Bird Observer

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HOT BIRDS



Dorrie Holmes found that a large flock of Canada geese at a water treatment plant outside Springfield in late October included a **Barnacle Goose**. Over the days that followed, at least two Cackling Geese, a Brant, and even a Pink-footed Goose appeared in the same flock! The Barnacle Goose was found at various locations around Westfield through at least January 2; sightings from Longmeadow may have been a different individual. Aidan Griffiths took the photo on the left.

John Young found a **Bell's Vireo** at Demarest Lloyd State Park on November 4. The bird was not found again at that location, but just a few miles down the coast, Jim Sweeney found one at Sconticut Neck which remained in that area for over two weeks. Carolyn Longworth took the photo on the right.





Though apparently a one day wonder, the **Tundra Swan** that Jason Forbes found on Farrar Pond in Lincoln was enjoyed and photographed by dozens of birders during its brief stay. Jason took the photo on the left.

Just one day after finding a Tundra Swan in Lincoln, Jason Forbes found the fifth state record of **Hammond's Flycatcher** at Hanscom Field! That bird stayed for just a day, but then Nick Dorian found it or another on the Tufts University campus November 29, where it remained through at least December 3. (A Hammond's was also present in Central Park, New York around this time.) Griffin Richards took the photo on the right.



TABLE OF CONTENTS

BIRDING MINUTE MAN NATIONAL HISTO	ORICAL PARK Kathy Dia	5
RED CROSSBILLS IN MASSACHUSETTS AN	ND THE NORTHEAST:	
A Possible Irruption in 2017–20	018	
	Jeremy Coleman and Tim Spahr	17
A HISTORY OF WINTER CROW ROOSTS		
AND A VISIT TO A ROOST IN LAWRI	ence, Massachusetts	
	Dana Duxbury-Fox	22
Photo Essay	Ž	
The American Crow	Craig Gibson	32
Musings from the Blind Birder		
Losing One's Senses	Martha Steele	34
GLEANINGS		
Getting Lost	David M. Larson	36
FIELD NOTES		
Northern Harrier Preying on Hoo	oded Merganser	
<i>J E</i>	Peter Vale and Fay Vale	39
2E2: A Successful Gull	Jeffrey Boone Miller	40
About Books		
Two Quests	Mark Lynch	42
BIRD SIGHTINGS		
September-October 2017	Neil Hayward & Robert H. Stymeist	50
Bygone Birds	Neil Hayward	64
ABOUT THE COVER: Tufted Titmouse	William E. Davis, Jr.	67
ABOUT THE COVER ARTIST: William E.	Davis, Jr.	68
At a Glance		
December 2017	Wayne R. Petersen	69

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Bird Observer

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Birding Minute Man National Historical Park

Kathy Dia

Introduction

Minute Man National Historical Park (Minute Man NHP) spans almost 1000 acres in the towns of Lexington, Lincoln, and Concord. The park, managed by the National Park Service, was founded in 1959 to preserve and commemorate the site of the opening battles of the



American Revolution, including that of Old North Bridge, where the first shots of the series of battles were fired in 1775.

When you think of Minute Man NHP, wide narrated paths with strolling tourists may come first to mind. However, you may be surprised to learn that these only comprise a small portion of the park, which supports a variety of habitats. Forests comprise about 500 acres of the park, meadow and field 250 acres (about half of which is leased for farming), and non-forest wetland 180 acres. See Figure 1: Overview Map of Minute Man National Historic Park.

When my husband and I moved to Concord in 2006 we began strolling in the park in the evenings and quickly discovered how many under-appreciated birding nooks it held. In 2012 I began volunteering as a monitor for Vermont Center for Ecostudies' Landbird Survey, which takes place each June in eleven northeastern National Parks, including Minute Man NHP. Through this project I gained an appreciation of the park as an important corridor for nesting species.

In this article I will describe my three favorite birding routes, in order from the west (Concord) end of the park toward the east (Lexington) side. The routes are easily connected for a longer outing. The park currently has two eBird hot spots if you are listing (see the eBird section at the end of article). Minute Man is quite a large park, and I am certain that you will find seasonal hotspots and species that I have not yet found.

Route #1 Meriam's Corner Route

Basics: 1.7 miles round trip, easy terrain

Best: All year

NOTE: This route may be icy in winter

The Meriam's Corner route (Figure 2) is by far the best-known by birders. It travels though several different habitats and offers wonderful opportunities for encountering a rarity. The historical tour signposts along the trail make convenient (and fun) markers for my birding descriptions, so I will make use of them.

Before you leave the lot, look across Lexington Road to the old Palumbo Farm, recently acquired by Minute Man as the result of a 1968 agreement with the Palumbo

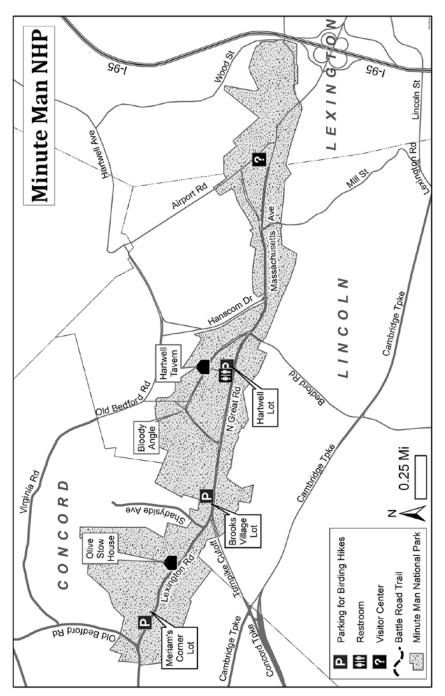


Figure 1. Overview Map of Minute Man National Historic Park.



American Woodcocks are regulars in April. All photographs, unless otherwise indicated, by Jay Dia.

family. This area hosts various ducks, swallows, and sparrows. Northern Harrier is a regular visitor and Red-tailed Hawks nest here, their giant young squawking from utility poles in the spring. For details on birding this area, see the "Other Birding Spots in the Park" section below.

From the Meriam's Corner lot you will find the wide trail on the lot's east side beginning at a short bridge. As you walk this circuitous route through varied terrain, pause to imagine the string of battles between the outnumbered British regulars and the colonial militia that took place along this Battle Road on April 19, 1775, and began here in Meriam's Corner. At the time most of this area was cleared for agriculture, and the colonists sought to "...attack and annoy the enemy from behind trees, rocks, fences and buildings, as seemed most convenient..." (Ripley 1832, p. 22-3).

Pre-dawn near the lot, the calls of Great Horned Owls can often be heard from several directions. From late March to mid-April the fields surrounding the lot are a sure bet for finding American Woodcocks. They will begin to *peent* about 20 minutes after sunset, and their courtship display flight can be heard and sometimes seen without going more than a few steps from your car. For cushy birding bring a lawn chair and a (non-alcoholic) drink.

As you begin down the trail, check the bushes on your left for warblers on migration and sparrows year round. Before the snow is deep White-throated Sparrows dig in the leaf litter in brushy areas all along this trail, and Fox Sparrow is a possibility among them. The fields on the right and ahead often hold Savannah Sparrows in spring.

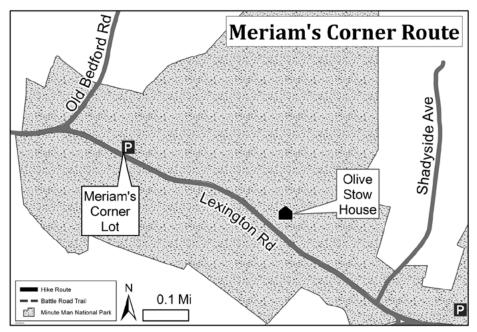


Figure 2. Meriam's Corner Route.

At Signpost #2 (350 feet from lot) there is a small wetland on your left. Yellow Warbler and Willow Flycatcher nest here. Kingfishers can often be seen flying toward Elm Brook, and Green Herons are often seen in summer. Check for blackbirds in the dead trees, including occasional Rusty Blackbirds in late fall.

From here the trail continues between fields on the left and wooded edges on the right toward Signpost #3 (0.1 miles from lot). In summer the wooded edges are busy with feeding young of common species, and in winter with feeding flocks that often include Golden-crowned Kinglets.

A short distance ahead you will be in woods on both sides of the trail. American Crows have nested in this section of woods each of the last two years, and their loud family vocalizations before and after the young fledge are hard to miss.

Near Signpost # 4 (0.3 miles from lot) you will emerge into a fence-lined grassy area. At the woods' edge the *bee-buzz* of Blue-winged Warblers can be heard in spring. Bluewings nest in these brushy areas, especially spots that are slightly wet, throughout the park. Watch the tall trees on your left for warblers and gnatcatchers, and less commonly Orchard Orioles and Indigo Buntings in spring. Check the bittersweet vines on your right for feeding warblers even into early winter. I have seen Lincoln Sparrow on the fence line here in fall. Red-tailed Hawks and accipiters frequent the area. Last year in this area I watched a Sharp-shinned Hawk attack a surprised Hairy Woodpecker, which managed to get away *pik!*-ing indignantly for minutes afterward. Note that Signpost #5 is missing.



Blue-winged Warblers nest throughout the NHP.

Just after a short wooden culvert bridge you will come to large open agricultural fields on your right and left. This is one of the best areas in the park for birding, and in particular for rarity hunting. In the evening in early April Wilson's Snipe roost in the plowed field edges and can often be seen in large numbers camouflaged in the plow ruts if one takes the time to look carefully. Flooded fields can bring sandpipers, including Pectoral, Spotted, and Solitary. During fall migration I have seen as many as 50 Yellow-rumped Warblers feeding on the low plants in the field on the right. Rarities, including Orange-Crowned Warbler, Lark Sparrow, Vesper Sparrow, and Dickcissel, have all been reported here.

At Signpost #6 (0.5 miles from lot) the trail takes a 90-degree right turn. If you continue straight instead of taking the turn you will shortly be on Kaveski Farm Conservation Land. Note that this trail may be muddy and involves a wet crossing. Hands down one of the best birding spots in the area, this detour is always worth your time. The fields adjoining Minute Man NHP and Kaveski Farm can hold many surprises. Raptors, including Cooper's and Sharp-shinned hawk, and less commonly American Kestrel, Merlin, Peregrine Falcon, and Red-shouldered Hawk, are all regulars here, particularly in fall.

Back on the trail, after you turn the corner you will have a grassy field on your left, which hosts bluebirds and finches year-round and the occasional Eastern Meadowlark in spring. On your right, check the agricultural fields in fall and spring for Killdeer and look for American Pipits and flocks of Horned Larks in fall and winter. Glossy Ibis were brief but welcome visitors in April of 2015 and 2017.

Ahead is the present-day Carty Farm and site of the historic Olive Stow Farm. Here in 1775 the 48-year-old widow Stow lived and managed the farm with her two teenage children — no easy feat for a woman of her time. Look in the trees near the

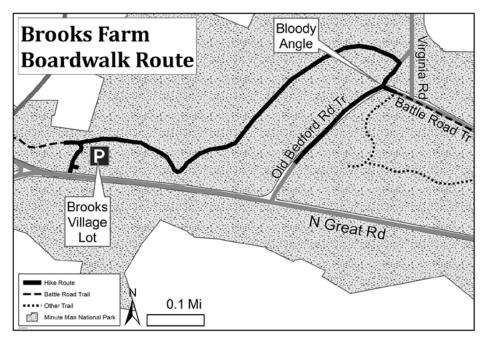


Figure 3. Brooks Farm Boardwalk Route.

brushy edges and farm for Indigo Bunting and Eastern Phoebe. In late spring this is the spot for perhaps the most predictable Alder Flycatcher in Concord. I have seen it in these trees and heard it in the brushy area as well. Alders are present late May through early June at several locations in the park, and I am hopeful that they are breeding here but as yet do not have direct evidence. Keep in mind that audio confirmation is generally needed for Alder identification as Willow is found in the park as well.

Continue onto the boardwalk checking the low bushes as well as the trees beyond the boardwalk for warblers and flycatchers in spring and fall. When you reach the stone mile marker near the road you have reached the end of this route. From here you can retrace your steps to return to the lot. For a longer outing you can loop back through Kaveski Farm Conservation Land. To do so, turn left at the green farm stand onto Shadyside Lane, and continue approximately 0.5 miles to the Kaveski Farm entrance. The main trail through Kaveski Farm will take you back to Minute Man. Alternately, you can cross Shadyside Lane and continue along the sidewalk to Route #2 below.

Route #2 Brooks Farm Boardwalk Route

Basics: 1.5 miles round trip, easy

Best: Spring, summer; sections in winter

The Brooks Farm Boardwalk route (Figure 3) is a pretty trail through various habitats, particularly great for an evening birding outing and worth braving the runners and cyclists you will encounter. I have not birded this route much in fall, so you may have unexpected surprises, particularly near the stream at the end of the boardwalk. Species listed are present spring or summer unless otherwise noted.



Elm Brook Boardwalk. Photograph by Minute Man National Historical Park.

This route begins in the Brooks Farm lot on Route 2A in Lincoln just east of its intersection with Lexington Road. In 1775 this area included multiple homes belonging to the Brooks in a sort of family village with businesses, including a tannery, slaughterhouse, brick kiln, and later a tavern complete with a ballroom on the second floor

Take a moment before leaving the lot to look across the street to the pasture where the impressive-looking Highland Cross and Randall Lineback cattle graze. Look for swallows in season, and Wild Turkeys and various hawks all year. Bluebirds and finches fly among the trees and historic ruins in the open areas near the lot, and there is often a Mockingbird singing from the lamppost or bushes of the historic Job Brooks house. Sapsucker is possible here in winter.

From the lot take the main trail to the T intersection. Take a left for a 150-foot quick detour to check the dead trees for Pileated and other woodpeckers. Returning to the intersection, continue on straight, checking the brush on your left for the many nesting catbirds, as well as American Redstarts, which occasionally nest here.

As you head into the marsh and onto the boardwalk (0.3 miles from lot) look for waxwings, orioles, grosbeaks, Yellow Warblers, and Common Yellowthroats. Check the bare tree tops and listen for woodpeckers and hawks in all seasons and for flycatchers in late spring and early summer. Alder Flycatcher is a regular at this location in the evening in late May and early June, and in May 2016 my husband and I observed an Olive-sided Flycatcher here. In early summer watch for feeding Common Nighthawks.

The stream at the end of the boardwalk attracts birds coming in for a drink. Here

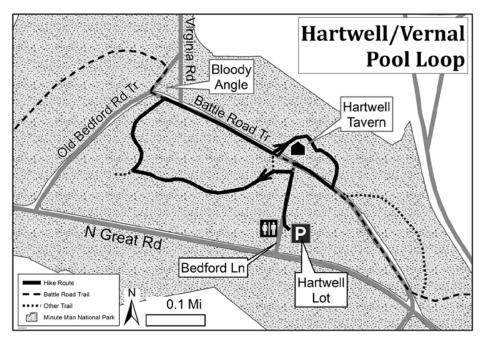


Figure 4. Hartwell/Vernal Pool Loop.

the trail takes a left into a wooded habitat where various woodpeckers nest. Just after entering the woods you will came to a large rock on your left. Stop here and look toward Elm Brook for swallows, blackbirds, and herons. A scope is helpful at this location. In winter this is a good place to observe White-throated Sparrows, Goldencrowned Kinglets, and other songbirds coming in and out of the bushes.

Continue into the woods, looking for Hermit Thrushes scurrying among the fallen logs, and in the evening listening for the sounds of the Wood Thrush. Ascending a gentle slope you will come to a low stone wall. Keep in mind that any area where you see a stone wall was likely cleared of vegetation for agriculture at one time.

As you emerge from the woods you will be in the historic Bloody Angle (0.6 miles from lot). Here on April 19, 1775, British regulars were fired on from all directions in a battle in which 30 regulars and four colonial militia men were killed. Perhaps with poetic justice, the Bloody Angle teems with new life each spring and summer. Around 7:00 pm on early June evenings male Indigo Buntings begin advertising from very visible perches in the trees of the open area. Their numbers have decreased over the past five years, but I am hopeful that this is not a permanent trend. As in all of the brushy edges of the park, especially slightly wet edges, listen for nesting Blue-winged Warblers. Other nesting species here include Eastern Wood-Pewee, Great Crested Flycatcher, Rose-breasted Grosbeak, and omnipresent Chipping Sparrow. Turkeys roost for the night in the tall trees of the wooded edges, their awkwardly oversized young balancing on narrow branches.

In mid-July to early August the low bushes and vines that edge the Bloody Angle

are alive with feeding bird families. Stand for a spell and see what emerges: orioles, tanagers, gnatcatchers, grosbeaks, buntings, and occasional warblers. Watch for Rubythroated Hummingbirds feeding on the trumpet vines that wind up the trees where the trail bends sharply right.

Shortly you will come to another T intersection. Turn right onto Battle Road, and continue to the grave of unnamed British soldiers. Looking down the left path you will see a stone marker on the right indicating the end of the Vernal Pool Trail. If time allows, take a detour down part or all of this wonderful trail (described in Route #3 description, but keep in mind you will be approaching it in reverse). If not, continue straight ahead with the wooden fence line on your right. Here you will have the edge of the Vernal Pool area on your left where Scarlet Tanager, Northern Waterthrush, and various thrushes, including Veery are dependably heard.

Retrace your steps to return to the lot. As you pass the edge of the Bloody Angle and begin to enter the woods, look over the hillside. This is Brooks Hill, which colonists climbed to lie in wait for the British. On a peaceful day this view can bring a great appreciation for the natural beauty here and a reverence for the pivotal events that took place where you now stand.

Route #3: Hartwell/Vernal Pool Loop

Basics: 1.2 miles: Vernal Pool Trail is uneven muddy terrain, other portions are easy. Insect repellant is suggested.

Best: Spring, early summer; sections in fall and winter

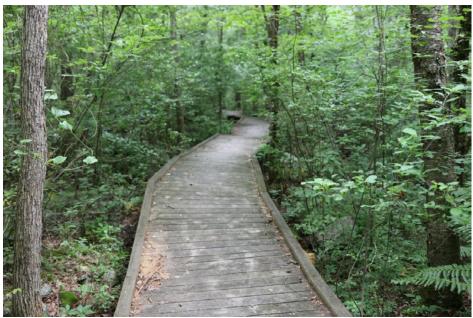
The Hartwell/Vernal Pool loop (Figure 4) is an under-appreciated birding hot spot that is rich with migrants in spring and some wonderful nesting species in summer. In fall the brushy trail behind the tavern is worth a look. In winter, check the cone trees at the start of the Vernal Pool Trail and open areas and tall trees lining Battle Road and surrounding the Hartwell Tavern.

This loop begins at the Hartwell Tavern lot on Route 2A in Lincoln, just west of Hanscom Drive. Don't rush to leave the lot as some of your best sightings may be here. In spring warblers, often including Blackburnian, and vireos abound in the treed lot.

From the lot head down the wide main trail, named Bedford Lane. A stop at the restrooms on your left is worthwhile first for the obvious reason—it's among the nicer of birding bathrooms—and second, and more importantly, because Scarlet Tanagers and Baltimore Orioles often nest nearby in June. Look for the intricate sac-like oriole nests in the open treed areas and tanager nests in the more densely wooded areas. Listen for Prairie Warblers singing near the road in late May.

As you continue on the wide main trail check the bushes on the right for migrants and residents. This is where, on an eight-flycatcher-species day at the park in late spring, I observed both Yellow-bellied and Olive-sided flycatchers. In early spring Veeries may be seen hopping on and along the low rock walls ahead.

About 350 feet down the main trail you will find a sign for the entrance to the Vernal Pool Trail on your left. You will often have this quiet trail to yourself as you



Vernal Pool Trail.

bird. Before entering the woods, the trail moves through a transitional habitat where you can find many migrating warblers in spring and nesting species in summer, including Rose-breasted Grosbeak, American Redstart, Blue-winged Warbler, and Blue-gray Gnatcatcher. There are tall conifers in this open area that attract feeding birds to their cones in winter and are worth a look in irruption years for winter specialties.

Entering the woods and wetland habitat, look and listen for thrushes in spring and summer: Swainson's and Hermit on migration, and Wood and Veery nesting. Northern Waterthrush, Ovenbird, Scarlet Tanager, and Pileated Woodpecker are all nesting species here, and Brown Creepers can be heard year-round. At the T intersection (0.4 miles from lot) ignore the sign with the left-pointing arrow, and turn right to follow the boardwalk, watching carefully in the low wet areas for camouflaged ground-feeders.

On emerging from the woods you will be on Battle Road (0.5 miles from lot). A left turn takes you to the Bloody Angle described in Route #2 above. I recommend taking a 20-minute or so detour to this historic and very birdy area, then returning to Battle Road.

Returning to the Vernal Pool Trail's end where you emerged, continue on Battle Road. This will be a right turn if you skipped the Bloody Angle detour. In spring check the tall trees bordering the trail for warblers and nesting gnatcatchers. In winter feeding flocks are active in the branches.

Continuing on, you will pass grassland areas with small trees on your left where in June you can see numerous Baltimore Oriole nests and Wild Turkeys wading through the grass with their young. In winter check the tall trees around the tavern for bluebirds,

waxwings, and a possible sapsucker. In 2017 a pair of Yellow-billed Cuckoos stayed in the wooded area opposite the tavern all summer, and although I could not locate their nest, their continuous presence from late May to late June makes breeding likely.

Shortly you will arrive at Hartwell Tavern (0.7 mile from lot) on the left. Here Ephraim and Elizabeth Hartwell ran part of their home as an inn. If the Tavern is open you can take a non-birding pause to tour the beautifully restored interior, join a rangerled walk, or perhaps watch a musket shooting demonstration.

Walk behind the tavern's right side to the wooden fence line (0.8 mile from lot). You will find that there is a rough trail that follows the fence line on the opposite side from the tavern. During spring migration there are always many warblers, kinglets, and vireos along this short trail, often including Tennessee. Accipiters hunt here in all seasons. You can exit this trail by retracing your steps to Hartwell Tavern or, if the trail is passable, continue on to the Smith House sign (0.9 mile from lot) and turn right. This will take you back to Battle Road. Turn right here to return to the tavern. Do be sure to check for ticks upon your return to the tavern and please respect private properties below the trail. Head back to the lot on Bedford Lane opposite the tavern.

Other Birding Spots in the Park (East To West)

<u>Fiske Hill</u> is accessed from the eastern-most lot in the park on Old Massachusetts Avenue just off Route 2A in Lexington. It is a lovely walk to the top of the hill. Invasive plant removal is planned for this area, and the rock outcrop's open grassy top may turn out to be a new hot spot for nesting species... stay tuned.

<u>Battle Road Visitor Center</u> on Route 2A has a small pond that hosts various species, particularly in the colder months when the pond remains unfrozen for a while. Check the low, wet, brushy areas along the side of the lot for interesting sparrows any time of year.

<u>Dirt Road Fen</u> is a small but special wetland down a dirt road across Lexington Road from the Meriam's Corner area. This is a unique habitat, attracting migrants in the spring, and some special nesting species, including Ovenbird, Veery, and Northern Waterthrush. Note that although the wetland is Minute Man NHP property, the road itself is private. The owners are gracious to birders, but *please be respectful by stopping at the National Park Service boundary sign*. An artist friend of the owner has created found-art sculpture all along the road. Please use caution on Lexington Road.

<u>Palumbo Farm Conservation Land</u> is a grassland across Lexington Road from Meriam's Corner. Park officials do not mind if birders walk along the old road edging this field; enter where you see the chain and "No public access" sign. However, the park asks that birders please stay clear of the old farm buildings. This area hosts various swallows, ducks, flocks of turkeys, and raptors including Northern Harrier. Skirting the buildings as best you can, check the back corners of the field for sparrows. Please use caution on Lexington Road.

The Old North Bridge is a historical must if you have never visited the Minute Man NHP. While you are brushing up on your Revolutionary War history, check the

lot across the street and the brushy river edges for migrants. The tall oaks along the path host bluebirds, orioles, woodpeckers, and gnatcatchers in spring and possible sapsuckers in winter.

Future Conservation Efforts and eBird Data

On a closing note, I have been enthused by how interested park officials have been in survey findings, eBird data, and in protecting wildlife and their habitats within the park. Over the next couple years I will be working with the park on creating a printed and PDF bird checklist for park visitors, adding some bird walks to the park's wonderful variety of public programs, and compiling some suggestions for simple bird conservation strategies. Your eBird submissions will be helpful in these efforts. If you have personal eBird locations within the park, consider merging them to one of the two eBird hotspots with the park so that your data will be included in these efforts.

Meriam's Corner: http://ebird.org/ebird/hotspot/L858741

Minute Man National Historical Park: http://ebird.org/ebird/hotspot/L941919

I hope that you will enjoy birding at Minute Man NHP and I look forward to hearing what you find!

Acknowledgements

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Kathy Stark Dia is a former professional ballet dancer who now teaches ballet in Acton, Massachusetts. She grew up in Pittsburgh in a family who enjoyed nature but came to birdwatching later in life. After leaving a full-time position at an arts high school, she began working part-time for Mass Audubon Broadmoor, where she leads school field trips and adult bird walks. Kathy volunteers for Minute Man NHP, Vermont Center for Ecostudies, Brookline Bird Club, and at Great Meadows National Wildlife Refuge.

Red Crossbills in Massachusetts and the Northeast: A Possible Irruption in 2017–2018

Jeremy Coleman and Tim Spahr



Male Red Crossbill in a Pitch Pine; still molting into adult plumage (April). All photographs taken at Montague Sand Plains; all photographs © Jeremy Coleman.

Introduction

The nomadic Red Crossbill (*Loxia curvirostra*) can appear in numbers in one particular region only to disappear in subsequent years. Crossbill movements are irruptive and follow the cone crop, with various North American crossbill groups—flight call types—favoring the conifer species to which they are best adapted by bill size and shape. A recent article by Young and Spahr (2017) has called attention to the potential for a significant irruption of Red Crossbills throughout large portions of North America beginning in the fall of 2017. In Massachusetts, this irruption could extend throughout the winter of 2017–2018 and into the spring of 2018.

Early work by Groth (1993) and continuing research by others (Benkman 1993, 2009; Benkman et al. 2009; Parchman and Benkman 2009) initially resulted in the identification of 11 distinct Red Crossbill call types in North and Central America. Now that Type 9 has been elevated to species status as the Cassia Crossbill (*Loxia sinesciurus*) (Chesser et al. 2017), 10 call types remain. Although difficult to impossible to differentiate visually, each type can be reliably identified from recordings of its flight call—the emphatic *jip-jip-jip* calls heard when the birds are



Female Red Crossbill extracting seeds in Pitch Pine.

flying overhead and occasionally given by perched birds as well—but not by their songs or other vocalizations. When encountering crossbills in the field, one can record the flight calls using the builtin microphone of a smart phone. When embedded into an eBird report, such recordings allow identification to type by others. The report can then be updated to reflect call type. If any additional call types are split off as new species in the future, this split would be updated in one's eBird account. For additional, useful information on recording flight calls as well as comprehensive descriptions of the various call types, their characteristics and habitats, refer to Young and Spahr (2017).

There has been discussion of splitting the remaining 10 flight call types into species, but more work is needed before such a change would be scientifically

justified. Red Crossbill speciation and call types are a rich area of research and one where birders can make a significant contribution by recording and reporting flight calls.

The last major irruption of Red Crossbills into the Northeast occurred in 2012 when western flight call Types 3 and 7 or 10 were seen in large numbers in the eastern states. During this 2012–2013 irruption, there were dozens of crossbills seen in many coastal locations in Massachusetts, Rhode Island, New York, and even as far south as New Jersey and Virginia. The winter of 2017–2018 could deliver an irruption surpassing that of five years ago. In part due to drought conditions followed by a wet spring and summer in the Northeast, this year's cone crop has the potential to be a once-in-a-few-decades event, with native spruces, white, pitch and red pines, hemlock, and tamarack all showing bumper cone crops. In addition, an epic cone crop failure in the Rockies is driving birds out of their normal wintering ranges. As of this writing in December 2017, there are massive numbers of Red Crossbills spreading across the country, including many western flight call types showing up in the plains states, Great Lakes states, and along the Pacific coast from California to Alaska. Crossbills are even frequenting small stands of pines in the lowlands of the desert Southwest.

Natural History

Red Crossbills have evolved a specialized, crossed bill specific to extracting the seeds from conifer cones, and their dependence on the cone crop is the underlying key to their natural history. Irruptions can bring flocks all the way across North America in search of suitably heavy crops. The species is unique in that nesting is closely tied

to food availability, not necessarily to season. Crossbills in North America breed primarily in two cycles, one in summer (July through early September) when newly-developed, ripening cone crops are present, and again in winterspring (January through early May), coinciding with the last of the remaining good cones. No nests or nestlings of Red Crossbills have ever been found in October or November in North America, though they have been found in Europe during these months. There are, however, many North American records of juvenile-plumaged birds in October and November. Matt Young of the Cornell Lab of Ornithology, who has been researching crossbills for 20 years, notes that these autumn observations of Red Crossbills in juvenile plumage may have given rise to the notion that North American crossbills can nest at any time of the year.



Female drinking; had been picking up gravel from road.

The female incubates a clutch of typically three eggs, with the male bringing food for the female and later for the hatched chicks. Both parents bring food to the chicks beginning four or five days after hatching, feeding them regurgitated seeds. The young fledge after 18 to 22 days, but it takes a bit longer for their bills to develop sufficiently to extract cone seeds, so there is a short period when the fledged birds are dependent on their parents. In addition to cone seeds, food sources include the buds of deciduous trees, berries, and insects. Crossbills can also be seen on dirt roads picking up gravel and salt. Gravel grit aids in digesting vegetable material, and the ingestion of salt may be related to a calcium deficiency in their diet (Tozer 1994).

Birds that hatch in summer molt in late summer or fall, coinciding with the fall molt of adult birds. However, it's not uncommon to see birds in a suspended molt for several months. Birds that hatch in late winter or spring molt about three months after hatching, and then again during the fall molt period. Juvenile plumages are thus seen over an extended time period.

Red Crossbill Speciation

It is unusual that a single avian species should have so many distinct, differentiable population types. Research by Parchman and Benkman (2002) and others suggests an explanation. Cone crops and crossbill populations seem to be engaged in an "evolutionary arms race" that has led to the creation of specialized bill types, particularly in the western United States where isolated ranges of lodgepole pine create biogeographical islands in which crossbills and cones have co-evolved, and continue to do so (Benkman, 2009). This dynamic led to the evolution of the Cassia Crossbill. Rocky Mountain lodgepole pines (*Pinus contorta latifolia*) in the "islands" of southern Idaho—where Cassia Crossbills are found—developed larger, thicker-scaled cones



Male feeding on deciduous buds.

than in nearby ranges. This potential food source, in turn, favored the development of larger-billed crossbills and the evolution of the newly recognized species. That this phenomenon may be ongoing elsewhere is a particularly interesting focus of researchers, giving us a chance to observe natural selection in action before our very eyes!

Recent Red Crossbill history in Massachusetts

In the winter and spring of 2016–2017, there were small concentrations of Red Crossbills in Massachusetts reported from two regions, Salisbury Beach and Plum Island in the east and the Montague Sand Plains in central Massachusetts. Of the many reports to eBird from the former area, only one recording was reported, for the small- to medium-billed Sitka spruce crossbill—

Type 10 or possibly Type 7. The primary range for call Type 10 is the coastal Pacific Northwest, from Northern California into central Oregon; Type 7 possibly is endemic from central to northeastern Canada. In the Montague Sand Plains, the Sitka spruce type was recorded along with the large-billed ponderosa pine crossbill, Type 2. Type 2 crossbills are most common in the ponderosa pine forests of the West, but can be found continent-wide in stands of hard-coned pines, including red and pitch pines of the Northeast

The last reported summer sightings were on June 4 in the Sand Plains and July 31 in the Salisbury and Plum Island region. Breeding in Massachusetts was certainly possible, and even suggested, but unfortunately not documented. Elsewhere in the Northeast, crossbills were noted and confirmed as breeding in New York, New Hampshire, and Maine, as well as in southern Ontario and Quebec in Canada. In addition to Type 10, Appalachian or Type 1 birds were confirmed breeding near Type 10s in New Hampshire and New York.

Where to Look in Massachusetts and the Northeast

The 2017–2018 invasion is well underway. Western flight call Types 2, 3, 4, and even 5 were moving east as early as July and August. By November, the irruption in the plains states was widespread, with birds common in Texas northward through the Dakotas, and eastward into Missouri, Indiana, Ohio, Michigan, Wisconsin, and Minnesota. In the Northeast, a few Type 1, 3, and 10 birds have been recorded in New Hampshire and Maine recently, with some Type 10 and untyped birds trickling into Massachusetts and Vermont beginning in late November. Given the failure of the cone crop in the West, and the general dearth of cone-producing trees in the plains and Midwest, it is inevitable that crossbills will continue to arrive in the Northeast. Will

they make it south, or stay north where the cone crop seems to be good as well? The abundance of cones throughout the Northeast and north into Canada may result in a wide dispersion of birds, making them harder to locate.

In Massachusetts the cone crop is good in most locations, and crossbills may appear anywhere with cones. Historically good locations have been Salisbury Beach State Reservation and the Plum Island area. Miles Standish State Forest and Cape Cod also have substantial pine forests and can hold birds. Inland and west, any substantial grove of Norway spruce, hemlocks, or cone-laden pines, such as the pitch pines in the Montague Sand Plains, could hold crossbills. Other areas likely to host birds include coniferous forests in Savoy and Windsor, and the October Mountain State Forest northeast of Lee. These areas in central and western Massachusetts may be bigger players this year because of their large cone crops, but given the nomadic nature of the birds, and their ability to fly long distances, lots of searching may be required to find them. The challenge of finding birds this year—and recording their flight calls—is a great opportunity for citizen science to contribute to the exciting, ongoing research into this interesting species.

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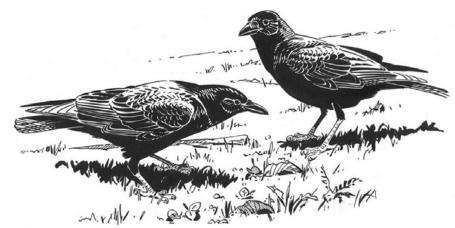
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Jeremy Coleman is an architect who has recently moved to Shelburne Falls, Massachusetts, from Brattleboro, Vermont. His interests include photography, birding, and exploring the natural landscape.

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A History of Winter Crow Roosts and a Visit to a Roost in Lawrence, Massachusetts

Dana Duxbury-Fox



American Crows. Illustration by Barry Van Dusen.

"If men had wings and bore black feathers, few of them would be clever enough to be crows." Reverend Henry Ward Beecher

American Crows (Corvus brachyrhynchos) and Fish Crows (C. ossifragus) traditionally roost communally in winter. Across their range, many of these roosts have been in existence for a number of years. Very large roosts tend to occur in regions where there is abundant food, and also where northern migrants augment resident crow populations, as in Oklahoma (Good 1952).

Communal roosting by large numbers of crows is not well understood. Sibley (2001) offers some explanations:

Some evidence indicates that information about profitable foraging areas may be passed on at roosts; hungry birds follow well-fed ones to better feeding sites the next day. Another explanation is that the birds gather near reliable feeding areas, where they can be sure to get something to eat first thing in the morning and again at the end of the day. Large roosts may also offer protection from predators and the comfort of converging at warm, sheltered spots.

In Massachusetts, maximum numbers of crows are recorded in October and March, and many crows are seen during hawk migrations. High counts include 1,000+ in Berkshire County on October 22, 1950; 1500 in Needham on October 30, 1979; and 1175 in Ashburnham on October 27, 1979. In spring, high counts include 700+ in

Dartmouth on March 23, 1958, and 600 flying north at Plum Island, on March 15, 1993 (Veit and Petersen 1993).

Early History of Winter Roosts

The most famous early account of a crow roost was by Alexander Wilson in his *American Ornithology* (1811). He described a roost that occurred in the late 1700s that

is near New Castle, on an island in the Delaware. It is known by the name of Pea Patch, and is a low, flat, alluvial spot of a few acres, elevated but little above high-water mark and covered with a think growth of reeds.... It is entirely destitute of trees, the crows alighting and nestling among the reeds

The colony was once destroyed by a tide that flooded the island during "a sudden and violent northeast storm." Wilson continued: "This disaster, however seems long to have been repaired, for they now congregate on the Pea Patch in as immense multitudes as ever."

Some reports of roosting crows over the past 200 years sound uncannily like the descriptions of contemporary crow roosts. Dr. John Godman in his *Rambles of a Naturalist*, wrote of his observations in 1825 of a roost at his home in Anne Arundel County, Maryland:

The Roost is most commonly the densest pine thicket that can be found, generally at no great distance from some river, bay or other sheet of water which is the last to freeze, or rarely is altogether frozen. To such a roost the crows which are, during the day time, scattered over perhaps more than a hundred miles of circumference, wing their way every afternoon and arrive shortly after sunset. Endless columns pour in from various quarters, and as they arrive pitch upon their accustomed perches, crowding closely together for the benefit of the warmth and shelter afforded by the thick foliage of the pine. The trees are literally bent by their weight, and the ground is covered for many feet in depth by their dung, which by its gradual fermentation must also tend to increase the warmth of the roost. Such roosts are known to be thus occupied for years, beyond the memory of individuals....(Godman 1833)

In the winter of 1916–1917, Charles Townsend MD explored a vast American Crow roost at Castle Hill in Ipswich, Massachusetts, and later wrote detailed descriptions of the roost. At that time, 20 or 30 acres of land at Castle Hill were covered with mature evergreens, mostly European scotch and Austrian pines, and patches of deciduous trees.

He noted that by 3:00 pm, three streams of crows began their flight to the roost, gathering first in the dunes or in the fields below the hill. An hour later, he and his companions saw a flock stretching for two miles that took four minutes to pass their observation point. Sunset was at 4:15 that day and it was dark when many of the birds



Crow pellet found at the Lawrence Winter Roost. All photographs by Craig Gibson.

finally went into the evergreens to roost. He calculated that there were 12,000 birds in the roost (Townsend 1918).

Townsend was fascinated by the pellets of indigestible material that the crows disgorged. He collected many pellets from the Castle Hill roost and had them analyzed by the U.S. Biological Survey. Analysis determined that the pellets contained mainly bayberry seeds, along with seeds of poison ivy, staghorn sumac, cranberry, and barberry. (Townsend 1918). A similar pellet analysis from the Lawrence roost is currently being conducted by Dr. Tom French at the Massachusetts Division of Fisheries and Wildlife

The Lawrence Winter Crow Roost

In the winter of 1989, Eliot W. Taylor first reported American Crows roosting in downtown Lawrence, Massachusetts, a seemingly unlikely location. Lawrence is a city of only six square miles in area, and the Merrimack River, which bisects the downtown area, is lined with many former brick textile mills. The year this roost was established is unknown, but Taylor first noticed the roost on February 2, 1989, when he was driving along Interstate 495, which runs through Lawrence. He saw many crows flying across the road headed into the city and thought, "There must be a roost." He promptly turned off the highway and followed the crows to a cemetery where he estimated 2000 crows (Taylor, personal communication). On other visits to the roost, he reported 4000 crows (Forster et al. 1990), 8000 crows (Forster et al. 1993), and 11,500 crows (Kellogg et al. 2007).



Just after sunset on December 28, 2017, hundreds, if not thousands, of crows pour into a staging area on the west side of the O'Leary Bridge Rt. 28/Broadway by the Great Stone Dam.

Joseph Hogan of Lawrence also reported winter roost numbers to Bird Observer: 5272 crows (Forster and Rines 1992) and 4256 crows (Forster et al. 1994). Rick Heil reported 10,000–15,000 crows in 2009 (Kellogg et al. 2009).

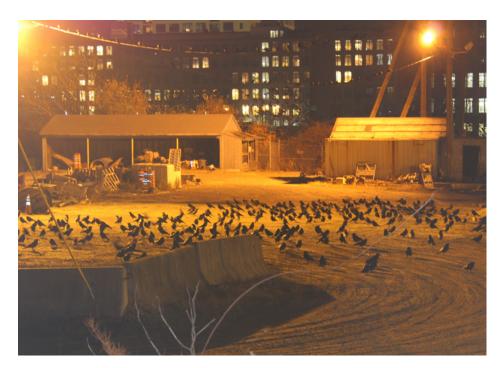
The Lawrence roost also contains flocks of Fish Crows, which are easily identified by their nasal calls. Before heading to the roost, Fish Crows tend to settle into staging areas in various parking lots separate from American Crows. Skip Charette reported the first Fish Crow at the Lawrence roost on January 13, 1994 (Forster et al. 1994).

There have been no recent documented estimates of the total number of American and Fish crows coming into the Lawrence roost. I observed 5000 American Crows on November 16, 2017.

Staging

Prior to entering a winter roost, crows usually fly in small flocks from their daytime feeding areas to one or more staging areas during the afternoon. Most arrive at staging areas that are one or more kilometers from the roost an hour before sunset (Moore and Switzer 1998). On cloudy or windy days, they often start flying earlier. Crows do not appear to do much, if any, feeding in the staging areas.

Interestingly, crows that are members of cooperative breeding groups—usually many of the permanent resident crows—leave the feeding area independently, do



The National Grid substation on South Canal Street is one of the crows' staging areas. Crows cover the ground, fill the trees, and perch on the utility wires.

not roost together, and independently leave the roost in the morning (Caccamise et al.1975).

Staging may have evolved to deter persecution and to help keep the roost location secret. Once at the staging area, the crows are social and noisy, with flocks periodically rising and moving to a new spot. At the staging area, the crows may feed, preen, and scan the surroundings (Moore and Switzer 1998). We also have observed some crows going into an almost stupor-like behavior prior to going to roost, as well as at the actual roost. This behavior was particularly noticeable on cold winter days. The birds seemed oblivious to nearby people and hardly moved for long periods of time even when settled on the ground. Unfortunately we are unable explain this interesting behavior.

Staging areas are usually different almost every night. In Lawrence, crows start to pour into the city along the Merrimack River from all directions about an hour before sunset on a winter day. It is a breathtaking experience watching the crows stream in against the background of old textile mills, factories, telephone wires, and lights. They appear immune to the fact that they are settling into a bustling city. No one knows for sure how far away the crows come from. Each night, they seem to choose a different staging area either to the east or the west of their final roosting spot. Every night is like a "Where's Waldo" puzzle. If it is very cold and the river is frozen, many crows will gather to the west of the roost on the ice above the Great Stone Dam. Or they might go to Pemberton Park on the northwest side of the roost. Other nights they may stream to



Silence falls when the crows settle into their overnight roost.

the east of the roost and gather on either the south or north side of the river—in trees, in parking lots, on buildings, and on the ground. One cloudy night, we found them on the hill to the east of the Lawrence General Hospital. The noise is always considerable. There is constant movement of swirling flocks around the staging area.

The Roost

Once it is dark, usually half an hour after sunset, the crows enter the roost. In some places, crows may use the same roosting site for many years (Emlen 1938, 1940; Black 1941). The total number of birds in a roost varies from a few hundred to more than 500,000 (Gorenzel and Salmon 1992) to 2,000,000 (Iams 1972). Sometimes, crows settle in such high density that the limbs of the roost trees break.

Crows often roost in coniferous trees. In Lawrence, there are no stands of conifers along the Merrimack River, so the crows use the riverine deciduous trees. They roost either in a line of 30-foot-tall silver maples along the south side of the Merrimack River bordering the New Balance property on South Union Street, or in silver maples or birch trees on the north side of the river. After dark, the lights of the evening shift at the factory illuminate the trees, which appear to be decorated with a thousand black ornaments. Suddenly it is quiet.

Departure from the Roost

At sunrise, crows depart from the roost and go out to feeding areas for the day.



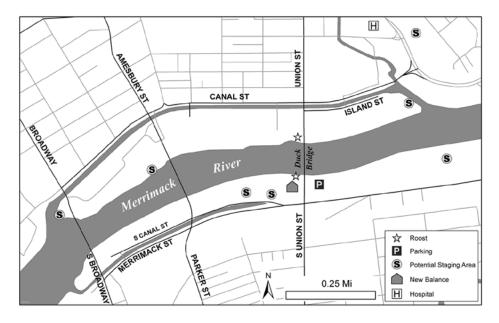
Crows leave the roost before sunrise, flying over the Merrimack River.

But just an hour before sunrise, when the east was becoming faintly lighted, the crows suddenly commenced awakening, and at the same time commenced cawing. The few who led the measure were within one or two minutes joined by the full chorus of 300,000 or more voices, each apparently striving to be heard by all the rest. Never before had I realized the almost infinite possibility of the crow's variable *caw* in the production of discords. This great noise, which the poetic soul of Audubon conceived to the "thanksgiving" and "consultation," was kept up for twenty minutes before any movement was discernible. (Edwards 1888)

Exploring and Viewing the Lawrence Roost and Staging Areas

Plan to visit the roost on an afternoon any time from November through March. The number of birds will be highest in January and February. Dress warmly, as you will want to have the car windows open. A flask of coffee or tea also can be helpful. Check the time of sunset and plan to arrive at least an hour before. A sunny afternoon is best.

To reach the roost, take Interstate 495 to Lawrence and get off at Exit 44. See the map for potential staging areas and for the roost and New Balance factory sites. Travel along Merrimack Street from east to west looking for the gathering flocks. Turn into the parking lot of 280 Merrimack Street and drive to the river. Scan along both sides of the river for gathering crows. If they are along the north side of the river, view them by returning to Merrimack Street and take a right onto South Union Street, then go over Duck Bridge and take your first right onto Island Street. Follow Island Street to the east around the buildings until you reach a parking lot along the river. Look for crows



Map of Lawrence Roost and Staging Areas.

on a small grassy hill (Ferrous Hill), on rooftops, in parking lots, or in the trees along the river. You can return to Duck Bridge (South Union Street) at any time to watch the crows enter the roost.

If the crows are not gathering on the east side of South Union Street, continue along Merrimack Street, crossing South Union so that the New Balance shoe factory will be on your right. Turn onto a dirt road, South Canal Street, just beyond the factory and park your car along the fence. They may be staging at the National Grid and the adjoining truck trailer parking lots. Drive farther along Merrimack, as crows may be scattered on both sides of the road along wires, on rooftops, and in parking lots. Listen to the crows, as you may come across a gathering of Fish Crows. The crows may be in Pemberton Park on the north side of the river between the Parker Street and South Broadway bridges. If the river is frozen, drive farther west and turn right—north—on South Broadway, passing over the bridge; look west over the Great Stone Dam on the ice and in the trees bordering the river.

Half an hour after sunset, the crows will take off in small groups and fly to the north and south sides of the river along South Union Street. Park in the New Balance parking lot on the east side of South Union and walk across the street and out onto the bridge. Once you get to the edge of the New Balance shoe factory, look down into the trees lining the river. Crows, like large black baubles, will be adorning the trees and more crows may still be joining the roost. Walk quietly and slowly along the bridge and you will see the tree branches hanging over the river adorned with more black baubles. Now walk across the bridge and look at the north side in the trees bordering the river—

thousands and thousands of crows. You are left to hazard your own guess as to how many!

You may also choose to view the departure of the crows from the roost. This will be more dramatic and very noisy. Arrive an hour before sunrise and follow the directions in the previous paragraph. Stand in the middle of the bridge to watch the crows erupt from the trees on both sides of the river.

Other Roosts in Massachusetts

Currently, there are known large roosts in Framingham and Springfield. American and Fish crows are also known to roost on Martha's Vineyard each night, returning to the mainland to forage during the day.

Crows and their communal winter roosts are fascinating. I encourage readers to visit one to experience the sheer spectacle—the whir of wings, the raucous calls, and the aggregation of thousands of resident and migrant birds against the setting or rising sun

Addendum

After the February 2018 issue of *Bird Observer* went into production—about a month after this article was written—the crows in Lawrence disappeared from their traditional roost site near the New Balance factory on South Union Street. On December 27, 2017, Craig Gibson discovered them staging on the frozen Merrimack River to the west of the South Broadway Street Bridge and the Old Stone Dam. After sunset, the crows moved to a new roost site in Pemberton Park on the north side of the river between the South Broadway Bridge and the Casey Bridge off of Amesbury Street. Bob and I visited the staging site around 3:30 pm on Friday December 29, where Bob counted 7,500 crows on the ice and 1,200 crows in the trees lining the river. We followed the stream of crows to their new roost after dusk and every tree along the river and many trees in the parking lot were filled with crows. On January 3, we found the crows roosting in another spot—14,000 of them—in trees on the south side of the river to the west of the dam in the Lawrence Water Treatment plant's parking lot.

Due to the frigid weather of the last weeks of December 2017 and the beginning of January 2018, the Merrimack River had frozen upstream of the Old Stone Dam and the extent of the ice was greater than usual. Perhaps the new roost locations are temporary in response to the extreme cold and the frozen river, and the crows will return to their former roost when winter conditions return to normal. We will continue to monitor the staging and roosting sites of the Lawrence crows.

Acknowledgements

Over the past few years, Wayne Petersen's infectious curiosity and enthusiasm for crows and the Lawrence crow roost, coupled with my characteristic ability to immerse myself in a subject once I get started, along with the generous help of so many friends and other birders, especially my husband Bob Fox, Craig Gibson, and Barry Van Dusen, led to this article. Special thanks go to Craig Gibson, who has become a

passionate crow observer and photographer par excellence of the city's crows; and to Jim Berry, who provided me with early records and helped to edit this piece.

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At eight years old, **Dana Duxbury-Fox** asked for her first bird book and has been an active birder ever since. She graduated from Cornell University, and taught biology in India for two years. For many years, she has been researching ways to protect the Common Loon with the Loon Preservation Committee in New Hampshire. Now, winter crow roosts have caught her attention. Dana, her husband Bob, and Craig Gibson are continuing their research on the Lawrence Crow Roost.

PHOTO ESSAY

The American Crow

Photographs by Craig Gibson









MUSINGS FROM THE BLIND BIRDER

Losing One's Senses

Martha Steele

Birding arguably uses our two most desirable senses: vision and hearing. It is probably fair to say that when we start birding, nearly all of us have excellent vision and hearing and we soon learn to make the most of these senses in finding and identifying birds. As we age, however, one or both of these senses may begin to desert us, with potentially profound consequences for our enjoyment of and confidence in birding.

Our ability to accept and adjust to declining sensory information will affect the quality of our birding experiences. It will also determine how we feel about ourselves as birders. For a lifelong birder, expert at locating birds with sharp vision and identifying species by songs with excellent hearing, reduced visual acuity or hearing loss at high pitches may lead to embarrassment in front of those seeing and hearing what he or she can no longer see or hear. It takes a lot of self-confidence to either respond to sensory loss with helpful devices or by recognizing one's visual or hearing limitations and accepting help from other birders in the field.

As readers of this column know, I have tried to embrace new approaches to birding as my vision and hearing progressively declined over decades of life. Some of these adjustments were intentional, but one change was totally unintentional: the spectacular explosion of bird vocalizations that I experienced following my cochlear implants. The help of my birding brethren made all these adjustments enjoyable through their support.

I have been fortunate in birding with friends who displayed tremendous patience and understanding in the face of my hearing and visual challenges. They helped me locate birds through clear and calm descriptions of where the bird was and often took the extra step of getting a bird in the scope for me to see. I thought of all the support I have had in birding when I read an email from an avid midwestern birder who has the same disease that I have, which causes progressive vision loss. This disease, retinitis pigmentosa (RP), can initially causes night blindness, followed by peripheral vision loss, and finally central vision loss. Thus, a birder with RP can go through periods of being legally blind due to tunnel vision but have 20/20 visual acuity, thereby easily seeing birds assuming they can get on the birds in the first place.

The midwestern birder noted that he too often encounters leaders, for example, who display little patience and much exasperation in helping him get on a bird. This has resulted in frustrating encounters. On the one hand, the leader is trying to ensure that everyone in the group sees the bird without giving too much attention to any one birder, while on the other hand, the visually-impaired birder is trying desperately to see what is obvious to everyone else.

As a birder, not having peripheral vision makes it exceedingly difficult to spot flitting birds at a distance or above you. The darker the environment is, the more difficult it is because we cannot see well in dark conditions. Birders know that you bring the binoculars to your eyes only after you spot the bird. For those of us who cannot see well, someone clearly and calmly describing where the bird is makes all the difference in our actually seeing the bird.

Of course, you do not need to be visually impaired to benefit from descriptions by others to help you get on a bird. The ability to describe where a bird is perched is an underrated and perhaps under-appreciated skill. It requires patience and persistence to describe as precisely and calmly as possible where a bird is. All of us, regardless of our sight, have benefited from other birders describing where a bird is, and all of us have experienced good descriptions and impossibly poor ones that leave all frustrated.

The struggle to see birds, which intensified as I lost more and more vision, was taxing me and anyone who tried to help me spot birds. This is one reason that I am so much more relaxed birding now that I can't see birds. I focus entirely on bird vocalizations, and although I can get frustrated at not being able to identify a bird vocalization, at least I hear it and can participate in debates with others in the group about who just sang.

But what happens when birders begin to lose their hearing? As we age, we tend to lose the ability to hear higher pitches, which means that the higher pitched bird vocalizations are also lost. There may also be significant frustration and even sadness among those who experience this. It is important that we understand and acknowledge the frustration that others may feel when they can no longer hear what they used to hear.

To those who may be losing some hearing or vision and finding that it affects their birding enjoyment, the challenge to adjusting or accepting this decline can be significant. But as long as we are capable of heading out to the field, graciously accepting the help of other birders with us, there is still plenty to enjoy, including sharing our passion with other birders. Life is nothing if not constant adjustments to changing circumstances, some welcome and some not so welcome.

Strong memories of what I used to see still flood my brain at times, such as when Bob is enjoying a perched and singing Mourning Warbler. Yet I am so grateful for the ability to hear birds that the loss of seeing them has long since faded. Even if I should lose my ability to hear birds, which I do not anticipate, I would hope that I would find other ways to enjoy birds and their habitats, as well as support their conservation. I so appreciate all the help that I have received over the years, and I am certain that aging birders losing sensory information will likewise benefit from such support.

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. Martha can be reached at <marthajs@verizon.net>

GLEANINGS

Getting Lost

David M. Larson

Let's face it, we all can get lost, or at least a mite bewildered. Usually, the consequences are not dire—consult a map, check your phone or GPS device, even ask random strangers. But what happens when birds get lost, especially birds that migrate solo and at night? While we rarely know what happens to those lost wanderers, undoubtedly predation, starvation, and exposure all take their toll. You could argue that any bird that flies in the wrong direction on migration is an evolutionary dead end. But what if the problem is not with genetics but is caused by human intervention? What if one of the reasons is poisoning by pesticides?

Many environmental groups and governmental agencies have become increasingly worried about the effects of insecticides on birds, especially the commonly-used organophosphate and neonicotinoid compounds. Organophosphates such as chlorpyrifos (CPF) are usually scattered in granular form on crops, and neonicotinoids such as imidacloprid (IMI) are generally applied directly to seeds. Both are widely found in soil after application. Both classes of insecticides are neurotoxic: CFP is an acetylcholinesterase inhibitor and IMI is a nicotinic acetylcholine receptor antagonist.

An early study on White-throated Sparrows (*Zonotrichia albicollis*) during fall migration indicated that exposure to an organophosphate—acephate—caused a loss of migration orientation (Vyas, et al. 1995). Eng, et al. (2017) set out to test if White-crowned Sparrows (*Zonotrichia leucophrys*) showed impairments in weight gain or orientation ability—critical elements in migration—when exposed to environmentally relevant doses of imidacloprid and chlorpyrifos.

The authors captured White-crowned Sparrows during spring migration and fed them by gavage high (25% LD50) or low (10% LD50) doses of imidacloprid (IMI) or chlorpyrifos (CPF) or control (sunflower oil) once a day for three days. Both concentrations of IMI caused acute toxicity as indicated by statistically significant loss of body mass (average of 25.5% at high dose) during dosing. Treated birds also showed ataxia, lethargy, and excess salivation. None of the control birds died, but a small percent of the treated birds died or had to be euthanized. At the lower dose, the White-crowned Sparrows recovered weight by three days after treatment, and the high dose birds had normal weights after 14 days. In the CPF treatment groups, there were no obvious signs of acute toxicity—no distress, mortality, or weight loss significantly beyond control birds.

The researchers also tested migratory behavior in activity tests—cumulative distance moved via upward hops in Emlen funnels over 30 seconds. A classic Emlen funnel (Figure 1) is a white paper cone with a flat base that consists of an ink pad. Birds in migration restlessness— *Zugunruhe*—will hop from the base up onto the sides of the funnel, leaving ink marks in the preferred direction of travel. Eng and

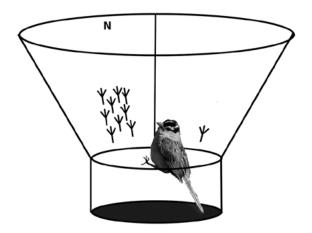


Figure 1. Illustration of a classic Emlen funnel setup by the author.

coworkers recorded activity and directional preference using video cameras rather than ink. Activity decreased over time in all groups, treated or control, and there was no significant difference between treated and control birds or between treatment groups.

Directionality of hopping was also scored. Pretreatment birds oriented generally northward (between 320° and 33°) as did the control-treated birds. Low-dose IMI-treated birds showed no orientation post-treatment but recovered their ability to orient by two weeks after treatment. High-dose birds changed from a northward orientation to a mean of 75°—so more easterly—post dosing, lost any orientation by three days after treatment, and recovered by two weeks. Birds treated with CPF, high or low dose, lost the ability to orient toward the north and did not recover by two weeks post treatment. Control birds maintained their northward orientation during the experimental period.

So, it seems that both IMI and CPF disrupt vital processes in spring migration in White-crowned Sparrows. For seed-eating birds that use agricultural habitats during migration, this is a particularly grim result. Grassland and agricultural species are among the fastest declining birds, and their susceptibility to these neurotoxins may be one of the reasons. Whether the disruption in migration is in orientation or in fitness, the net effect of these neurotoxins would be to reduce the likelihood of successful reproduction in affected birds.

The doses employed in this study are ones that could reasonably be encountered by birds in agricultural settings. The low IMI dose is equivalent to a White-crowned Sparrow consuming about four canola seeds or less than 10% of a corn seed, and the higher dose is about double that. Either of these amounts would be less than 1% of a bird's daily seed consumption. CPF consumption is mostly due to intake of granules as grit, which is a normal part of being a seedeater. The high and low doses of CPF in this study are equivalent to 8 or 12 granules of CPF, or perhaps 2.5–4 % of the grit ingested per day, based on a study on House Sparrows (Best and Gionfriddo 1994). Hence,

it is highly possible for individual birds in a day's feeding to achieve doses of either neurotoxin as high or higher than those used in this study.

The question of the human toxicity of IMI is currently under review by the United States Environmental Protection Agency (see https://www.regulations.gov/docket?D=EPA-HQ-OPP-2008-0844). Effects of neonicotinoids on pollinators, other insects, other invertebrates, and non-human vertebrates are controversial, but this study is a notable step in outlining some of the problems with CFP and IMI exposure for seed-eating songbirds.

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LEAST BITTERN BY SANDY SELESKY

FIELD NOTES

Northern Harrier Preying on Hooded Merganser

Peter Vale and Fay Vale

On November 27, 2017, at 10 am, we were birding south along the road at Parker River NWR and after enjoying a Cooper's Hawk hunting low, we stopped at the Salt Pannes Wildlife Observation Area to check out the ducks and geese. The ponds at this area are important to us since one of us is mobility-limited and there is usually something interesting here that we can see from the car. First, we saw two Peregrine Falcons circling above and then noticed a Northern Harrier hovering low over the water south of the main pond. After a few minutes, we realized that the harrier was not doing its normal gliding and searching over the marsh grasses but was focused on one area over the water. After a few more minutes, one of the Peregrines stooped down, repeatedly harassed the harrier, and then perched on a swallow house and stared at it. A second harrier arrived, flew over the first harrier—still hovering over water—and chased the Peregrine away. Then the second harrier itself flew away.

Since we were blocked by vegetation from seeing what was attracting the harrier, we drove south to the smaller pool north of parking lot 3 to gain a better perspective. The harrier seemed to be interested in a tight flock of American Black Ducks, which seemed more annoyed than fearful of the harrier, probably because of their large size. We couldn't understand what the harrier was doing as we assumed it wasn't after a Black Duck. Finally, we noticed that a small duck—later determined to be a male Hooded Merganser—was diving repeatedly among the Black Ducks. The harrier kept trying to catch the merganser, making it dive quickly without much chance to breathe between dives. On the merganser's last dive, it surfaced behind the group of Black Ducks. The hovering harrier pounced, lowered one leg, and grabbed the merganser. The harrier flew low with its prey and landed in the marsh too deep in the vegetation for us to see. The whole episode took 15 minutes, as the harrier tried for the merganser many times before successfully catching it.

In the species account, in *The Birds of North America* (Smith et al. 2011), the only mention of harriers taking waterbirds is in "southeastern coastal marshes devoid of mammals." We do not know the status of small mammals in the refuge's marshes. The species account further states that harriers are known "to subdue large prey by drowning," but this harrier's attack didn't seem like drowning—it was more like exhausting its prey.

In our 40 years of birding we have never seen a harrier take a duck and no one we spoke with on the refuge had ever seen it either.

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2E2: A Successful Gull

Jeffrey Boone Miller





Two banded Great Black-backed Gulls. Left: 2E2. Right: 4FH. Photographs by the author.

At about 11:00 am on October 23, 2017, I came upon two banded Great Blackbacked Gulls (*Larus marinus*) on the beach near the southern boundary of the Parker River National Wildlife Refuge on Plum Island, Massachusetts. Had more shorebirds or waterfowl been around, I might have overlooked these gulls, but, once I noticed their bands, I stopped to spend a few minutes observing them. One of the gulls was a hatch year bird that carried a black band on its right leg with the code 4FH in white lettering. The second gull was an adult with a similar band on its left leg labeled 2E2. Both gulls also had metal bands on their opposite legs, but these were not readable in the field. The accompanying photographs show a close up of 2E2's bands and a portrait of 4FH. As it turned out, these gulls had a story.

After a short Internet search, I found that these bands were of the type used by researchers on Appledore Island, Maine, who have been banding Herring and Great Blacked-backed gulls since 2004. Appledore Island is near the maritime border between Maine and New Hampshire about seven miles offshore, and it's about a 20-mile direct flight from Appledore Island to the where I saw the birds. I reported my sightings as requested on the project's website: https://gullsofappledore.wordpress.com>.

Not long after my submission, I received an email from Bill Clark, a volunteer with the Appledore project who coordinates correspondence about band sightings. He confirmed that 2E2 and 4FH had been banded on Appledore, and he sent me details of their life histories and previous sightings.

These records showed that the mature gull, 2E2, was at least 15 years old when I saw it. When 2E2 was banded on May 26, 2006, it was already in adult plumage and thus must have been at least four years old. For comparison, the oldest reported Great

Black-backed Gulls in Europe and North America have been at least 32 and 26 years old, respectively (Fransson et al. 2017, Lutmerding et al. 2017).

Furthermore, the hatch year bird, 4FH, was an offspring of 2E2, so it was a parent-chick pair that I observed. 4FH was banded July 11, 2017, so it was four and half months old when I saw it. It was the second chick to hatch in the nest of 2E2 and its mate 9ET, a bird I did not see. During the few minutes that I observed 2E2 and 4FH, the two birds remained calmly within a few meters of each other at the water line, sometimes slowly walking a short distance one way or another. Neither was foraging and there were no physical interactions between the two—they just seemed to be companionably in each other's company. My photography did not seem to disturb them.

For at least five years, 2E2 has been raising chicks and interacting with the fledglings. In addition to my sighting in 2017, reports from each of the years from 2013–2016 had also found 2E2 in the company of a banded juvenile. In some reports, observers noted that 2E2 shared food with the accompanying youngster. Observers also noted that 2E2 is an opportunistic feeder, having been seen eating skates, scavenging a seal carcass, and pilfering popcorn and crackers from beachgoers.

The list of sightings also showed that 2E2 has not traveled far. As noted on the project website, Great Black-backed Gulls banded on Appledore have been seen as far west as Indiana and as far south as Texas and Florida. In contrast, every one of the more than 125 reported sightings of 2E2 has been from either Appledore Island, especially in May during the breeding season, or Plum Island in most months, though most often in fall and winter. 2E2 prefers the southern end of Plum Island, as almost all sightings have been from near the southern boundary of the Parker River NWR—where I also saw it—or from the adjacent Sandy Point State Reservation which occupies the southernmost tip of the island.

Every bird we see has a history, but that history is usually unknowable. In the case of 2E2 and 4FH, however, the records from Bill Clark and the staff at the Appledore gull banding project gave me insight and appreciation for the lives these birds are leading. I am grateful that the Appledore team shared their records with me. In particular, I am captivated by 2E2. Though a homebody, 2E2 has reached a respectable age, is an eclectic forager, and is an attentive parent—my definition of a successful gull. For more information about banded gulls and an earlier sighting of 2E2, see Dave Adrien's "A Close Look at Banded Gulls" in *Bird Observer* 44(5): 316-323. It is available online at https://www.birdobserver.org/Issues/2016/October-2016/ ArticleId/193/a-close-look-at-banded-gulls>.

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BOOK REVIEW

Two Quests

Mark Lynch

Birding Without Borders: An Obsession, A Quest, and the Biggest Year in the World. Noah Strycker. 2017. Boston, Massachusetts: Houghton Mifflin Harcourt.

Raptor: A Journey through Birds. James Macdonald Lockhart. 2017. Chicago, Illinois: University of Chicago Press.

It is a commonplace of all religious thought, even the most primitive, that the man seeking visions and insight, must go apart from his fellows and live for a time in the wilderness. (Loren Eiseley)

Birding has always lent itself to keeping lists. Life lists and year lists are common, but certain birders are a bit more arcane with their listing proclivities. I know people who keep lists of birds seen while they are going to the bathroom or birds seen at a Red Sox game, and I have even kept a list of birds encountered as I wait for a cab. The possibilities are endless; you go about your life and tally birds as they happen to appear in your choice of situations.

Some birders up their game by not merely waiting for the birds to come to them. Instead, they actively seek out certain birds with a definite goal in mind. In its most common form, these quests have sought the maximum number of species that could be seen in a day, week, month, or year in a single spot, city, county, state, country, or, ultimately, the world. In most of these quests, time is of the essence, and the birder is birding on a deadline, which gives these birding events a certain tension and the air of a sport.

Below are two recent books describing bird-inspired quests. These two books are radically different in scale, focus, geography, pace, and tone.

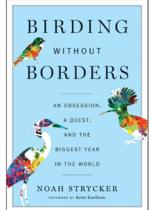
I already knew this would be no ordinary year. I'd just quit my only regular job, broken up with my girlfriend, spent most of my savings, and then, cramming all my possessions into a small backpack, made my way literally to the ends of the world. (p. 1–2, *Birding Without Borders*)

Thus, with some trepidation, Noah Strycker set off on January 1, 2015, to beat the record for most species of birds seen on Earth in a year. The previous record was set in 2008 by two British birders, Ruth Miller and Alan Davies, who managed to tick 4,341 species. Strycker's goal was to see 5,000 species while visiting 40 countries with no days off. All of this required considerable planning; much easier in today's wired world than it was when James Clement set a world record in 1989 with 3,662 species seen.

Strycker's strategy was to spend the most time in species-rich South America, as well as a few countries in Africa, several countries in Southeast Asia, and Australia.

For the most part, North America—with the exceptions of visits to Texas and Mexico—and Europe were birded only briefly. His timing to make already-booked connecting flights had to be precise. He relied heavily on hiring local guides. He counted heard birds as well as seen birds. By the end of it all, Strycker tallied 6,042 species, his first being a Cape Petrel in Antarctica. The last was a Silver-breasted Broadbill, seen in India.

The cost of this endeavor was about \$60,000 for travel, lodging, food, and guides, which comes to about \$10 per bird. Along the way, he blogged about his progress and ultimately wrote *Birding Without Borders*.



As a book, *Birding Without Borders* is a solid, if sometimes exhausting, account of Strycker's year. Because of space limitations, he could devote only so many details to each leg of the quest. Birds' names whizz by, and soon the reader longs for Strycker to stay put for a few days. Thankfully he does this several times. The usual screw-ups happen, of course, to be expected in a book like this. Cars break down, he gets sick, there are missed connections, but overall this is a Big Year without too many dramatic incidents. Miraculously, it comes off pretty much without a hitch. A few times there are hints that the wider world of political, religious, and social turmoil rages on outside of Strycker's privileged bubble. Here he mentions his local guide's financial problems.

Benji said between cigarettes that tourism had crashed in Cameroon after Boko Haram guerillas invaded the northern part of the country, and that he was surviving by selling knickknacks at a botanical garden in Douala. I felt sorry for him, but also chagrined that he'd applied my entire Cameroon budget to his personal debts. (p. 187)

There are also times when the reader is left wondering if Strycker is being brave or just a foolhardy slave to the list:

I tried to not dwell on the many recent kidnappings in the south Philippines, including a pair of Swiss and Dutch birders who were abducted on the nearby island of Tawi-Tawi in 2012. The Swiss man escaped in 2014 during a shootout, but the Dutch birder was still held captive, more than three years later. The U.S. State Department had listed at least fifteen separate kidnappings during the first nine months on my Big Year, including four tourists abducted from a Mindanao resort a couple of weeks before I arrived. One of them, a Canadian, was beheaded several months later after a failed ransom effort. (p. 226)

But Strycker needed to tick the Philippines Eagle, so he birded on.

An interesting moment comes when Strycker learned that one Arjan Dwarshuis of the Netherlands is closely following Strycker's blog so he can learn from Strycker's mistakes and successes; Dwarshuis was planning his own 2016 world Big Year. At this point the reader may wonder why Strycker's results are so important to other birders. Certainly Strycker got to see a lot of cool birds, if most of them briefly, and traveled to some wonderful places. Obviously good for him. But what meaning does his Big Year have for the larger birding audience? Strycker is quite idealistic about the global importance of his Big Year and writes:

The best way to avoid chasing rare birds is to take on the whole planet. You can go where each bird is supposed to be instead of waiting for a lost vagrant to show up on your doorstep. The world is the only scale that doesn't reward rarity hunts. I liked the idea that, by thinking globally and birding locally, I was helping to reinvent the Big Year as a way to appreciate the most common birds in their proper habitats. It seemed almost subversive, akin to a graffiti artist who paints murals instead of spraying his initials everywhere. (p. 155)

Here he is being a smidge disingenuous because he certainly did seek out real rarities like the Harpy Eagle and Philippine Eagle, so he wasn't always just ticking the common species. The fact is that most birders cannot afford this kind of nomadic ticking life, for a year or even a few months. Most birders I know squeeze their precious moments in the field around a life that also includes a job, a love life, and sometimes a family. Appreciating a global Big Year is like appreciating some stranger's ascent of K2. Sure, it's a fascinating feat, but at a distance it seems far removed from the concerns of real life. What about future Big Years? Is the next world's record Big Year going to go to the person with the most leisure time and disposable income? I kept thinking about the reality that Benji in the Cameroons lived in versus the world of the globetrotting birder.

Finally, realistically, what do Big Years do to help bird communities? Is the mere fact that Strycker could generate publicity enough to help save birds? Does that publicity translate into enough dollars to make a difference? Is publicity the best way to do this? The reader has to ask the question: would it make more of a difference to the world's bird populations if Strycker had instead donated that \$60,000 to serious conservation organizations that work hard to save habitat and species? I don't know the answer. He mentions "carbon offsets" during the year (p. 255), and I wish he had written more about these, because when you think about it, a Big Year leaves a very large carbon footprint because of all the plane travel. Finally, why must birding hold in awe listing that burns so much fossil fuel? Could you write a compelling book about a Big Sit? These are just some of the questions that flitted through my mind as I read *Birding Without Borders*.

I had the privilege of interviewing Strycker in 2017 for my radio show and found him a serious and idealistic person who really hopes his feat matters to the wider world. His summing up at the end of *Birding Without Borders* reflects that idealism. "By working together across all kinds of borders we can help make sure the next generation enjoys birds too." (p. 256)

Birding Without Borders is an enthusiastic account of an extraordinary experience. At times, the book seems a blur of exotic names and places as Strycker zips from one

habitat to another and to the next roster of bird species. But that likely conveys the experience of a Big Year: lots of birds quickly seen. *Birding Without Borders* also contains a handful of his photographs taken during the year, which helps make the quest experience more real to the reader.

The last section of the book, pages 268 to 318, is the complete chronological list of the birds the author tallied during his Big Year. Each page is single spaced, printed in small type with two columns on each page. That alone gives the reader a sense of what Strycker accomplished.

"I envy Audubon greatly, that he knew William MacGillivray so well." (p. 297, *Raptor: A Journey through Birds*)

Raptor is a unique book. Partly a well-written account of a very personal birding quest, *Raptor* is also a tour of some of the more interesting places to be found in Britain. And if that isn't enough, *Raptor* is also a biography of one of the great forgotten figures of ornithology. Together with the author's fine ability to capture the essence of a bird or place, his prose makes *Raptor* one of the great birding reads of 2017.

The concept of *Raptor* at first seems simple enough. Over several years James Macdonald Lockhart set himself the task of seeing and studying all fifteen species of diurnal raptors that breed in Britain. This requires Lockhart to spend time in some unique parts of his home country. "My book *Raptor* is the culmination of these journeys. It is a book about the birds and also a book about the places I went to search for the birds in." (p. xiii, *Raptor*)

The places where Lockhart seeks out breeding raptors are often as interesting as the birds themselves. He visited the windy and wild Orkneys looking for Hen Harrier, as well as the remote Outer Hebrides looking for Golden Eagle. Lockhart sought out Merlins breeding in an area called "The Flows," which contains 4,000 square kilometers of peat bog. Some of the places he visited sound like something out of *Lord of the Rings*:

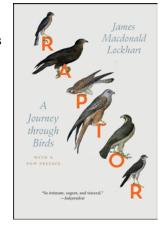
Ninety years ago Culbin was a restless desert, a vast area of shifting sands. A place so unlike anywhere else in Britain that at the end of the nineteenth century it became the home to a population of Pallas's sand grouse, a species usually found in the deserts of central Asia. Culbin was known as "Britain's Desert," large enough to lodge in the imagination, a place where history shuffled with mythology: skeletons excavated by the shifting sands were either travelers who had lost their way in its expanse or an ancient race who had lived and foraged along the shingle ridges. (p. 88–9)

The border area between England and Scotland, where Lockhart looked for Goshawk, had its own unique history. "If you went on the run from justice in Scotland or in England, this is where you ran to, the Debatable Grounds, the Batable Lands, the No-Man's land that straddles sections of the Border. A place which neither nation could agree on, a refuge, a place to flee to." (p. 151)

This coming together of these different British cultures results in some unique language differences depending on which way you travel. "The whole district is rife with dialect isoglosses. Within the space of a mile or two you can go from being a *scarecrow* to a *flycrow* to a *crowbogle* to a *tattiebogle*." (p. 153)

All these travels led to Lockhart looking for Sparrowhawk near his home. Lockhart arranged these expeditions so they ran from north to south for a special reason: to emulate the walking tour of the Scot ornithologist William MacGillivray.

Whilst I made these expeditions alone I don't feel I could have written this book without William



MacGillivray. I have structured the book around an extraordinary eight hundred mile walk MacGillivray made from Aberdeen to London in September and October 1819, loosely mapping MacGillivray's journey against my own journey from north Scotland to the south of England. (p. xiii)

When he was still young, MacGillivray decided to walk to London to see the British Museum because he had heard of its great collection of beasts and birds. All along this extraordinary journey on foot, MacGillivray took numerous detours to see or collect some interesting botanical specimens he had read about that occurred along his route. He stuffed them in his pockets until, toward the end of the journey, he began to look like an ambulatory scarecrow. Along the way, MacGillivray mostly kept to himself, barely talking to people he met on the road, but keeping careful notes of all his adventures and expenditures. He made this journey very much on the cheap, and spending of every penny was duly noted.

As Lockhart recounted his own adventures with Britain's raptors, he also took the reader along MacGillivray's journey and wrote about his later life as a great ornithologist. Most of this will be a revelation to American readers who may know the warbler but haven't a clue about the ornithologist it was named after. One of MacGillivray's most important publications was *Descriptions of the Rapacious Birds of Great Britain*, published in 1836. It was MacGillivray's careful description of the life of the Hen Harrier in this book that set Lockhart off on his quest. MacGillivray was also an accomplished bird artist, though most people have never seen his paintings. I would strongly recommend a web search to see his paintings of raptors. There is also a strong American connection to MacGillivray's life. MacGillivray had a close relationship with John James Audubon and helped write many sections of Audubon's *Ornithological Biography*. Audubon never gave MacGillivray credit for his work.

All these threads are woven together seamlessly in *Raptor*. Though *Raptor* is Lockhart's first book, it shows that he is a gifted writer able to convey a poetic sense of a place. "What a strange grey beauty these mountains have." (MacGillivray compared them to *a poor man's skin appearing through rags*.) "The land scraped bare, the moor

a craquelure of gneiss. The warm rocks smoking in the rain. Like the earth must have been when it was raw and molten-new." (p. 69)

Because he spends time with each of his target species, Lockhart is able to capture the essence of each raptor in his writing. Watching a Montagu's Harrier, Britain's rarest breeding raptor, inspires Lockhart to write:

Lightness and lift, will-o-the-wisp, the soul set adrift like a plume of smoke...The poet John Clare described the Montagu's harriers he saw from his home on the edge of the Fens as *swimming close to the green corn*. It is in her lightness and ease of buoyancy that the corn-swimmer is most distinct from the hen harrier, the heather-wanderer, a sense that you have met, in the Montagu's harrier, the epitome of lightness and drift, that you could not perceive any creature more buoyant than this. (p. 184)

Raptor is an impressive achievement. It is a passionate account of the raptors of Britain as well as those places where they breed. But *Raptor* is also a loving tribute to a great, if now little known, ornithologist. Despite its narrow geographical scope, *Raptor* is destined to become a classic of ornithological literature.



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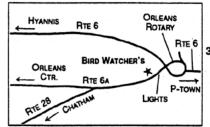
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BIRD SIGHTINGS

September–October 2017

Neil Hayward and Robert H. Stymeist

A Note on Taxonomy

Bird Observer follows the taxonomy published by the American Ornithological Society (AOS). The AOS was previously known as the American Ornithologists' Union (AOU) before its merger with the Cooper Ornithological Society in October 2016. Each summer the AOS's Committee on Classification and Nomenclature of North and Middle American Birds (NACC) publishes an annual supplement to its bird checklist. We have been using the 56th Supplement to the 7th edition, published in 2015. From this edition, we'll jump ahead to the most recent supplement, the 58th, published in July 2017.

One of the biggest changes introduced in the 57th Supplement is a major reshuffling of the family deck. Notably, pigeons, cuckoos, goatsuckers, hummingbirds, and swifts move "forward" toward the "front" of the field guide. These families now appear before shorebirds and loons! Many of these changes are based on new genetic research. The 58th Supplement has two taxonomic changes relevant to Massachusetts: Thayer's Gull is no longer a species in its own right but rather a subspecies of Iceland Gull, and Le Conte's Sparrow is now LeConte's Sparrow (the 19th century entomologist apparently didn't write his name with a space in it). With each annual AOS supplement, we'll update the taxonomy here, and explain any changes that impact the way we list species recorded in Massachusetts.

N. Hayward

Weather

September and October are exciting months for birders, and the weather during this period was near perfect. September temperatures averaged 67 degrees in Boston, two degrees above average, although temperatures away from the coast were much warmer. The high mark for September was 88 degrees on September 5, and the low was 52 degrees on the last day of the month. Rainfall measured 3.73 inches, only 0.3 inches above the average for Boston. The most in any 24-hour period was 1.55 inches on September 30. By September 22, Hurricane Jose was downgraded to a tropical storm, even though a wind advisory and a prediction of heavy rain were issued for Cape Cod and the Islands. Lucky birders at Race Point in Provincetown during that period recorded an array of unusual birds.

October 2017 was the second warmest October on record. The official average in Boston was 61.4 degrees, seven degrees above the average, and only 0.1 degrees below the record set in 1947. The high was 80 degrees on October 5, and the low was 40 degrees on October 17. Rainfall was 4.14 inches, just about average for the month, with much of it (1.71 inches) falling from the night of Tuesday, October 24, through the morning of Thursday, October 26, and causing flash flood alerts for most of eastern Massachusetts.

R. Stymeist

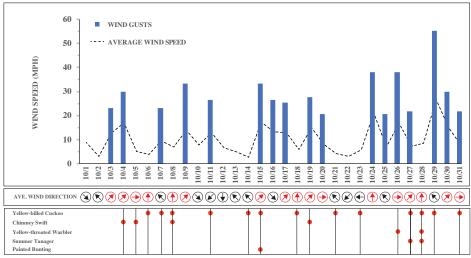


Figure 1. Weather and reverse migration, October 2017. Average wind speed (dotted lines) and wind gusts (solid bars) for Logan Airport (weather station KBOS) are shown for each nocturnal flight (6 pm through 6 am). Average wind direction for the period is shown below together with arrivals of potential "southern" reverse migrants. Data from www.eBird.org and National Oceanic and Atmospheric Administration.

GEESE THROUGH IBISES

Wild goose chases kept Massachusetts birders busy during this period. With the exception of Ross's Goose, every species of goose on the Massachusetts state list was recorded in October.

The highlight, a **Pink-footed Goose**, was discovered in Hadley on October 30. Pink-footed Goose is undergoing a population explosion in eastern Greenland and Iceland, from which birders in the Northeast are clearly benefiting. The first Massachusetts record was in January 1999 at Dennis. It took almost a decade to the day for the second bird to arrive (also on the Cape), but since then Pink-footed Goose has been annual and has been recorded in seven counties (though notably still absent from Berkshire County). This year's bird may be the same individual reported from Caribou, northeast Maine, on September 26, the earliest arrival date for the United States. A **Barnacle Goose** was present in Westfield from October 27 through the end of the month. Barnacle Goose is experiencing similar population growth and has been recorded in Massachusetts in 13 of the 17 years this century.

There's nothing quite like a species split to refocus attention on an otherwise common bird. That's been true of Canada Geese since 2004, when a split elevated Cackling Goose to the species level. Thanks to greater scrutiny from local birders, the more diminutive "Cacklers" are now regularly found among winter flocks of Canada Geese. During his period, birds were reported from at least six locations. These records presumably pertain to the pale Richardson's (hutchinsii) subspecies that breeds in Canada's Arctic Archipelago and winters south of the Great Plains.

Last but not least among the geese, Brant migrate through our state in October, heading to wintering grounds along the Atlantic coast from southern Maine to Virginia. Brant are rarely seen far inland, and a flock of 19 in Hadley on October 31 was unusual. Rarer still, a "Black Brant" was recorded at Gloucester on October 28. This dark-bellied subspecies (*nigricans*) winters on the Pacific Coast and has been recorded only seven times this century in Massachusetts, all singles in October and November (presumably migrants), and all seen in Plymouth.

A male **Eurasian Wigeon** discovered on Nantucket on September 13 was an early surprise. This wintering vagrant is generally rare before October. Harlequin Duck is similarly rare before October, and the first bird of the season was early, a male at Plymouth on September 21. **King Eiders** were reported from four locations. All three species of scoter were found inland in October, which is characteristic of their fall migration. High counts at Quabbin reflected their typical relative abundance: Black Scoter 211 (usually the most commonly encountered inland), White-winged Scoter 32, and Surf Scoter 12 (the least common inland).

Common Nighthawks completed their fall migration through the state in early September, with the main flight following the Connecticut River Valley. Chimney Swifts follow the same temporal pattern as Common Nighthawks with most passing through in early September. The records of swifts in October likely reflect reverse migration from the south, with birds opportunistically flying downwind. Figure 1 shows Chimney Swifts occurring on days with south or southwest winds. Reverse migration also explains the late records of Yellow-billed Cuckoo, a species that has vacated the state by early October. A period of sustained south, southwest, and west winds at the end of the month brought multiple Yellow-billed Cuckoos.

There were no reports of **Common Gallinule** breeding in the state this year, and so the September and October records likely show migrants. A count of five birds on South Monomoy on September 2 is the highest count for the Cape this century. Summering **Sandhill Crane** pairs in Tolland and Burrage Pond continued into October, as did the family that fledged two young at Worthington.

The shorebird of the period (and the year!) was a juvenile **Common Ringed Plover** discovered on September 11 at Gooseberry Neck. The bird was initially identified by its distinctive *poo-ii* call. The visual field marks separating this bird from the very similar Semipalmated Plover are more subtle; the bird is stockier with more dark feathering in the loral area meeting the gape; a broader, more uneven supercilium; a colder, pale-edged back; and, if visible, a lack of extensive webbing between the toes. This is the fourth record of Common Ringed Plover for the state, with two previous records in September, including a 2010 bird at Chatham also found on September 11. It's unclear how long this year's bird stayed. While there were many reports for several days after the bird's discovery, photographic documentation exists only for the first two days.

The first Purple Sandpiper of the season was spotted at Plum Island on October 1, at least two weeks ahead of schedule. With the notable exception of a record at Andrews Point on September 26, 2010, this is one of the earliest winter arrival dates for this species in the state.

Tropical Storm Jose settled to the southeast of Cape Cod on September 20, bringing with it days of gale-force winds from the northeast and cancelling the Brookline Bird Club overnight pelagic. However, the storm clouds had a silver lining for those buffeted by the winds at Race Point, where a spectacular array of storm-blown birds streamed east out of Cape Cod Bay. On Saturday, September 23, observers recorded three **South Polar Skuas** (a record count for Race Point), 52 Pomarine Jaegers, 82 Parasitic Jaegers, three **Long-tailed Jaegers**, a first-of-theseason Common Murre, two **Sabine's Gulls**, one **Franklin's Gull**, one **Sandwich Tern**, 294 Northern Fulmars (a record count for September), almost 8,000 Great Shearwaters, and eight Leach's Storm-Petrels.

The highlight of that day was a first for Massachusetts (pending MARC approval): a **Short-tailed Shearwater** photographed by visiting pelagic birder and author, Steve Howell. Incredibly, three weeks later, a **Short-tailed Shearwater** was photographed again at Race Point. This dark shearwater breeds in Australia, where it's commonly known as a "muttonbird" (the young are harvested for food). Superficially similar to the larger Sooty Shearwater, Short-taileds have a

smaller, thinner bill, a steeper forehead, and darker underwings with dark primary coverts. The shearwater spends its austral winter (our summer) in the Pacific, ranging as far north as the Bering Sea and the Arctic Ocean before returning to the southern hemisphere by way of the West Coast. It's exceptionally rare in the Atlantic Ocean with just three reports: a sight record in Virginia (January 1998), a specimen collected in Florida (July 2000), and a record from Bahia, Brazil (May 2005). Intriguingly, the day before the 1998 Virginia sighting an all-dark shearwater was reported here at First Encounter Beach. Initially considered an unseasonal Sooty Shearwater, this "large, dark *Puffinus* shearwater" [the genus *Puffinus* was split in 2016, with Short-tailed Shearwater adopting the new genus, *Ardenna*] could have been the same species that would take almost 20 years to be seen again.

The tropical storm had one surprise left. The following Tuesday, September 26, a **Masked Booby** was picked up on a beach in Wellfleet. This is the second record for Massachusetts and the first on state soil. (The first record was photographed on September 10, 2015, in Atlantis Canyon by the captain of the Helen H., while fishing.) Despite extensive medical care at Wild Care, Eastham, the bird passed away on October 2. The body was donated to the Museum of Comparative Zoology.

A first winter **Mew Gull** was a one-day wonder at Lynn on October 27. The bird was identified to the European subspecies *canus* ("Common Gull"), which is more regularly reported here than the western North American *brachyrhynchus*. Mew Gull is almost annual in the state, although this year's four records are unprecedented.

The challenge of attracting large, big-mouthed water birds to the state this summer has definitely been more of a case of peli-can than peli-cant. The "Summer of the Pelican" continued with the North Shore **Brown Pelican** settling down to spend October in the Boston Harbor. Last period's **American White Pelican** continued its vacation on Martha's Vineyard until September 28.

A count of five Cattle Egrets at Gill in the final week of October was a record for Franklin County (previously only singles). A **White Ibis** that spent two days in Northampton this October was noteworthy; the species is less than annual to the state and very rare away from the coast.

N. Hayward

Snow Goose				Wood Duck			
10/2	Sheffield	1	K. Schopp	9/4	Ware R. IBA	68	M. Lynch#
10/17	Hampden	1	A. Downey	9/15	Washington	49	J. Pierce
Greater Whit	e-fronted Goose		•	10/17	Topsfield	123	J. Berry#
10/1	Beverly	1 ph	D. Walters	10/28	Falmouth	50	G. Hirth
Pink-footed (Goose	•		Blue-winged T	Teal Teal		
10/30	Hadley	1 ph	J. Smith	9/2	S. Monomoy	12	K. Yakola#
Brant		•		9/5	PI	6	T. Wetmore
10/10	Revere (POP)	94	P. Peterson	9/5	E. Boston (BI)	4	C. Floyd#
10/18	PI	59	T. Wetmore	9/16	Randolph	11	G. d'Entremont#
10/21	Fairhaven	53	M. Lynch#	9/28	Holden	3	M. Lynch#
10/28	Essex	1 black	S. Perkins#	Northern Shov	eler		
10/31	Hadley	19	N. Kahn	9/2	S. Monomoy	8	K. Yakola#
Barnacle Goo	se			9/11-30	Longmeadow	3	M. Moore
10/27-31	Westfield	1 ph	D. Holmes	10/9	Pittsfield	3	S. Townsend
Cackling Goo	se	•		10/21-22	PI 5 1	m, 4f	T. Wetmore, v.o.
9/28	Deerfield	1	D. Sibley	Gadwall			
10/9	Sheffield	1 ph	R. Wendell	9/2	S. Monomoy	75	K. Yakola#
10/20	Dighton	2 ph	J. Eckerson	9/22	PI	10	M. Goetschkes#
10/21-29	Rochester	1 ph J	. Sweeney, v.o.	9/24	Acoaxet	6	M. Lynch#
10/28-31	Westfield	2 ph	D. Holmes	10/5	Turner's Falls	1	J. Rose
10/28-31	Sharon	1 ph	L. Waters, v.o.	10/27	Cheshire	1	G. Hurley
Mute Swan		•		Eurasian Wig	eon		
9/9	Westboro	151	M. Lynch#	9/13-10/23	Nantucket	1 m	T. Pastuszak#
9/24	Acoaxet	116	M. Lynch#	10/2	PI	1 m	ph T. Wetmore

American Wig 9/11			10/27	DI	9	M. Dalan
		5 M. Moore	10/27 10/29	PI Rockport (AP)	690	M. Daley R. Heil
10/18	PI 5		10/29	Quabbin Pk	5	L. Therrien
10/20	Waltham 1		10/30	Turner's Falls	2	J. Smith
American Blac			Bufflehead			
9/14	Quabbin (G35) 5		10/24	Wachusett Res.	2 f	
10/17	PI 30	T. Wetmore	10/27	Melrose	2	P. + F. Vale
Northern Pinta		4 77 37 1 1 //	10/31	Lynnfield	2	J. Dillon
9/2	S. Monomoy 2		Hooded Mer		2	C Daltan
9/29 10/9		G. d'Entremont J. Forbes	9/21 10/17	Revere Paxton	3 9	C. Dalton M. Lynch#
10/28	PI 20		10/17	PI	2	N. Lynch N. Landry
Green-winged		1. Welliote	Common Mo		_	IV. Landry
9/21	Lexington 3	 J. Forbes 	9/2	Sandisfield	29	M. Lynch#
9/29	Randolph 6		9/5	Ipswich	2	I. Pepper
10/22	P'town (RP) 6		9/14	Quabbin (G35)	13	B. Zajda
10/30	PI 25	T. Wetmore	10/17	Paxton	7	M. Lynch#
Canvasback			Red-breasted			
10/21		1 J. Trimble#	10/12	Stockbridge	1	J. Pierce
10/22-30	Cambr. (FP)	1 m S. Moses, v.o.	10/23	PI	30	T. Wetmore
Redhead	C 1 N 1		10/29	Rockport (AP)	170	R. Heil
10/17	Gooseberry Neck	2 m, f J. Eckerson#	Ruddy Duck		70	I. Canban
Ring-necked I 10/25		7 M. Lymah#	10/19 10/20	Waltham	183	J. Forbes P. + F. Vale
10/23	Quabog IBA 3° Cambr. (FP) 12°		10/20	W. Newbury Nantucket	76	J. Trimble#
10/27	Lynnfield 1:		10/21	Richmond	2	G. Ward
Greater Scaup	Lymmeta 1.	z J. Dilloli	10/20	Cambr. (FP)	40	B. Miller
9/9-9/12	Turner's Falls	J. Smith	Northern Bo		10	B. Miller
9/30		1 L. Therrien	9/13	Plymouth B.	2	A. Kneidel#
10/22	PI 2		9/25	GMNWR	1	C. Martone
10/24	Wachusett Res. 3		9/30	Cumb. Farms	17	P. Jacobson
Lesser Scaup		•	10/5-7	Acushnet	12	H. Zimberlin
10/16		R. Wendell	10/22	MSSF	3	L. Schibley
10/27		3 L. Therrien	Ring-necked			
10/30	Wachusett Res. 1		10/18	Bolton Flats	1	J. Bourget
10/31	Lynnfield 2	0 J. Dillon	10/23	Rowley	1 1	m P. + F. Vale
King Eider	D'40 (DD)	1 f., b D Millo	Ruffed Grou		3	J. Pratt
10/13 10/14-21		1 f ph B. Nikula 1 imm m ph I.Pepper,v.o.	10/1 10/3	Mashpee Freetown	1	L. Abbey#
10/14-21		1 imm m ph M. Iliff	10/3	Quabog IBA	1	M. Lynch#
10/24					1	Wi. Lyπcππ
10/24			Wild Turkey			
Common Eide		l ad m ph B. Nikula	Wild Turkey 9/16		19	M Lynch#
Common Eide 9/24	r		Wild Turkey 9/16 9/18	Cheshire	19 20	M. Lynch# P. + F. Vale
Common Eide 9/24 10/28		7 M. Lynch#	9/16 9/18			P. + F. Vale
9/24	Acoaxet 2	7 M. Lynch# 0 S. Miller#	9/16	Cheshire Newburyport	20	
9/24 10/28	Acoaxet 2 PI 12 Rockport 60	7 M. Lynch# 0 S. Miller# 0 J. Berry#	9/16 9/18 10/5 10/7 10/12	Cheshire Newburyport Petersham PI GMNWR	20 29	P. + F. Vale M. Lynch#
9/24 10/28 10/29 Harlequin Duc 9/21-9/23	Acoaxet 2 PI 12 Rockport 60 ck Plymouth	7 M. Lynch# 0 S. Miller# 0 J. Berry#	9/16 9/18 10/5 10/7 10/12 Pied-billed (Cheshire Newburyport Petersham PI GMNWR Grebe	20 29 12 18	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg#
9/24 10/28 10/29 Harlequin Duc 9/21-9/23 10/23	Acoaxet 2 PI 12 Rockport 60 Rockport bk Plymouth Westport 2 1 m,	7 M. Lynch# 0 S. Miller# 0 J. Berry# 1 ad m L. Schibley, v.o. 1f A. Morgan	9/16 9/18 10/5 10/7 10/12 Pied-billed 0 9/2	Cheshire Newburyport Petersham PI GMNWR Grebe S. Monomoy	20 29 12 18	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg# K. Yakola#
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9/24 10/28 10/29 Harlequin Duc 9/21-9/23 10/23 10/29 Surf Scoter 10/7 10/16 10/21 10/27 10/27 10/29 White-winged 9/30 10/10 10/21	Acoaxet 2 PI 12 Rockport 60 ck Plymouth Westport 2 1m, Rockport 3 PI 20 Pittsfield (Onota) Fairhaven 1 Quabbin Pk 1 Cobble Mtn Res. Rockport (AP) 83' Scoter PI 12 Pittsfield (Onota) Fairhaven 4	M. Lynch# D. S. Miller# J. Berry# D. A. Morgan J. Berry# D. E. Labato R. Wendell M. Lynch# L. Therrien D. Holmes R. Heil D. T. Wetmore T. Collins M. Lynch# L. Theyrien L. The	9/16 9/18 10/5 10/7 10/12 Pied-billed (9/2 9/6-19 9/24 9/28 10/15 10/21 10/30 Horned Gret 10/1 10/21 10/28 10/30 Red-necked	Cheshire Newburyport Petersham PI GMNWR Grebe S. Monomoy PI Fairhaven Wachusett Res. Carver W. Newbury Melrose be Wachusett Res. Fairhaven Lynn B. Quincy Grebe	20 29 12 18 3 1 1 i i 2 i i 3 3 3 3 4 4 4 4 3	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg# K. Yakola# D. Chickering, v.o. mm S. Chan mm M. Lynch# SSBC (Marchessault) D. Chickering D. Jewell K. Bourinot# M. Lynch# S. Zendeh D. Burton
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9/24 10/28 10/29 Harlequin Duc 9/21-9/23 10/23 10/29 Surf Scoter 10/7 10/16 10/21 10/27 10/29 White-winged 9/30 10/10 10/21 10/26	Acoaxet 2 PI 12 Rockport 60 ck Plymouth Westport 2 1m, Rockport 3 PI 20 Pittsfield (Onota) Fairhaven 1: Quabbin Pk 1: Cobble Mtn Res. Rockport (AP) 83 Scoter PI 12 Pittsfield (Onota) Fairhaven 4 Quabbin Pk 3: Turner's Falls	M. Lynch# S. Miller# J. Berry# A. Morgan J. Berry# E. Labato K. Wendell M. Lynch# L. Therrien D. Holmes R. Heil T. Wetmore T. Collins M. Lynch# L. Therrien P. Gagarin	9/16 9/18 10/5 10/7 10/12 Pied-billed C 9/2 9/6-19 9/24 9/28 10/15 10/21 10/30 Horned Gret 10/1 10/28 10/30 Red-necked 9/3-10 9/23	Cheshire Newburyport Petersham PI GMNWR Grebe S. Monomoy PI Fairhaven Wachusett Res. Carver W. Newbury Melrose be Wachusett Res. Fairhaven Lynn B. Quincy Grebe Wachusett Res. Waltham	20 29 12 18 3 1 1 i i 2 i 3 3 3 3 43 1 13	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg# K. Yakola# D. Chickering, v.o. mm S. Chan mm M. Lynch# SSBC (Marchessault) D. Chickering D. Jewell K. Bourinot# M. Lynch# S. Zendeh D. Burton M. Lynch# J. Forbes
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9/24 10/28 10/29 Harlequin Duc 9/21-9/23 10/23 10/29 Surf Scoter 10/7 10/16 10/27 10/29 White-winged 9/30 10/10 10/21 10/26 10/29 Black Scoter 10/7 10/17 10/27 10/27 10/27	Acoaxet 2 PI 12 Rockport 60 ck Plymouth Westport 2 1m, Rockport 3 PI 20 Pittsfield (Onota) Fairhaven 1 Quabbin Pk 1 Cobble Mtn Res. Rockport (AP) 83 Scoter PI 12 Pittsfield (Onota) Fairhaven 4 Quabbin Pk 3 Turner's Falls Rockport (AP) 41 PI 50 Waltham 1 P'town (RP) 192 Quabbin Pk 21	M. Lynch# D. S. Miller# J. Berry# D. A. Morgan J. Berry# D. E. Labato A. Wendell M. Lynch# L. Therrien D. Holmes R. Heil D. T. Wetmore T. Collins M. Lynch# L. Therrien P. Gagarin R. Heil D. F. Labato D. Holmes S. Kellogg R. Wendell	9/16 9/18 10/5 10/7 10/12 Pied-billed (9/2 9/6-19 9/24 9/28 10/15 10/21 10/30 Horned Gret 10/1 10/21 10/30 Red-necked 9/3-10 9/23 10/26 10/26 10/29 Yellow-bille 9/15 10/27 10/28	Cheshire Newburyport Petersham PI GMNWR Grebe S. Monomoy PI Fairhaven Wachusett Res. Carver W. Newbury Melrose be Wachusett Res. Fairhaven Lynn B. Quincy Grebe Wachusett Res. Waltham Turner's Falls Stockbridge Rockport (AP) d Cuckoo Quabbin Pk Orleans Hingham (WE) Boxborough	20 29 12 18 3 1 1 1 2 1 3 3 3 3 3 3 1 1 1 1 1 1 3 6 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg# K. Yakola# D. Chickering, v.o. mm S. Chan mm M. Lynch# SSBC (Marchessault) D. Chickering D. Jewell K. Bourinot# M. Lynch# S. Zendeh D. Burton M. Lynch# J. Forbes J. Smith J. Pierce R. Heil L. Therrien S. Williams#
9/24 10/28 10/29 Harlequin Duc 9/21-9/23 10/23 10/29 Surf Scoter 10/7 10/16 10/21 10/27 10/29 White-winged 9/30 10/10 10/21 10/26 10/26 10/29 Black Scoter 10/7 10/17 10/27 10/27 10/27 10/27	Acoaxet 2 PI 12 Rockport 60 ck Plymouth Westport 2 1m, Rockport 3 PI 20 Pittsfield (Onota) Fairhaven 1 Quabbin Pk 1 Cobble Mtn Res. Rockport (AP) 83 Scoter PI 12 Pittsfield (Onota) Fairhaven 4 Quabbin Pk 3 Turner's Falls Rockport (AP) 41 PI 50 Waltham 1 P'town (RP) 192 Quabbin Pk 21 Southwick 4 Pittsfield (Onota) 4 Rockport (AP) 185	M. Lynch# D. S. Miller# J. Berry# D. A. Morgan J. Berry# D. E. Labato A. Wendell M. Lynch# L. Therrien D. Holmes R. Heil D. T. Wetmore T. Collins M. Lynch# L. Therrien P. Gagarin R. Heil D. F. Gagarin R. Heil D. F. Collins J. Forbes S. Arena S. Surner S. Kellogg R. Wendell	9/16 9/18 10/5 10/7 10/12 Pied-billed (9/2 9/6-19 9/24 9/28 10/15 10/21 10/30 Horned Gret 10/1 10/21 10/28 10/30 Red-necked 9/3-10 9/23 10/26 10/29 Yellow-bille 9/15 10/27 10/28 10/31 Black-billed	Cheshire Newburyport Petersham PI GMNWR Grebe S. Monomoy PI Fairhaven Wachusett Res. Carver W. Newbury Melrose be Wachusett Res. Fairhaven Lynn B. Quincy Grebe Wachusett Res. Waltham Turner's Falls Stockbridge Rockport (AP) d Cuckoo Quabbin Pk Orleans Hingham (WE) Boxborough Cuckoo	20 29 12 18 3 1 1 1 2 1 3 3 3 3 3 3 1 1 1 1 1 1 3 6 4 3 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg# K. Yakola# D. Chickering, v.o. mm S. Chan M. Lynch# SSBC (Marchessault) D. Chickering D. Jewell K. Bourinot# M. Lynch# S. Zendeh D. Burton M. Lynch# J. Forbes J. Smith J. Pierce R. Heil L. Therrien S. Williams# S. Whitebread# S. Miller
9/24 10/28 10/29 Harlequin Duc 9/21-9/23 10/23 10/29 Surf Scoter 10/7 10/16 10/21 10/27 10/27 10/29 White-winged 9/30 10/10 10/21 10/26 10/26 10/29 Black Scoter 10/7 10/17 10/27 10/27 10/27 10/27 10/27 10/28 10/29 Long-tailed D	Acoaxet 2 PI 12 Rockport 60 ck Plymouth Westport 2 1m, Rockport 3 PI 20 Pittsfield (Onota) Fairhaven 1 Quabbin Pk 1 Cobble Mtn Res. Rockport (AP) 83 Scoter PI 12 Pittsfield (Onota) Fairhaven 4 Quabbin Pk 3 Turner's Falls Rockport (AP) 41 PI 50 Waltham 1 P'town (RP) 192 Quabbin Pk 21 Southwick 4 Pittsfield (Onota) 4 Rockport (AP) 185 uck	M. Lynch# S. Miller# J. Berry# 1 ad m L. Schibley, v.o. 1f A. Morgan J. Berry# 0 E. Labato R. Wendell M. Lynch# L. Therrien D. Holmes R. Heil T. Wetmore T. Collins M. Lynch# L. Therrien P. Gagarin R. Heil E. Labato J. Forbes S. Arena S. Surner S. Kellogg R. Wendell R. Heil	9/16 9/18 10/5 10/7 10/12 Pied-billed C 9/2 9/6-19 9/24 9/28 10/15 10/21 10/30 Horned Gret 10/1 10/21 10/28 10/30 Red-necked 9/3-10 9/23 10/26 10/26 10/29 Yellow-bille 9/15 10/27 10/28 10/31 Black-billed 10/3	Cheshire Newburyport Petersham PI GMNWR Grebe S. Monomoy PI Fairhaven Wachusett Res. Carver W. Newbury Melrose be Wachusett Res. Fairhaven Lynn B. Quincy Grebe Wachusett Res. Waltham Turner's Falls Stockbridge Rockport (AP) d Cuckoo Quabbin Pk Orleans Hingham (WE) Boxborough Cuckoo Concord	20 29 12 18 3 1 1 1 2 1 3 3 3 3 2 5 6 6 43 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg# K. Yakola# D. Chickering, v.o. mm S. Chan mm M. Lynch# SSBC (Marchessault) D. Chickering D. Jewell K. Bourinot# M. Lynch# S. Zendeh D. Burton M. Lynch# J. Forbes J. Smith J. Pierce R. Heil L. Therrien S. Williams# S. Whitebread# S. Miller MAS (P. Sowizral)
9/24 10/28 10/29 Harlequin Duc 9/21-9/23 10/23 10/29 Surf Scoter 10/7 10/16 10/21 10/27 10/29 White-winged 9/30 10/10 10/21 10/26 10/26 10/29 Black Scoter 10/7 10/17 10/27 10/27 10/27 10/27	Acoaxet 2 PI 12 Rockport 60 ck Plymouth Westport 2 1m, Rockport 3 PI 20 Pittsfield (Onota) Fairhaven 1 Quabbin Pk 1 Cobble Mtn Res. Rockport (AP) 83 Scoter PI 12 Pittsfield (Onota) Fairhaven 4 Quabbin Pk 3 Turner's Falls Rockport (AP) 41 PI 50 Waltham 1 P'town (RP) 192 Quabbin Pk 21 Southwick 4 Pittsfield (Onota) 4 Rockport (AP) 185 uck	M. Lynch# D. S. Miller# J. Berry# D. A. Morgan J. Berry# D. E. Labato A. Wendell M. Lynch# L. Therrien D. Holmes R. Heil D. T. Wetmore T. Collins M. Lynch# L. Therrien P. Gagarin R. Heil D. F. Labato D. Holmes S. Kellogg R. Wendell	9/16 9/18 10/5 10/7 10/12 Pied-billed (9/2 9/6-19 9/24 9/28 10/15 10/21 10/30 Horned Gret 10/1 10/21 10/28 10/30 Red-necked 9/3-10 9/23 10/26 10/29 Yellow-bille 9/15 10/27 10/28 10/31 Black-billed	Cheshire Newburyport Petersham PI GMNWR Grebe S. Monomoy PI Fairhaven Wachusett Res. Carver W. Newbury Melrose be Wachusett Res. Fairhaven Lynn B. Quincy Grebe Wachusett Res. Waltham Turner's Falls Stockbridge Rockport (AP) d Cuckoo Quabbin Pk Orleans Hingham (WE) Boxborough Cuckoo	20 29 12 18 3 1 1 1 2 1 3 3 3 3 3 3 1 1 1 1 1 1 3 6 4 3 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P. + F. Vale M. Lynch# D. + T. Swain A. Bragg# K. Yakola# D. Chickering, v.o. mm S. Chan M. Lynch# SSBC (Marchessault) D. Chickering D. Jewell K. Bourinot# M. Lynch# S. Zendeh D. Burton M. Lynch# J. Forbes J. Smith J. Pierce R. Heil L. Therrien S. Williams# S. Whitebread# S. Miller

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	Cuckoo (continue Pittsfield		C. Humlan	10/27	Salisbury	1	T. Spahr
10/18 10/21	Nantucket	1 1	G. Hurley S. Kardell#	10/30 Common Rin	Hadley	9	S. Surner
Common Nigl		1	5. Karuen#	9/11-9/12	Westport	1 1	ph M. Iliff, v.o.
9/2	Northampton	100	T. Gagnon	Semipalmated		- ,	pii 141. IIII1, 4.0.
9/4	ONWR	80	T. Nash	9/7, 10/29		400, 5	S. Miller, v.o.
9/4	W. Roxbury (N	/IP)14	J. Forbes	10/7	New Salem	6	G. Watkevich
9/8	Sharon	132	L. Waters#	10/11	Quabbin (G35		B. Lafley
9/10	Natick	15	G. Long	10/21	Fairhaven	5	M. Lynch#
9/10	P'town	2	M. Iliff	10/27	Salisbury	2	T. Spahr
Eastern Whip-		2	T 771	Piping Plover		2	D. C. L
9/1-9/25 9/7	Quabbin Pk Wellfleet	3 ma:	x L.Therrien,v.o.	9/15 10/6	Revere B. P'town (RP)	2 2	R. Schain D. Griffiths
9/9, 9/23	PI	4, 1	S. Broker# A. Rarig	10/6	Chatham (SB)		B. Harrington
9/12	Southwick	3	S. Kellogg	Killdeer	Chamain (SB)	1	D. Hallington
9/23	N. Brookfield	2	M. Lynch#	9/6	Ipswich	46	J. Berry
Chimney Swit		-	ivi. Lyncin	9/27	DFWS	29	MAS (P. Sowizral)
9/4	Woburn	6	M. Rines	10/28	Middleton	38	G. d'Entremont#
10/8	Winthrop	ĩ	M. Iliff	10/29	Rochester	30	G. Gove#
10/19	Pembroke	1	N. Marchessault	Upland Sandr	piper		
Ruby-throated	l Hummingbird			9/1	N. Dighton	1 1	nfc A. Eckerson
9/2	Sandisfield	4	M. Lynch#	9/8	Marlborough	1 1	nfc T. Spahr
9/9	Mt Watatic	3	B. Rusnica#	Whimbrel	•		•
9/10	Huntington	19	M. Lynch#	9/7-10/8	PI	5 1	max T. Wetmore
9/21	GMNWR	3	A. Bragg#	9/14	Quabbin (G35		B. Zajda
10/21-22	Winchester	1	J. Thomas	9/15	Wellfleet	5	G. d'Entremont#
Clapper Rail				9/20	Rockport (HPt		J. Berry
	Fairhaven	1	C. Longworth	10/7	Eastham (FE)	4	SSBC (G. d'Entremont)
10/2	Wareham	1	N. Marchessault	Hudsonian Go		2	
10/8	Plymouth	1	V. Zollo	9/2-10/21	PI		max M.Goetschkes, v.o.
Virginia Rail 9/1-9/3	Dalahamtarun	1	L. Therrien	9/8 9/29	Eastham	8 1	K. Yakola#
9/1-9/3	Belchertown Deerfield	1	E. Jakub	9/29	Hingham Dennis	31	D. Peacock S. Williams#
9/26	Ashley Falls	1	G. Ward	10/15	P'town (RP)	1	L.Waters#
10/7	Truro		BC (G. d'Entremont)	10/13	Nantucket	1	A. Ciancimino
Sora	Truito	1 55	Be (G. a Entremont)	Marbled Gody		•	71. Ciuncimmo
9/10	Huntington	1	M. Lynch#	9/2-16	Winthrop	3 1	max S. Jones, v.o.
	Fairhaven	2 max		9/15-24	Monomoy NW		V.O.
9/17	IRWS	1	J. Nelson	10/27-31	Chatham	4	B. Albro#
9/25	Ware R. IBA	1	M. Lynch#	Ruddy Turnst	one		
10/22	DWWS	2	B. Vigorito	9/5	BHI (Snake I.)		R. Stymeist
10/22	Wareham	1	N. Marchessault	9/18	Scituate	2	P. Peterson
Common Gal				9/20	Rockport (HPt		J. Berry
9/2	S. Monomoy	5 ph	K. Yakola#	10/13	Winthrop B.	11	P. Peterson
9/26	Randolph	1 imr		Red Knot	Г	1.2	D. D
10/16-21	Nantucket	1	R. Ouren#	9/4	Essex	13	D. Brown#
American Coo		2 (CCDC (Ml14)	9/14-10/13 9/15			max T. Wetmore
10/15 10/26	Carver Richmond	2 8	SSBC (Marchessault) J. Pierce	9/13 9/17	Chatham (SB) Monomoy NWI		D. Clapp# M. Keleher#
10/28	Waltham	12	J. Forbes	9/30, 10/13		82, 55	S. Williams, v.o.
10/28	Gloucester (EF		J. Nelson	Stilt Sandpipe		02, 33	5. williams, v.o.
Sandhill Cra		, -	3.11015011	9/5-10/30	PI	261	max R. Heil, v.o.
thr-10/25	Worthington	4	V.O.	9/5	E. Boston (BI)		C. Floyd#
thr-10/22	Tolland	2	D. Holmes	Sanderling	,		
9/8	Groton	1	S. Fry	9/17	PI	100	T. Wetmore
9/16-10/11	Burrage Pd W	MA 2	J. Sweeney	9/30	Dennis	1800	S. Williams#
10/31	Lynnfield	4	D. Walters	10/22	Ipswich (CB)	65	J. Berry
American Oys	stercatcher			10/29	Rockport	15	J. Berry#
9/9, 10/7	Winthrop		Forbes, Stymeist	Dunlin			
9/10	Squantum		G. d'Entremont#	10/10	PI	350	E. Labato
10/6	Chatham (SB)	56	M. Faherty#	10/11	Nbpt H.	200	MAS (D. Moon)
Black-bellied 9/15		200	D. A.J.:	10/18	Chatham (SB)		B. Harrington
9/13 9/30	PI Dennis	200 950	D. Adrien S. Williams#	10/18 10/29	Arlington Res.		C. Floyd B. Robo
10/7	New Salem	15	G. Watkevich	Purple Sandpi	Quabbin (G43) 2	D. K000
10/13	Winthrop B.	120	P. Peterson	10/1	PI	4	R. Hodson
American Gol		120	1.1 (16150)	10/14	P'town (RP)	1	P. Flood#
thr	Indiv. reported	from 111	locations	10/14	Stellwagen Ba		J. Sweeney#
9/1-10/10	PI	4 max		10/23	Westport	1	M. Iliff
9/3	Nantucket	5	S. Kardell	10/29	Rockport (AP)		R. Heil
9/4-10/30	Winthrop B.	14 ma:		Baird's Sandp		-	
9/30	Dennis 1	21	S. Williams#	9/1	Turner's Falls	1	E. Huston
10/18	Edgartown	4	B. Shriber	9/1-2	Longmeadow	1	M. Moore
10/10							

D: B C I: (C D	0/14 03/11/10 4 0.3/11/1
Baird's Sandpiper (continued)	9/14 ONWR 4 S. Miller
9/1 Quincy 1 J. Young 9/1 Winthrop B. 1 C. Dalton	9/14 Ipswich 2 J. Berry# 9/18 Worcester 2 R. Ouimby
	Lesser Yellowlegs
	9/3 Hancock 1 J. Pierce 9/6 Tolland 4 D. Holmes 9/14 Quabbin (G35) 3 B. Zajda 9/20, 10/27 PI 20, 1 T. Wetmore, v.o. 10/1, 10/28 Lexington 3, 1 J. Forbes Willet
9/9 Washington 1 G. Ward 9/11 Ipswich (CB) 1 D. Brown#	9/0 Iolland 4 D. Hollings
	9/14 Quadum (G55) 5 B. Zajda
Least Sandpiper 9/2, 10/17 PI 17, 1 S. Miller, v.o. 10/19 Revere 1 M. Iliff 10/24 Marshfield 2 D. Peacock 10/29 Sharon 2 D. Burton	9/20, 10/2/ P1 20, 1 1. Wellfiole, V.O.
9/2, 10/17 PI 17, 1 S. Miller, v.o. 10/19 Revere 1 M. Iliff	Willet
10/19 Revere 1 M. Iliff 10/24 Marshfield 2 D. Peacock 10/29 Sharon 2 D. Burton	0/10 14 DI 1 T Water one
10/24 Marshfield 2 D. Peacock	9/10-14 PI 1 T. Wetmore
10/29 Sharon 2 D. Burton	9/23 Wareham 2 western N. Marchessault
White-rumped Sandpiper 9/1, 10/26 PI 40, 3 T. Wetmore, v.o.	10/1-15 Quincy 1 western V. Zollo
9/1, 10/26 PI 40, 3 T. Wetmore, v.o.	10/31 Chatham 3 western P. Crosson
9/2 Turner's Falls 1 E. Huston	Greater Yellowlegs
9/5 E. Boston (BI) 1 D. Burton	9/2 Sandisfield 1 M. Lynch#
9/11 Essex 1 D. Brown#	9/29, 10/13 E. Boston (BI) 35, 5 DCR (S. Riley), v.o.
9/19 Longmeadow 1 L. Richardson	9/30, 10/27 PI 55, 9 T. Wetmore, v.o.
9/22 P'town (RP) 44 S. Arena	10/4 Holden 3 M. Lynch#
9/24 Acoaxet 1 M. Lynch# 10/7 Winthrop B. 1 R. Stymeist 10/27 Salisbury 1 T. Spahr Buff-breasted Sandpiper	10/30 Quabbin Pk 1 L. Therrien
10/7 Winthrop B. 1 R. Stymeist	Wilson's Phalarope
10/27 Salisbury 1 T. Spahr	9/1 Quincy 1 M. McMahon#
Buff-breasted Sandpiper	9/6-7 E. Boston (BI) 1 S. Jones, v.o.
9/2, 9/17 P'town (RP) 2, 1 J. Trimble, Nikula	9/7 Winthrop B. 1 Stymeist, Zendeh
9/2 Edgartown 1 L. Johnson	9/16 Eastham 2 K. Schopp
9/2-7 PI 1 P. + F. Vale, v.o.	9/18 Essex 33 D. Brown
9/3-6 Newbury 1 S. Ross, v.o.	Wilson s Phalarope
9/2 Edgartown 1 L. Johnson 9/2-7 PI 1 P. + F. Vale, v.o. 9/3-6 Newbury 1 S. Ross, v.o. 9/3 Turner's Falls 1 J. Smith 9/7 Hadley 1 L. Therrien	Red-necked Phalarope
9/7 Hadley 1 L. Therrien	9/3-9/4 E. Boston (BI) 1 juv M. Iliff, v.o.
Pectoral Sandpiper	9/22, 9/23 P'town 4, 47 Williams, Nikula#
thr PI 16 max J. Berry, v.o.	Red Phalarope
9/17-10/22 Northfield 10 max v.o.	9/16 N. Chelmsford 1 juv D. Hurt
10/18-19 Arlington Res. 19 Floyd, Rines	South Polar Skua
10/21 Lexington 18 J. Forbes	9/4 P'town 1 ph J. Johnson#
10/18-19 Arlington Res. 19 Floyd, Rines 10/21 Lexington 18 J. Forbes 10/21 N. Truro 14 M. Faherty#	9/22-23 P'town 3 max phP. Flood, v.o.
Caminalmated Candninar	ekua en
9/9 Nbpt H. 750 G. d'Entremont#	10/20 P'town (RP) 1 B. Nikula
9/14 Quabbin (G35) 1 B. Zajda	Pomarine Jaeger
9/21, 10/22 PI 200, 4 T. Wetmore, v.o.	9/23, 10/27 P'town (RP) 52, 9 S. Williams, v.o.
10/10 Hancock 3 R. Wendell	10/22 Stellwagen Bank 2 P. Gilmore
10/22 Arlington Res. 2 J. Andrews	10/30 Rockport (AP) 2 R. Heil
10/10 Hancock 3 R. Wendell 10/22 Arlington Res. 2 J. Andrews 10/28 Salisbury 1 P. + F. Vale	Parasitic Jaeger
Western Sandpiper	9/18 Ipswich (CB) 2 J. Berry
0/1 0/29 DI 2 may D Adrian v.a	9/19, 10/29 Rockport (AP) 1, 1 J. Berry, R. Heil
9/5 E. Boston (BI) 1 C. Floyd	9/22 P'town (RP) 171 S. Arena
10/27 Plymouth 1 L. Schibley	10/22 Stellwagen Bank 12 P. Gilmore
9/5 E. Boston (BI) 1 C. Floyd 10/27 Plymouth 1 L. Schibley Short-billed Dowitcher	9/22 P'town (RP) 171 S. Arena 10/22 Stellwagen Bank 12 P. Gilmore 10/30 Rockport (AP) 2 R. Heil
9/14 10/15 PI 50 1 T Wetmore v.o.	Long-tailed Jaeger
10/8-9 Winthrop B. 3 S. Sullivan, v.o.	9/17-10/20 P'town 3 max ph v.o.
10/8-9 Winthrop B. 3 S. Sullivan, v.o. 10/11 Nbpt H. 12 MAS (D. Moon) 10/21 Nantucket 1 J. Trimble#	Dovekie
10/21 Nantucket 1 J. Trimble#	10/22 P'town (RP) 1 M. Iliff#
Long-billed Dowitcher	Common Murre
9/10-10/21 PI 13 max T. Wetmore, v.o.	9/23 P'town 1 S. Howell#
9/23 Wareham 1 N. Marchessault	Razorbill
10/20 Yarmouth 1 R. Debenham	9/22, 10/22 P'town 1, 18 L.Waters, v.o.
American Woodcock	9/23, 10/29 Rockport (AP) 3, 86 Walters, Heil
9/23-10/31 PI 2 max T. Wetmore	10/21 PI 1 T. Wetmore
	10/29 Cohasset 2 V. Zollo
10/31 Pittsfield 1 I Pierce	Black Guillemot
Wilson's Snipe	10/7 PI 1 G. Gurka#
10/7 PI 2 S. Sullivan#	10/29 Rockport (AP) 9 R. Heil
10/14 Northfield 4 J. Smith	Atlantic Puffin
10/19 Arlington Res. 2 M. Rines	10/30 Rockport (AP) 2 R. Heil
Spotted Sandpiper	Black-legged Kittiwake
9/2-27 PI 2 max P. + F. Vale, v.o.	9/22 P'town (RP) 50 S. Arena
9/4 Winthrop B. 2 imm P. + J. Roberts	10/30 Rockport (AP) 251 R. Heil
9/14 Quabbin (G35) 2 B. Zajda	Sabine's Gull
9/16 Randolph 7 G. d'Entremont#	9/9, 9/11 P'town 1 juv ph S. Williams#
10/11 Paxton 1 M. Lynch#	9/22 Barnstable (SN) 1 ad J. Sweeney
Solitary Sandpiper	9/23 P'town 2 juv ph P. Flood, v.o.
9/2-10/16 Indiv. reported from 10 locations	Bonaparte's Gull
9/4 Ware R. IBA 2 M. Lynch#	10/2 Pittsfield (Pont.) 2 J. Pierce
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Bonaparte's Gull (continued)	Black Skimmer
10/4 Revere (POP) 500 S. Jones	9/17 Edgartown 8 L. Johnson
10/11 Nbpt H. 200 MAS (D. Moon)	9/17 Monomoy NWR 6 M. Keleher#
10/25 Wachusett Res.3 2ad, 1juv K. Bourinot	9/29 Westport 3 E. Lipton
10/28 Lynn B. 175 S. Zendeh	10/4-9 Revere (POP) 1 imm L. Ferraresso, v.o.
10/29 P ³ town (RP) 930 B. Nikula#	Red-throated Loon
10/31 PI 102 T. Wetmore	9/21, 10/7 PI 1, 40 D. + T. Swain, v.o.
10/31 Turner's Falls 2 P. Gagarin	10/18 Quincy 20 P. Peterson
Black-headed Gull	10/26 Lake Buel 1 G. Ward
9/20-10/8 P'town 2 max ph B. Nikula, v.o.	10/29 Rockport (AP) 184 R. Heil
9/22-10/29 Quincy 1 ph Garvey, Zollo# 9/24 N. Truro 1 L. Waters#	Common Loon 9/14 Quabbin (G35) 24 B. Zajda
10/22 Nantucket 1 ph A. Black#	9/14 Quabbin (G35) 24 B. Zajda 9/17 Wachusett Res. 18 M. Lynch#
Little Gull	10/7 PI 45 D. + T. Swain
9/2-10/22 P'town (RP) 7 max ph v.o.	10/27 Salisbury 45 T. Spahr
9/22 Dennis 1 ad P. Flood	10/29 Rockport (AP) 91 R. Heil
9/30, 10/3 Orleans 1 ph Gray, Dorian	Northern Fulmar
10/30 N. Truro 1 1 W M. Waters	9/23 P'town (RP) 294 S. Williams#
Laughing Gull	9/24 Manomet 1 A. Kneidel
9/10, 10/29 P'town 550,320 B. Nikula	10/9 Stellwagen Bank 10 I. Giriunas#
9/29 Squantum 407 G. d'Entremont	10/29 Rockport (AP) 1 R. Heil
10/6 PI 40 T. Wetmore	Cory's Shearwater
10/8 Revere (POP) 45 D. Burton 10/16 Ouincy 200 D. Burton	9/thr P'town 652 max S. Williams# 9/1 Eastham (FE) 800 B. Nikula
10/16 Quincy 200 D. Burton 10/21 Fairhaven 815 M. Lynch#	9/1 Eastham (FE) 800 B. Nikula 9/7 Westport 118, 5 borealis M. Iliff
Franklin's Gull	10/9 Stellwagen Bank 2 I. Giriunas#
9/23 P'town (RP) 1 S. Williams#	10/17 PI 55 R. Heil
Mew Gull (European canus)	10/29 Rockport (AP) 77 R. Heil
10/27 Lynn 1 1W L. Pivacek	10/30 Manomet 3 L. Schibley
Herring x Lesser Black-backed Gull (hybrid)	Short-tailed Shearwater*
9/16 P'town 1 ad B. Nikula	9/23,10/14 P'town (RP) 1 ph Howell, Flood#
Lesser Black-backed Gull	Sooty Shearwater
9/6 Westboro 2 T. Spahr	thr P'town (RP) 250 max B. Nikula, v.o.
9/16-22 PI 3 max C. Lapite	Great Shearwater
9/17 P'town (RP) 17 S. Arena	thr P'town 20000 max B. Nikula
Glaucous Gull 9/16 Chatham 1 M. Iliff#	9/7 Westport 1 M. Iliff 9/21, 10/12 PI 2,3
10/30 Gloucester 1 imm C. Wood	9/21, 10/12 PI 2,3 Sullivan, Wetmore
Least Tern	10/9 Stellwagen Bank 2 I Giriinas#
Least Tern 9/22-9/23 P'town 1 iuv S Howell#	10/9 Stellwagen Bank 2 I. Giriunas# 10/30 Rockport (AP) 635 R. Heil
9/22-9/23 P'town 1 juv S. Howell#	10/9 Stellwagen Bank 2 I. Giriunas# 10/30 Rockport (AP) 635 R. Heil Manx Shearwater
	10/30 Rockport (AP) 635 R. Heil
9/22-9/23 Caspian Tern 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations Quincy 5, 3 L. Eyster#	10/30 Rockport (AP) 635 R. Heil Manx Shearwater thr P'town (RP) 1242 max S. Williams# 9/22 PI 1 M. Goetschkes#
9/22-9/23 Caspian Tern 9/5-10/22 9/10, 9/16 9/10 Winthrop 3 S. Howell# S. How	10/30 Rockport (AP) 635 R. Heil Manx Shearwater thr P'town (RP) 1242 max S. Williams# 9/22 PI 1 M. Goetschkes# 10/22 Stellwagen Bank 2 P. Gilmore
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/10 Reports of 1-2 indiv. from 12 locations 9/10 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson	10/30 Rockport (AP) 635 R. Heil Manx Shearwater Thr P'town (RP) 1242 max S. Williams# 9/22 PI 1 M. Goetschkes# 10/22 Stellwagen Bank 2 P. Gilmore 10/30 Rockport (AP) 42 R. Heil
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson	10/30 Rockport (AP) 635 R. Heil Manx Shearwater thr P'town (RP) 1242 max S. Williams# 9/22 PI 1 M. Goetschkes# 10/22 Stellwagen Bank 2 P. Gilmore 10/30 Rockport (AP) 42 R. Heil Wilson's Storm-Petrel
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 9/17 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 9/17 Quincy 5, 3 L. Eyster# 9/17 9/27 Dighton 3 J. Eckerson 9/27 8nadolph 6 P. Peterson 10/22 Black Tern Squantum 3 J. Forbes 10/21 Indiv. reported from 6 coastal locations	10/30
9/22-9/23 P'town 1 juv S. Howell#	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff	10/30
9/22-9/23 P'town 1 juv S. Howell#	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10 Winthrop 5, 3 L. Eyster# 9/10 Winthrop 3 J. Eckerson 9/17 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/17 BRI Co. seas 14 M. Fairbrother Roseate Tern 10/1 Fairhaven 1 J. Hoye# 10/3 Wareham 5 N. Marchessault 10/8-20 P'town (RP) 3 max B. Nikula	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 Fairhaven 1 J. Hoye# 10/3 Wareham 5 N. Marchessault 10/10 Quincy 1 ad D. Burton	10/30
No.	10/30
Note	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 Yeareham 5 N. Marchessault 10/3 Wareham 5 N. Marchessault 10/10 Quincy 1 ad D. Burton Common Tern 9/2 Wachusett Res. 6 K. Bourinot 9/25, 10/10 Quincy 65, 50 D. Burton	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 J. Eckerson 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/17 BRI Co. seas 14 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 J. Hoye# M. Marchessault 10/3 Wareham 5 N. Marchessault 10/10 Quincy 1 ad D. Burton Common Tern 9/2 Wachusett Res. 6 K. Bourinot 9/25, 10/10 Quincy 65, 50 D. Burton B. Nikula D. Windon B. Nikula	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 9/10 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 Fairhaven 1 J. Hoye# 10/3 Wareham 5 N. Marchessault 10/10 Quincy 1 ad D. Burton Common Tern 9/2 Wachusett Res. 6 K. Bourinot 9/25, 10/10 Quincy 65, 50 D. Burton 10/18 P'town (RP) 5000 B. Nikula 10/21 Fairhaven 143<	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 Yeareham 5 N. Marchessault 10/3 Wareham 5 N. Marchessault 10/10 Quincy 1 ad D. Burton 9/2 Wachusett Res. 6 K. Bourinot 9/2, 10/10 Quincy 65, 50 D. Burton 10/18 P'town (RP) 5000 B. Nikula 10/21 Fairhaven 143 M. Lynch#	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 9/10 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 Fairhaven 1 J. Hoye# 10/3 Wareham 5 N. Marchessault 10/10 Quincy 1 ad D. Burton Common Tern 9/2 Wachusett Res. 6 K. Bourinot 9/25, 10/10 Quincy 65, 50 D. Burton 10/18 P'town (RP) 5000 B. Nikula 10/21 Fairhaven 143<	10/30
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9/22-9/23 Caspian Term P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/17 BRI Co. seas 14 M. Fairbrother 9/17 BRI Co. seas 14 M. Hifff Roseate Tern 10/1 J. Hoye# M. Iliff 10/3 Wareham 5 N. Marchessault 10/10 Quincy 1 ad D. Burton 2/2 Wachusett Res. 6 K. Bourinot 9/2 Wachusett Res. 6 K. Bourinot 9/25, 10/10 Quincy 65, 50 D. Burton 10/18 P'town (RP) 300 B. Nikula 10/21 Fairhaven <t< td=""><td> 10/30</td></t<>	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 J. Eckerson 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 Yearcham 5 N. Marchessault 10/3 Wareham 5 N. Marchessault 10/10 Piton Common Tern 9/2 Wachusett Res. 6 K. Bourinot 9/25, 10/10 Quincy 65, 50 D. Burton 10/18 P'town (RP) 5000 B. Nikula 10/21 Fairhaven 143 M. Lynch# Forster's Tern 9/20, 10/9 Dennis	10/30
Caspian Tern Stown 1 juv St. Howell#	10/30
9/22-9/23 Caspian Tern P'town 1 juv S. Howell# 9/5-10/22 9/10, 9/16 9/10 Reports of 1-2 indiv. from 12 locations 9/10, 9/16 9/17 Quincy 5, 3 L. Eyster# 9/10 Winthrop 3 C. Dalton 9/17 Dighton 3 J. Eckerson 9/27 Randolph 6 P. Peterson 10/22 Squantum 3 J. Forbes Black Tern 9/1-10/4 Indiv. reported from 6 coastal locations 9/1 Turner's Falls 1 M. Fairbrother 9/17 BRI Co. seas 14 M. Iliff Roseate Tern 10/1 Wareham 5 N. Marchessault 10/3 Wareham 5 N. Marchessault 10/18 P'town (RP) 3 max B. Nikula 10/10 Quincy 1 ad D. Burton 9/25, 10/10 Quincy 65, 50 D. Burton 10/18 P'town (RP) 3 mx B. Nikula 10/21 Fairhaven 143 M	10/30
Caspian Tern Stown 1 juv St. Howell#	10/30

Great Cormora		1.2	I.D. //	9/25	Nantucket	2	L. Buck
10/29	Rockport	13	J. Berry#	9/29-30	Sterling		E. Kittredge, v.o.
American Wh			G WH II	10/1-7	Wachusett Res.		B. Abbott, v.o.
9/2-28	Chilmark	1 ph	S. Whiting#	10/23	Quincy	1	D. Burton
Brown Pelicar	-		D. D.	Cattle Egret	0.11	_	
9/5	Rockport	1.	D. Peterson	10/22-29	Gill	5 max	T. Bullock
9/11-12	Nahant	1 ph	L. Pivacek, v.o.	Green Heron			
9/29-10/29	Boston H.	1 ph	V.O.	9/3-10/29	Indiv. reported		
American Bitte				9/3	Quabog IBA	2	M. Lynch#
9/4	E. Boston (BI)	1	S. Jones#		d Night-Heron		
9/15-10/30	PI	1	D. Adrien	10/3	PI	20	E. Labato
9/17	Springfield	1	C. Volker	10/15	Ipswich	17	J. Berry
10/1	Tyringham	1	G. Ward	10/27	Plymouth	9	D. Peacock
10/14	Quincy	1	V. Zollo	10/28	Gloucester (EP)	8	J. Nelson
Great Egret				Yellow-crown	ed Night-Heron		
9/10	PI	120	T. Wetmore	9/5-11	W. Roxbury (M	P) 1 juv	M. Iliff
9/24	Westport	103	M. Lynch#	9/8, 10/10	Newburyport	3, 1	A. Kneidel, v.o.
9/29	Squantum	10	G. d'Entremont	9/8	E. Boston (BI)	3 juv	P. Peterson
10/7	E. Boston (BI)	16	R. Stymeist	9/9, 10/17	Eastham	8, 1	D. Clapp
10/15	Saugus	20	S. Zendeh#	9/17	Essex	1	S. Weston
Snowy Egret	C			9/20	Nantucket	3	S. Kardell#
9/1	PI	150	T. Wetmore	10/1-14	Dartmouth	2 juv	 A. Morgan
9/12	Revere	40	P. Peterson	10/1-8	PI	1 juv	N. Landry, v.o.
9/17	Saugus	36	S. Zendeh#	10/27	Plymouth	1 ad	G. Martino
9/24	Westport	4	M. Lynch#	White Ibis	,		
10/27	Cohasset	3	S. Magnell#	10/22-23 N	Northampton	1 ph	R. Hart, P. Dutil
Little Blue Her				Glossy Ibis		г	,
9/10-10/15	PI	1	D. Chickering	9/17	BRI Co. seas	1	M. Iliff
9/15-17	Washington	1	J. Pierce	9/20-10/8	PI	3 max	D. Prima, v.o.

VULTURES THROUGH DICKCISSEL

The fall migration of hawks through our region starts in earnest during this period. Hoping to witness a big flight, hawkwatchers congregate on favorite sites, notably Mount Tom in Holyoke, Mount Watatic in Ashburnham, and Wachusett Mountain in Princeton. The majority of migrant hawks in the fall (nearly 85 percent) are Broad-winged Hawks. This year Wachusett and Watatic tallied 15,201 Broad-wings, 5,226 more than in 2016. Other noteworthy reports from Wachusett included 110 Bald Eagles, 132 American Kestrels, and 38 Peregrines. **Golden Eagles** were noted from two locations, the same as last year during the same period. Saw-whet Owl populations are highly cyclical and are often based on the small rodent populations to our north; only five Saw-whets were reported this fall. Last year, Drumlin Farm Wildlife Sanctuary in Lincoln alone banded 332 during the same period.

Passerine migration is well underway during this period, and birders were out in force. Many considered this one of the best fall migrations. Rarities this year included an **Ash-throated Flycatcher** that spent at least six days in Middletown, a **Scissor-tailed Flycatcher** in North Truro, **LeConte's Sparrows** at Bolton Flats and Falmouth, a **Harris's Sparrow** in Scituate, **Summer Tanagers** in Rockport and Orleans, and a male **Painted Bunting** in Barnstable. There were 33 different warbler species noted during the period, which included two **Black-throated Grays**, two **MacGillivray's** and two **Yellow-throated**. Other exceptional reports were three Golden-winged, over 20 Orange-crowned, and over 40 Connecticut Warblers. Clay-colored Sparrows were noted in 35 locations, up from only 14 localities during the same period last year. Other sparrow highlights included eight different Lark Sparrows and several reports of Nelson's Sparrows, including one from Sheffield in western Massachusetts.

The same strong southerly winds at the end of October that brought cuckoos also brought other reverse migrants to the Northeast including **Yellow-throated Warbler** and **Summer Tanager** (see figure 1), as well as many reports of vireos and warblers, birds that should have been long gone from our area.

Not only did we bird during the day, but many of us stayed up at night to listen to the calls of migrant song birds passing overhead. (Note the new abbreviation in our species list, nfc,

for birds identified by their nocturnal flight calls.) Many of these calls, especially those of the thrushes, are distinct and diagnostic. Evans and O'Brien's excellent *Flight Calls of Migratory Birds* on CD-ROM is a great place to start, and is available online at http://oldbird.org/pubs/fcmb/start.htm.

R. Stymeist

							R. Stymetst
Black Vulture				Golden Eagle			
9/4	Townsend	2	R. Gervais#	10/19	Quincy	1	imm D. Burton
9/4	Braintree	1	J. Sweeney	10/24	N. Dighton		imm ph M. Eckerson#
9/10	Mt Wachusett		Hawkcount (Chase)	Eastern Screed		•	min pir ini. Zenersonii
9/23	Chelmsford	i		9/2	DWWS	3	SSBC (G. d'Entremont)
10/23	Barre Falls	2		9/11	Quincy	2	
Turkey Vultur			Hawkcount (Schilling)	10/5	Milton	2	
		75	D. D. anico#				R. Mussey
9/16	Mt Watatic		B. Rusnica#	Great Horned		_	1.5.1
10/1-10/27			Hawkcount (Chase)	9/25	Waltham	2	J. Forbes
_	Barre Falls	303	Hawkcount (Schilling)	10/19	PI	2	
Osprey				10/22	Bolton Flats	3	M. Lynch#
9/1-9/29	Mt Wachusett	115	Hawkcount (Chase)	Barred Owl			
9/4-9/29	Barre Falls	31	Hawkcount (Schilling)	9/7	Westboro	2	
9/9-9/23	Mt Watatic	51	Hawkcount (Pirro)	9/8	Concord	2	C. Winstanley
10/1-10/17			Hawkcount (Chase)	9/16-10/23			max J. Berry
10/1-10/27		7		9/17	Ware R. IBA	2	
10/2-10/23		8		Long-eared O		_	111. Lly 11011
10/29	Mattapoisett	1	N. Marchessault	9/10	Wachusett Res.	2	N. Paulson
Bald Eagle	Mattapoiscit	1	iv. marchessauit	10/17	Belchertown	1	
	Mt Washingst	00	Hambaannt (Chasa)	10/17		1	
9/1-9/29	Mt Wachusett		Hawkcount (Chase)		Hardwick	1	W. Howes#
9/9-9/23	Mt Watatic	41	Hawkcount (Pirro)	Short-eared O			37.7.1
9/9-9/28	Barre Falls	26		10/5	Framingham	1	
10/1-10/20			Hawkcount (Chase)	10/16	Cumb. Farms	1	D. Furbish
10/1-10/15	Barre Falls	16	Hawkcount (Schilling)	10/17-27	PI	1	R. Heil, v.o.
Northern Harr	ier		-	10/21	E. Boston (BI)	1	DCR (S. Riley)
9/9-9/22	Mt Watatic	14	Hawkcount (Pirro)	10/27	Rowley	1	USFWS (K. Hojnacki)
9/10-9/29	Mt Wachusett		Hawkcount (Chase)	10/27	Salisbury	1	T. Spahr
10/1-10/27		7		Northern Saw-		•	1. Spani
	3 Barre Falls	6		10/5	Milton	1	R. Mussey
10/13-10/2	PI	7		10/3	New Salem	1	S. Cloutier
		,	r. + r. vale			1	
Sharp-shinned		214	Hlt (Cl)	10/13	Essex		P. Brown
9/1-9/29	Mt Wachusett		Hawkcount (Chase)	10/23	PI	1	
9/9-9/23	Mt Watatic	178		10/27	Williamstown	1	J. Levy
9/9-9/29	Barre Falls	64		Yellow-bellied			
9/22	Blueberry Hill	30	J. Weeks	9/10	Huntington	3	
10/1-10/28	Barre Falls	101	Hawkcount (Schilling)	9/24-10/28	PI	3	max v.o.
10/1-10/27	Mt Wachusett	89	Hawkcount (Chase)	9/26	Winchendon	3	M. Lynch#
10/1-10/31	Malden (PR)	72		Northern Flick			,
10/10	Shatterack Mt	39		9/12	Easthampton	18	B. Zajda
Cooper's Haw			1. Swoonan	9/21-9/23	PI	8	
9/9-9/28	Mt Wachusett	78	Hawkcount (Chase)	Pileated Wood		O	1. Wetmore
9/9-9/23	Mt Watatic	33		9/17	Ware R. IBA	4	M. Lymah#
		13		10/4		2	
9/12-9/28	Barre Falls				Bolton Flats	2	
10/1-10/27			Hawkcount (Chase)	10/5	Woburn	2	M. Rines
10/1-10/27		32	(0)	American Kes			
	Malden (PR)	23	Hawkcount (Jackson)	9/8-9/29	Mt Wachusett		Hawkcount (Chase)
Northern Gos	hawk			9/9-9/23	Mt Watatic	68	
9/4	Athol	1	ad D. Small#	9/9-9/28	Barre Falls	20	Hawkcount (Schilling)
10/2	Mt Wachusett	1	Hawkcount (Chase)	10/1-10/20	Mt Wachusett	45	Hawkcount (Chase)
10/19	Douglas		ad M. Lynch#	10/1-10/12	Barre Falls	20	
Red-shouldere				10/1-10/21		- 5	
	Barre Falls	8	Hawkcount (Schilling)	Merlin			Tiumicoum (sucuson)
10/16	Malden (PR)		ad Hawkcount (Jackson)	9/1-9/29	Mt Wachusett	16	Hawkcount (Chase)
Broad-winged		1	au Hawkcoullt (Jacksoll)	9/9-9/21	Mt Watatic	22	
		0163	Hambaannt (Chasa)				
9/1-9/29			Hawkcount (Chase)	10/1-10/16			Hawkcount (Chase)
9/8-9/29	Barre Falls	2127		10/10-22	Barre Falls	8	Hawkcount (Schilling)
9/9-9/23	Mt Watatic	5039		Peregrine Falc			
9/12	Shatterack Mt	603		9/2-9/28	Mt Wachusett		Hawkcount (Chase)
9/21	Blueberry Hill	555	J. Weeks	10/1-10/20			Hawkcount (Chase)
Red-tailed Ha				10/1-10/21	Malden (PR)	4	Hawkcount (Jackson)
10/3-10/31	Barre Falls	43	Hawkcount (Schilling)	10/4	PI	4	E. Labato
	7 Mt Wachusett	33	Hawkcount (Chase)	Olive-sided Fl			
Rough-legged			. ()	9/2-9/30	Indiv. reported f	rom	7 locations
10/27	Orleans	11	S. Williams#		reported i		
10/2/	JIIVaiis	11	o. Williamoπ				

T . W. 1	D			10/10 00	D.	4.1	D E1 //
Eastern Wood		0	I. D	10/12-22	PI	4 b	B. Flemer#
9/4	Ipswich	9 m	J. Berry#	10/27	Orleans	5	S. Williams#
9/10	Huntington	4	M. Lynch#	Philadelphia V		I C 1 5	
9/24	Boxford (CP)	3 1 S	L. Ireland	9/2-10/26	Indiv. reported		
10/27	Orleans	1 5	. Williams#	9/5	MBO	1 b 3 b	T. Lloyd-Evans#
Yellow-bellied 9/5	MBO	1 b T. Lle	and Evene#	9/21-10/1	PI	2 b	B. Flemer#
9/3 9/22	Leverett		oyd-Evans#	10/1 Workling Viro	Brewster	20	S. Finnegan
9/24	Sheffield	1	B. Normark	Warbling Vire	Ware R. IBA	3	M. Lynch#
10/7	Brewster		K. Schopp Finnegan#	9/17-9/26	PI	1	T. Wetmore, v.o.
10/7	Haverhill		. Benedetto	9/28	S. Peabody	1	R. Heil
Acadian Flyca		1 5	. Deficacito	9/28	Hadley	1	L. Therrien
9/25	Brewster	1 b S	Finnegan#	Red-eyed Vire		1	L. Therrien
Alder Flycatch		10 5	. I mnegam	9/2	Sandisfield	24	M. Lynch#
9/1	Sharon	1	W. Sweet	9/9-9/29	PI	28 b	B. Flemer#
10/2	Lynnfield	i	M. Sovay	9/10	Huntington	19	M. Lynch#
Willow Flycat		•	111. 55 (4)	10/4-10/31		15 b	B. Flemer#
9/4	Newton	4	D. Burton	10/27	MBO		nm T. Lloyd-Evans#
9/8	Northampton	1	L. Therrien	Fish Crow			, .,
9/10, 10/8	PI ,	1, 1 Miller	r#, Watson#	9/23	PI	3 M.	AS (D. Williams)
9/11	Quincy	1	D. Burton	9/25, 10/8	Stoughton	250	G. d'Entremont
Traill's Flycat	cher (Alder / Wi	llow)		Common Rave			
9/1-9/10	PI `	7 b	B. Flemer#	9/13,10/10	Barre Falls	51, 13	D. Schilling#
Least Flycatch	ner			9/14	Mt Watatic	25	B. Rusnica
9/2	Tolland	2	M. Lynch#	9/16	Cheshire	4	M. Lynch#
9/4	Ware R. IBA	2	M. Lynch#	9/17, 10/12	Mt Wachusett	31, 19	Chase#
9/23	PI	1 b	B. Flemer#	Horned Lark			
9/27	MBO	1 b T. Lle	oyd-Evans#	10/thr	PI	12 ma	x T. Wetmore, v.o.
10/10	Sharon	1 ph	L. Waters#	10/15-22	Saugus	1, 4	S. Zendeh#
Eastern Phoeb				10/29	Sharon	4	D. Burton
9/13	Winchendon	51	M. Lynch#	Purple Martin			
10/1	Sandisfield	17	M. Lynch#	2017	Rehoboth 666		
10/3-10/11			B. Flemer#	2017	PI 163 27p		S. McGrath
10/6	Lexington (DN		M. Rines	2017	Salisbury 8	3pr, 2fl	S. McGrath
10/30	Hardwick	1	W. Howes	Tree Swallow	D.F	6000	D D :
10/31	Northampton	1 M.	McKittrick	9/2	PI	6000	D. Prima
Ash-throated		1 1 0 0	1111	9/3	Quabog IBA	570	M. Lynch#
10/23-28	Middleton	1 pn S. S	ullivan, v.o.	10/8	P'town (RP)	4000	B. Nikula
Great Crested		4 ggp.g.(g	120 (10/15	E. Boston (BI)		P. Peterson
9/2 9/9	DWWS PI	4 SSBC (G. 1	d'Entremont)	10/22 10/31	DWWS Manamat	210	B. Vigorito
9/10	Woburn (HP)	1	P. Vale M. Rines		Manomet		L. Schibley
9/25	Lincoln	1	K. Dia#	9/12	gh-winged Swal Longmeadow	12	C. Volker
10/7	Haverhill		. Benedetto	9/12	Wayland	30	J. Forbes
Eastern Kingb		1 5	. Deficacito	9/23	Gill	1	B. Normark
9/7	Templeton	3	T. Pirro	Bank Swallow		•	D. I tormark
9/15-9/17	PI		ullivan, v.o.	9/2	PI	1	D. Prima
9/23-9/24	Manomet	1	A. Kneidel	9/3	Quabog IBA	3	M. Lynch#
Scissor-tailed		•	71. Ithiciaci	9/4	Longmeadow	40	M. Moore
10/20-23	N. Truro	1 ph S	. Williams#	9/30	Wayland	1	B. Harris
Northern Shri		- P ~		Cliff Swallow			
10/23-24	Bolton Flats	1 C.	Floyd, v.o.	9/3	Quabog IBA	2	M. Lynch#
White-eyed V			- /	9/4	Longmeadow	1	M. Moore
9/20	Amherst	1 N	 Gutierrez 	9/6	Eastham (FH)	1	E. Lipton
9/30	Brookline	1	V. Zollo	9/11	Orleans	1	C. Goodrich
10/11	Scituate	1	D. Furbish	9/18	Westwood	1	D. Burton
10/20	MBO	1 b imm	A. Bartolo#	Barn Swallow			
10/25-31	Turner's Falls	1	J. Smith	9/3	Quabog IBA	250	M. Lynch#
10/27	Orleans		. Williams#	9/23	Wayland	4	B. Harris
10/27	Plymouth		L. Schibley	9/24	PI	3	T. Wetmore
10/28	Nahant	2	J. Trimble	10/9	Winthrop	1	C. Dalton
10/28	Cape Ann	1	B. Harris	Red-breasted			
Yellow-throat				9/26	Winchendon	31	M. Lynch#
9/2	Sandisfield	4	M. Lynch#	10/1	Tolland	6	M. Lynch#
9/10	Huntington	3	M. Lynch#		Nuthatch (contir		D E! "
10/24	Cuttyhunk I.	1	M. Sylvia#	10/23	PI	1 b	B. Flemer#
10/27	Orleans	2 S	. Williams#	Brown Creepe		_	T T. 1
Blue-headed V		5	T Tm.11	9/24	Boxford (CP)	5	L. Ireland
9/24	Boxford (CP)	5	L. Ireland	10/1-10/28	rı	8 b	B. Flemer#
9/29	PI Tolland	5 7	C. Floyd	House Wren	Sandisfield	6	M. Lynch#
10/1 10/10	Ware R. IBA	10	M. Lynch# M. Lynch#	9/2 9/4	Cumb. Farms	4	G. d'Entremont
10/10	mare R. IDA	10	111. Lynch#	717	Cumo. Famils	7	S. G Entremont

Hausa Wasa (d)			0/12	Clausastas (E)	D) 44	I Malaan
House Wren (Belmont (RM)	5	R. Stymeist	9/13 9/16	Gloucester (El Cheshire	P) 44 53	J. Nelson M. Lynch#
9/10	Huntington	19	M. Lynch#	10/29	Rockport (AP)		R. Heil
Winter Wren	Trummgron	.,	111. Ly 1101111	Brown Thrash		, -	11. 11011
9/23, 10/3	PI	2, 1 b	B. Flemer#	9/15	PI	9	S. Sullivan
10/6	MBO	1 b	T. Lloyd-Evans#	10/5	Aquinnah	5	B. Shriber
10/21, 29	Medford	3, 4 R	ines#, LaFontaine	10/18	PI	2	T. Wetmore
Marsh Wren	CLOUND	1.4	4 D //	Cedar Waxwii		60	N. T. 1.11
9/7	GMNWR	14	A. Bragg#	9/3	Quabog IBA	60	M. Lynch#
9/8 9/17	PI IRWS	1 b 4	B. Flemer# J. Nelson	9/28 10/7	PI Uuntington	50 51	D. Prima
Carolina Wren		4	J. INCISUII	American Pip	Huntington	31	M. Lynch#
9/29	Braintree	7	G. d'Entremont	10/1	Sandisfield	38	M. Lynch#
10/21	Fairhaven	14	M. Lynch#	10/11	Concord	25	D. Prima
10/28	Lexington (DM	(I) 6	M. Rines#	10/19	Sutton	40	M. Lynch#
Blue-gray Gna	atcatcher			10/28	Middleton	30	G. d'Entremont#
9/5	Belmont (RM)	4	R. Stymeist	10/29	Hadley	75	S. Surner
9/13	MBO	1 b	T. Lloyd-Evans#	10/29	Sharon	31	D. Burton
	Manomet	2	L. Schibley, v.o.	10/29	PI	21	M. Watson
10/22 10/27-28	Rockport (HPt) PI	1	S. Sullivan# D. Prima, v.o.	Evening Gros 9/10	Orange	1	E. LeBlanc
Golden-crown		1	D. Tillia, v.o.	9/25	Quabbin Pk	1	L. Therrien
9/22-9/29	PI	21 b	B. Flemer#	Purple Finch	Quadoni i k	•	E. Therrien
10/1-10/28		49 b	B. Flemer#	9/17	IRWS	2	J. Nelson
10/17	PI	65	R. Heil	9/26	Winchendon	4	M. Lynch#
10/21	Medford	14	M. Rines#	10/7	PI	22	D. + T. Swain
Ruby-crowned				10/13	Quabog IBA	3	M. Lynch#
9/21-9/29	PI	13 b	B. Flemer#	10/27	Middleton	2	J. Nelson
9/29	PI	39	C. Floyd	Red Crossbill		2	I T.:
10/1-10/28 10/7		18 b 34	B. Flemer#	10/19 Pine Siskin	Andover	2	J. Trimble
10//	Huntington Orleans	30	M. Lynch# C. Goodrich	10/22	Northampton	1	S. Surner
Eastern Blueb		50	C. Goodinen	Lapland Long			S. Sumer
9/6	Ipswich	13	J. Berry	9/17-9/18	Salisbury	1	E. Jennifer, v.o.
9/28	Andover	10	J. Berry#	9/25-10/31		1	T. Wetmore, v.o.
10/1	Wachusett Res.		K. Bourinot#	Snow Bunting			
10/4	Quabog IBA	15	M. Lynch#	10/21, 26	PI	1, 1	M. Goetschkes#, v.o.
Veery	100	0.1	T. 1. 1. T	10/25	Harvard	1	T. Nash
9/1	MBO		T. Lloyd-Evans#	10/30	Rockport (AP)		R. Heil
9/8 9/8	Marlborough Concord	4 nf 1 nf		10/30 Eastern Towh	Quabbin Pk	1	L. Therrien
9/9-9/25	PI	5 b	B. Flemer#		Ware R. IBA	23, 4	M. Lynch#
9/19	Lexington (DM		C. Gras	9/29	Squantum	3	G. d'Entremont
10/6-10/6	Manomet	i	A. Kneidel, v.o.	10/7, 28	PI	13, 1	D. + T. Swain, v.o.
10/28	Rockport	1	B. Harris#	American Tre	e Sparrow	- ,	, ,
Gray-cheeked	Thrusĥ			10/5	Groton	1	T. Murray
9/17	PI	1 b	B. Flemer#	10/15	PI	1	T. Wetmore
9/18,10/17			T. Lloyd-Evans#	Chipping Spar			
9/23-9/28	N. Dighton		ax nfc A. Eckerson	10/17	PI	19	R. Heil
9/29	Belchertown	1 nf 1 b		Clay-colored		1 C	20 locations
10/4 Gray-cheeked	Brewster /Bicknell's Thrus		S. Finnegan	9/9-10/28 9/9-10/15	Indiv. reported PI		max D. Adrien, v.o.
10/17	Malden (PR)	1	C. Jackson	10/11	Westport	2	A. Eckerson#
10/18	PI	î	T. Wetmore	10/21	Nantucket	3	J. Trimble#
10/27	Salisbury	1 ph		Field Sparrow			
Swainson's Tl		•	1	9/10	Bedford	5	J. Forbes
9/8	Marlborough	10 nf		10/7	Eastham	10	SSBC (G. d'Entremont)
9/12, 9/29	PI	1, 1 b	B. Flemer#	10/10	PI	3	T. Wetmore
9/29	Belchertown	3 nf		10/15	Carver	25	G. d'Entremont#
10/1-10/28	PI Lowell	4 b 1	B. Flemer# M. Baird	10/27	Salisbury	8	T. Spahr
10/8 Hermit Thrush		1	M. Baird	Vesper Sparro 9/14	Quabbin (G35) 1	B. Zajda
	1		D EI #	10/1	Dartmouth	1	B. King
[0/6-10/31	ΡΙ	50 h	B. Flemer#				
10/6-10/31 10/10	PI Ware R. IBA	50 b 13	B. Flemer# M. Lynch#	10/6	Medfield	i	J. Bock
	Ware R. IBA	13	B. Flemer# M. Lynch# ines#, LaFontaine				
10/10 10/21, 29 10/22	Ware R. IBA Medford 1 Woburn	13	M. Lynch#	10/6 10/10 10/11	Medfield Freetown Burlington	1 1 1	J. Bock L. Abbey M. Rines
10/10 10/21, 29 10/22 Wood Thrush	Ware R. IBA Medford 1 Woburn	13 3, 17 R 10	M. Lynch# ines#, LaFontaine M. Rines	10/6 10/10 10/11 10/21	Medfield Freetown Burlington Westport	1 1 1 1	J. Bock L. Abbey M. Rines A. Morgan
10/10 10/21, 29 10/22 Wood Thrush 10/4	Ware R. IBA Medford 1 Woburn	3, 17 R 10	M. Lynch# ines#, LaFontaine M. Rines T. Brooks	10/6 10/10 10/11 10/21 10/21	Medfield Freetown Burlington Westport Nantucket	1 1 1 1	J. Bock L. Abbey M. Rines A. Morgan J. Trimble#
10/10 10/21, 29 10/22 Wood Thrush 10/4 10/6	Ware R. IBA Medford 1 Woburn 1 Amherst Westboro	3, 17 R 10 R	M. Lynch# ines#, LaFontaine M. Rines T. Brooks T. Spahr	10/6 10/10 10/11 10/21 10/21 10/22	Medfield Freetown Burlington Westport Nantucket N. Dighton	1 1 1 1 1	J. Bock L. Abbey M. Rines A. Morgan J. Trimble# M. Eckerson#
10/10 10/21, 29 10/22 Wood Thrush 10/4 10/6 10/7	Ware R. IBA Medford 1 Woburn	3, 17 R 10	M. Lynch# ines#, LaFontaine M. Rines T. Brooks	10/6 10/10 10/11 10/21 10/21 10/22 10/22	Medfield Freetown Burlington Westport Nantucket N. Dighton Randolph	1 1 1 1	J. Bock L. Abbey M. Rines A. Morgan J. Trimble#
10/10 10/21, 29 10/22 Wood Thrush 10/4 10/6 10/7 Gray Catbird	Ware R. IBA Medford 1 Woburn 1 Amherst Westboro Hadley	3, 17 R 10 1	M. Lynch# ines#, LaFontaine M. Rines T. Brooks T. Spahr L. Therrien	10/6 10/10 10/11 10/21 10/21 10/22 10/22 Lark Sparrow	Medfield Freetown Burlington Westport Nantucket N. Dighton Randolph	1 1 1 1 1 1 1	J. Bock L. Abbey M. Rines A. Morgan J. Trimble# M. Eckerson# J. Forbes
10/10 10/21, 29 10/22 Wood Thrush 10/4 10/6 10/7	Ware R. IBA Medford 1 Woburn 1 Amherst Westboro	3, 17 R 10 R	M. Lynch# ines#, LaFontaine M. Rines T. Brooks T. Spahr	10/6 10/10 10/11 10/21 10/21 10/22 10/22	Medfield Freetown Burlington Westport Nantucket N. Dighton Randolph	1 1 1 1 1	J. Bock L. Abbey M. Rines A. Morgan J. Trimble# M. Eckerson#

Lark Sparrow							
	(continued)			10/16	Mt Wachusett	50	Chase#
9/24	Manomet		rchessault#	10/21-31	PI	14 b	B. Flemer#
9/29	Hingham		D. Peacock	10/22	Bolton Flats	33	M. Lynch#
10/5	Nahant		L. Pivacek	10/23	Dedham	12	P. Peterson
10/11	Fairhaven		gworth, v.o.	10/27	Salisbury	20	T. Spahr
10/11-/13	PI		etmore, v.o.	Yellow-breast	ted Chat		
10/31	Woburn (HP)	1	R. Jilek#	9/17	Saugus	1	S. Zendeh#
Savannah Spa	rrow			9/18	Westboro	1	T. Spahr
9/12	Easthampton	325	B. Zajda	10/1	Southwick	1	D. Holmes
9/17	Saugus		S. Zendeh#	10/5	PI	1 b	B. Flemer#
10/9	PI	29	T. Wetmore	10/7	Framingham	1	N. Paulson
10/19	Uxbridge	33	M. Lynch#	10/13	Quabog IBA	1	M. Lynch#
Ipswich Sparr	ow		•	10/21	Fairhaven	1	M. Lynch#
9/29-10/22	PI	2 max N. I	Landry, v.o.	10/27	Orleans	1	S. Williams#
10/14	Westport	1 D	. Zimberlin	10/31	Woburn (HP)	1	R. Jilek#
10/15	Salisbury	1	M. Watson	Yellow-heade	ed Blackbird		
Grasshopper S	Sparrow			9/2	S. Monomoy	1 ph	K. Yakola#
9/15	ONWR	1	S. Miller	Bobolink		•	
10/4	Belmont	1	J. Forbes	9/7	Westboro	50	T. Spahr
10/4	Wachusett Res.	1	B. Robo	9/12	Easthampton	57	B. Zajda
10/10	Hadley	1	J. Oliverio	9/17	Lexington (DM	1) 40	J. Forbes
LeConte's Sp	arrow			10/1	Cumb. Farms	50 C	G. d'Entremont#
10/16-22	Bolton Flats	1 ph S. Bu	unyard, v.o.	Eastern Mead	lowlark		
10/22	Falmouth	1 ph M. Se	chanbacher	9/18	Ipswich	1	J. Berry
Nelson's Spar	row			10/1	Ĉumb. Farms	1 (3. d'Entremont#
9/23-10/23		20 max P.	Jacobson, v.o.	10/7	Southwick	4	S. Motyl
9/29-10/28	PI	2 max T.	Wetmore, v.o.	10/22	Saugus	3	S. Zendeh#
10/1	Fairhaven	3	J. Hoye#	10/27	PI Č	1	D. Chickering
10/3	Newbury	4	C. Floyd	Orchard Oriol	le		Č
10/3	Cumb. Farms	1 .	J. Sweeney	9/24	PI	1 f	N. Landry
10/5	Sheffield	1	K. Schopp	10/28	Rockport	1	B. Harris#
10/8	Plymouth	1 N. M	archessault	10/28	Nantucket	1	S. Kardell
10/14	Quincy 5 3atlan	ntic,2 interior	Zollo	Baltimore Ori	iole		
10/24	Marshfield		D. Peacock	9/4	Ware R. IBA	3	M. Lynch#
Saltmarsh Spa	rrow			9/7	GMNWR	3	A. Bragg#
9/1	MBO	1 b imm A	A. Bartolo#	9/13	Gloucester (EP		J. Nelson
9/24	Westport		M. Lynch#	10/13	Wakefield	1 m in	nm J. Beers
9/29-10/28		20 max R.M.		Brown-heade			
10/3	Newbury	8	C. Floyd	10/21	Fairhaven	200	M. Lynch#
Seaside Sparre				10/28	Middleton	100 C	G. d'Entremont#
9/13-10/5	PI	2 max S. N	Ailler#. v.o.	Rusty Blackb			
			, , , , , , , , , , , , , , , , , , ,			_	J. Forbes
Lincoin s Spa	rrow			10/3	Concora	5	J. POIDES
Lincoln's Spar 9/11-10/26		from 13 location	ons	10/3 10/5	Concord Gill	5 5	
9/11-10/26	Indiv. reported			10/5		5 5 1 b	J. Smith
9/11-10/26 9/12	Indiv. reported Easthampton	5	B. Zajda	10/5 10/12	Gill PI	5 1 b	J. Smith B. Flemer#
9/11-10/26 9/12 9/18	Indiv. reported Easthampton Westboro	5 5	B. Zajda T. Spahr	10/5 10/12 10/20	Gill PI Framingham	5	J. Smith
9/11-10/26 9/12	Indiv. reported Easthampton Westboro Cumb. Farms	5 5 10 G. d'I	B. Zajda T. Spahr Entremont#	10/5 10/12 10/20 Common Gra	Gill PI Framingham ckle	5 1 b 6	J. Smith B. Flemer# J. Forbes
9/11-10/26 9/12 9/18 10/1 10/1	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield	5 5 10 G. d'I	B. Zajda T. Spahr Entremont# M. Lynch#	10/5 10/12 10/20 Common Gra 9/16	Gill PI Framingham ckle Holbrook	5 1 b 6	J. Smith B. Flemer# J. Forbes G. d'Entremont#
9/11-10/26 9/12 9/18 10/1 10/1 10/2	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM	5 5 10 G. d'I 5 1) 5	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines	10/5 10/12 10/20 Common Gra 9/16 9/25	Gill PI Framingham ckle Holbrook Longmeadow	5 1 b 6	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI	5 5 10 G. d'I 5 1) 5	B. Zajda T. Spahr Entremont# M. Lynch#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28	Gill PI Framingham ckle Holbrook Longmeadow	5 1 b 6	J. Smith B. Flemer# J. Forbes G. d'Entremont#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparro	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI	5 5 10 G. d'I 5 1, 1 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25	Gill PI Framingham ckle Holbrook Longmeadow	5 1 b 6 7500 C 2500 2500 C	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI	5 5 10 G. d'I 5 1, 1 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird	Gill PI Framingham ckle Holbrook Longmeadow Middleton	5 1 b 6	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparro 9/25-9/29 10/5	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI DW PI Westboro	5 5 10 G. d'I 5 1) 5 1, 1 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# B. Flemer# T. Spahr	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI	5 1 b 6 7500 C 2500 2500 C	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/5	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI DW PI Westboro GMNWR	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA	5 1 b 6 7500 C 2500 2500 C 10 nfc 5 b 3	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/5	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI Westboro GMNWR Huntington	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton	5 1 b 6 7500 C 2500 2500 C	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/5	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI Westboro GMNWR Huntington PI	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet	5 1 b 6 7500 C 2500 2500 C 10 nfc 5 b 3 1 nfc	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch#
9/11-10/26 9/12 9/18 10/1 10/1 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/5 10/7 10/7-10/14 10/22	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DMPI) Westboro GMNWR Huntington PI Bolton Flats	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler	5 1 b 6 7500 C 2500 2500 C 10 nfc 5 b 3 1 nfc	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DMPI) Westboro GMNWR Huntington PI Bolton Flats	5 5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b 99	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth	5 1 b 6 7500 C 2500 2500 C 10 nfc 5 b 3 1 nfc 1 b	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel
9/11-10/26 9/12 9/18 10/1 10/1 10/5, 12 Swamp Sparra 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI) Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI	5 10 G. d'I 5 1, 1 b 4 b 30 25 98 3 b 99	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush	5 1 b 6 7500 C 2500 2500 C 10 nfc 5 b 3 1 nfc 1 b	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth
9/11-10/26 9/12 9/18 10/1 10/1 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b 99	B. Zajda T. Spahr M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# yd-Evans#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth
9/11-10/26 9/12 9/18 10/1 10/1 10/5, 12 Swamp Sparra 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI) Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b 99	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparro 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI OW PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 230 60	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# byd-Evans# M. Lynch#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI OW PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Huntington PI	5 5 10 G. d'I 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llc 230 60 95	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# yd-Evans# M. Lynch# E. Labato M. Lynch#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat 9/8	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed)	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth sations B. Flemer#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llo 230 60 95 40 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# yd-Evans# M. Lynch# E. Labato M. Lynch# B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed)	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth sations B. Flemer#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22 10/thr	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llo 230 60 95 40 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# yd-Evans# M. Lynch# E. Labato M. Lynch# B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat 9/8 Golden-wing	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough ed Warbler	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed) 5 nfc 1 f	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth eations B. Flemer# T. Spahr
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22 10/thr Harris's Spar	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI OW PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats PI Trow Scituate	5 10 G. d'I 5 1) 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llo 230 60 95 40 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# yd-Evans# M. Lynch# E. Labato M. Lynch#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat 10/8 Golden-wing 9/13	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough ed Warbler Waltham Lexington (DM	5 1 b 6 7500 C 2500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 ffrom 9 loc 15 b ed) 5 nfc 1 f f 1 f 1 f 1 f 1 f 1 f 1 f 1 f 1 f 1	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth eations B. Flemer# T. Spahr R. Doherty
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22 10/thr Harris's Spar	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI OW PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats PI Trow Scituate	5 5 10 G. d'I 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llo 230 60 95 40 b	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# Jyd-Evans# M. Lynch# E. Labato M. Lynch# B. Flemer# D. Peacock ons	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat 9/8 Golden-wing 9/13 9/14-9/23 10/4, 10/5 Blue-winged	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough ed Warbler Waltham Lexington (DM MBO Warbler	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed) 5 nfc 1 f R. J	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth Pations B. Flemer# T. Spahr R. Doherty LaFontaine, v.o. m fTLloyd-Evans#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22 10/thr Harris's Spar	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI) Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats d Sparrow PI Soituate d Sparrow	5 10 G. d'I 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llo 230 60 95 40 b 1 ph	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# oyd-Evans# M. Lynch# E. Labato M. Lynch# B. Flemer#	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat 9/8 Golden-wing 9/13 9/14-9/23 10/4, 10/5	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI warlborough ed Warbler Waltham Lexington (DM MBO	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed) 5 nfc 1 f R. J	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth Pations B. Flemer# T. Spahr R. Doherty LaFontaine, v.o. m fTLloyd-Evans#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22 10/thr Harris's Spar 9/16 White-crowne	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI OW PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats d Sparrow PI Tow Scituate d Sparrow Indiv. reported	5 10 G. d'I 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llo 230 60 95 40 b 1 ph	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# Jyd-Evans# M. Lynch# E. Labato M. Lynch# B. Flemer# D. Peacock ons	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat 9/8 Golden-wing 9/13 9/14-9/23 10/4, 10/5 Blue-winged	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough ed Warbler Waltham Lexington (DM MBO Warbler Indiv. reported	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed) 5 nfc 1 f R. J	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth Pations B. Flemer# T. Spahr R. Doherty LaFontaine, v.o. m fTLloyd-Evans#
9/11-10/26 9/12 9/18 10/1 10/1 10/2 10/5, 12 Swamp Sparre 9/25-9/29 10/5 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22 10/thr Harris's Spar 9/16 White-crowne 9/25-10/28 10/7 10/11 10/12	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI OW PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats PI Trow Scituate d Sparrow Indiv. reported Lexington	5 5 10 G. d'I 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llc 230 60 95 40 b 1 ph	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# D. Peacock Ons M. Rines# M. Rines T. Wetmore	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat 9/8 Golden-wing 9/13 9/14-9/23 10/4, 10/5 Blue-winged 9/9-10/4	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough ed Warbler Waltham Lexington (DM MBO Warbler Indiv. reported	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed) 5 nfc 1 f R. J	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth Pations B. Flemer# T. Spahr R. Doherty LaFontaine, v.o. m fTLloyd-Evans#
9/11-10/26 9/12 9/18 10/1 10/1 10/5, 12 Swamp Sparro 9/25-9/29 10/5 10/7 10/7-10/14 10/22 White-throate 9/15-9/29 9/24 10/7 10/11 10/22 10/thr Harris's Spar 9/16 White-crowne 9/25-10/28 10/7 10/11	Indiv. reported Easthampton Westboro Cumb. Farms Sandisfield Lexington (DM PI OW PI Westboro GMNWR Huntington PI Bolton Flats d Sparrow PI MBO Huntington PI Bolton Flats d Sparrow VI Bolton Flats d Sparrow VI Bolton Flats PI Trow Scituate d Sparrow Indiv. reported Lexington Arlington Res.	5 5 10 G. d'I 5 1, 1 b 4 b 30 25 98 3 b 99 6 b 2 b T. Llc 230 60 95 40 b 1 ph	B. Zajda T. Spahr Entremont# M. Lynch# M. Rines B. Flemer# T. Spahr A. Bragg# M. Lynch# B. Flemer# M. Lynch# B. Flemer# M. Lynch# B. Flemer# Jyd-Evans# M. Lynch# B. Flemer# D. Peacock	10/5 10/12 10/20 Common Gra 9/16 9/25 10/28 Ovenbird 9/8 9/14-9/27 9/17 10/12 10/18 Worm-eating 9/8 Northern Wat thr-10/20 9/2-9/17 Northern Wat 9/8 Golden-wing 9/13 9/14-9/23 10/4, 10/5 Blue-winged 9/9-10/4 Black-and-wh 9/89 9/8	Gill PI Framingham ckle Holbrook Longmeadow Middleton Concord PI Ware R. IBA N. Dighton Manomet Warbler Falmouth erthrush Indiv. reported PI erthrush (continu Marlborough ed Warbler Waltham Lexington (DM MBO Warbler Indiv. reported interval (DM MBO Indiv. reported Indiv. reported Indiv. reported Indiv. reported	5 1 b 6 7500 C 2500 C 2500 C 10 nfc 5 b 3 1 nfc 1 b 1 from 9 loc 15 b ed) 5 nfc 1 f l b im from 9 loc 1 from	J. Smith B. Flemer# J. Forbes G. d'Entremont# M. Moore G. d'Entremont# C. Winstanley B. Flemer# M. Lynch# A. Eckerson A. Kneidel G. Hirth eations B. Flemer# T. Spahr R. Doherty LaFontaine, v.o. m fTLloyd-Evans# eations B. Flemer# C. Winstanley
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Black-and-wh	ite Warbler (cont	inued)		Bay-breasted	Warhler		
9/17	Ware R. IBA	6	M. Lynch#	9/8-10/17	Indiv. reported	from 8 loc	eations
10/28	Nantucket	1	H. Young	9/8	Concord	18 nfc	C. Winstanley
Tennessee Wa thr-10/21	rbler Indiv. reported:	from 0 loc	ations	9/8 9/10	Marlborough PI	10 nfc 2	T. Spahr S. Miller#
9/2	Tolland	4	M. Lynch#	Blackburnian		2	S. Willei#
9/2	Otis	2	J. Forbes	9/2-10/13	Indiv. reported	from 9 loc	eations
9/17	Ware R. IBA	4	M. Lynch#	9/8	Concord	13 nfc	C. Winstanley
Orange-crown		from 10 lo	antions	9/10 Yellow Warbl	Huntington	4	M. Lynch#
10/1-10/11	Indiv. reported	5 b	B. Flemer#	9/7-9/21	PI	3 b	B. Flemer#
10/27	Orleans	7	S. Williams#	10/4	Belmont	1	J. Forbes
Nashville War				10/27	Westport	1	E. Lipton
thr 9/18-9/29	Indiv. reported	from 23 Ic 8 b	B. Flemer#	Chestnut-side 9/2	d Warbler Sandisfield	2	M. Lymah#
10/1-10/17		5 b	B. Flemer#	9/8	Concord	7 nfc	M. Lynch# C. Winstanley
Connecticut V	Varbler			9/8	Marlborough	1 nfc	T. Spahr
thr-10/12	Indiv. reported			9/10	Huntington	2	M. Lynch#
9/7, 9/15 9/16-9/24	Northampton PI	2, 2 3 b	D. Schell B. Flemer#	10/27 Blackpoll Wa	Westport	1	E. Lipton
9/16	Quincy	2	S. Williams	9/12-9/29	PI	37 b	B. Flemer#
9/18, 9/21	Westboro	$2, \bar{3}$	T. Spahr#	9/13	Winchendon	158	M. Lynch#
MacGillivray				9/17	Ware R. IBA	38	M. Lynch#
9/17 9/18	Lexington (DM Orleans	l) 1 1 ph	M. Rines S. Williams#	10/31	MBO d Blue Warbler	1 b 7	Γ. Lloyd-Evans#
Mourning Wa		ı pıı	5. Williams#	9/2	Otis	5	J. Forbes
9/4-10/17	Indiv. reported	from 9 loc	ations	9/8	Marlborough	5 nfc	T. Spahr
9/9, 9/10	Brewster	2, 2 b	S. Finnegan	9/8	Concord	4 nfc	C. Winstanley
Common Yell 9/1-9/26	owthroat PI	20 b	B. Flemer#	9/11-9/29 9/17	PI Ware R. IBA	6 b 4	B. Flemer# M. Lynch#
9/1-9/20	Lexington (DM		M. Rines#	10/1-10/22		4 b	B. Flemer#
9/8	Concord	24 nfc	C. Winstanley	10/28	Newton	2	H. Miller
9/10	Huntington	61	M. Lynch#	Palm Warbler		-	A 77 11 1
10/1-10/14 Hooded Warb		8 b	B. Flemer#	9/23 9/27	Manomet Randolph	7 1 wast	A. Kneidel ern P. Peterson
9/10	Chatham	1	B. Harris	10/1	Sandisfield	54	M. Lynch#
9/21-9/23	PI		R. Furrow, v.o.	10/1	Wachusett Res.	8	K. Bourinot#
9/25	Nantucket	1	T. Pastuszak#	10/1	Saugus	7	S. Zendeh#
9/28 9/29	MNWS W. Newbury	1 m 1 ad	J. Smith K. Elwell	10/1 10/4-10/22	Ipswich	2 west	ern J. Berry# ern E. Labato, v.o.
9/29	Randolph		G. d'Entremont	10/4-10/22	Groton	6	S. Miller#
10/5	Duxbury B.	1 ad m		10/5	Groton	1 west	ern S. Miller#
10/17	Cuttyhunk I.	1	M. Iliff#	10/7	Eastham		ern G.d'Entremont
American Rec 9/2, 9/9	lstart Lexington (DM	D11 11	M. Rines#	10/19 10/19	Woburn GMNWR	5 2 west	M. Rines ern K. Dia#
9/2-9/25	PI	20 b	B. Flemer#	10/19	Bolton Flats	26 west	M. Lynch#
9/6	Belmont	8	R. Stymeist	Pine Warbler			
9/8	Concord	53 nfc	C. Winstanley	9/2	Tolland	6	M. Lynch#
9/8 9/14	Marlborough Burlington	30 nfc 10	T. Spahr M. Rines	9/11 9/15	Ware R. IBA P'town	132	M. Lynch# G. d'Entremont#
10/23-30	Medford	1	M. McCarthy	9/24	Boxford (CP)	7	L. Ireland
Cape May Wa			•	10/31	Marlborough	1	T. Spahr
thr-10/17	Indiv. reported			Yellow-rumpe		1	M Hier
9/2 9/8	Tolland Marlborough	3 11 nfc	M. Lynch# T. Spahr	9/7 10/thr	Westport PI	249 b	M. Iliff B. Flemer#
9/8	Concord	6 nfc	C. Winstanley	10/27	Orleans	120	S. Williams#
9/10	Sunderland	3	D. Sibley	10/4	Bolton Flats	100	J. Hoye#
9/11-9/26	PI	4 b	B. Flemer#	10/20	N. Dighton	112	J. Eckerson
9/24 10/3	Orleans Turner's Falls	3 6	K. Yakola# J. Smith	10/23 Yellow-throa	PI ted Warbler	340	P. + F. Vale
Northern Paru				10/26-28	Nantucket	1 ph	R. Ouren, v.o.
9/8	Concord	181 nfc	C. Winstanley	10/28	Cuttyhunk I.	1	S. Williams#
9/8	Marlborough	65 nfc	T. Spahr	Prairie Warble		6	M. Lamah#
9/9-9/29 9/17	PI Ware R. IBA	3 b 15	B. Flemer# M. Lynch#	9/4 9/10	Ware R. IBA Huntington	6	M. Lynch# M. Lynch#
10/28	Cuttyhunk I.	4	S. Williams#	10/17	Nahant	1	L. Pivacek
10/31	Rockport (AP)	1	D. Walters		ed Gray Warble		
Magnolia War 9/2	bler Sandisfield	4	M Lynch#	9/17 10/11	Chatham S. Monomov	1 ph 1 b	A. Fulcher J. Junda#
9/2 9/9-9/28	PI	4 11 b	M. Lynch# B. Flemer#		d Green Warbler	1 0	J. Junua#
9/11	Ware R. IBA	3	M. Lynch#	9/8-9/25	PI	7 b	B. Flemer#
9/14	Burlington	6	M. Rines	9/10	Huntington	15	M. Lynch#
10/28	Cuttyhunk I.	1	S. Williams#	9/15	P'town	3 (G. d'Entremont#

Dlagle throated	l Green Warbler (c	antinuad	I)	9/10	Huntington	4	M. Lynch#
9/17	Ware R. IBA	21		10/7	PI	1	D. + T. Swain
			M. Lynch#	Blue Grosbeal		1	D. T I. Swaiii
9/18	Scituate	6	P. Peterson			1 1	Calanda da Elala
10/31	MBO	1 b 7	Γ. Lloyd-Evans#	9/13,10/28	Falmouth	1, 1	Schanbacher, Fiske
Canada Warble				9/18	Middleton	. 1	J. Parrot-willis
9/8	Concord	7 nfc	C. Winstanley	10/3	Lexington (DM	1) 1	G. Rodriguez
9/8	MBO		Γ. Lloyd-Evans#	10/6	Cambr. (DPk)	1	R. Stymeist
9/8	Marlborough	1 nfc	T. Spahr	10/7	Nahant	1	P. Low
9/21	PI	1 b	B. Flemer#	10/7	Newbury	1	M. Sovay
9/24	Westport	1	M. Iliff	10/20	Manomet	1	L.Schibley
10/6	HRŴMA	1	T. Pirro	10/21	Uxbridge	1	B. Robo
Wilson's Warb	oler			10/28	Marion	1	N. Marchessault
thr-10/28	Indiv. reported from	om 18 lo	ocations	Indigo Bunting	g		
9/6-9/27	PI	9 b	B. Flemer#	9/4	Cumb. Farms	6	G. d'Entremont
9/8	Concord	2 nfc	C. Winstanley	9/10	Huntington	73	M. Lynch#
9/13	Gloucester (EP)	2	J. Nelson	9/12	Easthampton	23	B. Zajda
10/13	Rockport	2	R. Heil	9/20	Woburn (HP)	6	M. Rines
10/28	Orleans	1	J. Pratt	10/28	Rockport	5	B. Harris#
Summer Tana	nger			10/28-29	Middleton	2	E. LeBlanc, v.o.
10/27	Orleans	1 ph	S. Williams#	Painted Bunt	ing		
10/28	Rockport	1 ph	B. Harris#	10/15-16	Barnstable	1 :	m ph M. Keleher#
Scarlet Tanage	er .			Dickcissel			1
9/17	Ware R. IBA	6	M. Lynch#	thr	1-2 birds report	ed fro	m 24 locations
10/8	Lowell	2	M. Baird	9/4	PI	3	T. Wetmore
10/9-10/10	Worcester	2	B. Robo	10/23	Falmouth	3	E. Lipton
10/17	Winthrop	1	P. Peterson		- *************************************	-	p
Rose-breasted			1. I ctclboll				
9/2	Lexington (DM)	6	M. Rines#				
)1 <u>L</u>	Leanigion (DM)	0	IVI. IXIIICS#				



BYGONE BIRDS

Historical Highlights for September-October

Neil Hayward

5 YEARS AGO



September-October 2012

A Black-bellied Whistling-Duck continued from July into September at Great Meadows; two records of Northern Lapwings heralded the start of a winter "invasion" year; a Bartailed Godwit and a Little Stint were present in Chatham in September; and the state's fifth record of Allen's Hummingbird was found in Great Barrington. Passerine rarities included a Loggerhead Shrike in Chatham on September 6 and a Bell's Vireo on Martha's Vineyard on October 23.

Best sighting: **Gray-tailed Tattler**, Nantucket, October 18–20. This was the first record for Massachusetts and the first for the East Coast.

10 YEARS AGO



September-October 2007

A juvenile dark morph **Swainson's Hawk** was seen by many at Cumberland Farms, September 26–October 15. October heated up with "The" **Eared Grebe** back for its 12th year at Gloucester, a **Black-chinned Hummingbird** (third for the state) on Martha's Vineyard, three **Boreal Chickadees** and a **Gray Jay** on Mount Watatic, and a **Henslow's Sparrow** in Tyringham.

Best sighting: **Black-tailed Gull**, Nahant, October 18. This was the second record for Massachusetts. There has been only one record since (2008).

20 YEARS AGO



September-October 1997

A **Swainson's Hawk** that had spent most of the summer at Provincetown stayed until at least October 11. The state's seventh record of **MacGillivray's Warbler** was banded at Manomet. Evening Grosbeaks were reported from 21 locations, including a flock of 12 in Lexington.

Best sighting: **Long-billed Curlew**, Nauset Marsh, September 8. This is last (i.e. most recent) record of this species for Massachusetts

40 YEARS AGO



September-October 1977

Nine hundred plus Red Knot were seen throughout the state in September, including 500 at Scituate and a pure albino at Sandy Neck. Barn Owls were seen at Hingham (September) and Monomoy (October). Rarities included a minor irruption of Say's Phoebes (four in October), a Lark Bunting in South Peabody (September), Loggerhead Shrikes (one September, three October), and six Brewer's Blackbirds in three locations. At Manomet, 26 Yellow-breasted Chats were banded in September.

Best sighting: **Phainopepla**, Tuckernuck Island, October 7. This was the second of only two state records, the first being on Nantucket in February 1973.

ABBREVIATIONS FOR BIRD SIGHTINGS

Taxonomic order is based on AOS checklist, 7th edition, 58th Supplement, as published in *Auk* 2017, vol. 134(3):751-773 (see http://checklist.aou.org/).

AA Arnold Arboretum, Boston Allen Bird Club Pk AP Andrews Point, Rockport APd Allens Pond, S. Dartmouth POP Point of Pine	ım İsland Park
AP Andrews Point, Rockport Pont. Pontoosuc Lake, L	Park
	anesboro
B. Beach PR Pinnacle Rock	Malden
	incetown
BBC Brookline Bird Club R.	River
	Reservoir
BI Belle Isle, E. Boston RKG Rose Kennedy Greenwa	v. Boston
BMB Broad Meadow Brook, Worcester RP Race Point, Prov	
BNC Boston Nature Center, Mattapan SB South Beach,	Chatham
BR Bass Rocks, Gloucester SN Sandy Neck, B	
	tate Park
Cambr. Cambridge SRV Sudbury Riv	
CB Crane Beach, Ipswich SSBC South Shore I	
CCBC Cape Cod Bird Club TASL Take A Second Look, Boston Harbo	
CGB Coast Guard Beach, Eastham WBWS Wellfleet Bay Wildlife S	
Corp. B. Corporation Beach, Dennis WE World's End,	
CP Crooked Pond, Boxford WMA Wildlife Managen	
Cumb. Farms Cumberland Farms, Middleboro WMWS Wachusett Meadow Wildlife S	
DFWS Drumlin Farm Wildlife Sanctuary Wompatuck SP Hingham, Cohasset, Scituate	
	Vorcester
DPk Danehy Park, Cambridge WSF Willowdale State Forest	
DWMA Delaney WMA, Stow, Bolton, Harvard	, 1ps 1e11
DWWS Daniel Webster Wildlife Sanctuary Other Abbreviations	
EP Eastern Point, Gloucester * first state record (pending MARC	review)
FE First Encounter Beach, Eastham ad	adult
FH Fort Hill, Eastham b	banded
FP Fresh Pond, Cambridge br	breeding
FPk Franklin Park, Boston cy cycle (3cy = 3	rd cycle)
G# Gate #, Quabbin Res. d	dead
	(morph)
H. Harbor f	female
	fledgling
	mmature
HRWMA High Ridge WMA, Gardner juv	juvenile
	t (morph)
IBA Important Bird Area m	male
IRWS Ipswich River Wildlife Sanctuary MARC Massachusetts Avian Records C	
	naximum
	nigrating
MBO Bird Observatory, Manomet n	nesting
MBWMA Martin Burns WMA, Newbury nfc nocturnal	
	ographed
MNWS Marblehead Neck Wildlife Sanctuary pl	plumage
MP Millennium Park, W. Roxbury pr	pair
MSSF Myles Standish State Forest, Plymouth r	rescued
MtA Mount Auburn Cemetery, Cambr. S summer (1S = first	subadult
MtA Mount Auburn Cemetery, Cambr. S summer (1S = first MV Martha's Vineyard subad	subadult
MtA Mount Auburn Cemetery, Cambr. MV Martha's Vineyard NAC Nine Acre Corner, Concord V.o. summer (1S = first subad v.o. various of v	subadult observers
MtA Mount Auburn Cemetery, Cambr. S summer (1S = first MV Martha's Vineyard NAC Nine Acre Corner, Concord V.o. various of the control of the	subadult observers

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

Sightings for any given month should be reported to Bird Observer by the eighth of the following month. Reports should include: name and phone number of observer, name of species, date of sighting, location, number of birds, other observer(s), and information on age, sex, and morph (where relevant). Reports can be emailed to sightings@birdobserver.org or submitted online at http://www.birdobserver.org/Contact-Us/Submit-Sightings, or sent by mail to Bird Sightings, Robert H. Stymeist, 36 Lewis Avenue, Arlington MA 02474-3206.

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 Sean Williams, 18 Parkman Street, Westborough MA 01581, or by email to seanbirder@gmail.com.

ABOUT THE COVER

Tufted Titmouse

The Tufted Titmouse (*Baeolophus bicolor*) is a common songbird that has expanded its range through most of New England in the past 60 years, possibly due to climate change and an increased presence of winter birdfeeders. Tufted Titmice are bluish gray above with lighter gray below highlighted with rusty flanks. The sexes are similar, having a prominent crest, a blackish forehead, and a pale ring around their dark eyes. Juvenile titmice lack the blackish face. Until 2002 the Tufted Titmouse was considered conspecific with the Black-crested Titmouse (*B. atricristatus*) in the southwestern U.S. No subspecies of *B. bicolor* are currently recognized.

Tufted Titmice are resident throughout their range, which includes most of the eastern half of the United States from Maine to South Florida, west through much of the Great Lakes region, and south through West Texas and northeastern Mexico. Local concentrations suggest that they may be periodically nomadic in response to bumper beech and mast crops. In Massachusetts, the Tufted Titmouse is a common resident of deciduous forests and woodlands throughout the state. It was listed as 'Hypothetical' in 1955 and the first nest was not discovered in the state until 1958. By the 1980s, Tufted Titmice were common. For example, more than a thousand were recorded on the Concord Christmas Bird Count as early as 1990.

Both male and female titmice give a variety of calls, but usually only males sing the familiar *peter peter song*. The songs and calls are complex in structure and rate of utterance. The song presumably serves for territorial advertisement and mate attraction. Males defend their territory and will actively chase intruders away. Territories are held throughout the year, by individual pairs during the summer, and in winter by small local groups or flocks that will aggressively chase non-group intruders. Pairs may remain stable for more than one breeding season. Strangely, the breeding biology of this common and easily observable species is not well known. Little is known of their courtship behavior other than males are known to engage in courtship feeding from the time of nest-site selection through incubation.

Tufted Titmice nest mostly in natural cavities and woodpecker holes in deciduous trees in forests, woodlands, swamps, and suburban areas. Nests have been found from three to nearly 100 feet above the ground in a wide variety of trees, and pairs may reuse the same nest in successive seasons. The nest is composed of grass, leaves, moss, and bark and is lined with hair, cotton, wool, or other fine material. The usual clutch is five or six white eggs with a fine spotting of darker color. Only the female incubates for the 12 to 14 days until hatching. The adults remove the egg shells from the nest after hatching. The young are altricial; their eyes are closed and they are nearly naked. By ten days of age, their eyes are fully open and their bodies are covered with feathers. They fledge in fifteen or sixteen days. Both parents feed the young. In a rare behavior for parids, Tufted Titmouse young remain with their parents throughout their first winter, joining the local flock, and don't leave until well into their second year. They

also remain with their parents during the succeeding breeding season, and may become helpers, joining their parents in feeding the next batch of young birds.

Tufted Titmice forage primarily by gleaning foliage, but also hang-glean, hover-glean, and probe and peck bark. They forage in trees at all levels but also spend considerable time foraging on the ground. They open seeds by pounding them with their bills, and their diet also consists of about two-thirds insects, including an eclectic array of caterpillars, beetles, hymenoptera, spiders, and other invertebrates. About one-third of their food is vegetable, mostly seeds, including sunflower seeds from birdfeeders, often caching them in crevices on tree trunks and branches. They usually remove the shells before caching the seeds.

Tufted Titmice are subject to predation by domestic cats, snakes, hawks, owls, and any of the other usual predators. As cavity nesters they are vulnerable to deforestation. Nonetheless, Tufted Titmice have adjusted well to suburban conditions, readily utilizing winter birdfeeders and expanding their range northward through the years. Hence, they are probably safe into the indefinite future.

William E. Davis, Jr.

ABOUT THE COVER ARTIST

William E. Davis, Jr.

Ted Davis is a retired Boston University professor who remains active in ornithological field research, mostly in Australia. He also is interested in the history of ornithology and has written or edited 15 books on the subject. As an artist, Ted has illustrated three books and has over the years contributed more than a hundred line drawings to the pages of *Bird Observer*. Ted has been on the *Bird Observer* editorial staff since 1985, as Cover Art Editor since 1991. He has selected the art, and written the *ABOUT THE COVER* stories for more than 150 *Bird Observer* covers. He also has contributed more than 80 articles, book reviews, and field notes to the pages of *Bird Observer*. Ted served on the Board of Directors of Board Observer from 1986–2002, and as President from 1990–1997. ❖

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AT A GLANCE

December 2017



WAYNE R. PETERSEN

This issue's mystery photo bears a superficial resemblance to a floating log or some similarly-shaped floating debris, or possibly even a defunct military torpedo! However, in spite of my propensity for perversity in past photo quizzes (e.g., biting dipterid flies, upside-down images, or virtually-unidentifiable photos of species such as wood-pewees and crows), the bird in this image is indeed identifiable. And it should go without saying that the mystery bird is a waterbird that swims efficiently, unlike species such as frigatebirds and Sooty Terns or non-waterbirds like the swimming Wild Turkey chicks discussed in the August 2017 "At a Glance."

A subtle clue to the mystery bird's identity is that it is peering down into the water, much like a snorkeling swimmer does when looking at fish beneath the surface—which is exactly what this bird is doing. This observation alone is a clue that the bird includes fish in its diet, because this behavior is seldom observed in other types of diving waterbirds. Fish-eating birds—piscivores—capture fish either by diving from the surface like mergansers or by plunge-diving from the air like terns. This bird is clearly in the surface diving category.

At this point, the mystery bird's identity has been narrowed down to a torpedo-shaped, fish-eating bird that pursues fish by diving from the surface. Reasonable possibilities include loons, tubenoses (i.e., *Procellariiformes*), cormorants, or alcids. From this list, none of the shearwaters or petrels have the torpedo-shaped body of the

mystery diver and none are finely speckled on the back. Both cormorants and alcids—except the Black Guillemot in nonbreeding plumage—are uniformly black above. Keeping these points in mind along with the shape of the bird, the mystery species has to be a loon. But what species?

Once the bird has been classified as a loon, the specific species is straightforward to determine. Only the Red-throated Loon (*Gavia stellata*) exhibits the finely-spotted back pattern of this bird. In addition, the smooth, light gray coloration of the rounded head and sides of the neck are consistent with this species, as is the hint of white on the face and the sides at the waterline, which indicate that the bird is in nonbreeding plumage. The similarly shaped Pacific Loon would appear much darker on the back and would never exhibit the fine white speckles shown by the pictured loon, although both juvenile Pacific Loons and Common Loons display a barred, not speckled, back pattern in fresh plumage.

Red-throated Loons are common to occasionally abundant coastal migrants in spring from late March to late April, and in fall from mid-October to mid-December. In early November, occasionally hundreds may be seen migrating along the coast in a day, and they regularly occur in winter, especially on Cape Cod. Small numbers also appear on inland lakes in fall, and a few nonbreeders are seen along the coast in summer. The author photographed this adult Red-throated Loon in nonbreeding plumage in Wellfleet Harbor, Massachusetts, on November 28, 2010.



Wavne R. Petersen



SHORT-EARED OWL BY SANDY SELESKY

AT A GLANCE



DAVID M. LARSON

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

MORE HOT BIRDS



Richard Ouren found the first **Ross's Goose** of the fall on Nantucket on December 8; presumably the same bird was found in different locations around the island through New Year's Day. Another one turned up in Columbus Park, Boston on December 24 and continued through press time. A third briefly visited Good Harbor Beach in Gloucester on December 25. The Martha's Vineyard CBC December 28 led to the discovery of a fourth. Matt Garvey took the photo on the right.

Pam Sowizral's find of an Ash-throated Flycatcher at Mass Audubon's Drumlin Farm on November 26 kicked off a little flurry of the species in our state, with one at Pilgrim Heights near Provincetown the very next day, plus one-day wonders photographed near Hingham by Sally Avery, and near Wareham by Nate Marchessault. The first two birds disappeared almost as synchronously as they arrived, with the Drumlin Farm bird last seen on December 2, and the one near Provincetown on December 3. Nate took the photo on the left.



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TABLE OF CONTENTS

BIRDING MINUTE MAN NATIONAL HISTORICAL PARK Kathy Dia	- 5
RED CROSSBILLS IN MASSACHUSETTS AND THE NORTHEAST:	5
A Possible Irruption in 2017–2018	
Jeremy Coleman and Tim Spahr	17
A History of Winter Crow Roosts	1 /
A HISTORY OF WINTER CROW ROOSTS AND A VISIT TO A ROOST IN LAWRENCE, MASSACHUSETTS	
	22
Dana Duxbury-Fox	22
PHOTO ESSAY The American Cross	22
The American Crow Craig Gibson	32
Musings from the Blind Birder	2.4
Losing One's Senses Martha Steele	34
GLEANINGS	2.6
Getting Lost David M. Larson	36
Field Notes	
Northern Harrier Preying on Hooded Merganser	
Peter Vale and Fay Vale	39
2E2: A Successful Gull Jeffrey Boone Miller	40
About Books	
Two Quests Mark Lynch	42
Bird Sightings	
September–October 2017 Neil Hayward and Robert H. Stymeist	50
Bygone Birds Neil Hayward	64
ABOUT THE COVER: Tufted Titmouse William E. Davis, Jr.	67
ABOUT THE COVER ARTIST: William E. Davis, Jr.	68
At a Glance	
December 2017 Wayne R. Petersen	69