	**103**	**1932**	**346**	**2**	**272**	**4278**	**454**	**0**	**3**	**446**	**84**	**27**	**151**	**12071**

Hook Mountain Fall 2018 - Nyack, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/31	4.8	0	0	5	5	0	0	0	0	0	7	1	0	0	0	0	0	18	18
9/1	3.0	0	0	11	2	0	0	0	0	0	0	0	0	0	1	0	0	14	14
9/2	4.0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
9/4	5.0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	1	0	6	6
9/7	6.3	0	0	2	1	1	0	0	0	0	0	0	0	0	1	1	0	6	6
9/8	3.5	0	0	6	1	1	0	0	0	0	3	0	0	0	3	3	0	17	17
9/9	9.0	0	0	3	10	2	2	0	0	0	7	0	0	0	4	0	0	28	28
9/11	7.5	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0	4	4
9/13	6.0	0	0	9	3	0	5	1	0	0	0	1	0	0	2	0	1	22	22
9/14	6.5	0	0	0	4	0	15	1	0	0	0	0	0	0	2	1	0	23	23
9/15	6.0	0	0	9	2	1	29	2	0	0	97	0	0	0	11	2	0	153	153
9/16	8.0	0	0	1	3	3	43	1	0	0	49	1	0	0	4	3	0	108	108
9/17	7.0	0	0	4	2	1	56	1	0	0	0	0	0	0	7	2	0	73	73
9/19	9.0	0	0	2	3	1	70	6	0	0	402	0	0	0	19	8	0	511	511
9/20	8.0	0	0	16	6	0	79	2	0	0	96	0	0	0	10	3	1	213	213
9/21	3.0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	4	4
9/22	9.0	0	0	20	6	4	60	3	0	1	1709	0	0	0	10	4	0	1817	1817
9/23	9.8	0	0	3	3	2	103	0	0	0	601	1	0	0	1	2	0	716	716
9/27	8.0	6	0	7	0	4	61	2	0	1	100	0	0	0	2	2	0	185	185
9/29	8.5	0	5	3	3	3	61	19	0	1	76	0	0	0	5	3	0	179	179
9/30	9.5	0	0	5	6	4	125	1	0	0	106	0	0	0	11	1	1	260	260
10/1	5.0	0	0	6	3	0	7	0	0	0	0	1	0	0	2	1	2	22	22
10/2	7.5	0	0	4	0	2	19	4	0	0	0	0	0	0	8	5	0	42	42
10/3	10.0	0	0	6	1	0	75	6	0	1	9	0	0	0	8	0	0	106	106
10/4	7.3	0	0	3	2	1	28	2	0	0	0	0	0	0	1	2	1	42	41
10/5	10.0	0	0	6	6	4	235	36	0	6	9	0	0	0	12	9	4	327	327
10/6	4.3	0	0	0	2	1	14	0	0	0	0	0	0	0	6	1	0	24	24
10/7	6.5	16	11	3	1	5	24	0	0	0	0	1	0	0	0	3	1	65	65
10/8	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/9	6.0	0	0	0	1	9	21	2	0	0	0	0	0	0	3	1	1	38	38
10/10	6.0	0	0	2	1	2	27	8	0	0	1	0	0	0	4	0	3	52	50
10/12	8.0	0	0	8	4	8	145	6	0	2	0	1	0	0	13	7	0	194	194
10/13	6.0	11	40	5	7	1	95	8	0	1	2	6	0	0	13	4	1	194	194
10/14	7.5	0	0	2	0	6	68	3	0	1	0	0	0	0	5	0	0	85	85
10/15	4.0	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	4	11	11
10/16	8.0	0	0	0	3	1	92	8	0	22	5	1	0	0	7	4	1	144	144
10/17	4.5	0	0	0	2	2	4	0	0	0	0	0	0	0	2	0	0	10	10
10/18	7.3	0	6	0	1	3	23	1	0	6	0	5	0	1	0	0	2	48	48
10/19	6.8	0	0	0	1	0	68	8	0	4	0	0	0	0	11	1	3	96	96
10/20	9.0	0	0	1	0	3	14	0	0	2	0	0	0	0	1	0	0	21	21
10/21	7.0	0	0	0	0	1	24	6	0	1	0	1	0	0	3	2	0	38	38
10/22	8.0	0	158	2	3	7	179	6	0	25	0	1	0	1	2	2	0	386	386
10/23	7.0	0	0	5	4	8	109	15	0	10	0	1	0	0	9	5	5	171	171
10/24	5.0	0	0	0	1	3	31	6	0	2	0	0	0	1	0	1	1	46	46
10/25	7.0	0	57	0	2	3	32	2	0	17	0	24	0	3	1	3	1	145	145
10/26	8.0	0	47	0	5	3	95	7	0	78	0	8	0	0	1	2	0	246	246
10/28	5.0	6	32	0	0	0	2	0	0	1	0	1	0	0	0	1	0	43	43
10/29	5.3	0	0	0	1	1	4	3	0	4	0	1	0	0	0	0	0	14	14
10/30	6.5	0	20	0	3	1	45	6	0	25	0	21	0	1	1	0	0	123	123
10/31	7.0	0	0	0	4	6	65	5	0	6	0	3	0	0	1	1	1	92	92
11/1	6.0	0	0	0	1	0	6	0	0	1	0	4	0	0	0	0	0	12	12
11/3	3.5	12	55	0	1	0	5	0	0	3	0	11	0	0	1	0	0	88	88
11/4	9.0	6	4	1	2	1	14	2	2	51	0	25	0	0	0	1	0	109	109
11/6	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	7.0	0	0	0	5	1	10	3	0	1	0	3	0	0	0	0	1	24	24
11/8	7.0	0	0	1	3	0	18	4	0	43	0	7	0	0	1	0	0	77	77
11/9	3.0	0	0	0	0	0	5	3	0	20	0	2	0	0	0	1	0	31	31
11/10	6.0	0	161	0	11	1	1	1	1	2	0	21	0	0	0	0	1	200	200
11/11	7.0	9	15	0	4	0	10	1	1	18	0	15	0	0	0	0	1	74	74
11/12	4.0	0	40	0	4	0	4	0	0	15	0	8	0	0	0	0	0	71	71
11/15	3.3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
11/16	0.3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
11/17	4.5	0	29	0	3	0	1	0	1	6	0	1	0	0	0	0	0	41	41
11/18	3.5	0	0	0	0	0	0	0	0	20	0	3	0	0	0	0	0	23	23
11/20	7.0	61	80	0	3	1	0	1	0	9	0	5	0	0	0	0	0	160	160
11/21	3.0	0	18	0	2	0	1	0	0	1	0	7	0	0	0	0	0	29	29
11/25	5.5	0	0	0	1	0	0	1	0	31	0	7	0	0	0	0	0	40	40
11/29	1.5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
12/4	0.5													1					1
69	**415.3**	**127**	**780**	**166**	**159**	**112**	**2337**	**204**	**5**	**439**	**3279**	**200**	**0**	**8**	**217**	**94**	**37**	**1**	**8167**

Quaker Ridge Fall 2018 - Greenwich, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/20	8.0	0	0	2	2	0	0	0	0	0	3	0	0	0	0	0	0	0	7
8/21	8.0	0	0	8	0	0	3	0	0	0	5	0	0	0	0	0	0	0	16
8/22	8.0	0	0	6	1	0	1	0	0	0	1	0	0	0	0	0	0	0	9
8/23	8.0	0	0	5	3	0	0	0	0	0	5	0	0	0	0	0	0	0	13
8/24	8.0	0	0	9	1	0	0	0	0	1	6	0	0	0	0	0	0	0	17
8/25	8.0	0	0	7	0	0	0	0	0	0	2	0	0	0	0	1	0	1	11
8/26	2.0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	0	0	0	4
8/27	8.0	0	0	6	2	0	0	0	0	0	4	0	0	0	0	0	0	1	13
8/28	7.0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8/29	7.0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4
8/30	8.5	0	0	8	0	0	0	0	0	0	7	0	0	0	1	0	0	0	16
8/31	7.0	0	0	20	0	0	0	2	0	0	7	0	0	0	1	0	0	0	30
9/1	3.3	0	0	8	1	0	0	1	0	0	3	0	0	0	0	0	0	0	13
9/2	8.0	0	0	4	0	0	0	0	0	0	1	0	0	0	1	0	0	0	6
9/3	7.0	0	0	7	1	1	1	0	0	1	0	0	0	0	1	0	0	0	12
9/4	8.0	0	0	19	5	0	1	0	0	0	16	0	0	0	12	1	0	0	54
9/5	7.0	0	0	14	3	2	2	0	0	0	6	0	0	0	1	0	0	2	30
9/6	7.0	0	0	6	2	1	0	0	0	0	0	0	0	0	2	1	0	1	13
9/7	9.5	0	0	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	6
9/8	5.5	0	0	2	0	0	4	1	0	0	0	0	0	0	5	0	0	0	12
9/9	7.5	0	0	8	1	1	3	0	0	0	0	0	0	0	7	0	0	4	24
9/11	6.3	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	1	0	6
9/12	5.0	0	0	3	0	0	1	0	0	0	0	0	0	0	1	1	0	0	6
9/13	7.8	0	0	10	2	1	11	3	0	0	11	0	0	0	9	3	0	1	51
9/14	8.5	0	0	12	4	5	4	0	0	0	19	0	0	0	7	4	0	0	55
9/15	10.0	1	0	44	23	3	64	3	0	0	27	0	0	0	44	9	1	1	220
9/16	9.8	0	0	15	9	2	79	2	0	3	94	0	0	0	33	2	0	0	239
9/17	7.5	0	0	1	0	0	23	0	0	0	2	0	0	0	12	3	0	1	42
9/19	10.5	0	0	72	16	10	148	9	0	2	320	0	0	0	73	13	2	2	667
9/20	8.0	0	0	55	3	2	78	6	0	0	47	0	0	0	10	0	0	4	205
9/21	6.3	0	0	13	1	0	5	0	0	0	0	0	0	0	3	1	0	0	23
9/22	10.5	0	1	35	10	8	88	16	0	2	5907	1	0	0	27	7	0	0	6102
9/23	9.3	0	0	4	7	2	43	3	0	0	1508	0	0	0	3	2	0	1	1573
9/24	8.0	0	0	13	12	3	67	14	0	0	115	0	0	0	16	1	0	0	241
9/26	7.5	0	0	4	0	1	2	1	0	0	0	0	0	0	1	0	0	0	9
9/27	8.5	0	6	16	21	3	117	11	0	2	51	1	0	0	31	2	2	1	264

Quaker Ridge Fall 2018 - Greenwich, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/28	7.0	0	0	1	1	1	17	1	0	0	1	0	0	0	3	0	0	0	25
9/29	1.3	0	24	32	20	6	213	53	0	6	815	3	0	0	30	7	3	0	1212
9/30	8.5	0	12	13	17	2	90	14	0	1	246	1	0	0	5	1	1	20	423
10/1	8.0	1	0	0	1	2	8	0	0	1	0	0	0	0	6	0	1	0	20
10/2	7.0	0	1	12	1	1	9	2	0	2	6	1	0	0	2	2	1	0	40
10/3	8.0	10	8	18	7	2	92	21	0	0	28	0	0	0	13	4	0	1	204
10/4	7.0	0	14	3	0	0	26	10	0	0	12	0	0	0	6	1	4	0	76
10/5	8.3	1	32	7	13	2	100	33	0	2	43	3	0	0	28	11	1	1	277
10/6	8.0	0	0	0	1	0	1	1	0	0	0	0	0	0	3	1	2	0	9
10/7	8.3	0	0	12	2	12	24	4	0	2	2	0	0	0	2	2	1	3	66
10/8	7.0	0	0	0	4	0	10	1	0	0	1	0	0	0	3	2	0	0	21
10/9	8.0	0	12	1	1	1	13	4	0	0	0	0	0	0	7	2	0	0	41
10/10	8.0	0	24	19	7	3	60	8	0	1	5	12	0	0	7	7	5	1	159
10/11	2.3	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	2	0	6
10/12	10.0	0	27	10	7	3	125	44	0	10	4	3	0	0	57	10	0	3	303
10/13	6.5	2	43	1	4	1	26	6	0	0	0	4	0	0	11	7	0	0	105
10/14	8.5	3	19	1	6	3	22	10	0	1	0	5	0	0	5	0	1	5	81
10/15	4.0	0	0	0	1	0	7	1	0	0	0	0	0	0	2	0	1	0	12
10/16	8.0	4	25	0	3	4	47	16	0	9	2	13	0	0	6	1	0	0	130
10/17	8.5	2	10	5	5	3	65	17	0	17	1	1	0	0	27	2	0	2	157
10/18	8.0	3	82	1	5	2	52	18	0	19	0	2	0	1	20	6	0	1	212
10/19	8.0	2	217	2	2	2	82	22	1	20	1	5	0	0	19	1	0	1	377
10/20	6.0	0	25	0	0	7	12	2	0	6	0	8	0	1	5	2	1	0	69
10/21	9.0	0	8	2	4	1	68	17	0	12	0	2	0	1	14	5	0	8	142
10/22	7.0	3	75	0	4	7	39	14	0	10	1	2	0	0	10	1	0	0	166
10/23	7.5	4	62	1	6	3	68	8	0	8	2	19	0	0	9	0	0	1	191
10/24	7.8	2	12	2	6	2	108	19	0	27	0	4	0	1	8	1	0	1	193
10/25	7.3	7	45	2	13	2	84	9	0	61	0	4	0	1	4	0	0	0	232
10/26	8.0	1	143	0	6	7	49	6	0	35	1	7	0	0	3	1	0	0	259
10/28	8.0	0	12	0	1	3	5	2	0	0	0	0	0	0	0	0	0	1	24
10/29	7.0	0	38	0	0	2	9	2	0	1	0	4	0	0	0	0	0	0	56
10/30	7.5	2	35	0	5	4	48	8	0	40	1	2	0	0	4	0	0	0	149
10/31	7.0	1	9	0	0	0	25	7	0	11	0	0	0	0	1	0	0	0	54
11/1	7.0	0	21	0	1	2	1	2	0	2	0	2	0	0	1	0	0	0	32
11/3	4.3	0	13	0	0	0	8	4	0	4	0	2	0	0	0	0	0	0	31
11/4	0.0	1	59	0	9	0	28	4	0	139	0	35	0	1	1	0	0	2	279
11/6	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	7.0	4	11	0	1	0	4	1	0	16	0	5	0	0	0	1	0	0	43
11/8	7.0	1	33	0	1	0	13	6	0	25	0	9	0	0	1	1	0	2	92
11/9	3.0	0	3	0	1	0	1	1	0	7	0	1	0	0	0	0	0	0	14
11/10	7.0	0	24	0	3	0	4	3	0	7	0	6	0	0	0	0	1	0	48
11/11	6.5	0	29	0	3	1	7	0	0	13	0	10	0	0	0	0	0	0	63
11/12	7.0	0	9	0	0	0	3	1	0	6	0	10	0	0	0	1	0	0	30
11/13	3.0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
11/14	7.0	0	6	0	2	3	6	6	0	8	0	10	0	0	0	0	0	0	41
11/15	4.0	5	4	0	0	1	2	1	0	5	0	3	0	1	0	0	0	0	22
11/16	5.0	0	22	0	0	0	1	1	1	9	0	19	0	0	0	0	1	0	54
11/17	6.5	0	9	0	1	0	1	0	0	10	0	3	0	0	0	0	0	0	24
11/18	7.0	0	8	0	3	1	0	0	0	17	0	0	0	0	0	0	0	0	29
11/19	7.0	0	16	0	1	0	5	1	0	7	0	3	0	0	0	0	0	0	33
11/20	7.0	0	14	0	0	0	4	0	0	0	0	1	0	0	0	1	0	0	20
11/21	6.0	2	7	0	0	0	1	0	0	2	0	10	0	0	0	0	0	0	22
11/22	5.5	0	3	0	4	0	1	2	0	16	0	6	0	1	0	0	0	0	33
11/23	7.5	0	4	0	0	0	2	1	1	26	0	3	0	0	0	0	0	0	37
11/24	6.3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
11/25	6.8	0	4	0	2	0	5	1	0	7	0	12	0	0	0	0	0	0	31
11/26	4.5	0	2	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	5
11/27	7.3	0	1	0	0	0	1	0	0	1	0	3	0	0	0	0	0	0	6
11/28	7.0	0	1	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	4
11/29	7.0	0	8	0	1	0	0	2	0	1	0	9	0	0	0	0	0	0	21
11/30	5.5	0	2	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	6
96	**674.3**	**62**	**1344**	**592**	**317**	**142**	**2456**	**489**	**4**	**648**	**9342**	**271**	**0**	**8**	**628**	**133**	**32**	**73**	**16541**

Purple Chickadee 2018 - Ringwood, New Jersey

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/15	4.5	0	0	0	0	0	3	0	0	0	22	0	0	0	0	0	0	1	26
9/17	2.0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
9/18	1.5	0	0	0	0	0	3	1	0	0	0	0	0	0	0	1	0	0	5
9/19	10.0	0	0	1	0	0	19	5	0	0	81	0	0	0	1	1	2	0	110
9/20	1.8	0	0	0	0	0	2	1	0	0	8	0	0	0	1	0	1	0	13
9/21	1.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9/22	10.0	0	0	3	0	0	4	2	0	0	341	0	0	0	1	1	0	0	352
9/23	9.3	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	5
9/24	6.5	0	0	1	0	0	13	5	0	0	254	0	0	0	2	2	0	4	281
9/27	7.0	0	3	1	0	0	1	1	0	0	249	0	0	0	1	0	0	0	256
9/28	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/29	7.0	0	1	0	1	0	10	7	0	0	2	0	0	0	1	0	0	0	22
10/2	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/3	8.0	0	5	0	0	0	9	9	0	0	3	3	0	0	4	0	0	3	36
10/5	7.0	0	0	0	0	1	7	9	0	0	4	2	0	0	0	0	0	1	24
10/6	4.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/7	1.3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
10/8	7.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/9	4.0	0	5	1	0	0	1	4	0	0	0	0	0	0	0	2	0	0	13
10/10	8.5	0	5	2	1	0	6	9	0	0	4	2	0	0	0	2	0	1	32
10/12	10.3	0	23	4	6	4	40	42	1	0	3	5	0	0	29	1	1	10	169
10/13	3.5	0	59	0	2	0	8	14	0	0	0	0	0	0	3	0	0	1	87
10/14	3.0	0	2	0	1	0	4	5	0	1	0	0	0	0	2	0	0	0	15
10/15	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/20	1.5	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
10/21	9.0	0	23	0	0	2	29	8	0	7	0	10	0	1	1	0	0	1	82
10/22	7.5	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10/23	2.5	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	3
10/24	9.0	1	13	0	1	3	30	6	0	0	0	12	0	1	3	0	1	0	71
10/25	2.5	0	1	0	0	0	2	1	0	3	0	2	0	2	0	0	0	0	11
10/26	8.0	0	1	0	1	2	3	1	0	1	0	8	0	0	0	1	1	1	20
10/28	7.0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	3
32	**170.3**	**1**	**142**	**13**	**13**	**13**	**201**	**139**	**1**	**12**	**971**	**45**	**0**	**4**	**49**	**11**	**7**	**23**	**1645**

State Line Fall 2018 - Alpine, New Jersey

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/8	6.0	0	0	58	5	1	1	0	0	0	2	2	0	0	9	4	2	0	84
9/9	4.0	0	0	13	9	0	1	1	0	0	0	0	0	0	3	0	0	0	27
9/10	4.0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
9/11	5.0	0	0	17	3	0	0	0	0	0	0	0	0	0	0	1	0	0	21
9/12	8.0	0	0	32	8	1	2	2	0	0	1	0	0	0	7	4	1	0	58
9/13	7.0	0	0	101	21	1	21	1	0	1	0	1	0	0	12	4	2	1	166
9/14	7.0	0	0	68	33	1	19	6	0	0	49	3	0	0	11	9	3	0	202
9/15	7.5	0	0	24	11	2	31	4	0	6	50	1	0	0	35	3	0	4	171
9/16	8.0	0	0	16	5	0	44	1	0	0	143	3	0	0	80	14	0	2	308
9/17	8.0	0	0	34	1	1	25	3	0	0	8	2	0	0	63	0	1	2	140
9/18	4.0	0	0	21	1	0	8	0	0	0	0	0	0	0	3	1	0	0	34
9/19	7.5	0	0	47	16	2	69	11	0	0	84	1	0	0	15	1	0	1	247
9/20	7.0	0	0	40	3	0	13	2	0	1	12	1	0	0	18	1	5	0	96
9/21	8.5	0	0	112	9	2	1	1	0	0	0	0	0	0	8	1	4	0	138
9/22	8.5	0	4	21	14	2	45	10	0	0	1618	1	0	0	17	0	1	4	1737
9/23	8.0	0	0	49	13	2	50	11	0	0	669	1	0	0	8	2	4	5	814
9/24	8.0	0	0	65	40	4	31	18	0	0	38	5	0	0	27	0	11	1	240
9/26	7.5	0	0	14	6	2	2	0	0	0	0	0	0	0	2	3	4	0	33
9/27	7.0	0	1	17	17	0	31	16	0	3	7	2	0	0	10	1	3	5	113
9/28	5.0	0	0	6	2	1	11	4	0	0	1	0	0	0	0	1	1	1	28
9/29	7.0	0	0	5	3	5	126	30	0	1	304	1	0	0	13	3	1	5	497
9/30	8.0	10	4	21	11	7	75	29	0	1	149	10	0	0	25	2	2	0	346
10/1	8.0	0	0	13	1	0	6	2	0	0	0	1	0	0	5	1	0	0	29
10/2	8.0	0	0	12	5	0	13	6	0	0	0	0	0	0	8	6	1	0	51
10/3	6.5	0	0	7	5	0	17	19	0	0	33	1	0	0	6	3	0	0	91
10/4	6.0	0	0	14	1	0	9	1	0	0	10	0	0	0	4	3	4	0	46
10/5	7.0	0	19	9	7	3	88	54	0	16	13	8	0	0	37	6	3	3	266
10/6	8.0	0	39	15	11	2	12	4	0	0	2	0	0	0	34	6	3	0	128
10/7	7.0	0	0	6	1	4	21	4	0	0	0	0	0	0	8	5	0	0	49
10/8	7.0	0	0	14	1	0	5	4	0	0	0	0	0	0	7	2	1	0	34
10/9	8.0	0	0	4	5	1	13	4	0	0	0	0	0	0	5	2	0	0	34
10/10	7.5	0	143	12	1	0	27	25	0	2	2	5	0	0	11	1	1	0	230
10/11	3.0	0	0	2	0	2	6	5	0	0	0	1	0	0	4	1	1	0	22
10/12	8.3	0	97	5	1	10	165	38	0	1	1	16	0	0	48	1	2	1	386
10/13	6.5	0	122	7	18	2	93	23	0	1	9	14	0	0	25	7	1	2	324
10/14	7.5	1	45	10	3	3	42	21	0	0	0	16	0	0	12	1	1	1	156
10/15	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/16	8.0	5	46	6	5	4	52	15	0	4	2	12	0	0	7	2	2	5	167
10/17	7.5	0	406	1	3	5	41	12	0	0	1	6	0	0	24	4	2	0	505
10/18	7.0	0	69	1	3	2	54	13	0	10	1	10	0	0	11	1	0	0	175
10/19	7.0	0	509	0	1	1	39	18	0	1	1	21	0	0	12	1	2	4	610
10/20	7.0	0	179	0	5	1	29	2	0	5	0	5	0	0	11	4	1	0	242
10/21	6.0	2	40	0	1	0	84	19	0	2	0	30	0	1	5	0	0	0	184
10/22	6.0	0	81	1	1	0	47	10	0	0	0	7	0	0	11	0	2	2	162
10/23	8.0	0	334	0	4	0	56	6	0	19	0	19	0	0	5	0	1	1	445
10/24	7.5	0	58	0	3	3	52	9	0	1	0	22	0	0	2	1	1	0	152
10/25	7.0	0	60	0	0	0	47	8	0	5	0	35	0	0	2	3	3	3	166
10/26	7.0	0	85	0	1	1	23	6	0	7	0	9	0	0	2	0	0	0	134
10/28	7.0	1	169	0	0	1	9	4	0	2	0	2	0	0	0	1	0	1	190
10/29	7.3	0	134	0	4	1	10	5	0	0	0	4	0	0	1	1	0	0	160
10/30	7.5	3	71	0	15	3	26	14	0	11	0	18	0	0	6	2	2	1	172
10/31	7.5	0	59	0	2	1	11	5	0	9	0	7	0	0	1	1	0	0	96
11/1	7.0	2	27	0	3	0	10	2	0	0	0	3	0	0	0	0	0	0	47
11/2	3.0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4
11/3	6.0	0	15	1	1	0	3	3	0	3	0	4	0	0	2	0	0	0	32
11/4	7.0	2	44	0	6	3	21	8	0	33	0	26	0	0	1	1	2	5	152
11/5	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/6	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	7.0	0	104	0	1	2	9	9	0	6	0	23	0	0	0	0	0	1	155
11/8	7.0	0	23	0	2	4	8	6	0	17	0	26	0	0	0	0	0	2	88
11/9	6.0	0	115	1	6	1	4	6	0	10	0	49	0	0	0	0	1	1	194
11/10	6.5	0	71	0	0	1	11	11	0	0	0	58	0	0	2	0	1	2	157
11/11	5.0	0	33	0	2	1	6	3	0	13	0	11	0	0	0	1	0	2	72
11/12	6.0	0	63	0	2	1	13	8	1	39	0	31	0	0	0	0	0	4	162
11/13	2.0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
11/14	7.0	0	16	0	2	0	2	3	0	2	0	17	0	0	0	0	0	0	42
11/18	3.0	0	6	0	0	0	0	0	0	89	0	0	0	0	0	0	0	0	95
11/19	3.0	0	0	0	1	0	0	0	0	11	0	2	0	0	0	0	0	0	14
11/21	1.5	0	22	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	27
11/23	4.0	0	26	0	1	1	0	0	0	13	0	18	0	0	0	0	0	1	60
11/25	3.8	0	9	0	0	0	1	0	0	21	0	12	0	0	0	0	0	0	43
11/26	3.0	0	0	0	1	0	0	0	0	1	0	21	0	0	0	0	0	0	23
11/27	3.5	0	15	0	3	0	0	2	0	6	0	4	0	0	0	0	1	0	31
11/28	4.0	0	12	0	1	0	0	2	0	3	0	7	0	0	0	0	2	0	27
11/29	3.0	0	9	0	2	0	1	3	0	10	0	9	0	0	0	1	0	0	35
11/30	3.5	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	5
76	**467.0**	**26**	**3388**	**956**	**373**	**98**	**1794**	**572**	**1**	**388**	**3210**	**634**	**0**	**1**	**685**	**124**	**86**	**73**	**12409**

Lenoir Wildlife Sanctuary 2018 - Yonkers, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/26	2.5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8/31	2.3	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
9/2	2.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9/3	3.3	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5
9/8	2.0	3	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6
9/14	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9/15	8.0	3	0	85	23	0	16	1	0	0	2	1	0	0	69	3	3	1	207
9/16	6.0	0	0	7	1	0	8	1	0	0	2	0	0	0	18	0	1	0	38
9/19	7.5	0	0	19	5	2	26	0	0	0	45	0	0	0	5	1	0	0	103
9/20	7.0	0	0	38	20	3	14	1	0	0	26	0	0	0	0	1	2	0	105
9/22	7.5	1	0	31	5	1	34	15	0	0	2464	0	0	0	11	0	1	0	2563
9/23	3.0	0	0	1	0	0	6	1	0	0	53	0	0	0	2	0	0	0	63
9/29	6.0	2	20	10	9	2	46	4	0	1	501	0	0	0	9	1	1	0	606
9/30	3.5	0	10	4	4	1	1	1	0	4	16	0	0	0	4	0	0	0	45
10/6	1.0	0	45	0	0	2	7	3	0	0	0	0	0	0	2	0	0	0	59
10/13	9.0	0	85	2	29	6	43	15	0	1	5	5	0	0	15	3	3	1	213
10/20	3.0	8	120	0	4	0	1	2	0	0	0	6	0	0	0	1	1	0	143
10/21	3.0	0	135	0	3	0	46	11	0	6	0	17	0	0	6	0	1	0	225
10/28	4.0	1	9	0	3	0	2	1	0	0	0	17	0	0	2	0	3	0	38
10/30	4.0	5	83	0	3	0	10	0	0	9	0	11	0	0	1	1	0	0	123
11/3	0.5	1	6	0	4	0	0	0	0	0	0	3	0	0	0	0	0	0	14
11/4	3.0	1	48	0	1	0	0	1	0	22	0	7	0	0	0	0	0	0	80
11/7	3.0	3	15	0	0	0	3	2	0	1	0	1	0	0	1	0	0	0	26
11/10	1.0	0	17	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	21
11/11	1.5	2	28	0	0	0	3	1	0	0	0	7	0	0	0	0	0	0	41
25	**94.5**	**39**	**621**	**211**	**114**	**18**	**267**	**61**	**0**	**45**	**3115**	**75**	**0**	**0**	**146**	**12**	**16**	**2**	**4742**

Wildcat Ridge Fall 2018 - Hibernia, New Jersey

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/23	3.0	0	0	0	0	0	0	0	0	0	0	1		0	0	0	0	1	2
8/30	5.0	0	0	0	0	0	2	0	0	1	0	0		0	0	0	0	0	3
9/3	2.0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
9/5	4.0	3	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	4
9/8	4.5	0	0	2	0	0	2	0	0	0	0	0		0	0	0	0	1	5
9/15	9.8	0	0	6	10	2	29	9	0	1	254	1		0	11	1	0	7	331
9/16	8.5	0	0	5	6	0	36	13	0	1	240	1		0	2	0	1	4	309

Wildcat Ridge Fall 2018 - Hibernia, New Jersey

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/17	6.5	0	0	5	0	0	7	2	0	0	10	0		0	4	0	0	0	28
9/18	1.5	0	0	0	0	1	0	0	0	0	2	0		0	0	0	0	0	3
9/19	9.3	0	0	5	8	3	17	11	0	0	445	0		0	2	3	2	3	499
9/21	4.5	0	0	12	0	0	3	2	0	0	8	0		0	0	0	0	0	25
9/22	10.0	0	0	8	1	4	25	5	1	0	1129	2		0	0	1	0	5	1181
9/23	6.3	0	0	3	3	1	9	6	0	0	891	0		0	1	0	0	2	916
9/24	6.8	0	0	0	1	0	12	3	0	0	6	1		0	0	0	0	1	24
9/29	6.0	0	0	0	0	0	4	1	0	0	46	1		0	0	0	0	2	54
10/2	4.0	0	0	0	0	0	2	1	0	0	0	0		0	0	0	0	0	3
10/4	5.5	0	0	1	0	0	0	2	0	0	0	1		0	1	0	0	0	5
10/10	5.5	0	0	0	0	0	19	7	0	0	0	1		0	0	1	0	0	28
10/12	5.0	5	0	1	2	0	5	0	0	0	0	4		0	0	0	0	1	18
10/17	5.5	5	0	0	0	0	14	2	0	0	0	0		0	0	1	0	0	22
10/18	5.5	2	0	0	0	0	10	2	0	0	0	1		0	0	0	0	0	15
10/21	3.8	0	0	0	0	0	7	2	0	1	0	1		0	3	1	0	1	16
10/22	4.5	1	0	0	0	0	15	0	0	0	0	0		0	0	0	0	0	16
10/23	8.0	8	0	0	0	2	30	10	0	0	0	10		0	0	1	0	2	63
10/24	4.8	0	0	0	0	0	11	0	0	0	0	1		0	0	0	0	1	13
10/30	4.5	2	0	0	0	0	3	0	0	0	0	2		0	0	0	0	1	8
10/31	2.0	0	0	0	0	0	0	0	1	0	0	0		0	0	0	0	0	1
11/1	8.0	5	0	0	0	1	8	2	0	0	0	4		0	0	0	0	0	20
11/4	6.3	0	0	0	1	0	10	3	0	2	0	10		0	0	0	0	6	32
11/19	2.5	0	0	0	0	0	0	0	0	1	0	0		0	0	0	0	0	1
11/21	3.5	0	0	0	0	0	0	0	0	0	0	1		0	0	0	0	0	1
31	**166.3**	**31**	**0**	**49**	**32**	**14**	**280**	**83**	**2**	**7**	**3031**	**43**	**0**	**0**	**24**	**9**	**3**	**38**	**3646**

Montclair Hawk Lookout Fall 2018 - Montclair, New Jersey

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/27	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/1	8.9	0	0	5	2	0	0	1	0	0	3	1	0	0	0	1	2	0	15
9/2	8.0	0	2	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	7
9/3	8.0	0	0	16	2	0	2	0	0	0	0	0	0	0	0	0	0	0	20
9/4	8.0	0	0	5	1	1	0	0	0	0	3	0	0	0	2	0	0	0	12
9/5	8.0	0	0	5	1	0	1	1	0	0	1	0	0	0	3	1	1	0	14
9/6	6.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
9/7	9.0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
9/8	5.0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	2	0	1	9
9/9	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/10	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/11	9.0	0	0	3	0	1	0	0	0	0	0	0	0	0	1	1	0	0	6
9/12	8.0	0	0	5	1	0	1	0	0	0	0	0	0	0	0	2	0	0	9
9/13	8.0	0	0	22	2	0	4	4	0	0	1	0	0	0	13	5	1	0	52
9/14	8.0	0	0	4	1	0	6	0	0	0	0	0	0	0	5	1	0	0	17
9/15	10.0	0	0	17	5	2	26	6	0	0	27	0	0	0	34	4	1	0	122
9/16	8.0	0	0	16	3	0	41	5	0	1	269	0	0	0	32	3	1	0	371
9/17	7.0	0	0	5	2	0	14	2	0	0	0	0	0	0	14	3	0	0	40
9/18	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/19	9.0	0	0	19	5	4	72	6	0	0	732	0	0	0	23	0	2	0	863
9/20	8.0	0	3	8	1	0	9	1	0	0	16	0	0	0	5	2	0	0	45
9/21	8.0	0	0	10	0	0	4	1	0	0	0	0	0	0	1	1	0	0	17
9/22	9.0	0	0	18	10	0	40	5	0	3	3035	0	0	0	20	3	0	1	3135
9/23	8.0	0	0	5	5	1	7	7	0	1	454	0	0	0	4	1	1	0	486
9/24	8.0	0	0	7	5	2	21	6	0	0	13	0	0	0	9	3	2	0	68
9/25	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/26	8.0	0	0	4	1	0	2	0	0	0	0	0	0	0	0	0	2	0	9
9/27	8.0	0	9	6	11	3	30	7	0	2	30	0	0	0	8	0	2	1	109
9/28	6.0	0	0	1	3	0	14	5	0	1	7	0	0	0	2	0	0	0	33
9/29	8.0	0	3	0	4	1	21	15	0	1	432	0	0	0	7	2	0	1	487
9/30	9.0	0	16	5	9	0	17	10	0	0	347	1	0	0	7	0	2	0	414
10/1	8.0	0	0	1	1	0	6	3	0	0	0	1	0	0	0	1	0	0	13
10/2	7.0	0	0	2	0	1	4	3	0	1	3	1	0	0	2	1	1	0	19
10/3	8.0	0	0	3	5	2	35	22	0	4	11	0	0	0	10	2	1	0	95
10/4	7.0	0	0	4	1	0	3	1	0	0	1	0	0	0	1	1	1	0	13
10/5	9.0	0	16	8	3	3	56	14	0	1	35	1	0	0	10	7	4	0	158
10/6	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/7	8.0	0	0	0	2	1	14	3	0	0	0	0	0	0	1	4	1	0	26
10/8	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/9	8.0	0	0	9	0	1	6	3	0	1	0	0	0	0	6	2	1	0	29
10/10	9.0	7	58	28	2	1	34	16	0	1	9	5	0	0	9	4	6	0	180
10/11	3.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
10/12	9.0	0	44	5	8	1	49	23	0	6	1	4	0	0	11	0	1	1	154
10/13	6.0	0	68	2	2	0	17	8	0	4	1	3	0	0	9	2	1	0	117
10/14	8.0	0	25	1	0	2	23	5	0	1	2	1	0	0	5	1	3	0	69
10/15	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/16	8.0	2	83	3	3	2	58	21	0	4	7	4	0	0	10	3	2	0	202
10/17	8.0	2	71	0	1	2	25	7	0	5	0	1	0	0	7	2	0	0	123
10/18	8.0	1	149	2	8	2	53	18	0	16	0	5	0	1	5	0	1	1	262
10/19	8.0	0	252	2	2	0	28	4	0	2	1	4	0	0	8	2	0	0	305
10/20	7.0	0	88	0	1	2	15	2	0	1	0	2	0	0	2	2	0	0	115
10/21	8.0	2	46	2	0	3	35	7	0	4	0	5	0	0	10	2	0	0	116
10/22	8.0	0	55	1	1	1	31	1	0	6	0	1	0	0	3	1	0	1	102
10/23	8.0	8	24	1	3	1	50	10	0	9	0	5	0	0	6	2	1	0	120
10/24	8.0	2	27	0	1	1	30	4	0	11	0	5	0	0	4	3	1	0	89
10/25	8.0	9	103	0	2	0	20	5	0	13	0	3	0	0	0	1	0	0	156
10/26	8.0	0	68	0	0	1	17	4	0	6	0	2	0	0	1	0	0	0	99
10/27	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/28	9.0	0	93	0	1	1	10	2	0	2	0	1	0	0	1	1	0	0	112
10/29	8.0	7	19	0	0	0	11	2	0	7	0	0	0	0	2	1	0	0	49
10/30	8.0	4	29	0	1	0	19	2	0	15	1	3	0	0	2	1	1	0	78
10/31	2.0	0	0	0	0	0	5	0	0	2	0	0	0	0	3	0	0	0	10
11/1	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/2	8.0	0	16	0	0	0	11	3	0	0	0	0	0	0	0	0	0	0	30
11/3	6.0	0	6	1	3	0	11	3	1	3	0	4	0	0	1	1	0	1	35
11/4	8.0	4	45	1	0	1	9	4	0	21	0	7	0	0	0	0	0	0	92
11/5	3.0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
11/6	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	8.0	5	29	0	5	0	12	6	0	11	0	5	0	0	0	4	0	0	77
11/8	8.0	6	42	0	0	4	12	6	0	22	0	6	0	0	1	1	0	0	100
11/9	5.0	0	3	0	1	1	5	6	1	10	0	3	0	0	0	1	0	0	31
11/10	7.0	0	25	0	8	1	6	11	0	14	0	7	0	0	0	0	0	1	73
11/11	8.0	6	48	1	1	0	5	4	0	13	0	7	0	0	1	2	0	0	88
11/12	8.0	0	124	0	0	0	6	4	0	34	0	5	0	0	0	0	0	0	173
11/13	4.0	0	24	0	0	0	3	1	0	3	0	3	0	0	0	0	0	0	34
11/14	8.0	0	41	0	2	0	3	4	0	17	0	30	0	0	0	0	0	0	97
11/15	5.0	0	4	0	1	0	1	3	0	8	0	2	0	0	0	0	0	0	19
11/16	4.0	0	10	0	0	1	1	0	0	2	0	1	0	0	0	0	0	0	15
11/17	6.0	0	27	0	2	0	1	4	0	4	0	1	0	0	0	0	0	0	39
11/18	8.0	0	2	0	1	0	1	1	0	17	0	2	0	0	0	0	0	0	24
11/19	8.0	0	13	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	16
11/20	8.0	3	2	0	2	0	3	0	0	5	0	7	0	0	0	0	0	0	22
11/21	8.0	0	14	0	2	0	4	1	0	4	0	2	0	0	0	0	0	0	27
11/22	6.0	0	0	0	1	0	0	2	0	1	0	1	0	0	0	0	0	0	5
11/23	8.0	3	16	0	2	1	2	0	0	8	0	8	0	0	0	0	1	0	41
11/24	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/25	8.0	7	5	0	0	0	1	0	0	9	0	2	0	0	0	0	1	0	25
11/26	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/27	8.0	0	9	0	1	0	3	1	0	1	0	6	0	0	0	0	0	0	21
11/28	6.0	2	3	0	1	0	0	0	0	1	0	2	0	0	0	0	0	0	9
11/29	8.0	0	3	0	3	0	2	0	0	6	0	4	0	0	0	0	0	0	18
11/30	7.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
91	**600.1**	**80**	**1863**	**272**	**160**	**53**	**1090**	**340**	**2**	**347**	**5442**	**174**	**0**	**1**	**324**	**92**	**45**	**9**	**10294**

Scott's Mountain Fall 2018 - MCR Harmony Twp., New Jersey

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/1	7.0	0	0	9	4	0	0	1	0	0	9	5	0	0	0	0	0	1	29
9/2	7.0	0	0	7	0	1	1	1	0	0	2	1	0	0	0	0	0	0	13
9/3	6.8	0	0	0	0	1	3	1	0	0	7	0	0	0	3	0	1	1	17
9/4	7.0	0	0	5	4	1	1	2	0	0	26	3	0	0	1	0	0	0	43
9/5	7.0	0	0	5	3	0	0	1	0	0	7	0	0	0	0	1	0	1	18
9/6	6.0	0	0	6	5	0	0	3	0	1	5	0	0	0	0	0	0	0	20
9/7	6.8	0	0	1	0	0	2	0	0	0	5	0	0	0	1	2	0	0	11
9/8	8.5	0	0	4	0	1	0	0	0	0	1	1	0	0	0	0	0	0	7
9/10	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/11	8.0	0	0	8	7	1	0	0	0	0	3	0	0	0	0	0	0	1	20
9/12	5.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/13	7.3	0	0	3	7	0	8	1	0	0	28	0	0	0	0	1	0	1	49
9/14	7.3	0	0	7	2	0	14	2	0	0	5	0	0	0	1	1	0	3	35
9/15	8.5	0	0	13	6	3	26	3	0	0	35	1	0	0	9	1	1	4	102
9/16	8.5	0	0	12	11	3	42	8	0	0	631	2	0	0	27	2	0	1	739
9/17	6.0	0	0	2	0	0	17	1	0	0	1	0	0	0	3	0	0	0	24
9/18	3.8	0	0	5	6	2	30	1	0	0	13	1	0	0	6	1	0	2	67
9/19	9.0	0	0	8	7	1	37	4	0	0	1250	0	0	0	14	1	1	9	1332
9/20	8.0	0	0	13	0	0	14	2	0	0	369	0	0	0	3	0	0	2	403
9/21	7.8	0	0	12	0	0	15	2	0	0	39	1	0	0	1	0	0	3	73
9/22	10.3	0	0	26	5	1	86	6	0	1	3676	1	0	0	12	2	2	1	3819
9/23	8.0	0	0	8	7	2	67	3	0	1	945	1	0	0	1	0	3	3	1041
9/24	7.5	0	0	5	5	0	41	4	0	0	583	1	0	1	9	0	0	3	652
9/26	7.3	0	0	8	3	0	11	2	0	0	2	0	0	0	1	0	2	1	30
9/27	7.5	0	0	5	6	1	77	13	0	2	585	2	0	0	9	2	1	3	706
9/28	6.5	0	0	0	2	0	19	5	0	0	65	1	0	0	1	0	2	1	96
9/29	7.5	0	0	7	4	0	26	9	0	0	59	3	0	0	3	1	1	3	116
9/30	7.8	0	0	5	2	1	49	11	0	2	91	2	0	0	6	0	1	2	172
10/1	8.0	0	0	1	1	0	18	1	0	0	5	0	0	0	0	0	0	0	26
10/2	7.8	0	0	4	0	0	16	3	0	1	1	1	0	0	5	3	1	2	37
10/3	7.5	0	0	0	4	0	27	4	0	1	2	2	0	0	5	0	0	3	48
10/4	7.0	0	0	4	2	0	22	3	0	0	0	0	0	0	0	0	1	0	32
10/5	7.3	0	0	4	1	1	66	6	0	1	8	3	0	0	4	4	3	1	102
10/6	7.0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
10/7	8.0	0	0	2	1	3	77	7	0	3	0	1	0	0	4	2	2	5	107
10/8	8.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/9	7.5	0	0	1	0	0	55	6	0	0	0	1	0	0	1	3	0	2	69
10/10	7.3	0	0	7	1	1	109	15	0	0	4	2	0	1	10	3	3	1	157
10/12	7.0	0	0	3	3	1	60	12	0	1	4	4	0	0	8	1	1	2	100
10/13	8.0	0	0	0	10	3	199	10	0	0	0	4	0	1	11	3	1	1	243
10/14	7.3	0	0	3	0	3	151	13	0	0	0	2	0	2	2	1	1	1	179
10/15	4.8	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
10/16	7.3	0	0	1	12	0	66	15	0	4	0	13	0	0	6	2	0	2	121
10/17	7.0	0	0	0	5	2	39	3	0	1	0	5	0	0	2	2	0	1	60
10/18	6.8	0	0	0	3	0	29	2	0	3	0	22	0	0	4	1	1	2	67
10/19	7.0	0	0	1	1	0	30	6	0	1	0	7	0	0	0	1	2	2	51
10/20	8.0	0	0	1	0	2	49	6	0	0	0	5	0	1	3	3	0	1	71
10/21	7.3	0	0	0	1	1	64	5	0	7	0	36	0	1	5	1	2	6	129
10/22	7.5	0	0	0	16	1	20	7	0	1	0	8	0	2	1	2	1	1	60
10/23	7.3	0	0	0	5	1	96	10	1	1	0	4	0	0	1	1	0	2	122
10/24	6.3	0	0	1	10	0	36	4	0	3	0	40	0	1	4	0	2	2	103
10/25	6.0	0	0	0	3	0	10	2	0	2	0	17	0	1	1	0	1	1	38
10/26	7.0	0	0	0	0	3	7	0	0	2	0	13	0	0	0	0	0	2	27
10/27	3.5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10/28	7.3	0	0	0	0	2	10	1	0	1	0	7	0	0	0	0	0	0	21
10/29	6.0	0	0	0	7	3	13	4	0	1	0	19	0	0	0	0	0	3	50
10/30	7.3	0	0	0	4	0	16	1	0	4	0	15	0	1	2	0	0	3	46
10/31	7.0	0	0	0	1	2	15	2	0	0	0	9	0	0	2	0	0	2	33
11/1	7.0	0	0	0	2	2	43	5	0	2	0	3	0	0	1	1	0	1	60
11/2	6.0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
11/3	7.3	0	0	0	3	2	20	3	0	1	0	30	0	0	1	1	0	0	61
11/4	7.3	0	0	0	1	4	9	7	0	37	0	43	0	0	0	0	1	4	106
11/5	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	6.5	0	0	0	3	0	19	4	0	7	0	13	0	0	0	3	3	0	52
11/8	6.3	0	0	0	7	1	9	2	0	7	0	25	0	0	0	0	1	3	55
11/9	5.0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11/10	7.5	0	0	0	10	3	2	2	1	2	0	39	0	0	1	1	2	2	65
11/11	8.0	0	0	0	6	2	3	5	1	17	0	20	0	0	0	0	1	3	58
11/12	6.5	0	0	0	2	0	5	1	3	1	0	2	0	0	0	0	0	0	14
11/13	5.0	0	0	0	4	0	2	0	1	0	0	5	0	0	0	0	1	0	13
11/14	6.8	0	0	0	6	0	4	1	0	3	0	24	0	1	0	0	0	1	40
11/15	3.3	0	0	0	1	0	0	1	0	0	0	3	0	0	0	0	0	0	5
11/16	4.0	0	0	0	3	0	1	1	1	0	0	7	0	1	0	0	0	0	14
11/17	6.5	0	0	0	3	1	1	1	0	3	0	19	0	0	0	0	0	1	29
11/18	6.5	0	0	0	1	3	2	0	0	11	0	2	0	0	0	0	0	0	19
11/19	7.0	0	0	0	0	0	2	1	2	3	0	3	0	0	0	0	0	0	11
11/20	5.5	0	0	0	2	0	1	0	1	0	0	3	0	0	0	0	0	0	7
11/21	6.8	0	0	0	1	1	1	1	0	0	0	9	0	0	0	0	4	0	17
11/22	5.5	0	0	0	4	0	1	0	0	3	0	41	0	0	0	0	0	2	51
11/23	5.5	0	0	0	2	1	2	0	0	3	0	6	0	0	0	1	0	0	15
11/24	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/25	7.5	0	0	0	2	2	1	1	0	6	0	15	0	0	0	2	0	2	31
11/26	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/27	5.5	0	0	0	3	0	1	0	0	0	0	3	0	0	0	0	0	1	8
11/28	5.8	0	0	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	5
11/29	5.8	0	0	0	3	1	0	1	0	1	0	14	0	1	0	1	0	0	22
11/30	6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	**581.8**	**0**	**0**	**217**	**259**	**72**	**2018**	**273**	**11**	**152**	**8466**	**598**	**0**	**15**	**195**	**58**	**50**	**114**	**12498**

Washington Valley Fall 2018 - Martinsville, New Jersey

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
9/1	4.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9/8	1.5	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3
9/15	3.0	0	0	6	5	2	4	2	0	0	19	0	0	0	7	2	0	0	47
9/16	8.0	0	0	5	3	0	15	4	0	0	22	0	0	0	15	0	1	0	65
9/18	0.0	0	0	0	1	0	2	0	0	0	0	0	0	0	1	0	0	0	4
9/19	9.5	0	0	19	6	6	19	2	0	3	281	0	0	0	23	4	0	0	363
9/22	8.0	0	0	17	14	9	56	12	0	6	2247	0	0	0	50	3	0	0	2414
9/23	4.8	0	0	7	1	0	21	3	0	2	280	0	0	0	3	0	0	0	317
9/24	6.0	0	0	5	5	1	14	5	0	4	35	0	0	0	2	1	0	0	72
9/27	8.0	0	0	4	9	3	15	6	0	2	21	0	0	0	8	11	0	0	79
9/28	4.3	0	0	2	2	0	6	0	0	3	8	0	0	0	6	1	0	0	28
9/29	9.0	0	0	1	14	2	30	10	0	7	165	0	0	0	22	3	0	0	254
9/30	3.0	0	0	2	0	5	2	1	0	2	93	0	0	0	5	1	0	0	111
10/1	0.0	0	0	1	0	0	5	1	0	1	0	0	0	0	0	0	0	0	8
10/2	2.0	0	0	0	1	0	4	0	0	0	0	0	0	0	1	1	1	0	8
10/3	8.5	0	0	3	8	1	33	7	0	8	11	0	0	0	17	4	0	0	92
10/5	7.5	0	0	5	1	0	7	4	0	8	0	0	0	0	7	1	0	0	33
10/12	8.0	0	2	0	6	1	82	13	0	0	1	0	0	0	36	5	0	0	146
10/13	4.0	0	0	0	4	5	76	11	0	2	2	2	0	1	8	4	1	0	116
10/14	6.0	0	0	2	6	1	26	19	0	5	1	2	0	0	4	1	1	0	68
10/16	8.0	0	0	4	14	2	117	21	0	17	2	8	0	0	12	5	5	0	207
10/17	5.5	0	0	0	4	2	52	7	0	0	0	1	0	0	17	2	0	0	85
10/18	7.5	0	0	1	3	0	91	6	0	12	0	1	0	0	15	4	0	0	133
10/19	2.0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3
10/21	7.5	0	0	1	17	4	122	14	0	23	0	15	0	1	21	8	0	0	226
10/23	0.0	0	0	0	5	2	37	11	0	3	0	2	0	0	8	3	0	0	71
10/24	7.0	0	3	0	2	2	94	11	0	16	0	4	0	0	5	6	0	0	143
10/25	7.0	0	3	0	0	2	34	5	0	13	0	2	0	1	4	1	0	0	65
10/28	0.0	0	0	0	3	1	16	2	0	2	0	2	0	0	1	1	1	0	29
10/29	3.8	4	0	0	1	0	15	4	0	2	0	0	0	0	2	0	0	0	28
10/30	8.0	0	0	0	9	6	59	10	1	37	0	5	0	0	1	4	0	0	132
11/4	7.5	0	0	0	1	0	18	1	1	13	0	12	0	0	1	1	0	0	48
11/7	3.5	0	25	0	0	1	5	1	0	4	0	3	0	0	0	0	0	0	39
11/8	7.0	0	0	0	3	0	5	1	0	19	0	5	0	0	0	1	0	0	34
11/10	5.5	0	0	0	1	1	9	1	0	4	0	4	0	0	0	4	0	0	24
11/11	5.3	0	0	0	1	0	7	2	0	27	0	22	0	1	1	0	0	0	61
11/13	1.0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	4
11/14	6.0	0	0	0	4	0	1	0	0	4	0	7	0	0	0	0	0	0	16
11/17	2.5	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
37	**199.5**	**4**	**33**	**86**	**155**	**60**	**1105**	**198**	**2**	**249**	**3188**	**99**	**0**	**4**	**304**	**82**	**10**	**0**	**5579**

Lighthouse Point Fall 2018 - New Haven, Connecticut

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/10	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8/18	6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/19	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/20	5.0	0	0	2	2	0	1	0	0	0	5	0	0	0	1	0	0	0	11
8/23	5.0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	6
8/24	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8/25	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	7
8/27	3.0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
8/28	2.8	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
8/29	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/30	5.0	0	0	12	0	3	0	0	0	0	0	0	0	0	5	2	0	0	22
8/31	6.0	0	0	34	0	1	0	0	0	0	3	0	0	0	5	1	2	0	46
9/1	5.3	0	0	7	0	0	0	1	0	0	0	0	0	0	5	0	1	0	14
9/2	5.0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5
9/3	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/4	3.0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
9/5	8.0	0	0	2	0	1	2	0	0	0	0	0	0	0	1	2	0	0	8
9/6	6.0	0	0	1	0	0	0	1	0	0	0	0	0	0	6	4	0	0	12
9/7	6.8	0	0	37	1	3	0	2	0	0	0	0	0	0	6	2	1	1	53
9/8	8.0	0	0	61	1	3	4	2	0	0	1	0	0	0	42	6	2	6	128
9/9	8.0	0	0	66	1	6	6	0	0	0	0	0	0	0	14	3	0	0	96
9/10	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9/11	5.0	0	0	26	0	1	0	3	0	2	0	0	0	0	0	7	0	0	39
9/12	5.0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
9/13	7.5	0	0	71	0	0	12	1	0	0	0	0	0	0	3	7	0	2	96
9/14	7.0	0	0	36	3	1	3	3	0	0	3	0	0	0	1	2	1	1	54
9/15	6.0	0	0	15	1	3	13	7	0	0	0	0	0	0	11	10	2	3	65
9/16	8.0	0	0	25	1	1	96	4	0	1	0	0	0	0	63	5	1	9	206
9/17	6.0	0	0	10	1	1	13	1	0	0	0	0	0	0	29	3	2	3	63
9/18	4.0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9/19	8.0	0	0	132	4	4	109	55	0	2	7	2	0	0	23	4	7	16	365
9/20	9.0	0	0	76	3	5	23	12	0	0	1	0	0	0	8	4	5	7	144
9/21	5.0	0	0	2	0	2	0	2	0	0	0	0	0	0	2	1	0	0	9
9/22	10.3	0	0	136	40	11	179	73	0	0	79	3	0	0	111	9	19	28	688
9/23	8.0	0	0	43	0	14	16	19	0	0	0	0	0	0	28	2	1	7	130
9/24	7.0	0	0	102	16	6	147	46	0	0	15	0	0	0	21	7	7	13	380
9/25	3.0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
9/26	6.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9/27	10.0	0	1	56	6	4	58	107	0	0	8	1	0	0	22	7	5	30	305
9/28	5.5	0	0	2	1	1	4	2	0	0	4	0	0	0	2	0	3	1	20
9/29	9.0	0	0	36	13	6	64	41	0	0	3	0	0	0	13	5	2	25	208
9/30	6.5	0	0	27	5	3	23	26	0	0	4	3	0	0	3	1	2	20	117
10/1	5.0	0	0	8	0	4	5	1	0	0	0	0	0	0	2	1	0	0	21
10/2	5.5	0	0	9	1	1	7	16	0	0	0	1	0	0	1	1	0	3	40
10/3	10.0	0	2	54	6	5	62	64	0	0	19	1	0	0	18	6	5	17	259
10/4	9.0	0	0	42	0	6	12	2	0	0	0	0	0	0	5	1	0	0	68
10/5	10.0	3	43	114	30	8	111	309	0	24	32	14	0	0	56	20	38	78	880
10/6	6.0	0	0	34	3	0	9	21	0	0	1	1	0	0	9	0	2	5	85
10/7	5.8	0	0	10	0	0	3	9	0	0	0	0	0	0	1	3	0	0	26
10/8	4.0	0	0	20	3	25	9	9	0	0	0	0	0	0	15	10	2	2	95
10/9	6.0	0	0	13	0	0	17	11	0	0	3	1	0	0	1	2	1	0	49
10/10	8.0	0	0	23	0	3	61	27	0	0	0	0	0	0	11	2	2	0	129
10/11	5.5	0	0	5	0	0	8	5	0	0	0	0	0	0	7	5	0	1	31
10/12	10.8	0	6	72	17	28	122	232	0	0	3	0	0	0	482	62	20	55	1099
10/13	9.0	1	5	20	6	17	71	86	0	0	2	3	0	0	19	9	4	12	255
10/14	8.0	0	0	13	4	4	205	70	0	3	9	2	0	0	25	5	4	17	361
10/15	3.0	0	0	3	1	0	0	0	0	0	0	0	0	0	1	1	0	0	6
10/16	8.0	0	22	29	9	11	176	180	0	4	12	9	0	0	44	8	6	0	510
10/17	10.0	0	0	22	2	20	85	46	0	0	2	0	0	0	47	22	15	4	265
10/18	10.0	0	38	19	34	20	391	120	0	1	2	17	0	0	115	39	5	48	849
10/19	9.0	0	1	3	1	19	37	21	0	0	0	3	0	0	2	7	1	4	99
10/20	8.5	0	6	15	2	26	60	28	0	1	1	2	0	0	14	25	1	3	184
10/21	9.8	0	2	19	12	21	417	135	0	1	1	8	0	0	248	86	5	35	990
10/22	6.0	0	0	2	2	23	139	27	0	0	0	0	0	0	41	2	0	4	240
10/23	4.0	0	0	0	5	1	2	5	0	0	0	0	0	1	0	0	1	0	15
10/24	10.0	0	26	9	11	28	367	166	0	30	4	37	0	0	51	18	11	26	784
10/25	10.3	0	0	0	8	27	194	27	1	10	0	11	0	0	33	4	0	10	325
10/26	7.3	0	10	4	12	2	11	17	0	3	0	16	0	0	1	2	3	14	95
10/27	2.3	0	0	0	0	0	3	1	0	0	0	0	0	0	2	3	0	0	9
10/28	7.0	0	4	1	0	0	12	9	0	1	0	2	0	0	3	2	4	0	38
10/29	5.0	0	0	3	0	6	11	9	0	0	0	3	0	0	0	0	2	0	34
10/30	8.0	0	14	7	30	8	93	48	0	26	1	33	0	1	11	5	1	7	285
10/31	9.0	0	2	2	0	1	12	4	0	1	0	5	0	0	1	3	1	0	32
11/1	9.5	0	0	4	0	1	27	6	0	0	0	0	0	0	7	1	0	2	48
11/2	5.8	0	0	1	0	1	4	0	0	0	0	0	0	0	0	2	1	0	9
11/3	5.0	0	7	6	1	1	2	3	0	0	0	0	0	0	1	0	0	0	21
11/4	7.3	0	32	4	7	3	18	26	0	12	0	41	0	0	0	1	6	12	162
11/5	3.5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	3
11/6	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	7.0	0	0	6	3	1	4	7	0	0	0	0	0	0	0	2	0	0	23
11/8	8.5	0	3	1	3	1	17	13	0	8	0	17	0	0	1	1	0	8	73
11/9	6.0	0	0	0	1	0	1	1	0	0	0	0	0	0	1	1	1	2	8
11/10	7.3	0	0	0	2	4	9	9	0	0	0	4	0	0	2	1	0	1	32
11/11	7.3	0	1	1	5	2	9	4	1	4	0	17	0	0	0	3	1	5	53
11/12	5.0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11/13	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/14	9.0	0	8	0	10	7	20	28	1	25	0	37	0	0	1	4	0	2	143
11/15	3.0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11/16	4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/17	7.3	0	2	0	4	8	13	19	0	29	0	13	1	0	0	3	2	4	98
11/18	6.0	0	1	0	2	2	0	6	0	10	0	13	0	1	0	1	0	10	46
11/19	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/20	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/21	3.0	0	0	0	1	1	1	2	0	1	0	2	0	0	0	0	0	0	8
11/22	2.3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11/23	5.0	0	0	0	1	2	1	2	0	13	0	15	0	0	0	0	0	19	53
11/24	3.0	0	0	0	0	0	0	2	0	1	0	1	0	0	0	0	1	0	5
11/25	5.8	0	0	0	2	2	10	19	0	27	0	57	0	0	1	1	0	6	125
11/26	2.0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11/27	4.0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11/28	5.0	0	1	0	0	0	3	1	0	2	0	3	0	0	0	0	2	0	12
11/29	7.3	0	2	0	0	6	4	5	0	1	0	10	0	0	0	3	0	1	32
11/30	4.5	0	0	0	0	0	1	4	0	0	0	1	0	0	0	0	0	0	6
103	**631.3**	**4**	**239**	**1630**	**342**	**439**	**3634**	**2272**	**3**	**243**	**225**	**409**	**1**	**3**	**1717**	**475**	**215**	**589**	**12440**

Fire Island Fall 2018 - Islip, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
8/10	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8/23	5.5	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5
8/24	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
8/30	3.0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
9/1	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9/4	4.8	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
9/6	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
9/7	7.5	0	0	9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	10
9/8	9.0	0	0	57	0	0	0	0	0	0	0	0	0	0	2	41	5	0	105
9/9	6.5	0	0	17	0	0	0	0	0	0	0	0	0	0	0	8	1	0	26
9/10	3.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3
9/11	6.0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4
9/12	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9/13	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
9/14	8.5	0	0	6	0	0	0	0	0	0	0	0	0	0	3	11	0	0	20
9/15	8.0	0	0	7	0	2	0	0	0	0	0	0	0	0	0	15	2	0	26
9/16	6.5	0	0	4	0	0	0	0	0	0	0	0	0	0	9	26	0	0	39
9/17	6.0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	13	2	0	18
9/18	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9/19	9.5	0	0	38	0	2	1	0	0	0	0	0	0	0	6	90	4	0	141
9/20	7.8	0	0	98	1	1	1	0	0	0	0	0	0	0	3	25	5	0	134
9/21	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21
9/22	9.5	0	0	67	0	7	2	2	0	0	0	0	0	0	54	178	11	0	321
9/23	7.5	0	0	4	0	2	1	0	0	0	0	0	0	0	5	52	1	0	65
9/24	7.0	0	0	10	0	2	4	2	0	0	0	0	0	0	9	4	2	0	33
9/25	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9/26	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9/27	8.0	0	0	68	0	2	0	0	0	0	0	0	0	0	28	65	7	0	170
9/28	10.0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9	6	0	24
9/29	8.0	0	0	8	1	2	1	1	0	0	0	0	0	0	6	37	8	0	64
9/30	7.0	0	0	2	0	0	0	1	0	0	0	0	0	0	7	11	3	0	24
10/1	5.0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1	2	0	6
10/2	6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
10/3	6.0	0	0	1	0	0	0	1	0	0	0	0	0	0	3	6	1	0	12
10/4	7.0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	7	0	14
10/5	9.5	0	0	35	1	11	5	1	0	0	0	0	0	0	46	83	11	0	193
10/6	6.0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	10	3	0	16
10/7	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	10
10/8	5.5	0	0	0	0	0	0	2	0	0	0	0	0	0	1	5	10	0	18
10/9	7.0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	7	2	0	10
10/10	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8
10/11	5.0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	4
10/12	9.0	0	0	12	0	9	14	4	0	0	0	1	0	0	231	151	10	0	432
10/13	8.5	0	0	4	0	6	3	0	0	0	0	0	0	0	27	81	5	1	127
10/14	8.0	0	0	2	0	14	9	1	0	0	0	0	0	0	7	16	1	0	50
10/15	4.0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	5
10/16	7.3	0	0	12	3	14	48	9	0	0	0	0	0	0	92	67	7	1	253
10/17	6.0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	26	3	0	32
10/18	7.8	0	0	5	5	20	49	8	0	0	0	0	0	0	113	99	1	0	300
10/19	6.0	0	0	2	0	5	1	2	0	0	0	0	0	0	14	15	1	0	40
10/20	4.3	0	0	1	0	1	1	1	0	0	0	0	0	0	0	2	2	0	8
10/21	8.3	0	0	2	1	13	11	2	0	0	0	0	0	0	65	130	7	0	231
10/22	7.0	0	0	0	0	4	5	0	0	0	0	0	0	0	14	9	2	0	34
10/23	6.5	0	0	0	0	2	0	1	0	0	0	0	0	0	0	9	1	0	13
10/24	8.5	0	0	1	0	52	124	9	0	0	0	0	0	0	124	107	9	0	426
10/25	7.3	0	0	1	0	25	42	2	0	0	0	0	0	0	48	18	2	0	138
10/26	7.0	0	0	0	1	6	7	1	0	0	0	0	0	0	3	9	1	0	28
10/28	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	0	14
10/29	6.5	0	0	0	0	1	3	0	0	0	0	0	0	0	2	8	2	0	16
10/30	7.8	0	0	0	0	14	68	7	0	0	0	0	0	0	20	39	8	1	157
10/31	5.0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	3	2	0	10
11/1	4.0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	3	0	0	8
11/2	6.0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
11/4	8.0	0	0	0	0	4	50	10	0	0	0	0	0	0	1	10	0	0	75
11/5	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/7	5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/8	7.5	0	0	0	0	2	13	2	0	0	0	0	0	0	1	9	2	0	29
11/9	5.8	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	0	6
11/11	6.5	0	0	0	0	5	6	2	0	0	0	0	0	0	2	5	1	0	21

Fire Island Fall 2018 - Islip, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
11/14	6.5	0	0	0	1	8	4	2	0	0	0	0	0	0	2	6	0	0	23
11/16	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3
11/17	3.0						1	1											2
11/18	3.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11/22	3.0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	3
11/23	3.0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
75	**452.3**	**0**	**0**	**496**	**14**	**248**	**480**	**84**	**0**	**0**	**0**	**1**	**0**	**0**	**964**	**1589**	**172**	**3**	**4051**

Fort Tilden Fall 2018 - Queens, New York

Date	HRS	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
10/12	9.0	0	2	15	0	11	73	27	0	0	6	0	0	0	594	102	6	0	836
10/13	7.0	0	3	7	1	6	18	8	0	0	0	0	0	0	72	16	1	0	132
10/16	7.5	0	3	5	2	6	68	22	0	1	0	0	0	0	53	14	3	0	177
10/18	9.5	0	2	1	1	20	161	14	0	1	5	1	0	0	158	47	2	0	413
10/20	9.0	0	0	2	1	9	73	15	0	0	1	4	0	0	165	105	2	0	377
10/24	9.0	0	7	0	1	33	187	15	0	1	0	1	0	0	146	46	2	0	439
10/25	8.0	0	0	0	0	18	128	4	0	2	0	3	0	0	22	2	0	0	179
7	**59.0**	**0**	**17**	**30**	**6**	**103**	**708**	**105**	**0**	**5**	**12**	**9**	**0**	**0**	**1210**	**332**	**16**	**0**	**2553**

PEAK DAILY SITE COUNTS - Fall 2018

BROAD-WINGED HAWK		
Quaker Ridge	9/22	5907
Scott's Mt	9/22	3676
Montclair	9/22	3035
Wachusett	9/22	2782
Putney Mt	9/20	2692
Lenoir	9/22	2464
Putney Mt	9/14	2445
Chestnut Ridge	9/22	2389
Washington Val	9/22	2247
Pack Monadnock	9/24	2239
Chestnut Hill	9/22	2048
Mount Watatic	9/23	1766
Hook Mountain	9/22	1709
State Line	9/22	1618
Quaker Ridge	9/23	1508
Putney Mt	9/19	1418
Putney Mt	9/15	1418
Mohonk	9/15	1260
Mount Peter	9/22	1257
Scott's Mt	9/19	1250
Johnnycake	9/22	1243
Wildcat Ridge	9/22	1129
Munn Brook	9/22	1112
Mohonk	9/19	1076
Botsford Hill	9/22	1061
Pack Monadnock	9/9	975
Botsford Hill	9/23	974
Middle School	9/22	959
Chestnut Ridge	9/23	952
Wachusett	9/23	950
Scott's Mt	9/23	945
Pack Monadnock	9/22	926
Shatterack Mt	9/20	910
Clarry Hill	9/22	896
Mount Watatic	9/22	895
Wildcat Ridge	9/23	891
Mount Peter	9/16	887

RED-TAILED HAWK		
Putney Mt	11/4	73
Putney Mt	10/26	59
State Line	11/10	58
Lighthouse	11/25	57
Pack Monadnock	11/4	52
Mount Peter	10/24	51
State Line	11/9	49
Mount Peter	10/30	48
Mount Peter	11/11	48
Mount Peter	10/21	47
Barre Falls	10/26	45
Clarry Hill	11/4	44
Putney Mt	10/14	43
Chestnut Ridge	10/26	43
Scott's Mt	11/4	43
Putney Mt	10/16	42
Lighthouse	11/4	41
Scott's Mt	11/22	41
Putney Mt	10/30	40
Scott's Mt	10/24	40
Clarry Hill	10/30	40

RED-SHOULDERED HAWK		
Quaker Ridge	11/4	139
State Line	11/18	89
Hook Mountain	10/26	78
Quaker Ridge	10/25	61
Hook Mountain	11/4	51
Chestnut Ridge	11/18	45
Chestnut Ridge	10/26	44
Hook Mountain	11/8	43
Quaker Ridge	10/30	40
State Line	11/12	39
Washington Val	10/30	37
Scott's Mt	11/4	37
Quaker Ridge	10/26	35
Montclair	11/12	34
State Line	11/4	33
Hook Mountain	11/25	31
Lighthouse	10/24	30
Lighthouse	11/17	29
Mount Peter	10/26	28

ROUGH-LEGGED HAWK		
Clarry Hill	11/4	3
Mt. Philo	8/19	2
Mt. Philo	9/15	1
Putney Mt	10/24	1
Pack Monadnock	10/25	1
Greenlaw Mt	10/25	1
Harpswell	10/28	1
Greenlaw Mt	11/4	1
Lighthouse	11/17	1
Pack Monadnock	11/17	1

GOLDEN EAGLE		
Pack Monadnock	10/30	6
Clarry Hill	11/4	3
Putney Mt	10/26	3
Clarry Hill	10/30	3
Hook Mountain	10/25	3
Pack Monadnock	10/16	3
Bear Mountain	10/31	2
Scott's Mt	10/22	2
Purple Chickadee	10/25	2

BALD EAGLE		
Clarry Hill	11/4	97
Clarry Hill	10/25	45
Lighthouse	9/22	40
State Line	9/24	40
Lighthouse	10/18	34
State Line	9/14	33
Clarry Hill	10/14	32
Lighthouse	10/5	30
Lighthouse	10/30	30
Clarry Hill	11/12	30
Lenoir	10/13	29
Clarry Hill	9/23	28
Greenlaw Mt	11/3	26
Greenlaw Mt	10/13	25
Quaker Ridge	9/15	23
Pack Monadnock	9/24	23

SHARP-SHINNED HAWK		
Lighthouse	10/21	417
Lighthouse	10/18	391
Lighthouse	10/24	367
Hook Mountain	10/5	235
Harpswell	10/21	213
Quaker Ridge	9/29	213
Putney Mt	10/12	210
Lighthouse	10/14	205
Harpswell	10/18	202
Scott's Mt	10/13	199
Lighthouse	10/25	194
Fort Tilden	10/24	187
Lighthouse	9/22	179
Hook Mountain	10/22	179
Lighthouse	10/16	176
Mount Peter	10/12	173
State Line	10/12	165
Fort Tilden	10/18	161
Mohonk	10/16	155
Scott's Mt	10/14	151
Quaker Ridge	9/19	148
Lighthouse	9/24	147
Hook Mountain	10/12	145
Chestnut Ridge	10/14	140
Lighthouse	10/22	139
Putney Mt	10/16	131
Fort Tilden	10/25	128

COOPER'S HAWK		
Lighthouse	10/5	309
Lighthouse	10/12	232
Lighthouse	10/16	180
Lighthouse	10/24	166
Lighthouse	10/21	135
Lighthouse	10/18	120
Lighthouse	9/27	107
Lighthouse	10/13	86
Lighthouse	9/22	73
Lighthouse	10/14	70
Lighthouse	10/3	64
Lighthouse	9/19	55
State Line	10/5	54
Quaker Ridge	9/29	53
Lighthouse	10/30	48
Lighthouse	9/24	46
Lighthouse	10/17	46
Purple Chickadee	10/12	42

NORTHERN GOSHAWK		
Greenlaw Mt	10/5	6
Harpswell	10/21	3
Putney Mt	10/26	3
Putney Mt	9/27	3
Pack Monadnock	10/26	3
Putney Mt	10/21	3
Cadillac Mt	10/8	3
Scott's Mt	11/12	3
Greenlaw Mt	10/18	3
Clarry Hill	10/5	2
Hook Mountain	11/4	2

AMERICAN KESTREL		
Fort Tilden	10/12	594
Lighthouse	10/12	482
Lighthouse	10/21	248
Fire Island	10/12	231
Fort Tilden	10/20	165
Fort Tilden	10/18	158
Fort Tilden	10/24	146
Fire Island	10/24	124
Cadillac Mt	9/8	119
Lighthouse	10/18	115
Fire Island	10/18	113
Lighthouse	9/22	111
Cadillac Mt	9/4	106
Fire Island	10/16	92
State Line	9/16	80
Quaker Ridge	9/19	73
Chestnut Ridge	9/15	72
Fort Tilden	10/13	72
Lenoir	9/15	69
Fire Island	10/21	65
State Line	9/17	63

MERLIN		
Fire Island	9/22	178
Fire Island	10/12	151
Fire Island	10/21	130
Fire Island	10/24	107
Fort Tilden	10/20	105
Fort Tilden	10/12	102
Fire Island	10/18	99
Fire Island	9/19	90
Lighthouse	10/21	86
Fire Island	10/5	83
Fire Island	10/13	81
Fire Island	10/16	67
Fire Island	9/27	65
Lighthouse	10/12	62
Harpswell	10/21	52
Fire Island	9/23	52
Fort Tilden	10/18	47
Fort Tilden	10/24	46
Fire Island	9/8	41
Fire Island	10/30	39

PEREGRINE FALCON		
Lighthouse	10/5	38
Lighthouse	10/12	20
Lighthouse	9/22	19
Lighthouse	10/17	15
Clarry Hill	9/27	13
Fire Island	9/22	11
Fire Island	10/5	11
Lighthouse	10/24	11
State Line	9/24	11
Fire Island	10/12	10
Putney Mt	10/12	10
Fire Island	10/8	10
Fire Island	10/24	9
Fire Island	10/30	8
Fire Island	9/29	8

OSPREY		
Lighthouse	9/22	136
Lighthouse	9/19	132
Lighthouse	10/5	114
State Line	9/21	112
Lighthouse	9/24	102
State Line	9/13	101
Fire Island	9/20	98
Lenoir	9/15	85
Lighthouse	9/20	76
Lighthouse	10/12	72
Quaker Ridge	9/19	72
Lighthouse	9/13	71
State Line	9/14	68
Fire Island	9/27	68
Fire Island	9/22	67
Lighthouse	9/9	66
State Line	9/24	65

NORTHERN HARRIER		
Fire Island	10/24	52
Fort Tilden	10/24	33
Lighthouse	10/12	28
Lighthouse	10/24	28
Lighthouse	10/25	27
Lighthouse	10/20	26
Lighthouse	10/8	25
Fire Island	10/25	25
Lighthouse	10/22	23
Lighthouse	10/21	21
Lighthouse	10/18	20
Fire Island	10/18	20
Lighthouse	10/17	20
Fort Tilden	10/18	20

TURKEY VULTURE		
State Line	10/19	509
State Line	10/17	406
Chestnut Ridge	10/20	403
State Line	10/23	334
Chestnut Ridge	10/19	287
Chestnut Ridge	10/26	283
Montclair	10/19	252
Quaker Ridge	10/19	217
Chestnut Ridge	10/16	191
Chestnut Ridge	10/18	185
Chestnut Ridge	10/17	183

BLACK VULTURE		
Hook Mountain	11/20	61
Heldeberg	9/19	18
Mount Peter	10/25	17
Hook Mountain	10/7	16
Chestnut Ridge	11/7	16
Hook Mountain	11/3	12
Hook Mountain	10/13	11
Mt. Philo	8/19	10
Heldeberg	9/20	10
Quaker Ridge	10/3	10
State Line	9/30	10
Lenoir	8/31	9

Climate Change and Peregrine Migration in Southeastern NY, NJ & CT

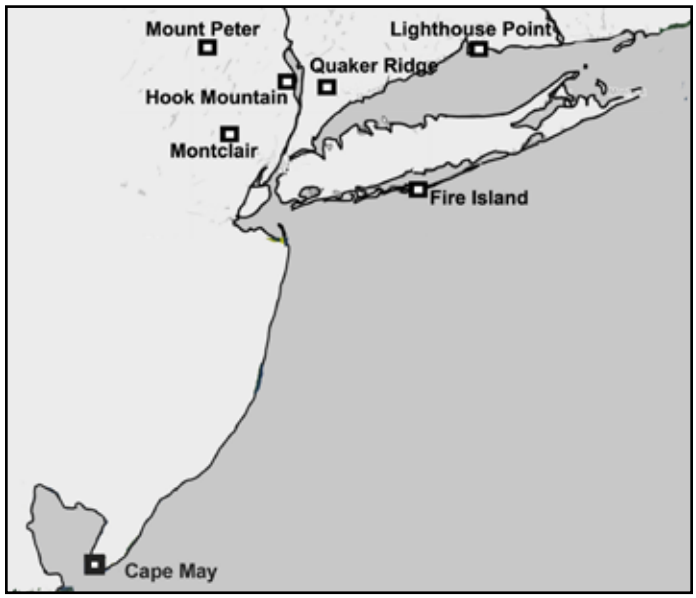
Drew Panko

Recently I've heard and read several papers about climate change and the profound changes in the ecology of the arctic that are beginning. This led me to wonder if there was any evidence of these changes in the migration of Peregrines in southeastern NY, NJ & CT.

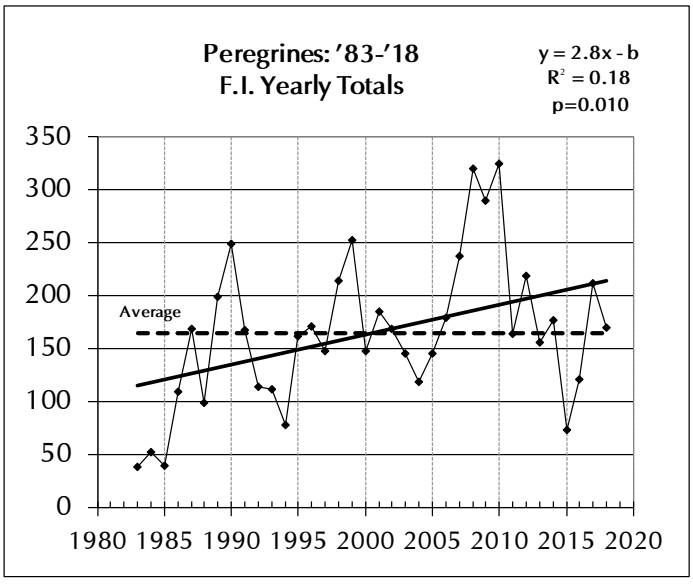
Current wisdom of the researchers in this area is that plant flowering and insect hatching are very dependent on prevailing temperature whereas bird migration is dependent on photoperiod. This leads to a mismatch in the timing of when spring insect hatch occurs in the arctic and when the birds are raising their young and most dependent on insect hatches. These researchers are very concerned that a mismatch will occur when the plants & insects mature at earlier dates because of rising temperatures and the birds will arrive at their usual date because of their dependence on photoperiod. Thus the days when the birds need insect food the most—when they are feeding young—will occur after the major insect hatches have already occurred, with consequent breeding failures. Raptors such as Peregrines in turn depend on these birds and their fledglings to feed their own young and will suffer declines. My question is whether these effects are beginning to show up in our migration counts.

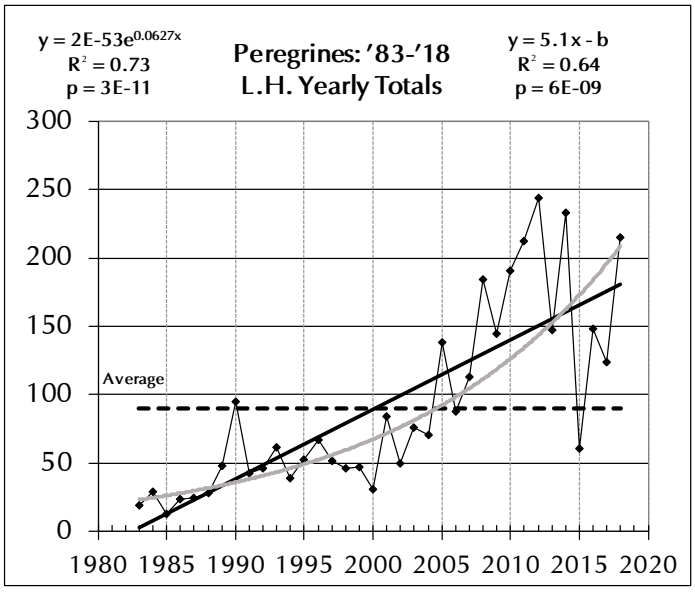
If this is a serious problem already we should see a decreasing population of Peregrines. Consider the yearly trend for Fire Island NY and Light House Point CT. Since these two watches are almost due north-south of each other, one on the CT shore & the other on a barrier beach off Long Island, there is no double counting between them.

First consider the Fire Island (FI) graph, it is the simplest. The straight line through the yearly totals is a regression line and its equation is in the upper right hand corner. The equation contains the useful information in that the slope of the line is



2.8 and that means that the number of Peregrines (PGs) at FI has been increasing, on average, by 2.8 PGs per year since '83. The value of R2 gives the percentage of the trend that is due to the change in the x-axis—the passing of the years. So 18% of the year-to-year variation in the number of PGs is due to the passing of time. But the value of p is critical. It is a measure of how confident we can be in the regression line being an accurate measure of the trend in PGs over the years. The value of p is 0.01. This is equivalent to saying that if you rearranged the numbers of PGs in this graph in a purely random fashion, there is only one chance in one hundred that you would get a positive trend this large or larger. When p = 0.01 it is generally accepted that the trend is real, i.e. statistically significant. So we can say that the trend observed at FI is

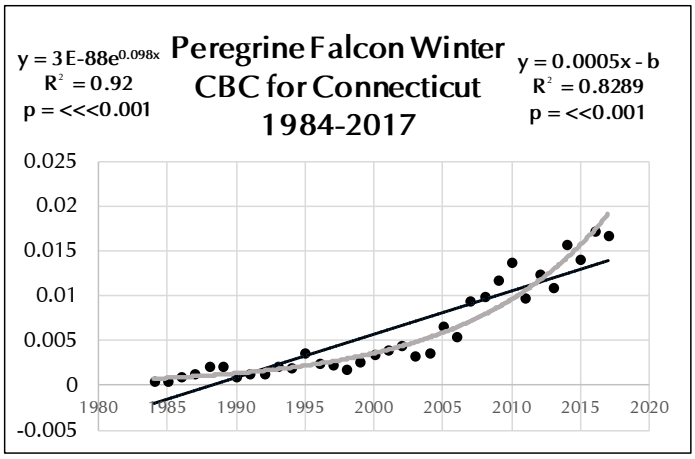


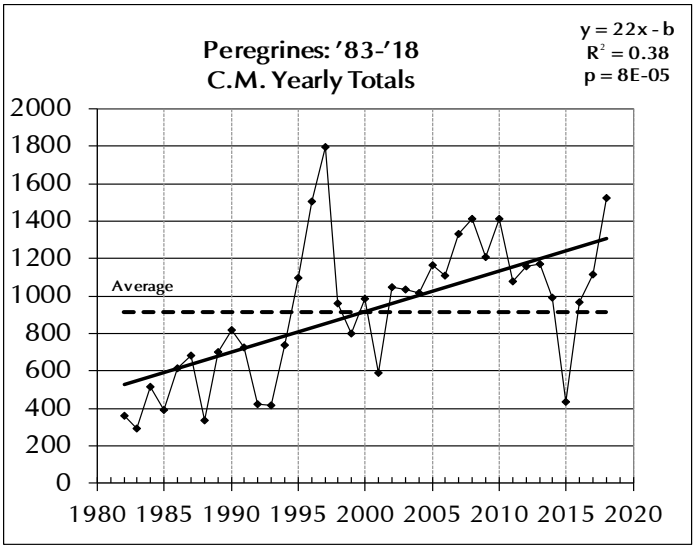


statistically significant—but only barely. If 2019 brings another low year like 2015 then the trend will not be significant, but a good year like 2010 would make it more significant.

The Lighthouse (LH) graph is a little more complicated. The linear trend is larger R2 = 0.64 and the p = 6E-09, or there are only about 6 chances in 1,000,000,000 that a trend this strong could occur by chance. Additionally, there is a second regression line on the LH graph—a grey one. This is an exponential fit as opposed to a linear one. And it is even more significant than the linear one, only 3 chances in 100,000,000,000! Moreover, exponential curves are very important. In population change, they usually indicate that a species is growing rapidly like when a new species is expanding into an empty suitable environment. And this is just what happened; the Peregrine Fund introduced Peregrine Falcons into the northeast where they had been extirpated by human prosecution.

Further indication that the inland population of PGs are increasing comes from CBC data. The graph above is a plot of PGs seen per party hour for all CT CBCs since 1984. It is remarkably similar to the fall migration count graphed above. And again we see a strong linear growth in PGs counted, and an even more significant trend if the growth is assumed to be exponential. It seems that a significant portion of introduced PGs do not migrate long distances, but stay reasonably close to their breeding territories for the winter season.





Why the difference between FI & LH? A good guess would be that they count PGs from different source regions, with some intermixing on any given day. In particular it seems reasonable to assume that LH counts mostly PGs that breed in the Canadian Arctic and the northeast from New Brunswick to CT, while FI gets some birds from the same region, with a higher percentage than LH from northeast coastal and Greenland Arctic breeders.

Together then, because the migration counts at each site is increasing, our data does not reflect any negative effects of climate change on the tundra breeding population of PGs.

But so far we are ignoring the gorilla in the room—Cape May, NJ. If you add up all the PGs counted in the NY metro region, Cape May (CM) counts more, much more. It varies from year to year but CM averages about 300% (ranging from 50% to 600%) more than the sum of FI, LH, Quaker Ridge (QR), Hook Mountain (HM), Mount Peter (MP), and Montclair (MC) all taken together. The random, scattered locations of the hawk watches let a lot of PGs slip through uncounted to Cape May. If an "intercept line" of hawk watches, as attempted by NEHW (Niel Currie & Don Hopkins & others), had been successful, perhaps this would not be the case. So we are left with a search for similarities in PG flights among currently active hawk watches.

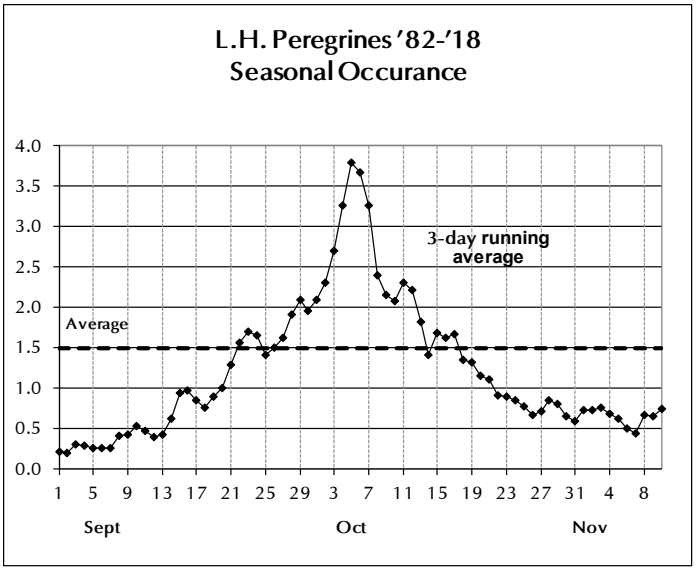
p-value Table - contributing watches removed

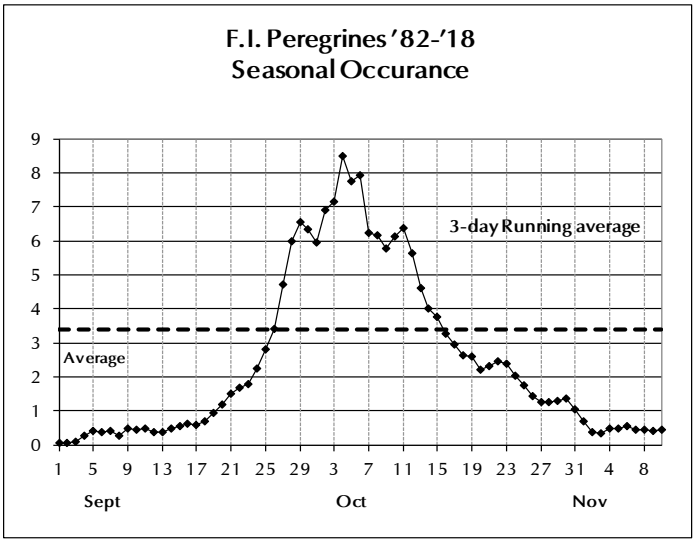
	FI	LH	C Sum,	CM	QR	HM	MP	MC	Hk Mt
LH	*0.00077*								
C Sum,	-------	-------							
CM	***0.0000881***	*0.0013*	***0.000023***						
QR	0.036	***0.00064***	*0.001544*	0.0529					
HM	*0.000975*	*0.00098*	*0.001544*	0.120099	0.158				
MP	0.0546	***0.0001***	*0.00147*	0.0815	**0.002**	*0.00047*			
MC	***8.14E-05***	*0.0002*	***5.33E-06***	0.011	**0.0015**	*0.00038*	**0.00449**		
Hk Mt	***0.000069***	***1.2E-05***	***6.41E-07***	*0.00027*	**0.00964**	***1.00E-04***	0.1316	***5.50E-06***	
I. Sum	***0.0000248***	***8.2E-07***	***3.98E-08***	*0.00195*	*0.00643*	-------	-------	-------	-------

When we look at the other hawk watches in the NY metropolitain region we find remarkable similiarity. In the analysis (bottom of previous page), for the years 1983 to 2017, the total yearly PGs at each site was regressed against the yearly totals of each one of the other hawk watch sites. Also included are two sums; the coastal sum (FI + LH) and the inland sum (HM + MP + MC + Hawk Mountain (Hk Mtn)).

The dotted lines occur for sums, and indicate that no correlation was computed for that sum and hawk watch because the hawk watch was included in the sum. The n.s. means the correlation is not significant. All the values in bold are statistically significant at 1% or better. Those not in bold are close but not better than 1%. Those in bold and italics are statistically significant to 0.1 % and those better than 0.01% are noted as <0.0001, bold, italics and underlined.

These results are shocking (at least to me!). Of 39 correlations 31 are significant. I am very used to comparing data from different hawk watches, and normally have a hard time seeing any similarities. In this group you have to search for the watches that are dissimilar! Cape May is the one watch that likely counts hawks from all the others (except Hk Mtn) and yet it is the one with the fewest significant correlations (5). FI, QR, and HM are not correlated with 2 others. Hk Mtn is only not correlated with one, and it is the hawk watch furthest away from all the others, and I expected it to be most dissimilar. LH, the coastal sum and the inland sum are correlated with all the others. I fully expected that the inland sites would be more related to each other than to the coastal sites, but this seems not to be the case. CM is strongly correlated with the coastal sum, but also with Hk Mt and the inland sum and not significantly with QR, HM, and MP. The inland sum is correlated best with the coastal watches rather than with QR (QR is not included



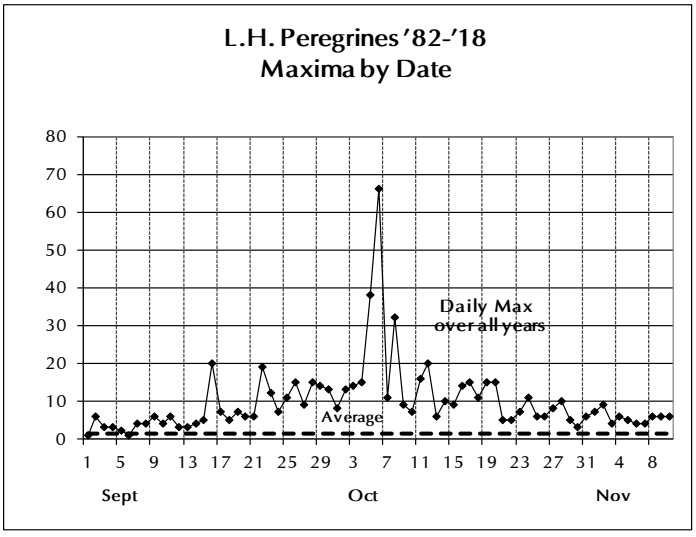


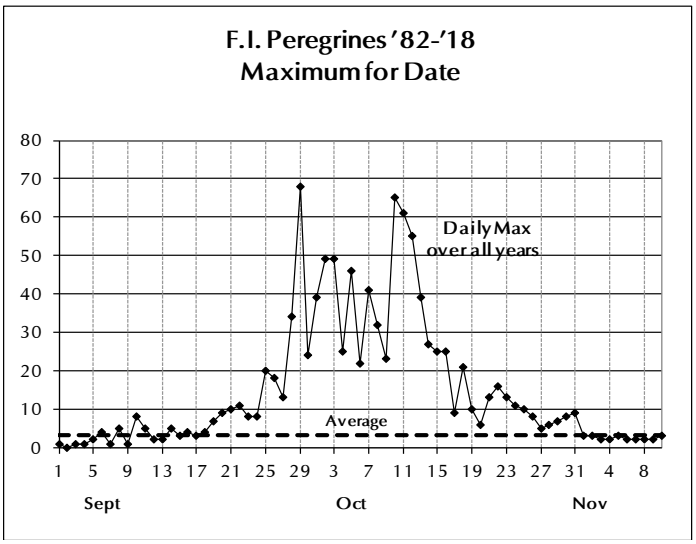
in the inland sum because it has 2 years of less coverage than the others). So, it looks like the different watches do not separate cleanly into different source populations, with inland migrators and coastal migrators. But instead there is a mixture of the introduced, inland PG population with the North American arctic population and the Nova Scotia and Greenland populations. But the actual mixture does vary from hawk watch to hawk watch. And there may be some age and gender composition differences between the sites.

If the population trends are upwards and correlate very well, and if there is a climate change effect, so far it is a positive effect on PG populations.

But it may well be that climate change has an effect on the timing of PG migration. Even if photoperiod triggers migration readiness (Zugunruhe), PGs may find it easier or harder to put on the fat reserves for migration because of climate changes in the Arctic prey populations.

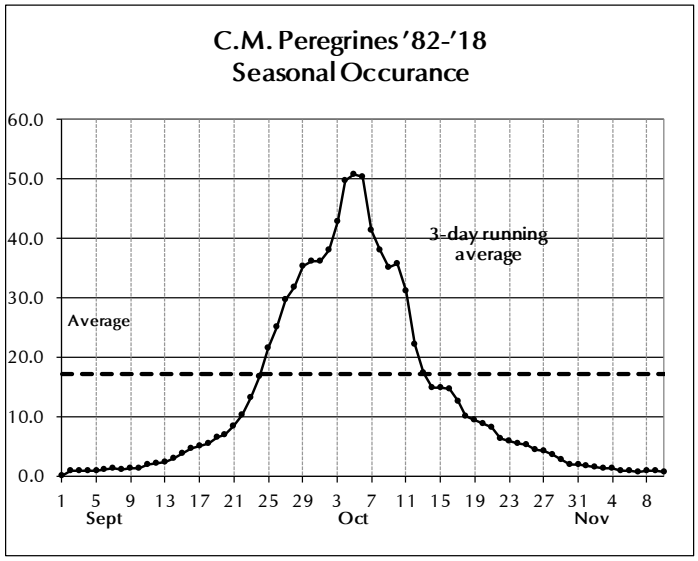
The arrival times of PGs are very narrow compared to other species (except perhaps Broadwings).

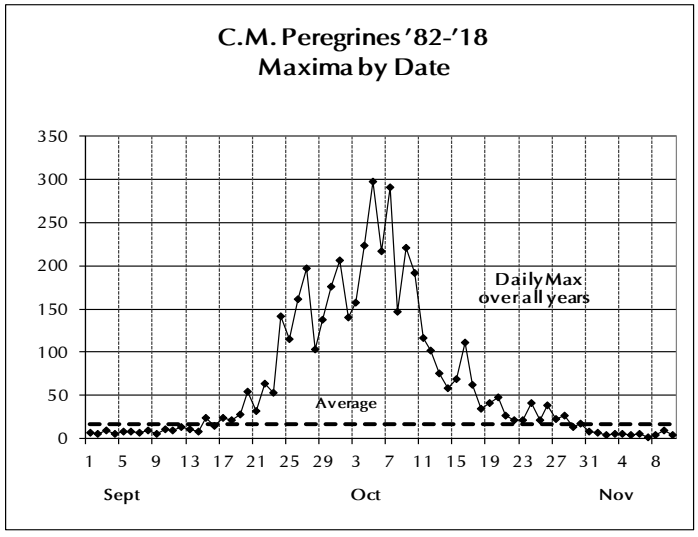




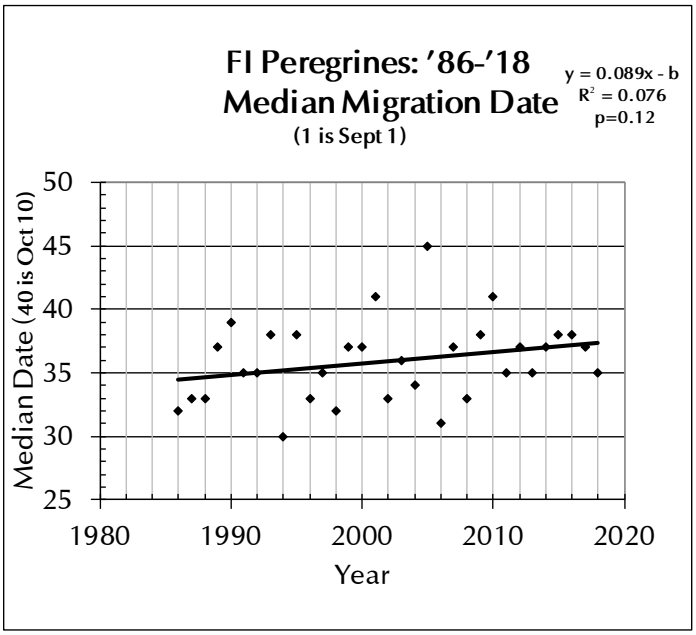
Consider the seasonal occurrence of PGs at LH and FI. First compare the graphs closely. They are very similar, but the FI graph is twice as high (note the different vertical scales) and much wider. The peaks are very close to the same date. And the early season FI numbers stay lower longer and drop off faster (note the dates that the lines cross the average on both graphs). The minor peaks ("shoulders") on the FI graph are in the same place as the shoulders on the LH graph, but much taller in both absolute and relative terms. I have watched those shoulders grow on the FI curve for 20 years and always wondered what they represented, if anything. But they seem to be a result of individual days of exceptionally high numbers of migrants.

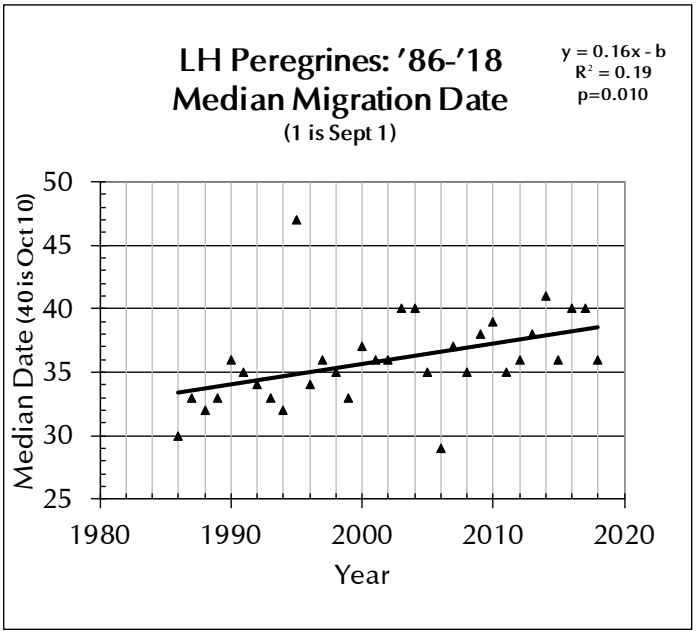
Wow! What a difference! LH's & FI's maximum flights are about the same heights (70 PGs/day) but LH's only occurs near the overall peak (10/7) and FI has dual peaks (9/29 & 10/11) far away from the overall peak. These dual peaks, in large part, form the shoulders on the FI curve that is missing on LH's.

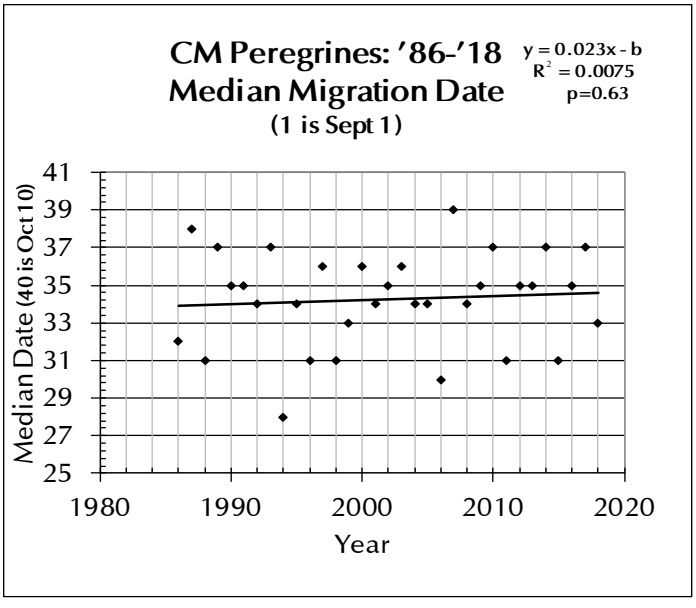




Both of the corresponding curves from Cape May resemble FI much more closely than those of LH. It stays low and rises fast, as well as falling fast, and it also has the shoulders, but perhaps not as prominently as FI. All this is consistent with PGs from Coastal, Newfoundland & Nova Scotia &/or Greenland Arctic populations being most prevalent at FI, and to a somewhat lesser degree at CM. The peak at CM is close to FI.







So far, examining the yearly and daily totals, it seems that there is no compelling reason to think that arctic PGs are being adversely effected by climate change. It seems reasonable to think that the shoulders on the seasonal occurrence curves are mostly Arctic birds and the peaks are a mix. If all arctic birds start off at the same time, based on photoperiod, and encounter favorable weather the whole way they arrive on the first shoulder (9/29), if they are delayed by bad winds for a few days they arrive at the peak (10/4). In years where the winds are particularly persistent and opposing they arrive on (10/11). Migration timing effects due to age (immature vs adult) or sex are not prominent in PGs, but could contribute somewhat to the shoulders.

But there could be another measure of migration timing that could show differences. I chose to use the date at which half the season's peregrines had been counted—the median date. The median date of arrival varies greatly from year to year. At Fire Island half of all PGs counted passed by 10/1 in 1998, but in 2005 half didn't pass until 10/15. That's a really big spread and climate change could be effecting it by changing the prey populations on the breeding grounds.

Here we have the graphs of the median date on which PGs passed FI, LH and CM. There is almost a significant trend over the years at FI, a barely significant trend at LH, and no trend at all at CM. If arctic warming was changing the date of migration we should see it here. And, in fact, all three watches do show a slight increase over the years but the evidence is marginal at best. Perhaps in another 20 years we'll see a definitive trend. It should also be noted that there are many other reasons the date could be increasing such as a change in prevailing winds, the increasing numbers of introduced PGs breeding in the northeast, and likely others as well.

There are two other aspects to the median dates at each site that deserve attention. Namely do the median dates correlate? i.e. if there is a year when the flight is early at FI is it also early at LH & CM? And, is the average median date the same at each site?

The average median date for FI is 35.7 (counting from September 1st). The LH average is 36.0, and Cape May's average is 34.2. The most southerly watch, CM, which counts birds from FI & LH and elsewhere is earlier than the other two watches! Just not what I expected. These differences can be tested to see if they are statistically significant. And indeed FI and LH point are insignificantly different but both are barely different from CM ($p < 0.012$). This poses the interesting problem: Why do the PGs arrive earlier at CM, than at LH and FI? Only banding &/or satellite tracking will be able to answer this question for sure, but two hypotheses come to my mind, and I'm sure there are more.

First, since CM is more southerly, it gets migrating PGs from NJ that neither LH nor FI count. And these birds are less than one day's flight from their arrival at CM. Perhaps this is enough to shift the average arrival date earlier, but I'm skeptical. The

difference could also arise because of the very much larger average total number of PGs counted at CM (918) compared to FI (165) and LH (90). If this much larger number of birds are from further west than those counted at LH and FI, perhaps they arrive somewhat earlier. Most likely, it seems to me is that PGs migrating mainly overwater, missing LH & FI as well as inland sites, do pass Cape May and do it earlier.

So we are left in a situation without a clear answer. The current wisdom is that the first signs of climate change are most easily noticed in plants (earlier leaf out and flowering dates) and not present in birds who are more dependent on photoperiod rather than temperature seems to be correct. Considering the fall PG migration data, we cannot cleanly separate arctic breeders from more local ones without a much larger banding and radio tracking effort. The population trend for PGs is positive, likely, but not clearly the result of local breeders. This makes it hard to see any trend in the arctic populations but there does not seem to be a significant decrease in Arctic PG migration counts. The trend in the median arrival dates at these three watches is small or non-existent and therefore not helpful.

A similar analysis of Merlins might reflect changes in the conditions in the sub-arctic. And a similar comparison for the declining counts of Sharp-shinned or Kestrels night shed some light on their population trends. Looks like I might have a few more topics for upcoming years.

Peregrine Falcon. Photo by Brian Rusnica

NEHW 11th Regional Hawk Migration Conference

Holyoke Community College, Holyoke, MA
Saturday March 30, 2019

All photos by Brian Rusnica

NEHW Board President Paul Roberts introduces the day . . . and does a little plug for the Hawks in Flight guide.

Conference Program Chair Iain MacLeod introduces the program.

Dr. Laurie Goodrich presented twice: on Broad-winged Hawk migration and the Raptor Population Index.

Chris Martin of NH Audubon shared his work on satellite tracking of NH Peregrine Falcons.

Dr. Rob Bierregaard took us on a journey about tracking technology, Osprey tracking and becoming an author.

Eric Masterson entertained us with a travelog of his journey by bicycle from New Hampshire to Panama.

NEHW board member Larry Fischer described his many years of work with Northern Saw-whet Owls.

NEHW board member Drew Panko spoke about the importance of hawk counting.

Chris DeSorbo of the Biodiversity Research Institute shared research on Maine's Bald Eagle population.

NEHW board member Trudy Battaly joined Drew Panko speaking about the importance of hawk counting.

Laurie Goodrich keeps those in attendance in rapt attention.

Dr. Cheryl Dykstra shared her extensive research on urban raptor populations.

Past NEHW board member and former report editor Seth Kellog received a warm welcome.

NEHW board member Renee Baade oversees the raffle prize giving.

NEHW board member Julie Brown selling another t-shirt at the HMANA booth.

NEHW board members Renee Baade and Trudy Battaly at the membership and registration table.

. . . From the President continued from page 1

birds we love and the opportunity to talk with other hawk watchers we rarely get a chance to see or talk with…because they are on their sites all fall or spring. We had 107 registrants, including attendees from Ohio and North Carolina, and Todd Watts drove 13 straight hours to the conference from New Brunswick to attend. Our registration included 29 new NEHW Members! Welcome, and we hope you will become active hawk watchers, and that you enjoy your first migration report as a NEHW member. We encourage you to talk with the NEHW contact for your area (see p. 2) and become actively involved at a site, if you aren't already! And please share your report with people you know who might be interested in hawks but are not members. We also had 28 nonmembers register for the conference, and they won't be receiving this report, so please share. Over half the attendance at the conference were new to the organization. That is exciting news. We can always use additional people spotting and counting at sites, or exploring and covering new ones.

A special THANK YOU to our presenters, all of whom volunteered their services to share their special knowledge and insights with us. THANK YOU to Trudy Battaly, Dr. Rob Bierregaard, Chris DeSorbo, Dr. Cheryl Dykstra, Larry Fischer, Dr. Laurie Goodrich, Chris Martin, Eric Masterson, Dr. David Oleyar, and Drew Panko, for your research and for sharing it with us.

One other important note on the conference. Thank you to the Directors of NorthEast Hawk Watch and the Conference Committee who made this all possible. Program Chair Iain MacLeod put together the amazing list of speakers. Renee Baade served as Facilities chair, and Trudy Battaly was responsible for publicity. Brian Rusnica did the calendar, signage, and photographed the event. I'd especially like to thank Joe Wojantowski, our incredible Membership Secretary and Treasurer who handled the registration for the conference, paid the bills, and handled all the new memberships. Thanks, Joe, for all the amazing work you do on our behalf.

About ten years ago NEHW developed a supply of laminated ($5) and non-laminated ($3) NEHW silhouette guides to hawks of New England, illustrated by Paul Carrier. The laminated guides have been very popular, but we have an ample stock of the non-laminated guides. This year the board voted to give non-laminated guides to any non-profit organization that would use them for raptor education for youth, to encourage more kids to hawk watch. We've already distributed 20 to the Hitchcock Center in Amherst, 25 to the National Audubon Hog Island (Maine) Teen Ornithology Session, and 25 to the Kestrel Land Trust/Eagle Eye Institute. If you know of a school, a nature center, a scout troop that could use the silhouette guides to help educate youth on raptor identification, contact Joe Wojtanowski at PO Box 142, Poquonock, CT 06064 inquiring if guides are still available and advising him many you would need for this non-profit organization.

The NorthEast Hawk Watch (NEHW) is approaching its fiftieth birthday in 2021, a rather significant milestone. Almost fifty years ago several people with an interest in, and a love of, hawks began to attempt to find out what was happening with hawks in New England. Bald Eagles, Peregrine Falcons, and Ospreys were almost gone. Cooper's Hawks were rarely seen. Migration represented the best time to see most hawks, and to learn about their migration and possible population trends. Don Hopkins, Neil Currie, Gerry Mersereau and Jan Mitchell, all amateurs, started this effort that led to almost half a century of raptor migration data and analysis. Individuals can make an incredible difference in our understanding of what is happening and in conservation. That is particularly poignant for me because in August 2018 we lost Don Hopkins, a friend who changed many lives, including mine, by nurturing people's curiosity about and love of hawks. The NEHW founders played a major role in the formation of the Hawk Migration Association of North America (HMANA) in 1974.

Illustrating how little was known about hawk migration in New England at the time, the initial watches were scheduled for three weekends in the fall, largely in the Connecticut River Valley and southwestern New England. The organization could not have grown significantly without the efforts of other individuals, such as Seth Kellogg, Paul Carrier, and Bill Welch. Bill organized powered glider research on the nature of migratory flight in New England and wrote a book about it. Paul Carrier designed NEHW Report covers for more than three decades, and developed an innovative two-page silhouette guide to identification of hawks. It has been estimated that over 100,000 of those guides have helped educate hawk watchers across the continent and abroad. Seth Kellogg became the NEHW Report compiler and editor in an era before computers, the Internet, and Hawk Count. He documented and analyzed the hawk migration trends in New England and went on to do the same for North America, as the HMANA editor who remade the HMANA Newsletter into a semi-annual report. In 1992 the New England Hawk Watch expanded coverage to sites in eastern New York and New Jersey and became the NorthEast Hawk Watch.

NEHW was founded, developed and is sustained by individuals with diverse talents and a growing interest in and love of hawks. They discovered and organized hawk watch coverage, identifying potentially good sites to observe migration. No one knew exactly what they were going to do when they volunteered. That was part of the excitement and growth.

Listening to a Don Hopkins talk about hawks and hawk migration in the mid 1970s changed my life in ways I never could have imagined. I got to meet hundreds of wonderful people with whom I've shared an interest in hawks, who taught me more about hawks and migration, and who became friends. I joined the board of NEHW and met more wonderful people.

NorthEast Hawk Watch is a testament to the power and ability of individuals to learn more about hawks, help others

learn more about hawks, and to help protect the birds we love. We enthusiastically welcome new members and encourage them to consider serving on our board. The board meets once a year (usually in early March) in a central location in the Connecticut Valley near the CT/MA border to discuss issues, elect directors (every two years), and officers. We organize a regional conference on hawk migration every four years. If you are interested in attending a board meeting or on serving on the board, please contact me or one of the directors listed on page 2. We'd like to hear your perspective and insights. We've added three new directors in the past several years, including Gerhard Patch from Gardiner, NY, who joined the board this year! As NEHW is about to enter its sixth decade, you can also search for new watch sites and strengthen coverage at established ones.

I would like to especially thank you, our members, for your continued support. Almost half our membership makes donations above their annual dues, which enables us to keep the price of membership below the cost of printing and mailing the substantial annual reports. Donations this year totaled $2,080 from 42 members and 13 non-members, including significant memorial contributions in memory of hawk watchers Frank Shipp and Joe Scordato.

May the Fall 2019 migration be filled with hawks for you!

Best,

Paul M. Roberts
President
Northeast Hawk Watch

You Can Help NEHW

We suggest that you consider giving a NEHW membership to hawk watching or birding friends. It is only $10 for a 36-pp annual report that provides data and analysis on over four decades of hawk watching in the northeast. Nobody in North America provides a more comprehensive report on each year's migration by site, by species, and by day for any region.

NEHW has developed a new membership brochure that you can download from our web site at www.battaly.com/nehw. We want to recruit more people, including young adults and kids, to hawk watching. They are, in fact, the future of hawk watching and raptor conservation. Consider giving a brochure to friends or members of your local bird or nature club.

Visit the NEHW web site at www.battaly.com/nehw to check out the snappy NEHW license plate holders, available for only $5 each plus postage and handling. You can also buy them directly from a NEHW director near you. The license plate holders announce to everyone who sees your car that you are a hawk watcher, and that you "COUNT", and they help others interested in hawks learn about NEHW!

Thank YOU For Your Gifts!

In 2018-19, 55 people made financial gifts to NEHW in addition to their membership dues. Your gifts are vitally important to our efforts and we thank you: Ajit Antony, George Appell, Will Aubrey, Terri Armata, Renee Baade, David Babington, Daniel Barvir, Trudy Battaly, Ronald Bell, Julie Brown, Gail Cameron, Dana Campbell, Daniel Capuano, Competitive Energy Services Llc, Myles Conway, John Cothren, Maureen Daly. Stephen & Lisa Duffek, Stanley & Moira Dynia, Eastern Mass Hawk Watch, Bill Foley, Beverly Grodzicki, John Gluth, Arthur Green, Bill Hanley, Patricia Heimgartner, Lloyd Klinger, William & Marianne Loomis, Jane Low, Lisa Lozer, Donald Manchester, Michael Marsano, David Matsushita, Thomas Mccullough, Madeleen Mckenna, Doris Metraux, Martin Moore, Kirk Moulton, Drew Panko, John Parker, Gerhard & Tracy Patsch, Marcus Rhodes, Philip Ribolow, Patricia Rossi, Patricia Scaramellino, Peter Severud, Ken & Kristen Sitek, Robert & Maryellen Stone, Fred Vanderburgh, Colleen Walsh, Steven Walter, Todd Watts, Rosemary Wheeler, Joe Wojtanowski.

Cooper's Hawk by Brian Rusnica.

NorthEast Hawk Watch

c/o Joe Wojtanowski
PO Box 142
Poquonock, CT 06064
www.battaly.com/nehw

Osprey by Brian Rusnica.