

Bird Observer

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AUGUST 2014



Catherine Hamilton 2013

HOT BIRDS



On June 1, Jay Frontiero of the Seven Seas Whale Watch reported a **Yellow-nosed Albatross**. The top photo provides a view of the bird's long wings. The bottom photo provides a glimpse (in the color online edition) of its yellow bill. Sandy Selesky took both photos.



On June 10, Christian Gras reported a **Franklin's Gull** on Plymouth Beach. He took the photo above.

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VOL. 42, NO. 4 AUGUST 2014

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Birding Great Meadows National Wildlife Refuge in Concord, Massachusetts

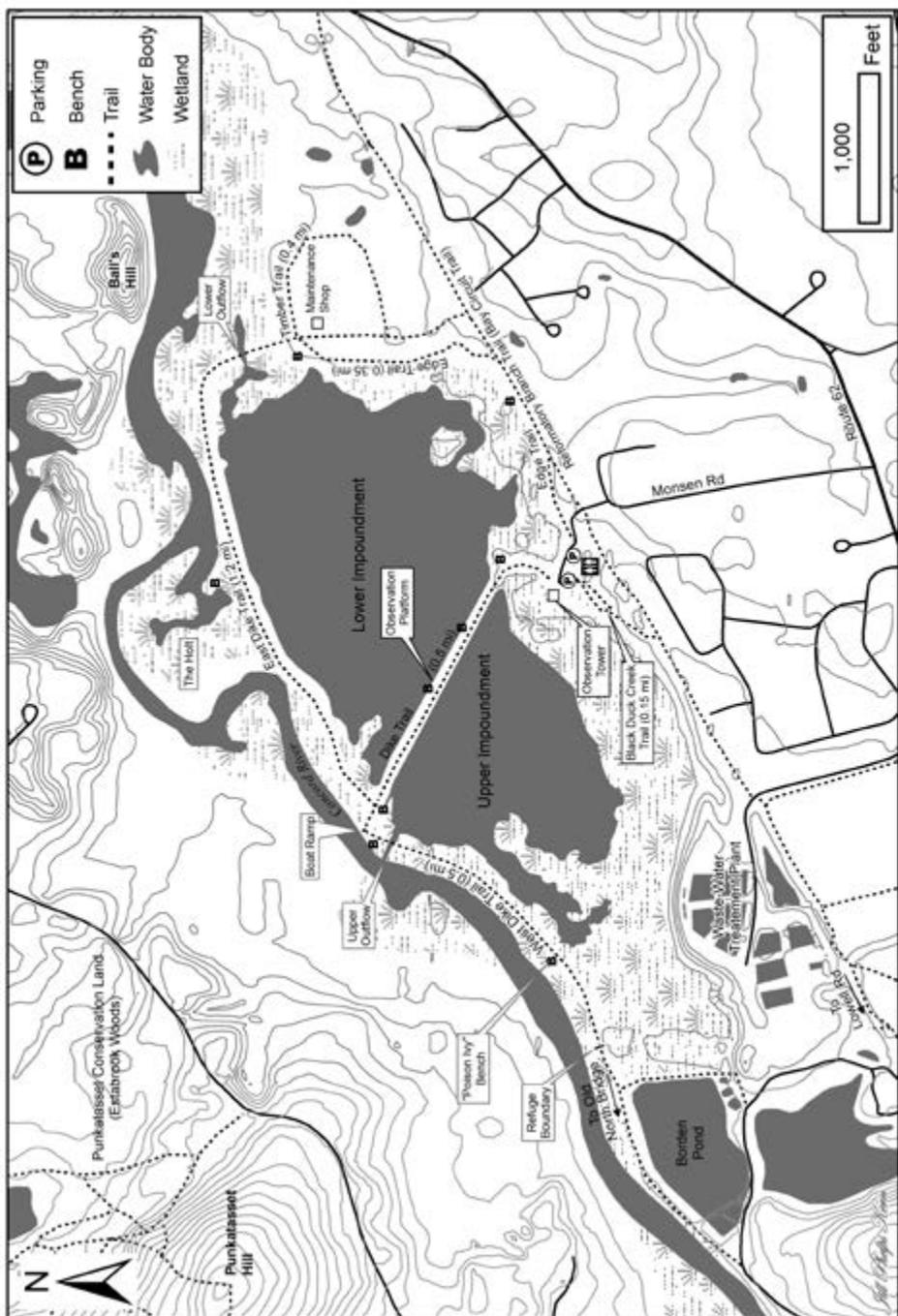
David Swain



The Concord unit of the Great Meadows National Wildlife Refuge is a vital part of the Sudbury/Concord River Valley IBA and is among the most visited birding locations in the greater Boston area. Great Meadows is a four-season birding destination that features two large impoundments (draining into the adjacent Concord River) surrounded by a loop trail composed of dikes, wooded trails, and a section of rail bed. The refuge covers 250 acres and offers open vistas and unobstructed views of the impoundments as well as many hidden pools and reed beds to explore. For developing birders Great Meadows is a great area to experience marsh and water birds; experienced birders have come here for decades to see specialties and chase rarities.

With avian data reaching back through Allen Morgan and Ludlow Griscom to William Brewster and Henry David Thoreau, Great Meadows has an unmatched ornithological record. Dick Walton compiled an historical checklist of over 220 species in 1984, and at least 190 species are observed every year. Great Meadows is among the best locations in Massachusetts to see Marsh Wren, Least Bittern, Sora, and Virginia Rail. Since 2009, a team of local birders led by Alan Bragg, Kathy Dia, and William Martens has conducted a survey of the refuge every week of the year and assembled its data using the citizen scientist database eBird. Based on this data, the survey team will undertake a revision of the refuge checklist. Best known for its concentrations of breeding and migrating waterfowl, the refuge hosts a wide variety of waders and marsh birds. It is also a good inland shorebird location, and is an excellent place to view nighthawks, swallows, and raptors. Exciting birds are found every year and in every season, including such rarities as Caspian Terns and Black Vultures in April, King Rails in June, an American Golden Plover in August, a Black-bellied Whistling Duck in late summer, Nelson's Sparrows in October, and a Northern Goshawk in January.

Great Meadows is also a favorite destination for photographers of flora and fauna, especially Red-winged Blackbirds, dragonflies, and rare plants such as Britton's violet. An observation tower (not handicapped-accessible) and an accessible viewing platform offer vantage points from which to view the impoundments and skyline. A visit to Great Meadows can be combined with visits to other local hotspots in Concord such as Kaveski Farm on Shadyside Lane, the Massport Trail (aka Gate 13C) on Route 62 at the Concord/Bedford line, or the agricultural fields at Nine Acre Corner at the junction of Sudbury Road and Route 117.



History

Named Great Meadow by the first settlers in the 1630s, the entire Great Meadows complex is part of an extensive system of freshwater wetlands and flood meadows stretching twelve miles between Billerica and Wayland along the Sudbury and Concord rivers. Tended by early farmers as a hay meadow, Great Meadow in Concord tended to flood unpredictably, as it still does. By the late 1700s, farmers turned to upland grazing crops and no longer relied solely on meadow hay. Dams along the Concord River and extensive deforestation only made the flooding worse during the 18th and early 19th centuries. By the early 20th century primarily hunters and a few farmers who still hayed used the meadows. In 1928 Samuel Hoar began buying the old haying lots with the initial intention of creating a private hunting reserve. By 1929 he had built the current system of dikes to allow controlled flooding of the meadows, attracting huge numbers of migrating waterfowl. To the dismay of hunters, however, he closed the area to hunting. In 1944 Samuel and Helen Hoar donated 250 of their 320 acres to the U.S. Fish and Wildlife Service to be held in perpetuity as a wildlife sanctuary. The remaining property is the Borden Ponds, named after the long-time refuge director, conservationist, and wildlife filmmaker, Dick Borden. The Borden Ponds, which are private property, adjoin the west end of the refuge. You can access one of the ponds by following the west dike trail past the refuge boundary.

The U. S. Fish & Wildlife Service (USFWS) practices a water management plan that keeps the impoundments full for northbound migrating ducks and local breeders and lowers the water in time for southbound migrating shorebirds. Longtime local birders recall impressive shorebird sightings during the 1980s and 1990s. More recently, priority management of invasive water chestnut and purple loosestrife, along with habitat protection for Blanding's Turtles, led to two unintentional consequences: reduced control over water levels due to silting, and a take-over by American lotus. Beginning in 2010 the USFWS initiated mitigation efforts that have included dredging the drainage channels and digging "refugia" pools to host shorebirds, waders, ducks, and turtles during low water or droughts. The Service also constructed an observation platform over the lower pool. Only time will tell if mowing and water control will bring the lotus monoculture under control; as of this writing in 2014, lotus essentially covers both impoundments by midsummer.

Directions, Parking, and Usage Fees

The refuge is located at the end of Monsen Road off Route 62 approximately three-quarters of a mile north of Concord center. On Route 62 look carefully for a small, brown refuge sign and turn onto Monsen Road. This is a residential neighborhood, so drive slowly. At a bend in the road look for the entrance on the left between two wooden fences; this narrow drive accesses the refuge parking lot. Because Great Meadows receives much use, the lot fills quickly on sunny weekends. Dogs and bicycles are prohibited on the refuge, although dog walking is allowed along the rail trail. The refuge officially opens at dawn and closes at dusk.



Great Egret in the American Lotus. (All photographs unless otherwise indicated are by Larry Warfield and were taken at Great Meadows National Wildlife Refuge in Concord, MA)

Beginning in spring 2014, visitors will pay a weekly fee to use the refuge of \$4 per vehicle or \$2 per individual, payable at a self-serve kiosk. Alternatively, birders can purchase a year pass for \$12 per vehicle (maximum four passengers), available online, by phone, or by text. The Duck Stamp or Interagency pass is accepted in lieu of a refuge pass. All passes should be placed on your dashboard or carried with you. Fees support visitor services such as modern bathrooms (heated in winter) and maintenance of the refuge.

The Route

This birding guide describes a route covering 2.3 miles of the refuge's trails, and is organized according to established observation points along the way. We follow the USFWS terminology of *upper* and *lower* to describe the upstream (west) and downstream (east) impoundments. Beginning at the parking lot, we cross the main dike (stopping at several key observation points) to the boat-ramp area, and then head left along the west dike to the refuge boundary and the Borden Ponds. Returning to the boat-ramp area, we head east around the lower pool to where the dike trail enters the woods near the maintenance shop. There we take a left on the Timber Trail and loop through the woods back to the dike trail, where we turn left and continue to where it meets the railbed. We turn right and follow the railbed back to the refuge entrance road.

A productive visit can last between one and three hours depending on how much of this route you wish to cover. Most birders concentrate on the main dike, but the far corners of the refuge are also rewarding.

Parking Area and Observation Tower

Every visit to Great Meadows is rewarded by lingering in the parking area before heading out onto the dike. In early spring the tall hardwoods around the parking area are a staging area for blackbirds heading to roost, and this is a good place to find Rusty Blackbirds. The adjacent bathroom area usually hosts an early Eastern Phoebe and is good for kinglets. The trail between the bathroom and the parking lot is a good place to look for Brown Creepers and nesting woodpeckers. A variety of songbirds use this narrow band of woods; Wood Thrushes and Eastern Wood-Pewees sing here.



Yellow Warbler with nestling.

During spring migration the wet thickets by the parking lot and along the Black Duck Creek trail often hop with warblers, particularly Common Yellowthroat, Yellow, Palm, and Yellow-rumped. Look also for Blue-headed Vireo; Black-and-white, Black-throated Green, and Nashville warblers; American Redstart; and Northern Parula. Yellow Warblers nest in the young trees around the tower, as do Willow Flycatchers, Swamp Sparrows, and blackbirds. Higher branches of the trees around the lot and the kiosk area, particularly those overhanging water, may have nesting Baltimore Orioles or Warbling Vireos, and Rose-breasted Grosbeaks; even Orchard Orioles will sing from high branches. Listen for Black-billed Cuckoos. During fall migration the parking lot attracts Blackpoll, Pine, and Yellow-rumped warblers, as well as the

occasional Blackburnian. Additionally, it is worth scouring the low bushes and shrubs around the tower and past the gate by the kiosk for Northern Waterthrush and Virginia Rail or Sora. Throughout the year a changing variety of sparrows can be found at the beginning of the dike trail, including an occasional White-crowned or Lincoln's.

The observation tower provides unmatched views of the upper impoundment and main dike as well as distant views of the northern part of the lower impoundment. This is the best place to watch migrating ducks in late fall and early spring, and through early summer the tower offers birders with scopes a peek into some of the distant corners of the upper impoundment. Year-round the tower offers excellent raptor

watching, with open views of the skyline from Ball's Hill to the north, past Punkatasset to the northwest, and southwest to the bluff by the old wastewater treatment plant (a particularly good area for thermals). Look for Red-tailed Hawks and Turkey Vultures anywhere, accipiters over Punkatasset, American Kestrels along the river (where they have nested), Ospreys fishing the impoundments, and Northern Harriers cruising the reeds. In late summer this is an outstanding place to watch nighthawks. During winter, if the ice is still open enough for some waterfowl, look for raptors. One January day featured a Bald Eagle, then a harrier, then a Peregrine Falcon in a dogfight with the eagle, and finally a goshawk. All were attracted by a ready diet of terrified coots concentrated in one pool. In mid-April of 2013 and 2014 Black Vultures cruised over Great Meadows.



American Coot.

The Main Dike (.5 mile)

The main dike is oriented northwest to southeast and is completely exposed to the elements; it can be very windy, with punishing wind chill during winter. The walking surface is ungraded gravel. Except for spring erosion and sinkholes along the edges, it is generally appropriate for wheelchair access during dry conditions, although the USFWS cannot guarantee the condition of the trails. A leisurely tour of the main dike, or even standing in one place (as some veteran birders do), offers a chance to see most of the birds using the refuge. With persistence and creative scope angles, birders can look into most of the bays along the edges of the impoundments for furtive Green-winged Teals or rare Common Gallinules and carefully check the reed edges for bitterns. During late fall and early spring look for Buffleheads, Common Goldeneyes, Ring-necked Ducks, Common and Hooded mergansers, Pied-billed Grebes, American

Black Ducks, Northern Shovelers, Pintails, and an occasional Gadwall or American Wigeon in addition to the ubiquitous Mallards and Wood Ducks. In early spring the main dike offers unparalleled viewing of swallows, and many birders find all five common species. Purple Martins are rare but annual, and in May 2013 a Cave Swallow was found perched on the railing of the observation platform.

During summer the main dike also offers the best chances for catching Least Bitterns, Green Herons, or Black-crowned Night-Herons in flight along or between reed beds in the impoundments, or across the dike. At dusk American Bitterns sometimes fly around the refuge.

The main dike is the best place to see and photograph Marsh Wrens in display flights or singing atop reeds. During fall migration, in addition to shorebirds and sparrows, flocks of American Pipits can be seen along muddy banks. In late fall, be alert for migrant ducks, particularly Ruddy Ducks and Black Scoters. During irruption years, flocks of redpolls travel along the dike, feeding on seed heads. Below are several particular places to stop:

The Footbridge Area. Year-round this spot often features a fishing Great Blue Heron, as this is frequently the last water to freeze on the refuge. During fall this

is an excellent sparrow spot, with concentrations of Swamp Sparrows and occasional rare sparrows in the weedy edges (one fall this area became known as “*Ammodramus Alley*”). Soras particularly like the area on either side of the bridge, with an occasional bird attempting to overwinter, as do some hardy Marsh Wrens that use the bridge area for food and shelter after the first snows. Just past the footbridge, look for a low gap in the reeds through which to scope the bays in the lower pool, where migrating Northern Shovelers or Northern Pintails like to hide. In summer these bays dry up and host concentrations of egrets, including Snowys and an occasional Little Blue Heron.

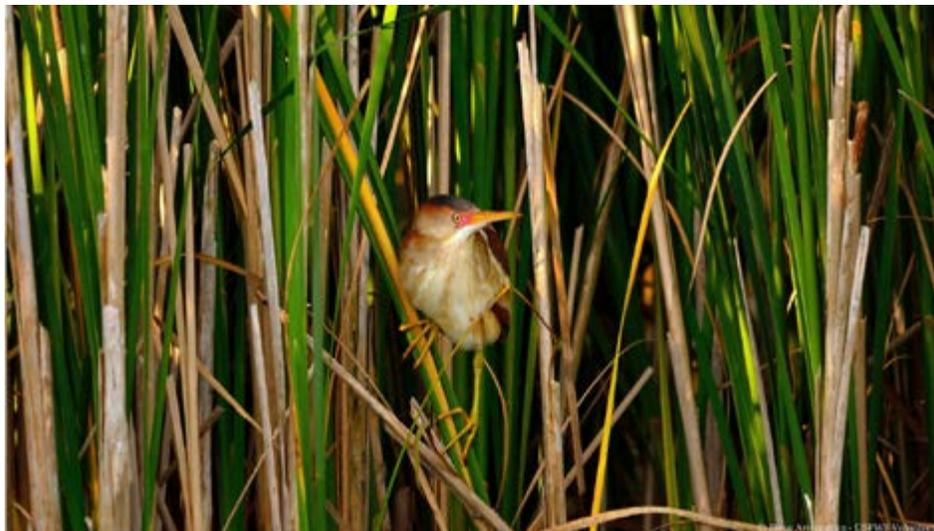
Midway Bench and Water Control Structure. These two areas are worth checking carefully for an occasional rail jumping a gap in the reeds or glimpses of American Coots or Savannah Sparrows. These are also favorite gathering spots for Canada Geese and their young, so use caution passing through these often feisty flocks, and step carefully! During fall migration these are good locations to check for Least, Spotted, Solitary, and Pectoral sandpipers. In winter this mid-dike area, if there is exposed gravel, will attract an occasional Snow Bunting as well as American Tree Sparrows.



Marsh Wren.

The Observation Platform. Since its construction in late 2010, this wheelchair accessible deck has been enormously popular with birders and casual visitors and has eased the congestion along the main dike and provided increased visual access to the complex lower pool. Fifteen inches higher than the dike, the deck offers good views into the upper pool and excellent scope views of some of the bays along the southern edges of the lower impoundment. It is equally good for watching raptors, such as daily Bald Eagles during winter and Ospreys during spring and early summer. During shorebird migration the deck is often the only place from which to see into distant patches of open mud. Look for Least, Solitary, and Pectoral sandpipers, Lesser and Greater yellowlegs, Semipalmated Plovers, Killdeer, and an occasional Short-billed Dowitcher or Stilt Sandpiper. Glossy Ibises occasionally spend a day here, and at least one Little Blue Heron is now annual along with up to a dozen Great Egrets and a few Snowy Egrets. In late summer it is unparalleled for watching Common Nighthawks. Some extraordinary birds have been seen from the platform after storm systems have passed through, and at least one birder has conducted a Big Day from it.

As you approach the river, pay particular attention to the opening bay on your right (the north corner of the lower impoundment). This sheltered pool sees concentrations of swallows in early spring, holds ducks a bit longer, and by late summer is a good bet for Green Herons and peeps. American and Least bitterns are occasionally seen here along the reed line or in the tangle of bushes along the east dike trail, which turns right before reaching the boat ramp area.

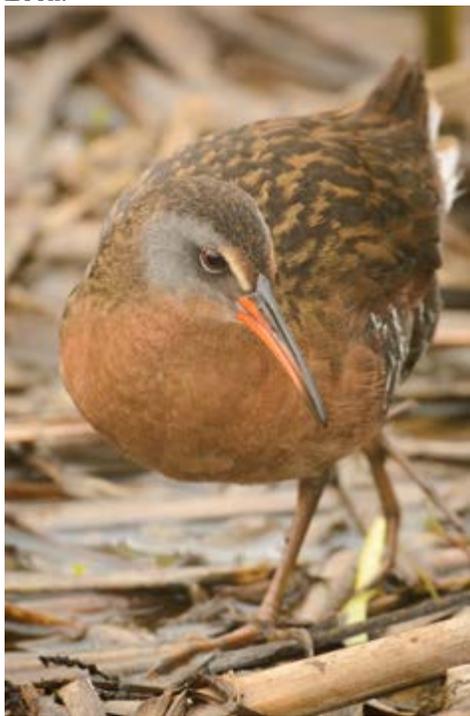


Least Bittern (female). (Photograph by Steve Arena)

Boat Ramp and Concord River

The main dike ends at a gravel apron on the Concord River, where boaters haul up their kayaks or canoes, and where fishing is allowed. This is the first place to check in April for Blue-gray Gnatcatchers, Palm and Yellow-rumped warblers, and singing

Brown Creepers. It is also a favored area for Baltimore Orioles and an occasional Orchard Oriole. The surrounding wet woods hosts woodpeckers year round; look for Pileateds working the trees on the far side. Carefully check flocks of staging blackbirds for Rustys in fall or late winter. Through winter, bluebirds and mixed flocks of titmice, chickadees, nuthatches, and goldfinches frequent this area. Killdeer nest in the Hutchins Farm fields, opposite. Year-round a Belted Kingfisher might rattle by. During winter, make sure to check treetops and hedgerows across the river for a Northern Shrike. When the impoundments are frozen over, flocks of migrating ducks and wintering geese gather at the bend just upriver from the boat landing. The Concord River is a significant migrant corridor in eastern Massachusetts, and almost anything can be seen along this stretch during winter, including all the waterbirds frozen out of the impoundments and even rarities like Greater White-fronted Goose or Red-throated Loon.



Virginia Rail.

Adjacent to the boat ramp is the outflow and drainage channel for the upper impoundment, located two hundred feet west. Because it concentrates fish, the drainage area attracts wading birds. Along the rough path paralleling the drainage canal out to the river you should check for families of gnatcatchers and Brown Creepers. At the river, check overhanging branches for roosting Black-crowned Night-Herons and the opposite banks for Spotted Sandpipers. During late summer lowered water levels expose a muddy channel in the impoundment that is a reliable spot for peeps and herons.

West Dike (.5 mile) and East Dike (1.2 mile)

The east and west sections of the dike trail run parallel to the Concord River, separated by a narrow band of mature riparian woods frequented by

all the common woodpeckers, Eastern Phoebes, gnatcatchers, Brown Creepers, Great Crested Flycatchers, and Baltimore Orioles. On migration Northern Waterthrushes are occasionally found here as well. Virginia Rails nest in the extensive cattail reed beds along the dikes, particularly the east dike, where you may hear five or more calling during late May and early June. During summer be alert for rail chicks making a dash between the wet woods and the reeds, and if there is flooding, rails will come out onto the trail. Two particular areas along the west and east dikes deserve attention.



Hooded Mergansers.

The West Pool. As you round a wide bend on the west trail you will see an extensive cattail reed bed projecting into the upper impoundment parallel to the reeds along the trail. Together these reed beds define a narrow channel of open water leading to a large open pool and an archipelago of narrow channels and, partially, to totally hidden pools. This pool area is best observed from the “Poison Ivy Bench” (which is indeed surrounded by poison ivy) and from the concrete overflow culvert two-thirds of the way along the west dike.

From these locations use creative scope angles to look for Green-winged Teal and Hooded Mergansers as well as furtive Common Gallinules (which are nearly annual), late coots, and occasional Blue-winged Teal (which may breed here). Because they offer protection, these secluded pools shelter many ducks during molt, and large families of Wood Ducks or Hooded Mergansers are often seen. Additionally, this extensive reed bed is a traditional spot to look for Least Bitterns popping up for a short flight. During migration, all manner of ducks and waders drop in here, from Pintails and Shovelers to even a Sandhill Crane. In late summer wild rice in this area attracts bobolinks.

From this large pool the west dike trail continues a few hundred yards to the refuge boundary. Here is another rough path to the river where you can often observe creepers and gnatcatchers. It is in these wet woods that Virginia Rails are most often found on the Christmas Bird Count. Past the boundary sign the dike trail continues straight past the intersection with the upper dike of the upper impoundment. On your left is Borden Pond, which is privately owned; its far trees are a common roost for night-herons and Great Egrets, and the wet woods along the main trail are good for Rose-breasted

Grosbeaks and orioles. The west dike trail continues to a paved drive that leads to the parking area at Old North Bridge.

The Holt. As you return past the boat ramp onto the main dike, the east dike begins at a bench. Traveling past an area of dense buttonbush (check here for American Bittern), the east dike makes a wide bend and the woods narrow as the Concord River takes a sharp left bend into a wide oxbow called The Holt in Thoreau's journals. Before this bend there is a rough path to the river allowing a view of the bend and the far sandy bank. Scan here for ducks hidden among tree roots (Green-winged Teal like to hide here) and for sandpipers feeding along the bank. The tree line falls away to follow the line of the river, leaving a broad area of mixed shrubs, buttonbush, reeds, and early successional trees opening to the left of the dike.

Look and listen for Indigo Buntings, Willow Flycatchers, Eastern Kingbirds, Yellow Warblers, Common Yellowthroats, and Song and Swamp sparrows. Baltimores and an occasional Orchard Oriole sing from the large trees along the river. In fall, look for Rusty Blackbirds and Fox Sparrows. Because high perches surround this low area, The Holt attracts Cooper's and Sharp-shinned hawks. Opposite The Holt, the reed line is quite narrow, allowing for good views of the lower pool. This is an excellent spot to watch swallows in spring and to scope for shorebirds in late summer. In spring, Pied-billed Grebes seem to like this area. A small island of buttonbushes in the lower impoundment is a favored perch for kingbirds and often hundreds of swallows. After the water level is drawn down in midsummer, mud flats are exposed along the east dike; look for breaks in the reeds through which to observe shorebirds, but please stay on the dike.

As the river swings back toward the east dike, the oxbow closes, and in winter Common Goldeneyes, mergansers, and Buffleheads are usually found in this stretch of river. Soon you will reach a bench where there is another rough trail to the river. As the dike trail reaches the east corner of the lower pool, it takes a sharp right bend and heads across the lower dike of the lower impoundment to the outflow of the impoundments and a small walking bridge matching the one on the main dike. Similarly, the water here often does not freeze and may be the first or last place to host a marsh wren. This narrower section of the lower pool feels remote, and waterfowl hide here as they do in the far west pools. Look up the drainage channel for furtive Wood Ducks or Hooded Mergansers. Listen carefully by the reeds to your left for a Least Bittern. On the other side of the dike is a muddy creek bed and wet thickets that are worth checking for Green Herons and yellowthroats. In migration the surrounding trees often host a Yellow-throated Vireo.

Timber Trail (.4 mile) and Edge Trail (.35 mile)

As you enter the woods you will see the refuge maintenance shop on your left. Here birders have several options: the Edge Trail on your right, and in another fifty feet, the Timber Trail to your left. Both trails are rough, rooted footpaths. The dike trail continues straight for a quarter-mile to intersect with the Reformatory Branch rail trail (part of the Bay Circuit trail), with large pines on the left and mature hardwoods on the



Blue-gray Gnatcatcher with nestlings.

right. If you are limited for time, continue on the dike trail, listening for Ovenbirds, pewees, Pine Warblers, and Red-breasted Nuthatches in the pines.

The Edge Trail, meanwhile, follows along the southeast edge of the lower pool. Stop at the bench area and scope the bays in the lower pool for partially hidden waterfowl. During early May the woods along the southern edges of the refuge often hold over a dozen species of warblers, and the Edge Trail meanders through the best of this habitat before joining the rail trail. During breeding season these woods are busy with woodpeckers, Great-crested Flycatchers, phoebes, and many blackbirds.

The Timber Trail, clearly marked with wooden trail signs and yellow plastic blazes, follows the edge of the pines (on your right) and parallels the wet woods on your left. In early spring check here for Palm and Yellow-rumped warblers (often the first place they are seen), and Brown Creepers are here through much of the year. Great Horned Owls often roost in the pines, and Cooper's Hawks nest here and hunt along the edges of the wet woods. Continuing down the trail you will enter deciduous woods as the trail ascends gently to an old wooden bench. This is a prime spot for Scarlet Tanagers, Ovenbird, kinglets, and migrant warblers. The trail descends to a fork where the Timber Trail continues to the right and back into the tall pines, where several pairs of Pine Warblers nest yearly. At another junction, the Timber Trail swings left and climbs gently to another bench before winding its way through a wet section back to the dike trail, where a set of signs will orient you.

Reformatory Branch Railbed (.4 mile)

The Reformatory Branch of the old Boston & Maine Railroad is a four-mile branch extending from the town of Bedford to Lowell Road in Concord. It was last used as a railroad in 1962 and is currently a popular but unimproved path for walkers, runners, and bicyclists. It forms a part of the Bay Circuit Trail. At the intersection, the refuge dike trail continues right. Spend some time at this birdy corner, particularly during spring migration, for it attracts migrant warblers and thrushes.

As you continue down the railbed toward the refuge entrance, look for openings from which to scan the bays of the lower impoundment. The best vantage point is a bench, midway along the trail, which allows a view of the channels behind an island of reeds, where shy ducks or migrant grebes often hide. In the surrounding trees look for Blue-gray Gnatcatchers and scan the forks of overhanging branches for their lichen-cup nests. Many birds nest in the successional trees growing at the edge of the lower pool, including Yellow Warblers and Willow Flycatchers. Down to your left are wet, shaded woods favored by thrushes throughout the year. On migration, Swainson's and Wood thrushes sing in these woods (an occasional Wood Thrush nests in this area), and during fall and winter a Hermit Thrush is a somewhat reliable find, as is Winter Wren in the wetter areas near upturned roots.

As you approach the metal gate near the entrance road, the Edge Trail continues on the right, dropping down into a dense thicket, a good place to look for warblers (Canada has been found here). Like the other half of the Edge Trail, it continues through a band of mature hardwoods preferred by Hairy and Red-bellied woodpeckers, Great Crested Flycatchers, and Eastern Wood-Pewees. The Edge Trail ends at the entrance road near the bathrooms. Alternatively, continue on the railbed past the locked metal gate to the access road, and turn right toward the bathroom area parking spots and the main parking lot. As the day warms, every visit to Great Meadows should conclude with a brief check at the tower for raptors. 🦅

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“Saturday, April 28th, 1866: Saw The First Chimney Swallow Today.¹” 150 Years Of Bird Observation In Western Cambridge

Michael W. Strohbach, Paige S. Warren, and Andrew Hrycyna

Introduction

In 2011, during the literature survey for a study on the impacts of small greening projects on birds in Boston (Strohbach et al. 2013), a paper caught our attention. It had been published almost 40 years before and it was called “Changes in Bird Life in Cambridge, Massachusetts From 1860 to 1964” (Walcott 1974). In the paper, the author Charles F. Walcott presents bird surveys from residential areas in western Cambridge that were started by the great naturalist and ornithologist William Brewster in the 1860s and that Walcott continued until the 1960s. When the observations began in the second half of the 19th century, western Cambridge still had a rural character, well reflected in the bird community. A century later, the area was densely built and the species community had almost completely changed and was much reduced in number.

With our Boston study, we tried to understand how changes to the urban landscape impacted birds, but as with most studies, we were limited to few observation years. Walcott and Brewster’s legacy provided us with insights into long-term urbanization processes, and we decided that if we repeated the survey in Cambridge, we could improve our understanding of how urbanization impacted birds over the course of 150 years. We seized that opportunity in 2012. The results we documented and published in Strohbach et al. (2014) shine light on a range of factors that have influenced birds in Cambridge since the 1860s, including urban development, land-use change, invasive species, range expansions, and pesticide spraying.

The story of this 150-year collaboration, however, starts with the Cambridge naturalists who made it possible.

William Brewster

William Brewster was born in 1851. From his childhood until his death in 1919, his life was devoted to birds. At age 10, he started to keep a diary with his observations (Brewster 1865; Henshaw 1920). His bird collection formed the foundations for the Harvard University ornithological collection. He founded the Nuttall Ornithological Club, was the co-founder of the American Ornithological Union, and authored approximately 300 papers (Henshaw 1920; Emmet 2007).

In his early years, William Brewster seemed an unlikely candidate for these achievements. His poor health did not allow for a college education and at times his eyesight was so bad that he was unable to read. After working for less than a year in the firm of his father, banker John Brewster, both father and son came to the conclusion that his interests lay elsewhere. It was then that William Brewster decided to devote his life to birds. Coming from a wealthy family allowed him to do so (Henshaw 1920).

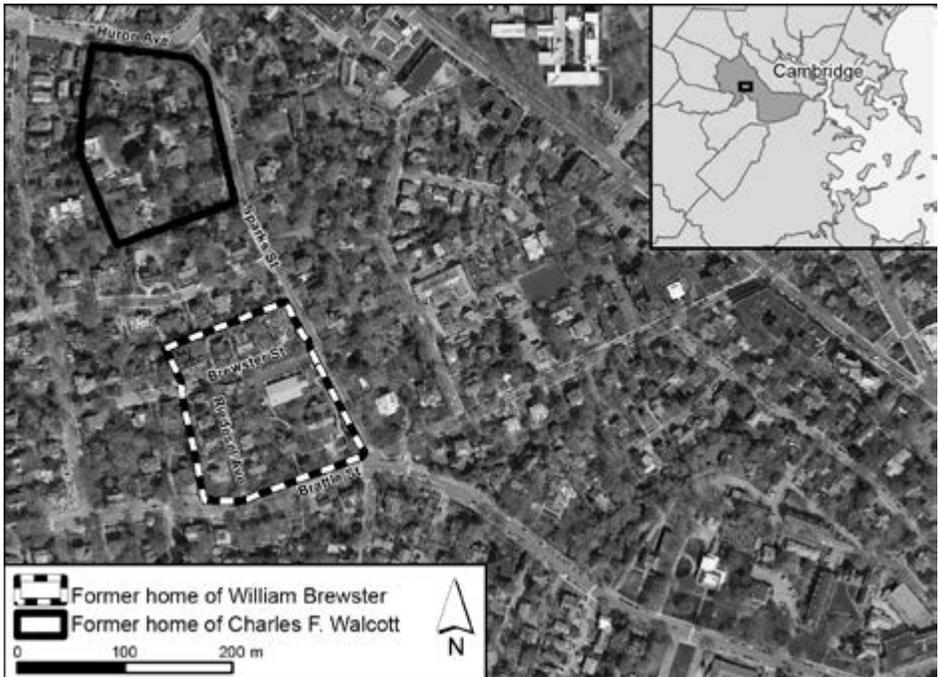


Figure 1. The location of the sites in Cambridge, Massachusetts. William Brewster’s home (dashed outline) was located on the corner of Brattle and Sparks Streets. Charles F. Walcott lived on the corner of Huron Avenue and Sparks Street (solid outline). Aerial photos from the City of Cambridge IT Department.

The foundations for his passion for birds were laid in his childhood. His father owned a copy of Audubon’s Octavo edition (the more affordable miniature version of *Birds of America* by John James Audubon). The father of his childhood friend Daniel Chester French owned a copy of Nuttall’s *Manual of the Ornithology of the United States and of Canada*. Brewster devoured these books. When Brewster was 10 years old, his father gave him a gun and taught him how to shoot. Around this same time, French’s father gave the boys their first lesson in taxidermy, a craft that Brewster would later master (Henshaw 1920; Emmet 2007). In that era and until the early 20th century, collecting birds and making study skins was famously the common method for studying birds.

Brewster always took notes on the birds he observed, whether he was traveling, visiting a farm he owned in Concord or his camp on Umbagog Lake in Maine, or at home on the property in Cambridge. He compiled two lists of the birds seen on his family property, “from the time of [his] earliest recollection” to 1873² and from 1900 to 1904 for his book *The Birds of the Cambridge Region of Massachusetts* (Brewster 1906). Brewster’s property was located on the corner of Sparks and Brattle Streets (Fig. 1). In 1845, his father had bought the estate that was known as the Riedesel mansion. It was named after F. A. Riedesel, a German general from Brunswick, who was held captive there together with his family from 1777 to 1778 (Riedesel and Riedesel 1801;



Figure 2. Typical New England landscape in the middle of the 19th century, represented by a diorama at the Fisher Museum, Harvard Forest, Petersham, MA. Source: Harvard Forest Archives, Harvard University.

Daughters of the American Revolution 1907; Henshaw 1920). In the 1860s, the large estate of more than 2 hectares (~6 acres) was located at the rural edge of Cambridge. The streets were lined with tall elms and linden trees. Behind the house, there was a flower and a vegetable garden; an orchard of apple, pear, and peach trees with berry bushes; mowing fields; and a horse and cow pasture. The neighboring estates were similar; open farmland stretched west to Fresh Pond and Concord Turnpike (Brewster 1906), a typical New England farming landscape in the middle of the 19th century (Fig. 2). The birds listed from his teenage days reflect a rich farmland bird community, with birds such as Eastern Bluebird, Eastern Kingbird, and Bobolink (Table 1). There was also more wetland than today. In total, Brewster recalls 26 nesting species on his property (Brewster 1906).

After 1873, Brewster's property, like much of the surrounding land was subdivided and built upon, and it lost its rural character (Fig. 3). This is well reflected in the birds he observed during that time. By 1904 the number of total nesting species dropped from 26 to 14 and several farmland specialists disappeared (Table 1). Nevertheless, Yellow-billed and Black-billed cuckoos, Yellow-throated and Red-eyed vireos, Yellow Warblers, and Chipping Sparrows were still nesting as they did in the 1860s. Although Brewster turned the orchard into a small woodland, to his regret it did not attract any typical woodland species.

After he inherited the estate in 1886, Brewster put great energy into cat-proofing the fence and creating a garden suited for birds. While he was successful in excluding cats, he could not keep out another alien species that arrived by 1878, the House Sparrow. In a passionate tone, Brewster refers to them as alien hordes and blamed much of the decline in native bird species that he observed during his lifetime on the sparrows (Brewster 1906).

After 1906 Brewster did not publish a compiled list of bird species of his property again, but he continued recording them in his diary. In fact, one of the last entries, recorded on June 1st 1919, concerns the birds in his garden. He observed two pairs of nesting robins, jays, crows, a flicker, House Sparrows “coming in hordes”, an oriole, one Red-eyed Vireo heard singing, and Bronzed (Common) Grackles (Brewster 1919). He died on July 11th, 1919.

Charles F. Walcott

A year before his death, Brewster published a note called “Nesting of the Red Crossbill in Essex County” where he wrote:

Our part of Cambridge is not without keen-eyed lads who devote spare hours to watching birds. To have them call on me every now and then with eager questioning or fresh report concerning things of local interest, is always pleasing and may also be instructive- as happened only the other day when Lovell Thompson and Charles F. Walcott came, bringing a nest of the Red Crossbill obtained by them last spring at Marblehead. (Brewster 1918)

This not only documents that Charles F. Walcott personally knew Brewster, but that Walcott, too, was interested in birds from an early age. Born in 1904, he was only about 14 years old when the incident recorded by Brewster took place. Like Brewster, Walcott carefully took notes of his observations, starting when he was only 11 years old (Charlie Walcott, Charles F. Walcott’s son, pers. comm.). Unlike Brewster, he did not make birds his profession. Instead, he became a physician and was a general practitioner in Cambridge from 1933 to 1968 (Boston Globe 1989). However, living and practicing in Cambridge, he had ready access to ornithologists. In fact, the ornithologist Ludlow Griscom was one of his patients according to his son (Charlie Walcott, pers. comm.). He knew Griscom from his membership in the Nuttall Ornithological Club, where he also met famous biologists and ornithologists including Ernst Mayr and Roger Tory Peterson.

Walcott lived on the corner of Huron Avenue and Sparks streets, just a few yards north from Brewster (Figure 1). In the 1940s his property was still less developed than Brewster’s was in 1900. It contained an apple and pear orchard, large shade trees and a tangle overgrown with bushes (Walcott 1953; 1959; 1974). The total species number Walcott observed in the 1940s was 16, two more than Brewster had last observed (Table 1). Again, the bird community had changed. The cuckoos, Yellow Warblers, and Chipping Sparrows were gone, and species associated with higher tree cover were observed nesting for the first time, e.g., Downy Woodpecker, Black-capped Chickadee, and Wood Thrush (Walcott 1974). Walcott lamented the evil effects of yet another



Figure 3. After 1873, Brewster’s property was subdivided. The photo taken between 1895 and 1905 on the former property shows the view from Riedesel Avenue toward Brewster Street. Source: Image Collection of the Cambridge Historical Society.

introduced species, the European Starling, and the widespread spraying of pesticides. Nevertheless, he finished with an optimistic note: “The downward curve seems to have leveled off, and there is reason to hope that it will begin to rise as more birds learn to adapt themselves to city life.” (Walcott 1953)

His observations for the 1950s and 1960s showed that he had been too optimistic (Table 1). The total breeding species number dropped to ten in the 1950s and nine in the 1960s. Red-eyed Vireo, House Wren, Wood Thrush, and Baltimore Oriole stopped breeding or disappeared. A new species was the Northern Cardinal, which by the 1960s had expanded its range to include southern New England. The area continued to face development and the widespread application of pesticides, first lead arsenate and later DDT and Sevin (Howard 1974; Walcott 1974). Targeted at insect pests such as gypsy moth or the bark beetles that spread the Dutch elm disease, the application of large quantities of pesticides also affected birds (Wallace et al. 1961). In an article for the *Harvard Crimson* in 1970, Oberle writes:

Charles F. Walcott, a retired physician and amateur ornithologist, recalls seeing three insect-eating species—the robin, hermit thrush, and flicker—in ‘typical DDT convulsions’ on his property off Sparks Street.” Oberle further quotes Walcott: “Once, every morning before dawn, there was a rolling chorus of robins. [...] [T]here has not been a robin chorus in Cambridge since 1951.

Charles F. Walcott moved to New Hampshire soon after his retirement in 1968 (Boston Globe 1989; Charlie Walcott, pers. comm.). By the time he died in 1989, the general attitude toward pesticides had changed, and tree spraying eventually stopped (K. Writer, Cambridge Parks and Forestry Division within the Department of Public Works, pers. comm.). Walcott probably was delighted.

The 2012 bird survey

In 2012, we conducted a focused survey of the two areas on six mornings between June 6th and July 12th. The method used was based on the Massachusetts Breeding Bird Atlas 2 and is described in Strohbach et al. (2014). Unlike Brewster and Walcott, who lived on the sites, we could only spend a fraction of the time that they did surveying birds. Thus, our species list cannot be considered to be exhaustive, but species accumulation curves suggest that most species that were present were observed (Strohbach et al. 2014). We found eight species breeding on Brewster's former property (Table 1), approximately 37% of which is covered by roads and houses, up from 28% at the time of the last sampling around 1900 (Strohbach et al. 2014). On Walcott's property, there has been minor housing development in the last 50 years; the area covered by houses and roads has increased from 19 to 24%. Over the same time period, tree canopy cover has increased from 49 to 55% (Strohbach et al. 2014). The count of breeding species is twelve, up from nine in the 1960s; the decline of species numbers observed for most of the first 100 years seems to have stopped. Taking a closer look, the community has again changed. Some species from the 1960s were neither recorded as transient nor nesting in 2012, but most are still reported for Cambridge during the breeding season. This includes Common Nighthawk, Wood Thrush, and Song Sparrow (eBird 2013). A bird that was last found in the 1960s and that has disappeared from the wider area is the Purple Finch (Mass Audubon 2013). Species first recorded nesting in this series of surveys in 2012 were Mourning Dove, Carolina Wren, and House Finch.

150 years of change

Only three bird species were consistently found nesting in the study area throughout the last 150 years: Blue Jay, American Robin, and Gray Catbird. Otherwise, the avian community has continually changed. In the 1860s, it resembled a farmland community with many insectivores, e.g., Eastern Kingbird, Eastern Bluebird, and Bobolink. In the 1940s, it contained the most woodland species, e.g., Downy Woodpecker, Black-capped Chickadee, and Wood Thrush. As the number of species declined over the decades, the avian community increasingly became composed of generalists and birds commonly found at birdfeeders, e.g., Mourning Dove, Northern Cardinal, and introduced species, e.g., European Starling, House Finch, House Sparrow.

The main factors behind species change in western Cambridge are habitat change and habitat loss, invasive species, pesticide spraying, and range expansions (Strohbach et al. 2014). Habitat loss and change was probably the main force behind the disappearance of farmland species in the second half of 19th century. The increase of tree age and tree cover contributed to the appearance of woodland species by the

Table 1. The bird species observed by Brewster (1906) in 1860-73 and 1900-04; Walcott (1974) in 1940-43, 1953-55, and 1960-64; and by Strohbach et al. (2014) in 2012 at Brewster's (Site A) and Walcott's (Site B) former properties (c.f. Fig. 1). Nesting species are marked with N, transients species with T.

Species	1860-1873	1900-1904	1940-1943	1953-1955	1960-1964	Site A	Site B
<i>Buteo jamaicensis</i> (Red-tailed Hawk)						T	
<i>Zenaidra macroura</i> (Mourning Dove)						T	N
<i>Coccyzus americanus</i> (Yellow-billed Cuckoo)	N	N					
<i>Coccyzus erythrophthalmus</i> (Black-billed Cuckoo)	N	N					
<i>Megascops asio</i> (Eastern Screech-Owl)		T	N				
<i>Chordeiles minor</i> (Common Nighthawk)			T	T	T		
<i>Chaetura pelagica</i> (Chimney Swift)	N	T	N	N	T	T	T
<i>Archilochus colubris</i> (Ruby-throated Hummingbird)	T	T					
<i>Picoides pubescens</i> (Downy Woodpecker)			N	T	T	N	T
<i>Colaptes auratus</i> (Northern Flicker)	N	N	N	N	T		T
<i>Falco sparverius</i> (American Kestrel)			N	T	T		
<i>Contopus virens</i> (Eastern Wood-Pewee)	N		T				
<i>Empidonax minimus</i> (Least Flycatcher)	N	T					
<i>Tyrannus tyrannus</i> (Eastern Kingbird)	N		T	T			
<i>Vireo flavifrons</i> (Yellow-throated Vireo)	N	N					
<i>Vireo gilvus</i> (Warbling Vireo)	N	T					
<i>Vireo olivaceus</i> (Red-eyed Vireo)	N	N	N	T	T		
<i>Cyanocitta cristata</i> (Blue Jay)	N	N	N	N	N	N	N
<i>Corvus brachyrhynchos</i> (American Crow)		T	N	N	N		
<i>Tachycineta bicolor</i> (Tree Swallow)	N						
<i>Hirundo rustica</i> (Barn Swallow)	T						
<i>Poecile atricapillus</i> (Black-capped Chickadee)			N	N	N	N	N
<i>Baeolophus bicolor</i> (Tufted Titmouse)						T	T
<i>Sitta carolinensis</i> (White-breasted Nuthatch)			T	T		N	N
<i>Troglodytes aedon</i> (House Wren)	N		N				
<i>Thryothorus ludovicianus</i> (Carolina Wren)						T	N
<i>Sialia sialis</i> (Eastern Bluebird)	N						
<i>Hylocichla mustelina</i> (Wood Thrush)			N	N	T		
<i>Turdus migratorius</i> (American Robin)	N	N	N	N	N	N	N
<i>Dumetella carolinensis</i> (Gray Catbird)	N	N	N	N	N		N
<i>Mimus polyglottos</i> (Northern Mockingbird)						T	
<i>Sturnus vulgaris</i> (European Starling)			N	N	N	N	T
<i>Bombycilla cedrorum</i> (Cedar Waxwing)	N	T	T	T	T	T	
<i>Setophaga ruticilla</i> (American Redstart)		N					
<i>Setophaga petechia</i> (Yellow Warbler)	N	N					

Species	1860-1873	1900-1904	1940-1943	1953-1955	1960-1964	Site A	Site B
<i>Spizella passerina</i> (Chipping Sparrow)	N	N					
<i>Melospiza melodia</i> (Song Sparrow)	N		T		T		
<i>Cardinalis cardinalis</i> (Northern Cardinal)					N	N	N
<i>Pheucticus ludovicianus</i> (Rose-breasted Grosbeak)		N					
<i>Passerina cyanea</i> (Indigo Bunting)	N						
<i>Dolichonyx oryzivorus</i> (Bobolink)	N						
<i>Quiscalus quiscula</i> (Common Grackle)	T	T	T	T	T	T	N
<i>Molothrus ater</i> (Brown-headed Cowbird)	N						
<i>Icterus galbula</i> (Baltimore Oriole)	N	N	N		T	T	T
<i>Haemorhous mexicanus</i> (House Finch)						T	N
<i>Haemorhous purpureus</i> (Purple Finch)	N	T	T		N		
<i>Spinus tristis</i> (American Goldfinch)	N	T	T	T	T		N
<i>Passer domesticus</i> (House Sparrow)		N	N	N	N	N	N

middle of the 20th century. Invasive species certainly impacted native species—circa 1870s House Sparrow, circa 1910s European Starling, circa 1960s House Finch (Brewster 1906; Townsend 1920; Badyaev et al. 2012)—but with the exception of the Purple Finch, it is unlikely that they were the single cause of species loss (Gurevitch and Padilla 2004; Koenig 2003). It is more likely that these competitors accelerated the loss of species already under pressure from habitat change, e.g., Tree Swallow and Eastern Bluebird. However, the decline of the Purple Finch is probably directly caused by the introduced House Finch (Wootton 1996), and, indeed, we observed nesting House Finches in 2012.

A subtle signal of habitat loss can be seen by considering a trio of species still commonly found nesting at Fresh Pond Reservation less than a mile away from Brewster’s home: Warbling Vireo, Tree Swallow, and Yellow Warbler (Hrycyna 2013). All were present in the study sites in Brewster’s youth, and all absent in the 20th century. Why? The reason may be found in the history of massive filling of wetlands that happened west and north of Brewster’s house in the late 1800s (Sinclair 2009). Warbling Vireo, Tree Swallow, and Yellow Warbler are all loosely associated with water; indeed, old historical maps show swampy areas and small ponds just west of Brewster’s home. Where wet places, e.g., Fresh Pond—and presumably insect densities and nesting sites associated with them—have changed less, these species persist (Hrycyna 2013). Relevant habitat change in Cambridge included not only the reforestation of farmland, but landfill on a large scale. And we can read this history of land-use change in the community of nesting birds almost square mile by square mile.

Pesticide spraying, with the aforementioned negative effects on birds, was an influence throughout much of the 20th century, but has not been carried out for decades (K. Writer, Cambridge Parks and Forestry Division within the Dept. of Public Works, pers. comm.). The decline of breeding pairs of robins until the 1960s and their increase



Yellow Warbler is one of the species no longer found in the survey sites.

(Photograph by Sandy Selesky).

in our 2012 bird count probably reflects these changes in pesticide use (Strohbach et al. 2014). The factors behind the range expansions of Mourning Dove, Tufted Titmouse, Carolina Wren, and Northern Cardinal are not fully understood, but they include a warmer climate and the ability to use food resources offered in human settlements, like feeders (Beddall 1963).

What is natural in western Cambridge?

The current community of birds inhabiting western Cambridge would be unfamiliar to William Brewster, as would be the sprawling Boston Metro Area.

But unfamiliar, too, would be the thick, second-growth forests of modern New England. Brewster probably considered the species-rich farmland he experienced around Cambridge in his youth as a benchmark against which he evaluated the changes he observed. In 1906, he wrote of the area around Lexington:

The land here is still very generally in the hands of the farmers, and the landscape, although devoid of striking or unusual features, is very pleasing by reasons of its simple, rural beauty. [...] the artificial objects in the landscape [...] have almost perfectly harmonized with their natural surroundings. (Brewster 1906)

Walcott probably shared this view, as he considered the open, park-like Fresh Pond Reservation as “natural habitat preserved from housing and exempt from insect spraying” (Walcott 1974). This cultural perspective is still common in western Europe, where traditional farmlands have great conservation value (Martin et al. 2012).

In contrast, in North America today, the benchmark of a natural landscape—for ecologists and laypeople alike—is non-farmland (Martin et al. 2012), which in the Northeast is forest. An abandoned cultivated field in New England will eventually turn into forest in a series of well-understood successional stages (Hall et al. 2003). By percentage of land-use, Massachusetts has a much higher forest cover today than in the second half of the 19th century (Hall et al. 2003). The absence of Downy Woodpeckers and Black-capped Chickadees from Brewster’s land in the 1860s was, in a way, a sign of a landscape massively disrupted by people.

However, generalizations about what is most natural are difficult. The forests of today are different from the ones cleared by European settlers in the 17th century. Those forests, in turn, had been shaped by land-use practices of Native Americans (Cronon 1983). Even if farmland remained today, the bird communities would probably differ from those in Brewster’s time, because agricultural practices have changed and invasive species such as European Starlings and House Sparrows have become established.

Brewster and Walcott’s careful observations give us a window of insight into the shifting baselines we all experience but often don’t realize. Or as Hinsley et al. (2012) put it: “As we change the landscape, the birds will inevitably change, which presents the problem of how to evaluate the consequences.” Today, we are probably better equipped than ever to foresee the consequences of land-use change for birds and to intervene in their favor even in cities (Sneep and Opdam 2010; Shannahan et al. 2014). Nevertheless, future bird surveys at the former homes of William Brewster and Charles F. Walcott will probably still be full of surprises.

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Endnotes

1. From the diary of William Brewster, April 28th, 1866 (Brewster 1866). The name Chimney Swallow for Chimney Swift was still common.
2. Interestingly, Walcott (1974) dates Brewster’s first observation period to 1860, even though Brewster does not mention a particular year. His diaries, held by the Ernst Mayr Library of the Museum of Comparative Zoology at Harvard University, span the years 1865 to 1919, so the period of 1865 to 1873 is probably more likely for his first species list.

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New Massachusetts Big Day Record

Ian Davies



The team listening for nocturnal migrants at 3 am at Pittsfield. Left to right: Peter Trimble, Vern Laux, Luke Seitz, Ian Davies. (Photograph courtesy of the author).

Editor's Note: This article is reprinted from Ian Davies' blog *Birding Across the World* (<http://birdingacrosstheglobe.blogspot.com/>) from May 26, 2014.

On May 24, 2014, a group of four crazed birders set off for an attempt at the Massachusetts Big Day record and succeeded, ending the day with a total of 195 species. Our intrepid team consisted of Luke Seitz, Peter Trimble, Vern Laux, and me. Starting in the Berkshires and ending on Cape Cod via Plum Island, our plan was dubbed “MAdness” by Jacob Drucker—a fitting name I think! We drove slightly over 600 miles, with our primary goal of getting 200 species. Although we fell short of the 200 mark, we managed to surpass the prior record of 193 by only two species! I have not the slightest doubt that 200 is achievable, and I believe that 210 is an attainable total with a lot of planning and a little luck.

We had some unfortunate misses, as always happens—Winter Wren, Cliff Swallow, Lesser Yellowlegs, Eastern Screech-Owl—but also had some completely unexpected species to partially make up for that—Black-legged Kittiwake, Red-necked Phalarope, Yellow-crowned Night-Heron.

We originally planned to run the Big Day on Thursday, May 22, but weather precluded an attempt on either the 22nd or 23rd—leaving us with the only option of the Saturday of Memorial Day weekend. It turned out that traffic was not an issue aside

from a couple of slow stretches through Boston—a pleasant surprise. At both midnights of our Big Day it was drizzling, which might have been a factor in our surprising miss of Screech-Owl, but surely contributed to some of the nice flight calls we heard the first night.

There was definitely no way that this total could have been reached without some prior scouting, part of which was carried out by team members. Invaluable assistance was also given for the eastern part of the state by Ryan Schain and Tim Spahr; and for the Berkshires and Amherst area by Rene Wendell, Larry Therrien, Jonathan Pierce, Steve Motyl, Gael Hurley, and last but not least, Ed Neumuth. Our thanks to all of you! Ed also provided delicious pasta and warm beds the evening before and for scouting in weeks prior, along with his bottomless knowledge of October Mountain State Forest—there is definitely no way that we could have done this without him.

One of the most enjoyable parts about the Big Day for me—aside from the birds—is the scouting and planning aspect. You get to take knowledge of habitats and distribution in the state, use it to locate birds, and then string all the locations together into a coherent route that maximizes the potential. Then at the end you get to spend a whirlwind day trying to execute your planned-to-the minute-birding extravaganza, and just hope that the feathery fellows cooperate.

At 10:45 on Friday evening, we left Ed's house replete with caffeinated beverages and ready to go. Most of the ride to the southwestern corner of the state was through drizzle and light rain, which may have ultimately been a blessing to our predawn efforts. Midnight found us near a Sandhill Crane nesting location, where in our brief midnight vigil we heard no birds calling from the natal marsh—perhaps a factor of the rain. Off to our next spot, a Black Vulture roost that is used only half of the time, where we also came up as empty as the branches of the roost tree. However, here we started picking up our first nocturnal migrants, which were moving at lower elevations due to the inclement weather. Swainson's and Gray-cheeked thrushes helped make up for the lack of vultures and cranes so early on. Our next couple of stops for Eastern Screech-Owl came up short, and this was a bird we would ultimately miss! Making up for the lack of Screech-Owl was a completely unexpected Long-eared Owl hoot heard twice (!) coming from the depths of a swampy riverine area in Sheffield. Flight calls were still pumping overhead too, and we got Canada and Black-throated Blue warblers, Ovenbird, Common Yellowthroat, and American Redstart under our belts before 1:00 am.

Heading north along Route 7 to the Stockbridge area, we stopped at an extensive marsh complex, the only spot where Pied-billed Grebe has been out west this year. In 20 minutes of listening at the edge of the marsh we picked up the grebe, a Great Horned Owl, and a fantastic cuckoo flight overhead—with 13 Black-bill and a single Yellow-bill tallied in this short period! Excited at the prospect of picking up more nocturnal migrants, we continued heading north toward Pittsfield with high hopes for good listening conditions under the lights downtown. A stop at a wonderful marsh in Lenox provided Common Gallinule, Sora, Virginia Rail, and Barred Owl, but not the hoped-for Least Bittern or Solitary Sandpiper.

Once in Pittsfield, we stopped right in the middle of downtown (not too crowded at 3:00 am), where we heard more Swainson's and a second Gray-cheeked thrush, but no Common Nighthawks or other desired species. The movement overhead wasn't nearly as impressive here as it had been farther south, and one of the major strategy regrets of mine for the day was not finding a well-lit place near Great Barrington to listen for birds. Departing here, we stopped at a small lake to pick up Common Merganser, visible on the water in the ambient light. After a last nocturnal listening effort, which included some amusing conversation with a mall cop and the local police force, we ascended to Washington and the wonderful October Mountain State Forest.

Bouncing along dirt roads in the predawn blackness, we arrived around 4:00 am at a spot for Northern Saw-whet Owl, which cooperated nicely for us. The Whip-poor-will that had been around for the past three to four days was notably absent, but before dawn broke we picked up winnowing Wilson's Snipe, a few more Barred Owls, and American Woodcock. All of this was still in moderate fog and occasional drizzle, so we were lucky that species like the Saw-whet were calling.

As the clock neared 5:00, dawn chorus reluctantly began to greet the gray, damp dawn. This is definitely the most exciting time of any Big Day, and we quickly began to add quality birds—American Bittern, Mourning Warbler, Ruffed Grouse, spruce groves with Golden-crowned Kinglet, Blackburnian Warbler, Red-breasted Nuthatch, Pileated Woodpecker, and much more. A quick visit to a Broad-winged Hawk nest that I had found earlier this month resulted in my complete inability to locate the nest tree, even though I'd seen it as recently as Wednesday. This boneheaded move cost us a few precious minutes of dawn, but we quickly made them back as we heard various species out of the car window as we drove, cutting out future stops for species like Brown Creeper, Purple Finch, and Nashville Warbler. Most fortunately, we had a Broad-winged Hawk calling, salvaging my nest snafu.

After about 30 minutes of daylight, the only expected species we still needed from this area were Dark-eyed Junco (Slate-colored), Winter Wren, and Common Raven. Departing the forest, we picked up the junco, but left the wren and raven on the table for the moment (and we would never get the wren). A quick visit to a nearby beaver swamp got Hooded Merganser and Wood Duck, with an Eastern Wood-Pewee heard from out the window on the drive, adeptly picked out by Peter. Nearby, a stop at Ed's house got us Ruby-throated Hummingbird, and the Louisiana Waterthrush cooperated perfectly down the street.

Running slightly ahead of schedule, we began to head east, stopping briefly for Alder Flycatcher and a couple more fruitless attempts at Winter Wren. We even drove through Peru, but the mountains of Peru left something to be desired—not nearly as much cloud forest as we were hoping for, with fewer South American specialties. Arriving at our second Sandhill Crane location, this one in Worthington, we were dismayed to find the crane fields empty and quiet. This wasn't helped by the friendly comment of a lady walking past that "the cranes were calling all last night!" We still got a few good species here, with Luke picking out a nice Tennessee Warbler that was joined by Cedar Waxwing and Eastern Bluebird.



One of the big surprises of the day, a Red-necked Phalarope, helped boost the team to their final total of 195. (Photograph by Ian Davies taken in the Arctic National Wildlife Refuge in Alaska).

Descending into the Connecticut River Valley, a quick stop at the Northampton-Hadley bridge did not feature the desired Peregrine Falcon, but nearby fields in Hadley were quite productive, with Bald Eagle, Orchard Oriole, Vesper Sparrow, Brown Thrasher, and our only Spotted Sandpipers of the day. Heading south along the east side of the Connecticut River, a brief stop at the base of Skinner State Park got Worm-eating Warbler, complemented nicely by a Blackpoll Warbler along the road nearby. Running right on time, we arrived at Westover Air Force Base around 8:00 am and were treated to the most perfect grassland experience you could hope for on a Big Day. Upon arrival, in the first 20 seconds we had Grasshopper and Savannah sparrows and Eastern Meadowlark singing, followed almost immediately by a couple of Upland Sandpipers and an American Kestrel—the entire birding experience took about four minutes, and we hit the road for the North Shore ahead of schedule and in high spirits!

The drive helped our raptor list with numerous Red-tailed Hawks, Turkey Vultures, and a distant and poor view of Peregrine Falcon on the People's Bank in Worcester. We also had a Common Raven flyover on Interstate 495—a clutch flyby and our only raven of the day. Arriving in West Newbury, we quickly picked up Yellow-throated Vireo, Ruddy Duck, and Blue-gray Gnatcatcher, but our Ring-necked Pheasant wasn't calling like he should have been!

Moving east toward Plum Island, we had one our most disheartening stops of the day, where the four Cliff Swallow nests on the underside of the Hanover Street Bridge in Newburyport seemed to have no tenants—resulting in one of our more foolish misses of the day. After a quick and unproductive spin through Oak Hill Cemetery and our gas stop for the day, we were off to Plum Island. We had many species of waterfowl staked out that had been present in days prior, as well as high hopes for shorebirds and landbird migrants, but Plum Island had other plans for us. From the entrance through Hellcat, there was no sign of the wigeon, pintail, or Green-winged Teal, no Northern Harrier, new songbird migrants, or Lesser Yellowlegs. Hellcat did provide a Blue-winged Teal in Bill Forward Pool, but almost nothing else. Against our better judgment, we went down to Stage Island Pool to try for Least Bittern and maybe a Lesser Yellowlegs in the marsh, but had no luck there, either. When we returned

north, another quick check of Bill Forward Pool yielded no new dabbling ducks, but a Short-billed Dowitcher here would turn out to be our only one of the day. A quick look off Lot 1 added Purple Martin in the parking lot and Roseate Tern (nice pick Luke!) in addition to Piping Plover and healthy numbers of Long-tailed Ducks.

Leaving Plum, we checked Newburyport Harbor by Joppa Flats, where our other chance at pheasant came up empty—our consolation prizes being Green Heron, Brant, and Bonaparte's Gull in the harbor. Another brief visit to the Hanover Street bridge cemented our miss of Cliff Swallow. In lower spirits after missing so many staked-out birds, we were elated to have a male Wilson's Phalarope at Pikul's Farm on Route 1A—the perfect morale booster just when we needed it. Since we were running slightly behind schedule, a spot in Ipswich had to be cut to keep us on course, making our next destination Kettle Island.

Rather than check marshes in the hopes of Glossy Ibis and Little Blue Heron, we had decided to go straight to the source—Kettle Island! Although adding a bit of drive time, this paid off, with both the ibis and heron seen in flight over the island within several minutes of scanning. We also picked up Great Crested Flycatcher calling (finally!), and were trying to downplay the fact that we still needed Northern Flicker—a truly impressive miss at this point in the game.

One of the most worrisome parts of the day, for me at least, was going through the Boston area. One accident or road/lane closure and traffic could put the kibosh on a lot of the remaining birding. We lucked out this time, and a quick stop at Revere Beach got us Manx Shearwater, a single bird spotted in flight by Vern just as we were about to pack up and leave!

South of the city we hit small pockets of slow traffic, but nothing apocalyptic, resulting in our arrival at Plymouth Airport about 15 minutes behind schedule. We quickly picked up our three targets here—Prairie Warbler, Field Sparrow, and Horned Lark—and were off to Manomet. Manomet Point provided Great Cormorant, Black Scoter, Red-breasted Merganser, and Northern Gannet, but no Purple Sandpipers. A quick stop nearby at my yard provided one of the most gratifying experiences of the day—a flicker rocketing across a pond directly at us, saving the embarrassment of missing that.

On the way to our next stop, Cape Cod, we nabbed Fish Crow and a wonderful Cooper's Hawk along Route 3A in Manomet, and proceeded to have an entirely traffic-less drive to Harwich. Here we had flashbacks to Plum Island, as our staked-out Greater Scaup and Green-winged Teal of Peter's had vanished, leaving us with no new species added in our first couple of stops. At this point, we knew we were within reach of the record, so these two misses really hurt. However, we had no idea what wonders we had in store for us in Chatham.

Cowyard Lane was fairly good, giving us a good slug of new shorebirds, but there were no Red Knots or White-rumped Sandpipers, the latter species being one we would ultimately miss. Next stop was Chatham Light, and this is where it really got

fun. Between fielding questions about what we were looking at, we quickly spotted Lesser Black-backed Gull on the beach; but with no sign of the Iceland and Glaucous that had been around, we were getting nervous. About a minute later, Luke called out, “Small gull coming straight toward us far out over the breakers, get on this!” As the bird got closer, it banked once, showing us the beautiful mantle pattern of a young Black-legged Kittiwake! I guess the northeast winds helped us out. Following this, Vern had a Parasitic Jaeger chasing terns, and I picked up a small shorebird far offshore, heading north low to the waves with erratic flight—eventually coming close enough to show itself as a Red-necked Phalarope! With these bonus birds under our belt, we headed to Morris Island, with the tide perfect for shorebirds.

Viewing off the south side of the island, we were treated to an amazing spectacle of tens of thousands of birds spread out along the flats of South Beach and North Monomoy Island, from carpets of gulls, shorebirds, and cormorants to a massive vortex of terns over South Monomoy Island. Here, we finally got a remaining staked-out duck in the form of a male Lesser Scaup that was hanging out with scoter. The thousands of gulls on the flats gave up at least one Iceland, but we couldn’t find a Glaucous. Northern Harrier over South Beach made up for missing it on Plum Island, and another Parasitic Jaeger ruining the evening of many a tern allowed all of us to get on that species. We got Red Knot in a flock of Black-bellied Plovers on South Beach, and then came the final crowning moment of the day—a Yellow-crowned Night-Heron departing North Monomoy with a small group of Black-crowneds at dusk!

With about 40 minutes before sunset, we left Morris Island at what we thought was 189 species. A quick stop north of the Morris Island Causeway got us Northern Bobwhite for 190, but no sign of the Tricolored Herons that were so regular a couple weeks ago. We made the perhaps foolhardy decision to try to make it to Coast Guard Beach before sunset to try to get Lesser Yellowlegs and White-rumped Sandpiper. No sign of Common Nighthawk on the drive up, and once we arrived the flats were already covered, signaling defeat on the shorebird front. A scan of distant gulls turned up another Iceland picked out by Luke, but no Glaucous here either. We admitted defeat for daytime birds, and headed to Wellfleet for Clapper Rail.



The go-ahead bird, Red-shouldered Hawk, eluded the team during the day, but not at night! (Photograph by Ian Davies, taken in Manomet several years ago.)

Arriving at the Herring River marshes, we negotiated a seriously bumpy and narrow road; and getting there at dusk, immediately picked up Whip-poor-will and Clapper Rail for 191 and 192. With good chances for Eastern Screech-Owl and Chuck-will's-widow, as well as a Red-shouldered Hawk nest, we felt pretty good about getting at least two more species. However, a stop in Orleans for Chuck-will's-widow was conspicuously silent, casting a grim silence over the car as we drove back to the Falmouth area for another Chuck, and a shot at Screech and the hawk nest.

No dice at our first Screech spot, but we collectively breathed a sigh of relief that the Red-shoulder was on its nest and visible—193. Next stop was for a second Chuck-will's-widow, and we still had a third spot to try if need be. We pulled up at the spot at around 10:30 pm, and immediately upon shutting the car off, heard the Chuck singing away for species 194! Happy but barely conscious, we headed back to Manomet to try two more spots for Screech, but in the drizzle we got no response from what are usually reliable birds. At this point we had 20 minutes left, but our collective mental presence could no longer power us to go check a couple of other spots for Screech, so we happily passed out instead.

You might have noticed that I had listed the Chuck as only 194 above. Upon checking the tally again the following day, we realized that the Long-eared Owl had not been factored into the 194 count, bringing the total up to 195! I had left the numbers as we thought they were in the field, since we were hanging on every new bird at the time.

Although we didn't achieve 200 species, it was still a wonderful day! The real deal breaker was Plum Island, which had potential for as many as 10 species that we did not encounter there. Missing species like Winter Wren and Cliff Swallow, which should be locks, did not help either. I think that with some route tweaking, lingering waterfowl that don't leave unexpectedly, and a good migration event, 210 or even 215 is possible. But first we need 200—a great project for next year! ♣

Ian Davies lives in Plymouth and has been actively birding in Massachusetts for almost 10 years, after being introduced to the world of birds by a Canada Warbler in hand at the Manomet Bird Observatory. Travels to 22 countries have allowed him to see almost one third of the world's bird species, but he still finds it hard to beat a nice migration day along the coast in Massachusetts.

BIG MISSES

Sandhill Crane
Solitary Sandpiper
Lesser Yellowlegs
Eastern Screech-Owl
Cliff Swallow
Winter Wren
Wilson's Warbler

OTHER EXPECTED SPECIES MISSED

Eurasian Wigeon
American Wigeon
Green-winged Teal
Northern Pintail
Greater Scaup

Ring-necked Pheasant
Sooty Shearwater
Least Bittern
Tricolored Heron
Black Vulture
Sharp-shinned Hawk
White-rumped Sandpiper
Glaucous Gull
Common Nighthawk
Merlin
Yellow-bellied Flycatcher
Hooded Warbler
Cape May Warbler
Bay-breasted Warbler
Lincoln's Sparrow

MAY 24, 2014 SPECIES LIST (195)

The numbers after the species denote coded rarity – where 1 = easy, 2 = missable, 3 = tough, 4 = very hard, and 5 = species not even factored into planning.

Brant	2	Wilson's Snipe	2	Carolina Wren	1
Canada Goose	1	American Woodcock	1	Blue-gray Gnatcatcher	2
Mute Swan	1	Wilson's Phalarope	4	Golden-crowned Kinglet	1
Wood Duck	2	Red-necked Phalarope	5	Eastern Bluebird	2
Gadwall	2	Parasitic Jaeger	3	Veery	1
American Black Duck	1	Black-legged Kittiwake	5	Gray-cheeked Thrush	3
Mallard	1	Bonaparte's Gull	2	Swainson's Thrush	2
Blue-winged Teal	3	Laughing Gull	1	Hermit Thrush	1
Lesser Scaup	3	Ring-billed Gull	1	Wood Thrush	1
Common Eider	1	Herring Gull	1	American Robin	1
Surf Scoter	2	Iceland Gull	3	Gray Catbird	1
White-winged Scoter	2	Lesser Black-backed Gull	3	Brown Thrasher	2
Black Scoter	2	Great Black-backed Gull	1	Northern Mockingbird	1
Long-tailed Duck	2	Least Tern	1	European Starling	1
Hooded Merganser	2	Roseate Tern	3	Cedar Waxwing	2
Common Merganser	2	Common Tern	1	Ovenbird	1
Red-breasted Merganser	1	Rock Pigeon	1	Worm-eating Warbler	2
Ruddy Duck	3	Mourning Dove	1	Louisiana Waterthrush	2
Northern Bobwhite	3	Yellow-billed Cuckoo	3	Northern Waterthrush	1
Ruffed Grouse	1	Black-billed Cuckoo	3	Blue-winged Warbler	2
Wild Turkey	2	Great Horned Owl	2	Black-and-white Warbler	1
Red-throated Loon	2	Barred Owl	1	Tennessee Warbler	3
Common Loon	1	Long-eared Owl	4	Nashville Warbler	2
Pied-billed Grebe	3	Northern Saw-whet Owl	2	Mourning Warbler	3
Manx Shearwater	2	Chuck-will's-widow	2	Common Yellowthroat	1
Northern Gannet	2	Eastern Whip-poor-will	1	American Redstart	1
Double-crested Cormorant	1	Chimney Swift	1	Northern Parula	2
Great Cormorant	2	Ruby-throated Hummingbird	2	Magnolia Warbler	1
American Bittern	1	Belted Kingfisher	2	Blackburnian Warbler	1
Great Blue Heron	1	Red-bellied Woodpecker	1	Yellow Warbler	1
Great Egret	1	Yellow-bellied Sapsucker	1	Chestnut-sided Warbler	1
Snowy Egret	1	Downy Woodpecker	1	Blackpoll Warbler	2
Little Blue Heron	3	Hairy Woodpecker	2	Black-throated Blue Warbler	1
Green Heron	2	Northern Flicker	1	Pine Warbler	1
Black-crowned Night-Heron	2	Pileated Woodpecker	2	Yellow-rumped Warbler	1
Yellow-crowned Night-Heron	5	American Kestrel	2	Prairie Warbler	2
Glossy Ibis	2	Peregrine Falcon	2	Black-throated Green Warbler	1
Turkey Vulture	1	Eastern Wood-Pewee	1	Canada Warbler	2
Osprey	1	Alder Flycatcher	1	Eastern Towhee	1
Bald Eagle	2	Willow Flycatcher	1	Chipping Sparrow	1
Northern Harrier	3	Least Flycatcher	1	Field Sparrow	1
Cooper's Hawk	2	Eastern Phoebe	1	Vesper Sparrow	2
Red-shouldered Hawk	2	Great Crested Flycatcher	1	Savannah Sparrow	1
Broad-winged Hawk	2	Eastern Kingbird	1	Grasshopper Sparrow	2
Red-tailed Hawk	1	Yellow-throated Vireo	2	Saltmarsh Sparrow	2
Clapper Rail	3	Blue-headed Vireo	1	Seaside Sparrow	3
Virginia Rail	1	Warbling Vireo	2	Song Sparrow	1
Sora	2	Red-eyed Vireo	1	Swamp Sparrow	1
Common Gallinule	2	Blue Jay	1	White-throated Sparrow	1
American Oystercatcher	2	American Crow	1	Dark-eyed Junco	1
Black-bellied Plover	1	Fish Crow	2	Scarlet Tanager	1
Semipalmated Plover	1	Common Raven	2	Northern Cardinal	1
Piping Plover	2	Horned Lark	2	Rose-breasted Grosbeak	2
Killdeer	1	Purple Martin	2	Indigo Bunting	2
Spotted Sandpiper	2	Tree Swallow	1	Bobolink	1
Greater Yellowlegs	1	Northern Rough-winged Swallow	1	Red-winged Blackbird	1
Willet	1	Bank Swallow	1	Eastern Meadowlark	2
Upland Sandpiper	2	Barn Swallow	1	Common Grackle	1
Ruddy Turnstone	1	Black-capped Chickadee	1	Brown-headed Cowbird	1
Red Knot	3	Tufted Titmouse	1	Orchard Oriole	2
Sanderling	2	Red-breasted Nuthatch	2	Baltimore Oriole	1
Dunlin	1	White-breasted Nuthatch	1	House Finch	1
Least Sandpiper	2	Brown Creeper	2	Purple Finch	2
Semipalmated Sandpiper	1	House Wren	1	American Goldfinch	1
Short-billed Dowitcher	2	Marsh Wren	1	House Sparrow	1

PHOTO ESSAY

Mini-Pelagic East of Chatham, June 28, 2014

Photographs by Peter Flood

Organized by Blair Nikula and led by Blair or by Peter Flood, mini-pelagic birding trips aboard Captain Ken Eldredge's Kittiwake, a 32-foot charter fishing boat, head 5–10 miles east of Chatham, Massachusetts, in search of seabirds and whales. The June 28th trip, on a perfect Cape Cod summer morning, provided close encounters with 15 bird species—including all four shearwaters, Northern Fulmars, Wilson's Storm-Petrels, Northern Gannets, Parasitic Jaegers (see page 229), and a "bridled" Common Murre—as well as with minke, fin, and humpback whales. For more information, go to <http://capecodbirds.org/chatham-pelagics> and <http://www.familyfishingfun.net/bird-watching.asp>.



Cory's Shearwater (left) and Greater Shearwater (right).



Sooty Shearwater.



Common Murre.



Northern Fulmar.

FIELD NOTES

Pileated Woodpecker Harassed by a Pair of Crows

Reported by Brandi Van Roo, as observed by Gene Muller

Observation:

Boylston, Massachusetts. A pair of crows regularly visited a compost pile on a half-acre developed house lot abutting a mid-aged open hardwood forest. On April 4, 2014, at 9:00 am, a Pileated Woodpecker flew to a tree trunk approximately 30 feet above and 30 feet away from the crows' perch above the compost pile. Both crows immediately approached the woodpecker (which was noted as being the same size as the crows). One crow dove six to eight times to within inches of the woodpecker without making contact even as the woodpecker maneuvered around the tree trunk. The other crow vocalized within three feet of the woodpecker. The crows continued to follow and mob the woodpecker as it retreated 30 feet into the forest and then retreated the same distance again. On the third retreat, the woodpecker was no longer visible and the crows returned to their perch at the compost pile.

The species were accurately identified as American Crow (*Corvus brachyrhynchos*) and Pileated Woodpecker (*Dryocopus pileatus*), both local resident species. The American Crow is easily recognizable, the only similar species in this region being the significantly less common Fish Crow (*Corvus ossifragus*) and Common Raven (*Corvus corax*) (Verbeek and Caffrey 2002). The observation that the Pileated Woodpecker was the same size as the crow matches the same manner of description in the species' *Birds of North America* account (Bull and Jackson 2011).

Tentatively, the crows' mobbing behavior could be classified as: predatory, nest defense, territorial, or food defense. It was most likely the last, for reasons discussed below.

As a foraging opportunist, the crow eats a diet that consists primarily of vegetation and invertebrates, but also includes eggs and young from nests, and even adults of other small-bodied avian species captured mid-flight (Cuccia 1984, Putnam 1992)! Adult Pileated Woodpeckers are subject to predation by raptors; however, their large body size and dangerous bill place them outside even the extraordinarily wide dietary range of crows.

Crows defending their nest from a marauding Pileated Woodpecker certainly sounds bizarre. In most animals, however, opportunity may lead to rare behaviors, including a Pileated Woodpecker pecking scraps of meat from a cow bone (Servin et al. 2001) or foraging on salmon left out as bait (Carter 1942). Crows generally don't lay eggs until early May in Massachusetts (Mass Audubon 2014), so an April 4 nest predation event by any species is unlikely.

Territoriality refers to defending the spatial habitat; although territorial with conspecifics, neither species demonstrates interspecific territoriality. In fact, Pileated Woodpeckers will share cavity trees with numerous other species, though not the cavity itself. However, both crows and Pileated Woodpeckers will aggressively defend food resources, which may be spatially or temporally transient. The most likely explanation for the crows' mobbing behavior was food defense.

Pileated Woodpeckers forage for invertebrates in deadwood, particularly carpenter ants in downed logs, by flicking away bark and pecking into the decayed wood. Despite being opportunistic, American Crows are also primarily ground foragers that demonstrate flicking and probing techniques. Thus, it seems probable that the crows were defending the compost pile, which had become a well-established food source for the pair, from a potential competitor. It is not clear if the woodpecker was likely to have actually visited the compost pile. Interestingly, other species have been documented chasing Pileated Woodpeckers away from food sources, including red squirrel (*Tamiasciurus hudsonicus*) (Rathcke and Poole 1974), Northern Mockingbird (*Mimus polyglottos*) (Dennis 1951), and Ivory-billed Woodpecker (*Campephilus principalis*) (Tanner 1942). 🦉

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Ravens Nesting on the Wellesley College Science Center

Lauren A. Johnson and Nicholas L. Rodenhouse

In October 2013, we first noticed the presence of Common Ravens (*Corvus corax*) on the Wellesley College campus, Wellesley, Massachusetts. Their unmistakable, guttural croak emerged from the patch of woods behind the Science Center and they occasionally sailed by with distinct wedge-shaped tails spread wide. In early March 2014, we were excited to learn that we had a breeding pair of ravens on campus. We saw them near the Science Center breaking sticks off the trees with their thick bills in order to construct their nest. They chose a remarkable nest site: inside one of the third-floor fire escape routes. The fire escapes have a glass roof and sides so the nest was protected from the elements. In addition, although ravens are not known for living in close contact with people (Heinrich 1999), the particular fire escape stairway that the birds chose is the one closest to the main entrance of the Science Center. Wellesley students are always walking in and out a mere three stories below the nest site.

Ravens have nested on the power plant in Sandwich, Massachusetts, but to our knowledge this is the first raven nest in such close proximity to humans. However, this



Location of Common Raven nest on fire escape of Wellesley College Science Center, Wellesley, MA. (Photo courtesy of philip.greenspun.com.)

new nest fits with the dramatic increase in the number of ravens in Massachusetts, as shown by the *Massachusetts Breeding Bird Atlas 2*. During *Atlas 1* sampling, no blocks had confirmed nesting ravens; during *Atlas 2*, an astonishing 62 blocks had confirmed nesting ravens. The *Atlas 2* data also show that ravens become less common as one moves east across the state. As their range continues to expand, we may see more nests in suburban and urban areas, like the Wellesley College nest.

To take advantage of this unique opportunity, we installed [a webcam](#) in the fire escape so we could watch the ravens at their nest in real time and record the video for future study. The pair returned to the nest after the camera was installed and did not seem to be bothered by it. By this point, the female had been incubating two eggs for about four days. The average clutch size for ravens is 5.4 eggs (Boarman and Heinrich 1999). Due to the Wellesley pair's unusual nest site and small clutch size, they are likely to be a young pair. The raven's nesting location and the webcam afforded us the unique opportunity to watch them at night. The exterior lights on the Science Center illuminated the nest location, so it was never completely dark. Despite this, the ravens woke up and went to sleep in sync with the natural lighting. During the night, the male would perch on the edge of the nest, tuck his bill under his wing, and sleep without many interruptions. The female was more prone to shifting in the nest during the night.

Toward the end of the incubation period, the male moved his sleeping position to the first step of the fire escape.

Throughout incubation, the male fed the female bits of unidentifiable food that were passed from the male's gular pouch into her beak. The female would often call loudly and flutter her wings, begging to be fed as the male approached the nest.

The first egg hatched around 9:30 pm on April 12th. The mother ate the eggshell, which is an excellent source of calcium. We were surprised that the egg hatched in the evening because this meant that the nestling was not fed until the following morning. The nestling was

visibly weak during the first two days of its life, barely able to raise its head to be fed. We wondered if the artificial lighting near the science center might have affected hatching time. Artificial light is known to affect the physiology and behavior of breeding birds (Kempnaers et al. 2010), but we are unaware of any study of the effects of artificial light on the timing of hatching. The second egg was probably infertile, as it did not hatch. Stiehl (1985) reports that one egg from a raven's clutch usually does not hatch. Around 7:15 am on April 17th, the female rolled the second egg, pecked at it, and then consumed it.

The single chick was naked and uncoordinated, but it grew rapidly with the undivided attention of two parents. All kinds of food items were brought to the nest. The ravens were seen prowling around the dumpsters at a nearby Wellesley College dining hall, and a raven was observed eating a roadkilled rabbit a mile away from the Science Center. As the chick grew and spring progressed, the parents frequently were seen bringing the eggs of smaller birds to the nest; other diet items included a mouse, a vole, a frog, and a nestling songbird, indicating that the ravens are very effective predators.

The behavior of the ravens witnessed beyond the view of the webcam also yielded interesting observations. On one occasion, a Red-tailed Hawk chased one of the adults across the meadow in front of the Science Center. Both birds landed in the trees at the edge of the meadow, then the raven started chasing the Red-tailed Hawk. Crows also chased the ravens, as did mobs of songbirds while the ravens moved systematically—presumably foraging—through trees in the nearby arboretum. An unexpected behavior exhibited by the ravens was their attacks on their reflections in the glass windows of the Science Center near the nest. These were most frequent at the time of nest building and egg laying, but continued less frequently throughout the period of nesting. The male, in particular, was seen flying at the glass and banging on it with his wings and bill. According to Heinrich (1999), ravens do not recognize themselves in a reflected



Female Common Raven incubating two eggs in a fire escape at the Wellesley College Science Center, Wellesley, MA. (Photo courtesy of Kenny Freundlich.)



Female Common Raven and 15-day-old chick, Wellesley College Science Center, Wellesley, MA. (Photo courtesy of Kenny Freundlich.)

image; consequently we assume that these attacks represented territorial behavior. We wondered if the seeming presence of other ravens, i.e., their reflection in the glass, might have provided social encouragement to choose this nest location. The use of social information in assessing and selecting breeding habitat is well known in other species of songbirds (Symkowiak 2013).

As the chick grew older, its coordination improved and it was able to stand up and exhibit classic begging behavior. As it grew feathers, we watched it start to preen itself; one of the adults was also observed preening it. On May 18th, the chick spent a large amount of time standing on the edge of the nest and then, around 7:50 pm, slowly backed off the edge of the nest to join the adults in standing on the fire escape platform. However, the next day the chick returned to the nest. Its feathers had not yet grown enough to allow flight, but it practiced by standing on the rim of the nest and flapping vigorously. It also spent time exploring—pecking at sticks in the nest and at the glass, posts, and bolts nearby. We wondered how its behavior might have differed if it had grown up with multiple nest mates. Fledging finally occurred on May 29th. The chick left the nest around 6 am and was later observed walking along the second-floor fire escape balcony, indicating it had moved down a floor. In an amusing coincidence, Wellesley College’s commencement exercises took place the next day, bringing a close to the academic year as well as to the raven pair’s successful nesting attempt. 🦅

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PARASITIC JAEGER CHASING A COMMON TERN BY PETER FLOOD

GLEANINGS

Reproductive Strategies in Eastern Wood-Pewees (*Contopus virens*)

David M. Larson



Eastern Wood-Pewee (Photograph by the author)

The ultimate goal of reproductive strategies in individuals is to increase biological fitness: the number of young produced that survive to reproduce. Many endogenous and exogenous factors feed into these strategies, including the quality of breeding habitat, the health and experience of the parents, predation, climate, and weather. Strategies of males and females may differ, depending on the reproductive biology of the species and other constraints. For small migratory songbirds with high mortality, a common

strategy is to produce as many young as possible, balancing constraints of incubation capacity, food availability, and strains on adult vitality.

Newell, et al. (2013) report on a study of reproductive strategies employed by Eastern Wood-Pewees in a forested area in southeastern Ohio. The authors uniquely color-banded 79 pewees and monitored 237 nests over a four-year span. Birds were aged on the basis of plumage characteristics when banded (wing molt limits; second year, SY; or after second year, ASY) and sexed on the basis of breeding characteristics and wing length. Nest detection and monitoring during the breeding season (May through August) followed standard protocols, with assessment of activity (incubation, provisioning), nest success or failure, renesting attempts, and productivity (brood size).

Polygyny (one male having more than one female mate)

Several instances of polygyny were observed in this study, with one male attending to two nesting females simultaneously in two successive years. Other probable cases of polygyny were inferred by the timing of nesting attempts and the attendance of a male on multiple nests during provisioning. The estimated interval between laying for primary and secondary females was 5-10 days.

While male attendance on more than one nest might indicate lower paternal care of young and potentially lower productivity, the authors found that males with two females actually significantly increased their fitness (4.46 fledglings/male for polygynous versus 2.03 fledglings/male for monogamous relationships). Female fitness showed no detriment (2.23 versus 2.03 fledglings/female).

Two factors were identified as contributing to the success of these polygynous relationships. Male quality likely played a part since all six polygynous males were ASY birds. Experienced birds should be better able to select and defend a territory large enough to support two females and offspring. Polygynous males also made more frequent provisioning visits to nests than did monogamous males, suggesting better male or territory quality. Territory quality could also have been a factor, with the polygynous nests in preferred locations in oaks on ridgetops.

Double brooding (two successful nestings by a pair in one season)

Renesting attempts are common in cases of nest failure due to inexperience, weather, predation, and other factors, but double brooding is more rare in passerines. Pairs successfully produced a second brood in a limited number of cases in this study. In one case, the pair reused the same nest for the second brood. In another, the second nest was constructed within about 50 meters of the first nest. Fledging rates suggested that this strategy worked in terms of increased fitness for both the males and females. However, the rate of double brooding is probably limited by the high rates of nest failure for early season nests and the length of the season for successful nesting.

The proportion of nestings that involved either polygyny or double brooding was less than 22% over the course of this study on Eastern Wood-Pewees. A number of factors can influence these reproductive strategies. For either to be successful, the adults must be in good physical condition and have and be able to defend high quality breeding habitat with an adequate food supply. In this study, proportions of polygyny varied with environmental conditions, being highest in a dry year that may have spatially limited food resources. Under such conditions, prime males may have been able to dominate preferred habitat and resources and, hence, attract more mates.

The authors' results are consistent with reports on other facultative polygynous songbirds. The data were not sufficient to resolve whether male quality or resources was the dominant factor in successful polygyny in Eastern Wood-Pewees. The data do suggest an advantage of polygyny in male fitness and no detriment in female fitness in this study system. There appeared to be a clear increase in fitness for both sexes when double brooding was successful. However, the scope of this study did not extend to genetic testing of the pewees, leaving the paternity of the young an open question. Given the demands on a male to defend a territory large enough for polygyny, and the increased possibility of extra-pair couplings by neighboring or floating males, the actual fitness increase for polygynous males is unresolved. ♣

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ABOUT BOOKS

Gang of Four

Mark Lynch

“I found that essence rare.” (Song by 1979 British post-punk rock group Gang of Four).

Keith Vinicombe, Alan Harris, and Laurel Tucker. 2014. *The Helm Guide to Bird Identification*. London, United Kingdom: A&C Black.

Steve N.G.Howell, Ian Lewington, and Will Russell. 2014. *Rare Birds of North America*. Princeton, N.J.: Princeton University Press.

Ken Behrens and Cameron Cox. 2013. *Peterson Reference Guide to Seawatching: Eastern Waterbirds In Flight*. Boston, Massachusetts: Houghton Mifflin Harcourt.

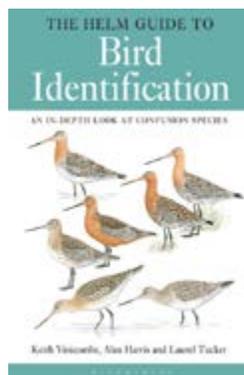
David Allen Sibley. 2014. *The Sibley Guide to Birds*, second edition. New York, New York: Alfred A. Knopf.

Despite the digital revolution and hysterical pronouncements that print is dead, books about birds keep being published at a mind-boggling rate. Though various birding apps are certainly helpful in the field, *at home* nothing can replace studying full scale color drawings or photographs or reading a dense text in a book. Birders can be impulse book buyers, often ordering a volume because it looks promising before actually knowing if the book will live up to expectations. We search for the one book that will tell us everything and make us experts. We are often disappointed in that search. Many times a book is purchased and briefly glanced at, then gathers dust on our groaning bookshelves. Part of the reason is that we are active birders. If you have the time to read, you also have time to be in the field looking at birds, and that choice is a no-brainer. Here are four books that are worth owning and worth reading, and they will help make you, if not an expert, at least a better birder.

The Helm Guide To Bird Identification is subtitled “An In-depth Look at Confusing Species.” This is an updated version of a book that was originally published in 1989. This edition is a memorial to one of its original artists, Laurel Tucker, artist and hardcore birder, who died in June of 1986 after a cerebral hemorrhage. She was instrumental in starting the first version of this book but, sad to say, died after completing just 18 of the plates. This new edition is a tribute to her life and art.

The British have a long tradition of publishing books about hard-to-identify species, and this volume is a fine example. *The Helm Guide to Bird Identification* compares and contrasts similar species on the same pages. These include Whooper and Bewick’s swans; an entire section on what the authors call “Grey Geese” (Greylag, Pink-footed, White-fronted, and Bean); Snow versus Ross’s geese; and the various Brent (brant). There are outstanding written and illustrated sections on the Aythya group

of ducks and their hybrids as well as a section comparing American and Eurasian Wigeon in female and eclipse plumages. There is a fine two-page spread of illustrations of the large plovers that features juvenile and adult plumages of Grey (Black-bellied), American Golden, European Golden, Pacific Golden, and Dotterel. The sections on the stints, the skuas (jaegers), and the gulls will be of interest to most serious birders. There is even a discussion of identifying Long-eared and Short-eared owls in flight, a field problem that most North American birders don't know about. The text is thorough but brief, with details on where and when these birds occur (in Britain) as well as complete plumage descriptions, notes on calls, and flight identification. This is the perfect book to study before you take that jaunt down to Jamaica Bay to tick that Long-toed Stint.



The one serious caveat is that this is a book written for British birders, so many of the identification challenges that North Americans face are not covered. We do come across many of the waterfowl, gull, and shorebird species in this book, but the sections on passerines will be of little interest to birders who aren't traveling to Attu. I did find the discussion of Lesser, Mealy, and Arctic redpolls of interest. If you are planning a European trip, or think you have seen a Yellow-legged Gull, you will be glad *The Helm Guide to Bird Identification* is in your library.

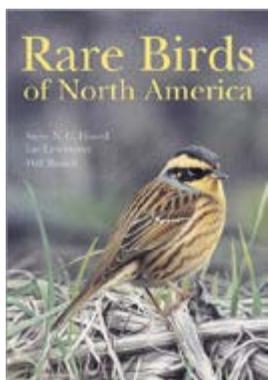
Every species of bird is rare somewhere, or at some time, but how is 'rare' defined? (p. 1, *Rare Birds of North America*)

Rare birds are the high points of every birder's year, but seeing a true vagrant is akin to getting a hole in one at Pebble Beach or a grand slam in Fenway. A species like a Western Kingbird in Massachusetts is a rarity, and finding one is certainly a thrill. But it is only a local rarity. They appear almost every year in the state, and they are common in the western part of the continent. Seeing a bird from Asia, Europe, or South America that has appeared in all of North America only a handful of times is a high point of a birding career. The Red-footed Falcon on Martha's Vineyard was a vagrant.

Rare Birds of North America is a scholarly and informative treatise on vagrant birds in North America. It is not a field guide, though it is profusely illustrated and contains thorough details on identification. Rather it is a book that explores which birds become vagrants and why they seem to stray off their typical courses. The first 31 pages of *Rare Birds of North America* is a fascinating summary of vagrant records.

While population size combined with distance and direction of migration are the ultimate factors that determine vagrancy rates in a species...the detectability of a species is the proximate factor that perhaps most strongly colors our knowledge of the phenomenon. (p. 6, *Rare Birds of North America*)

This means that some vagrants are detected more than others because of geography or other factors. Certain weather patterns may contribute to a species moving off its



usual course. Many vagrants that stray over oceans then put down on islands or coastal spots, where they have a better chance of being seen by birders. These locations then become well-known vagrant hot spots, and a large number of birders flocking to those spots skew the data on where vagrants are found. It is believed that we detect only a subset of the vagrants that occur in any one area. In Britain it has been estimated that between 11 and 60% of all the vagrants that occur in that island nation may go undetected. Size and behavior are also contributing factors. It is more likely that a large bird like a Jabiru Stork will be seen and recorded than small skulking landbirds like any one of the Eurasian warblers.

The authors discuss how drift, disorientation, overshooting, dispersal, and human activities all contribute to the vagrancy record. For the most part, the species in *Rare Birds in North America* are those in which “only 5 or fewer individuals have been found annually in North America since around 1950, when birding and field ornithology started to become popular.” But the species accounts contain many records prior to that time. According to this book, the status of some species has changed in the last several decades so that certain birds cannot now be included for discussion. Species like Barnacle Goose, which prior to 1950 would have been considered true vagrants by the authors’ criteria, have recently become elevated to the status of mere rarities. The authors state that this change in status for these few species is due to two factors: the dramatic increase in birders in recent years and consequently more eyes in the field, and the increasing numbers of certain species in North America.

The bulk of *Rare Birds of North America* is a species by species account, which for the most part follows taxonomic order. The authors have divided the accounts of aerial landbirds (hummingbirds, swifts, and swallows) into sections on Old World and New World vagrants. The detailed comments under each species account are scholarly but also offer some interesting analysis, theories, and opinions. It is this aspect of *Rare Birds of North America* that sets it apart from most dry species listings and that makes it a fun book to read.

In the account of Eurasian Woodcock (*Scolopax rusticola*), the authors question why there are so few recent records for North America (only one, from New Jersey in 1956) compared with three records from Greenland in the 1900s and hundreds of records from Iceland, where the species now breeds.

“Perhaps it’s simply that woodcock hunting, like rail hunting (see Corncrake), is not as popular in the Northeast as it once was, and those few birds that do arrive now pass undetected.” (p. 154, *Rare Birds of North America*)

The discussions of species like Ruddy Shelduck, Chaffinch, and Jackdaw will be of particular interest to Massachusetts birders, many of whom have had the opportunity to see these species in the state during the last half century. Each species account

contains a summary of its occurrence, notes on taxonomy and subspecies, distribution and occurrence, and its field identification. The illustrations are top notch.

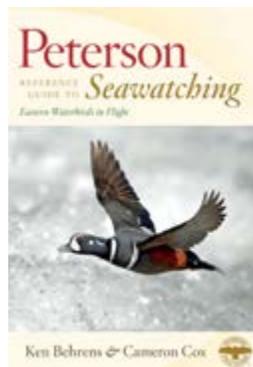
Rare Birds of North America is a rarity itself: thorough, lively, informative, enjoyable to read, and beautifully illustrated. This book should be in every serious North American birder's library.

This book is not simply a technical manual of bird identification. We hope to capture some of the simple joy of being outside, being alive, and looking at birds. (p. xi, *The Peterson Reference Guide to Seawatching*)

Who among us has stood on some windswept beach in foul weather squinting at distant skeins of seabirds and not wished for some help? If only those birds were closer. If only the light was better. If only they wouldn't fly so fast. If only the waves weren't so high. *The Peterson Guide to Seawatching* will offer some help. It's not a field guide, but a home study guide to dip into before any trip to the coast, and it will help improve your skills at identifying seabirds in flight.

The two authors have clocked considerable hours at the New Jersey Audubon's Avalon Seawatch, where, like hawk watchers, birders keep careful tallies of passing migrants. This book is concerned exclusively with the identification of seabirds in flight under typical field conditions. The authors do not include shorebirds, because many of them migrate at night, and they feel the subject of shorebirds in flight has already been covered by *The Shorebird Guide* by Michael O'Brien, Richard Crossley, and Kevin Karlson. They have also excluded herons, egrets, ibises, and rails, most of which also migrate at night. The authors have included Horned and Red-necked grebes but not Pied-billed, Eared, Least, Clark's or Western grebes. Behrens and Cox had to scale down a book that could have easily reached leviathan proportions and so decided to focus on what seawatchers are likely to see. These birds include loons, some grebes, tubenoses, waterfowl, gulls, terns, and alcids. This guide is similar to a much earlier European guide titled *Flight Identification of European Seabirds* by Bloomdahl et al., published in 2003. But the *Peterson Reference Guide to Seawatching* is larger and more profusely illustrated with sumptuous color photography.

The variety of the photography in *the Peterson Guide to Seawatching* is similar to that found in *The Shorebird Guide* by O'Brien et al. There are close views, shots in bad lighting, fog, and snow—even photographs that are just aesthetic. This is how we actually see seabirds, not always the way they appear in close, perfectly lit photographs. A beautiful two-page spread of a flock of Dovekies flying in a wave trough is instructional and attractive. Each caption invites the reader to look more closely at the photograph and notice some more subtle differences or points of identification. Like the *Shorebird Guide*, the authors sometimes pose questions to the readers, for example, can you spot the White-winged Scoters among the larger flock of Black Scoters? There is a particularly nice *Aythya* Special Section. This guide is



about as interactive as a book can be without being digital. A few of the photographs, however, are reproduced in too small a format to be useful. The shot of the line of Black Scoters flying far out to sea behind a group of fishermen on page 180 had me pulling out a magnifying glass to see the details, and even then they were just dark specks, a dark-winged scoter species.

Each species account includes notes on range, size, plumage and molt, structure, flight and flocking behavior, and similar species. The book ends with a section on the best East Coast locations for seawatching and includes a chart of the locations of single day high counts for all the species in the book.

The *Peterson Reference Guide to Seawatching* is the perfect book to enjoy at home, snug in some comfy chair, so that you can hone your identification skills before that next inevitable Nor'easter.

The need for a revision to the guide was not a surprise to me; I've been planning it since before the first edition was printed in 2000. (vii, *The Sibley Guide to Birds*, second edition)



The Sibley Guide, like many of us, has grown a bit thicker as it's gotten older, by about 50 pages. It's still *THE* printed guide to the identification of the birds of North America. The new edition has some minor revisions to the artwork, correcting small errors made in the first edition. The section on gulls has grown a bit, a few new species have been added, some of the range maps have been refined, and more written information has been added. But it is still the same clear presentation of species perched and in flight, wonderfully rendered and combined with the same clear and concise text. I have always used this guide on class trips because I can hold it up to a group, and the artwork is easily seen. It is still not a field guide, too big to put in a back pocket, but it is the guide to keep in your car.

Like the Roger Tory Peterson guides before it, the Sibley Guide is an on-going and very personal project. David Sibley notes in the preface to the second edition that as soon as this version was finished and at the publishers, but not yet published, he already had additional comments to add. It is amazing to think about the work and dedication that has gone into this product over many years. Look, this guide needs no lengthy review. It's the new Sibley! Get it. 🐦

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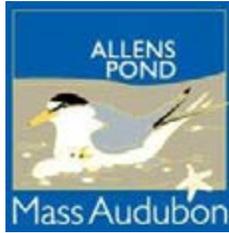


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2014 SouthCoast Birder's Celebration

Saturday, Sept. 27th

at the

Allens Pond Wildlife Sanctuary

for the best of fall migration

Guided Morning Walks on Gooseberry Island and the Allens Pond Wildlife Sanctuary

Four options starting at 6, 7 and 8am

Followed by Brunch at the Stone Barn, Presentations and Conversations on SouthCoast Birding with the Experts

Including Wayne Petersen, Paul Champlin, Ellen Jedrey, Robert Buchsbaum, Gina Purtell and others

Guided Afternoon Walks on Targeted Areas of the Allens Pond Wildlife Sanctuary, Including the Salt Pond, Fresh Pond and Beach

Four options to choose from, ending by 6pm

Preregistration is required. Mass Audubon members: \$80, non-members: \$100

For registration, information and updates, visit the online program catalog at

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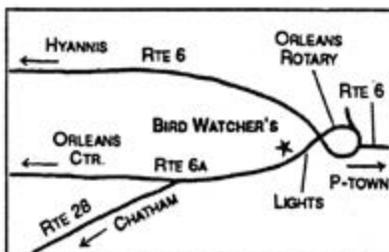
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BIRD SIGHTINGS

March/April 2014

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

It was a cold March, with an average temperature of 30°, five degrees below normal. On March 11 the mercury hit 60°, but two days later the high was 37°, and this up-and-down swing had everyone fed up with the weather. In the first week of spring, Cape Cod was hit by a blizzard with gusts reaching 83 mph on Nantucket, which also had the most March snowfall with 9.5 inches. Snowfall total for Boston was only 2.2 inches, 5.1 inches below average. The last weekend of the month recorded heavy rain that caused flooding in many communities. Acushnet had the highest amount of rainfall with 5.48 inches, New Bedford recorded 5.1 inches, and Boston received just 3.2 inches.

April got off to a nice start with a lot of sunshine and highs in the low to mid 50s from inland locations but onshore winds kept the temperatures in the 40s along the coast. The temperature for the month averaged a 48° in Boston which is normal, the first month since October that was not below normal. The first real warm weather with southwesterly winds came on the weekend of April 12–14 with highs near 70° inland and 60° near the coast. Many areas reported good numbers of early migrants such as Eastern Phoebes and Tree Swallows. A potent storm on the following Tuesday with rain and strong southerly winds dropped in more migrants. Easter weekend was spectacular, cool with bright sunny skies, but the last weekend of the month consisted of heavy rain most of Saturday into Sunday with temperatures back in the upper 30s to low 40s. Rainfall total for the month in Boston was 3.24 inches, 0.50 inch less than normal.

R. Stymeist

WATERFOWL TO ALCIDS

It was a spectacular period for waterfowl. On March 23 Larry Therrien was scanning a flock of geese at an agricultural field in Hatfield, when he picked out a **Pink-footed Goose**. Word went out to the western Massachusetts birding community via Facebook, and many birders were able to see it that day. Better yet, it wandered from Hatfield (Hampshire County) to Whately (Franklin County), scoring a double tick for county listers. The bird was rediscovered the following day across the river in Hadley, where it lingered through March 29. Even more amazing, a second Pink-footed Goose was discovered on March 24 in Longmeadow (Hampden County) and was seen on multiple days through March 30, all but eliminating the possibility that it was the same bird. The Southwick Pink-footed Goose appeared the day after the Longmeadow goose disappeared, suggesting it may have been the same bird. A number of **Greater White-fronted Geese** were reported including a group of four at the waterfowl capital of the Connecticut River Valley, Turners Falls.

On April 4 a **Ross's Goose** was discovered on Nantucket among a flock of Snow Geese, but it was not sighted thereafter. On March 1 a **Barnacle Goose** was discovered by the operators of a domestic animal sanctuary in Mendon. The owners welcomed birders and even encouraged the flock of geese to stay by putting out cracked corn. Many enjoyed the goose before it left on March 11. On March 31 a second Barnacle Goose was spotted at Nine Acre Corner in Concord, but sad to say it was not seen thereafter. A **Tundra Swan** was discovered in Sheffield on March 24 and remained there for a week. A **Tufted Duck** that spent a month on Nantucket was the only one seen during this period.

American Wigeon (continued)				3/21	Acoaxet	305	M. Lynch#
	3/21	Acoaxet	110	M. Lynch#	3/27	Boston (Deer I.)	1200 P. Peterson
	3/22	Longmeadow	5	S. Kellogg	Harlequin Duck		
	4/13	P.I.	40	J. Keeley#	3/9	Sandwich	4 B. Nikula
Blue-winged Teal				3/19	Westport	2	G. Gove#
	3/22-4/28	Reports of 1-2 indiv. from 15 locations		3/24	Dennis (Corp. B)	2	P. Flood
	4/2	Lenox	3	J. Pierce	4/19	Acoaxet	4 M. Lynch#
	4/3	Hatfield	4	B. Laflay	4/27	Winthrop	2 BBC (R. Stymeist)
Northern Shoveler				Surf Scoter			
	3/11	Holyoke	3	B. Bieda	3/19	Gloucester	22 J. Berry
	4/6	Concord (NAC)	3	K. Dia	4/2	Nantucket	175 V. Laux#
	4/9	Marlboro	3	B. Abbott	4/12	Nant. Sound	1176 J. Trimble
	4/23	Winchester	3	J. Guion	4/19	Westport	5 M. Lynch#
	4/26	P.I.	12	T. Wetmore	4/26	Turners Falls	1 E. Huston
Northern Pintail				White-winged Scoter			
	3/6	Northampton	4	L. Therrien	3/1	Fairhaven	7 M. Lynch#
	3/21	Acoaxet	73	M. Lynch#	3/8	P'town	5 M. Lynch#
	3/23	P.I.	50	T. Wetmore	3/28	Ipswich (C.B.)	6 J. Berry
	3/30	Concord (NAC)	14	J. Winstanley	4/9	Nantucket	200 V. Laux#
	3/30	Acton	4	D. Swain#	4/23	Stockbridge	2 G. Ward
	4/13	Dennis	3	J. Duggan	Black Scoter		
Green-winged Teal				4/11	P'town (R.P.)	120	B. Thompson
	3/15	Cumb. Farms	100	J. Hoye#	4/13	Nantucket	3450 J. Trimble#
	3/22	Longmeadow	30	S. Kellogg	4/23	M.V.	100 S. Whiting
	3/22	W. Harwich	60	B. Nikula	Long-tailed Duck		
	3/23, 4/28	P.I.	80, 28	T. Wetmore	3/14	P.I.	250 T. Wetmore
	4/8	Rowley	132	R. Heil	4/2	Nantucket	800 V. Laux#
	4/8	Concord (NAC)	120	J. Hoye#	4/21	Monomoy	85 Y. Laskaris
	4/10	New Braintree	68	M. Lynch#	4/26	Pittsfield (Onota)	10 J. Pierce
Eurasian Green-winged Teal				4/26	Pittsfield (Pont.)	31	R. Wendell
	3/1-18	Newton	1	v.o.	Bufflehead		
	3/4-28	Plymouth	1 m	I. Davies	3/8	Newbypt H.	165 R. Heil
	4/11	Ipswich	1 m	J. Berry	3/21	Westport	329 M. Lynch#
Canvasback				4/2	Nantucket	600	V. Laux#
	3/1-24	Falmouth	2-5	v.o.	4/6	Mashpee	290 M. Malin
	3/14-31	Turners Falls	2	v.o.	4/7	Quabog IBA	29 M. Lynch#
	3/17, 4/4/	Nantucket	55, 8	V. Laux	4/27	Turners Falls	17 T. Gagnon
	3/21	Acoaxet	3	M. Lynch#	Common Goldeneye		
	3/22	Agawam	2	L. Richardson	3/1	Fairhaven	176 M. Lynch#
Redhead				3/7	Holyoke	49	L. Therrien
	3/2, 4/10	Falmouth	9, 1	M. Malin	3/8	Newbypt H.	265 R. Heil
	3/14-23	Turners Falls	1	B. Emily#	3/8	Agawam	60 S. Kellogg
Ring-necked Duck				3/22	Mashpee	92	M. Keleher
	3/27	Turners Falls	148	T. Gagnon	4/22	Truro	1 B. Nikula
	3/28	Medford	59	R. LaFontaine	Barrow's Goldeneye		
	3/29	Quabog IBA	83	M. Lynch#	3/1	Gloucester	2 J. Nelson
	4/1	Concord (NAC)	70	J. Forbes	3/2	Boston (Deer I.)	1 L. Epps
	4/5	W. Bridgewater	150	J. Carlisle	3/23	N. Chatham	3 B. Nikula
	4/25	New Salem	55	M. Lynch#	3/24	Manomet	1 M. Faherty
Tufted Duck				3/27	Newbypt H.	2	B. Harris
	3/19-4/12	Nantucket	1	V. Laux + v.o.	4/3	Holden	1 M. Lynch#
Greater Scaup				Hooded Merganser			
	3/1	Fairhaven	910	M. Lynch#	3/15	Peabody	15 R. Heil
	3/1	Falmouth	599	G. d'Entremont	3/16	Quabog IBA	61 M. Lynch#
	3/22	Nantucket	650	V. Laux	3/29	GMNWR	19 G. d'Entremont#
	3/23	Somerset	650	SSBC (Sweeney)	4/6	Westboro	20 M. Lynch#
	3/29	Turners Falls	15	S. Kellogg	Common Merganser		
	4/28	Waltham	14	J. Forbes	3/14	Westport	140 P. Champlin
Lesser Scaup				3/27	Turners Falls	80	M. Lynch#
	3/1	Falmouth	24	G. d'Entremont	3/29	Medford	99 K. Hartel
	3/15	Lynn	8	R. Heil	3/31	Sheffield	80 J. Pierce
	3/22	Mashpee	171	M. Keleher	4/6	W. Newbury	200 K. Elwell#
	3/23	Hadley	12	L. Therrien	4/29	Chestnut Hill	25 R. Doherty
	4/2	Lenox	9	J. Pierce	Red-breasted Merganser		
	4/16	Sterling	12	M. Lynch#	3/21	Acoaxet	44 M. Lynch#
King Eider				3/29	Turners Falls	3	S. Kellogg
	thr	P'town	1	v.o.	4/9	Nantucket	250 V. Laux#
	3/1	Gloucester (B.R.)	1 m	v.o.	4/10	P'town	700 B. Nikula
	3/thr	Sandwich	1-2	v.o.	Ruddy Duck		
Common Eider				3/9	Gloucester	12	S. Hedman
	3/8	P'town	733	M. Lynch#	3/22	Orleans	50 J. Young
	3/19	Gloucester	145	J. Berry	4/18	Waltham	17 J. Forbes

Ruddy Duck (continued)			4/10	W. Warren	1	B. Zajda
4/30 W. Newbury	15	P. + F. Vale	4/16	Cheshire	1	J. Drucker
Northern Bobwhite			4/20	Lenox	1	G. Hurley
4/10 Harwich	4	E. Banks	Great Egret			
4/13 P'town	2	J. Drucker	3/16	Rockport (H.P.)	1	BBC (VanDemark)
4/15 Wellfleet	7	M. Faherty	3/22	Dartmouth	1	M. Goetschkes#
Ring-necked Pheasant			3/29	Revere	5	P. Peterson
3/1 Rockport (A.P.)	1	J. Guion	4/10	Essex	10	P. Brown
3/20 Sutton	2	M. Lynch#	4/13	Salisbury	71	S. McGrath
3/23 Royalston	1	P. + F. Vale	4/28	P.I.	20	T. Wetmore
4/7 Wellfleet	2	J. LaPierre	Snowy Egret			
4/28 Quabog IBA	1	M. Lynch#	4/2	Nantucket	1	T. Pastuszak
Ruffed Grouse			4/2	Essex	2	J. Nelson
4/13 Falmouth	2	G. Hirth	4/23	P.I.	12	MAS (D. Weaver)
4/19 Rutland	2	W. Howes	4/24	Ipswich	25	J. Guion
4/20 Ware R. IBA	3	M. Lynch#	Little Blue Heron			
4/23 Bourne	9	P. Trimble	4/2	Essex	1	J. Nelson
4/26 Sandwich	13	P. Trimble	4/11	Nantucket	1	T. Pastuszak
Red-throated Loon			4/12	Gloucester	3	B. Harris#
4/9 Nantucket	400	V. Laux#	4/27	Barnstable	1	P. Crosson
4/11 Westport	24	P. Champlin	Tricolored Heron			
4/18 P'town (R.P.)	410	B. Nikula	4/13	Chatham	2	B. Parker
4/19 Wellfleet	267	M. Faherty	4/13	P.I.	1	N. Landry#
4/27 Winthrop	24	BBC (R. Stymeist)	4/23	Essex	1	P. Brown
Pacific Loon			Cattle Egret			
3/29-4/27 P'town	1 ph	B. Nikula + v.o.	4/13-30	Ipswich/Essex	1	v.o.
Common Loon			Green Heron			
3/2 P.I.	17	J. Berry#	4/15	Rochester	1	R. Sawyer
3/9 Ipswich (C.B.)	31	D. Williams	4/15	Brighton	1	R. Merrill
4/9 Nantucket	200	V. Laux#	4/19	Ipswich	1	M. Brengle
4/13 Truro	30	L. Waters#	4/22	Mashpee	1	P. Crosson#
4/27 Wachusett Res.	21	M. Lynch#	Black-crowned Night-Heron			
4/27 P'town (R.P.)	80	B. Nikula	3/17	Milton	1	P. Peterson
Pied-billed Grebe			3/25	Dorchester	11	P. Peterson
4/6 Northampton	3	J. Drucker	4/9	W. Harwich	9	B. Nikula
4/8 W. Warren	4	B. Zajda	4/12	Nantucket	8	K. Blackshaw
Horned Grebe			4/22	W. Warren	6	B. Zajda
3/23 P.I.	35	T. Wetmore	4/27	Winthrop	9	BBC (R. Stymeist)
4/5 Fairhaven	69	M. Lynch#	Yellow-crowned Night-Heron			
4/19 Truro	30	J. Young	4/17	Manomet	1	T. Lloyd-Evans
4/26 Pittsfield (Pont.)	25	R. Wendell	White Ibis			
4/27 Revere B.	32	BBC (R. Stymeist)	4/14	Concord	1	K. Dia#
Red-necked Grebe			Glossy Ibis			
3/22 N. Truro	15	B. Nikula	4/5	Longmeadow	2	S. Motyl
4/6 Winthrop	14	R. Stymeist	4/7	Fairhaven	2	A. Morgan
4/9 Nantucket	58	V. Laux#	4/16	Taunton	13	M. Rhodes
4/26 Holyoke	6	S. Motyl	4/24	Ipswich	90	J. Guion
4/26 Pittsfield (Onota)	12	J. Pierce	4/28	E. Bridgewater	8	J. Carlisle
4/30 Turners Falls	13	P. Comins	4/28	P'town	3	C. Harris
Manx Shearwater			White-faced Ibis			
4/4-30 Revere B.	7 max	v.o.	4/27-30	Ipswich	1-2	v.o.
4/19, 29 P'town (R.P.)	1, 4	B. Nikula	Black Vulture			
Northern Gannet			3/3	Blackstone	3	R. Stymeist
3/22, 4/12 P'town	100, 245	B. Nikula	3/21	Westport	15	M. Lynch#
3/22 N. Truro	150	B. Nikula	3/23	Fall River	3	SSBC (Sweeney)
4/9 Duxbury B.	10	R. Bowes	4/2	Sheffield	47	M. Lynch#
4/9 Nantucket	700	V. Laux#	4/6	Cheshire	10	J. Pierce
Double-crested Cormorant			4/19	W. Warren	2	B. Zajda
3/16 W. Harwich	2	B. Nikula	4/21	GMNWR	2	L. Hale#
4/12 Jamaica Plain	15	R. Mayer	Turkey Vulture			
4/26 Southwick	41	S. Kellogg	3/3	Blackstone	17	R. Stymeist
4/27 Wachusett Res.	101	M. Lynch#	3/20	Essex	27	P. Brown
4/27 P'town	500	P. Crosson	4/2	Sheffield	16	M. Lynch#
Great Cormorant			4/4	Nantucket	22	V. Laux
3/13 Medford	7	M. Rines	4/6	P.I.	19	Hawkcount (CJ)
3/21 Acoaxet	25	M. Lynch#	4/7	Barre Falls	21	Hawkcount (BK)
4/5 P'town H.	75	B. Nikula	Osprey			
4/11 Westport	10	P. Champlin	3/15	Nantucket	1	T. Pastuszak
American Bittern			3/19	Marlboro	1	B. Abbott
4/thr P.I.	1	v.o.	4/7	Barre Falls	9	Hawkcount (BK)
4/9 Bolton Flats	1	J. Johnson	4/19	Acoaxet	34	M. Lynch#

Osprey (continued)			4/6	Burrage WMA	2	V. Zollo#
4/19	Westport	42		Salisbury	9	L. Mattuchio
Swallow-tailed Kite			4/16-19	W. Dennis	1 ph	D. Salmos
3/12	Brewster	1		4/28-30	Bolton Flats	1
3/12	Orleans	1	M. Lowe	Black-bellied Plover		B. Kamp
3/17	Nantucket	1	M. Preu	4/5	P.I.	1
4/6	Wareham	1	V. Laux	4/9	Duxbury B.	3
4/13	Orleans	1	R. Pollack	4/20	Nantucket	20
4/15	Yarmouth	1	B. Parker	4/23	Chatham (MI)	48
Bald Eagle			P. Crosson	4/30	M.V.	87
3/8	Newbypt H.	4	R. Heil	Piping Plover		S. Whiting
3/15	S. Quabbin	9	M. Lynch#	3/16	Aquinnah	2
4/2	P.I.	3	MAS (B. Gette)	3/22	Westport	7
Northern Harrier				4/2	P.I.	7
3/2	Saugus	2	S. Zende#	4/9	Yarmouth	11
3/15	Cumb. Farms	5	J. Hoye#	4/19	Duxbury B.	17
4/4	Nantucket	10	V. Laux	4/21	M.V.	6
4/6, 12	P.I.	32, 19	Hawkcount	Killdeer		A. Burnett
4/7	Barre Falls	2	Hawkcount (BK)	3/9	Gloucester	1
4/19	N. Truro	3	P. Brown	3/22	S. Dartmouth	26
4/20	WBWS	2	P. Sagan	3/30	Acton	19
Sharp-shinned Hawk				4/13	Saugus	20
4/thr	N. Truro	11	Hawkcount (DM)	American Oystercatcher		
4/6, 14	P.I.	4, 5	Hawkcount	3/11	Mattapoisett	1
4/25, 28	Barre Falls	8, 24	Hawkcount (DS)	4/1	Winthrop	12
Cooper's Hawk				4/5	Fairhaven	7
thr	Reports of indiv. from 10 locations			4/26	Chatham	7
Northern Goshawk				4/27	Nantucket	20
3/11	Rowley	1	J. Nelson	Spotted Sandpiper		
3/15, 22	Barre Falls	1, 1	Hawkcount (DG)	4/13	Bolton Flats	1
3/22	Cumington	1	T. Gagnon	4/13	Quabbin Pk	1
4/25	Pittsfield	1	K. Hanson	4/17	Concord (NAC)	1
Red-shouldered Hawk				4/19	Milton	1
3/21	Randolph	2	P. Peterson	Solitary Sandpiper		
3/26	Rehoboth	2	K. Bartels	4/12	Nantucket	1
3/27	W. Millbury	2	A. Marble	4/14	Ipswich	1
4/19	Westport	4	M. Lynch#	4/23	Topsfield	1
4/19	Petersham	2	J. Hoye#	Greater Yellowlegs		
Broad-winged Hawk				3/16, 4/26	Harwich	4, 38
4/14, 19	Barre Falls	7, 11	Hawkcount	3/22	Mashpee	4
4/19	Wakefield	3	D. Williams	4/27	Winthrop	14
4/25, 28	Barre Falls	57, 119	Hawkcount	4/27	Bolton Flats	12
4/28	Holyoke	42	S. Motyl	4/28	Newbypt H.	40
4/28	Quabog IBA	3	M. Lynch#	Willet		
Zone-tailed Hawk				4/12	Yarmouth	1
4/25	Chappaquiddick	1 ph	A. Burnett	4/13	E. Boston (B.I.)	2
Rough-legged Hawk				4/27	Nantucket	56
3/1-4/22	P.I.	1-2	v.o.	4/28	Chatham	40
3/15	Cumb. Farms	2	J. Hoye#	Lesser Yellowlegs		
3/16	Hadley	1	L. Therrien	3/19	Harwich	1
Golden Eagle				3/31	Lancaster	1
3/9	S. Quabbin	1	L. Therrien#	3/31	Sheffield	1
3/29	Barre Falls	1	Hawkcount (DG)	4/27	W. Harwich	5
4/28	W. Bridgewater	1 ad	J. Carlisle	4/28	Newbypt H.	10
Virginia Rail				Upland Sandpiper		
4/12	Ipswich	2	J. Berry	4/13	Ludlow	2
4/13	Ludlow	2	S. Motyl	4/18	Westover	1
4/18	GMNWR	4	A. Bragg#	4/19	Plymouth	3
4/19	Burlington	5	M. Rines	4/22	Hanscom	1
Sora				4/22	P.I.	1
4/24	Groveland	2	J. Berry#	4/28	Nantucket	1
Common Gallinule				Ruddy Turnstone		
4/23-30	Bolton Flats	1	K. Bourinot	3/9	Nantucket	3
American Coot				3/31	Revere B.	8
3/15	Lynn	8	R. Heil	4/3	Falmouth	28
4/1	Orleans	4	M. Faherty	4/20	Barnstable	26
4/19	Hatfield	2	B. Bieda	Sanderling		
4/28	Jamaica Plain	1	R. Schain	3/1	Westport	445
4/28	W. Newbury	1	K. Elwell	3/2	P.I.	30
Sandhill Crane				3/16	Nantucket	23
3/21	Westport	1	M. Lynch#	4/9	Duxbury B.	34

Sanderling (continued)									
4/13 Nauset B.	223	C. Thompson	3/2 Lowell	7	J. Keeley				
Least Sandpiper			3/27 Newbypt H.	3	B. Harris				
4/13 Mashpee	1	M. Malin	3/27 Boston (Deer I.)	25	P. Peterson				
Pectoral Sandpiper			3/29 P'town	10	B. Nikula				
3/30 Concord (NAC)	5	J. Winstanley	4/13 Nantucket	21	J. Trimble#				
3/30 Duxbury B.	4	R. Bowes	Lesser Black-backed Gull						
4/2 Rutland	8	J. Johnson	3/23 Swansea	1	SSBC (Sweeney)				
4/12 Fairhaven	7	C. Longworth#	3/29 Brookfield	1	M. Lynch				
4/12 Harwich	4	P. Trimble	3/29 Quabog IBA	1	M. Lynch#				
4/27 Bolton Flats	18	M. Lynch#	4/13 Nantucket	157	J. Trimble#				
Purple Sandpiper			4/16 Duxbury B.	1	R. Bowes				
3/1 Gloucester (E.P.)	20	J. Nelson	4/23 M.V.	3	S. Whiting				
3/1 Westport	5	G. Gove#	4/28 Cambr. (F.P.)	1	J. Trimble				
3/31 Revere B.	17	P. Peterson	Herring x Lesser Black-backed Gull						
Dunlin			3/9 Hyannis	1 ad	B. Nikula				
3/16 Nantucket	300	K. Blackshaw#	Glaucous Gull						
3/21 Westport	202	M. Lynch#	3/1 Gloucester	1	J. Nelson				
3/22, 4/9 Duxbury B.2567,	315	R. Bowes	3/9 Turners Falls	1	J. Coleman				
3/28 P.I.	150	D. Chickering	3/15 Lowell	2	A. Laquidara				
4/30 Chatham	550	B. Nikula	3/22 N. Truro	1	B. Nikula				
Stilt Sandpiper			3/22 Chatham	1	P. Trimble				
4/12 Nantucket	1	J. Trimble#	3/26 Winchester	1	J. Thomas				
Ruff			4/5 Hingham	1	S. Avery				
4/12 Nantucket	1	V. Laux#	4/15 Arlington Res.	1	J. Forbes				
4/27-29 Newbypt H.	1 f	B. Murphy	4/27 Revere B.	1	BBC (R. Stymeist)				
Short-billed Dowitcher			Caspian Tern						
4/14 Chatham	1	E. Hoopes	4/16 Arlington Res.	1	R. Stymeist#				
4/16 Duxbury B.	1	R. Bowes	4/17 GMNWR	3	L. Hale#				
Wilson's Snipe			4/19-27 Wakefield	1	D. Williams				
3/16 W. Harwich	2	B. Nikula	4/24 P.I.	1	C. Jackson				
4/4 W. Bridgewater	16	P. Peterson	4/27 Wellfleet	2	J. Riehl				
4/8 Newbury	152	R. Heil	4/27 Revere B.	1	BBC (R. Stymeist)				
4/10 New Braintree	29	M. Lynch#	4/27 Salisbury	3	J. Keeley				
4/13 Saugus	30	S. Zende#	4/27 Waltham	1	J. Forbes				
4/27 Bolton Flats	26	M. Lynch#	4/29 W. Bridgewater	1	J. Sweeney				
American Woodcock			4/29-30 Chestnut Hill	1	R. Doherty				
3/22 Fall River	10	M. Goetschkes#	Roseate Tern						
3/28 Cambr. (Alewife)	24	J. Guino	4/29 Vineyard Sound	400	I. Nisbet				
4/3 Burlington	19	M. Rines	Common Tern						
Black-legged Kittiwake			4/27 Revere B.	4	BBC (R. Stymeist)				
3/8 P'town	3	M. Lynch#	4/29 Vineyard Sound	1600	I. Nisbet				
Bonaparte's Gull			Dovekie						
3/9 Nantucket	2	K. Blackshaw#	3/8 P'town	1	M. Lynch#				
3/23 W. Dennis	10	E. Hoopes	Common Murre						
4/27 Wachusett Res.	11	M. Lynch#	3/23 Truro	1	J. Young				
4/27 Cheshire	3	K. Hanson	4/21 Stellwagen	1	v.o.				
4/30 Pittsfield (Onota)	5	K. Hanson	Thick-billed Murre						
Black-headed Gull			3/1 P'town	1	I. Davies				
3/7-4/6 Mashpee	1-2	v.o.	3/8 Rockport (A.P.)	1	J. Trimble				
3/29 Charlton	1	M. Lynch#	4/18 Nahant	1	J. Malone				
4/12 Hyannis	1	J. Trimble	Razorbill						
4/12 Barnstable	1	J. Trimble	3/8 P'town	70	B. Nikula				
Laughing Gull			3/8 Rockport (H.P.)	15	J. Hoye#				
3/23 Plymouth H.	1	B. Zuzevich	3/15 P.I.	7	N. Landry				
3/26 Dennis (Corp. B)	1	P. Flood	3/28 Wellfleet	200	M. Faherty				
4/4 Plymouth	2	W. Sweet	4/2 Nantucket	120	V. Laux				
4/16 Duxbury B.	2	R. Bowes	Black Guillemot						
4/24 Plymouth	100	G. Gove#	3/1 Gloucester	4	J. Nelson				
			4/13 P'town	1	L. Waters				

OWLS THROUGH FINCHES

Reports of Barn Owls outside of Martha's Vineyard and Nantucket are infrequent, and sadly the only off-island report was of a dead bird found in Mashpee. The fallout of Snowy Owls continued with reports from nearly fifty locations including Mt. Greylock. The last reports were from Nantucket with six and Salisbury with four individuals on April 7. A very early Whip-poor-will was heard on Plum Island on April 11, about two weeks before the general arrival. Peregrine Falcons were on nests at their traditional sites and a new nesting pair took up residence

just outside Harvard Square on Memorial Hall. American Kestrels were on the move with 173 counted at parking lot 1 on Plum Island on April 12.

April weather was favorable for birding with lots of southerly winds and with significant fallouts occurring April 11–14 and again at the close of the month. Some exceptional early migrants included a White-eyed Vireo in Natick on April 1, Purple Martins returned to Lakeville on April 4, a Worm-eating Warbler was seen in Chatham on April 16, and a Northern Parula was reported on Nantucket on April 9.

Unlike last April there was no mega rarity like the Fieldfare, but there were some surprises. A **Harris's Sparrow** had spent much of early winter at a feeder in Wenham until it disappeared on January 11; amazingly it reappeared for a one-day visit on March 16. The **Red-headed Woodpecker** continued in Ipswich. A **Western Tanager** was photographed in Auburn. A European Goldfinch of unknown origin showed up at a feeder in Salem and again in Essex two weeks later. Warbler highlights included a most cooperative Hooded Warbler in the Boston Public Garden; two **Yellow-throated Warblers**, one at a feeder in Pittsfield and another in Newton; and a Myrtle x Audubon's Yellow-rumped Warbler hybrid photographed in Brighton. As many as two **Yellow-headed Blackbirds** were noted in West Bridgewater and at Cumberland Farms.

						<i>R. Stymeist</i>	
#Barn Owl				4/27	MSSF	5	P. Briggs
3/7	Mashpee	1 dead	Schanbacher		Chimney Swift		
3/21	Edgartown	1	J. Hoye#	4/18	GMNWR	2	A. Bragg#
Eastern Screech-Owl				4/21	Belchertown	1	L. Therrien
3/9	ONWR	2	M. Lynch#	4/23	Worcester	4	M. Lynch#
3/13	Easton	7	B. Cassie	4/29	W. Bridgewater	8	J. Sweeney
3/20	Essex	2	P. Brown		Ruby-throated Hummingbird		
Great Horned Owl				4/22	Brewster	1	P. Trull
3/thr	Methuen	pr n	D. Prima	4/22	Centerville	1	S. Johnson
3/12	W. Boxford	1 n	C. Gibson	4/23	P.I.	1	C. Jackson
3/17	Melrose	2	L. Mattuchio	4/28	Sharon	1	K. Conway
3/17	Plymouth	pr	S. van der Veen#		American Kestrel		
3/22	Westport	1 n	M. Goetschkes#	4/thr	N. Truro	13	Hawkcount (DM)
3/22	N. Andover	pr n	M. Watson#	4/7	Plymouth	2	S. van der Veen
4/14	Ipswich	3	J. & N. Berry	4/12, 14	P.I.	173, 50	Hawkcount
4/19	Grafton	1 yg	M. Lynch#	4/13	Hanscom	16	M. Rines
Snowy Owl				4/13	Devens	5	C. Johnson
thr	Reports of 1-2 indiv. from 37 locations				Merlin		
thr	P.I.	15 max	v.o.	3/2	Woburn (HP)	2	M. Rines
thr	Duxbury B.	7 max	R. Bowes	4/12, 19	P.I.	6, 9	Hawkcount (TM)
3/thr	Orleans	5 max	v.o.		Peregrine Falcon		
3/12	Fairhaven	3	C. Longworth	3/1	Woburn	pr	M. Rines
4/7	Nantucket	6	V. Laux	3/4	Lawrence	pr	C. Gibson
4/7	Salisbury	4	P. Brown	3/22	P'town	2	B. Nikula
Barred Owl				4/2	Cambridge	pr	B. Miller
3/11	Harwich	1	P. Kyle		Red-headed Woodpecker		
3/13	Easton	2	B. Cassie	3/1-09	Ipswich	1 m imm	v.o.
3/15	Wompatuck SP	2	B. Cassie#		Yellow-bellied Sapsucker		
4/6	Wachusett Res.	2	R. Quimby	3/28	Mt.A.	4	R. Stymeist
Long-eared Owl				4/11	P.I.	3	P. + F. Vale
4/22	Bourne	1	P. Trimble	4/12	Petersham	14	M. Lynch#
Short-eared Owl				4/21	S. Quabbin	12	M. Lynch#
thr	P.I.	4 max	v.o.		Pileated Woodpecker		
3/thr	Saugus	1	S. Zende#	3/9	IRWS	3	J. Hoye#
3/6	Hadley	1	S. Hurlburt	4/12	Petersham	3	M. Lynch#
3/15	Cumb. Farms	3	SSBC (Petersen)	4/13	HRWMA	4	R. Stymeist#
3/2-21	Orleans	1	C. Thompson		Eastern Phoebe		
3/25	Nantucket	1	K. Blackshaw	3/15	Hadley	1	L. Therrien
4/23	N. Falmouth	1	G. Hirth	3/15	Nantucket	1	T. Pastuszak
Northern Saw-whet Owl				4/2	Sheffield	16	M. Lynch#
3/11	Newton	1	H. Miller	4/11	P.I.	22	P. + F. Vale
Eastern Whip-poor-will				4/12	Petersham	48	M. Lynch#
4/11	P.I.	1	B. + B. Buxton		Eastern Kingbird		
4/14	Taunton	1	J. Eckerson	4/13	P'town	1	P. Flood#

Eastern Kingbird (continued)			4/16	W. Warren	2	B. Zajda
4/22 Mashpee	1	P. Crosson#	4/17	Wayland	1	B. Harris#
4/25 Wayland	1	J. Hoye#	4/18	S. Quabbin	1	L. Therrien
4/27 Jamaica Plain	1	BBC (R. Stymeist)	4/18	GMNWR	1	A. Bragg#
4/27 Reading	1	D. Williams		Barn Swallow		
Northern Shrike			4/6	Westboro	1	M. Lynch#
3/1-4/6 Reports of indiv. from 13 locations			4/9, 18	GMNWR	1, 66	v.o.
3/2 P.I.	2	N. Landry	4/11	Arlington Res.	2	J. Forbes
White-eyed Vireo			4/12	Fairhaven	2	C. Longworth#
4/1, 24 Natick	1	G. Dysart	4/28	Quabog IBA	26	M. Lynch#
4/21 Manchester	1	E. Nielsen		Red-breasted Nuthatch		
4/23 S. Dart. (A.Pd)	1	P. Champlin	3/2	Nantucket	2	K. Blackshaw#
4/24 Fairhaven	1	C. Longworth	3/11	Boston (A.A.)	2	J. Young
Yellow-throated Vireo			3/22	Mashpee	3	G. d'Entremont
4/19 Boston (F.Pk)	1	B. Clock	4/18	Monson	2	S. Motyl
Blue-headed Vireo			4/19	Sandwich	6	P. Trimble
4/14 Whitinsville	1	J. Lawson	4/20	Ware R. IBA	7	M. Lynch#
4/14 Quabog IBA	1	M. Lynch#		Brown Creeper		
4/20 Ashby	3	S. Miller#	3/28	Stoneham	6	R. LaFontaine
4/20 Boxford	3	J. Berry#	4/2	Harwich	5	R. Merrill
4/25 Ipswich (C.B.)	2	J. Berry	4/6	N. Andover	5	J. Berry#
4/25 Quabbin (G33)	2	M. Lynch#	4/13	Ludlow	5	S. Motyl
Warbling Vireo			4/20	Ashby	6	S. Miller#
4/21 W. Warren	1	B. Zajda	4/20	Boxford	5	J. Berry#
4/25 Milton	1	E. Lipton	4/20	Ware R. IBA	11	M. Lynch#
Fish Crow			4/25	Quabbin (G33)	5	M. Lynch#
3/5 Mansfield	20	B. Black#		House Wren		
3/6 Needham	30	M. Salett	4/12	Newton	1	A. Gurka#
4/1 Dorchester	44	P. Peterson	4/13	Rockport (H.P.)	1	S. Hedman#
4/11 Longmeadow	9	S. Motyl	4/13	Bolton Flats	1	M. Lynch#
4/21 P'town	9	M. Locher	4/14	Mt.A.	1	S. Mossberg
Common Raven			4/25	S. Dart. (A.Pd)	3	P. Champlin
3/1 Woburn	pr n	M. Rines		Winter Wren		
3/7 Holden	4	S. + R. Corazzini	3/29	Warren	2	M. Lynch#
3/11 Waltham	pr n	J. Forbes	4/14	Concord	3	C. Corey
4/4 Wellesley	pr n	L. Johnson	4/27	Ipswich	2	J. Berry#
4/20 Ashby	pr, 2 yg	S. Miller#	4/28	Boxford (C.P.)	2	K. Elwell
4/21 S. Quabbin	2 ad + 2 yg	M. Lynch#		Marsh Wren		
4/25 Barre Falls	10	D. Schilling	4/12	GMNWR	1	MAS (K. Dia)
4/26 Rochester	pr n	L. Gerrior	4/22	P.I.	4	R. Heil
Horned Lark			4/28	Groveland	2	K. Elwell
3/2 Saugus	90	S. Zende#		Blue-gray Gnatcatcher		
3/6 P.I.	60	T. Wetmore	4/12	Quabbin Pk	1	L. Therrien
3/15 Cumb. Farms	300	SSBC (Peterson)	4/13	Rutland	1	W. Howes
3/21 Westport	30	M. Lynch#	4/18	GMNWR	8	A. Bragg#
3/22 Nantucket	70	V. Laux	4/24	Groveland	6	J. Berry#
3/30 Acton	30	J. Forbes	4/25	S. Dart. (A.Pd)	5	P. Champlin
Purple Martin			4/27	Bolton Flats	5	M. Lynch#
4/4 Lakeville	3	fide R. Marr		Golden-crowned Kinglet		
4/8 Rehoboth	3	R. Marr	4/7	DWWS	4	S. van der Veen
4/16 P'town	1	K. Hansen#	4/10	P.I.	8	D. Chickering
4/19 P.I.	1	C. Jackson	4/11	Medford	12	M. Rines#
4/30 Mashpee	19	M. Keleher	4/12	Petersham	6	M. Lynch#
Tree Swallow			4/12	Chestnut Hill	12	D. Hefferon#
3/12 GMNWR	4	K. Dia#	4/19	Ipswich	5	J. Berry
3/15 Lakeville	35	SSBC (Peterson)		Ruby-crowned Kinglet		
4/13 Wachusett Res.	220	M. Lynch#	3/15	Townsend	1	R. Templeton
4/16 W. Warren	130	B. Zajda	4/14	Medford	17	M. Rines
4/17 Wayland	105	B. Harris	4/19	Ipswich	12	M. Brengle
4/17 W. Newbury	110	P. + F. Vale#	4/20	Ware R. IBA	14	M. Lynch#
4/29 W. Bridgewater	200	J. Sweeney	4/22	P.I.	15	R. Heil
Northern Rough-winged Swallow			4/30	Mt.A.	8	BBC (D. Hursh)
4/5 Wayland	1	G. Long		Eastern Bluebird		
4/5 Waltham	1	J. Forbes	3/2	Newbury	11	J. Berry#
4/6 Woburn (HP)	1	J. Young	3/16	Quabog IBA	24	M. Lynch#
4/16 Arlington Res.	15	M. Rines	3/23	DFWS	13	P. Sowizral
4/29 W. Bridgewater	6	J. Sweeney		Hermit Thrush		
Bank Swallow			3/9	IRWS	1	J. Hoye#
4/13 W. Warren	1	B. Zajda	4/3	Bedford	2	J. Forbes
4/17 Southwick	2	S. Motyl	4/11	P.I.	42 b	B. Flemer#
Cliff Swallow			4/12	Woburn (HP)	9	M. Rines#
4/6 Northampton	2	J. Drucker	4/20	Boxford	7	J. Berry#

Hermit Thrush (continued)			4/20	Medford	1	M. Rines#	
4/20	Ashby	7	S. Miller#	Yellow Warbler			
4/26	Sandwich	16	P. Trimble	4/16	Boston (Fens)	1	T. Factor
Wood Thrush				Palm Warbler			
4/28	Sandwich	1	P. Kyle	4/6, 12	Woburn (HP)	1, 10	M. Rines#
Gray Catbird				4/17	Worcester	45	S. Ricker#
thr	Reports of indiv. from 15 locations						
Brown Thrasher				4/17	Ipswich	40	J. Berry
3/1	Watertown	1	J. Forbes	4/20	W. Warren	38	B. Zajda
3/2	Dennis	1	M. Dettrey	4/22	P.I.	34	R. Heil
3/2	Watertown	1	R. Merrill	4/24	Holyoke	43	F. Bowrys
4/22	P.I.	4	R. Heil	Pine Warbler			
4/26	Sandwich	5	P. Trimble	3/8	Middleboro	1	K. Anderson
American Pipit				4/12	W. Warren	14	B. Zajda
4/6	Northampton	14	J. Drucker	4/16	P'town	52	K. Hansen#
4/8	Longmeadow	4	S. Motyl	4/20	Ware R. IBA	44	M. Lynch#
4/19	Concord (NAC)	2	C. Winstanley#	4/22	Bourne	31	P. Trimble
4/22	Topsfield	2	J. Berry#	Yellow-rumped Warbler			
4/22	Acton	2	P. + F. Vale	3/2	Newbury	11	J. Berry#
Cedar Waxwing				3/15	Hadley	66	L. Therrien
4/14	Mt.A.	20	A. Trautmann	4/17	Ipswich	29	J. Berry
4/20	Medford	12	M. Rines#	4/20	W. Warren	29	B. Zajda
4/25	P.I.	10	P. + F. Vale	4/24	Holyoke	68	F. Bowrys
Lapland Longspur				Myrtle x Audubon's Warbler			
3/2	Ipswich (C.B.)	2	M. Brengle	4/27	Brighton	1	R. Schain
3/2	P.I.	2	J. Berry#	Yellow-throated Warbler			
3/2	Saugus	1	S. Zende#	4/21-23	Pittsfield	1	G. Shampang + v.o.
3/11	Hadley	4	B. Emily	4/23-28	Newton	1	M. Kaufman + v.o.
4/27	Fairhaven	2	A. Morgan#	Black-throated Green Warbler			
Snow Bunting				4/19	Middleboro	1	K. Anderson
3/1	Duxbury B.	50	B. Cassie	Wilson's Warbler			
3/3	Northfield	40	J. Smith	4/22	P.I.	1 m b	J. Standley#
3/11	P.I.	77	R. Heil	Eastern Towhee			
3/14	S. Quabbin	50	S. Severin	3/1	Falmouth	2	G. d'Entremont
3/15	Cumb. Farms	250	SSBC (Petersen)	3/7	Newton	2	D. Scott
3/22	Duxbury B.	2	R. Bowes	4/15	Roslindale	3	A. Joslin
Ovenbird				4/22	P.I.	22	R. Heil
4/26	Brewster	1	B. Sheehan#	4/26	Sandwich	27	P. Trimble
Worm-eating Warbler				American Tree Sparrow			
4/16	Chatham	1	R. Merrill#	3/18	Wayland	77	B. Black#
Louisiana Waterthrush				3/22	Bolton Flats	28	M. Lynch#
4/12	Holden	1	L. Hennin	4/30	GMNWR	1	J. Forbes
4/18	Carlisle	1	A. Ankers	Chipping Sparrow			
4/19	Petersham	1	J. Hoye#	4/9	W. Warren	2	B. Zajda
4/19	W. Warren	1	B. Zajda	4/13	Bolton Flats	12	M. Lynch#
4/20	Ashby	4	S. Miller#	4/14	Quabog IBA	46	M. Lynch#
4/21	Spencer	2	M. Lynch#	4/25	W. Newbury	15	P. + F. Vale
4/26	Wompatuck SP	2	K. Rawdon#	4/30	Mt.A.	23	BBC (D. Hursh)
Northern Waterthrush				Clay-colored Sparrow			
4/23	Chatham	1	C. Thompson	3/1-4/5	Medford	1	v.o.
4/27	Ipswich	1	J. Berry#	4/18-20	Hadley	1	P. Yeskie
4/27	Natick	1	P. Loranger	Field Sparrow			
4/28	Groveland	1	K. Elwell	3/7	Peabody	2	R. Heil
4/28	Spencer	1	M. Lynch#	3/13	WBWS	4	P. Crosson
Black-and-white Warbler				4/11	Woburn (HP)	5	D. Williams
4/14	Sherborn	1	C. Leuchtenburg	4/14	Quabog IBA	6	M. Lynch#
4/17	Holden	1	S. Corazzini	4/20	Westport	6	A. Morgan#
4/19	W. Warren	2	B. Zajda	4/23	Falmouth	12	M. Malin
Common Yellowthroat				Vesper Sparrow			
4/12	Harwich	1	A. Curtis	4/2	Uxbridge	2	B. Sartorelli
4/26	P.I.	1	T. Wetmore	4/10	Lancaster	1	J. Hoye#
4/26	MINWS	1	L. Ferraresso	4/12	Falmouth	1	M. Malin
Hooded Warbler				4/20	Hadley	2	T. Gagnon
4/21	Nantucket	1	T. Pastuszak	Savannah Sparrow			
4/22-29	Boston (PG)	1	T. Factor#	3/1	Fairhaven	3	M. Lynch#
Northern Parula				4/8	Rowley	5	R. Heil
4/9	Nantucket	1	G. Andrews	4/12	Ipswich	13	J. Berry
4/19	Greenfield	1	J. Coleman	4/22	P.I.	36	R. Heil
4/19	W. Newbury	1	S. McGrath#	4/23	Lexington	35	M. Rines
4/20	Winchester	1	R. LaFontaine#	Ipswich Sparrow			
				4/7	Westport	1	P. Champlin

Ipswich Sparrow (continued)									
4/21	Duxbury B.	1	R. Bowes		Dickcissel	4/9	Lynn	1	S. Babbitt
Saltmarsh Sparrow					Eastern Meadowlark				
3/3	Eastham	1	M. Nobili		3/9	Eastham	8	D. Bernstein	
Seaside Sparrow					4/2	Nantucket	7	T. Pastuszak	
3/1	Eastham	1	A. Fulcher		4/7	DWWS	4	S. van der Veen	
Fox Sparrow					4/22	Westover	4	J. Lawson	
3/1	Falmouth	2	G. d'Entremont		4/22	Mashpee	4	P. Trimble	
4/2	Ipswich	5	M. Brengle		Yellow-headed Blackbird				
4/2	Newbury	6	L. Leka		3/31-4/13	W. Bridgewater	2	L. Waters	
4/3	P.I.	12	T. Wetmore		4/1-9, 21	Cumb. Farms	2, 1	v.o.	
4/5	W. Newbury	9	K. Marshall#		Rusty Blackbird				
4/6	Woburn	11	M. Rines#		3/1	GMNWR	14	S. Perkins	
Swamp Sparrow					4/3	Reading	14	D. Williams	
4/14	Quabog IBA	27	M. Lynch#		4/5	Wayland	84	B. Harris	
4/17	Ipswich	13	J. Berry		4/18	Pittsfield	16	J. Pierce	
4/19	Burlington	25	M. Rines		4/21	W. Newbury	12	D. + S. Larson	
4/25	Groveland	10	P. + F. Vale		4/22	Lexington	15	C. Floyd	
4/27	Bolton Flats	27	M. Lynch#		4/22	Pittsfield	12	J. Hoye#	
Harris's Sparrow					Baltimore Oriole				
3/16	Wenham	1	B. Busby		4/23	Merrimac	1	B. + B. Buxton	
White-crowned Sparrow					Purple Finch				
3/4	Nantucket	1	T. Pastuszak		3/2	Brookfield	6	R. Laubach	
3/23	Norwell	1	C. Patterson		4/7	P.I.	4	R. Stymeist	
3/29	Concord	3	L. Waters#		4/19	W. Warren	4	B. Zajda	
4/9	E. Bridgewater	1	J. Carlisle		4/21	Sandwich	4	P. Trimble	
4/21	Nantucket	1	T. Pastuszak		4/22	P.I.	17	R. Heil	
Scarlet Tanager					4/25	Quabbin (G33)	3	M. Lynch#	
4/12	Harwich	1	E. Banks		Pine Siskin				
4/19	Lincoln	1	N. Levey		3/13	Norwell	1	C. Patterson	
Western Tanager					4/3	Sandwich	4	J. McCumber	
4/27-30	Auburn	1 ph	S. Stokes		European Goldfinch				
Rose-breasted Grosbeak					3/30	Salem	1 ph	L. Ferraresso	
4/29	Belmont	1	R. Stymeist#		4/17	Essex	1	D. Brown	
Indigo Bunting					Evening Grosbeak				
4/8	Nantucket	1	fide E. Ray		3/17	Sunderland	6	B. Zajda	
4/20	Westport	1	A. Morgan		3/23	Royalston	2	J. Hoye#	
#					4/20	Conway	2	L. Rubinstein	



SHORT-BILLED DOWITCHERS BY SANDY SELESKY

ABBREVIATIONS FOR BIRD SIGHTINGS

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

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

HOW TO CONTRIBUTE BIRD SIGHTINGS TO *BIRD OBSERVER*

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

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

ABOUT THE COVER

Lark Sparrow

The Lark Sparrow (*Chondestes grammacus*) with its distinctive facial and tail patterns is a rare but regular visitor to New England. Adults are whitish below with a prominent black breast spot. The upperparts are brownish with blackish stripes on the back. Their harlequin head pattern of black, rufous, and white is distinctive. The black tail has prominent white corners that are visible when the birds are perched and in flight. Juvenile birds are striped below and superficially resemble the smaller Song Sparrow. By the first winter, many are drab but show the distinctive head pattern of adult birds. Two subspecies are recognized by some taxonomists, although differentiation is weak.

The breeding range encompasses most of the western two-thirds of the United States, the prairie region of southern Canada, and northern Mexico. Birds of the West Coast and Texas regions are largely year-round residents. The northern three-quarters of the population are migratory. Migrants winter mostly in Mexico. In Massachusetts, Lark Sparrows are a rare but regular fall migrant. Most fall records are from mid-August to early October. They are occasional in winter and very rare in spring. Most Lark Sparrows have been reported near the coast. More than 200 records have been tallied, although the number of reports has declined in recent years.

Open country and edge birds, Lark Sparrows prefer grasslands with scattered trees and shrubs, forest-grassland edge, fallow fields, and sites disturbed by fire or grazing. The male's song is variable with buzzes and *churrs* interspersed among a jumble of trills and melodious notes. Song presumably serves to attract mates and for territorial advertisement. Males are strongly territorial near the nest; they approach intruding male larks with bill pointing upwards and give *tink* alarm calls. The birds may grapple, striking with the body and wings, often fluttering upward in combat to a height of six feet. Males are tolerant of other species, sometimes nesting close to them. If the intruder is a female, the resident male may go into a courtship display with head raised, wings drooping nearly to the ground, tail spread and raised, and strutting the so-called turkey walk. He also has a courtship flight with fluttering wingbeats, tail spread, and singing. Male Lark Sparrows have the unique behavior during copulation of passing a twig to the female, who soon carries it to the nest.

Lark Sparrows are monogamous and often produce two broods. Both the male and female Lark Sparrows are involved in nest site selection, but the female probably makes the final decision. The nest may be in a scape on bare ground, or in a tree or shrub as high as 10 feet. They also have been recorded nesting in odd places such as old woodpecker holes and man-made structures. They may also use old nests of many species, particularly those of mockingbirds and thrashers. The usual nest, constructed by the female, is a cup of twigs, bark, grass, and plant stems. It is lined with fine grass, rootlets, or horse hair. Lark Sparrows show breeding site fidelity, returning to the same area to breed each year. The female alone develops a brood patch and she alone incubates the clutch of four or five whitish eggs marked with dark colors, for the

11–12 days until hatching. The male brings food to the female. The female, especially if ground nesting, may give a distraction display to intruders, spreading her tail and fluttering one or both wings. The young are altricial with some down, eyes closed, and helpless. Both parents may feed the young or the male may bring food to the female who then feeds it to the chicks. The food consists of invertebrates, mostly grasshoppers. Fledging occurs in 11–12 days; it is not known how long parental care continues after fledging.

Lark Sparrows are ground-gleaning omnivores during the breeding season and ground-gleaning herbivores during the rest of the year. They may also glean insects from shrubs. In winter they form flocks with other Lark Sparrows or may join mixed-species foraging flocks. About three-quarters of their diet consists of seeds, mostly of various grasses. Invertebrates, predominantly grasshoppers and beetles, constitute the other quarter.

Lark Sparrows are subject to cowbird nest parasitism; various studies report that 19% to 64% of nests are parasitized. Snakes and mammals prey upon eggs and young. Shrike, too, may take young birds. Historically Lark Sparrow populations increased as European settlers converted forest into farmland in the 19th and early 20th centuries. At one point their breeding range reached the northern and central Atlantic states. Due to reforestation and urbanization their range has contracted, and with it their population. In some areas pesticides have reduced grasshopper numbers enough to impact Lark Sparrows. Breeding Bird Survey data indicate a decline of 61% between 1966 and 1993, mostly in the east. It appears that their range is retreating to the pre-European settlement range. In proper habitat in broad swaths throughout the western United States, Lark Sparrows are doing well with stable or increasing numbers, so despite the decrease in numbers nationally, the future of this lovely sparrow is bright. 🐦

William E. Davis, Jr.

About the Cover Artist: Catherine Hamilton

[Catherine Hamilton](#) is an internationally recognized artist and natural history illustrator. A former instructor at the Rhode Island School of Design, she has exhibited her paintings and drawings over the last 25 years at galleries and small museums across the United States, and has work in private and corporate collections in the United States and Europe.

Catherine was featured in the 2012 HBO documentary “Birders: the Central Park Effect.” She has developed a body of work that crosses the boundaries between artistic and scientific investigation. In addition to gallery exhibitions, her work recently has been published in the scientific journal *Nature* and in *The Warbler Guide* (Princeton University Press 2013). 🐦

AT A GLANCE

June 2014



WAYNE PETERSEN

The mystery photo in this issue presents a conundrum for readers. From practically any other angle, the image might offer some additional helpful clues; however, such is not the case. Accordingly the challenged birder/reader is forced to play with the hand that has been dealt—not unlike many in-the-field situations where an observer gets only a poor or fleeting view of an unidentified bird. In this case, at least the bird isn't moving!

The prominently streaked back and the two clear white bars on the wings at first suggest that the bird might be a sparrow or a finch. The fact that the bird is perched on the ground and seems to have a somewhat erect posture further supports this possibility. A careful look at the bird's head indicates that the crown is finely streaked or marked with dark. Notice, too, that there is a fairly broad buffy or off-white stripe over the eye that extends back well beyond the bird's eye. There also seems to be a prominent dark comma-shaped marking behind and below the eye. Unfortunately the reader has no hint at what the breast might look like. Neither can we discern anything about the size or shape of its bill. The tail, because of the angle of the photograph, is foreshortened and concealed; it is difficult to ascertain its relative length, i.e., long or short.

In certain respects the bird closely resembles a female House Sparrow; however, that species has a plain, unstreaked crown and it lacks the obvious dark marking on the rear portion of the cheek seen clearly on the mystery bird. The width and boldness of the streaks on the back also remove any of the small, streaky finches, e.g., Pine Siskin

or Common Redpoll. The streaks on the bird's back also eliminate a female Purple Finch, although that species does possess a dark, not buffy cheek. Increasingly, the reader should be led in the direction that the mystery bird is a sparrow of some kind.

Assuming that the impressions gathered from the photograph are accurate, few sparrows are viable candidates. Indeed, only the Harris's Sparrow (*Zonotrichia querula*) possesses the combination of features shared by the mystery sparrow. From the view provided in the photograph, the dark marking behind the eye and the buffy sides of the face are this species' telltale field marks. There is, however, one additional species that has not been satisfactorily eliminated as an identification possibility—Lapland Longspur. From the angle shown in the photograph, a Lapland Longspur is similar in appearance, although a longspur's nape would appear browner in tone rather than grayish, and its tertial edges and greater wing coverts would be decidedly rusty in color. These last features are considerably more obvious if the image is viewed in color at *Bird Observer* online.

Harris's Sparrows are rare visitors to Massachusetts from the west. Most individuals appear in fall among flocks of other migrating sparrows. They also appear at feeders, most often in the winter. The author photographed the immature Harris's Sparrow in Hanson, Massachusetts, on November 6, 2010. 🐦

Wayne Petersen

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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.



Original color and layout of cover image by Catherine Hamilton.

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