Bird Observer

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HOT BIRDS

On December 7, Andy Sanford reported a **Townsend's Warbler** at Marblehead Neck Wildlife Sanctuary. The bird could be seen at a neighboring suet feeder into January. Nicholas Simone took the photograph on the right.





On New Year's Day, Tom Wetmore spotted a **Prairie Falcon** on Plum Island. Jason Forbes took the photo on the left.

ERRATA

Due to a production error in the December 2014 print edition, the wrong photo captions were used for the Eighteenth Report of the Massachusetts Avian Records Committee. The correct captions are as follows: p. 348, European Sandwich Tern, Nauset Beach, by Keenan Yakola; p. 351, Pacific Golden Plover, Plymouth Beach, by Luke Seitz; p. 352, Common Ringed Plover, Sandy Point, by Suzanne Sullivan; p. 353, Rufous/Allen's Hummingbird, Vineyard Haven, by Lanny McDowell; p. 355, Cassin's Kingbird, Cherry Hill Reservoir, by Erik Nielsen.

The authors of the article referenced above also make the following correction to the Lewis's Woodpecker entry on page 353: "There are three records of Lewis's Woodpecker for Massachusetts, only two of which have been reviewed and accepted by MARC."

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The Snowy Owl Winter of 2013–14

Norman Smith



Snowy Owl after release. (All photographs © Raymond MacDonald)

The winter of 2013–2014 was an incredible year for seeing Snowy Owls in both eastern Canada and the eastern United States. Snowy Owls were recorded as far south as Bermuda, Florida, and Louisiana. It was by far the best winter for Snowy Owls that I have observed in Massachusetts since 1981 when I started my research on wintering Snowy Owls at Logan International Airport in Boston.

To put last winter in perspective, the greatest number of Snowy Owls I had captured and banded at Logan Airport previously in one winter was 43 in the winter of 1986–87, and the total banded in the Greater Boston area was 53 in the winter of 2011–12. During the winter of 2013–14, I banded 120 Snowy Owls at Logan Airport alone. I banded a total of 176 new owls and captured three owls that I had banded in previous years for a total of 179 Snowy Owls captured in the Greater Boston area. Most of those owls—96%—were hatch year owls in good condition. They were seen throughout the Commonwealth of Massachusetts from the first sighting in a backyard in Dorchester to the top of Mount Greylock and everywhere in between: downtown Boston, parks, refuges, beaches, cities, suburbs, and rural areas.

The magnitude of the influx of Snowy Owls into the eastern United States and Canada was partially reflected in Christmas Bird Count data (http://netapp.audubon. org/CBCObservation/Historical/ResultsBySpecies.aspx?1). For instance, the Nantucket count recorded 33 Snowy Owls in the 2013–4 tally, against a previous high of four. The Greater Boston count, which includes Logan International Airport, tallied 28, compared to the previous high of 21. Statewide, 167 Snowy Owls were counted in 19 of the 34 Massachusetts count circles, beating the current record of 46 owls in 1949–50. Of course, there were far fewer bird counters and count circles in earlier days, so the number of Snowy Owls per party hour last winter (0.0507) is a tenth of the number (0.4894) for the 1949–50 count.

I banded my first Snowy Owl in Massachusetts in 1977 in Squantum and have been fascinated with them ever since. In 1981, I started a project at Logan Airport to observe, band, and relocate Snowy Owls. I have spent countless days and nights in every imaginable weather condition each winter observing owls roosting, hunting, interacting with other Snowy Owls as well as with other raptors, collecting pellets, trapping, banding, color-marking, and relocating Snowy Owls. We have 33 years of consistent data.

In 2000, we were the first researchers to attach satellite transmitters on wintering Snowy Owls to track them, and proved for the first time that some of our wintering owls do make it back to the Arctic and return here in subsequent years. We have had 22 Snowy Owls return to Logan Airport from 2 to 16 years after they were banded. Some owls have gotten whiter with age, some darker with age, and some have not changed. We use the owls'



Snowy Owl with satellite transmitter.

weights, wing and tail lengths, and signs of molt in order to age and sex the birds. It can be difficult to correctly age and sex a perched Snowy Owl.

Satellite transmitters enable us to learn more about the owls' seasonal movements. For example, in February 2012, we put a satellite PTT (platform transmitter terminal) on a Snowy Owl from Logan Airport and released it at Plum Island. The owl spent the summer in Nunavut, Canada west of Baffin Island. On November 24, 2012, that owl returned to Logan Airport, having traveled more than 7,000 miles in 10 months.

Birds, especially flocking birds, are not welcome at airports for good reason. In 1960, starlings were sucked into the engines of Eastern Airlines flight 375, causing it to crash into Boston Harbor killing 62 people. Snowy Owls are not a high-risk species at airports because they do not fly in flocks; however, they can and have caused damage to aircraft at several airports. From 1990 through 2012, at least 73 Snowy Owls have been struck and killed across the country—more than have been documented dying

from starvation—according to information presented by Richard A. Dolbeer, Science Advisor, Airport Wildlife Hazards Program USDA APHIS Wildlife Services, at the 2014 International Airport Winter Operations Conference on July 29, 2014, at Logan Airport. For the safety of the planes and the birds, we trap and relocate as many Snowy Owls as we can each winter.



Norman Smith and his assistants Carmella and Alexa releasing an owl.

On the wintering grounds at Logan Airport, Snowy Owls generally show up in early November. The earliest arrival record is October 22. The owls usually stay until sometime in April, occasionally in May, or rarely in June. The latest Massachusetts departure record of July 7 was broken the summer of 2014 when two Snowy Owls spent the summer and fall on the airfield at Logan Airport and the Boston Harbor Islands.

Snowy Owls on the summer breeding grounds are diurnal because it never gets dark. Using night vision equipment, we have found that in winter Snowy Owls do most of their hunting at night in Massachusetts. We have collected, dissected, and analyzed more than 6,500 pellets to determine what they eat. In addition, we have watched them capture an assortment of mammals including rodents, rabbits, and cats; birds including passerines, ducks, geese, Great Blue Herons, and gulls; and other raptors such as Northern Harriers, Peregrine Falcons, American Kestrels, Short-eared Owls, Long-Eared Owls, Barn owls, Saw-whet Owls, Barred Owls, and even another Snowy Owl.

Historic speculation on Snowy Owls suggests that they move from the Arctic in search of food, become emaciated, and die without returning to the Arctic. We have captured, weighed, and examined live owls in winter and our research shows that, to

the contrary, when owls are abundant in winter they are mostly young owls in good condition. Tom McDonald, from Rochester, New York, has been banding Snowy Owls for 25 years with the same results. The owls are not emaciated and dying of starvation as many believed.

Snowy Owls breed only when adequate lemmings are available (Denver Holt, personal communication). An abundant food supply on the breeding grounds in 2013 resulted in a large number of young hatched. With the record numbers of young owls showing up in eastern Canada and the United States during the winter of 2013–2014, there had to be lemmings somewhere in the Arctic. In the summer of 2013, Northern Quebec had an incredibly abundant lemming population, resulting in good Snowy Owl production (personal communication, J.F. Therrien). Dr. Therrien, a Senior Research Biologist at Hawk Mountain Sanctuary, Kempton, Pennsylvania conducted research in Quebec and Bylot Island, Nunavut, Canada, where he observed Snowy Owl nests. Many readers will recall the iconic photographs of nests that had as many as 70 uneaten lemmings ringing the nest.

Will some of the owls that travel to Massachusetts from the breeding grounds in the Arctic fail to make it back? Many young raptors, including Snowy Owls, don't make it past their first year because it is difficult to survive to become an adult (presentation at a raptor research conference on gyrfalcon, ptarmigan, and other Arctic species in Boise, Idaho). One of the first Snowy Owls that showed up in Massachusetts in the winter of 2013–14 had a white wing tag A75; it had been banded in November 2012 by Dan Zazelenchuk in Kyle, north of Saskatoon, Canada. Unfortunately that owl was hit by a train and killed. In the winter of 2013–2014, we received 38 dead Snowy Owls that were found in Massachusetts. Several birds were emaciated, due not to lack of food in the Arctic or on their journey south, but rather due to their inability to hunt because of trauma, broken wings or legs, fungal infections, or parasites. Others were hit by trains, aircraft, or jet blast; were electrocuted, drowned, or poisoned with rodenticide.

Is something happening in the Arctic with climate change that is causing fluctuations in the Snowy Owl population? This is a question posed by the International Snowy Owl Working Group (of which I am a member) at its meeting in Russia in February 2014. Currently, lack of well-documented data hampers us from answering this and other questions. Are Snowy Owls declining in the Arctic? Can they adapt to the changes that are taking place in the Arctic? By continuing our research on Snowy Owls we may help to answer these and other questions in the future.

Norman Smith is a self-taught naturalist who has worked for the Massachusetts Audubon Society since 1974. His current position is Director of Blue Hills Trailside Museum and the Norman Smith Environmental Education Center in Milton, Massachusetts. He has studied birds of prey for over 40 years. His mission is to use the information gathered from his research to stimulate a passion in everyone he meets to help us better understand, appreciate and care for this world in which we live.

The Life and Death of the Heath Hen

Matthew Kamm



An archival photograph of a living Heath Hen from the Vineyard Gazette. Source: *Vineyard Gazette*.

The hundredth anniversary in 2014 of the death of the last Passenger Pigeon marked a banner year for the discussion of extinct species of yore and what we might learn from their sad tales. One tale in particular should resonate with Massachusetts birders: that of the Heath Hen (*Tympanuchus cupido cupido*), a bird that lived in the Bay State and nowhere else in the world for the last sixty-odd years of its existence. How did the Heath Hens live, why did they die out, and what can we learn from them?

Heath Hens are (or were) the type subspecies of pinnated grouse, better known to modern birders as the Greater Prairie-Chicken (*Tympanuchus cupido*). Like their extant western cousins, Heath Hens were robust birds with a remarkable courtship display. Males would gather in open fields to impress females by strutting, clucking, cackling, and making their unique tooting call, a sound that was amplified by the inflation of esophageal air sacs on either side of the male's neck. The Heath Hen's historic range is debated in the literature. Audubon in his *Birds of America* (1835) claimed that they were distributed as far north as Maine, on Mount Desert Island as well as around Mars Hill. Edward Howe Forbush (1912) and Alfred O. Gross (1928) disputed this claim, believing that these Maine reports originated from use of the common name "Heath Hen" to refer to Spruce Grouse (*Falcipennis canadensis*). General consensus holds that the bird bred from Massachusetts south to Virginia, with particular concentrations on Long Island and in certain areas of Pennsylvania and New Jersey.

Although Heath Hens were hunted from the earliest days of European colonization and assuredly before then by Native Americans, the birds persisted on the mainland until the nineteenth century, when hunting pressure extirpated the Heath Hen from most of its traditional haunts. Mainland Massachusetts saw the death of its last Heath Hen when the bird was shot near Northampton in the 1830s; by the 1840s, it had been extirpated from Connecticut as well. When 1870 began, no wild Heath Hens could be found anywhere in the mainland United States, nor would any be sighted there ever again.

The entire distribution of the Heath Hen was then restricted to Martha's Vineyard and Naushon Island. Henry Davis Minot was told that it was extinct on Naushon, according to his 1876 work The Land-Birds and Game-Birds of New England. Since he also conjectured that it was extinct on Martha's Vineyard at that time-it was not-this information should be taken with a grain of salt. William Brewster visited the Vineyard in 1890 and estimated that somewhere between 120 and 200 birds remained in what was, by that time, the only surviving population in the world. As if to illustrate the dangers of placing so many eggs in one basket, a fire swept across the island four years later. Nesting Heath Hens relied almost entirely on camouflage to protect themselves and their nests from danger and had an unfortunate tendency to sit tight on their nests in response to danger, a strategy that served them poorly against the threat of fire. Charles E. Hoyle, a noted sportsman and conservationist who was familiar with the Heath Hen, wrote that fall of finding "the skeletons of many birds destroyed in the fire; that where he had started a hundred birds the previous fall, he failed to start five." (Forbush 1912) Three years later, in the fall of 1897, Mr. Hoyle and his hunting dogs could not find a single bird.

In an attempt to bolster the failing population and to continue providing sport for the avid hunters of the day, Greater Prairie-Chickens from farther west were released on Cape Cod and the Islands. They "undoubtedly bred" in 1898, according to Hoyle (National Rifle Association of America 1901). Regrettably, the plight of the Heath Hen and the first hints of its incipient extinction triggered a surge of egg collecting and hunting for skins. A bootlegged skin could net a poacher \$30, or even as much as \$100 in the later years of the bird's decline. Of course, there were statutes in place to discourage such behavior, including a fine of \$20 if a poacher were caught. The economics of such a system had obvious implications for the beleaguered Heath Hens, and many concerned citizens began agitating for more stringent protection at the dawn of the twentieth century. In response, the Commonwealth of Massachusetts closed the hunting season on the bird entirely for five years and raised the fine for infractions to \$100. After another fire, a 1907 estimate for the state Commissioner of Fish & Game estimated the remaining number of Heath Hens to be fewer than 80; only 21 birds were counted on the survey (Gross 1928).

Also in 1907, John E. Howland of Vineyard Haven and others succeeded in convincing the Commonwealth of Massachusetts to create a Heath Hen reservation on Martha's Vineyard consisting of 1600 acres of land under special protection. It proved to be a favorable year for breeding, and the Heath Hens increased to almost 100; Dr. George W. Field counted 77 individuals (Gross 1928). For a time, all proceeded



Heath Hen Reservation: A map of Martha's Vineyard with the Heath Hen Reservation in the center, circled. Attribution: Gross 1928

amazingly well. By 1910, the newly created reservation was home to an estimated 300 birds. Forbush visited the island in 1916 and personally noted approximately 800 Heath Hens, estimating that the whole island's population must have been nearly 2000 birds—a spectacular increase from their near-extinction levels less than two decades earlier.

Hopes for saving the Heath Hen were at an all-time high when disaster struck once again. A fire broke out on the breeding grounds during a May gale in 1916. The winds drove the fire into a conflagration that swept all across the interior of Martha's Vineyard, killing large numbers of birds and depriving the survivors of food and cover. The latter issue would prove particularly critical as the following winter saw an irruption of Northern Goshawks (*Accipiter gentilis*), which preyed heavily on the surviving birds. The next year, Forbush visited the Vineyard again to aid the reservation managers in assessing the damage. He estimated that fewer than 100 birds still lived (Forbush 1927).

What could the beleaguered reservation managers and the state do to save the bird now? The specter of extinction loomed larger than ever before, and desperate times called for desperate measures. Transplants of Martha's Vineyard birds were attempted to ancestral breeding grounds on Long Island; none of these survived to reproduce. Birds were taken into captivity to attempt captive breeding, which also failed.



Heath Hen Population Trends: A graph created by Alfred O. Gross for his 1928 monograph on the Heath Hen, showing the population trend over the last four decades of the bird's existence. Attribution: Gross 1928.

Dissections after the fact revealed that the males' testes had not developed for the breeding season, possibly due to a lack of the green sorrel and clover that made up their typical spring diet, or possibly due to being restricted in cages and unable to perform their normal lekking activity (Gross 1928). All of the birds taken from the wild for transplants and captive breeding decreased the wild breeding population still further. After reaching a peak of over 400 birds in 1920, the population began its final decline to extinction. A series of cold, wet breeding seasons limited productivity and resulted in high chick mortality (Forbush 1927).

By 1928, no broods had been seen on the island for several years, and only a single living Heath Hen was known to exist. Nicknamed "Booming Ben," he became something of a media celebrity as the last of his kind, much like "Lonesome George" the Pinta Island Tortoise was until his death in 2012. Booming Ben would appear at the lekking site year after year, alone, tooting and stamping for females that would never arrive. For four years he tried in vain to attract a mate, and in March of 1932, he disappeared into the scrub of Martha's Vineyard and was never seen again. So ended *Tympanuchus cupido cupido*, despite tens of thousands of dollars (before adjusting for inflation) and countless hours spent on its protection.

What went wrong? Some of the causes for the death of the Heath Hen are obvious. The species was hunted indiscriminately for almost all of its existence. Laws were enacted for its protection as early as the 1790s, but enforcement was difficult and penalties were so minor that they were largely ignored. Forbush pointed out that, although the Heath Hen was legally protected from hunting by closed seasons in

Massachusetts, "these acts permitted any town to suspend the law within its own limits by a vote of any regularly called town meeting. Some towns took advantage of this, *thus nullifying the law in the only towns where the birds still existed*" (Forbush 1912). Even on the Vineyard, authorities found enforcement almost impossible; the difference between a would-be Heath Hen poacher and a law-abiding duck hunter on his way to the shoreline was only one of intention. Even a poacher caught red-handed with a Heath Hen in his bag could be penalized only, not retroactively prevented from killing the bird.



Heath Hen Display: A Heath Hen performing its courtship display, with neck feathers (*pinnae*) erect and air sacs inflated. Source: <http://www.lostbirdfilm.org/explore_ heathhen>

In my opinion, the reduction of the Heath Hen's range to a single island doomed the species more effectively than a legion of hunters. It is not my intention to minimize the incredible efforts of those who worked to save the Heath Hen, nor to malign the conservation ethic of the people of Martha's Vineyard who rallied with remarkable amounts of monetary and volunteer support when they learned of the Heath Hen's plight. The fact remains, however, that an isolated population will always be vulnerable to what ecologists refer to as stochastic events-simply put, the vagaries of random chance. A bad fire year followed by an upswing of predators killed thousands of birds. A few years of bad weather prevented effective recovery.

With no other populations as a source for immigration to buffer these birds against misfortune, it was only a matter of time before extinction claimed them.

The specific mechanisms behind the Heath Hen's demise are largely theoretical, but no less interesting to consider, especially given the current status of another Greater Prairie-Chicken subspecies, the Attwater's Prairie-Chicken (Tympanuchus cupido attwateri) of coastal Texas and Louisiana. Midsized mammalian predators took their toll on Heath Hens. Cats were often found on the reservation, and the reservation's caretakers devoted quite a lot of time to the hunting of cats, rats, hawks, and other natural enemies of the Heath Hen (Gross 1928). Less obvious, but no less deadly, were the threats of disease and skewed sex ratios. Poultry blackhead disease, a nasty and often fatal malady carried by a protozoan transmitted by a nematode worm, is infamous for its ability to spread among free-living poultry flocks. The manager of the Heath Hen reservation kept geese on the land and allowed them to forage across the same fields as the Heath Hens. Blackhead disease was confirmed in a male Heath Hen in 1923; the last time that any broods of young birds were seen on the island was two years later in 1925 (Gross 1928). Considering that young birds are often the most susceptible to blackhead disease, this could have been a major contributing factor to the bird's final decline.

Compared to a killer protozoan, a skewed sex ratio might not seem like cause for alarm, but the Heath Hen's mating system rendered it susceptible to disaster in this regard. On the lekking grounds, a successful male might mate with several females, but each female would mate with only one male (as far as we know). Even if many male birds are killed, a small number of males can mate with a large number of females, thus ensuring the future of the species. Unfortunately, the reverse is not true. If females die disproportionately often, having lots of males does not make things better. Alfred Gross, writing in his 1928 monograph on the species, theorized that the females' habit of sitting tight against danger meant that they died in larger numbers than the males did when fires swept the reservation.

Further, Gross mentions an unsettling behavior common in other gallinaceous birds when there are an excess of males in the population: males will find nesting females and harass them by attempting to mate with them and destroy their nests in order to father the next brood. Females can be injured or even killed if large numbers of thwarted males roam the landscape looking for these illicit opportunities, to say nothing of the damage to eggs and young. No less a conservationist and sportsman than Aldo Leopold wrote in *Game Management* (1986) that, "A heavy excess of males is definitely known to have been associated with the decline of the Heath Hen and possibly represents the final cause of the decline."

In the end, a combination of factors led to the Heath Hen's demise, but foremost was the dramatic reduction of its range to a single island. Today, many birds of shrubland and open habitats are facing similar challenges; their ranges of suitable habitat are shrinking, which forces them out of their ancestral strongholds. If we are wise, we will learn from the example of the Heath Hen, and protect these birds and their habitats before they become so rare and restricted that not even a herculean effort can do more than delay the inevitable.

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Matthew Kamm is a graduate student pursuing his Ph.D. at Tufts University in the lab of Dr. Michael Reed. His research interests include the decline of the American Kestrel as well as general risk factors surrounding extinction in birds. He was a lead writer for Mass Audubon's Breeding Bird Atlas 2 and State of the Birds publications, and loves to get outside and go birding whenever his graduate student schedule allows.

How Much is a Bobolink Worth?

Allan M. Strong



Male Bobolink from a field enrolled in the project in 2014 (All photographs by Allan M. Strong)

As humans have altered land use patterns in New England, some species of birds are winners and other are losers. When you look at these changes over long time periods, some groups of species, such as grassland birds, have had it both ways. When Europeans colonized the Northeast, they transformed a landscape that was nearly 100% forested to one that by 1800 was 70% pasture and cultivated land. At the end of the Civil War, that trend started to reverse; now, roughly 67% of the Northeast is forested. As a result of these land use changes, we've seen the populations of grassland birds go from local rarities to common, widespread species, and then back to local rarities (see Table 1 on page following).

Although it is easy to correlate changes in the populations of grassland birds to changes in land use patterns, the issue is not quite that simple. The distinction between farmland and forest is straightforward, but the quality of farmland for grassland birds can vary dramatically depending on the crop and management practices. For the species of grassland birds that nest in the Northeast, most avoid row crops. Corn and soybeans in particular provide low quality habitat for these species. By contrast, forage crops, either grasses or legume-grass mixtures, can provide high quality habitat for grassland birds. Although there is some variation in habitat quality with respect to the particular species that are planted, for the most part it is the management practices, namely the frequency and timing of cutting and grazing, that have had the greatest effect on the reproductive success of grassland birds.

In 2002, my colleagues Noah Perlut, Therese Donovan, Neil Buckley, and I started a project to look at the effects of agricultural management on the reproductive ecology of grassland birds in the Champlain Valley of Vermont and New York. The project

	State				
Species	MA	NH	ME	VT	NY
Northern Harrier	Т	E	SC	SC	Т
Upland Sandpiper	E	E	Т	Е	Т
Short-eared Owl	E		Т		Е
American Kestrel		SC		SC	
Loggerhead Shrike			SC	Е	Е
Horned Lark		SC	SC		SC
Sedge Wren	E	Е	Е	Е	Т
Vesper Sparrow	Т	SC		SC	SC
Grasshopper Sparrow	Т	Т	Е	Т	SC
Henslow's Sparrow	Е			Е	Т
Bobolink				SC	
Eastern Meadowlark		SC	SC	SC	

Table 1. Status of grassland birds in the northeastern United States. E = Endangered, T = Threatened, and SC = Special Concern.

was funded by the US Department of Agriculture's Managed Ecosystems program. Although we were interested in developing management practices that would increase the probability of successful nesting, we also wanted to develop these practices within the context of maintaining a viable agriculture industry in the Champlain Valley. We were keenly aware that the reason why grassland birds continue to live in this area is because of the agricultural industry, primarily dairy-dominated, in this part of the Northeast. We wanted to develop management practices that would enable farmers to be successful economically while still providing high quality habitat for grassland birds.

Because many species of grassland birds are so rare locally, we focused our field research on the two most common species in the region: Savannah Sparrows and Bobolinks. Based on previous research conducted via point counts, we found that these species made up approximately 93% of all grassland birds in our study area. Although we would love to know more about the ecology of other species, they are too rare to allow for collection of sufficient data.

Our approach to field research is relatively simple. We use mist nets to catch as many of the breeding adults as we can early in the breeding season. We mark them with a unique combination of colored leg bands so that we can identify them without having to recapture them. We follow these birds around our study sites and find as many nests as we can, with the goal of finding all nests of both species. When we find nests, we monitor them until the young fledge or the nest fails.

When we started our research, we worked in fields that were managed in four different ways, or treatments. Three treatments were simply variation in the timing of cutting. In the first treatment, fields were cut around Memorial Day weekend and

then cut two or three times over the course of the growing season at roughly fiveweek intervals. This is essentially the pattern that most dairy farmers in the Champlain Valley follow, maximizing the protein content of the forage, which leads to greater milk production. The second treatment was a cut between the third week of June and the tenth of July. This cutting pattern is used by farmers who don't need a high protein content in their forage, such as forage for beef cows, dry cows, and heifers. The last cutting treatment was one in which all cutting was delayed until the first of August. Rarely used by farmers, this treatment is common on land owned by hobby farmers who like to keep their land open, but may not necessarily have a need for their forage. Finally, we also set up plots in rotationally grazed pastures.

The results from this work were relatively clear. We found a nicely defined gradient of habitat quality, with Bobolinks fledging basically zero young/female in early cut fields, 1.5 young/female in fields that were rotationally grazed, 2.2 young/ female in fields cut in late June/July, and 2.8 young/female in fields cut in August. The pattern was similar for Savannah Sparrows. Neither species was immune to cutting. Essentially 100% of nests fail following hay harvest—either from nest destruction during the act of cutting or baling, or through depredation of exposed nests in the 1–2 days following the cut. If you are managing for grassland birds, the best management option is obvious. However, cutting fields in August produces low quality forage, which radically decreases milk production. Thus, for a dairy farmer, managing for grassland birds isn't an economically viable alternative.

With every field project, there are always some surprises, and sometimes these surprises can yield the most interesting results. Although individual Savannah Sparrows and Bobolinks responded similarly to management practices with respect to reproductive output, the populations responded quite differently to cutting. After cutting, Savannah Sparrows stayed on the field and often renested within just a few meters of their original nest site, sometimes within 48 hours of a cut. By contrast, Bobolinks left the field and renested elsewhere. The Bobolinks that came back to a field to nest were different individuals than those that had attempted to nest in that field before the cut. This led to our development of an alternative management practice that had the potential to increase the reproductive success of grassland birds as well as provide economic benefits for landowners.

We partnered with the Vermont state office of the Natural Resources Conservation Service (NRCS) to create an incentive program, within a Farm Bill program called the Environmental Quality Incentives Program. This new program offered payments for farmers to delay their second cut for roughly 30 days (65 days after the first cut) to provide a sufficiently long window for birds to nest successfully. The program paid landowners \$135/acre for a minimum of 20 acres, parcels that were approximately square in shape and were limited in the amount of reed canary grass on the site, which generally provides low quality nesting cover. The first cut, and all subsequent management activities, had to be completed by May 31, which we had found significantly increased the probability that Bobolinks would colonize the field to nest.



Nest from a field enrolled in the project in 2014. Five eggs is generally a full clutch.

We tested the program for three years and found that there was no difference in reproductive output for Bobolinks on fields in the delayed second cut program relative to fields cut for the first time in August. Because Bobolinks only rarely have a second brood, the primary cost was loss of their first nest. We were really excited about the program and within three years had enrolled nearly 1000 acres in Vermont.

Unfortunately, NRCS made a decision to evaluate the payment for the practice on a regional pricing scheme, and this analysis led to a decrease in the payment to landowners to less than \$90/acre. As soon as the change in the payment was made, no additional landowners signed up for the program. This change led us to once again reevaluate our options for involving landowners in bird-friendly management practices. This time, we took a page from the books of ecological economics, where research has shown that the ecosystem services, i.e., goods and services provided by natural processes such as carbon storage, water filtration, pollination, and nutrient cycling are often provided at a significantly reduced cost relative to their man-made counterparts, e.g., tree planting, water treatment plants, apiculture, and landfills. We asked the question, would the public be willing to pay landowners directly for providing Bobolink habitat, even though it is still relatively easy to drive down a country road and see Bobolinks giving their emphatic, bubbling, flight song over a hayfield?

I teamed up with Stephen Swallow at the University of Connecticut and Lisa Chase at University of Vermont Extension on a grant from the US Department of Agriculture's National Initiative for Food and Agriculture to set up The Bobolink Project in Vermont. The idea was simple. Landowners with suitable habitat submitted a bid for the lowest price that they would be willing to take to incorporate bird-friendly management on their property. We gave landowners the option of a delayed second cut or to wait until August 1 to cut their fields.

While collecting bids from landowners, we started a marketing campaign that asked people to pledge support to landowners. We asked the people who value grassland birds and their habitat to pay landowners directly to help them incorporate these declining species into their management activities. Although there are options for financial support for landowners from the federal government, we learned that these programs are inconsistent and may not provide long-term support to farmers. We were interested specifically whether people would be willing to give more money if their dollars could support greater acreages of bird-friendly management. Although this is a slightly different tactic than going to a website and pledging \$50 for a worthy cause, we hoped that our ability to collect more money would lead directly to more Bobolinks fledged. Once the campaign closed in mid-April, we evaluated the money that we raised in relation to the bids collected from landowners. We used a reverse auction and ranked the bids from low to high, accepting sequentially higher bids until we could no longer pay landowners their asking price. This payment method provides an efficient allocation of the money we raise so that we are paying landowners exactly what they require to implement bird-friendly management practices.

In 2013, The Bobolink Project raised about \$32,000, which led to payments to seven landowners for bird-friendly management on 200 acres. The math works out to \$160/acre, which was significantly more than NRCS was paying two years earlier for the delayed second-cut program. In 2014, we raised about the same amout, but because word had spread about the project, we had much greater farmer interest, and the price came down to under \$100/acre. We were able to support bird-friendly management on 340 acres. We had bids from farmers to include over 1500 additional acres in the project, which gives an indication of the growing interest



Nest from a field that was enrolled in the project in 2014. The young are about 5 days old

in Bobolink conservation as well as the "payment for ecosystem services" model. We made conservative counts of all the nesting birds on the fields by walking transects through the entire 340 acres; we counted 157 males and 128 females. Bobolinks are notoriously difficult to census in this manner, but given our research on nesting success, we feel confident that we raised more than 200 Bobolinks in 2014.

The question is, where do we go from here? The Bobolink Project has been successful in large part because it is supported by a grant. As a result, every dollar that is donated is tax deductible and goes directly to landowners, meaning no overhead for the project. However, without grant funding, this approach is probably not sustainable in the long term without someone who is head-over-heels in love with Bobolinks. Federal incentive programs are also supported by tax dollars, but they can also be unreliable and are perhaps unsustainable.

For 2015, we've got just enough money left in the grant to run the project for one more season. In the meantime, the NRCS has gone back to a statewide formula to provide payments for delayed second cuts, now at \$137/acre. This is great news for us, because we are seeing a dichotomy in bid prices offered by different types of landowners. Dairy farmers, who need high quality forage for their livelihood can only reduce their price per acre so low, regardless of how enamored they are of Bobolinks. By contrast, landowners who don't need their hay for their livestock, or perhaps for just a few horses, have the ability to drastically reduce their bids to remain competitive. Thus, the higher price offered by NRCS for delayed second cuts may provide a way to level the playing field. Dairy farmers that have the ability to get onto their fields early and harvest their first cut in late May can enroll in the NRCS program. Landowners who don't need the early first cut can submit a bid to The Bobolink Project and, if successful, cut their hay at the end of the breeding season.

One of the lessons learned through our work with hundreds of landowners is that everyone has a different relationship with the land. Those of us who are interested in bird conservation probably fantasize about having a couple hundred acres that we could manage for rare and endangered species. But we often forget about the tax burden, the time commitment, and the need to plan for the future of the land after our passing. These issues create real pressures, whether they are philosophical, psychological, or economic. Consequently, having a broad menu of conservation options available to landowners provides the best chance of success.

Grassland birds are a suite of species that are more reliant on private land than many of their forest dwelling relatives. As such, their conservation depends on working with private landowners, often one parcel at a time. By giving these folks a variety of opportunities to improve the quality of their habitat, we increase the likelihood that we'll continue to support our declining grassland birds in the Northeast. For more information about The Bobolink Project, see <<u>http://www.bobolinkproject.com</u>>

Allan Strong is an Associate Professor and the Associate Dean in the Rubenstein School of Environment and Natural Resources at the University of Vermont. His research focuses on the factors that affect habitat quality for birds. He has investigated post-fledging dispersal of White-crowned Pigeons in Florida, the mating system of Bicknell's Thrush in Vermont's Green Mountains, and the wintering ecology of Ovenbirds and Swainson's Warblers in Jamaica. Since 2002, much of his research has focused on the conservation and ecology of grassland birds in the Champlain Valley.

Fourth Report of the Maine Bird Records Committee

Trevor B. Persons, Louis R. Bevier, William J. Sheehan, Peter D. Vickery, and Christopher A. Bartlett



New England's first Yellow-billed Loon was found by Luke Seitz offshore of Portland, Cumberland County, Maine, October 26, 2010, and was relocated on October 29. Photo by Luke Seitz (October 26, 2010).

The fourth report of the Maine Bird Records Committee (hereafter ME-BRC, or the committee) details the evaluation of 95 records of 58 species and includes all decisions made by the committee between January 2009 and December 2013. The ME-BRC accepted records of 14 species new to the state list during this period: Black-bellied Whistling-Duck, Pink-footed Goose, Yellow-billed Loon, Black-browed Albatross, White-chinned Petrel, Brown Booby, Little Egret, Thayer's Gull, Slaty-backed Gull, Eurasian Collared-Dove, Gray Kingbird, Mountain Bluebird, MacGillivray's Warbler, and Bronzed Cowbird. These additions bring Maine's official bird list to 445 species. The official list of Maine birds, as well as the list of review species, can be found on the committee's website: http://sites.google.com/site/ mainebirdrecordscommittee/>

The ME-BRC has nine voting members and a nonvoting secretary. Seven affirmative votes are needed to accept a record. Current committee members include Louis Bevier (chair, 2013-2014), Lysle Brinker, Robby Lambert, Pat Moynahan, Trevor Persons (chair), Jan Pierson, Will Russell, Luke Seitz, and Bill Sheehan. Sheehan served as secretary in 2009, was replaced by Chris Bartlett in 2010, was re-elected to the position in 2012, and passed the torch to Doug Hitchcox in 2013. Past committee members that voted on records presented here include Denny Abbott, Jody Despres, Davis Finch, Scott Hall, Eric Hynes, Kristen Lindquist, Don Mairs, Jonathan Mays (chair, 2011–2012), Michael Smith, Peter Vickery (chair, 2005–2011), and Jeff Wells.

An asterisk (*) denotes that a written description was provided, and a dagger (†) denotes that a photograph was provided. In the localities, county names are italicized. All accepted records were unanimously accepted on the first round of voting unless otherwise indicated.

RECORDS ACCEPTED

Black-bellied Whistling Duck (Dendrocygna autumnalis)

#2010–006: July 24, 2010, Sanford, York, Pat Moynahan*, Marian Zimmerman, Lysle Brinker*†. Maine's first report was of five birds found at the Sanford wastewater treatment facility. Other reports from the Northeast in 2010 included a group of five in Pennsylvania on May 30 and in New York the following day, raising the possibility that the same quintet visited Maine. **#2012–016**: July 19, 2012, Meadow Brook, Boothbay Harbor, *Lincoln*, Sarah Faulkner*. First round (8–1). Lone bird described from a small wetland.

Until the 1970s the Black-bellied Whistling Duck's breeding range north of Mexico was restricted to extreme southern Texas and southeastern Arizona. It is now established north to South Carolina (Blankenship et al. 2013). The first records for Massachusetts came in 2008 and 2011; three separate sightings occurred in eastern Massachusetts during July and August 2012 (Kellogg et al. 2012), the same year as the Boothbay Harbor bird.



Maine's first Pink-footed Goose at Thornhust Farm, North Yarmouth, Cumberland County, September 29 to October 1, 2009 was followed two weeks later by three longstaying birds at the same locality. Photo by Trevor Persons (1 October 2009).

Pink-footed Goose (Anser brachyrhynchus)

#2009-018: September 29-October 1, 2009, Thornhurst Farm, North Yarmouth, Cumberland, Trevor Persons*, Derek Lovitch[†], Ed Hess[†], Peter Vickery[†], m. ob. Maine's first Pinkfooted Goose was found and identified by Lovitch on October 1: Persons described a goose briefly observed two days prior that was undoubtedly the same bird. #2009-019: October 14-December 6, 2009, Thornhurst Farm, North Yarmouth, Cumberland, Rob Speirs, Derek Lovitch[†], Lloyd Alexander[†], m. ob. Speirs found a group of three Pink-footed Geese in the same area as the previous record. Unlike the first bird, these

remained for several weeks. They also foraged in fields in Falmouth and Cumberland. **#2013–006**: May 25, 2013, Great Salt Bay, Damariscotta, *Lincoln*, Mike Fahay[†]. This is the latest spring date for New England.

Ross's Goose (Chen rossii)

#2002–001: April 3–9, 2002, Clinton, *Kennebec*, Wally Sumner*, Louis Bevier*†, Don Mairs*, Steve Mirick†, m. ob. Maine's first Ross's Goose, found by Sumner, spent a week foraging in dairy farm fields in the company of as many as 750+ Snow Geese. **#2009–004**: March 15–20, 2009, West Street, Biddeford, *York*, Pat Moynahan, Marian Zimmerman, Derek Lovitch†, m. ob. This and the following were part of a region-wide incursion in Spring 2009 (Perkins 2009). **#2009–005**: March 25–31, 2009, Scarborough Marsh, Scarborough, *Cumberland*, Lloyd Alexander†, Brian Guzetti. **#2010–016**:



This Ross's Goose was seen in the company of Canada Geese on the Penobscot River at Winterport, Waldo County, Maine, November 21-24, 2010. Photo by Jonathan Mays, November 24, 2010.

November 21–24, 2010, Penobscot River, Winterport, *Waldo*, John Wyatt, Jonathan Mays*†, Paul Corcoran†, m. ob. Discovered by Wyatt on November 21 and relocated by Mays on November 24.

Barnacle Goose (Branta leucopsis)

#2008–013: October 6–December 9, 2008, Thornhurst Farm, North Yarmouth, *Cumberland*, Ed Slattery, Don Mairs, Derek Lovitch[†], m. ob. Five or six previous reports of Barnacle Goose exist for Maine, but this is the second reviewed by the committee. Its presence with as many as 2000 Canada Geese and the simultaneous appearance of a Greenland Greater White-fronted Goose (subspecies *flavirostris*) within the flock supported natural vagrancy. **#2011–009**: October 8–25, 2011, Caribou and Limestone, *Aroostook*, Bill Sheehan^{*†}, Paul Cyr[†], m. ob. Sheehan found Maine's third accepted Barnacle Goose at Collins Pond in Caribou. This bird also visited multiple locations in nearby Limestone.

Cackling Goose (Branta hutchinsii)

#2009–017: October 25–26, 2009, Collins Pond, Caribou, *Aroostook*, Bill Sheehan*†. Because multiple Cackling Geese are found annually, including at least seven together at Collins Pond in 2011, the committee removed the species from the review list in 2012.

Tufted Duck (Aythya fuligula)

#2009–003: January 3–March 14, 2009, Presumpscot River, Westbrook, *Cumberland*, Frank Paul, Luke Seitz[†], Ed Hess[†], m. ob. About the fifth record for Maine, but the first reviewed, this young male overwintered with four Ring-necked Ducks. **#2009–021**: November 12–30, 2009, Sabattus Pond, Sabattus, *Androscoggin*, Mike Fahay^{*}[†], m. ob. Immature male relocated sporadically.

Yellow-billed Loon (Gavia adamsii)

#2010–013: October 26 and 29, 2010, offshore Portland, *Cumberland*, Luke Seitz*†, Derek Lovitch*, m. ob. This record is a first for Maine and New England. Seitz found this adult loon still in breeding plumage during a whalewatching tour on October 26. Others refound the bird less than two miles from its original location on October 29. (See photograph on page 21).

Eared Grebe (Podiceps nigricollis)

#2001–003: May 14, 2001, Waltham, *Hancock*, Kevin Emerson*. First round (8–1). An adult in breeding plumage was found in a small brook on the east side of Graham Lake. **#2005–007**: April 9 and 13, 2005, Roque Bluffs, *Washington*, Judy Kellogg Markowsky*, Frank Marenghi*. Independent reports of an Eared Grebe in breeding plumage in Englishman Bay almost certainly were of the same bird. **#2009–012**: May 26–September 15, 2009, Sanford, *York*, Derek and Jeannette Lovitch[†], Andrew Aldrich, Doug Hitchcox[†], Phillip Augusta[†], m. ob. The second Eared Grebe to be photo-documented and accepted by the committee, this adult in breeding plumage was found at the Sanford wastewater treatment facility. Presumably the same bird summered here again in 2010. Maine's first photo-documented Eared Grebe was here in 2006; if the same individual, it skipped the intervening summers. **#2012–003**: September 16–October 7, 2012, Simpson's Point, Brunswick, *Cumberland*, Louis Bevier*, Gordon Smith*, m. ob. Sketches and notes convincingly described this bird in winter plumage.

Black-browed Albatross (Thalassarche melanophris)

#1978–001: May 28, 1978, Lumbo Ledge, 3 miles ESE Bailey Island, *Sagadahoc*, William Utley*, William deBray. First round (7–2). After acceptance of Maine's first record in 2009, this report (Vickery 1978) was circulated to the committee. Most thought that the description, a recollection provided by two fishermen who observed the bird soaring among shearwaters and gulls, likely pertained to an adult Blackbrowed Albatross, given its described size and all-yellow bill. **#2009–011**: July 15,



Completely unexpected was this Whitechinned Petrel seen during a whalewatching tour offshore of Bar Harbor, Hancock County, Maine, August 24, 2010. Photo by Jess McCordic.

2009, off Vinalhaven, *Knox*, John Drury†, Anthony Hill†. Drury found this bird 3–4 miles north of Seal Island. The combination of duller, dark-tipped bill and dark eye suggests a subadult of the Atlantic nominate subspecies (*T. m. melanophris*) and one of only about a half-dozen documented records from the western North Atlantic (Howell 2012).

White-chinned Petrel (*Procellaria aequinoctialis*)

#2010–007: August 24, 2010, offshore Bar Harbor, *Hancock*, Laura

Kennedy, Zack Klyver, Jess McCordic[†]. Photographed during a whalewatching trip, Maine's first White-chinned Petrel is one of only a few records in the western North Atlantic for this subantarctic breeder (Howell 2012).

Brown Booby (Sula leucogaster)

#2011–007: August 12, 2011, offshore Portland, *Cumberland*, Josh Delcourt*, Janine Friel†, Kevin McDonagh†. Maine's first Brown Booby, an adult, was found during a commercial whalewatching tour about 12 miles east of Portland near a ledge known as "The Football." Records of this tropical species into New England and as far as the Canadian Maritimes have increased markedly in recent years.

American White Pelican (Pelecanus erythrorhynchos)

#2009–022: December 4, 2009, Spruce Head, Thomaston, *Knox*, Glenn Wiley†. After the flock of at least seven birds found by Wiley departed midday, lobstermen reported two pelicans farther south near Chebeague Island that may have been part of the same flock. These were almost certainly the same as eight birds seen December 5 in East Providence, Rhode Island and seven birds seen December 6 at Hammonasset Beach, Connecticut (Hunt 2010). **#2011–002**: January 3, 2011, Chebeague Island, *Cumberland*, Beverly Johnson†. Two adults were photographed near the Chebeague Island boatyard. **#2012–002**: October 14, 2012, Maquoit Bay, Brunswick, *Cumberland*, Gordon Smith*, John Berry, Peter Vickery†, m. ob. An adult remained until noon. **#2012–007**: November 3–5, 2012, Newport, *Penobscot*, Linda Powell†, Bruce Cole†, Doug Hitchcox†, m. ob. Powell found this adult on Sebasticook Lake. **#2012–008**: May 20, 2012, Farmingdale, *Kennebec*, James Todd†. Photographed from Todd's home, two adult birds rested on the Kennebec River for about half an hour before flying downriver. Due to the recent increase in records, including multiple reports from 2013, the committee removed the species from the review list in 2014.

Little Egret (Egretta garzetta)

#2011–005: June 29–30, 2011, Scarborough Marsh, Scarborough, *Cumberland*, Doug Hitchcox*†, m. ob. This was Maine's first Little Egret. Perhaps the same bird was at Plum Island, Massachusetts on July 10 (Petersen 2012). **#2012–013**: July 8–August 18, 2012, Scarborough Marsh, Scarborough, *Cumberland*, Doug Hitchcox†. First round (8–1).

White-faced Ibis (Plegadis chihi)

#2009–007: April 26, 2009, Scarborough Marsh, Scarborough, *Cumberland*, Luke

Seitz, Derek Lovitch[†]. **#2009–008**: June 10–11, 2009, Biddeford, *York*, Chuck Homler[†], Lloyd Alexander[†]. Since 2008 one to three White-faced Ibises have frequented the Scarborough Marsh area.



Maine's first Little Egret was present at Scarborough Marsh, Scarborough, Cumberland County, June 29-30, 2011. Photo by Doug Hitchcox (June 29, 2011).



This Mew Gull was found in a flooded field at Portland, Cumberland County, Maine, December 10, 2008. Although its subspecific identity was not determined, it appears to be of Eurasian origin, most likely nominate *Larus c. canus*. Photo by Eric Hynes.

Swallow-tailed Kite (Elanoides forficatus)

#2009–006: April 28–29, 2009, Pownal, *Cumberland*, Tom Downing, Derek Lovitch*, Jeannette Lovitch*, Danny Akers, m. ob. Seen at Bradbury Mountain hawkwatch, this was a relatively early date and the second consecutive year one was seen here. **#2013–013**: June 1, 2013, Milo, *Piscataquis*, Chris Feairheller*.

Mississippi Kite (Ictinia mississippiensis)

#2008–011: October 17, 2008, Harpswell, *Cumberland*, Paul Donahue*, George Appel. First round (7–2). An immature passed the Basin Point hawkwatch. **#2009–010**: May 31, 2009, Cumberland, *Cumberland*, Will Russell*. First round (7–2). Brief observation of two birds flying ahead of a thunderstorm. **#2012–017**:

May 19, 2012, Capisic Pond Park, Portland, *Cumberland*, Rob Speirs*†, Lysle Brinker. Speirs took a diagnostic photograph of this immature kite.

Swainson's Hawk (Buteo swainsoni)

#2009–025: May 3, 2009, Pownal, *Cumberland*, Danny Akers*. First round (8–1). A light–morph bird observed from the Bradbury Mountain hawkwatch. **#2013–008**: September 23, 2013, Harpswell, *Cumberland*, Paul Donahue†. A juvenile light-morph Swainson's Hawk was photographed from the Basin Point hawkwatch in South Harpswell.

Yellow Rail (Coturnicops noveboracensis)

#2008–016: September 17, 2008, Scarborough Marsh, Scarborough, *Cumberland*, Robby Lambert, Lysle Brinker*. When they repeatedly flushed it at close range, observers noted distinctive features, including the prominent white secondary patch. Probably a regular migrant, and possibly a casual breeder (Gibbs et al. 1991), Yellow Rail is rarely observed or documented in Maine.

Northern Lapwing (Vanellus vanellus)

#2012–004: November 3, 2012, Berwick, *York*, Andrew Aldrich*, Ken Janes†. Maine's second Northern Lapwing. **#2013–002**: May 3–6, 2013, Poland, *Androscoggin*, Iain Stenhouse, Doug Hitchcox†, Rob Speirs†, Louis Bevier*†, m. ob. These were part of an incursion of lapwings into eastern North America over the winter of 2012–2013. Prior to these, Maine's only previous record is a December 1927 specimen from Square Lake, *Aroostook*, that also coincided with a major incursion into the Northeast (Palmer 1949).

Wilson's Plover (Charadrius wilsonia)

#2010–003: May 18–21, 2010, Georgetown, *Sagadahoc*, Ben Simpson, Mike Fahay*†, Luke Seitz†, m. ob. Found by seasonal Piping Plover biologist Simpson at Reid State Park. Photos show worn wing coverts and little to no black on the collar and head band, suggesting a one-year-old bird of unknown sex.

Long-tailed Jaeger (Stercorarius longicaudus)

#2008–014: September 14, 2008, offshore *Washington*, Luke Seitz[†], Jonathan Mays[†], Bill Sheehan^{*}, m. ob. A crisp juvenile was seen on a Maine Audubon pelagic birding trip.

Mew Gull (Larus canus)

#2008–015: December 10, 2008, Portland, *Cumberland*, Eric Hynes[†]. Maine's first photo-documented record was a bird from one of the Eurasian populations; no consensus on its subspecific (or potentially specific) identity was reached. Size and structure seemed to eliminate western North American *brachyrhynchus*, but beyond that a definitive assessment (e.g., possible *kamtschatschensis* as suggested by some or larger nominate *canus* or *canus* to *heinei* intergrade) will likely remain elusive, especially in the absence of spread-wing photographs. (See photograph on page 26).

Thayer's Gull (Larus thayeri)

#1992–001: January 30, 1992, Mill Cove, South Portland, *Cumberland*, Lysle Brinker*†. The review of the Augusta Thayer's Gull prompted the committee to formally review this report (Brinker 1992), which now becomes Maine's earliest accepted record. Photographs showed a darker, more typical first-cycle Thayer's Gull than the Augusta bird. **#2010–001**: January 21–28, 2010, Augusta, *Kennebec*, Derek Lovitch†, Jonathan Mays†, m. ob. This first-cycle gull found by Lovitch at Hatch

Hill landfill generated considerable discussion. Although on the pale end of the Thayer's Gull spectrum, the committee concluded that the bird fell outside of the range of (Kumlien's) Iceland Gull.

Slaty-backed Gull (*Larus schistisagus*)

#2012–010: January 10–13, 2012, Hatch Hill landfill, Augusta, *Kennebec*, Louis Bevier*†, Luke Seitz†, Doug Suitor*, m. ob. Maine's first Slaty-backed Gull, an apparent third-cycle bird, was found and photographed by Bevier on the 10th. Seitz and others saw it on the 11th; Suitor briefly observed it on the



This third-cycle Slaty-backed Gull was at Hatch Hill landfill, Augusta, Kennebec County, Maine, January 10-13, 2012. Amazingly, the same individual was discovered in Gloucester, Massachusetts on January 21. Photo by Luke Seitz (January 12, 2012).

13th. Jeremiah Trimble discovered the same gull (confirmed by photo comparisons) at Gloucester, Massachusetts, on January 21.

Sooty Tern (Onychoprion fuscatus)

#2012–009: July 14, 2012, Biddeford Pool, Biddeford, *York*, Scott Surner*†. Although most of the dozen-plus reports of Sooty Tern from Maine over the past century coincided with hurricanes, the occurrence of this bird did not appear to be storm related.

Gull-billed Tern (Gelochelidon nilotica)

#2010–009: September 13, 2010, Scarborough, *Cumberland*, Doug Hitchcox*†, Paul Hitchcox, Gloria Carson. Photographed by Hitchcox on the mud flats at the Pine Point lobster co-op, this adult Gull-billed Tern was observed the same day separately by Carson in the co-op parking lot.



This Eurasian Collared-Dove, Maine's overdue first, spent the day in a Falmouth, Cumberland County yard, May 28, 2013. Photo by Marie Jordan.

Eurasian Collared-Dove (*Streptopelia decaocto*)

#2013–004: May 28, 2013, Falmouth, *Cumberland*, Connie Kent†, Rob Speirs†, m. ob. Maine's first Eurasian Collared-Dove spent one day in Kent's residential yard. The continental expansion of this species has progressed north by northwest, bypassing Maine and New England until recently.

Eastern Screech-Owl (*Megascops asio*)

#2009–023: December 4, 2009, South Berwick, *York*, Stephen Mirick*†. A gray morph found dead on State Route

236 north of the Great Falls River. **#2011–003**: January 8, 2011, Cape Porpoise, Kennebunkport, *York*, Rebecca DeLisle[†], Chris Baker[†]. This rufous morph was photographed in a tree cavity.

Say's Phoebe (Sayornis saya)

#2009–014: September 24, 2009, Monhegan Twp., *Lincoln*, Evan Obercian, Steve Mirick*, Luke Seitz†, m. ob. Observed from Monhegan Island, this Say's Phoebe spent the day fly catching from its perch on top of a small outbuilding on adjacent Manana Island.

Ash-throated Flycatcher (Myiarchus cinerascens)

#2011–010: October 23, 2011, Monhegan Island, *Lincoln*, Doug Hitchcox*†, Jeremiah Trimble†, Marshall Iliff, Paul Miliotis. Monhegan's first Ash-throated Flycatcher, a worn bird largely in juvenal plumage, was part of an influx of the species

in the fall of 2011, possibly a response to drought in the Southwest (Ellison and Martin 2012, Farnsworth and Iliff 2012).

Gray Kingbird (Tyrannus dominicensis)

#2010–014: October 31–November 8, 2010, Marginal Way, Ogunquit, *York*, John Berry*†, Len Medlock†, Charles Avenengo*, m. ob. This Gray Kingbird was enjoyed by many during its stay in a residential yard.

Loggerhead Shrike (Lanius ludovicianus)

#2009–020: November 8, 2009, Cutler, *Washington*, Barry Southard*†. A later-thanexpected vagrant photographed at the Cutler Naval Station. Once a fairly common breeding species in Maine (Palmer 1949), and commonly reported into the 1970s and 1980s, Loggerhead Shrike is now only a casual visitor in late summer or early fall.



This Gray Kingbird spent a week in a residential yard along Marginal Way, Ogunquit, York County, Maine, October 31 to November 8, 2010. Photo by Len Medlock (November 1, 2010).

Bell's Vireo (Vireo bellii)

#2003–003: May 20–21, 2003, Monhegan, *Lincoln*, Rich Eakin, Howie Nielson, Geoff Dennis[†], m. ob. The 2012 reports prompted the committee to formally review this record, which becomes the first for the state. **#2012–006**: October 5–6, 2012, Monhegan, *Lincoln*, Doug Hitchcox*[†]. Maine's second and third documented Bell's Vireos were discovered on back–to–back dates. **#2012–005**: October 7–8, 2012, Green Point, Dresden, *Lincoln*, Mike Fahay*[†], Louis Bevier*, m. ob. Glimpsed by many during its brief stay in an overgrown orchard. All photographs showed the greenish upperparts and yellowish wash on flanks, suggesting each bird was the eastern subspecies, nominate *V. b. bellii*. (See photograph on page 30).

Cave Swallow (Petrochelidon fulva)

#2012–014: November 24, 2012, Scarborough, *Cumberland*, Jason Lambert*†, Two birds at Pine Point Beach. **#2012–015**: November 25, 2012, Cape Elizabeth, *Cumberland*, Ed Hess†. Photographed in the wrack line at Crescent Beach. **#2012– 019**: November 25, 2012, Cape Elizabeth, *Cumberland*, Louis Bevier*, Don Mairs. Observed near the beach at Kettle Cove. The dramatic increase in late fall reports of Cave Swallows since Maine's first in 2005 resulted in its removal from the review list in 2014.

Mountain Bluebird (Sialia currucoides)

#2011–012: November 13, 2011, Batchelders Grant, *Oxford*, Lindsay Webb*†, Andrew Zboray. While hiking near the summit of East Royce Mountain, observers photographed an unfamiliar bird, initially reported as a Townsend's Solitaire. The



This Bell's Vireo, Maine's third, was discovered at Green Point, Dresden, Lincoln County, October 7-8, 2012, only two days after Maine's second was found on Monhegan Island. Photo by Mike Fahay (October 7, 2012).

photographs, however, showed a female Mountain Bluebird, Maine's first record.

Chestnut-collared Longspur (*Calcarius ornatus*)

#2012–011: June 22–28, 2012, East Point, Biddeford, *York*, Carole Sevilla Brown†, m. ob. This stunning, if somewhat worn, adult male was seen and photographed by birders from throughout New England. The only previous Maine record, which has not been reviewed by the committee, is a specimen from Scarborough, *Cumberland*, August 13, 1886 (Goodale 1887). (See photograph on page 36).

Smith's Longspur (Calcarius pictus)

#2011–008: September 21–25, 2011, Norridgewock, *Somerset*, Trevor Persons*†, Louis Bevier†, m. ob. Maine's second Smith's Longspur was a first-cycle immature found in an abandoned sand and gravel quarry; its fidelity to a small, weedy area resulted in it being seen by many. The only other record for Maine is one photographed at Cape Elizabeth, *Cumberland*, January 2, 1956 (Morse and Packard 1956). (See photograph on page 36).

Virginia's Warbler (Oreothlypis virginiae)

#2011–011: November 8, 2011, Monhegan, *Lincoln*, Doug Hitchcox*†. Hitchcox obtained identifiable photographs of Maine's third Virginia's Warbler (all from Monhegan) during his brief (< 8 s) observation.

MacGillivray's Warbler (Geothlypis tolmiei)

#2009–024: December 19–22, 2009, Falmouth, *Cumberland*, Eric Hynes*†, Lloyd Alexander†, m. ob. Hynes found Maine's first MacGillivray's Warbler at Maine Audubon's Gilsland Farm nature center. **#2010–008**: September 12, 2010, Petit Manan Point, Steuben, *Washington*, Chad "Jethro" Runco*†, Keith Doran. Mist-netted at a banding station, this immature is possibly the earliest New England fall record (Davis Finch, pers. comm.). **#2010–017**: September 27, 2010, Metinic Island, *Knox*, Adrienne J. Leppold*†. Another hatch-year bird captured at a banding station, and a remarkably early date for vagrant MacGillivray's Warbler in the Northeast.

Le Conte's Sparrow (Ammodramus leconteii)

#2010–011: October 24–November 6, 2010, Cape Elizabeth, *Cumberland*, Lysle Brinker*†, Luke Seitz†, m. ob. Maine's fifth Le Conte's Sparrow, but the first photographically documented, was found by Brinker in a weedy vegetable field on a coastal farm. (See photograph on page 37).

Harris's Sparrow (Zonotrichia querula)

#2012–012: March 24–May 8, 2012, Monhegan, *Lincoln*, Jackie Boegel[†], Doug Hitchcox[†]. This Harris's Sparrow was photographed throughout its stay as it molted toward alternate plumage. (See photograph on page 32).

Black-headed Grosbeak (Pheutitus melanocephalus)

#2009–002: Mid-January–April 11, 2009, Hope, *Knox*, Don Reimer*†, Luke Seitz†, Derek Lovitch†. First round (8–1). A first-winter male frequented a private residence. First record reviewed by the ME-BRC.

Lazuli Bunting (Passerina amoena)

#2010–005: June 14, 2010, Rackliff Island, Spruce Head, St. George, *Knox*, Patsy Munger*†, Bill Munger, Mandy Funkhauser. Adult male photographed on the Munger's deck, stunned after having hit a glass door. This record was incorrectly reported in Petersen (2011) as having been found on June 8, and at Seal Harbor, *Hancock*. This was the first Lazuli Bunting reviewed by the committee, although one

photographed in 1978 at Monhegan, *Lincoln*, is widely accepted as the first valid record for the Northeast (Vickery 1979).

Bronzed Cowbird (Molothrus aeneus)

#2010–012: October 24–28, 2010, Rockland, *Knox*, Randy Moore*†, Len Medlock†, Don Reimer†, Louis Bevier†, m. ob. This is Maine's and New England's first Bronzed Cowbird. The roughly silky texture of the plumage and greenish bronzy gloss to the rump suggested this male was of the east Mexico-south Texas race *M. a. aeneus*.

Bullock's Oriole (Icterus bullockii)

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This male Bronzed Cowbird in a residential yard at Rockland, Knox County, Maine, October 24-28, 2010 was a first record for Maine and New England. Photo by Len Medlock (October 28, 2010).

#2012–001: November 4, 2012,

Brunswick, Cumberland, Liz and Jan

Pierson[†]. An adult male was briefly present in the yard of a ME-BRC member who had a camera handy. This is the first Bullock's Oriole accepted by the committee. (See photograph on page 37).

Common Chaffinch (Fringilla coelebs)

#1980–001: April 3, 1980, Lincoln, *Penobscot*, Peter Vickery*. Originally detailed by Vickery (1980) and accepted as Maine's first record. **#1997–001**: May 23, 1997, Camden, *Knox*, Glen Jenks*. First round (8–1). Previously published well-described sight record (Jenks 2000). One member was cautious in light of a 1989 report of a videotaped Common Chaffinch at Monhegan, *Lincoln* (Duncan 1990) that appeared to show an oriole instead.



This Harris's Sparrow frequented a yard at Monhegan Island, Lincoln County, Maine, March 24 to May 8, 2012. Photo by Doug Hitchcox (April 20, 2012).

Records of this species in the Northeast occur under the cloud of importation centered in Montreal (Ryan 1990), not far from Maine. The pattern of vagrancy is oddly greater than some Eurasian species that occur more frequently to Iceland, for example. The most recent evaluation of these data suggests some records may be questionable (Howell et al. 2014).

Eurasian Siskin (Spinus spinus)

#2009–001: January 31, 2009, Richmond, *Sagadahoc*, Peter Vickery*, Barbara Vickery*. The committee accepted this sight record of a male

Eurasian Siskin among a large siskin flock at the Vickery's feeders. The same cautions apply as under Common Chaffinch.

Lesser Goldfinch (Spinus psaltria)

#2009–009: July 7, 2009, Clifton, *Penobscot*, Jack Zievis[†]. A black–backed (eastern *S. p. psaltria*) male joined Zievis's American Goldfinch flock at his feeders for one day.

RECORDS NOT ACCEPTED

Cape Petrel (Daption capense)

#1873–001: June 1873, Harpswell, *Cumberland*. Third round (2–7). One of the most controversial Maine bird records is a mounted specimen of Cape Petrel in the collections of the Worcester Society of Natural History (Palmer 1949). We located the specimen in the basement of the Society's EcoTarium museum, and it is a Cape Petrel. This circumpolar species of the southern oceans has no certain records from North America (e.g., AOU 1998; Hamilton et al. 2007). After thorough review of the complex history of the specimen, including earlier confusion as to whether it was collected at Harpswell or on Mooselookmeguntic Lake, *Franklin* (Knight 1908), the committee decided that the whole affair was shrouded in too much mystery and uncertainty to accept the bird as a valid natural vagrant.

Black-capped Petrel (Pterodroma hasitata)

#1973–001: June 27, 1973, offshore Cutler, *Washington*. First round (0–9). This previously published sight record of Black-capped Petrel seen between Cutler and Machias Seal Island (Finch 1973) may have been the source of the AOU's (1998) statement that the species "ranges at sea…irregularly north to Maine." The observer submitted to the committee in 2011 a letter suggesting the bird was a misidentified Great Shearwater. In light of this, the committee removed the species from the state's hypothetical list.

Band-rumped Storm-Petrel (Oceanodroma castro)

#1989–001: June 17, 1989, Richmond, *Sagadahoc*. Second round (2–7). The committee decided that details of this previously published report (Vickery 1991) of an inland storm-petrel were insufficient to rule out other species, particularly Leach's Storm-Petrel. Many members thought that critical details were lacking, especially for a first state record. Although records in the western North Atlantic occur June to October, most off New England are July to August (Howell 2012). **#2010–018**: September 12, 2010, offshore Portland, *Cumberland*. Second round (1–8). Photographs of this quickly fleeing storm-petrel show a combination of not-completely textbook Band-rumped features (e.g., wide, triangular, white rump patch); one of the observers decided the bird was more likely a juvenile Leach's Storm-Petrel.

Yellow Rail (Coturnicops noveboracensis)

#2009–016: October 18, 2009, Dresden, *Lincoln*. Second round (1–8). Seen briefly in a small cattail marsh by multiple observers, inconsistencies in the reports could not rule out the possibility of immature Sora.

Black-tailed Godwit (Limosa limosa)

#2009–015: September 4, 2009, Petit Manan Point, *Washington*. First round (1–8). The detailed written report failed to document the color of the underwing linings, the most critical field mark for separation of Black-tailed Godwit and Hudsonian Godwit.

Sharp-tailed Sandpiper (Calidris acuminata)

#2009–013: August 14, 2009, Steuben, *Washington*. Second round (0–9). Details in the extensive written report of an unknown, distantly observed shorebird did not rule out other species.

Yellow-legged Gull (Larus michahellis)

#2010–002: February 21, 2010, Woolwich, *Sagadahoc*. First round (0–9). An intriguing report of a Herring-like gull with yellow legs, a clean white head, and a mantle color intermediate between Herring and Lesser Black-backed Gull was suggestive of Yellow-legged Gull. However, without photographs (and possibly even with them) the possibility of Herring x Lesser Black-backed hybrid could not be eliminated. The late February date reduced the potential importance of the unstreaked head, an oft-cited field mark for winter Yellow-legged Gull, since many Herring Gulls (and presumably hybrids) are already showing clean heads by late winter.

Thayer's Gull (Larus thayeri)

#1981–001: December 15,1981, Portland, *Cumberland*. Third round (1–8). Although the description (Vickery 1982) was consistent with adult Thayer's Gull, most members (including, in hindsight, the observer) thought that although the identification was probably correct, photographic evidence would likely be needed for acceptance of a report of this species, especially one that would constitute an earliest state record.

Kelp Gull (Larus dominicanus)

#1985–001: December 31, 1985, South Portland, *Cumberland*. Second round (0–9). The committee unanimously agreed that the photographs showed an adult Great Black-backed Gull.

Bridled Tern (Onychoprion anaethetus)

#2011–006: July 11, 2011, Stratton Island, Old Orchard Beach, *Cumberland*. Second round (1–8). Although possibly correctly identified, inconsistencies in the description of this distantly observed tern led most to conclude that other species could not be eliminated.

Kirtland's Warbler (Setophaga kirtlandii)

#2010–004: May 21, 2010, Monhegan Island, *Lincoln*. Third round (4–5). Although the principal observer of this briefly seen warbler was an experienced and knowledgeable birder, many thought the descriptions did not definitively eliminate other species; some members were troubled by the lack of observed tail-pumping behavior.

Boat-tailed Grackle (Quiscalus major)

#1994–001: May 16,1994, Biddeford, *York*. First round (0–9). All agreed that the description of an apparent large grackle provided few clues for determining the species. **#2010–010**: September 26, 2010, Monhegan, *Lincoln*. Third round (1–8). Although the descriptions were generally consistent with female or immature Boat-tailed Grackle, most thought that other species, particularly Great-tailed Grackle, could not be eliminated.

Bullock's Oriole (Icterus bullockii)

#2010–015: October 31, 2010, Phippsburg, *Sagadahoc*. First round (0–9). A beautifully photographed immature Baltimore Oriole. *₱*

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PHOTO ESSAY

More Highlights from the Maine Records Committee



This adult male Chestnut-collared Longspur frequented a small grassy area at the tip of East Point Sanctuary, Biddeford Pool, Biddeford, York County, Maine, June 22-28, 2012. Photo by Louis Bevier (June 23, 2012).



This Smith's Longspur spent September 21-25, 2011 in a small weedy area of an abandoned sand and gravel quarry at Norridgewock, Somerset County, Maine. Photo by Louis Bevier (September 23, 2011).


This juvenile Le Conte's Sparrow was present in a weedy farm field at Cape Elizabeth, Cumberland County, October 24 to November 6, 2010. Photo by Luke Seitz (October 25, 2010).



This adult male Bullock's Oriole in a yard at Brunswick, Cumberland County, Maine, November 4, 2012, stayed just long enough to be photographed. Photo by Jan Pierson.

FIELD NOTES

Barn Swallows on Board

Bob Fisher



Barn Swallow nest on author's lobster boat. (Photographs courtesy of the author).

In the second week of June, I went to Rockport to check on my lobster boat and noticed a nest on a rafter next to the roof of the cabin. I assumed it was inactive, but when I took the nest down I was dismayed to see three eggs. I put it on a bunk next to the cabin entrance. A few days later when I returned I was surprised to see the parent had found the nest; there were now five eggs. I had to haul traps and didn't know what to do with the nest, so I took it on the boat—much to the dismay of the parents, which were Barn Swallows. They flew around frantically squeaking up a storm. I returned three hours later and found the parents waiting impatiently. As soon as I went ashore, they returned to the nest.

About a week later, I had to haul traps again, and by then the eggs had hatched. There were five of the biggest mouths I had ever seen. I didn't want to distress the parents again. Noticing a shady spot under the canopy of the boat at the next mooring, I moved the nest there, only 10 feet from the original spot. I backed off the mooring and watched. The parents flew around and eventually discovered the nest and settled in. Three hours later I returned and put the nest back on the bunk in my boat. As soon as I left the boat, the parents went in and settled down.

After that, I thought it best not to move the boat, although I came and went doing maintenance and repairs. The chicks didn't mind but the parents were upset, buzzing and scolding me. In mid-July the chicks had left the nest. I could see the entire family nearby, the parents teaching the chicks flying maneuvers.

It was a great experience, but next year I hope the Barn Swallows will use the empty factory nearby and give me my boat back.

Common Tern "Babysits" Black Skimmer Chicks Shawn P. Carey



Common Tern arrives with fish for Skimmer. (All photographs by Shawn P. Carey).

Plymouth Long Beach is host to one of the largest Common Tern colonies in Massachusetts, as well as nesting Least Terns, Piping Plovers, and Laughing Gulls. It is also the northernmost location for nesting Black Skimmers. I've photographed at least one pair of skimmers attempting to nest there in 2009 and 2013, but they were unsuccessful in fledging young.

My first visit to Plymouth Beach for the 2014 summer nesting season was Saturday, June 28, and my expectations were high based on Massbird.org reports of a pair of Black Skimmers that had been observed on the beach for over two weeks. When I arrived in the area of the Common Tern colony, I searched for almost an hour but could not find any signs of skimmers. Had they already given up this early in the season? I would have my answer soon and it was good news. The reason I could not locate the skimmers was because this year they had done something that would increase the odds of successful nesting and hatching—they nested in with the terns, just over the top of a sand dune, which appeared to provide some protection.

I returned on July 26 and quickly found the adult skimmers and hundreds of Common Terns, including many that had fledged, but no sign of skimmer chicks. However, both adults seemed to be spending time on the other side of the sand dune where I had observed them a month earlier, which I took as a good sign.

On August 9, I found two healthy skimmer chicks that looked much older than I expected. My guess is when I was there a week earlier, the parents must have been feeding the chicks up in the dunes where they had nested. However, that was not the

only interesting observation about this family of skimmers. If any of the Laughing Gulls, Herring Gulls, or Common Terns got too close to the skimmer chicks, the adults would quickly run them off. That was true for all other birds except for one adult Common Tern, which, over the three hours I spent watching the skimmers, was rarely more than 10–20 feet from the chicks. I was back on the morning of August 10 and observed the same behavior again. This lone Common Tern stayed near the two skimmer chicks, and when the adult skimmers flew off for long periods of time, the tern was still there as if it were babysitting.

Then something unexpected happened. The Common Tern flew off, returned with a small fish, and landed near one of the skimmer chicks. The tern walked toward the skimmer chick, and the chick moved toward the tern as if it expected to be fed. At the last second the chick moved away from the tern, and the tern ate the fish. But what I had witnessed was shocking. Was this Common Tern or "babysitter" actually feeding these Black Skimmer chicks? I would have to wait another week to get the answer.



Black Skimmer (adult)

On August 17, I returned to Plymouth Beach with Dr. Karl Zuzarte, who photographed the tern feeding one of the skimmer chicks. WOW! Could this really be happening? These Black Skimmers would successfully raise and fledge two young from Plymouth Beach with the help of a Common Tern—the only bird that the adult skimmers tolerated near their young.

On August 26, I spotted all four skimmers looking safe and resting along the shore and right there with them was guess who—the Common Tern. This, by now, was the only Common Tern anywhere on Plymouth Beach!

I returned again on August 30, 31, and September 1, and each day photographed all four skimmers and the "babysitter." The young skimmers were spending time flying along the shore practicing skimming. On September 1, there was a three-hour period when one of the young skimmers was nowhere to be found. When it returned, the Common Tern flew in and landed right next to the young skimmer with a fish. Luckily, I was able to capture the moment in one of the last photos I took of these skimmers' amazing journey. I have not returned since September 1; however, I feel pretty good about this family of Black Skimmers and their breeding success in 2014. Maybe it just took a little help from a friend.

Shawn P. Carey is the cofounder of Migration Productions and has been teaching wildlife photography for Mass Audubon for over 15 years. He is a past president and current vice president for Eastern Massachusetts Hawk Watch. He also serves on the Advisory Council for Mass Audubon, the Goldenrod Foundation, and the Museum of American Bird Art at Mass Audubon.

A Banding Record of a White-throated Sparrow x Dark-eyed Junco Hybrid

Trevor Lloyd-Evans



White-throated Sparrow x Dark-eyed Junco hybrid. (All photographs by Alexandra Munters, Manomet Staff)

At 09:30 a.m. on May 8, 2014, staff of Manomet Center for Conservation Sciences—the Manomet Bird Observatory—mist-netted a hybrid White-throated Sparrow (WTSP, *Zonotrichia albicollis*) x Dark-eyed Junco (DEJU, *Junco hyemalis*) among 131 newly captured birds and 53 recaptures of previously banded birds. It was the busiest day of the season. At Manomet, this was a late record for migrant juncos; the two juncos banded previously were earlier, on April 17 and May 2. For Whitethroats, May 8 is in the peak migration period; we banded twelve new WTSP on May 6 (the maximum this season), five on May 7, six on May 8, six on May 9, and the last one on May 18.

The bird was hatched in 2013. It showed worn plumage and clearly retained juvenal flight feathers, primary coverts, and alula, contrasting with fresher greater coverts that had been renewed the previous fall (Pyle 1997). Overall, the upperparts were streaky and more brown than the illustration in Sibley (2000, p. 494), but washed with pale gray. The bird was healthy, with bulging subcutaneous fat, and had finished any pre-alternate molt. It had a fully ossified skull, a natural wing chord of 71 mm (2.8 in.), and weighed 22.5 g (0.79 oz.).

White-throated Sparrow-like Characteristics

The bird resembled a White-throated Sparrow in several ways, with a brown streaked mantle, white median covert tips (upper wing bar), and very worn pale greater covert tips (faint lower wing bar). Also, its head featured a faint gray median crown stripe with brown and black lateral crown stripes, as well as a white throat and black lateral border stripes. The iris was deep brown. The bird had a plump WTSP-shaped



White-throated Sparrow x Dark-eyed Junco hybrid.

body and emitted a clear WTSP *seeet* call on release.

Dark-eyed Junco-like Characteristics

Like a Dark-eyed Junco, the bird had no rufous on its upper wing coverts and had a white belly. It had a gray supercilium and very dark lores; there was no pale eye ring. The bill was mostly pale. It had white outer webs on outer rectrices (R6) and a white tip on the inner webs, plus a white spot on the inner webs of rectrices R5. Its tarsus diameter was exactly junco size and notably slimmer than that of a Whitethroat, which takes a U.S. Fish & Wildlife Service's band two sizes larger.

Measurements

The wing chord of 71 mm would be consistent with WTSP male (69–78) or female (64–72). It would also be consistent with the Slate-colored subspecies of DEJU (*Junco h. hyemalis*) female wing chord (69-77), but too short for SCJU male (73–82) from data in Pyle (1997). The mass (weight) of 22.5 g was consistent with Manomet's spring WTSP weights for the last five years (18.7–39.2 g) but close to the top of the SCJU range (14.1–24.1 g).

Previous Records

Falls and Kopachena (1994) and Pyle (1997) note Dark-eyed Junco hybrids with White-throated Sparrow, and additionally White-throated Sparrow hybrids with Golden-crowned and Harris's sparrows. Short and Simon (1965) report specimens or other convincing data for nine records of WTSP x DEJU from 1882–1964. These were from the Province of Ontario, Canada, and from New York, Connecticut, Pennsylvania (2), Maryland (2), Virginia, and Georgia. Jung et al. (1994) report an October 1991 male hybrid from Potomac, Maryland, that was kept in captivity until July 1992 and sang distinctive song parts from both WTSP and DEJU, although it was not clear whether these songs were genetically inherited or learned. The frontispiece of *The Wilson Bulletin* 106 (2): 1994 features a beautiful full-color painting of a White-throated Sparrow x Dark-eyed Junco by John C. Anderton.

E-bird (http://www.ebird.org) records for this hybrid are noted in Ontario and Nova Scotia in Canada; in the United States, records are noted in Michigan, Ohio, Maine, Connecticut, New York, Pennsylvania, Virginia, North Carolina, Georgia, and Arkansas. A brief check of the Internet revealed a WTSP x DEJU photographed on November 20, 2011, in Brevard, North Carolina by Ed Peachey (https://www. carolinabirdclub.org/gallery/Peachey/deju+wtsp.html). Mark Szantyr shows a hybrid photographed by Bruce and Kevin Finnan in winter 1999 at Litchfield, Connecticut, and two he photographed himself on January 14, 2008, at Ashford, Connecticut (http://birdinggeek.blogspot.com/2009/08/two-probable-dark-eyed-junco-hybrids.html).

A check of the main compilations for published literature in Massachusetts (Forbush 1929; Griscom and Snyder 1955; Veit and Petersen 1993) did not reveal any Massachusetts records of this hybrid. However, many authors specifically avoid the confusion inherent in records of hybrids. In the case of the Manomet bird, we have no reason to assume that the parents were other than a White-throated Sparrow and a Slate-colored Junco (WTSP x SCJU). However, there is equally no evidence to refute the possibility of other junco subspecies being a parent of this bird, so the record is presented as a WTSP x DEJU hybrid. The bird was released without collecting samples for DNA analysis. There are many museum collections and electronic sources, plus other published records that I have not had the opportunity to check thoroughly. One of the purposes of this short paper is to solicit information on any Massachusetts records of such hybrids.

Many thanks to Alexandra Munters for the documentary photographs. The Manomet banding staff in spring 2014 were Mattie VandenBoom, Grace Alloy-Relihan, Lauren diBiccari, and Alexandra Munters, assisted on May 8, 2014, by volunteer banders Orla O'Brien and Patty O'Neill, whose hard work that day was justly rewarded. The migration banding program at Manomet is supported by generous contributions and volunteer time by members and friends.

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Trevor Lloyd-Evans has directed the migration banding program for landbirds at the Manomet Bird Observatory, now part of the Manomet Center for Conservation Sciences in Plymouth, Massachusetts, since 1972. He has lectured and published on bird ecology and conservation biology, is a member and former President of the Nuttall Ornithological Club, a member and former Chair of the Massachusetts Avian Records Committee, and a proud long-term contributor of records to Bird Observer.

MUSINGS FROM THE BLIND BIRDER

Birding: A Way of Life

Martha Steele

Birding is not just a hobby, it is also a way of life. It often dictates our days depending on the season, the weather patterns, the presence of unusual birds, or the calendar of annual bird censuses. It also bonds us to one another and engenders an instant social network across the globe, never mind locally. When we arrive at a local place to bird, we often find other birders whom we know. Our search for birds is interspersed with catching up with one another. Even if we are disappointed in missing a bird, we can always take solace in reconnecting with fellow birders.

When I think of how birding has influenced my life, I can start with my husband, Bob Stymeist, whom I met through our mutual passion for birds. Casual encounters in the field, serving as staff volunteers for *Bird Observer*, and being part of larger groups on birding trips to Latin America all served as easy and relaxed circumstances to get to know each other better over time. Going birding together spawned many wonderful moments, such as finding Bohemian Waxwings in Wellfleet on a November day, or during a furious and frigid January weekend in western Massachusetts, adding 10 communities to Bob's quest to record a Carolina Wren in all 351 Massachusetts cities and towns.

If you want to raise eyebrows among those watching a developing relationship, consider our Labor Day weekend of 1998. We planned to head to my parents' home in northern Vermont on Saturday morning for Bob's first visit there. On Thursday night, Bob asked me if it would be okay to make a slight diversion for a rare bird— a Broadbilled Sandpiper. "Sure," I said, "where?"

"Jamaica Bay in New York City," he said.

"Oh," I said, "a slight diversion? When do you plan to get to Vermont?"

"By dinner," he replied.

"Sounds good to me," I said.

When I explained our itinerary to my mother, her simple response was an incredulous what? My parents must have wondered then, what was their daughter getting into?

We started out from Arlington on Saturday at 2:00 am under a bright, full moon and arrived at Jamaica Bay at dawn. Although we missed the bird, we enjoyed up close and personal looks at scores of Black Skimmers and a Concorde climbing into the sky from nearby John F. Kennedy International Airport. By mid-morning, we headed to northern Vermont and, as promised, we arrived in time for dinner. This story is now part of family lore. We were building birding memories and our lives together. Although these birding moments illustrate our obsession with birds, our friends and family accept our passion and peregrinations, however convoluted. But birding may not have always been considered a socially desirable pursuit. I once listened to Bob, Wayne Petersen, and Allan Keith recall how they sometimes hid their birding hobby from their high school or college peers. As Allan said, it was decidedly uncool to be a birder and being one was a closely guarded secret. In Allan's case, although his fiancée had an inkling that he was interested in birds, she did not realize the depth of his passion for birds and birding until after they were married.

It was arguably not until after the momentous sighting in 1975 of the Ross's Gull in Newburyport Harbor that birding came out of the closet. Said Paul Baicich,

The provenance of the bird...is not as important as was its impact on birders. It was not simply the discovery of an ultra-rare bird by birders that was important; it was the discovery by birders *of each other* that was so crucial. Numbers of birders came through Newburyport by the hundreds that winter, perhaps by the thousands. Birding had arrived. (Baicich 2008)

Still, we get our fair share of strange looks from passersby as we search for birds. What are you looking at? they ask. Birds, we respond. Oh, and they drive away with indifference, as if to say, what is so exciting about birds?

To that, we say, much more than you will ever know. We cannot wait to share our sightings with one another. Smart phones send instant notification to a network of birders of an unusual bird and transmit instant verification of bird identification through photographs. A relaxed summer evening can quickly change to a mad dash to a nearby rare bird, where hordes of birders have already assembled, thanks to text or listserv messages. Such was the case in July 2012, when Bob and I were drinking wine on our front porch in the early evening with our neighbor when a text message about a Black-bellied Whistling Duck came in. We excused ourselves, put the wine back in the refrigerator, grabbed our optics, and took off to Great Meadows National Wildlife Refuge in Concord. We arrived to find many birders already on the scene, and many more soon to join us.

Wikipedia (2014) defines a flash mob, first coined in 2003, as "a group of people who assemble suddenly in a public place, perform an unusual and seemingly pointless act for a brief time, before quickly dispersing." It could be argued that birders have been forming flash mobs for decades, though we would take issue with describing our spontaneous assemblages as unusual or pointless. We do not want to miss anything, and frequently check our devices for the next mad dash to a hot bird.

Friendly and good-natured competition is an integral part of birding. Who will spot the unusual bird? Who will get the most species in a given county, state, country, or some other geographic level in a year? Who will get the highest bird-a-thon species total? I confess that I participate in, and indeed enjoy, these competitions. Bob and I crisscross northeastern Vermont in search of yet another species, and that search intensifies as the final months and weeks of the year slip away. We want to have the highest species count for Orleans County and strive to finish as high as possible in Essex and Caledonia counties. There is something about the thrill of the chase, the achievement of a goal, or the satisfaction of finding more species than anyone else.

As we all know, the integrity and validity of bird reports is dependent on our honesty in reporting what we saw. The care taken by birders in reporting their sightings is extraordinary. It would be easy to report seeing common birds on a bird-a-thon day, when we missed something we expected to see. Yet, we do not report what we do not see. We simply shake our heads and ask, how did we miss that? How, for example, did Bob and I miss Wild Turkey and Nashville Warbler during our 24-hour mid-June blitz in Orleans County in Vermont? Miss them we did, and we had to settle for a species total minus these common birds.

We can certainly make fun of ourselves as we search for birds but in truth, we are deeply connected to one another in our pursuit. We tell one another of the presence of birds, we share our optics, we help one another locate a flitting bird in the canopy, we visit with one another while watching birds, we travel together to find birds, we commiserate on missed opportunities, and we build sweet memories with one another on our extraordinary experiences with birds.

I often think of Robert Frost's poem "The Road Not Taken." Where would I be today if I had not chosen birding as a hobby nearly 30 years ago? "Way leads on to way," and many choices in life reflect that truism of Frost's poem. For me, birding was a road taken that led to an entirely different place than where I might have been otherwise. I am connected so fundamentally now to birding and to those who bird. I cannot imagine life without birds or birding. Yes, birding is a way of life, where way will continue to lead on to way, and I cannot wait to see where that goes.

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Martha Steele, a former editor of Bird Observer, has been progressively losing vision due to retinitis pigmentosa and is legally blind. Thanks to a cochlear implant, she is now learning to identify birds from their songs and calls. Martha lives with her husband, Bob Stymeist, in Arlington.

GLEANINGS

Bergmann was left behind

David M. Larson



Red-Bellied Woodpecker (Photograph by Peter Oehlkers)

Bergmann's Rule indicates that, for birds and mammals, individuals in colder climes will be larger in body size and mass than those in warmer climes (Bergmann 1847). Although Bergmann described the relationship of species within a genus, this rule has been shown to be mostly valid for populations within species as well. Hence, resident Bald Eagles and white-tailed deer in Florida are considerably smaller than those in Massachusetts, and similar size gradients have been demonstrated in other widespread species, including Song Sparrows, Downy and Hairy woodpeckers, and many others. The classical explanation for Bergmann's Rule is based on surface-tovolume ratio. For a given body shape, as linear dimensions increase, volume increases faster than surface area. Larger individuals, with relatively more volume to create heat, should have a selective advantage in colder climates because heat generation is a function of volume, whereas heat loss is a function of surface area.

So, what happens to Bergmann's Rule during range expansion of a species?

Kirchman and Schneider (2014) studied the recent range expansion in Redbellied Woodpeckers (*Melanerpes carolinus*), which many Massachusetts birders have observed during their lifetimes. Red-bellied Woodpeckers are quite sensitive to cold, and their range is limited by average minimum winter temperature, even when supplemental feeding is available. The authors used a combination of distribution and morphometric data from 22 North American museum collections and sighting data from National Audubon's compilation of North American Christmas Bird Counts (CBC; from 1900 to present) and from the United States Geological Survey's Breeding Bird Survey (BBS; 1966 to present). The CBC and BBS data provided information on range of this species in the winter and summer (respectively), but the distribution data from museum specimens was not seasonally restricted.

Range Expansion

Mapping the distribution of this species over the decades clearly demonstrates that the woodpeckers expanded their range to the north and west starting in the 1950s. All three databases show this trend. The average expansion from the 1970s to 2000s was 0.82 degrees of latitude per decade for CBC data and 0.52 for BBS data. Westward range expansion was roughly half the magnitude (in degrees) of the northward expansion in these analyses. Comparing CBC and BBS data indicates that winter records increase northward before summer records. Although Red-bellied Woodpeckers are largely resident birds, younger birds—usually males—often venture far from their natal territories during the autumn and winter. New areas occupied by wintering birds often become part of the breeding range within one to two decades.

Body Size

The authors made direct measurements on museum study skins from 406 adults. They used wing chord measurement as a body-size proxy, separating males from females (males are larger). In the pre-range-expansion period (1867-1949), there was a positive correlation between body size and degrees north latitude for both males and females. Such a relationship, with increasing body size to the north, is fully consistent with Bergmann's Rule. However, when the authors examined body size from 1950 on, during the period of rapid expansion and rapid climate change, this correlation broke down. In order to more finely tune the analyses, the authors examined specimens from the northern periphery of the species' range. Birds collected near the old northern boundary (41-44°N in 1869-1939) were larger than those collected from the same latitudes recently (1989-2009), significantly so for females. In addition, males collected (1970-2009) near the current northern boundary (north of 44.5°N) were smaller than birds collected earlier near the pre-expansion northern boundary. These boundary analyses reinforce the notion that rapid range expansion in this species has allowed it to escape from Bergmann's Rule.

One suggestion from this project is that establishment of the size gradients consistent with Bergmann's Rule require relatively static populations with low gene flow. Such a stable situation would allow for population level adaptation to local climatic conditions, assuming that body size has a significant genetic basis. Under conditions of increased mean winter temperatures, selection pressure eases and Redbellied Woodpeckers could survive in more northerly latitudes. The movement of individuals and expansion of population range could disrupt the stability presumably required for maintaining Bergmann's Rule.

One important caveat to this study is the low number of recent specimens in museum collections, which limits the utility of the body size analyses in the past few decades. While the authors suggest further collection efforts might help finetune the work, widespread collecting of native birds seems unlikely in the present. As an alternative, the researchers could include data from bird banding stations throughout eastern North America in their analyses. Wing chord, weight, and a variety of other morphometric measurements are made routinely on mist-netted birds, and some banding stations have many decades of data. While acquiring these data might be somewhat arduous, their inclusion could greatly increase the number of more contemporary specimens in this analysis.

Red-bellied Woodpeckers and some other members of the Carolinian avifauna, e.g., Northern Cardinal, Carolina Wren, and Tufted Titmouse are often cited as examples of the northward range shift in response to climate warming. All of these relatively recent additions to the avifauna of New England provide interesting models for the dynamics of range expansion and the consequences for these birds in a changing world.

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HELP TRANSCRIBE WILLIAM BREWSTER'S DIARIES AND JOURNALS

The Ernst Mayr Library of the Museum of Comparative Zoology at Harvard University is currently scanning and digitizing the diaries and field notes of William Brewster. This effort is part of a grant-funded project that aims to make all of Brewster's many volumes available online through the Biodiversity Heritage Library. The main purpose of the grant is to develop better ways to crowdsource transcription of these kinds of materials to the public. In order to do this, we are actively enlisting ornithologists, natural historians, citizen scientists, and birders of all kinds to help us transcribe Brewster's diaries and journals. For more information on the project (as well as links to the transcription sites) please see:<htp://blogs.law.harvard.edu/ernstmayrlibrary/2014/05/30/transcribing-the-fieldnotes-of-william-brewster/>

ABOUT BOOKS

The Elephant In The Room

Mark Lynch

Birds And Climate Change: Impacts And Conservation Responses. James W. Pearce-Higgins and Rhys E. Green. 2014. Cambridge, United Kingdom: Cambridge University Press.

It will be our attitude to climate change, and the choices we make regarding its mitigation, which will decide the status of the avifauna that we pass on to future generations. (p. 382, *Birds and Climate Change*)

"We're on the road to nowhere." (Talking Heads)

On a recent episode of the critically acclaimed HBO series *The Newsroom* (Season 3 Episode 3), head newscaster Will McAvoy conducts an on-air interview with the Deputy Assistant Administrator of the EPA, Richard Westbrook, about an embargoed report concerning carbon dioxide levels measured in Mauna Loa. This report has been leaked by Will's guest and the expectation is for another typical "breaking" news story. When asked about the implications of the findings, the EPA wonk replies matter-of-factly, "A person has already been born who will die because of a catastrophic failure of the planet." The newsroom staff, who were going about their jobs, look up in shock. "Did he just say that?" McAvoy keeps looking for some positive spin on the story, but everything Westbrook says keeps sounding grimmer and apocalyptic. Exasperated because of where the new story is going, McAvoy finally asks, "You sound like you're saying it's hopeless?" Westbrook answers calmly, "Yes." The entire newsroom is momentarily frozen by what they have heard, but then everyone moves on to the next story and the rest of their lives.

Most of us say we are concerned about climate change, but we don't really act on that concern. It is a problem so large, so complex, so frightening that we find that we can't dwell on it for long and so we don't really do anything of substance about it. It feels surreal to contemplate global climate change. It evokes big budget disaster films or dystopian science fiction novels. Solving this largest of all problems means radically changing the way we live, and nobody really wants that. Other global problems like terrorism, Ebola infection, political dysfunction, and the economy are in our faces every news hour. But climate change happens gradually, away at the edges of our perception like some planetwide cancer. So we move on and hope it will all go away. In the introduction to *This Changes Everything: Capitalism and the Climate*, Naomi Klein lists all our strategies for "looking away" from climate change, finding rationales for not dealing with this looming crises. For example,

Or we look but tell ourselves that all we can do is focus on ourselves. Meditate and shop at farmers' markets and stop driving, but forget trying to actually change the systems that are making the crises inevitable because that's too much "bad energy," and it will never work. And at first it may appear as if we are looking, because many of those lifestyle changes are indeed part of the solution, but we still have one eye tightly shut. (p. 4, *This Changes Everything*)

Many birders use birding as a way to forget climate change and other problems. Birding helps to keep us in the bubble of blissful ignorance. As long as we are still seeing warblers and shorebirds, we feel the situation isn't hopeless. Of course that isn't true. *Birds and Climate Change: Impacts and Conservation Responses* is a scholarly work that calmly and systematically reviews the evidence of how



birds have already been affected by climate change, how they will be affected in the near future, and what measures we can implement now to try and mitigate some of those disastrous effects.

James W. Pearce-Higgins is the Principal Ecologist at the British Trust for Ornithology, where he is in charge of climate change research. Rhys E. Green is the Principal Research Biologist at the Royal Society for the Protection of Birds and Honorary Professor of Conservation at the University of Cambridge. It is hard to imagine a more qualified pair to write a book on birds and climate change. Their goals are simple:

Our purpose in writing this book is to summarize and synthesize the wealth of material which exists, alongside some new analyses which will hopefully increase scientific knowledge by at least a little. We hope that by doing so, we have made it easier for others both to understand the extent of the likely impacts of climate change on birds and to identify appropriate conservation responses which will help ensure that the birds with which we share this planet have the best chance of surviving the climate change we may inflict on them. (p. 21)

The tone throughout the text is calm and scientific, though never too technical or dry. Some birders who are not used to reading scientific texts with numerous graphs and charts may find it initially tough going. To make sure all readers can understand the authors' points, at the end of every chapter there is an excellent Conclusions section followed by a Summary, which is presented as a list of bullet points.

Birds and Climate Change begins with an overview of what we now know about climate change and then gives a lengthy summary and discussion of whether we can already see the effects of climate change on bird populations. One of the key concepts in these studies is phenology, the study of cyclic and seasonal natural phenomena like migration and egg laying, particularly in relation to climate. "Limited data suggest that departure dates from wintering grounds have been advanced by recent climate change." (p. 39)

For some time now, ornithologists have been concerned about "mismatch." As the climate changes and warms, birds have started to arrive earlier on nesting grounds, and these changes in arrival and departure dates no longer closely coincide with other natural events that the breeding species depend on, such as growth of plants, blooms of insect prey, and climate on the breeding grounds. This is the phenological "mismatch." The findings so far have been scattered, species specific, and sometimes inconclusive, but some studies are finding definite evidence of mismatch already occurring. For example, "To summarize, recent warming has resulted in great tits in the Hoge Veluwe in the Netherlands breeding too late relative to the peak of food availability. This has reduced the productivity of first clutches, which rely on the seasonal peak in caterpillars." (p. 74)

Because of their dependence on seasonal food sources whose movements are complex and often affected by temperature, seabirds in particular appear to be the group most likely vulnerable to this mismatch effect.

Climate change is not just about warming. Climate change also produces changes in the amounts and types of precipitation, and this in turn affects avian populations:

In addition, Adélie penguins require dry, snow-free areas to nest, and it appears that an increase in frequency of spring blizzard events associated with the switch to a maritime climate, has significantly increased rates of breeding failure through flooding and chilling of eggs and chicks. Combined, these two factors have driven a 65% decline in the population at the Palmer research station from 1975 to 2003, a decline which has continued since. It is no wonder that David Ainley termed this species the "bellwether of climate change." (p. 159)

It is no surprise that climate change will also affect the distributions of communities of birds and therefore ultimately affect regional biodiversity. Poleward range contractions have been expected. So far, we are seeing more latitudinal shifts than altitudinal ones. Again, to date, the studies have been scattered, and some are inconclusive, but what we are already seeing is sobering if not startling. "Thus in Finland, species with northern distributions have declined in abundance by an average of 21% over a 10–20 year period. While populations of species with southern distributions have increased by an average of 29%" (pp. 194–195)

Distributions of species such as Willow Warbler and possibly Rusty Blackbird also appear to be changing because of climate change, but this needs further study in both cases. Species that have small ranges determined by narrow climate particulars are at a greater risk of extinction as climate changes. The range of the globally threatened Ethiopian Bush-crow (*Zavattariornis stresemanni*) is closely correlated to a narrow temperature range and is considered at risk of extinction in the near future due to climate change.

The second part of *Birds and Climate Change* is titled "Conservation Responses." The authors review methods of predicting what species appear to be at the greatest immediate risk due to climate change and then what conservation can do to help save

those populations. The problem is so huge that we cannot possibly save every species. The prediction of what areas or species will be impacted first by increasing climate change is made using various modeling techniques especially "climate envelope models."

Climate envelope models are statistical models of the geographical distribution of species. At its most simple, a climate envelope model requires mapped locations at which species have been recorded as well as measurements of meteorological variables at those places. (p. 202)

It is critical for conservationists to be able to estimate the likely magnitude of future climate changes regionally and then estimate their impacts on bird populations to guide future conservation actions. We need to plan ahead and to begin this measure now. But these models are hampered by the ever increasing and destructive changes in human land use as the climate changes concomitant with a disastrous increase in human population demanding ever more resources.

In the past few millennia rapid climate change is unusual as a widespread phenomenon, but global losses of biodiversity for other reasons began many decades or centuries ago. Hence, it is clear that species are not threatened only by climate change, but also by a wide range of other drivers of longstanding and growing importance, mostly originating from the intensity of resource exploitation by increasing and increasingly resource-hungry human populations. (p. 299 and p. 301)

Many conservationists believe that population growth is *the* problem facing the planet and that global climate change is only a symptom of this unbridled growth. In the collection of papers titled *Life On the Brink: Environmentalists Confront Overpopulation* the authors decry the fact that though population growth was a key concern of the early environmental movement, no one wants to talk about it now.

Yet the message from the scientific community could not be clearer, as stated in the *Millennium Ecosystem Assessment* in 2005, restated in the *IPCC's 4th Assessment Report* in 2007, and reiterated in several recent reports on the state of world biodiversity, including the Convention on Biological Diversity's *Global Biodiversity Outlook* published in 2010: simply put, population growth is a major driver of ecological degradation. We cannot create sustainable societies without ending population growth; indeed, as this book argues, without significantly reducing the human population. To ignore population matters is to acquiesce in advance to continued ecological decline. (Cafaro and Crist, *Life On the Brink*, p. 8)

If you think that most people aren't ready to face the lifestyle restrictions needed to abate climate change, think about suggesting that the best thing for the planet would be not to have any kids for a number of years while the population drops. You likely would be stoned to death in many parts of the world. The topic has become frustratingly wrapped up in politics and religion. Pearce-Higgins and Green do not even discuss the possibility of population reduction in *Birds and Climate Change* and just

assume for the foreseeable future that the planet will face ever-increasing stress from our unlimited growth.

It is abundantly clear that as warming increases, an increasing number of bird species will face extinction. The authors of *Birds and Climate Change* emphasize the importance of preserving large tracts of core habitat now, as well as what they call "corridors" and "stepping stones" to enable species to move to new habitats as the climate continues to change. Programs like the international IBA (Important Birds Areas) effort are critical in this regard and systematic monitoring of these sites is essential.

The authors finally discuss how climate change *mitigation* efforts will affect bird populations. Of course this is assuming we can even get it together as a nation politically to invest in renewable energy technologies. Everyone touts solar, wind, hydroelectricity, tidal and wave power, and biofuel energies as answers, and the truth is that all of those technologies as they now exist can have some effect on birds and habitat.

Of these other renewable energy options, bioenergy crops are likely to be the main source of renewable energy globally because they have the lowest technological requirements, and are the cheapest. Unfortunately, they tend to be inefficient in terms of land area required, and have even increased greenhouse gas emissions in many areas through the loss of carbon stocks from natural habitats as a result of habitat conversion. (p. 353)

Wind farms in Europe and America have been documented to have negative effects on bird populations. For example, in Spain wind farms are directly responsible for dramatic decreases in local populations of species like Egyptian and Griffon vultures. The effects could be greater, but to date there is no systematic and consistent monitoring of bird mortality at most wind farm sites. Solar seems to be the least egregious choice for an energy alterative but large solar sites have shown to cause bird mortality in certain cases, too. No single solution is the answer.

Birds and Climate Change is an important book if only to put the topic of climate change before many birders who would like to believe it's not happening or that somehow it will just go away. This is a book every birder should read. It is a sound assessment of what is happening now and a fine guide to planning species management in the near future. The only shortcoming to *Birds and Climate Change* is that the authors do not ever directly address the birding community and suggest what we should be doing.

So what will it take for all of us to participate in climate change mitigation? This is where talk about climate change makes many people walk away, fingers in their ears, humming loudly because they don't really want to hear what we have to do. In 1998 some Swiss scientists figured out that we could all live (in 1998) on this planet fairly and sustainably if we became a 2,000-Watt Society. Everyone would be entitled to generate the same amount of emissions and use the same amount of energy. So what would it take to achieve this utopian 2,000 watt lifestyle?

To investigate what a 2.000-watt lifestyle might look like, the authors of the plan came up with a set of six fictional Swiss families. Even those who lived in super energy-efficient houses, had sold their cars, and flew very rarely turned out to be consuming more than 2,000 watts per person. Only "Alice," a resident of a retirement home who had no TV or personal computer and occasionally took the train to visit her children, met the target. (Elizabeth Colbert in *New York Review of Books*. December 4, 2014, p. 16)

Imagine what your birding life would be like without a car or PC or a lot of the other trappings of this lifestyle. Many birders have begun to try to create a smaller carbon footprint by birding locally more often and not chasing as many birds. Some now bird by bicycle, and many birders in cities use public transportation. Climate change has forever altered the way I bird and think about birding. Like many of you, I am trying to come to terms with this elephant in the room and trying to make changes that are likely not enough in the long run but really only assuage my guilt in the short term. There should be more leadership concerning birding, conservation, and climate change from local conservation organizations and national and local birding groups. In my youth there was a slogan "if you are not part of the solution, you are part of the problem," and that seems particularly true for climate change. There is no escaping the chilling feeling that we may be bearing witness to the slow tortuous end of the natural world as we now enjoy it. Every year more species are threatened, more wild habitat is converted to human use, and the climate continues to change. That trend is not going to be reversed anytime soon. Climate change will only exacerbate the habitat destruction already in progress. Doing nothing may feel soothing in the short term, but is not a helpful option. Each of us needs to have some serious conversations about climate change with ourselves, and then with friends and fellow birders.

We have to stop acting like nothing is happening. As Naomi Klein put it, "All we need to do is not react as if this is a full-blown crisis. All we have to do is keep denying how frightened we actually are. And then, bit by bit, we will have arrived at the place we most fear, the thing from which we have been averting our eyes. No additional effort required." (p. 4, *This Changes Everything*).

"Dealing with this is a little bit like saving for retirement," said Richard B. Alley, a climate scientist at Pennsylvania State University. "All delay is costly, but it helps whenever you start." (*New York Times.* Tuesday, December 16, 2014. p. D1.)

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BIRD SIGHTINGS

September/October 2014

Seth Kellogg, Marjorie W. Rines, and Robert H. Stymeist

The first six days of September averaged 88° with a high of 93° on September 2. A dramatic drop of 16° on September 7 was accompanied by a severe thunderstorm that uprooted many trees, caused power outages, and claimed the lives of two women who were struck by lightning at Crane Beach in Ipswich. Microbursts brought significant rainfall in Essex County, and the National Weather Service issued a tornado warning for Franklin County, but the Boston area escaped. Total precipitation for the month was only .07" almost three inches below normal. Summer made a comeback during the last weekend of the month with a high of 87° in Boston.

October temperatures averaged 56° degrees in Boston, two degrees above average. The high was 81° on October 15, and the low was 39° on October 20. A powerful nor'easter from October 22 through 24 caused a great deal of coastal damage with strong winds and as much as six inches of rain. Beverly Airport reported 6.13 inches, Brockton noted 5.03 inches, and Wakefield had 4.21 inches. Winds gusted to over 60 mph at Scituate.

R. Stymeist

WATERFOWL THROUGH ALCIDS

Four **Pacific Loons** were reported from three locations. Although this species is uncommon but regular in October, two September reports were extremely early.

The Brookline Bird Club runs pelagic trips every fall, and as usual the results were noteworthy. The highlight was an astonishing 189 **Audubon's Shearwaters**, a record high number. Two **Band-rumped Storm-Petrels** and one **White-faced Storm-Petrel** were reported; although one can hope for these species at this time of year, neither is expected. Three **Longtailed Jaegers** were frosting on the cake.

A Leach's Storm-Petrel made a rare inland appearance on October 25 at Mystic Lakes in Medford, probably the result of the late October nor'easter. A **White-tailed Tropicbird** was photographed at Hydrographer Canyon on September 4. The one photographed on August 26 at Veatch Canyon may have been the same individual.

There were two reports of **American White Pelican**, one on October 25 in Eastham, the second on October 26 on Plum Island. The Eastham bird was observed flying north and may have been the same individual as the Plum Island bird.

September 14 was one of those days that hawk watchers dream of. Mt. Wachusett tallied 7,649 Broad-wings, and—as described by Paul Roberts—"a literally mind-numbing 39 Bald Eagles." September 13 and 15 were also impressive, with season highs from several locations. The first Rough-leg of the season was seen on Mt. Wachusett on October 31.

One or two **Sandhill Cranes** have been reported from Worthington since April. Once rare in Massachusetts, cranes have been breeding in New Marlboro since 2007 and possibly before. The consistency of these birds throughout the breeding season gives reason to hope they are breeding or prospecting for a future nest site.

A **Ruff** was photographed at the Bear Creek Sanctuary in Saugus on October 26 and lingered through October 29. There were two reports of **Gull-billed Tern** on Plum Island on September 2 and September 11 and may have been about the same individual.

M. Rines

Greater White	e-fronted Goose			10/24	Pittsfield (Mud)	900	S. Kellogg
10/9	Southwick	1	S. Kellogg	Greater Sca			
10/19-30	W. Newbury	1	v.o.	9/20	Randolph	2	G. d'Entremont#
Snow Goose				9/29	P.I.	4	T. Wetmore
10/6	Sheffield	1	J. Pierce	10/17	Waltham	4	J. Forbes
10/13	Malden (PR)	1	C. Jackson	10/22	Rockport (A.P.)	23	R. Heil
Brant	× /			10/29	Wachusett Res.	23	M. Lynch#
9/15	Rockport	1	R. Stymeist	Lesser Scau	р		•
10/19	Westport	140	G. d'Entremont#	10/13	Sterling	28	S. LaBree#
10/19	Amherst	1	J. Drucker	10/17	Southboro	2	M. Lynch#
10/19	S. Quabbin	19	L. Therrien	10/17	Waltham	1	J. Forbes
10/31	P.I.	110	T. Wetmore	10/25	Wachusett Res.	2	K. Bourinot#
Cackling Go				Common Ei		_	
10/28	Turners Falls	2	J. Smith	10/5	Westport	49	M. Lynch#
Wood Duck	14110101014110	-	UI DIIIIII	10/22	Rockport (A.P.)	.,	R. Heil
9/1	Taunton	64	L. Waters#	Harlequin D		100	10 11011
9/26	Wayland	119	B. Harris#	10/22	Rockport (A.P.)	6	R. Heil
10/6	Grafton	45	M. Lynch#	Surf Scoter	Rockport (11.1.)	0	it. iten
10/18	Winchester	124	R. LaFontaine	0/20 10/	22 Rockport (A.P.)2	5 1760) R. Heil
Gadwall	winchester	124	R. Lai ontaine	10/12	Revere B.	48	S. Zendeh
9/8	P.I.	13	M. Lynch#	10/12	Wachusett Res.	2	M. Lynch#
9/14	Ipswich	4	J. Berry	10/13	S. Quabbin	5	L. Therrien
		4		10/19		5	J. Rose
10/11	Arlington Res.		J. Forbes		Turners Falls	3	J. Kose
10/24	Pittsfield (Pont.)) 1	S. Kellogg	White-wing		7	T 171
Eurasian Wi		1	I D	9/30	S. Quabbin	67	L. Therrien
9/14	Ipswich	1 imn		10/1	Pittsfield (Onota		R. Wendell
9/23-10/31		2	V.O.	10/2	GMNWR	54	J. Forbes
American Wi		1.10		10/5	Westport	110	M. Lynch#
9/19-10/31		140 may		10/22	Rockport (A.P.)		R. Stymeist
9/20	Randolph		G. d'Entremont#	10/23	Turners Falls	20	J. Rose
10/5	Acoaxet	15	M. Lynch#	Black Scote			
10/18	Waltham	29	J. Forbes	10/19	Pittsfield (Onota		G. Hurley
10/30	Longmeadow	9	M. Moore	10/22	Rockport (A.P.)		R. Heil
Blue-winged				10/23	Turners Falls	35	J. Rose
9/6	P.I.	3	T. Wetmore	10/25	Pittsfield (Pont.)		J. Pierce
9/13	Rockport	4	B. Harris#	10/31	S. Quabbin	91	L. Therrien
9/28	Longmeadow	5	M. Moore	Long-tailed	Duck		
10/1	Lexington	16	J. Forbes	10/2	Pittsfield (Pont.)	1	J. Pierce
10/12	Assabet NWR	3	BBC (B. Volkle)	10/22	Rockport (A.P.)		R. Heil
Northern Sho	veler			10/23	Barnstable (S.N.)350	D. Sibley
9/4-10/31	P.I.	1-3	v.o.	10/31	S. Quabbin	43	L. Therrien
9/26-10/31	Arlington Res.	10 may	x M. Rines	Bufflehead			
10/25	Longmeadow	1	M. Moore	10/12	Saugus	2	S. Zendeh#
Northern Pint	ail			10/31	S. Quabbin	37	L. Therrien
9/19-10/31	P.I.	71 may	x v.o.	10/31	P.I.	54	T. Wetmore
10/5	Acoaxet	17	M. Lynch#	10/31	Cambr. (F.Pd)	10	B. Miller
10/6	Pittsfield (Onota		J. Pierce	Common G			
10/6	Lee	3	J. Pierce	10/25	Wachusett Res.	5	K. Bourinot#
10/30	GMNWR	19	A. Bragg#	Hooded Me			
Green-winger		-,		9/4	GMNWR	4	A. Bragg#
thr	P.I.	100 may	x v.o.	9/14	W Springfield	4	J. Zepko
9/8	Winthrop	3	P. Peterson#	10/27	Medford	7	R. LaFontaine
10/7	Longmeadow	75	M. Moore	10/28	P.I.	, 7	T. Wetmore
10/14	Newbypt H.	75	R. Heil	10/29	Cambr. (F.Pd)	12	B. Miller
10/18	Lynn	87	R. Heil	Common M		12	D. Miller
Canvasback	Lynn	07	K. Hell	9/1	S. Quabbin	3	L. Therrien
10/29	Cambr. (F.Pd)	2	B. Miller	9/1	Sheffield	8	J. Pierce
Redhead	Callol. (L. U)	2	D. Miller	9/14	Sandisfield	17	M. Lynch#
9/30	Lee	1	J. Pierce	10/25	Wachusett Res.	4	K. Bourinot#
10/17	Southboro	1	M. Lynch#		d Merganser	+	K. Dournot#
10/17	Medford	2	J. Restivo	10/12	Revere B.	1	S. Zendeh
Ring-necked		2	J. KESHVO	10/12 10/17	P.I.	1	S. Sullivan
	Cambr. (F.Pd)	185 may	,	10/17 10/20	Wachusett Res.	2	
thr 10/thr	Waltham	450 may		10/20		2 66	B. Kamp R. Heil
10/117	Southboro	430 may 836		10/22 10/31	Rockport (A.P.) P.I.	35	T. Wetmore
10/1/	5000000	0.0	M. Lynch#	10/31	r.1.	55	1. wethore

Ruddy Duck				9/27	Nant. Shoals	102	BBC Pelagic
10/2	W. Newbury	47	S. McGrath	10/23	Rockport (A.P.)	3	T. Spahr
10/12	S. Monomoy	76	M. Keleher#	Sooty Shearv			
10/13	Waltham	156	M. Rines	9/11-10/12		160 m	ax B. Nikula
10/17	Southboro	213	M. Lynch#	Manx Shearv		125	. D N''I 1.
10/19 10/25	Brighton	225 55	BBC (R. Stymeist)	thr 9/3	P'town Eastham (F.E.)	125 m 23	
10/23	Richmond Cambr. (F.Pd)	75	S. Kellogg B. Miller	9/3 9/27	Nant. Shoals	25	B. Nikula BBC Pelagic
10/20	Chestnut Hill	300	P. Peterson	10/23	Rockport (A.P.)	1	T. Spahr
Northern Bol				10/31	E. of Chatham	45	B. Nikula#
9/1	Mashpee	6	M. Keleher	Audubon's S	Shearwater		
9/14	Yarmouth	4	E. Hoopes	9/27-28	Hydrographer C	. 189	BBC Pelagic
9/20 Ding packed	Orleans	1	J. Hoye#	Wilson's Stor	Nant. Shoals	204	PPC Delogia
Ring-necked 10/29	Saugus	1	P. Peterson	9/27 White-faced	Storm-Petrel	294	BBC Pelagic
Ruffed Grous		1	1.1 eterson	9/27	Hydrographer C	. 1	BBC Pelagic
9/13	Granville	5	J. Weeks	Leach's Stori			
9/27	Sandisfield	1	M. Lynch#	9/15	Off Scituate	1	B. Nikula#
9/30	Mashpee	3	M. Malin	9/27	Nant. Shoals	1	BBC Pelagic
10/25 Wild Turkov	Quabbin (G33)	1	M. Lynch#	10/3 10/23	N. Truro Bornotable (S. N	.) 2	B. Nikula
Wild Turkey 9/20	Newburyport	21	P. + F. Vale#	10/23	Barnstable (S.N. Eastham (F.E.)	.) 2	D. Sibley B. Nikula
10/4	Quabog IBA	22	M. Lynch#	10/25	Medford	1	M. Rines#
Red-throated					ed Storm-Petrel	-	
10/22	Dennis (Corp. E	3.) 24	E. Hoopes	9/27	Hydrographer C	. 2	BBC Pelagic
10/22	Rockport (A.P.)		R. Heil	White-tailed			
10/24	Pittsfield (Pont.)		S. Kellogg	9/4	Hydrographer C	. 1 pl	n E. Savetsky
10/28 10/31	P.I. S. Quabbin	55 1	S. Sullivan L. Therrien	Northern Gar thr		1650 m	ax B. Nikula
Pacific Loon		1	L. Incincii	9/12	P.I.	180	T. Wetmore
9/29, 30	Rockport (A.P.)	1, 1	R. Heil	10/22	Rockport (A.P.)		R. Heil
10/1	P'town	1	B. Nikula	Double-crest	ed Cormorant		
10/23	Barnstable (S.N	.) 1	D. Sibley	9/13	Ipswich (C.B.)	975	M. Brengle
Common Loo		62	R. Heil	9/19	P.I.	770	R. Heil
9/30 10/21	Rockport (A.P.) Wachusett Res.	63 27	M. Lynch#	10/5 10/13		1000 2100	D. Brown C. Jackson
10/22	Rockport (A.P.)		R. Heil	10/20	W. Gloucester	565	J. Berry#
10/25	Wachusett Res.	26	K. Bourinot#	10/24		,000	R. Bowes
10/26	Wachusett Res. S. Quabbin	26 14	J. Orcutt	10/24 Great Cormo	Duxbury B. 10 rant	·	
10/26 10/28	Wachusett Res. S. Quabbin P.I.	26		10/24 Great Cormo 9/3	Duxbury B. 10 rant W. Tisbury	1	R. Bowes E. Lipton
10/26 10/28 Pied-billed G	Wachusett Res. S. Quabbin P.I. rebe	26 14 38	J. Orcutt S. Sullivan	10/24 Great Cormo 9/3 9/14	Duxbury B. 10 rant W. Tisbury P'town	1 2	R. Bowes E. Lipton BBC (R. Stymeist)
10/26 10/28 Pied-billed G 10/5	Wachusett Res. S. Quabbin P.I. rebe Acoaxet	26 14 38 4	J. Orcutt S. Sullivan M. Lynch#	10/24 Great Cormo 9/3 9/14 9/27	Duxbury B. 10 rant W. Tisbury P'town Concord	1 2 1	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley
10/26 10/28 Pied-billed G 10/5 10/11	Wachusett Res. S. Quabbin P.I. rebe Acoaxet New Salem	26 14 38	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont#	10/24 Great Cormo 9/3 9/14 9/27 9/30	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.)	1 2	R. Bowes E. Lipton BBC (R. Stymeist)
10/26 10/28 Pied-billed G 10/5	Wachusett Res. S. Quabbin P.I. rebe Acoaxet	26 14 38 4 4	J. Orcutt S. Sullivan M. Lynch#	10/24 Great Cormo 9/3 9/14 9/27	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.)	1 2 1 8	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil
10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/29	Wachusett Res. S. Quabbin P.I. rebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd)	26 14 38 4 4 4	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist)	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) /hite Pelican Eastham (CGB) P.I.	1 2 1 8	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil
10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/29 Horned Greb	Wachusett Res. S. Quabbin P.I. rebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e	26 14 38 4 4 4 5 6	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26 American Bit	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) /hite Pelican Eastham (CGB) P.I. ttern	1 2 1 8 1 pl 1	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil n J. Evans M. Salett#
10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/29 Horned Greb 10/12	Wachusett Res. S. Quabbin P.I. irrebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e Revere B.	26 14 38 4 4 4 5 6 5	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller S. Zendeh	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/26 American Bir 10/6	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) /hite Pelican Eastham (CGB) P.I. ttern S. Monomoy	1 2 1 8 1 pl 1 3	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil n J. Evans M. Salett# M. Faherty#
10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/29 Horned Greb 10/12 10/13	Wachusett Res. S. Quabbin P.I. rebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e Revere B. Wachusett Res.	26 14 38 4 4 5 6 5 6	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller S. Zendeh M. Lynch#	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26 American Bir 10/6	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) /hite Pelican Eastham (CGB) P.I. ttern	1 2 1 8 1 pl 1	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil n J. Evans M. Salett#
10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/29 Horned Greb 10/12 10/13 10/21	Wachusett Res. S. Quabbin P.I. rebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e Revere B. Wachusett Res. P.I.	26 14 38 4 4 5 6 5 6 15	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller S. Zendeh M. Lynch# T. Wetmore	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26 American Bir 10/6 10/8 Great Egret	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) /hite Pelican Eastham (CGB) P.I. ttern S. Monomoy Barnstable	1 2 1 8 1 pl 1 3	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil h J. Evans M. Salett# M. Faherty# S. Paventy
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10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/19 10/29 Horned Greb 10/12 10/13 10/21 10/28 10/28	Wachusett Res. S. Quabbin P.I. rebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e Revere B. Wachusett Res. P.I. Waltham S. Quabbin Turners Falls	26 14 38 4 4 4 5 6 5 6 15 7	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller S. Zendeh M. Lynch# T. Wetmore J. Forbes	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26 American Bir 10/6 10/8 Great Egret 9/8 9/20 10/5	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) /hite Pelican Eastham (CGB) P.I. ttern S. Monomoy Barnstable P.I. Orleans Westport	1 2 1 8 1 pl 1 3 6 41 31 153	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil n J. Evans M. Salett# M. Faherty# S. Paventy M. Lynch# J. Hoye# M. Lynch#
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10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/29 Horned Greb 10/12 10/13 10/21 10/26 10/28 Red-necked G 10/22	Wachusett Res. S. Quabbin P.I. irrebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e Revere B. Wachusett Res. P.I. Waltham S. Quabbin Turners Falls Grebe Rockport (A.P.)	26 14 38 4 4 4 5 6 5 6 15 7 10 6 5	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller S. Zendeh M. Lynch# T. Wetmore J. Forbes L. Therrien J. Smith R. Heil	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26 American Bir 10/6 Great Egret 9/8 9/20 10/5 10/9 10/17	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) /hite Pelican Eastham (CGB) P.I. ttern S. Monomoy Barnstable P.I. Orleans Westport Eastham (F.H.) Westport	1 1 8 1 1 1 3 6 41 31 153 27 23	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil n J. Evans M. Salett# M. Faherty# S. Paventy M. Lynch# J. Hoye# M. Lynch# M. Malin G. Gove#
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10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/29 Horned Greb 10/12 10/21 10/26 10/28 Red-necked G 10/28 Red-necked G 10/28 Northern Ful 10/4 Cory's Shear thr 9/3 9/7 9/27, 10/21 Great Shearw	Wachusett Res. S. Quabbin P.I. irrebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e Revere B. Wachusett Res. P.I. Waltham S. Quabbin Turners Falls Orebe Rockport (A.P.) Turners Falls Pittsfield (Pont.) Wachusett Res. P.I. mar P'town water P'town Eastham (F.E.) Stellwagen Nant. Shoals 2 Rockport (A.P.) E. of Chatham 'ater	$\begin{array}{c} 26\\ 14\\ 38\\ 4\\ 4\\ 4\\ 5\\ 6\\ 5\\ 6\\ 5\\ 6\\ 6\\ 5\\ 7\\ 10\\ 6\\ 5\\ 2\\ 5\\ 7\\ 7\\ 4\\ 1\\ 1\\ 2300 \text{ r}\\ 175\\ 225\\ 70\\ 4\\ , 14\\ 30\end{array}$	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller S. Zendeh M. Lynch# T. Wetmore J. Forbes L. Therrien J. Smith R. Heil J. Rose S. Kellogg K. Bourinotf# S. Sullivan B. Nikula# nax B. Nikula B. Nikula U. Sullival BBC Pelagic R. Heil B. Nikula#	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26 American Bit 10/6 10/8 Great Egret 9/8 9/20 10/5 10/9 10/17 10/19 Snowy Egret 9/8 9/9 9/12 9/18 10/5 10/5 10/5 10/5 10/5 10/5 Cattle Egret 10/30	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) 'hite Pelican Eastham (CGB) P.I. term S. Monomoy Barnstable P.I. Orleans Westport Eastham (F.H.) Westport Saugus P.I. Chatham Eastham (F.H.) Marlboro Ipswich Saugus eron Manchester Gloucester P.I. S. Dart. (A.Pd)	1 pl 1 8 1 pl 1 3 6 41 31 153 27 23 24 171 48 28 1 22 22 8 2	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil J. Evans M. Salett# M. Faherty# S. Paventy M. Lynch# M. Lynch# M. Malin G. Gove# S. Zendeh# M. Lynch# R. Stymeist M. Garvey BBC (T. Young) S. Zendeh# R. Stymeist# W. Tatro
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10/26 10/28 Pied-billed G 10/5 10/11 10/19 10/19 10/29 Horned Greb 10/12 10/21 10/26 10/28 Red-necked G 10/28 Red-necked G 10/28 Northern Ful 10/4 Cory's Shear thr 9/3 9/7 9/27, 10/21 Great Shearw	Wachusett Res. S. Quabbin P.I. irrebe Acoaxet New Salem Jamaica Plain Holyoke Cambr. (F.Pd) e Revere B. Wachusett Res. P.I. Waltham S. Quabbin Turners Falls Orebe Rockport (A.P.) Turners Falls Pittsfield (Pont.) Wachusett Res. P.I. mar P'town water P'town Eastham (F.E.) Stellwagen Nant. Shoals 2 Rockport (A.P.) E. of Chatham 'ater	$\begin{array}{c} 26\\ 14\\ 38\\ 4\\ 4\\ 4\\ 5\\ 6\\ 5\\ 6\\ 5\\ 6\\ 6\\ 5\\ 7\\ 10\\ 6\\ 5\\ 2\\ 5\\ 7\\ 7\\ 4\\ 1\\ 1\\ 2300 \text{ r}\\ 175\\ 225\\ 70\\ 4\\ , 14\\ 30\end{array}$	J. Orcutt S. Sullivan M. Lynch# G. d'Entremont# BBC (R. Stymeist) S. Kellogg B. Miller S. Zendeh M. Lynch# T. Wetmore J. Forbes L. Therrien J. Smith R. Heil J. Rose S. Kellogg K. Bourinotf# S. Sullivan B. Nikula# nax B. Nikula B. Nikula U. Sullival BBC Pelagic R. Heil B. Nikula#	10/24 Great Cormo 9/3 9/14 9/27 9/30 American W 10/25 10/26 American Bit 10/6 10/8 Great Egret 9/8 9/20 10/5 10/9 10/17 10/19 Snowy Egret 9/8 9/9 9/12 9/18 10/5 10/5 10/5 10/5 10/5 10/5 Cattle Egret 10/30	Duxbury B. 10 rant W. Tisbury P'town Concord Rockport (A.P.) 'hite Pelican Eastham (CGB) P.I. term S. Monomoy Barnstable P.I. Orleans Westport Eastham (F.H.) Westport Saugus P.I. Chatham Eastham (F.H.) Marlboro Ipswich Saugus eron Manchester Gloucester P.I. S. Dart. (A.Pd)	1 1 1 8 1 1 1 3 6 41 31 153 27 23 24 171 48 28 1 22 22 8 2 1	R. Bowes E. Lipton BBC (R. Stymeist) C. Winstanley R. Heil J. Evans M. Salett# M. Faherty# S. Paventy M. Lynch# J. Hoye# M. Lynch# M. Lynch# M. Lynch# R. Schain R. Stymeist M. Garvey BBC (T. Young) S. Zendeh# R. Stymeist# W. Tatro MAS (B. Gette)

Green Heron	(continued)			9/13	Ware R. IBA	1	M. Lynch#
9/10	Longmeadow	5	L. Richardson	10/5, 12	Barre Falls	1, 1	Hawkcount (DS)
10/12	Mattapoisett	1	S. Heinrich	10/26	MBWMA	1 im	m K. Elwell#
10/24	Nahant	1	L. Pivacek	Red-shoulder	ed Hawk		
Black-crowne	d Night-Heron			10/3-28	Barre Falls	9	Hawkcount (DS)
9/6	Newburyport	40	S. Grinley#	10/26	Russell	4	T. Swochak
9/10	P.I.	11	D. Chickering	10/27	Granville	5	J. Weeks
9/14	Ipswich	11	J. Berry	10/28	Barre Falls	5	Hawkcount (DS)
9/20	Ĥingham	12	G. d'Entremont#	10/30	Russell	7	T. Swochak
9/24	Eastham	33	J. Scott#	10/30	Granville	8	J. Weeks
	ed Night-Heron		0.00000	Broad-winger		Ū	01 1100115
9/2	W. Harwich		nm. B. Nikula	9/1-29	Mt. Wachusett1	5 670	Hawkcount (SO)
9/4	Eastham	2 in		9/7-29		6762	Hawkcount (DS)
9/6	Newburyport	2 in 3 in		9/13, 14	Mt. Watatic1866		Hawkcount (TP)
9/7	Fairhaven		nm C. Longworth	9/14, 15			1Hawkcount(SO)
9/9	Barnstable	2	E. Hoopes	9/14, 13	Granville 1141		J. Weeks
					Barre Falls2270		
9/16	S. Dartmouth	1 ac	d A. Morgan	9/14, 15			Hawkcount (BK)
Glossy Ibis	DI	4	TW	9/15, 24	Russell 2795,	2810	T. Swochak
9/4	P.I.	4	T. Wetmore	Rough-legged			
9/6	DWWS	2	SSBC (GdE)	10/31	Mt. Wachusett	1	Hawkcount (SO)
Black Vulture				Golden Eagl			
9/2	Fall River	4	L. Waters	9/28	Mt.Wachusett	1	Hawkcount (RC)
9/20	Sheffield	30	R. Wendell	10/5	Barre Falls	1	Hawkcount (DS)
9/24	Russell	4	T. Swochak	10/17, 27	Granville	1, 1	J. Weeks
10/11	Williamstown	3	C. Jones	10/19	Marblehead	1	D. Noble#
10/12	Westwood	2	E. Nielsen	10/24, 25	Mt. Wachusett	1, 1	Hawkcount (SO)
10/27	Lexington	2	S. Khan	Clapper Rail		,	
Turkey Vultur				10/27	Cotuit	1	P. Crosson
9/13	Mt. Watatic	20	T. Pirro	10/30	Wellfleet	2	S. Broker
9/19	Mt. Wachusett		S. Olson#	Virginia Rail		_	~~
9/20	Hadley	75	S. Desrosier	9/2	Concord	3	R. Stymeist
10/3	Russell	27	T. Swochak	10/7	Wayland	2	B. Harris
10/3	Barre Falls	50	Hawkcount (DS)	10/9	GMNWR	$\frac{2}{2}$	A. Bragg#
10/3-30	Barre Falls	140	Hawkcount (DS)	Sora	OMITTIC	2	n. braggi
10/3-31	Mt. Wachusett			9/20	P.I.	1	T. Wetmore
-	wit. wachuseu	150	Hawkcount (SO)			1	
Osprey				10/7	Wayland		B. Harris
9/2-29	Mt. Wachusett		Hawkcount (SO)	10/9	GMNWR	1	D. Swain
9/8-29	Barre Falls	35	Hawkcount (DS)	10/9	Fairhaven	1 1	D. Swain H. Zimberlin
9/8-29 10/3-28	Barre Falls Barre Falls	35 31	Hawkcount (DS) Hawkcount (DS)	10/9 Common Ga	Fairhaven Ilinule	1	H. Zimberlin
9/8-29 10/3-28 10/3-31	Barre Falls	35 31	Hawkcount (DS)	10/9 Common Ga 9/27-30	Fairhaven Ilinule Norfolk	1 1 im	H. Zimberlin J. Lukes#
9/8-29 10/3-28 10/3-31 Bald Eagle	Barre Falls Barre Falls Mt. Wachusett	35 31 15	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30	Fairhaven llinule Norfolk Fairhaven	1 1 im	H. Zimberlin
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett	35 31 15 144	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co	Fairhaven llinule Norfolk Fairhaven ot	1 1 im 1 im	H. Zimberlin J. Lukes#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24	Barre Falls Barre Falls Mt. Wachusett	35 31 15	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24	Fairhaven llinule Norfolk Fairhaven	1 1 im 1 im 33	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett	35 31 15 144	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co	Fairhaven llinule Norfolk Fairhaven ot	1 1 im 1 im	H. Zimberlin m J. Lukes# m C. Longworth#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls	35 31 15 144 51 16	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24	Fairhaven Ilinule Norfolk Fairhaven ot Richmond	1 1 im 1 im 33	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett	35 31 15 144 51 16	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth	1 1 im 1 im 33 45 80	H. Zimberlin am J. Lukes# am C. Longworth# S. Kellogg M. Lynch#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett	35 31 15 144 51 16 40	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res.	1 1 im 1 im 33 45 80	H. Zimberlin m J. Lukes# m C. Longworth# S. Kellogg M. Lynch# S. Paventy
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett ier Mt. Wachusett	35 31 15 144 51 16 40 20	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham	1 1 im 1 im 33 45 80 18	H. Zimberlin m J. Lukes# m C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harr 9/4-28 9/13	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Cier Mt. Wachusett Granville	35 31 15 144 51 16 40 20 5	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) J. Weeks	10/9 Common Ga 9/27-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP)	1 1 im 33 45 80 18 82 79	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy	35 31 15 144 51 16 40 20 5 5	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) J. Weeks CCBC (Alden)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR	1 1 im 33 45 80 18 82	H. Zimberlin m J. Lukes# m C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harr 9/4-28 9/13 9/21 10/3-28	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett fier Mt. Wachusett Granville S. Monomoy Barre Falls	$35 \\ 31 \\ 15 \\ 144 \\ 51 \\ 16 \\ 40 \\ 20 \\ 5 \\ 5 \\ 11$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te_	1 1 im 1 im 33 45 80 18 82 79 126	H. Zimberlin Im J. Lukes# Im C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harr 9/4-28 9/13 9/21 10/3-28 10/3-31	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett fer Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett	35 31 15 144 51 16 40 20 5 5 11 9	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (DS) Hawkcount (SO)	10/9 Common Ga 9/27-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton	1 1 im 1 im 33 45 80 18 82 79 126 1	H. Zimberlin Im J. Lukes# Im C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I.	35 31 15 144 51 16 40 20 5 5 11 9 5	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (DS) Hawkcount (DS) P. + F. Vale	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR Ie Easton W. Bridgewater	1 1 im 1 im 33 45 80 18 82 79 126 1 3	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o.
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell	$ 35 \\ 31 \\ 15 \\ 144 \\ 51 \\ 16 \\ 40 \\ 20 \\ 5 \\ 5 \\ 11 \\ 9 \\ 5 \\ $	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (SO) P. + F. Vale T. Swochak	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR e Easton W. Bridgewater Worthington	1 1 im 1 im 33 45 80 18 82 79 126 1	H. Zimberlin Im J. Lukes# Im C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harr 9/4-28 9/13 9/21 10/3-31 10/3-31 10/13 10/19 10/25	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville	35 31 15 144 51 16 40 20 5 5 11 9 5	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (DS) Hawkcount (DS) P. + F. Vale	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR Me Easton W. Bridgewater Worthington Plover	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinned	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett cier Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk	35 31 15 144 51 16 40 20 5 5 11 9 5 5 7	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Ukawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR He Easton W. Bridgewater Worthington Plover Essex	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91	H. Zimberlin Im J. Lukes# Im C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinneo 9/1-29	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville I Hawk Mt. Wachusett	35 31 15 144 51 16 40 20 5 5 11 9 5 5 7 422	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/5	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.)	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-31 10/13 10/13 10/19 10/25 Sharp-shinnec 9/7-28	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls	35 31 15 144 51 40 20 5 5 11 9 5 5 7 422 174	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 Sandhill Cram 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR le Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harr 9/4-28 9/13 9/21 10/3-31 10/13 10/19 10/25 Sharp-shinned 9/1-29 9/7-28 9/18, 10/24	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville 1 Hawk Mt. Wachusett Barre Falls	35 31 15 144 51 16 40 20 5 5 11 9 5 7 7 422 174 48,51	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (SO) P. + F. Vale T. Swochak Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR Me Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I.	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harr 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/24 9/23, 10/17	Barre Falls Barre Falls Mt. Wachusett Barre Falls Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls 4 Russell 7 Granville	35 31 15 144 51 40 20 5 5 11 9 5 5 7 7 422 174 48,51 53,33	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-27 10/3-31 Northern Harn 9/13 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinned 9/1-29 9/7-28 9/18, 10/22 9/23, 10/12 10/3-30	Barre Falls Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Granville Barre Falls	35 31 15 144 51 40 20 5 5 11 9 5 5 7 422 174 48,51 53,33 266	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) J. Weeks CCBC (Alden) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Crar 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover	1 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-38 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/25 9/7-28 9/18, 10/25	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Russell Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 16\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (DS) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/20 10/7 American Go 9/1	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown	1 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/22 9/18, 10/22 9/23, 10/17 10/3-30 10/3-31 10/5-25	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville 1 Hawk Mt. Wachusett Barre Falls 4 Russell 7 Granville Barre Falls Mt. Wachusett Mt. Wachusett Mt. Wachusett Mt. Wachusett Malden (PR)	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 16\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (CJ)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/1 9/5	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR Be Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury	1 1 im 1 im 33 45 80 1 18 82 79 126 1 3 1 91 850 80 155 1119 99 8	H. Zimberlin m J. Lukes# m C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinned 9/1-29 9/7-28 9/18,10/24 9/23,10/17 10/3-30 10/3-31 10/5-25 10/9	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville I Hawk Mt. Wachusett Barre Falls Russell 7 Granville Barre Falls Mt. Wachusett Barre Falls	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 16\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (DS) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/5 9/7	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus	1 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-27 10/3-31 Northern Harn 9/13 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/22 9/7-28 9/18, 10/22 9/7-23 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw	Barre Falls Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Madden (PR) Barre Falls	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (CJ) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/5 9/7 9/7	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 3	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale S. Zendeh# P. Champlin
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-38 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/1-28 9/18, 10/24 9/7-28 9/18, 10/24 9/2, 10/17 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw 9/2-28	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls A Russell Granville Barre Falls Mt. Wachusett Malden (PR) Barre Falls Mt. Wachusett Malden (PR) Barre Falls Mt. Wachusett Mt. Wachusett Mt. Wachusett	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 16\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ 75\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (SO) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/5 9/7	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport P'town	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines M. Rines M. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. Champlin B. Nikula
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-27 10/3-31 Northern Harn 9/13 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/22 9/7-28 9/18, 10/22 9/7-23 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw	Barre Falls Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Madden (PR) Barre Falls	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (CJ) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/5 9/7 9/7	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport P'town P.I.	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2 7	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale S. Zendeh# P. Champlin
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-38 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/1-28 9/18, 10/24 9/7-28 9/18, 10/24 9/2, 10/17 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw 9/2-28	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls A Russell Granville Barre Falls Mt. Wachusett Malden (PR) Barre Falls k Mt. Wachusett Mt. Wachusett Mt. Wachusett Mt. Wachusett	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 16\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ 75\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (SO) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/7 9/7 9/26	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport P'town	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines M. Rines M. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. Champlin B. Nikula
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/1-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18,10/24 9/23,10/17 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw 9/12-29 10/3-30	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville I Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Malden (PR) Barre Falls <i>k</i> Mt. Wachusett Mt. Wachusett Barre Falls	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 16\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ 75\\ 20\\ 52\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/5 9/7 9/7 9/26 10/5	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport P'town P.I. Winchester	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2 7	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale S. Zendeh# P. Champlin B. Nikula J. Berry#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/13 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18,10/22 9/7-28 9/18,10/22 9/7-28 9/18,10/22 9/7-28 9/18,10/22 9/7-28 9/12-29 10/3-30 10/3-31	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Barre Falls Barre Falls Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ 75\\ 200\\ 52\\ 36\end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/5 9/7 9/7 9/7 9/26 10/5 10/15-18 Semipalmated	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport P'town P.I. Winchester	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2 7 1	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale S. Zendeh# P. Champlin B. Nikula J. Berry# R. LaFontaine#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/22 9/23, 10/17 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw 9/12-28 9/12-29 10/3-30 10/3-31 10/5-25	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Mt. Wachusett Malden (PR) Barre Falls Mt. Wachusett Mt. Wachusett Malden (PR)	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 16\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ 75\\ 20\\ 52\\ 36\\ 20\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (CJ) Hawkcount (CJ) Hawkcount (DS) Hawkcount (CJ) Hawkcount (CJ) Hawkcount (CS) Hawkcount (CS) Hawkcount (CS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/5 9/7 9/7 9/7 9/7 9/7 9/7 10/5 10/15-18 Semipalmated thr	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop PI. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport P'town P.I. Winchester PI. Winchester PI. PI. Pit. Pit. Winchester PI. PI. Pit.	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2 7 1 500 ma	H. Zimberlin m J. Lukes# m C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale S. Zendeh# P. Champlin B. Nikula J. Berry# R. LaFontaine#
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/24 9/23, 10/17 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw 9/12-29 10/3-30 10/3-31 10/5-25 10/17	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Malden (PR) Barre Falls Mt. Wachusett Mt. Wachusett Malden (PR) Granville	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 53, 33\\ 266\\ 119\\ 140\\ 21\\ 75\\ 200\\ 52\\ 36\end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) P. + F. Vale T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS) T. Swochak J. Weeks Hawkcount (DS) Hawkcount (DS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/7 9/7 9/7 9/26 10/5 10/15-18 Semipalmated thread the second se	Fairhaven llinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop P.I. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport Ptown P.I. Winchester 1 Plover P.I. Such and a state of the state of	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2 7 1 1 55 1119 99 8 4 3 2 7 1 1 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 5 1119 90 8 5 7 1119 90 8 5 7 1119 90 8 5 7 1119 90 8 7 7 1119 90 8 7 7 1155 1119 90 8 7 7 1155 1119 90 8 7 7 1155 1119 90 8 7 7 1 1 5 1119 90 8 7 7 1119 8 5 7 1119 7 11 5 5 1119 90 8 8 7 7 11 8 8 7 7 11 8 5 7 11 8 5 7 1119 8 5 7 11 9 8 8 7 11 1 5 5 11 119 8 5 7 11 119 8 5 1119 8 5 11 119 8 5 1119 8 5 5 11 119 8 5 1119 8 5 7 11 5 5 1119 7 11 5 11 119 119 8 1119 11119 1119 1119 1119 11119 1119 11119 1119 11	H. Zimberlin um J. Lukes# um C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale S. Zendeh# P. Champlin B. Nikula J. Berry# R. LaFontaine# ax v.o. D. Brown
9/8-29 10/3-28 10/3-31 Bald Eagle 9/2-29 9/8-24 10/3-27 10/3-31 Northern Harn 9/4-28 9/13 9/21 10/3-28 10/3-31 10/13 10/19 10/25 Sharp-shinnec 9/1-29 9/7-28 9/18, 10/22 9/23, 10/17 10/3-30 10/3-31 10/5-25 10/9 Cooper's Haw 9/12-28 9/12-29 10/3-30 10/3-31 10/5-25	Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett Barre Falls Mt. Wachusett Granville S. Monomoy Barre Falls Mt. Wachusett P.I. Russell Granville Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Malden (PR) Barre Falls Mt. Wachusett Mt. Wachusett Malden (PR) Granville	$\begin{array}{c} 35\\ 31\\ 15\\ 144\\ 51\\ 40\\ 20\\ 5\\ 5\\ 11\\ 9\\ 5\\ 5\\ 7\\ 422\\ 174\\ 48, 51\\ 153, 33\\ 266\\ 119\\ 140\\ 21\\ 75\\ 20\\ 52\\ 36\\ 20\\ 13\\ \end{array}$	Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (DS) Hawkcount (DS) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (SO) Hawkcount (CJ) Hawkcount (CJ) Hawkcount (DS) Hawkcount (CJ) Hawkcount (CJ) Hawkcount (CS) Hawkcount (CS) Hawkcount (CS)	10/9 Common Ga 9/27-30 10/3-30 American Co 10/24 10/29 10/30 10/30 10/30 10/30 10/30 10/30 Sandhill Cran 9/7-09 9/9-10/11 10/12, 25 Black-bellied 9/1 9/5 9/6 9/20 10/7 American Go 9/1 9/5 9/7 9/7 9/7 9/7 9/7 9/7 10/5 10/15-18 Semipalmated thr	Fairhaven Ilinule Norfolk Fairhaven ot Richmond Wachusett Res. Falmouth Pittsfield (Pont.) Waltham Woburn (HP) GMNWR te Easton W. Bridgewater Worthington Plover Essex Chatham (S.B.) Winthrop PI. S. Monomoy Iden-Plover Edgartown Newbury Saugus Westport P'town P.I. Winchester PI. Winchester PI. PI. Pit. Pit. Winchester PI. PI. Pit.	1 1 im 1 im 33 45 80 18 82 79 126 1 3 1 91 850 80 155 1119 99 8 4 3 2 7 1 500 ma	H. Zimberlin m J. Lukes# m C. Longworth# S. Kellogg M. Lynch# S. Paventy J. Pierce M. Rines A. Bragg# L. Waters v.o. S. Lewis D. Brown M. Faherty P. Peterson A. Gurka# M. Malin# B. Shriber# P. + F. Vale S. Zendeh# P. Champlin B. Nikula J. Berry# R. LaFontaine#

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Sominalmatad	l Plover (continue	A)		10/25	Duurbuur P	0	D Down
10/7	S. Monomoy	184	M. Malin#	10/25 Red Knot	Duxbury B.	8	R. Bowes
10/25	Duxbury B.	14	R. Bowes	thr	P.I.	45 max	v.o.
Piping Plover				9/1	Essex	10	D. Brown
9/1	P.I.	15	J. Keeley#	9/5, 10/6	Chatham (S.B.)		M. Faherty
9/27	Ipswich (C.B.)	7	I. Pepper	10/4	Dennis	250	B. Nikula
10/6	Minimoy	21	M. Malin	10/6	Minimoy	175	M. Malin
10/7 10/18	S. Monomoy Nantucket	26 3	M. Malin#	10/11 Sondarling	P.I.	30	S. Riley
Killdeer	Inalitucket	3	M. Faherty#	Sanderling 9/1	Longmeadow	1	L. Richardson
9/14	Ipswich	62	J. Berry#	9/20	P.I.	500	D. Williams
10/12	Newbury	93	S. Arena	10/4	Dennis	475	B. Nikula
American Oy				10/5	Westport	110	M. Lynch#
9/3	Winthrop	2	R. Stymeist	10/7	Chatham (S.B.)) 1200	M. Faherty#
9/5	Chatham (S.B.)	37	M. Faherty	10/25	Duxbury B.	1500	R. Bowes
9/9	Revere B.	11	S. Zendeh	Semipalmate			
9/28	Squantum	6 12	G. d'Entremont	9/1	Scituate	75	SSBC (GdE)
10/17 Spotted Sand	Nantucket	12	J. Trimble#	9/10 9/11	Winthrop B. P.I.	130 1000	P. Peterson T. Wetmore
9/14	Sandisfield	6	M. Lynch#	9/19	W. Tisbury	20	P. Gilmore
9/20	Randolph	4	G. d'Entremont#	10/13	Arlington Res.	12	J. Trimble
10/16	Arlington Res.	2	J. Huestis	Western Sand			
Solitary Sand	piper			9/4	Ŷ.I.	4	D. Adrien
9/1	Wayland	6	B. Harris	9/6	Scituate		G. d'Entremont#
9/6	Leicester	7	M. Lynch#	9/9	Winthrop	2	R. Stymeist#
10/1	Lexington	4	J. Forbes	9/9	Chatham	1	R. Schain
10/4 10/4	E. Quabbin	3 2	S. Surner J. Thomas	10/4 Least Sondri	Eastham (F.E.)	1	SSBC (GdE)
Greater Yellov	Arlington Res.	2	J. Thomas	Least Sandpi 9/1	Longmeadow	52	L. Richardson
9/16, 10/25		. 115	M. Faherty	9/8	P.I.	24	M. Lynch#
10/5	Winthrop	54	P. Peterson	9/8	Rowley	18	M. Lynch#
10/6	Eastham (F.H.)	202	E. Hoopes	10/19	Nantucket	1	J. Trimble#
10/14	Newbypt H.	230	R. Ĥeil	White-rumpe	d Sandpiper		
10/20	Lynn	88	R. Heil	thr	P.I.	38 max	
Willet	DI	2	T TZ 1 //	9/1	Essex	11	D. Brown
9/6	P.I. Chatham	3	J. Keeley#	10/4	E. Quabbin	3	S. Surner
9/13 Western Wille		15	J. Kovner	10/25 10/26	Duxbury B. Lynn	4 4	R. Bowes R. Heil
9/7	Gloucester	1	B. Harris	Baird's Sand		4	K. Hell
9/20	Chatham	9	B. Harris#	9/1-10/4	P.I.	1-2	V.O.
Lesser Yellow				9/1	Ipswich (C.B.)	1	D. Williams
9/3	P.I.	30	MAS (D. Larson)	9/7	Ŵestport	1	P. Champlin
9/16	WBWS	56	M. Faherty	9/15	E. Falmouth	1	M. Malin
10/6	S. Monomoy	12	M. Faherty#	10/4	P'town	1	B. Nikula
10/13	Lexington	10	S. Perkins	Pectoral San		4	D Chuiltaut
10/20 Upland Sandr	Newbypt H.	32	R. Heil	9/1 9/21	Edgartown S. Monomoy	4 16	B. Shriber# CCBC (Alden)
9/7	Hadley	1	L. Therrien	10/2	GMNWR	5	A. Bragg#
9/13	Northampton	1	L. Therrien	10/2	E. Boston (B.I.		P. Peterson
Whimbrel	r	-		10/21	P.I.	4	T. Wetmore
9/thr	P.I.	2-4	V.O.	10/26	Saugus	3	S. Zendeh#
9/4	Newbury	5	P. + F. Vale	Purple Sandp			
9/5	Chatham (S.B.)	8	M. Faherty	10/25	P.I.	16	A. Gurka
9/12	Eastham	7	R. Stymeist	Dunlin		\ 1	E I dans
9/15 9/22	Westport	3 4	S. McGrath	9/25 9/30	Cambr. (Daneh Arlington R.	y) 1 1	F. Lehman P. Stymoist
Hudsonian Go	Edgartown	4	K. Magnuson	10/7	Chatham (S.B.)		R. Stymeist M. Faherty#
9/1	Essex	2	D. Brown	10/14	Newbypt H.	750	R. Heil
9/5	Chatham (S.B.)	8	M. Faherty	10/20	W. Gloucester	120	J. Berry#
9/7	P.I.	2	B. Cassie#	10/25	Duxbury B.	375	R. Bowes
10/14	Newbypt H.	3	R. Heil	Stilt Sandpip			
10/18	Nantucket	1	D. Veit#	9/4	Winthrop	3	P. Peterson
Marbled Gody		0		9/24	P.I.	5 2	MAS (B. Gette)
9/thr 9/13	Chatham Plymouth B.	1	nax v.o. B. Lagasse	10/6 10/13	S. Monomoy Nantucket	1	M. Faherty# B. Harris#
9/16	WBWS	1	M. Faherty	10/13	Lynn	1	R. Heil
10/6	Minimoy	7	M. Malin	10/20	Newbypt H.	2	R. Heil
Ruddy Turnst				Buff-breasted			
9/Í	Essex	3	D. Brown	9/1	Newbury	4	T. Walker
9/1	Ipswich (C.B.)	3	D. Williams	9/3	Winthrop B.	1	S. Zendeh
9/11	Winthrop	9	P. Peterson BBC (R. Stymeist)	9/7 9/7	Hadley Nantucket	2 3	S. Surner
9/13	Wellfleet	15	BBC (R. Styllieist)	3/1	Nantucket	5	V. Laux#

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	Sandpiper (conti		T T T U	10/31	E. of Chatham	250	B. Nikula
9/8	Newbypt	6	J. Hoye#	Iceland Gull	D'4	1	D Milmle
9/9 9/13	Chatham Ipswich (C.B.)	1	R. Schain	10/11 10/28	P'town Gloucester (E.P.	$1 \\ 2$	B. Nikula J. Nelson
Ruff	Ipswich (C.B.)	1	M. Brengle	10/28	Cambr. (F.Pd)) 2	J. Trimble
10/26-29	Saugus	1 im	m ph S. Zendeh#	Lesser Black-		1	J. IIIIIDIC
Short-billed I		1 1111	ii pii 5. Zenden#	9/3	Winthrop	1	R. Stymeist
9/1-10/5	P.I.	70 ma	x v.o.	9/19	P.I.	2	R. Heil
9/11	Winthrop	25	P. Peterson	9/20	Chatham	13	CCBC (Flood)
9/12	Washington	1	E. Neumuth	10/18	Nantucket	18	J. Trimble#
9/20	Randolph	1	G. d'Entremont#	10/24	Acton	1	W. Martens
10/7	Chatham (S.B.)	16	M. Faherty#	10/29	Cambr. (F.Pd)	1	J. Trimble
10/18	Nantucket	9	M. Faherty#	Gull-billed Te	ern		
Long-billed I	Dowitcher			9/2, 11	P.I.	1	Wetmore, Adrien
9/13-10/5		1-5	V.O.	Caspian Tern			
10/6	S. Monomoy	1	M. Faherty#	9/13	P.I.	2	D. Williams
10/15-21	Arlington Res.	1	S. Zendeh#	9/14	Squantum	2	V. Zollo
10/20	Newbypt H.	5	R. Heil	9/28	Ipswich	5	M. Brengle
Wilson's Snip				10/4	Rockport (A.P.)	5	B. Harris
9/10	GMNWR	3	A. Bragg#	10/12	Nantucket	2	B. Harris#
10/15	Arlington Res.	3	S. Zendeh	10/13	W. Dennis	2	A. Winn
10/29	Saugus	3	P. Peterson	Black Tern	In and all (C D)	1	D Williams
American Wo 9/6	P.I.	5	T. Wetmore	9/1 9/1	Ipswich (C.B.) Essex	1	D. Williams D. Brown
10/28	S. Quabbin	4	L. Therrien	Common Ter		1	D. DIOWII
Wilson's Pha		4	L. Incincii	9/3	Everett	3	R. Stymeist
9/1	Eastham (CGB)) 1	B. Lagasse	9/10	Winthrop	25	P. Peterson
9/5	Chatham (S.B.)	1	M. Faherty	9/12		2000	B. Nikula
9/6	Newbypt H.	1	S. Grinley#	9/12, 10/2			B. Nikula
9/6	Winthrop		m ph T. Factor#	10/2	Wachusett Res.	10	J. Lawson
9/16	WBWS	2	J. Lawler#	10/12	Nantucket	1	B. Harris#
Red-necked H	halarope			Forster's Terr	1		
9/7	Stellwagen	32	V.O.	9/1	Dennis (CB)	100	B. Nikula
9/14	Eastham (F.E.)	1	B. Nikula	9/14	Eastham (F.E.)	20	B. Nikula
9/28	Nant. Shoals	206	BBC Pelagic	9/14	Truro	12	BBC (R. Stymeist)
Red Phalarop				9/20	Chatham	32	B. Harris#
9/28	Nant. Shoals	28	BBC Pelagic	10/26	P'town	8	B. Nikula
10/24	Eastham(F.E.)	1	B. Nikula	Black Skimm			
Black-legged		12	D Chamalia	9/3	Plymouth B.	4 21	I. Davies
9/14 9/27	Westport	2	P. Champlin BBC Pelagic	9/6 9/17	Edgartown Bornstehle (S. N		L. Johnson
10/22	Nant. Shoals Rockport (A.P.)	3	R. Heil	9/17	Barnstable (S.N. Ipswich (C.B.)	.) 5	P. Kyle T. Spahr
10/22	P'town	20	B. Nikula	9/28	Revere B.	3	E. Harrison
10/31	E. of Chatham	70	B. Nikula#	Pomarine Jae		5	E. marrison
Bonaparte's C		10	D. Tukulu	9/3	Eastham	2	M. Faherty
9/1	Essex	176	D. Brown	9/14	Westport	1	P. Champlin
9/13	Rockport (A.P.)	107	B. Harris	10/23	Rockport (A.P.)	29	T. Spahr
10/1	Wachusett Res.	17	J. Lawson	10/24	P.I.	1	T. Wetmore
10/9	S. Quabbin	4	L. Therrien	Parasitic Jaeg	ger		
10/17	Newbypt H.	200	R. Stymeist	9/3	Eastham (F.E.)	9	B. Nikula
10/29	P'town	475	B. Nikula	9/12, 10/1		9, 28	B. Nikula
Little Gull	C1 1		.		2 Rockport (A.P.)	1, 1	R. Heil
9/20	Chatham	1	B. Harris#	Long-tailed J		1	D Classel's
9/24, 10/2		1,1	B. Nikula	9/14	Westport	1	P. Champlin
10/31 Loughing Cu	E. of Chatham	1 1W	B. Nikula#	9/27 Thialt hilled l	Hydrographer C	. 3]	uv BBC Pelagic
Laughing Gu 9/12, 10/1		, 375	B. Nikula	Thick-billed 1 10/23		1	T Spahr
9/12, 10/1	Chatham	225	B. Harris	Razorbill	Rockport (A.P.)	1	T. Spahr
9/20	Winthrop	56	R. Stymeist	10/4	Rockport (A.P.)	1	B. Harris#
9/27	Squantum	103	G. d'Entremont	Black Guiller		1	D. ΠαΠ5π
9/30	Rockport (A.P.)	57	R. Heil	9/thr	P.I.	1	T. Wetmore#
10/5	Westport	51	M. Lynch#)/un	1.1.	•	1. Wethforen

CUCKOOS THROUGH FINCHES

October is the peak of the fall Northern Saw-whet Owl migration, but in October 2013 banders lamented the worst flight in more than 10 years. This year mild weather and three straight days of rain initially prevented the owls from moving south. Finally the three-day nor'easter cleared out, and the winds shifted to the northwest. During the last seven days of October over 175 Saw-whets were banded at sites in Northbridge and Lincoln; 60 owls were netted on October 30 alone. For the second year in a row a Long-eared Owl was found in Otis, and on October 27 the first Snowy Owl of the season was reported on Plum Island.

For the second year in a row the number of sightings of Common Nighthawks during fall migration was encouraging. Tom Gagnon reported his highest numbers in over 30 years from his site in Northampton. Good numbers continued into the first few days of September, and a straggler was noted in Grafton on October 6. A high count of 20 Whip-poor-wills was tallied from Plum Island on September 4 with two late lingerers on September 23. Hawk watchers at Mt. Wachusett recorded 151 American Kestrels, 25 Merlins, and 29 Peregrines scattered among the thousands of migrating Broad-winged Hawks.

The fall passerine movement was late getting started. The first eight days of September brought warm southwest winds, and it seemed to this observer and others that birds were just trickling through with no major fallout. It wasn't until September 19 that significant numbers were reported. At Plum Island, counts included 12 Philadelphia Vireos, 11 Black-and-white Warblers, 12 American Redstarts, and 10 Magnolia Warblers. October was a better month for migrants; a major flight of Yellow-rumped Warblers was reported from Westport on October 19 with observers estimating close to 1500 individuals. From mid-October on there was a steady movement of Purple Finches and Pine Siskins.

The sparrow migration was well underway in October. Reports included ten individual Clay-colored, seven Lark, nine Grasshopper, eight Nelson's and two **Le Conte's** sparrows, one in Nahant and another very cooperative one at Danehy Park in Cambridge.

This period traditionally has many surprises and unusual birds. Highlights included a **Rufous Hummingbird**, which visited a feeder in Brewster, where the homeowners welcomed all birders; **Western Kingbirds** from Winthrop and Plum Island; **Sedge Wrens** in Lexington and on Plum Island; a **Black-throated Gray Warbler** in Westport; and a **Painted Bunting** in Brighton. Other noteworthy news included only the second record of Bicknell's Thrush since 2000 banded at Manomet and a high count of 84 Northern Rough-winged Swallows on October 7 in Wayland.

R. Stymeist

Yellow-billed	l Cuckoo			Barred Owl			
9/7	Ware R. IBA	2	M. Lynch#	9/3	Southwick	2	S. Kellogg
9/24	Pittsfield	1	G. Hurley	Long-eared	Owl		00
10/12	Nahant	1	L. Pivacek	9/8	Otis	1	W. Rodgers
10/16	P.I.	1 b	B. Flemer#	Short-eared	Owl		-
10/24	Manomet	1 b	T. Lloyd-Evans	10/27	P.I.	1	T. Wetmore
				Northern Sa	w-whet Owl		
10/26	P.I.	1	R. + C. Prieto	10/20	New Salem	1	B. Lafley
Eastern Scree	ech-Owl			10/20	W. Newbury	1	S. McGrath#
9/13	Ipswich (C.B.)	3	M. Brengle	10/24	P.I.	1	M. Stone
9/20	Braintree	2	G. d'Entremont#	10/30	Northbridge	35 b	B. Milke
Great Horned	l Owl			10/30	DFWS	25 b	K. Seymour
9/7	P.I.	3	T. Wetmore	Common Ni	ighthawk		
9/11	Southwick	2	S. Kellogg	9/1, 21	Northampton	296, 5	T. Gagnon
10/7	Mt.A.	2	A. Trautmann	9/21	Wayland	10	B. Black
Snowy Owl				9/22	Newbury	2	J. Gordon#
10/27	Gloucester	1	C. Haines	9/26	Wayland	2	B. Harris

	ghthawk (continue			10/6	Nahant	1	L. Pivacek
10/6	Grafton	1	M. Lynch#	Eastern Wood			
Eastern Whij				9/7	Ware R. IBA	6	M. Lynch#
9/4, 23		20, 2	T. Wetmore	9/15	Wendell	2	M. Lynch#
9/21	S. Quabbin	1	L. Therrien	9/19	P.I.	4	R. Heil
Chimney Sw		10	D 0	9/19	Winchester	1	R. LaFontaine
9/3	Mt.A.	18	R. Stymeist	Yellow-bellie			
9/18	Malden (PR)	2	L. Melvin	9/8	Salem	1	W. Petersen#
9/28	Dighton	1	J. Eckerson	9/13	Wellfleet		BBC (R. Stymeist)
9/28	P.I.	1	N. Landry#	9/13	Gloucester	1	B. Harris#
	ed Hummingbird	~		9/15	Easthampton	3	B. Zajda
9/4	DFWS	5	P. Sowizral	9/29	P.I.	1	J. Hoye#
9/6	Sturbridge	6	M. Lynch#	10/2	Manomet	1 b	T. Lloyd-Evans
9/14	Mt. Watatic	5	T. Pirro	Acadian Flyc			a F
10/6	S. Hadley	1	A. Hill	9/23	Brewster	1 b	S. Finnegan
10/13	Granby	1	L. Rogers	Willow Flyca			
Rufous Hun				9/4	Concord	1	D. Sibley
10/8-31	Brewster	1 b	M. Myers	Least Flycatc			
Belted Kingf		-		9/18	Cambr. (F.P.)	1	R. Stymeist
9/19	P.I.	3	R. Heil	9/19	Lexington (DM)		M. Rines
10/4	Eastham	3	SSBC (GdE)	9/19	P.I.	4	S. Sullivan
10/19	Quabog IBA	3	M. Lynch#	10/30	Salisbury	1 ph	ı T. Spahr#
American Ke	estrel			Eastern Phoe	be		
9/3-29	Mt. Wachusett	119	Hawkcount (SO)	9/7	Ware R. IBA	33	M. Lynch#
9/8-28	Barre Falls	42	Hawkcount (DS)	9/15	Easthampton	21	B. Zajda
9/19	Mt. Wachusett	17	Hawkcount (SO)	9/29	Bolton Flats	31	M. Lynch#
10/3-28	Barre Falls	37	Hawkcount (DS)	10/10	Malden	10	P. + F. Vale
10/3-31	Mt. Wachusett	32	Hawkcount (SO)	10/19	Westport	8	G. d'Entremont#
10/6	Granville	15	Hawkcount (JW)	Great Crested			
Merlin				9/1	DWWS	1	SSBC (GdE)
9/2-29	Mt. Wachusett	26	Hawkcount (SO)	9/8	P.I.	3	J. Hoye#
9/15	Westport	3	P. Champlin	9/29	Concord	1	D. Sibley
10/2	GMNWR	3	A. Bragg#	10/12	W. Boylston	1	J. Hoye#
10/5-20	Mt. Wachusett	9	Hawkcount (RC)	Western Kin		•	0.11090
10/8-27	Barre Falls	11	Hawkcount (DS)	9/8	Winthrop	1	E. Lipton#
10/19	Russell	4	T. Swochak	10/12	P.I.	1	P. Hunt
10/15	Wachusett Res.	4	K. Bourinot#	Eastern King		1	1. 11010
Peregrine Fa		4	K. Dournot#	9/7	Ware R. IBA	2	M. Lynch#
		• •					
				0/12		1	
9/1-29	Mt. Wachusett	29	Hawkcount (SO)	9/12	Woburn (HP)	1	M. Rines
9/3	P.I.	5	T. Wetmore	9/14	P.I.	2	S. Sullivan#
9/3 9/30	P.I. Rockport (A.P.)	5 11	T. Wetmore R. Heil	9/14 9/18	P.I. ONWR	2 1	S. Sullivan# R. Merrill
9/3 9/30 10/11	P.I. Rockport (A.P.) Nantucket	5 11 12	T. Wetmore R. Heil B. Harris#	9/14 9/18 9/27	P.I. ONWR Cuttyhunk	2	S. Sullivan#
9/3 9/30 10/11 10/19	P.I. Rockport (A.P.) Nantucket Boston (RKG)	5 11 12	T. Wetmore R. Heil	9/14 9/18 9/27 Northern Shr	P.I. ONWR Cuttyhunk ike	2 1 1	S. Sullivan# R. Merrill E. Lipton#
9/3 9/30 10/11 10/19 Monk Parake	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet	5 11 12 3	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist)	9/14 9/18 9/27 Northern Shr 10/28	P.I. ONWR Cuttyhunk ike P.I.	2 1	S. Sullivan# R. Merrill
9/3 9/30 10/11 10/19 Monk Parake 9/17	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston	5 11 12	T. Wetmore R. Heil B. Harris#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V	P.I. ONWR Cuttyhunk ike P.I. Vireo	2 1 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley#
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker	5 11 12 3 pr	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk	2 1 1 1 1 BI	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso)
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM)	5 11 12 3 pr 9	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1	2 1 1 1 1 Bl imm.	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham	5 11 12 3 pr 9 6	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE)	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury	2 1 1 1 1 Bl imm. 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist#
9/3 9/30 10/11 10/19 Monk Parake 9/17 Red-bellied V 9/23 10/4 10/6	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro	5 11 12 3 pr 9 6 8	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I.	2 1 1 1 1 Bl imm.	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich	5 11 12 3 pr 9 6	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE)	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo	2 1 1 1 Bl imm. 1 1 b	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer#
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellied	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker	5 11 12 3 pr 9 6 8 8	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms	2 1 1 1 Bl imm. 1 1 b 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters#
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellia 9/27	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I.	5 11 12 3 pr 9 6 8 8 8 4	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge	2 1 1 1 Bl imm. 1 1 b 1 2	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer#
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellia 9/27 9/27	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I.	5 11 12 3 pr 9 6 8 8 8 4 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR	2 1 1 1 Bl imm. 1 1 b 1 2 2	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center)
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellia 9/27	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant	5 11 12 3 pr 9 6 8 8 8 4 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 Yellow-throa 9/1 9/6 9/7 9/14	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield	2 1 1 1 Bl imm. 1 1 b 1 2	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch#
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellia 9/27 9/27	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I.	5 11 12 3 pr 9 6 8 8 8 4 2 2 2) 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield	2 1 1 1 Bl imm. 1 1 b 1 2 2 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center)
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellia 9/27 10/6	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant	5 11 12 3 pr 9 6 8 8 8 4 2 2 2 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 Yellow-throa 9/1 9/6 9/7 9/14	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield	2 1 1 1 Bl imm. 1 1 b 1 2 2	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center)
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellie 9/27 9/27 10/6 10/8	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant Cambr. (Danehy	5 11 12 3 pr 9 6 8 8 8 4 2 2 2) 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek K. Hartel#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7 9/14 Blue-headed	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield Vireo	2 1 1 1 Bl imm. 1 1 b 1 2 2 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center) M. Lynch#
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellid 9/27 9/27 10/6 10/8 10/10	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant Cambr. (Danehy Boston (Fens) Medford	5 11 12 3 pr 9 6 8 8 8 4 2 2 2 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek K. Hartel# P. Peterson	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7 9/14 Blue-headed 9/19	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield Vireo P.I.	2 1 1 1 1 1 1 1 1 1 1 1 1 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center) M. Lynch# R. Heil
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9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellid 9/27 10/6 10/8 10/10 10/20 Northern Flid	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant Cambr. (Danehy Boston (Fens) Medford cker	5 11 12 3 pr 9 6 8 8 8 4 2 2 2 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek K. Hartel# P. Peterson R. LaFontaine R. Stymeist	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 Yellow-throa 9/1 9/6 9/7 9/14 Blue-headed 9/19 9/28 10/11	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield Vireo P.I. Ware R. IBA Lexington (DM)	2 1 1 1 Bl imm. 1 1 b 1 2 2 1 4 10 3	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center) M. Lynch# R. Heil M. Lynch# M. Rines#
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9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellie 9/27 9/27 10/6 10/8 10/10 10/20 Northern Flie 9/20 9/23 9/29 Pileated Woo 9/10 9/14 10/11 10/25	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant Cambr. (Danehy Boston (Fens) Medford cker Cambr. (Alewife Westport Bolton Flats odpecker P.I. Sandisfield Royalston Quabbin (G33) Weston Flycatcher	5 11 12 3 mr 9 6 8 8 8 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek K. Hartel# P. Peterson R. LaFontaine R. Stymeist P. Champlin M. Lynch# D. Chickering M. Lynch# G. d'Entremont M. Lynch# J. Hoye#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7 9/14 Blue-headed 9/19 9/28 10/11 10/17 10/25 Warbling Vin 9/1 9/4 9/5 10/19 Philadelphia 9/1-10/5	P.I. ONWR Cuttyhunk Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield Vireo P.I. Ware R. IBA Lexington (DM) Reading Duxbury B. eo Wayland Woburn (HP) Cambr. (F.P.) Northampton Vireo	2 1 1 1 1 1 1 1 1 1 1 2 2 1 1 4 10 3 3 3 7 14 7 1 4 7 1 4 7 1 4 7 1 1 4 7 1 1 4 1 7 1 1 3 3 3 7 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center) M. Lynch# BBC (J. Center) M. Lynch# M. Rines# D. Williams R. Bowes B. Harris M. Rines R. Stymeist J. Coleman 17 locations
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellid 9/27 9/27 10/6 10/8 10/10 10/20 Northern Flid 9/20 9/23 9/29 Pileated Woo 9/10 9/14 10/11 10/25 10/27 Olive-sided I 9/6	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant Cambr. (Danehy Boston (Fens) Medford cker Cambr. (Alewife Westport Bolton Flats odpecker P.I. Sandisfield Royalston Quabbin (G33) Weston	5 11 12 3 pr 9 6 8 8 4 2 2 2 2 2 2 2 2 2 2 2 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek K. Hartel# P. Peterson R. LaFontaine R. Stymeist P. Champlin M. Lynch# D. Chickering M. Lynch# J. Hoye# J. Hoye# M. Lynch#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7 9/14 Blue-headed 9/19 9/28 10/11 10/17 10/25 Warbling Vir 9/1 9/4 9/5 10/19 Philadelphia 9/1-10/5 9/8 9/12	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield Vireo P.I. Ware R. IBA Lexington (DM) Reading Duxbury B. eo Wayland Woburn (HP) Cambr. (F.P.) Northampton Vireo Reports of indiv. Lexington W. Warren	2 1 1 1 1 1 1 1 1 1 1 2 2 1 1 4 10 3 3 3 7 14 7 1 4 7 1 4 7 1 4 7 1 1 4 7 1 1 4 10 10 10 10 10 10 10 10 10 10 10 10 10	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center) M. Lynch# BBC (J. Center) M. Lynch# BBC (J. Center) M. Lynch# R. Heil M. Lynch# D. Williams R. Bowes B. Harris M. Rines R. Stymeist J. Coleman 17 locations R. Merrill B. Zajda
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellie 9/27 9/27 9/27 10/6 10/8 10/10 10/20 Northern Flia 9/20 9/23 9/29 Pileated Woo 9/10 9/14 10/11 10/25 10/27 Olive-sided I 9/6 9/7	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant Cambr. (Danehy Boston (Fens) Medford Cker Cambr. (Alewife Westport Bolton Flats odpecker P.I. Sandisfield Royalston Quabbin (G33) Weston Flycatcher Sturbridge Ware R. IBA	5 11 12 3 pr 9 6 8 8 4 2 2 2 2 2 2 2 2 2 2 2 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek K. Hartel# P. Peterson R. LaFontaine R. Stymeist P. Champlin M. Lynch# D. Chickering M. Lynch# G. d'Entremont M. Lynch# J. Hoye#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7 9/14 Blue-headed 9/19 9/28 10/11 10/17 10/25 Warbling Vin 9/1 9/4 9/5 10/19 Philadelphia 9/12 9/13	P.I. ONWR Cuttyhunk Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield Vireo P.I. Ware R. IBA Lexington (DM) Reading Duxbury B. eo Wayland Woburn (HP) Cambr. (F.P.) Northampton Vireo Reports of indiv. Lexington Waren Gloucester	2 1 1 1 1 1 1 1 1 1 1 2 2 1 1 2 1 1 4 10 3 3 3 7 14 7 1 4 7 1 4 7 1 4 7 1 4 7 1 4 7 1 4 7 1 1 5 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center) M. Lynch# BBC (J. Center) M. Lynch# M. Stymeist J. Coleman 17 locations R. Merrill B. Zajda B. Harris#
9/3 9/30 10/11 10/19 Monk Paraka 9/17 Red-bellied V 9/23 10/4 10/6 10/7 Yellow-bellid 9/27 9/27 10/6 10/8 10/10 10/20 Northern Flid 9/20 9/23 9/29 Pileated Woo 9/10 9/14 10/11 10/25 10/27 Olive-sided I 9/6	P.I. Rockport (A.P.) Nantucket Boston (RKG) eet Allston Woodpecker Lexington (DM) Eastham Southboro Ipswich ed Sapsucker P.I. Sandisfield Nahant Cambr. (Danehy Boston (Fens) Medford cker Cambr. (Alewife Westport Bolton Flats odpecker P.I. Sandisfield Royalston Quabbin (G33) Weston Flycatcher Sturbridge	5 11 12 3 pr 9 6 8 8 8 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	T. Wetmore R. Heil B. Harris# BBC (R. Stymeist) C. Knighton M. Rines SSBC (GdE) M. Lynch# J. Berry# N. Landry M. Lynch# L. Pivacek K. Hartel# P. Peterson R. LaFontaine R. Stymeist P. Champlin M. Lynch# D. Chickering M. Lynch# J. Hoye# M. Lynch# M. Lynch#	9/14 9/18 9/27 Northern Shr 10/28 White-eyed V 9/27 9/30 10/5 10/6 Yellow-throa 9/1 9/6 9/7 9/14 Blue-headed 9/19 9/28 10/11 10/17 10/25 Warbling Vir 9/1 9/4 9/5 10/19 Philadelphia 9/1-10/5 9/8 9/12	P.I. ONWR Cuttyhunk ike P.I. Vireo Cuttyhunk Gloucester 1 Salisbury P.I. ted Vireo Cumb. Farms Sturbridge ONWR Sandisfield Vireo P.I. Ware R. IBA Lexington (DM) Reading Duxbury B. eo Wayland Woburn (HP) Cambr. (F.P.) Northampton Vireo Reports of indiv. Lexington W. Warren	2 1 1 1 1 1 1 1 1 1 1 1 2 2 1 1 2 1 4 10 3 3 3 7 14 7 1 4 7 1 2 2 3 2	S. Sullivan# R. Merrill E. Lipton# D. Gumbley# BC (L. Ferraresso) B. Harris R. Stymeist# B. Flemer# L. Waters# M. Lynch# BBC (J. Center) M. Lynch# BBC (J. Center) M. Lynch# BBC (J. Center) M. Lynch# R. Heil M. Lynch# D. Williams R. Bowes B. Harris M. Rines R. Stymeist J. Coleman 17 locations R. Merrill B. Zajda

Dhile delute a	Cinco (continued)			0/14	Crumb Errore	F	C d'Entrement
9/14	Vireo (continued) Truro	2	BBC (R. Stymeist)	9/14 9/27	Cumb. Farms Sandisfield	5 6	G. d'Entremont M. Lynch#
9/19	P.I.	12	R. Heil	10/11	Athol	3	G. d'Entremont#
Red-eyed Vir		12	it. Hen	10/19	Lincoln	2	N. Levey
9/7	Ware R. IBA	18	M. Lynch#	10/28	Lexington (DM)	1	M. Rines
9/19	Medford	6	R. LaFontaine	Winter Wren	0 . ,		
9/30	Belmont	5	R. Stymeist#	thr	Reports of indiv.	from 1	19 locations
10/30	P.I.	3	B. Harris	Sedge Wren			
Fish Crow	N	100		9/19	P.I.	1	R. Heil
9/17	Randolph	103	P. Peterson	10/20-22	Lexington (DM)	1	A. Laquidara#
10/6 10/13	Mattapan (BNC)	20 25	P. Peterson	Marsh Wren 9/16	P.I.	5	T Watmora
10/13	Barnstable Framingham	23 4	G. d'Entremont J. Hoye#	9/10	GMNWR	9	T. Wetmore A. Bragg#
Common Ray		4	J. 110yc#	Blue-gray Gn	atcatcher		A. Diagg#
9/13	Mt. Watatic	25	T. Pirro	9/1	Concord	5	R. Stymeist
9/15	Barre Falls	13	D. Schilling	9/21	E. Boston (B.I.)	1	R. Stymeist
9/24	Mt. Wachusett	15	S. Olson	9/21	Lexington	1	Č. Gras
10/3	Wendell	4	M. Lynch#	Golden-crown	ned Kinglet		
10/11	New Salem	4	G. d'Entremont#	9/27	Winchester	1	M. Rines#
10/15	W. Roxbury (MP		P. Peterson	10/11	Woburn (HP)	4	M. Rines
10/19	Medford	3	J. Kovner#	10/19	Westport	50	G. d'Entremont#
10/25 Horned Lark	Quabbin (G33)	3	M. Lynch#	10/19 10/25	Rockport	4 6	J. Berry#
10/3	Northampton	1	L. Therrien	10/25	Quabbin (G33) P.I.	18	M. Lynch# N. Landry
10/26	Saugus	6	S. Zendeh#	Ruby-crowne		10	IV. Landi y
10/26	Lynn	3	R. Heil	9/19	P.I.	9	R. Heil
10/31	P.I.	50	T. Wetmore	10/3	Wendell	22	M. Lynch#
Purple Martin	L			10/12	Arlington Res.	10	K. Hartel#
<u>9</u> /2		r, 33 f	S. McGrath	10/19	Rockport	11	J. Berry#
9/12	Rehoboth 58 pr,	269 f	R. Marr	10/19	Westport	30	G. d'Entremont#
Tree Swallow				10/21	Cambr. (Danehy		R. Stymeist
9/1	W.Bridgewater 6		L. Waters#	10/21	Lexington (DM)		M. Rines
9/15		2000	P. Champlin	10/25	Thompson I.	12	R. Stymeist#
9/20 9/21	Weymouth 1 Sheffield	100 500	G. d'Entremont# R. Wendell	Eastern Blueb 9/13	W. Warren	13	P Zaida
10/23	Southwick	10	S. Kellogg	10/3	Barre Falls	13	B. Zajda D. Schilling
10/23	Aquinnah	65	S. Whiting	10/17	GMNWR	31	A. Bragg#
	gh-winged Swallo		5. Winning	10/20	DFWS	16	P. Sowizral
10/7	Wayland	84	B. Harris	10/29	Ipswich	15	J. Berry#
Bank Swallov				10/31	Ŵayland	15	J. Forbes
9/4	GMNWR	6	A. Bragg#	Veery	•		
9/11	Winthrop B.	1	P. Peterson	9/7	Ware R. IBA	3	M. Lynch#
9/19	P.I.	5	S. Sullivan	9/21	Acton	1	S. Miller
9/29	Cumb. Farms	1	N. Bonomo	Gray-cheeked		1	C Winsterl
Cliff Swallow 9/4		1	A Drogg#	9/24 9/24	Concord	1 1	C. Winstanley
9/4 9/27	GMNWR Cuttyhunk		A. Bragg# BBC (L. Ferraresso)	9/24 9/27	Marlboro Rockport	1	T. Spahr B. Harris#
Barn Swallow		11	DC (L. Pellalesso)	10/3, 14		b, 1 b	B. Flemer#
9/6	P.I.	60	T. Wetmore	10/14	Manomet	2 b	T. Lloyd-Evans
9/9	Boston (Deer I.)	12	R. Stymeist	Bicknell's Th			
9/14	Ipswich (C.B.)	80	J. Ďerry#	10/21	Manomet	1 b	T. Lloyd-Evans
10/8	Ŵayland	1	J. Forbes	Swainson's T	hrush		•
10/15	Eastham	2	M. Keleher	9/15	Wendell	3	M. Lynch#
Red-breasted		10	DDG (D) (C) (C)	9/27	P.I.	3	N. Landry
9/13	Wellfleet	18	BBC (R. Stymeist)	10/2	Boston (Fens)	3	P. Peterson
9/28 10/4	Ware R. IBA P.I.	11 6	M. Lynch#	10/10 10/14	GMNWR P.I.	2 1 b	D. Swain B. Flemer#
10/4	Westport	20	N. Landry P. Champlin	Hermit Thrus		10	D. Fleinei#
10/12	Quabbin (G33)	13	M. Lynch#	10/12	Sandisfield	13	M. Lynch#
Brown Creep	er	15	III. Eynenn	10/20	Nahant	20	R. Stymeist
10/3	P.I.	5	T. Wetmore	10/20	Medford	12	R. LaFontaine
10/12	Westport	6	P. Champlin	10/28	Lexington (DM)	22	M. Rines
10/24	GMŃWR	4	A. Bragg#	10/28	Boston (Fens)	19	P. Peterson
10/25	Duxbury B.	4	R. Bowes	10/29	P.I.	8	T. Wetmore
Carolina Wre				Wood Thrush			
9/1	DWWS	10	SSBC (GdE)	9/14	Sandisfield	1	M. Lynch#
9/27	Cuttyhunk		BBC (L. Ferraresso)	10/11	Amherst	1	J. Drucker
10/4	Eastham Southboro	12 8	SSBC (GdE) M. Lynch#	10/12 Grav Cathird	P.I.	1	E. Labato
10/17 10/20	Nahant	8 6	R. Stymeist	Gray Catbird 9/1	DWWS	44	SSBC (GdE)
House Wren	i vanant	0	K. Stymeist	9/1	Ware R. IBA	44	M. Lynch#
9/7	Ware R. IBA	8	M. Lynch#	9/17	DFWS	24	P. Sowizral
		0		21 - 1		- •	1. 50 112101

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Gray Catbird		06	D II.'I	10/6	Arlington Res.	3	M. Rines
9/19	P.I. Levington (DM)	96 4.1	R. Heil	10/29 10/30	Brighton Aquinnah	1 1	D. Bernstein
Brown Thras	Lexington (DM)	4.1	M. Rines	Connecticut		1	S. Whiting#
9/2-20	P.I.	12 b	B. Flemer#	9/8-25	Reports of indiv.	from 1	locations
9/14	Ipswich (C.B.)	3	J. Berry#	10/17	Wayland	1 im	
9/23	P.I.	21	S. Sullivan	Mourning W			
American Pi	pit			9/8	Lexington	1 m i	mm R. Merrill
9/7	Ipswich (C.B.)	1	M. Brengle#	9/19	Hadley	1	L. Therrien
9/29	P.I.	79	J. Keeley#	10/1	Cambr. (Danehy)		K. Hartel#
10/6	0	115	J. Pierce	10/19	S. Dart (A.Pd)	1	E. Nielsen
10/6	Hadley	86	J. Rose	Common Ye			
10/12	Newbury	60	J. Nelson	9/7	Ware R. IBA	39	M. Lynch#
10/14	·	200	T. Pirro L. Waters	9/7 9/14	Lexington (DM)	14 14	M. Rines
10/16 10/18	W. Bridgewater 1 Northampton 1	165	S. Surner	9/14 9/29	Cumb. Farms Bolton Flats	14	G. d'Entremont M. Lynch#
Cedar Waxw		105	5. Sumer	10/19	Boston (RKG)	4	P. Peterson
9/19		160	R. Heil	Hooded Wa		-	1.1000300
9/20	Burlington	66	M. Rines#	9/29	Boston (Fens)	1 f	P. Peterson
9/27	Cuttyhunk	75 BB	C (L. Ferraresso)	American R			
10/12	P'town	75	B. Thompson	9/7	Ware R. IBA	13	M. Lynch#
10/30	Aquinnah 1	101	S. Whiting#	9/15	Westport	8	P. Champlin
Lapland Lon				9/19	P.I.	12	R. Heil
9/23	P.I.	1	S. Perkins	10/25	Lexington (DM)	1	M. Rines#
9/28	Aquinnah	1	B. Shriber	10/28	Belmont	1	D. Hefferon
10/24	Duxbury B.	3	R. Bowes	Cape May V		A D	
Snow Buntin		2	V Hammen	9/14	Truro		BC (R. Stymeist)
10/11 10/28	Pittsfield (Pont.)	2 3	K. Hanson	9/20 9/23	Edgartown	$\frac{2}{2}$	K. Magnuson
10/28	Granville P.I.	8	J. Weeks S. Sullivan	9/23	P.I. Cuttybunk		T. Wetmore C (L. Ferraresso)
10/28	Nahant	14	L. Pivacek	10/19	Cuttyhunk Westport	2 55	G. d'Entremont#
Ovenbird	Ivanant	14	L. I IVacek	Northern Pa		2	O. a Entremonta
9/6	P.I.	2	P. + F. Vale	9/15	Westport	2	P. Champlin
9/14	Sandisfield	3	M. Lynch#	9/19	P.I.	4	R. Ĥeil
10/25	Boston (PO Sq.)	1	R. Stymeist	9/19	Winchester	2	R. LaFontaine
Worm-eating	Warbler		•	10/3	Boston (PG)	2	P. Peterson
9/12	P.I.	1 b	B. Flemer#	10/21	Lexington (DM)	2	M. Rines
Northern Wa				Magnolia W			
9/7	Westport	12	P. Champlin	9/7	Ware R. IBA	4	M. Lynch#
9/8	P.I.	2	J. Hoye#	9/15	Westport	9	P. Champlin
9/15	Westport	6	P. Champlin	9/19	P.I. Nortuslat	10	R. Heil
10/15 Plue winged	Mattapan (BNC)	1	L. Nichols	10/4 10/7	Nantucket	2 1	V. Laux# M. Rines
Blue-winged 9/2	Gloucester	1	B. Harris	10/7	Woburn (HP) Medford	1	R. LaFontaine
9/7	Ware R. IBA	1	M. Lynch#	Bay-breaste		1	R. Lai Olitallic
9/20	Cambr. (Alewife)		R. Stymeist	9/7	Hadley	1	L. Therrien
9/23	WBWS	1 b	J. Junda	9/7	Ware R. IBA	1	M. Lynch#
Black-and-w				9/7	Washington	1	K. Hanson
9/14	Stoneham	8	P. Peterson	9/19	P.I.	1	R. Heil
9/15	Wendell	9	M. Lynch#	10/13	Stoneham	1	C. Husic
9/19	P.I.	11	R. Heil	10/19	Nantucket	1	M. Faherty
10/2	Boston (Fens)	3	P. Peterson	Blackburnia			
10/28	Belmont	1	D. Logan	9/12	Hadley	3	B. Zajda
Prothonotar		1	T. Destaurs 1-#	9/15	Wendell	5 1	M. Lynch#
10/10 Tennessee W	Nantucket	1	T. Pastuszak#	9/25 10/26	Quabbin (G10)	1	B. Zajda M. Corrort
9/12	W. Warren	3	B. Zajda	Yellow War	Chestnut Hill	1	M. Garvey#
10/9	Wayland	1	J. Forbes	9/21	Hadley	1	L. Therrien
10/12	P.I.	1	E. Labato	9/27	Arlington Res.	1	M. Rines#
10/18	Boston (Fens)	1	R. Schain	10/6	S. Monomoy	2	M. Faherty#
Orange-crow				10/6	N. Brookfield	1	R. Jenkins
10/10	Nantucket	2	B. Harris#	Chestnut-sic	led Warbler		
10/12	Westport	5	P. Champlin	9/7	Ware R. IBA	3	M. Lynch#
10/13	Brewster	2	G. d'Entremont	9/16	Winchester	1	R. LaFontaine
10/17	Nahant	2	L. Pivacek	9/22	P.I.	1 im	m b B. Flemer#
10/21	W. Roxbury (MP)		P. Peterson	Blackpoll W		1	MD
10/21	Lexington (DM)	3 2	M. Rines	9/4 9/22	Woburn (HP)	1 32	M. Rines
10/25 Nashville Wa	Aquinnah	2	P. Gilmore	9/22 9/23	Cuttyhunk Dighton	32 35	CCBC (Davies) J. Eckerson
9/15	Westport	3	P. Champlin	9/23 9/26	Mt. A.	33 9	M. Sabourin
		3	R. Heil	9/20	Sandisfield	18	M. Lynch#
9/19	P.I.						

D1 1 11 XX7	11 /			0/10		10	D G i
	rbler (continued)			9/19	Lexington (DM)		R. Stymeist
10/31	Wayland	1	J. Forbes	9/24	Paxton	25	R. Jenkins
	d Blue Warbler	2	D Classific	9/25		124	M. Lynch#
9/7	Westport	2	P. Champlin	10/11	Hadley	25	G. d'Entremont#
9/7	Ware R. IBA	6	M. Lynch#	10/29	Ipswich	4	J. Berry#
9/19	P.I.	6	R. Heil	Clay-colored			F F 1
9/25	Quabbin (G10)	4	B. Zajda	9/12	Belmont	1	F. Lehman
10/27	Wayland	1	B. Harris	9/15	Westport	1	P. Champlin
10/29	Lexington	1	A. Laquidara	9/24	Easthampton	1	B. Zajda
Palm Warbler				10/4	Rockport (A.P.)	1	B. Harris#
	9 Arlington Res.	3, 16	M. Rines	10/5	Concord (NAC)	1	S. Perkins#
9/30	Framingham	15	J. Hoye#	10/5-13	P.I.	1	S. Haydock#
10/12	Falmouth	23	J. Glydon	10/12	Stow	1	R. Stotts
10/12	Newbury	24	J. Nelson	10/19	Westport	1	C. Longworth
10/14	Framingham	12	J. Hoye	10/25	Fairhaven	1	I. Davies
10/14, 28	DFWS	15, 7	P. Sowizral	10/30	Nantucket	1	T. Pastuszak
10/28	Lexington (DM) 6	M. Rines	Field Sparrov	W		
Pine Warbler				9/27 [°]	Weymouth	8	SSBC (GdE)
9/7	Ware R. IBA	41	M. Lynch#	10/3	P.I.	3	T. Wetmore
9/13	Wellfleet	32	BBC (R. Stymeist)	10/4	Eastham	5	SSBC (GdE)
10/4	Nantucket	46	V. Laux#	10/21	W. Roxbury (MP) 5	P. Peterson
10/28	Leicester	2	C. Bailey	Vesper Sparr		<i>´</i>	
Yellow-rump	ed Warbler		2	9/20 ¹	Hadley	3	J. Coleman
9/13	Ware R. IBA	44	M. Lynch#	10/13	P.I.	1	B. Murphy#
10/11	Lexington (DM		M. Rines#	10/16	W. Bridgewater	3	L. Waters
10/12	Sandisfield	141	M. Lynch#	10/18	Carlisle	1	A. Ankers
10/19		1500	G. d'Entremont#	10/25	Aquinnah	2	P. Gilmore
10/20	Chatham	120	R. Merrill#	10/26	Westboro	ĩ	T. Spahr
10/25	Wachusett Res.	78	K. Bourinot#	10/29	Falmouth	2	M. Keleher#
10/29	P.I.	89	S. Sullivan	Lark Sparrov		-	ivi. reciciter#
Prairie Warble		07	5. Sullivali	9/3	Charlestown	1	J. Leyman
9/7	Ware R. IBA	6	M. Lynch#	9/3	Monomoy	1	R. Prescott#
9/15	Westport	2	P. Champlin	9/8	Salem	1	W. Petersen#
9/24	Cambr. (Danehy		K. Hartel#	9/10	Nantucket	1	V. Laux#
10/5	Ipswich	1	BBC (T. Young)	9/27	Cuttyhunk	1	L. Waters#
10/12		1		9/29		1	R. Jenkins
10/12	Nantucket	1	B. Harris#	9/29	N. Brookfield	1	K. JUIKIIIS
Dlaak threat	ad Crow Warble			10/16	W Dridgeweter	1	I Watara#
	ed Gray Warble		nh D.Logan	10/16 Sauannah Sm	W. Bridgewater	1	L. Waters#
9/23	Westport		ph D. Logan	Savannah Sp	arrow		
9/23 Black-throate	Westport d Green Warbler	1		Savannah Sp 9/24	oarrow Concord	36	M. Rines
9/23 Black-throate 9/15	Westport d Green Warbler Wendell	1 19	M. Lynch#	Savannah Sp 9/24 9/27	Concord Weymouth	36 34	M. Rines SSBC (GdE)
9/23 Black-throate 9/15 9/19	Westport d Green Warbler Wendell P.I.	1 19 4	M. Lynch# R. Heil	Savannah Sp 9/24 9/27 9/29	oarrow Concord Weymouth Bolton Flats	36 34 89	M. Rines SSBC (GdE) M. Lynch#
9/23 Black-throate 9/15 9/19 9/20	Westport d Green Warbler Wendell P.I. Braintree	1 19 4 3	M. Lynch# R. Heil G. d'Entremont#	Savannah Sp 9/24 9/27 9/29 10/5	Concord Weymouth Bolton Flats New Braintree	36 34 89 92	M. Rines SSBC (GdE) M. Lynch# R. Jenkins
9/23 Black-throate 9/15 9/19 9/20 9/20	Westport d Green Warbler Wendell P.I. Braintree Burlington	1 19 4 3 5	M. Lynch# R. Heil G. d'Entremont# M. Rines#	Savannah Sp 9/24 9/27 9/29 10/5 10/16	Concord Weymouth Bolton Flats New Braintree W. Bridgewater	36 34 89 92 280	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters
9/23 Black-throate 9/15 9/19 9/20 9/20 9/20 9/25	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10)	19 4 3 5 5	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26	Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington	36 34 89 92	M. Rines SSBC (GdE) M. Lynch# R. Jenkins
9/23 Black-throate 9/15 9/19 9/20 9/20 9/20 9/25 10/20	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark	1 19 4 3 5	M. Lynch# R. Heil G. d'Entremont# M. Rines#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Spar	Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington trow	36 34 89 92 280 50	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook
9/23 Black-throate 9/15 9/19 9/20 9/20 9/25 10/20 Canada Warb	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler	19 4 3 5 5 2	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I.	36 34 89 92 280	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters
9/23 Black-throate 9/15 9/19 9/20 9/20 9/25 10/20 Canada Warb 9/4	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham	19 4 3 5 5 2 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper	Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow	36 34 89 92 280 50 2	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan
9/23 Black-throate 9/15 9/19 9/20 9/20 9/25 10/20 Canada Warb 9/4 9/8	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington	19 4 3 5 5 2 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Spai 10/29 Grasshopper 9/19	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington crow P.I. Sparrow Easthampton	36 34 89 92 280 50 2 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley	1 19 4 3 5 5 2 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Spar 10/29 Grasshopper 9/19 9/27	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth	36 34 89 92 280 50 2 1 2	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington	19 4 3 5 2 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms	36 34 89 92 280 50 2 1 2 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo
9/23 Black-throate 9/15 9/19 9/20 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I.	1 19 4 3 5 5 2 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield	36 34 89 92 280 50 2 1 2 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler	$ \begin{array}{c} 1 \\ 19 \\ 4 \\ 3 \\ 5 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington trow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket	$36 \\ 34 \\ 89 \\ 92 \\ 280 \\ 50 \\ 2 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1$	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris#
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/12 9/17 9/19 Wilson's War 9/2	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell	$ \begin{array}{c} 1 \\ 19 \\ 4 \\ 3 \\ 5 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \end{array} $	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 9/29 9/29 10/12 10/12	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I.	$36 \\ 34 \\ 89 \\ 92 \\ 280 \\ 50 \\ 2 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/12 9/17 9/19 Wilson's War 9/2 9/19	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I.	$ \begin{array}{c} 1 \\ 19 \\ 4 \\ 3 \\ 5 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ \end{array} $	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln	36 34 89 92 280 50 2 1 2 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/17 9/19 Wilson's War 9/2 9/19 10/27	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland	$ \begin{array}{c} 1 \\ 19 \\ 4 \\ 3 \\ 5 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \end{array} $	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/13 10/17	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater	$36 \\ 34 \\ 89 \\ 92 \\ 280 \\ 50 \\ 2 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat	$ \begin{array}{c} 1 \\ 19 \\ 4 \\ 3 \\ 5 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \end{array} $	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Spar 10/29 Grasshopper 9/19 9/27 9/29 9/29 9/29 10/12 10/12 10/13 10/17 Le Conte's S	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow	$36 \\ 34 \\ 89 \\ 92 \\ 280 \\ 50 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/12 9/17 9/19 Wilson's War 9/19 10/27 Yellow-breast 9/15	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I.	$ \begin{array}{c} 1 \\ 19 \\ 4 \\ 3 \\ 5 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 2 \\ \end{array} $	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's & 10/19	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant	$36 \\ 34 \\ 89 \\ 92 \\ 280 \\ 50 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley#
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/12 9/17 9/19 Wilson's War 9/19 10/27 Yellow-breast 9/15 9/18-10/30	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I.) Reports of indiv	$ \begin{array}{c} 1 \\ 19 \\ 4 \\ 3 \\ 5 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 2 \\ \end{array} $	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy)	$36 \\ 34 \\ 89 \\ 92 \\ 280 \\ 50 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast 9/15 9/18-10/30 Eastern Towh	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I. Neports of indiviee	1 19 4 3 5 5 2 1 1 1 1 1 1 2 2 . from	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy) urow	$\begin{array}{c} 36 \\ 34 \\ 89 \\ 92 \\ 280 \\ 50 \\ 2 \\ 1 \\ 2 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr#
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 U0/27 Yellow-breasi 9/15 9/18-10/30 Eastern Towh 9/13	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I. Neports of indiviee Wellfleet	1) 19 4 3 5 5 2 1 1 1 1 2 1 2 2 5 5 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# h 10 locations BBC (R. Stymeist)	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/13 10/17 Le Conte's § 10/19 10/28 Nelson's Spa 9/24	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy, urrow Cambr. (Danehy,	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel#
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/12 9/17 9/19 Wilson's War 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast 9/15 9/15	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I.) Reports of indive ee Wellfleet Wendell	1) 19 4 3 5 5 2 1 1 1 1 1 2 2 5 5 2 1 1 1 1 1 2 2 5 5 2 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Fines b. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy, P.I.	36 34 89 92 280 50 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/2 9/17 9/17 9/17 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast 9/15 9/15 9/19	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I.) Reports of indive Wellfleet Wendell P.I.	1 19 4 3 5 5 2 2 1 1 1 1 1 2 2 5 from 12 41 39	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy) P.I. W. Bridgewater	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast 9/15 9/18-10/30 Eastern Towh 9/13 9/15 9/19 9/20	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington Hadley Lexington P.I. bler Lowell P.I. Deprts of indivee Wellfleet Wendell P.I. Cuttyhunk	1 19 4 3 5 5 2 1 1 1 1 1 2 4 1 39 54	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's § 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy, P.I. W. Bridgewater Boston (RKG)	36 34 89 92 280 50 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur#
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 U0/27 Yellow-breast 9/15 9/13 9/15 9/19 9/20 10/4	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland led Chat P.I. Neports of indivee Wellfleet Wendell P.I. Cuttyhunk Nantucket	19 43 55 2 1 1 1 1 1 1 1 2 2 4 1 1 1 2 4 1 39 9 54 76	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Spar 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy) Urrow Cambr. (Danehy) P.I. W. Bridgewater Boston (RKG) Manomet	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/12 9/17 9/19 Wilson's War 9/19 Wilson's War 9/19 10/27 Yellow-breast 9/15 9/15 9/15 9/15 9/15 9/15 9/15 9/15	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I. Deports of indivee Wellfleet Wendell P.I. Cuttyhunk Nantucket Medford	1 19 4 3 5 5 2 1 1 1 1 1 2 4 1 39 54	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/12 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 9/24 9/29 9/29 9/29 10/12 10/12 10/17 Le Conte's Spa 9/24 10/10 10/27 Saltmarsh Sp	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy, P.I. W. Bridgewater Boston (RKG) Manomet	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Bauu# T. Lloyd-Evans
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/19 Wilson's War 9/19 10/27 Yellow-breast 9/15 9/18-10/30 Eastern Towh 9/13 9/15 9/19 9/20 10/4 10/20 American Tre	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I. Neports of indivee Wellfleet Wendell P.I. Cuttyhunk Nantucket Medford e Sparrow	19 43 55 2 1 1 1 1 1 1 2 1 2 4 1 39 54 76 3	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Finest B. Jajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux# R. LaFontaine	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20 10/27 Saltmarsh Sp 9/5	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy) PI. W. Bridgewater Boston (RKG) Manomet varrow Chatham (S.B.)	36 34 89 92 280 50 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur# T. Lloyd-Evans M. Faherty
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast 9/15 9/18-10/30 Eastern Towh 9/13 9/15 9/19 9/20 10/4 10/20 American Tre 10/25	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington Hadley Lexington P.I. bler Lowell P.I. Neports of indivee Wellfleet Wendell P.I. Cuttyhunk Nantucket Medford e Sparrow P.I.	1 19 4 3 5 5 2 1 1 1 1 1 2 1 2 41 39 5 5 41 39 5 5 41 39 5 5 6 7 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20 10/27 Saltmarsh Sp 9/5 10/7	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy, P.I. W. Bridgewater Boston (RKG) Manomet Sparrow Chatham (S.B.) P.I.	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 3 2 1 1 b 1 5 4	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur# T. Lloyd-Evans M. Faherty T. Wetmore
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/19 Wilson's War 9/19 10/27 Yellow-breast 9/15 9/18-10/30 Eastern Towh 9/13 9/15 9/19 9/20 10/4 10/20 American Tre	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I. Neports of indivee Wellfleet Wendell P.I. Cuttyhunk Nantucket Medford e Sparrow	1 19 4 3 5 5 2 1 1 1 1 2 5 form 12 41 39 54 76 3 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Finest B. Jajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux# R. LaFontaine	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20 10/27 Saltmarsh Sp 9/5	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy) PI. W. Bridgewater Boston (RKG) Manomet varrow Chatham (S.B.)	36 34 89 92 280 50 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur# T. Lloyd-Evans M. Faherty
9/23 Black-throate 9/15 9/19 9/20 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/17 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast 9/15 9/18-10/30 Eastern Towh 9/13 9/15 9/19 9/20 10/4 10/20 American Tre 10/25 10/225	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington Hadley Lexington P.I. bler Lowell P.I. Wayland ted Chat P.I. Neports of indiv ee Wellfleet Wendell P.I. Cuttyhunk Nantucket Medford se Sparrow P.I. Wachusett Res. Hubbardston	1 19 4 3 5 5 2 1 1 1 1 1 2 1 2 41 39 5 5 41 39 5 5 41 39 5 5 6 7 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux# R. LaFontaine A. Bartolo	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20 10/27 Saltmarsh Sp 9/5 10/7 10/7	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy) P.I. W. Bridgewater Boston (RKG) Manomet Nanomet Narow Chatham (S.B.) P.I. Chatham (S.B.) Dorchester	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 3 2 1 1 b 1 5 4	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur# T. Lloyd-Evans M. Faherty T. Wetmore
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/12 9/17 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 Wilson's War 9/2 9/19 U0/27 Yellow-breast 9/15 9/15 9/15 9/15 9/15 9/15 9/15 9/15	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Hadley Had	1 19 4 3 5 5 2 1 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 4 3 5 5 5 2 2 1 1 1 1 1 1 1 1 2 1 2 1 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# n 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux# R. LaFontaine A. Bartolo K. Bourinot# M. Lynch#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Spar 10/29 Grasshopper 9/19 9/27 9/29 9/29 9/29 10/12 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20 10/27 Saltmarsh Sp 9/5 10/7 10/7	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy, P.I. W. Bridgewater Boston (RKG) Manomet varrow Chatham (S.B.) P.I. Chatham (S.B.) Dorchester row	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur# T. Lloyd-Evans M. Faherty T. Wetmore M. Faherty# V. Zollo
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 Wilson's War 9/12 9/17 Vilson's War 9/12 9/17 Vilson's War 9/12 9/19 Wilson's War 9/12 9/17 Vilson's War 9/12 9/19 Wilson's Top 10/27 Yellow-breasi 9/15 9/12 9/12 9/12 9/12 9/12 9/12 9/12 9/12	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Lexington Hadley Lexington P.I. Uowell P.I. Wayland ted Chat P.I. Deports of indivee Wellfleet Wendell P.I. Cuttyhunk Nantucket Medford we Sparrow P.I. Wachusett Res. Hubbardston rrow DWWS	1 19 4 3 5 5 2 1 1 1 1 2 5 form 12 41 39 54 76 3 3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux# R. LaFontaine A. Bartolo K. Bourinot#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20 10/27 Saltmarsh Sp 9/5 10/7 10/7 10/7 10/26 Seaside Span 9/6	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy P.I. W. Bridgewater Boston (RKG) Manomet Sarrow Chatham (S.B.) P.I. Chatham (S.B.) Dorchester row Edgartown	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 3 2 1 1 5 4 10 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur# T. Lloyd-Evans M. Faherty T. Wetmore M. Faherty#
9/23 Black-throate 9/15 9/19 9/20 9/25 10/20 Canada Warb 9/4 9/8 9/12 9/17 9/19 Wilson's War 9/2 9/19 10/27 Yellow-breast 9/15 9/18-10/30 Eastern Towh 9/13 9/15 9/19 9/20 10/4 10/20 American Tre 10/25 10/26 Chipping Spa	Westport d Green Warbler Wendell P.I. Braintree Burlington Quabbin (G10) Chilmark ler Eastham Lexington Hadley Hadley Had	1 19 4 3 5 5 2 1 1 1 1 1 2 2 41 39 5 44 76 3 2 2 38	M. Lynch# R. Heil G. d'Entremont# M. Rines# B. Zajda T. Spahr M. Faherty R. Merrill B. Zajda M. Rines b B. Flemer# M. Baird R. Heil J. Forbes b B. Flemer# n 10 locations BBC (R. Stymeist) M. Lynch# R. Heil I. Davies V. Laux# R. LaFontaine A. Bartolo K. Bourinot# M. Lynch#	Savannah Sp 9/24 9/27 9/29 10/5 10/16 10/26 Ipswich Span 10/29 Grasshopper 9/19 9/27 9/29 9/29 10/12 10/12 10/12 10/13 10/17 Le Conte's S 10/19 10/28 Nelson's Spa 9/24 10/10 10/16 10/20 10/27 Saltmarsh Sp 9/5 10/7 10/7	varrow Concord Weymouth Bolton Flats New Braintree W. Bridgewater Lexington rrow P.I. Sparrow Easthampton Falmouth Cumb. Farms Pittsfield Nantucket P.I. Lincoln W. Bridgewater Sparrow Nahant Cambr. (Danehy, P.I. W. Bridgewater Boston (RKG) Manomet varrow Chatham (S.B.) P.I. Chatham (S.B.) Dorchester row	36 34 89 92 280 50 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines SSBC (GdE) M. Lynch# R. Jenkins L. Waters C. Cook S. Sullivan B. Zajda J. Glydon N. Bonomo J. Pierce B. Harris# S. Arena N. Levy C. Floyd S. Grinley# T. Spahr# K. Hartel# T. Wetmore L. Waters J. Baur# T. Lloyd-Evans M. Faherty T. Wetmore M. Faherty# V. Zollo

For Sparrow				Dickcissel			
Fox Sparrow 10/13	New Salem	1	B. Lafley	thr	Reports of indi-	v from 10) locations
10/19	Lexington (DM)	1	M. Rines	10/17	Nahant	2	L. Pivacek
10/28	Manomet	1 b	T. Lloyd-Evans	10/17	Nantucket	$\overline{\overline{2}}$	J. Trimble#
10/29	Wayland	1	G. Dysart	Bobolink			
10/29	Brighton	1	D. Bernstein	9/3	Northampton	731	T. Gagnon
Lincoln's Spa	rrow			9/8	Lexington	15	R. Merrill
9/15	Cheshire	7	J. Pierce	9/17	GMNWR	12	A. Bragg#
9/15	Easthampton	7	L. Therrien	10/5	New Braintree	14	R. Jenkins
9/17	Northfield	6	J. Coleman	10/19	Acton	2	C. Winstanley
9/23	Pittsfield	7	J. Pierce	Eastern Mead			
10/4	Framingham	4	J. Hoye	9/27	Weymouth	14	SSBC (GdE)
10/5	New Braintree	4 9	R. Jenkins	10/9	Ludlow	2	L. Richardson
10/13	Northampton	9	L. Therrien	10/14 10/25	Framingham	1 1	J. Hoye P. Gilmore
Swamp Sparr 9/21		108	K. Bourinot#		Aquinnah ed Blackbird	1	F. Gilliole
9/30	Lexington (DM)	33	M. Rines	9/10	Nantucket	1	V. Laux#
10/7	Wavland	40	B. Harris	9/23	P.I.	1	S. Perkins
10/11	Southwick	30	S. Kellogg	10/4-08	Salisbury	1 m	S. Mirick $+$ v.o.
10/13	Northampton	57	L. Therrien	10/12	Nantucket	1	T. Pastuszak#
White-throate				Rusty Blackb	oird		
10/12		191	M. Lynch#	10/2	GMNWR	29	A. Bragg#
10/26	Mt.A.	68	R. Stymeist	10/7	Wayland	14	B. Harris
10/29	Ipswich	37	J. Berry#	10/17	Reading	32	D. Williams
White-crowne	ed Sparrow			10/22	Longmeadow	43	M. Moore
9/26	P.I.	3	D. Chickering	Baltimore Or			
10/5	Ipswich	3	BBC (T. Young)		2 Westport	12, 2	P. Champlin
10/13	Northampton	10	L. Therrien	9/20	Chatham	8	B. Harris#
10/21	W. Roxbury (MP)) 4 4	P. Peterson	9/22	Cuttyhunk	18	CCBC (Davies)
10/25	Aquinnah Woburn (HP)	4	P. Gilmore M. Rines	9/23 10/28	Westport	8 ?) 1	P. Champlin J. Nelson
10/30 Dark-eyed Ju		3	M. Kines	10/28	Gloucester (E.F P.I.	·) 1	T. Wetmore
9/1	Waltham	1	C. Cook	Purple Finch		1	1. wethole
9/16	Dighton	1	J. Eckerson	9/14	Ipswich (C.B.)	1	J. Berry#
10/12		164	M. Lynch#	9/19	P.I.	9	R. Heil
10/27	Cambr. (Danehy)		R. Stymeist	10/11	S. Peabody	21	R. Heil
10/29	Ipswich	80	J. Berry#	10/15	Baldwinville	50	T. Pirro
Scarlet Tanag	er		2	10/19	Merrimac	26	B. Buxton#
9/7	Ware R. IBA	8	M. Lynch#	10/20	N. Andover		+ B. Drummond
9/17	Lincoln	2	M. Rines	10/22	Southwick	35	S. Kellogg
10/10	Malden	2	P. + F. Vale	10/25	Lexington (DM	I) 82	M. Rines#
10/29	P.I.	2	T. Wetmore	Red Crossbil			
Rose-breaster			G 115	10/25	Quabbin (G33)	1	M. Lynch#
9/6	DWWS	2	G. d'Entremont#	Pine Siskin	A W A A	0.40	
9/18	Wayland	5 1	B. Harris			12,40	P. Champlin R. Heil
10/29 Blue Grosbea	Ipswich	1	J. Berry#	9/27, 10/1 9/27	1 S. Peabody 55 Rockport	5, 288 88	B. Harris#
9/22	Falmouth	1	M. Schanbacher	10/10	Dighton	75	J. Eckerson
9/22	Northampton	1	L. Therrien#	10/10	Sandisfield	91	M. Lynch#
9/23	Easthampton	1	L. Therrien	10/12	P.I.	150	S. Arena
9/29	Cumb. Farms	ĩ	N. Bonomo	10/13	Lincoln	53	M. Rines
10/26	Marstons Mills	3	P. Trimble#	10/13	Northfield	150	M. Taylor
10/30	Sudbury	1	G. Dysart	10/17	New Salem	60	B. Lafley
Indigo Buntir	ig		•	10/25	WBWS	425	M. Faherty
9/15	Easthampton	7	B. Zajda	10/26	S. Quabbin	260	J. Orcutt
9/23	Lexington (DM)	9	M. Rines	10/26	P'town	300	B. Nikula
9/24	Framingham	7	J. Hoye#	10/26	Aquinnah	50	P. Gilmore
10/10	Nahant	4	K. Hartel	Evening Gros		2	D.I.
10/29 Deimted Brun	Brighton	4	R. Schain	10/13	Bradford	3	D. Larson
Painted Bun		1 -1	B DoComment"	10/17	Nantucket	1 1	J. Trimble#
10/28-31	Brighton	1 ph	P. DeGennaro#	10/25 10/25	Concord Worthington	1	C. Winstanley S. Lewis
				10/23	worunington	2	5. Lewis

ABBREVIATIONS FOR BIRD SIGHTINGS

Taxonomic order is based on AOU checklist, Seventh edition, up to the 53rd Supplement, as published in *Auk* 129 (3): 573-88 (2012) (see <<u>http://checklist.aou.org/</u>>).

Locations		ONWR	Oxbow National Wildlife Refuge
Location-#	MAS Breeding Bird Atlas Block	PG	Public Garden, Boston
A.A.	Arnold Arboretum, Boston	P.I.	Plum Island
ABC	Allen Bird Club	Pd	Pond
A.P.	Andrews Point, Rockport	POP	Point of Pines, Revere
A.Pd	Allens Pond, S. Dartmouth	PR	Pinnacle Rock, Malden
B.	Beach	P'town	Provincetown
Barre F.D.	Barre Falls Dam	Pont.	Pontoosuc Lake, Lanesboro
B.I.	Belle Isle, E. Boston	R.P.	Race Point, Provincetown
B.R.	Bass Rocks, Gloucester	Res.	Reservoir
BBC	Brookline Bird Club	RKG	Rose Kennedy Greenway, Boston
BMB	Broad Meadow Brook, Worcester	S.B.	South Beach, Chatham
BNC	Boston Nature Center, Mattapan	S.N.	Sandy Neck, Barnstable
C.B.	Crane Beach, Ipswich	SRV	Sudbury River Valley
CGB	Coast Guard Beach, Eastham	SSBC	South Shore Bird Club
C.P.	Crooked Pond, Boxford		Take A Second Look, Boston Harbor Census
Cambr.	Cambridge	WBWS	Wellfleet Bay WS
CCBC	Cape Cod Bird Club	WE	World's End, Hingham
Corp. B.	Corporation Beach, Dennis	WMWS	Wachusett Meadow WS
Cumb. Farms	Cumberland Farms, Middleboro	Wompatuck	
DFWS	Drumlin Farm Wildlife Sanctuary	Worc,	Worcester
DWMA	Delaney WMA, Stow, Bolton, Harvard	wore.	Woredster
DWWS	Daniel Webster WS	Other Abb	reviations
E.P.	Eastern Point, Gloucester	ad	adult
F.E.	First Encounter Beach, Eastham	b	banded
F.H.	Fort Hill, Eastham	br	breeding
F.P.	Fresh Pond, Cambridge	dk	dark (morph)
F.Pk	Franklin Park, Boston	f	female
G40	Gate 40, Quabbin Res.	fide	on the authority of
GMNWR	Great Meadows NWR	fl	fledgling
H.	Harbor	imm	immature
H.P.	Halibut Point, Rockport	juv	juvenile
HP	Horn Pond, Woburn	lt	light (morph)
HRWMA	High Ridge WMA, Gardner	m	male
I.	Island	max	maximum
IRWS	Ipswich River WS	migr	migrating
L.	Ledge	n	nesting
MAS	Mass Audubon	ph	photographed
MP	Millennium Park, W. Roxbury	pl	plumage
M.V.	Martha's Vineyard	pr	pair
MBWMA	Martin Burns WMA, Newbury	S	summer ($1S = 1$ st summer)
MNWS	Marblehead Neck WS		various observers
MSSF	Myles Standish State Forest, Plymouth	v.o. W	winter $(2W = second winter)$
Mt.A.	Mount Auburn Cemetery, Cambr.		
NAC	Nine Acre Corner, Concord	уg #	young additional observers
Newbypt	Nile Acte Coller, Colloid Newburyport	π	additional observers
riewbypt	inewburyport		

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

Sightings for any given month must be reported in writing by the eighth of the following month, and may be submitted by postal mail or email. Send written reports to Bird Sightings, Robert H. Stymeist, 36 Lewis Avenue, Arlington MA 02474-3206. Include name and phone number of observer, common name of species, date of sighting, location, number of birds, other observer(s), and information on age, sex, and morph (where relevant). For instructions on email submission, visit: http://birdobserver.org/Sightings/index.htm.

Species on the Review List of the Massachusetts Avian Records Committee, as well as species unusual as to place, time, or known nesting status in Massachusetts, should be reported promptly to the Massachusetts Avian Records Committee, c/o Matt Garvey, 137 Beaconsfield Rd. #5, Brookline MA 02445, or by email to <mattpgarvey@gmail.com>.

Cedar Waxwing

The Cedar Waxwing (*Bombycilla cedrorum*) is distinguished from its larger and more boreal counterpart, the Bohemian Waxwing, by its smaller size, warm brown back and underparts, and its white undertail coverts. The Bohemian Waxwing is grayer, has rufous undertail coverts, and white wing markings visible in both perched and flying birds. Adult Cedar Waxwings have red, wax-like tips to their secondary flight feathers, yellow tips to their short tails, a prominent crest, a black mask and black chin edged in white—features that separate them from all other small bird species. Juveniles are gray rather than brown, have gray stripes on white underparts, and have less black on their faces. Cedar Waxwings are monotypic with no subspecies currently recognized.

The breeding range of Cedar Waxwings stretches from coast to coast across the upper half of the United States and lower half of Canada. The flocking and nomadic behavior of Cedar Waxwings reflects their reliance on patchily distributed fruit resources. Because of the species' nomadic behavior, numbers vary in any given area from year to year and season to season. They tend to concentrate in areas with high densities of junipers, especially in winter. Most of the Canadian contingent is migratory, wintering from southernmost Canada south throughout the United States, Mexico, and Central America. Most of the breeding contingent in the United States is considered a year-round resident population, even though the birds have a flair for the nomadic.

In Massachusetts the Cedar Waxwing is considered a common breeder and a migrant. During breeding season waxwings nest whenever and wherever they locate a patch of abundant fruit or berries. Egg dates range from late May to late August. The remainder of the year waxwings move from one feeding patch to another. Migration peaks range from late May to early June and August through September. In winter Cedar Waxwings are fairly common to rare, particularly near the coast and depending upon local food supplies.

Breeding habitat consists of woodland edge; isolated trees in old fields; and deciduous, coniferous, and mixed woodlands. Nest sites are often near water. Although aggressive near the nest, Cedar Waxwings are not territorial in the usual sense and they nest in loose aggregations where they may form feeding flocks in nearby fruiting trees or shrubs. However, adjacent pairs, particularly the males, may engage in territorial chases. A threat display with body lowered, feathers fluffed, crest raised, and bill open is given in aggressive situations. Calls consist of trills or hissy whistles. Variations in these vocalizations include contact calls that facilitate flocking, courtship calls, and alarm calls. Courtship involves the male and female hopping along a branch to approach each other and may end in a touching of bills. They may also pass fruit or other objects to each other, and sometimes they engage in courtship flights.

Cedar Waxwings are seasonally monogamous and may produce two broods a year. A second nest may sometimes be under construction before the first brood fledges. Late nesting is an adaptation to the late summer ripening of fruiting trees and shrubs. The nest site is scouted by both members of a pair, but the ultimate selection is probably by the female. The nest is typically in a fork or horizontal branch and consists of a bulky cup of grass and twigs that often incorporates man-made materials such as string, and may also include moss, bark, or hair. It is lined with fine vegetation such as rootlets. Occasionally they may use old nests as a source of nesting materials. Both parents collect nesting material but the female does most of the nest construction. The nest may be in a broad spectrum of trees including orchard trees and cedars.

The usual clutch is four to five pale blue eggs, spotted with dark colors. The female develops a normal brood patch although males occasionally develop a small unvascularized one. Studies of banded birds suggest that normally females do all of the incubation for the 12 days prior to hatching. Males feed the females during incubation. The chicks are naked, helpless, and hatched with their eyes closed. Both parents feed the young for the about 16 days to fledging. The young are fed for about a week after fledging before they join flocks of young from nearby nests.

When foraging, Cedar Waxwings pluck fruit from trees or shrubs while either perched upright or hanging upside down. They may also snatch fruit while hovering. They form large foraging flocks in winter. The diet of waxwings consists mostly of fleshy fruits and invertebrates with a heavy reliance on cedar berries, and an increasing reliance in winter on urban ornamental fruit such as crab apples. In summer Cedar Waxwings glean or hawk insects, and take emerging insects, such as mayflies, from streams and ponds. They are reported to eat flowers in spring. In summer, strawberries and raspberries are an important source of fruit. Waxwings sometimes become intoxicated from eating fermenting fruits, and there are reports of fatalities after excessive binging.

Cowbirds appear not to be much of a threat to Cedar Waxwings for several reasons: waxwings either eject cowbirds eggs or abandon their nest if it has been parasitized; their late nesting period discourages cowbirds; and the occasional young cowbirds do not fare well on the waxwing's predominantly fruit diet. Cedar Waxwings are regularly subject to predation by accipiters. They are commonly killed in window collisions, probably because in urban areas fruiting shrubs are often near houses. In nocturnal migration they suffer mortality from collisions with towers. Fruits sprayed with pesticides may also cause mortality. Breeding Bird Survey data, however, suggest that Cedar Waxwing populations in North America are stable or increasing, which indicates that this social and common species has a bright future.

William E. Davis, Jr.

AT A GLANCE

December 2014



WAYNE R. PETERSEN

I selected the mystery species in this issue to encourage readers to visit the *Bird Observer* website (www.birdobserver.org) where the mystery photograph can be viewed in color—which should make determining the bird's identity significantly easier than when viewing it in black and white. Nonetheless, the discerning reader should be able to identify this bird even when not seen in color.

Characteristics to notice about the mystery bird are its thin legs (a clue that the bird is quite a small passerine), relatively thick but pointed bill, overall chubby appearance, and the absence of ventral streaks, wing bars, bold markings on the head, or any other striking markings. In essence, the bird appears quite featureless in overall coloration in the black and white photograph. Again, this is a reason to look at the image on the website where it can be viewed in color!

This caveat aside, close observation reveals features that should lead to a correct identification even with the black and white photograph. The shape and thickness of the bill are suggestive of a vireo and possibly also of a warbler, but the completely uniform coloration is a characteristic rare in most warbler species. There are practically no warbler species that exhibit such a featureless plumage, except a Tennessee or an Orange-crowned warbler. However, both of these species have much thinner and more pointed bills than the mystery bird. Additionally, a Tennessee Warbler possesses a pale or whitish supercilium, and neither species shows the obvious contrast seen between the breast and the face and neck area of the mystery species. Notice the chesty or overall plump appearance of the mystery bird, another characteristic of vireos rather than warblers. The bird also shows a prominent dark area between the eye and the bill, which are the lores. With these differences in mind, the identification clincher in this picture becomes the dark lores. Combined with the chubby shape and otherwise featureless aspects of the mystery bird, the dark lores represent a hallmark field characteristic of a Philadelphia Vireo (*Vireo philadelphicus*). The Warbling Vireo (*Vireo gilvus*) is similar, but lacks this distinctive dark feathering between the eye and bill and—as can be noted on the website—has a yellowish wash on the breast.

The Philadelphia Vireo is an uncommon to rare late spring migrant in Massachusetts and an uncommon fall migrant in late August and early September, especially along the coast. The author photographed this Philadelphia Vireo on September 7, 2008, at Pochet Island, Orleans.

Wayne R. Petersen

About the Cover Artist: Barry Van Dusen

Once again, *Bird Observer* offers a painting by the artist who has created many of our covers, Barry Van Dusen. Barry, who lives in Princeton, Massachusetts, is well known in the birding world. Barry has illustrated several nature books and pocket guides, and his articles and paintings have been featured in *Birding, Bird Watcher's Digest,* and *Yankee Magazine* as well as *Bird Observer.* Barry's interest in nature subjects began in 1982 with an association with the Massachusetts Audubon Society. He has been influenced by the work of European wildlife artists and has adopted their methodology of direct field sketching. Barry teaches workshops at various locations in Massachusetts. For more information, visit Barry's website at <www.barryvandusen. com>.

ANNOUNCEMENT OF PRICE INCREASE

Bird Observer last had a price increase in 1996. Since then production costs have risen substantially, in particular for printing and postage. In order to maintain the magazine's financial viability, a price increase is necessary. Starting with Volume 43 (2015), new oneyear subscription and renewal rates for *Bird Observer* will increase to \$25.00. The two-year rate will increase to \$48.00.

AT A GLANCE



DAVID M. LARSON

Can you identify the birds in this photograph? Identification will be discussed in next issue's AT A GLANCE.

Bird Observer Online!

Bird Observer has a new website: http://birdobserver.org !

Subscribers to *Bird Observer* have access to a full-color online version in addition to the printed copy. All issues back to February 2003 are online. Future issues will be posted regularly and older issues will keep being added.

To obtain a user name and password, send an email to birdobserver@jocama.com and include your name as it appears on your *Bird Observer* mailing label.

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